Salesforce Winter '20 Release Notes

Salesforce, Winter '20

Connect to your customers in a whole new way

@salesforcedocs

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CONTENTS

SALESFORCE WINTER '20 RELEASE NOTES

The Winter '20 release delivers expanded innovations across mobile, industry solutions, and AI that empower you to connect to your customers more intelligently and deliver more moments that matter.

IN THIS SECTION:

How to Use the Release Notes

Our release notes offer brief, high-level descriptions of enhancements and new features. We include setup information, tips to help you get started, and best practices to ensure your continued success.

How and When Do Features Become Available?

Some features in Winter '20 affect all users immediately after the release goes live. Consider communicating these changes to your users beforehand so that they're prepared. Other features require direct action by an administrator before users can benefit from the new functionality.

Supported Browsers

We've made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

Salesforce Overall: More Tools to Help You Transition to Lightning Experience and Supercharge Productivity

Lightning Experience is permanently enabled when it's turned on, and we help guide your transition to the new interface with more tools and in-app prompts. Plus, we provide more ways to engage and guide your users in Lightning Experience with in-app guidance. Get more control of what your users see in Help Menus. Access the Recycle Bin in Lightning Experience. Organize records and list views by topic with new themes and topic filters. Fine-tune mass actions on lists with search terms and quick filters. Save ink with condensed printable lists. Say hello to Einstein Search, a smarter and more personalized way to get work done in Salesforce. Get more insight and more ways to manage surveys with Salesforce Surveys. Optimize scheduling with more tools to manage resources and concurrent appointments in Lightning Scheduler. Keep your data safe with an improved security update hub. Streamline how you process documents with more tracking and management tools. Maintain your workflow with dialogs that display only on the tab where it opened, and customize utility icon colors in Lightning Console Apps. Set and override the default font for emails.

Mobile: Customized Mobile Experiences and the New Salesforce Mobile App

With our latest mobile updates, users can take advantage of the familiar Lightning Experience they know on desktop, optimized for the new Salesforce mobile app beginning the week of October 14, 2019. Mobile Publisher gets custom notifications, deep linking, and other key features admins can use to customize the mobile experience for users. Across our mobile portfolio, admins have more power than ever to customize the mobile experience and create one unified Salesforce experience for users.

Salesforce Essentials: Email-to-Case Enhancements, New Videos, Setup Flow Updates, and Other Changes

Get cases from your Gmail support email address in a snap by connecting to your Google account during the setup flow. Check out our new video series to get quick 1-minute tips so you can get the most from your Salesforce subscription. We revamped a few more Service-focused setup flows to make your setup even easier (and more fun!). Take a look at the other changes in Sales and Service using the new Essentials filter, so you can find the updates that are relevant to you.

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Use Einstein Forecasting with a quarterly forecasting schedule. Save predicted field values to cases automatically with Einstein Case Classification. Write Einstein Discovery prediction scores automatically to selected Salesforce fields without coding.

Sales: High Velocity Sales Branching, Einstein Reporting and Quarterly Forecasting, and Customizable Account Teams and Opportunity Contact Roles

Create sales cadences that branch to steps based on call outcomes. Report on opportunity scoring model factors, and use Einstein Forecasting with quarterly forecasts. Use custom fields, triggers, and workflow rules with account teams and opportunity contact roles. Control what Einstein Activity Capture captures and syncs. Enjoy improvements to email integrations for Google and Microsoft. Let customers and partners make payments more easily and securely with the Salesforce Billing payment component. And get insights into engagement patterns with the Pardot activity dataset.

Service: Einstein Article Recommendations, Time Sheets for Field Service, More Knowledge Channels, Quick Pre-Chat Information, and a Raft of Other Improvements

Save your agents time and delight your customers with the many updates we've made in Service. Help your agents resolve cases faster with recommended articles. Empower your Field Service mobile workers to log their hours on the go. Send Knowledge articles through more channels. Before accepting a chat, let agents see pre-chat details and pages visited. Let your agents tackle the right cases first with Secondary Routing Priority. Improve agent productivity with an enhanced email experience in the case feed. Find out what your customers think by automatically sending a survey when a case is closed. Integrate third-party natural language processing engines into your Einstein bots.

Analytics: Row-Level Formulas, Code-Free Model Deployment, New Home, Salesforce Mobile App Integration

Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. The number and scope of Analytics features this release could delight you all Winter '20 long. Writing row-level formulas directly in the Lightning report builder is generally available. Write Einstein Discovery prediction scores automatically to selected Salesforce fields without writing code. The new Analytics Home is your personalized launchpad for finding, favoriting, curating, and interacting with the assets and insights that are most important to you. Without leaving the Salesforce mobile app, perform many important Einstein Analytics tasks, from viewing full-screen dashboards to adding favorites. And much more.

Communities: Salesforce CMS, Access Control, and Better Security for Guest Users

Create, organize, and publish content in Salesforce with Salesforce CMS, now generally available. Take better control of who can publish and edit a community with Access Control in Workspaces. And give access to unauthenticated community users while knowing that Salesforce is keeping your data safe.

Chatter: Question Character Limit, Case Feed Item Visibility, and Mobile Record Navigation

Experience clearer character limits on questions. Set case feed item visibility to public or private. Opt to view more record feed information or skip it in the new Salesforce mobile app.

Files: File Sharing Improvements and File Removal Without Deletion

We enhanced the way files on records are handled. Files can inherit the sharing settings of the records that they're associated with. You can remove a file from a record without deleting it from Salesforce. Orgs with communities can let customers see files on records.

Salesforce Sustainability Cloud: Trusted Platform to Achieve Carbon Neutrality

Gain critical insights about your carbon footprint. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. And because it's built on top of the Salesforce Lightning Platform, you have access to tools that facilitate collaboration, project management, and reporting.

Industries: Introducing Manufacturing Cloud and Consumer Goods Cloud

Our stable of industry-specific Salesforce solutions now includes Manufacturing Cloud, which helps you track production and sales processes, and Consumer Goods Cloud, which helps you get out in front of inventory management in your stores. Meanwhile, Financial Services Cloud adds new ways to care for your mortgage customers, while Health Cloud gives you better connections with care providers and patients.

Customization: Einstein Prediction Builder, Lightning App Builder Improvements, and Lightning Flow Improvements

Use filters for predictions and comparisons in Einstein Prediction Builder. Configure pages for the new Salesforce Mobile App with Lightning App Builder. Build better processes and flows with more building blocks.

Security and Identity: Identity Connect 3.0, Improved Verification, Edge Services for Domains, and Real-Time Event Monitoring and Enhanced Transaction Security Generally Available

Upgrade to Identity Connect 3.0 for faster syncs with Microsoft Active Directory and easier user management. Create your own identity verification page to register a user's verification methods. Use Salesforce Edge to service Salesforce and Community domains, gaining better connectivity and performance. Manage connected apps with the Setup Audit Trail and custom labels, and view more HTTPS details on the Domains Setup page. Real-Time Event Monitoring and Enhanced Transaction Security are generally available.

Deployment: New Change Set Components

New components are available for change sets. The components available for a change set vary by edition.

Development: Building Your Own Salesforce App

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

Quip: Simplified Setup, Quip Documents on Mobile, New Live App, Einstein Analytics Dashboards, and More

Read your Quip documents on the go. Open Einstein Analytics dashboards in Quip. Embed Salesforce data in Quip, such as Salesforce List Views and Salesforce Reports. Use new Quip actions in Process Builder and Flow Builder to automate your business and save your team time.

Marketing: Audience Studio Identity and Personal Social Manager

Marketing Cloud is the premier platform for delighting customers with 1:1 customer journeys. It enables you to build a single view of your customer, leveraging data from any source. Plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time. Measure the impact of each interaction on your business so that you can optimize your approach in real time and deliver better results.

Critical Updates and Security Alerts

This release includes new critical updates for locale formatting, `@AuraEnabled` Apex methods, actions, and other changes. Also check out alerts on the Security Alerts page, and previously released and newly enforced critical updates.

Spotlight on Content

We added Trailhead modules, trails, and projects, and we created and updated instructional videos. We introduced new guides for the Manufacturing and Consumer Goods Clouds. We also updated our Trust and Compliance documentation.

Other Salesforce Products and Services

How to Use the Release Notes

Our release notes offer brief, high-level descriptions of enhancements and new features. We include setup information, tips to help you get started, and best practices to ensure your continued success.

- We offer PDF and HTML versions.
- For the HTML version, your browser's settings determine the language you see. To change the language, scroll to the bottom, click **Change Language**, and select a language.
- The release notes include details about new and modified features. For information on known issues, visit the Salesforce Known Issues site.

Note: Until the new release is available to you, links from release notes to Salesforce Help, implementation guides, developer guides, and other documentation don't work. And sometimes the links point to material from the previous release.

Some of our documentation has preview versions available several weeks before the release. To access a preview version on Salesforce Developers, select **Preview** from the Documentation Version dropdown list.

IN THIS SECTION:

Use Filters to Zero In on the News That Matters Most

The filters narrow down the list of release notes on the right side of your screen, not the content on the left.

Experience

See which features are available in Lightning Experience, the Salesforce app (Mobile), and Salesforce Classic.

Edition

Which feature enhancements are available to you depends on your edition. Filter the release notes to show only the enhancements that are available in your edition.

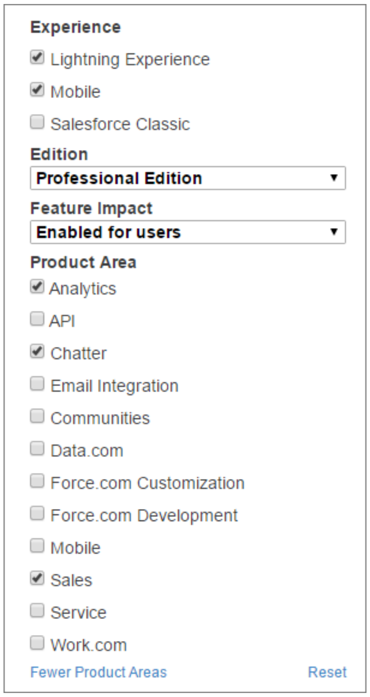
Feature Impact

Some features require you to enable or configure them before users can get the benefits. As an admin, filter the release notes to focus on or hide just those features. Or maybe you want to see only the features that are automatically enabled for your users.

Product Area

See only the products that your org uses. If your org does sales but not support, set up your release notes so that only the sales-related news appears.

To narrow down the list of release notes, click **Show Filters** on the right side.



You can share your filtered list of release notes with anyone. Select filters, copy the URL, and then distribute that URL however you want.

Know What's in Salesforce Lightning Experience and What's in Salesforce Classic

As you plan for this release, it's important to understand what's available in one, both, or all the Salesforce experiences. To guide you, we include experience information front and center in the release notes.

Look in the **Where** section of a release note to find out which user experience the change applies to. For example, if a feature is exclusive to Lightning Experience, the **Where** section says, "This change applies to Lightning Experience only." If a *key* feature is available in the Salesforce mobile app, we also mention that in the **Where** section of the release note. Or you can check the Mobile section for a complete list of what's new.

Looking for a list of Lightning Experience features in this release?

All new Salesforce innovation is in Lightning Experience only. That means most of the updates announced in the Release Notes apply to Lightning Experience, often times exclusively. If something applies to Salesforce Classic only, the release note title usually says so. But you can always use the **Where** section in a release note to confirm which interface gets the update.

Starting with Winter '20, we've removed the "Lightning Experience Features in This Release" section.

Looking for Salesforce Classic features that aren't yet available in Lightning Experience?

Check out What are the Gaps Between Lightning Experience and Salesforce Classic in Salesforce Help.

You Asked for It!

We delivered the features you asked for on IdeaExchange.

IdeaExchange	Idea delivered
Salesforce Overall	
Lightning Experience - Recycle Bin	Access the Recycle Bin in Lightning Experience on page 75
Printable View for List Views in Lighting as in Classic	Save Ink and Paper with Printable View for Lists on page 77
Lightning Topics - Filter List Views by Topics To use Topics in view filters and to get Related to Topics in global search *(partially delivered)* Personal Tags in List Views or Reports Topics: Ability to pull a list of records together in Lightning View all Files Related to a Topic in Chatter	Make Your List Views Stay on Topic with Topic Filters on page 76
Topics: Ability To Pull a List of Records Together in Lightning View all Files Related to a Topic in Chatter View Subject Records for Topics in Lightning Provide List Views for Topics To See Object Records Topics for Object Added to Topic Pages	View Records by Topic on the Topic Detail Page
Sales Cloud	
Customizable Sales Teams and Account Teams	Accounts: Customize Account Teams to Better Support Team Selling
Allow triggers on Account Team Member Object	Accounts: Customize Account Teams to Better Support Team Selling
Account Team Reporting - Need ID field	Accounts: Customize Account Teams to Better Support Team Selling
Enable Sort Button for Opportunity Product in Lightning	Sort Products on Opportunities the Way You Want in Lightning Experience
Dependent picklist fields on Opportunity Product are all locked in Lightning	Add Products to Opportunities Faster in Lightning Experience
Make "My Team's Opportunities" available as a View option	View Opportunities Owned by Your Team with One Click in Lightning Experience
Customization	
Where is this field used (page layout or formula)	Check a Field's References and Find Reports Using It (Generally Available)
Dynamic Values/Variables/Choices in the same Flow screen	Make Your Flow Screens Dynamic with Conditional Visibility
Lookup field in Visual Workflow	Help Your Users Search for Records in Flows
New Cloud Flow - Associating Variable	Create Resources More Easily in Flow Builder
Activate Flow within Flow Builder	Activate Your Flow Without Leaving Flow Builder
Show longer element descriptions in Flow Builder	Get Longer Element Labels, Improved Panning, and Drag Selection in Flow Builder

IdeaExchange	Idea delivered
Ability to declaratively schedule flows or processes	Start a Flow on a Schedule
Allow Creation of AccountTeamMember with Process Builder - and all other Objects	Automate Account Team Creation with Process Builder
Analytics	
Report Filters Should Be Able To Compare Fields To Each Other	Filter Reports Using Field Comparisons with Field-To-Field Filters (Beta)
Report Option for Distinct/Unique Records	Count Unique Values in Report Results (Beta)
Possibility to subscribe to an Einstein Analytics dashboard	Subscribe for Email Updates on Key Metrics (Beta)

Get Ready for the Release

Reading the release notes is a great step in preparing for the release. These other resources help get you, your org, and your users ready for what's coming your way. We add resources throughout the release when they become available, so check back often.

What's New This Release

- Release Overview Deck (ROD). Create internal training for your users, review setup screens, and learn how to use features.
- Release Matrix. Quickly see which features immediately affect your users.
- Winter '20 Pre-release Signup. Sign up for a pre-release org to get early access to the new features.
- Release Readiness Live. Register and make the most of the new features.
- Release Demos. Get quick video overviews of what's coming this release.
- Winter '20 Release Website. Check out the new features.
- Winter '20 Release Highlights Module. Get the Winter '20 Trailhead badge.
- Release in a Box. Use this kit to prepare and present the new release to your org and users.

Release Readiness Essentials

- Release Readiness Trailblazers. Access resources and experts for all things release readiness.
- Release Milestones. See key dates for the release.
- Trust Status Maintenances. See sandbox and other release dates and times. Click **Instances** and your instance to see your maintenance dates.
- Sandbox Refresh Calculator. Plan if and when you need to refresh your existing sandbox orgs.
- Sandbox Preview Video. Learn how to navigate the sandbox preview process.
- Sandbox Preview Instructions. Get early access to new features in your sandbox.
- Customer Success Event Calendar. Register for release overview webinars and access recordings.
- Certification Release Maintenance Schedule. Keep your certification updated in Trailhead.
- Prepare for Salesforce Releases. Use Trailhead to create your release strategy.
- Releases Email Journey. Prepare for releases by subscribing to emails.

Release Note Changes

Read about changes to the release notes, with the most recent changes first.

December 16, 2019

Report and Reduce Your Carbon Footprint

Announcing the new Salesforce Sustainability Cloud app.

Secure Your Sandbox Data with Salesforce Data Mask

Announcing the new Salesforce Data Mask service.

December 11, 2019

Find Email File Attachments in One Click on page 172

Added a requirement for user access to the Name and Related To fields in the task object.

Get the Big Picture on Your Transition with the Lightning Experience Configuration Converter Home Tab (Beta)

Added details about a new feature of the Lightning Experience Configuration Converter.

Convert JavaScript Buttons on Contract and Task Objects

Added information on support for Contract and Task objects on the JavaScript Buttons tab in the Lightning Experience Configuration Converter.

Try New Lightning Features with the Lightning Extension for Chrome (Generally Available)

The Lightning Extension is now generally available.

Keep Working with Tab-Focused Dialogs (Critical Update)

Updated the auto-activation date.

Reduce Disruption During the Migration to Enterprise Territory Management

Corrected the instructions for using the `enableRemoveTMGroupMembership` field.

Einstein Bots: Other Bot Updates

Added a change to the idle timeout for Chat and Messaging channels from 24 hours to 2 hours.

List and Related List Components Are Optimized for the New Salesforce Mobile App

Removed references to Lightning App Builder. Created a separate release note in the Lightning App Builder section to cover how to add the List and Related List components.

Add List and Related List Components to the New Salesforce Mobile App

Split release note from mobile section.

Enable even more Einstein Analytics features using Metadata API

Added information about the addition of many fields to the AnalyticsSettings type.

December 4, 2019

New and Changed Aura Components on page 541

Removed the `click()` method for `lightning:button` as this method is supported only on the `lightning-button` Lightning web component.

Removed the change to the `lightning:breadcrumb` as the text label on this component is still all caps.

Changed Lightning Web Components on page 538

Removed the change to the `lightning-breadcrumb` as the text label on this component is still all caps.

Boost Productivity with Personalized Search Results (Beta)
Clarified information about org requirements for enabling search personalization.

Keep Working with Tab-Focused Dialogs (Critical Update)
Clarified the auto-activation date.

Settings Exposed in Metadata API on page 577
Added information about new settings you can use to configure Salesforce Sites and to update the owner field for records owned by inactive users.

Added information about new settings you can use to configure Chatter email.

Added information about new settings you can use to configure Salesforce Surveys.

Share Due Diligence and Compliance Information More Easily
Added a release note about a new way to share due diligence and compliance details with the Salesforce Consulting Partner Program.

Get Connected Faster with Enhancements to Email-to-Case on page 129
Added information about a new feature that lets Essentials customers connect their Google accounts to Salesforce to more easily set up their support email with Email-to-Case.

Control Who Gets Read Access to Custom Settings
Added information about new permissions you can use to control who gets read access to custom settings.

November 6, 2019

Set Public and Private Visibility of Feed Items in Case Feed in Lightning Experience
Added information to contact Salesforce to turn on this feature.

Turn Metrics from Your Medical Device Business Into Actionable Insights with Manufacturing Analytics
Announcing availability of Manufacturing Analytics app for Einstein Analytics for Healthcare license holders, for medical device manufacturers.

Customer 360 Data Manager
Announced the release of our Service Cloud and Commerce Cloud integration solution, Customer 360 Data Manager.

Scan and Scroll the Activity Timeline
Updated information about scrolling in the activity timeline.

Disrupted Service for Some Salesforce for Outlook Customers
Starting in Winter ’20, restrictions to Microsoft® Internet Explorer® 11 access disrupted service for some Salesforce for Outlook users. Learn who’s impacted and the workarounds available to enable your users to access Salesforce for Outlook again.

Upgrade with Ease with the New Salesforce Mobile App QuickStart
Reinstated the recommendation to run the Salesforce Optimizer for Mobile Lightning Pages Report (Beta). The Salesforce Optimizer for Mobile Lightning Pages Report is now available as a beta feature.

Get to the Insights That Matter Faster with Einstein Analytics Home
Updated screenshots and location of Favorites in Lightning.

API Only Users Can Access Only Salesforce APIs (Critical Update, Postponed)
This critical update was scheduled for auto-activation in Winter ’20, but has been postponed to Spring ’20.

New and Changed Objects
Added information about the `TAB_ID` field of the Wave Change and Wave Interaction EventLogFile event types.

New and Changed Objects
Updated the Wave Performance Event Type documentation to clarify that `UI_RENDER_TIME` was removed in API version 46.0.

Original Territory Management Is Being Retired

Updated the scheduled retirement date of the original territory management feature to Summer '21.

Set a Default Email Font

Added information about default email fonts to the Salesforce Overall section.

Keep Up with Security Updates in the New Hub

The name of the feature was chanced to Security Alerts. Previously, Security Alerts was named Security Updates.

Metadata API

Added information that the OrgPreferenceSettings type, which is deprecated in API version 47.0, will be removed in API version 48.0.

New Apex Exception

Added `IllegalArgumentException` to the System namespace.

Legacy Folder Sharing Is Retiring in Summer '20

Added information about the planned retirement of Legacy Folder Sharing in Summer 2020.

Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert)

Clarified that this change applies to orgs with active sites.

Create Scratch Orgs with More Features

Removed `ExperienceBundle` from the list of new scratch org features. `ExperienceBundle` is only available to customers enrolled in the pilot. Marked `ChatterAnswers` as deprecated.

October 30, 2019

Collaborate on a New Version of a Dashboard Behind the Scenes with Publisher Feature (Pilot)

Introducing new pilot feature that lets teams collaborate on dashboards behind the scenes..

See More Relevant Records Matched to an Email in Outlook

Clarified that sales reps can choose a different record type as the default selection for a matched pair of records.

See More Relevant Records Matched to an Email in Gmail

Clarified that sales reps can choose a different record type as the default selection for a matched pair of records.

Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update)

Clarified that the critical update applies only to Lightning communities, portals, and Salesforce Sites.

Turn On Lightning Experience Critical Update Now Activates Starting January 7, 2020

Added a link to a video that explains what happens when the Turn on Lightning Experience Critical Update is activated.

Reduce Disruption During the Migration to Enterprise Territory Management

Clarified that only the original territory management sharing records remain available for use during migration.

Search: Introducing Einstein Search (Beta), a Smarter Way to Work in Salesforce

Clarified information about English only support for Einstein Search, search personalization availability on the Salesforce app,and which objects support search personalization.

Evaluate Criteria Based on Original Record Values in Process Builder (Critical Update, Postponed)

Added release note for a postponed auto-activation date.

Create Scratch Orgs with More Features

Removed `DigitalEngagement` from the list of new scratch org features.

Improve Org Security With Correct File Extensions and MIME Types

Added a release note for Files to inform customers about security update that changes the sniffing setting in the browser and advises them to provide valid extensions and MIME types to their files when uploading.

October 23, 2019

New and Changed Standard Platform Events

Added AIUpdateRecordEvent.

Communicate Across Salesforce UI Technologies with Lightning Message Service (Developer Preview) on page 493

Noted that Lightning Message Service enables communication between a component in a main Lightning page and one in a pop-out utility bar.

Alert the Right People When a Flow Error Event Occurs

Clarified that notifications from FlowExecutionErrorEvent are for screen flow errors.

Einstein Prediction Objects Visible to Privileged Users

Added note for behavior change in Einstein Prediction-related objects.

Route Your Custom Push Notifications to the Salesforce Mobile App

Added note to clarify additional step for custom push notifications.

Find Actions in a New Place and Get to Them in a New Way

Added information to mobile action bar release note to announce the replacement of list item actions in the new Salesforce mobile app.

Everything That's New in the Salesforce App

Removed reference to Essentials from new Salesforce mobile app feature overview table.

Disabled /event/AsyncOperationEvent Channel (Beta)

Updated release notes to indicate that the beta is still available to some Salesforce orgs that accessed it within a certain period.

October 16, 2019

Create the Latest Version of the Einstein Adoption Analytics App Without Installing a Managed Package

Announcing new version of the Einstein Analytics Adoption app.

Improve Your Predictions With the Accuracy Analytics App

Announcing new Model Manager feature that enables users to create an app that displays prediction accuracy over time.

Object Detection Maximum Image Size Increased to 5 MB

We increased the maximum size of an image you can add to an object detection dataset from 1 MB to 5 MB for Einstein Vision.

Text Datasets Can Contain Up to 3 Million Words

The maximum number of words in a text dataset is now 3 million.

Bulk API 2.0: Avoid overflow errors in the reported results

Added information about changed field types in the response body for `/services/data/vXX.X/jobs/ingest/jobID`.

AdminSetupEventStream and AdminSetupEvent Event Objects Are No Longer Available

The AdminSetupEvent and AdminSetupEventStream event objects were part of Real-Time Event Monitoring and were previously beta.

Navigation Bar Items No Longer Determine Top Search Results

Added information about removing a search feature.

Inbox Mobile App on page 181

Added a release note about Inbox Mobile app features available in the latest Inbox release for iOS and Android.

Disrupted Service in October 2020 for Some Lightning Sync Users on Microsoft Office 365

Announced a required setup change for Lightning Sync users on Office 365®.

Einstein Prediction Builder: Filter by Comparison

Removed release note for "Predict the Future Using Filters in Einstein Prediction Builder" because the feature isn't available.

Simplify Medical Device Sales with Sales Agreements and Account Forecasting (Generally Available)

Corrected reference to Manufacturing Cloud.

Boost Productivity with Personalized Search Results (Beta) on page 80

Noted that personalized search for search index files isn't available in sandbox orgs, or in orgs with Salesforce Shield Platform Encryption enabled.

Performance Improvements for Field Service on page 224

We expanded the release note about territory filtering. When you have more than 2,000 service territories, we show only the territories that you've selected. To find territories of interest, use the search bar and select which ones to view.

Disabled /event/AsyncOperationEvent Channel (Beta)

Added release notes about the disablement of the `/event/AsyncOperationEvent` beta channel.

October 9, 2019

Keep Working with Tab-Focused Dialogs (Critical Update)

Tab-focused dialogs are no longer enabled by default. You can enable tab-focused dialogs with a critical update.

Upgrade to the Winter '20 Versions of Einstein Analytics for iOS and Android

Einstein Analytics for iOS and Android version 8.0 are generally available from the App Store and Google Play.

Set Your Default Email Font

Clarified how default fonts are applied to emails.

Enable ICU Locale Formats (Critical Update)

Added recommendation to check with package providers before enabling the critical update. Added a step to enable the English (Canada) locale for currencies. Clarified that you can adopt the UI changes without adopting the noted API version.

Show or Hide Lightning-Only Tabs

Added information about Lightning-only tabs that are now visible and configurable in profiles.

Telangana Added to State Picklist for India

Clarified when the state appears in the state and country/territory picklists. Added steps to add Telangana to existing picklists.

Activities Dashboard No Longer Shows Accounts and Opportunities by Users

Added a release note about a change to the Activities dashboard, which is used by Einstein Activity Capture users.

New and Changed Aura Components

Added an attribute change to `lightning:breadcrumb`, `lightning:datatable`, and `lightning:tree`.

Changed Lightning Web Components

Added an attribute change to `lightning-breadcrumb`, `lightning-datatable`, and `lightning-tree`.

Discover New and Changed CLI Commands

Added new Salesforce CLI commands and parameters.

New Undo Link on the Delete Record Toast

Added a release note for the new Undo link in the delete record toast message.

New and Changed Standard Platform Events

Clarified that notifications from FlowExecutionErrorEvent are for screen flow errors.

REMOVED: Manage Delivery Settings for Field Service

This feature isn't ready for showtime yet, so we're removing it for now while we make improvements. Currently, Field Service Lightning doesn't support notification builder.

Get Einstein Predictions in Apex Code

Added a release note for the Einstein Discovery predict API for Apex.

Require TLS 1.2 for HTTPS Connections (Critical Update, Enforced)

Clarified the critical update's enforcement date.

Require TLS 1.2 for HTTPS Connections in Communities and Sites (Critical Update, Enforced)

Clarified the critical update's enforcement date.

REMOVED: Share CSS Style Rules

This feature isn't ready for Lightning web components developers yet. We'll let you know once it's available.

Increase Productivity with Local Development for Lightning Web Components (Beta) **on page 492**

Added a release note for the new local development feature available for Lightning Web Components.

Explore Salesforce Data Directly, Without Datasets

Added a release note for Einstein Analytics Salesforce Direct.

October 7, 2019

Turn On Lightning Experience Critical Update Now Activates Starting January 7, 2020

Announcement that this critical update, previously scheduled to activate with Winter '20, will now start auto-activating in January 2020.

October 2, 2019

Know When You Try to Embed an Image That's Too Big

Clarified that the warning is displayed when agents try to insert an image that's too big into an email.

Spotlight on Content

Added information about our latest content enhancements, including Trailhead modules, trails, and projects; instructional videos; and new guides for Manufacturing and Consumer Goods Clouds.

Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Retired)

Clarified that the critical update won't be automatically activated for any org.

Search: Introducing Einstein Search (Beta), a Smarter Way to Work in Salesforce

Added information about when Einstein Search features become available.

Convert JavaScript Alerts to Lightning Components

Added information about support for converting JavaScript alerts.

Access Salesforce from Safari on iPad Devices (Beta)

Added a release note for Apple's new iPadOS release and how it affects access to Salesforce on an iPad.

Upgrade with Ease with the New Salesforce Mobile App QuickStart

Removed the recommendation to run the Salesforce Optimizer for Mobile Lightning Pages Report. The Salesforce Optimizer for Mobile Lightning Pages Report is not yet available.

Open Salesforce Links in Safari on Your iPad

Added a release note about the change in how links to Salesforce pages are opened in iPadOS.

Allow Unauthenticated Participants to Respond

Added a release note about how guest users can view and respond to unauthenticated survey invitations.

New Permission Requirements for Non-Admin Users

Added a topic about new permission requirements in Salesforce Billing.

Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert)

Added a release note about a security update to secure guest users' org-wide defaults and sharing model.

September 25, 2019

Settings Exposed in Metadata API

Updated the LightningExperienceSettings metadata type description to reflect the fields added.

New and Changed Standard Platform Events

Noted that the `SessionLevel` field of LightningUriEvent and LightningUriEventStream is now reserved for future use.

Get Search Results for More Objects

Added information about objects that are now searchable.

Require User Access to Apex Classes Invoked by Flow (Critical Update, Postponed)

Added release note for a postponed auto-activation date.

Enable ICU Locale Formats (Critical Update)

Clarified the requirement for API 45.0 or later.

Look to Files, Not Your Inbox for Optimizer Reports

Added release note for a change to Salesforce Optimizer success emails.

Manage Security Contacts for Your Org **on page 96**

Added release note for a security contact option.

Select the API Version for Lightning Locker

Removed information about orgs with custom components. Added list of changes in Locker API versions.

September 18, 2019

You Asked for It!

Added Ideas that we delivered.

Know When You Have Unread Feed Items in Case Feed **on page 249**

Added information to contact Salesforce to turn on this feature.

Complete Your Data by Predicting Missing Values

Added a release note for the Predict Missing Values recipe transformation.

Changed Apex Classes

Added information on the new isCurrentUserLicensedForPackage Apex method.

New Apex Classes

Added information on the new getCurrentPackageId Apex method in the new Packaging Class.

Removed: Guardrails Added for Quoting, Amendment, and Renewal Job Requests

This feature isn't ready for showtime yet, so we're removing it for now while we make improvements.

Change to Einstein Activity Capture Data Storage Allowance

Added a release note about a change to the amount of activity that's stored over time.

Use the Readiness Check to Guide Your Lightning Experience Transition

Added an announcement about updates to the Readiness Check.

View Scan Results in the Configuration Converter, Not in Email

Added a release note about changes to the Lightning Experience Configuration Converter.

Grant Access to Custom Settings After Restricting Org-Wide Access (Critical Update) on page 459

Added a release note about allowing read access to custom settings.

Deepen Customer Relationships with Expanded Account Relationship Structures on page 394

Updated the see also link.

September 11, 2019

Enroll Patients in Programs and Capture Their Consent

Removed the note specifying that care program enrollment was only supported on desktops and that Microsoft Edge wasn't supported.

Document Tracking and Approvals (Generally Available)

Moved coverage of Document Tracking and Approvals from Salesforce Overall to Financial Services Cloud in Industries.

Critical Updates Release Note Now Includes Security Updates

The release note covering Critical Updates now also includes references to all of the updates found on the Security Updates page in Setup.

Strong Customer Authentication Is Supported for AppExchange Checkout

Announced that AppExchange Checkout now supports strong customer authentication for payments in the European Economic Area.

Require Customize Application Permission for Direct Read Access to Custom Metadata Types (Critical Update)

The enforcement date changed. This requirement is enforced when orgs update to the Spring '20 release.

Display Einstein Discovery Predictions in Lightning Experience Community Pages

Added new Einstein Discovery Predictions component in Lightning Experience community pages to Communities Release Notes.

Display Einstein Discovery Predictions in Lightning Experience Community Pages

Added new Einstein Discovery Predictions component in Lightning Experience community pages to Analytics Release Notes.

Customize the Appearance of Einstein Discovery Predictions on Lightning Experience Record Pages

Added Release Note for enhanced Einstein Discovery Predictions component in Lightning Experience record pages.

Retiring Einstein Discovery Classic

Added Release Note regarding the retirement of Einstein Discovery Classic retirement in Spring '20.

Discover New and Changed CLI Commands

Added information on a new CLI command, `force:auth:device:login`.

September 4, 2019

Quote Prorated Subscription Products More Accurately

Added a release note for two new values on the Subscription Proration Precision package setting.

New and Changed Objects on page 550

Added a release note for three new fields on the Shift object.

Mobile: Customized Mobile Experiences and the New Salesforce Mobile App

Updated When availability in Mobile and related release notes to reflect that Essentials edition will not be available in the new Salesforce mobile app.

Enable ICU Locale Formats (Critical Update) on page 450

Clarified that this critical update is enabled for new orgs starting in Winter '20.

Stream and Store Event Data in Near Real Time (Generally Available)

Added paragraph telling customers to unsubscribe from event channels while Salesforce upgrades their org to the Winter '20 release,then resubscribe

Settings Exposed in Metadata API on page 577

Added a release note for the `enablePopulateNameManuallyInToday` field on the MobileSettings object.

August 28, 2019

Salesforce Billing: Save Credit Cards and Accept Payments in Communities and Lightning Pages

Updated setup instructions with a note to contact Salesforce CPQ and Salesforce Billing Support rather than Salesforce Customer Support.

Turn On Lightning Experience Critical Update Now Activates Starting January 7, 2020

Added information about how to find out when the critical update will be activated for your production org.

Default User Experience After Lightning Experience Is Turned On

Corrected the details about which interface users see after Lightning Experience is turned on.

Set Visibility of Feed Items in a Case Feed on page 359

Set the visibility of case feed posts in Lightning communities, Lightning Experience, and the Lightning Service Console.

Know Who Sees What on Account and Opportunity Teams in Lightning Experience

Removed Essentials from the list of editions this change applies to.

Remove Instance Names from URLs for Visualforce, Community Builder, Site.com Studio, and Content Files (Previously Released Critical Update) on page 516

Corrected example URLs.

New and Changed Objects

Added a release note for two new fields available on the Time Slot object in Lightning Scheduler and a release note for a new picklist value in the `JobType` field of the CronJobDetail object.

New and Changed Objects on page 550

Added a release note for the `IsTimeSheetEnabled` field on the MobileFieldServiceSettings object.

Write with Style in the Rich Text Editor

Added the `background-image` style attribute to the list of disallowed styles.

Get the Best Predictions of Two Different Models (Pilot)

Added the (Pilot) designation to this feature.

August 19, 2019

Salesforce Winter '20 Release Notes

Published preview release notes.

Your Feedback Matters

We know how important our documentation is to your company's success. We want to know what works for you and what doesn't.

- **Trailblazer Community**—Post your feedback in the Release Readiness Trailblazers group. To help us track and respond to your feedback, use a hashtag that indicates the release, such as #Winter20Feedback.
- **Feedback forms**—As you're working with our documentation in Salesforce Help, release notes, or developer guides, look for the feedback form and vote up or down. Add comments if you have them.

- **Twitter**—When you follow @salesforcedocs on Twitter, you receive notices whenever we publish new documentation or make significant updates to existing documentation. Tweet us at @salesforcedocs.

How and When Do Features Become Available?

Some features in Winter '20 affect all users immediately after the release goes live. Consider communicating these changes to your users beforehand so that they're prepared. Other features require direct action by an administrator before users can benefit from the new functionality.

Supported Browsers

We've made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Supported Browsers for Lightning Experience	✓			
Ensure IE11 Lightning Experience Users Can't Access Salesforce Classic	✓			
Supported Browsers for Salesforce Classic	✓			
Supported Browsers for Einstein Analytics	✓			

Salesforce Overall

Lightning Experience is permanently enabled when it's turned on, and we help guide your transition to the new interface with more tools and in-app prompts. Plus, we provide more ways to engage and guide your users in Lightning Experience with in-app guidance. Get more control of what your users see in Help Menus. Access the Recycle Bin in Lightning Experience. Organize records and list views by topic with new themes and topic filters. Fine-tune mass actions on lists with search terms and quick filters. Save ink with condensed printable lists. Say hello to Einstein Search, a smarter and more personalized way to get work done in Salesforce. Get more insight and more ways to manage surveys with Salesforce Surveys. Optimize scheduling with more tools to manage resources and concurrent appointments in Lightning Scheduler. Keep your data safe with an improved security update hub. Streamline how you process documents with more tracking and management tools. Maintain your workflow with dialogs that display only on the tab where it opened, and customize utility icon colors in Lightning Console Apps. Set and override the default font for emails.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Lightning Experience Transition: Critical Update, Prompts, and Tools				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Turn On Lightning Experience Critical Update Now Activates Starting January 7, 2020		✓		
Lightning Experience Graduates to a Permanent Fixture in Salesforce		✓		
Default User Experience After Lightning Experience Is Turned On		✓		
Use the Readiness Check to Guide Your Lightning Experience Transition		✓		
Lightning Experience Configuration Converter: Home Tab, Visualforce Pages, Hard-Coded URLs, AppExchange Packages, and More				
Keep Your URLs Alive in Lightning Experience (Beta)		✓		
Make Sure Your AppExchange Packages are Ready for Lightning Experience (Beta)		✓		
Actions and Buttons Tab (Generally Available)		✓		
Convert JavaScript Alerts to Lightning Components		✓		
Get the Big Picture on Your Transition with the Lightning Experience Configuration Converter Home Tab (Beta)		✓		
View Scan Results in the Configuration Converter, Not in Email		✓		
Convert JavaScript Buttons on Contract and Task Objects		✓		
Access Lightning Experience Transition Tools in Government Cloud Orgs				
Lightning Experience Engagement: Prompts and Help Menu				
Add In-App Guidance for Feature Discovery and Adoption (Generally Available)			✓	
Control Which Help Menu Links Appear to Users			✓	
Add Longer URLs to Your Custom Help Menu		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Customer 360 Data Manager				✓
New Undo Link on the Delete Record Toast	✓			
Access the Recycle Bin in Lightning Experience	✓			
Make Your List Views Stay on Topic with Topic Filters	✓			
View Records by Topic on the Topic Detail Page	✓			
Get Precise with Mass Actions on Search Results and Quick Filters	✓			
Save Ink and Paper with Printable View for Lists	✓			
Navigate Directly to an App		✓		
Search				
Boost Productivity with Personalized Search Results (Beta)			✓	
Break Open the Search Box with Enhanced Instant Results (Beta)			✓	
Create Instant Reports with All the Right Filters with Conversational Search (Beta)			✓	
Find the Right Record Faster with Recommended Result (Beta)			✓	
Put the Pro in Profile with Profile-Specific Search Results Layouts (Beta)			✓	
Get Search Results for More Objects		✓		
Navigation Bar Items No Longer Determine Top Search Results		✓		
Salesforce Surveys: Easy Integration, More Controls, and Better Analysis				
Get Insight into Support Cases		✓		
Boost Marketing Campaigns with Surveys	✓			
Automate Survey Invitations with Process Builder		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Display Customer-Provided Scores for a Particular Record (Pilot)		✓		
Assign Topics to Surveys		✓		
Empower Survey Owners to Manage Responses			✓	
Get Going Faster with Sample Surveys			✓	
Export Responses for Detailed Insights	✓			
Analyze Survey Responses Effortlessly	✓			
Choose Whether Your Participants See the Welcome Page	✓			
Switch Between Survey Versions in a Click	✓			
View Invitations and Responses Associated with Records		✓		
Allow Unauthenticated Participants to Respond			✓	
Lightning Scheduler: Multi-Resource and Concurrent Scheduling				
Book Group Appointments with Multi-Resource Scheduling			✓	
Enhance Efficiency with Concurrent Scheduling			✓	
Quickly Schedule International Appointments			✓	
Build Meeting Prep and Travel Time into Appointment Scheduling			✓	
Give Feedback to Salesforce with a Revised Form	✓			
Keep Up with Security Updates in the New Hub		✓		
Manage Security Contacts for Your Org			✓	
Console				
Keep Working with Tab-Focused Dialogs (Critical Update)	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Customize Utility Icon Colors with New Lightning Console JavaScript APIs		✓		
Look to Files, Not Your Inbox for Optimizer Reports		✓		
Access Salesforce from Safari on iPad Devices (Beta)	✓			
Optimizer Setup Gets a Makeover		✓		
Entity Element Type of the TopicAssignment Object Was Changed		✓		
Set a Default Email Font	✓			
Try New Lightning Features with the Lightning Extension for Chrome (Generally Available)	✓			

Mobile

With our latest mobile updates, users can take advantage of the familiar Lightning Experience they know on desktop, optimized for the new Salesforce mobile app beginning the week of October 14, 2019. Mobile Publisher gets custom notifications, deep linking, and other key features admins can use to customize the mobile experience for users. Across our mobile portfolio, admins have more power than ever to customize the mobile experience and create one unified Salesforce experience for users.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Everything That's New in the Salesforce App			✓	
Salesforce App: Welcome to the New Salesforce Mobile App				
The New Salesforce Mobile App: Get Started				
Upgrade with Ease with the New Salesforce Mobile App QuickStart		✓		
Switch Without a Hitch with the New Salesforce Mobile App Documentation		✓		
Unlock Mobile Configuration Options in the Lightning App Builder			✓	
Give Your Users Access to the New Salesforce Mobile App			✓	
The New Salesforce Mobile App: Get Around				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Transition Seamlessly to the New Mobile App with Familiar Navigation Items			✓	
Get Around Faster with the Thumb-Friendly Navigation Bar			✓	
Find Actions in a New Place and Get to Them in a New Way			✓	
Launch into Lightning Experience Apps with the Mobile App Launcher			✓	
Do More on Record Pages with New Styling and Components			✓	
Switch Accounts, Give Feedback, and Get Help in the Profile Menu			✓	
The New Salesforce Mobile App: Customize Your Users' Experience				
Give Your Users Custom Record Pages on Their Phones		✓		
Show or Hide Record Page Components by Device		✓		
Make Your Lightning Apps Accessible on Phone, Desktop, or Both		✓		
Einstein Analytics in the Salesforce App: More Powerful Interactions				
Interact with Embedded Einstein Analytics Dashboards in the Salesforce Mobile App				
Access Einstein Analytics Dashboards from Links in Salesforce for iOS				
Your Favorite Dashboards Are Just One Tap Away in Salesforce for iOS				
Search for Einstein Analytics Dashboards in Salesforce for iOS				
Protect Your Salesforce App with Enhanced Mobile Security				✓
	Salesforce App: Other Enhancements			
Salesforce App Requirements Have Changed	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
List and Related List Components Are Optimized for the New Salesforce Mobile App	✓			
Give Users Access to the Twitter Component in the New Salesforce Mobile App	✓			
Support More Account Team Business Cases Anywhere			✓	
View More Fields in the Record Highlights Panel	✓			
See More Record Details When You Want (and Not When You Don't)	✓			
Easily Find Reports and Dashboards with Familiar Lists			✓	
Manage Delivery Settings for Standard Notifications with Notification Builder			✓	
Route Your Custom Push Notifications to the Salesforce Mobile App			✓	
Send Custom Notifications with Flow Builder			✓	
Open Salesforce Links in Safari on Your iPad				
Mobile Publisher				
Keep Users in the Know with Custom Push Notifications for iOS and Android			✓	
Access Native Capabilities for an Enhanced User Experience			✓	
Set Up Deep Linking for an In-App Experience			✓	
Download and Share Salesforce Files for Access on the Go	✓			
Bring Users Directly to Your App with AppLinks for Android	✓			

Essentials

Get cases from your Gmail support email address in a snap by connecting to your Google account during the setup flow. Check out our new video series to get quick 1-minute tips so you can get the most from your Salesforce subscription. We revamped a few more Service-focused setup flows to make your setup even easier (and more fun!). Take a look at the other changes in Sales and Service using the new Essentials filter, so you can find the updates that are relevant to you.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Get Connected Faster with Enhancements to Email-to-Case		✓		
Get to Know Essentials, One Minute at a Time	✓			
Set Up Your Email and Social Cases with Revamped Setup Flows	✓			
See Changes to Sales and Service with an Essentials Filter	✓			

Sales

Create sales cadences that branch to steps based on call outcomes. Report on opportunity scoring model factors, and use Einstein Forecasting with quarterly forecasts. Use custom fields, triggers, and workflow rules with account teams and opportunity contact roles. Control what Einstein Activity Capture captures and syncs. Enjoy improvements to email integrations for Google and Microsoft. Let customers and partners make payments more easily and securely with the Salesforce Billing payment component. And get insights into engagement patterns with the Pardot activity dataset.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
High Velocity Sales				
Change Your Sales Outreach Based on Call Results	✓			
High Velocity Sales Reporting				
See Sales Cadence and Rep Performance at a Glance (Beta)	✓			
See More Information in Sales Cadence Reports			✓	
Prioritize Records with Third-Party Scores in Work Queue			✓	
Set Up More from Setup in High Velocity Sales			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
More Users Can Remove Sales Cadence Targets	✓			
See Who's Working on a Prospect in a Sales Cadence			✓	
Evaluate the Engagement Success of Sales Cadence Steps			✓	
Use Rich Text for Call Scripts			✓	
Other Enhancements in High Velocity Sales			✓	
Sales Cloud Einstein				
Einstein Opportunity Scoring				
Add Opportunity Scores to Standard Reports	✓			
Add Model Factors to Opportunity Custom Report Types			✓	
Use SOAP API to Access Information About the Opportunity Scoring Model			✓	
Einstein Forecasting			✓	
Einstein Lead Scoring			✓	
Einstein Automated Contacts	✓			
Einstein Activity Capture			✓	
Core Sales Features				
Contacts			✓	
Accounts			✓	
Quotes	✓			
Opportunities				
Sort Products on Opportunities the Way You Want in Lightning Experience	✓			
Add Products to Opportunities Faster in Lightning Experience			✓	
Let the Product Quantity Take Care of Itself When Sales Reps Work with Opportunities			✓	
View Opportunities Owned by Your Team with One Click in Lightning Experience	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Collaborative Forecasts			✓	
Enterprise Territory Management				
Enrich Your Activities Reports with Territory Details	✓			
Permission Requirements for Assigning Territories Have Changed			✓	
Price Book Entries	✓			
Path			✓	
Other Changes in Core Sales Features				
Know Who Sees What on Account and Opportunity Teams in Lightning Experience	✓			
Row-Level Actions Added to the Schedules Related List for Opportunity Products	✓			
Row-Level Action Added to the Related List for Contacts Related to Accounts	✓			
Enable Manual Account Sharing in Enterprise Territory Management (Previously Released Critical Update)			✓	
Customizable Forecasting Is Being Retired		✓		
Original Territory Management Is Being Retired		✓		
Reduce Disruption During the Migration to Enterprise Territory Management			✓	
Productivity Features				
Einstein Activity Capture				
Control Whether to Capture Email Data with Einstein Activity Capture			✓	
Get Clarity About Who's Eligible to Add to an Einstein Activity Capture Configuration		✓		
Prevent Specific Events from Syncing with Einstein Activity Capture	✓			
Sync Repeating Events Between Salesforce and Microsoft Accounts with Einstein Activity Capture			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Get Notified When Your Account Connections Need Attention	✓			
Improved Event Syncing	✓			
Change to Einstein Activity Capture Data Storage Allowance		✓		
Activities Dashboard No Longer Shows Accounts and Opportunities by Users		✓		
Email Experience				
Amp Up Communication with List Emails for Partner and Customer Community Users	✓			
Find Email File Attachments in One Click	✓			
Add Inline Images to Emails in a Flash	✓			
Add Tables to Emails Without Losing Styles	✓			
Set Your Default Email Font	✓			
Improve Email Security with Redesigned DKIM Keys (Critical Update, Enforced)		✓		
Get Ready for Email Address Internationalization in Summer '20			✓	
Get Flexible with Email TO, CC, and BCC Fields	✓			
Email Templates				
Show More Style in Email Templates	✓			
Add a Signature to Email Templates	✓			
Find Important Email Templates Quickly	✓			
Restrict Use of Salesforce Classic HTML-Based Email Templates to Secure Browsers (Critical Update, Enforced)		✓		
Activities				
Find Archived Activities Faster	✓			
Scan and Scroll the Activity Timeline	✓			
Complete Tasks in a Single Click	✓			
Lightning Dialer	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Inbox App	✓			
Calendar				
Find a Time That Works for Everyone in Availability View			✓	
Open Your Favorite Calendar View in One Click	✓			
See More Event Details Faster	✓			
Integration with Google				
Gmail™ Integration				
Get Reminders to Log Emails from Gmail to Salesforce	✓			
Track Emails in Gmail Automatically	✓			
Save Time When Viewing Tracking Details in Gmail	✓			
Do More with Scheduled Emails	✓			
See the Object Types Accessed Most Often in Gmail	✓			
See More Relevant Records Matched to an Email in Gmail	✓			
Lightning Sync for Google	✓			
Integration with Microsoft®				
Outlook® Integration				
See the Object Types Accessed Most Often in Outlook	✓			
See More Relevant Records Matched to an Email in Outlook	✓			
Lightning Sync for Microsoft® Exchange®				
Event Syncing Improved	✓			
Disrupted Service in October 2020 for Some Lightning Sync Users on Microsoft Office 365			✓	
Salesforce for Outlook			✓	
Salesforce CPQ and Billing				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Salesforce CPQ				
See How Often Sales Reps Are Using Pricing Guidance	✓			
Quote Prorated Subscription Products More Accurately	✓			
Other Changes in Salesforce CPQ	✓			
Salesforce Billing				
Salesforce Billing: Save Credit Cards and Accept Payments in Communities and Lightning Pages	✓			
New Permission Requirements for Non-Admin Users	✓			
Pardot				
Explore Combined Prospect and Activity Data in B2B Marketing Analytics	✓			
Datasets Have Moved to B2B Marketing Analytics 2.0	✓			
Reuse Content Across Campaign Emails with Snippets			✓	
Customize Marketing Content in the Object Manager			✓	
Dig into Account Records with Engagement History Dashboards			✓	
Find More Data Types in Engagement History				
Find Out Which Assets Resonate Best with Prospects			✓	
Group Prospect Reports by Behavior Score	✓			
Get Only the Einstein Lead or Behavior Scores You Need			✓	
Review Campaign Insights in a Custom Report	✓			
Other Changes in the Sales Cloud				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Data.com Prospector and Data.com Clean Are Being Retired			✓	
Manage Delivery Settings for Sales Cloud Features			✓	
Route Messaging Channels with Omni-Channel	✓			

Service

Save your agents time and delight your customers with the many updates we've made in Service. Help your agents resolve cases faster with recommended articles. Empower your Field Service mobile workers to log their hours on the go. Send Knowledge articles through more channels. Before accepting a chat, let agents see pre-chat details and pages visited. Let your agents tackle the right cases first with Secondary Routing Priority. Improve agent productivity with an enhanced email experience in the case feed. Find out what your customers think by automatically sending a survey when a case is closed. Integrate third-party natural language processing engines into your Einstein bots.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Einstein for Service				
Einstein Bots				
Automatically End Bot Chats			✓	
Easily Deliver Knowledge Articles to Your Customers			✓	
Connect Your Bots to Third-Party NLPs (Pilot)				✓
Improve Bot Handoffs by Confirming Agent Availability			✓	
Improve Your Skills with the Bots Setup Help Carousel			✓	
Einstein Case Classification				
Automatically Apply Einstein Predicted Values to Cases with Einstein Case Routing			✓	
Identify Which Changes Einstein Made			✓	
Run Rules After Einstein Makes Changes			✓	
Understand How Effective Einstein Case Classification Is for Your Agents		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
See Einstein Recommendations Without Delay		✓		
Einstein Bots: Other Bot Updates	✓			
Einstein Article Recommendations (Pilot)				✓
Field Service				
Log Hours on the go with Mobile Time Sheets (Beta)			✓	
Stay in Shape with Health Check (Beta)		✓		
Schedule Smarter Service Appointments with Extended Match Work Rules			✓	
Map Your Reports with Icons and Colors			✓	
Switch Crew Management Scheduling Policies in a Flash	✓			
Build Trust with Your Customers with Service Contracts and Contract Line Items in Communities			✓	
Leverage Quick Actions for Service Contracts and Contract Line Items			✓	
Extend Access to Service Contracts with Criteria-Based Sharing Rules			✓	
Filter Information in the Assets Related List on Accounts		✓		
Performance Improvements for Field Service		✓		
Channels				
Email: Contact Lookups, Popout-to-Docked Mode, Collapsible Emails, Responsive Email Templates				
Find the Right Person to Email with Contact Lookups in Lightning Experience	✓			
Increase Screen Real Estate with Collapsed Emails in Case Feed in Lightning Experience	✓			
Write Emails in the Docked Email Composer	✓			
Wow Customers with Responsive Email Templates			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Know When You Try to Embed an Image That's Too Big	✓			
Messaging				
Connect to Your Customers with WhatsApp (Pilot)			✓	
Connect to Your Customers with WeChat (Pilot)			✓	
Initiate a Conversation from a Contact Detail Page			✓	
Clear Hanging Sessions with a Click			✓	
Run Standard Reports for Conversations			✓	
Create Messaging Session Related Lists on the Contact Detail Page			✓	
Quickly Link Interactions to the Right People (Beta)			✓	
Chat				
Quickly Preview Customer Information Before Chatting			✓	
Send Customers to a Specific Agent with Omni-Channel			✓	
Preview Files in the Chat Window			✓	
Bring Chatter to the Conversation			✓	
Track Conversations in the Case Feed			✓	
Social Customer Service				
Respond to Customers Faster with Social Quick Action for Leads		✓		
Reply to Instagram Comments in Lightning Experience		✓		
Migrate Your Facebook Social Posts from App-Scoped IDs to Page-Scoped IDs		✓		
Channel-Object Linking		✓		
Embedded Service for Mobile Apps		✓		
Embedded Service for Web				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Give Agents Greater Control with Custom Events for Chat			✓	
Reach Right-to-Left Language Customers in Chat (Beta)			✓	
Preview Labels for Appointment Home			✓	
Knowledge				
Spread Knowledge Far and Wide in More Channels			✓	
Find More Articles in List Views	✓			
Fine-Tune Access to Draft and Archived Articles	✓			
Maintain Access to Attached Files When You Migrate to Lightning Knowledge		✓		
Write with Style in the Rich Text Editor	✓			
Set Targets for Lightning Smart Links				
Delete Articles from More Places			✓	
Routing				
Skip the Coding When You Set Up Attributes for Skills-Based Routing (Generally Available)			✓	
Let Your Agents Tackle the Right Cases First			✓	
Use Omni-Channel Routing in the Sales Cloud	✓			
Search Public Groups		✓		
View Agent Status with a Color-Coded Widget	✓			
Give Chat Customers an Estimated Wait Time (Beta)			✓	
Case Management				
Cases				
Set Public and Private Visibility of Feed Items in Case Feed in Lightning Experience				✓

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Know When You Have Unread Feed Items in Case Feed				✓
Know When Case Comments Are Private	✓			
Sort Feed Items from Oldest to Newest	✓			
Save a Click with Expand All Posts	✓			
Send Surveys for Cases			✓	
Accordion and Related Record Components Supported for Case Record Page on Phone			✓	
Answer the Phone While Working with Dialogs	✓			
Select Chat as a Channel for Quick Texts	✓			
Lightning Flow for Service				
Require a Deployment and Show the Right Actions (Critical Update)	✓			
Add Autolaunched Flows to Your Agents' To-Do List	✓			
View Paused Flows Without Blocking Your List	✓			

Analytics

Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. The number and scope of Analytics features this release could delight you all Winter '20 long. Writing row-level formulas directly in the Lightning report builder is generally available. Write Einstein Discovery prediction scores automatically to selected Salesforce fields without writing code. The new Analytics Home is your personalized launchpad for finding, favoriting, curating, and interacting with the assets and insights that are most important to you. Without leaving the Salesforce mobile app, perform many important Einstein Analytics tasks, from viewing full-screen dashboards to adding favorites. And much more.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
		Reports and Dashboards		
Evaluate Each Record in Reports with Row-Level Formulas (Generally Available)	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Filter Reports Using Field Comparisons with Field-To-Field Filters (Beta)			✓	
Right-to-Left Language Support for Reports and Dashboards (Beta)	✓			
Count Unique Values in Report Results (Beta)			✓	
Easily Read Wrapped Long Text Fields in Report Results	✓			
Show Territory Details on Activities Reports	✓			
Account Team Support Was Added to Reports and Dashboards	✓			
Folders				
Legacy Folder Sharing Is Retiring in Summer '20	✓			
Einstein Analytics				
Setup and Data Integration				
Ease into Setup with In-App Guided Learning			✓	
Data Sync Is Enabled by Default in New Analytics Orgs		✓		
Data Sync Schedule Reminders Help You Keep Your Data Current		✓		
Sync More Data Through Snowflake Computing and Amazon S3 Connections		✓		
Capture the Latest Data Faster			✓	
Identify Users Not Covered by Sharing Inheritance			✓	
Recipe Editor Is Renamed Data Prep	✓			
Complete Your Data by Predicting Missing Values	✓			
Convert Columns to Dimensions and Dates	✓			
Standardize Date Formats in Your Datasets	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Get the Right Data with More Flexible Recipe Filters	✓			
Manage Recipes and Dataflows More Easily	✓			
Analytics Applies Security to Datasets Exported to Einstein Discovery	✓			
Make Datasets More Secure with Longer Security Predicates	✓			
Prebuilt Templates and Apps				
Fortify Your Sales Data with Einstein Discovery for Sales Analytics		✓		
Make Einstein Discovery Predictions More Precise with the Accuracy Analytics Template		✓		
Create the Latest Version of the Einstein Adoption Analytics App Without Installing a Managed Package		✓		
App Building				
Display Grand Totals and Subtotals in Tables (Beta)				
Compare Metrics Against Qualitative Benchmarks with Bullet Charts	✓			
Use String Values in Formulas in the Compare Table Column Editor		✓		
Apply Conditional Formatting to Calculated Dimensions		✓		
Format Numbers Your Way in Every Chart and Table		✓		
Explore Salesforce Data Directly, Without Datasets		✓		
Einstein Analytics Classic Designer Is Retiring	✓			
Steps in Dashboards Are Now Called Queries		✓		
Create Custom Queries With User-Defined Values				
Preview Your Custom Onboarding Videos in the Dashboard Designer		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Collaborate on a New Version of a Dashboard Behind the Scenes with Publisher Feature (Pilot)	✓			
Calculate Grand Totals and Subtotals with the rollup Modifier and grouping() Function in SAQL		✓		
Back Up and Restore Your Analytics Dashboards, Lenses, and Dataflows with Asset Version History		✓		
List and Get Saved Views and Execute Multiple Queries with the Analytics Web SDK		✓		
Get and Set Dashboard States with the Analytics Web SDK		✓		
Give Your Lightning Components the Power of the Analytics Template SDK		✓		
Enable CDN to Load Einstein Analytics Faster			✓	
Einstein Discovery				
Deploy Predictions on Salesforce Records Without Writing Code (Generally Available)		✓		
Get the Best Predictions of Two Different Models (Pilot)		✓		
Monitor the Accuracy of Deployed Models in Real Time (Generally Available)		✓		
Improve Your Models by Comparing Metrics		✓		
Improve Model Accuracy with Target Thresholds		✓		
Speed Up Story Creation with Automated Setup		✓		
Improve Your Predictions With the Accuracy Analytics App		✓		
Visualize Model Performance with a Residuals Plot Chart		✓		
Remove Biased Variables from Your Model		✓		
Speed Up Story Creation for Descriptive-Only Insights		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Refresh Your Stories with Dataset Updates		✓		
Crunch More Report Data with Einstein Data Insights		✓		
Create Stories Using Datasets with Predicates		✓		
Display Einstein Discovery Predictions in Lightning Experience Community Pages		✓		
Customize the Appearance of Einstein Discovery Predictions on Lightning Experience Record Pages		✓		
Get Einstein Predictions in Apex Code		✓		
Einstein Prediction Objects Visible to Privileged Users		✓		
Retiring Einstein Discovery Classic		✓		
Analytics for Everyone				
Get to the Insights That Matter Faster with Einstein Analytics Home	✓			
Journey Through Guided Learning and Track Your Progress in the Learning Center	✓			
Subscribe for Email Updates on Key Metrics (Beta)			✓	
Learn More in Studio with the Learning Adventure App	✓			
Publish Dashboards and Lenses to Quip Slides			✓	
Preview Dashboards Before You Print or Save Them as PDFs	✓			
Open Records from Einstein Analytics Dashboards in Lightning Page Tabs		✓		
Mobile Apps	✓			

Communities

Create, organize, and publish content in Salesforce with Salesforce CMS, now generally available. Take better control of who can publish and edit a community with Access Control in Workspaces. And give access to unauthenticated community users while knowing that Salesforce is keeping your data safe.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Salesforce CMS				
Harness the Power of Salesforce CMS (Generally Available)		✓		
Take Control of How You Display Your Salesforce CMS Custom Content		✓		
Add Languages to Your Salesforce CMS Workspaces			✓	
Work with Translated Content in the Salesforce CMS		✓		
Lightning Communities				
Update Your Lightning Community to the Latest Template			✓	
Break the Mold with Flexible Layouts		✓		
Manage Contributors and Their Roles in Builder		✓		
Set Up Navigation Menu Variations	✓			
Get Clearer Character Limits on Questions	✓			
Enjoy Better Navigation Between Topics and Details	✓			
Make Files on Records Visible to Customers	✓			
Create and Assign Many Audiences at Once Using APIs (Pilot)				✓
Delegate Management of Permission Sets		✓		
Make It Easier for Delegated Admins to Create New Users		✓		
Broaden Your Horizons with More Width Control		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Improve Tracking with the New Google Analytics™ Standard		✓		
Get Warned Before Switching Community Templates		✓		
Customize Account Teams to Enhance Team Selling			✓	
Set the Order of Products on Opportunities and Quotes	✓			
Row-Level Actions Added to the Schedules Related List for Opportunity Products	✓			
Filter for Opportunities Owned by Your Team with One Click	✓			
Get Insight into Account and Opportunity Team Member Access	✓			
Lightning Components in Community Builder				
Use Tile Menus to Brighten Up Your Community (Generally Available)		✓		
Customize the Record List Component Header		✓		
Hide User Profile Pictures		✓		
Display Einstein Discovery Predictions in Lightning Experience Community Pages		✓		
Case Detail Page Variations and Components Are Retiring Winter '20		✓		
Deflect More Cases with the Updated Case Deflection Component		✓		
Guest User Security				
Secure Guest Users' Record Access with a New Setting (not immediately available)			✓	
Set Org-Wide Defaults to Private for Guest Users (not immediately available)			✓	
Manage Community and Guest Users' Visibility			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
View All Users and Other Permissions Disabled in Guest User Profiles (Security Alert)		✓		
Automatically Assign Records Created by Guest Users to a Default Owner (Security Alert)			✓	
Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert)			✓	
Use Sharing Rules to Grant Record Access to Guest Users (not immediately available)			✓	
Sharing and Security				
Community and Portal User Visibility Are Disabled by Default in New Orgs		✓		
Block Certain Fields in the User Record for Orgs with Communities and Portals (Security Alert and Critical Update, Enforced)			✓	
Require TLS 1.2 for HTTPS Connections in Communities and Sites (Critical Update, Enforced)			✓	
Prevent Using Standard External Profiles for Self-Registration and User Creation (Security Alert and Critical Update, Enforced)			✓	
Set Up Email Address Confirmations for Lightning Communities			✓	
Customize How External Users Register Their Identity Verification Methods		✓		
Tighten up Your Community User Permissions		✓		
Set External Access Levels for More Standard Objects (Generally Available)		✓		
Community Nicknames (Security Alert)	✓			
Other Changes in Communities				
Name Change for Workspaces and My Communities in Builder		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Use Attributes in Lightning Web Components with Confidence		✓		
Improve Community User Privacy by Using Nicknames in Private Messages		✓		
Manage Delivery Settings for Chatter			✓	
Set Visibility of Feed Items in a Case Feed	✓			

Chatter

Experience clearer character limits on questions. Set case feed item visibility to public or private. Opt to view more record feed information or skip it in the new Salesforce mobile app.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Get Clearer Character Limits on Questions	✓			
Set Visibility of Feed Items in a Case Feed	✓			
See More Record Details When You Want (and Not When You Don't)	✓			
Manage Delivery Settings for Chatter			✓	

Files

We enhanced the way files on records are handled. Files can inherit the sharing settings of the records that they're associated with. You can remove a file from a record without deleting it from Salesforce. Orgs with communities can let customers see files on records.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Set File Sharing to Inherit Record Settings			✓	
Remove a File from a Record Without Deleting It Everywhere	✓			
Make Files on Records Visible to Customers in Communities	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Improve Org Security With Correct File Extensions and MIME Types	✓			

Sustainability

Gain critical insights about your carbon footprint. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. And because it's built on top of the Salesforce Lightning Platform, you have access to tools that facilitate collaboration, project management, and reporting.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Report and Reduce Your Carbon Footprint			✓	

Industries

Our stable of industry-specific Salesforce solutions now includes Manufacturing Cloud, which helps you track production and sales processes, and Consumer Goods Cloud, which helps you get out in front of inventory management in your stores. Meanwhile, Financial Services Cloud adds new ways to care for your mortgage customers, while Health Cloud gives you better connections with care providers and patients.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Manufacturing Cloud: Business Made Simpler with Sales Agreements and Account Forecasting (Generally Available)				
Sales Agreements: Your One-Stop Shop for Business Negotiations				
Integrate Your Sales Experience with Sales Agreements			✓	
Use Your Own Metrics to Track Varied Requirements			✓	
Choose Metrics for Agreement Terms			✓	
Automate Actual Quantity Updates Through Orders and Contracts			✓	
Recalculate Actuals for Sales Agreements with a Single Click			✓	
Manage a Single Active Version of a Sales Agreement Through Multiple Revisions			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Plan Ahead and Renew Your Sales Agreements			✓	
Improve Partner Collaboration with the Manufacturing Partner Community Template			✓	
Get Timely and Personalized Notifications with Suggested Actions			✓	
Account Forecasting: Get Ahead of the Curve with Accurate and Holistic Forecasts				
Generate and Display Rolling Forecasts Automatically			✓	
Plan for Manual Adjustments to Forecasts in Alignment with Your Company's Planning Period			✓	
Use the Formula Builder to Create Multiple Formulas for Forecasts			✓	
Choose Metrics for Account Forecasts			✓	
Provide Growth Metrics For Each Account to Get Personalized Forecasts			✓	
Track Manual Adjustments to Forecast Values by Multiple Users			✓	
Recalculate Forecasts During the Adjustment Period with a Single Click			✓	
Get Timely and Personalized Notifications with Suggested Actions			✓	
Grow Your Business and Simplify Sales Operations with Einstein Analytics for Manufacturing			✓	
Manufacturing Cloud Has New Objects		✓		
Consumer Goods Cloud: Create Closer Connections Across the Consumer Goods Value Chain (Generally Available)				
Streamline Your Business Processes by Grouping Similar Stores, In-Store Locations, and Products			✓	
Plan Effective Store Visits			✓	
Improve Your Sales with Inventory Audits			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Maximize In-Store Sales with Mobile Order Capture			✓	
Evaluate the Effectiveness of Promotion Campaigns			✓	
Capture Unique Business Data with Custom Tasks			✓	
Gather Insights of Your Business with Surveys			✓	
Increase Audit Accuracy and Productivity with Einstein Object Detection			✓	
Manage Sales Territories and Optimize Routes with SFMap			✓	
Retail Execution Has New Objects		✓		
Detect Objects in Images using REST APIs			✓	
Financial Services Cloud				
Mortgage for Financial Services Cloud: Data Model Enhancements, Standard Flows, and Screen Components (Generally Available)				
Capture Borrower Information with Financial Services Cloud Data Model Enhancements		✓		
Create Guided Mortgage Application Flows with Mortgage Flow Templates			✓	
Extend Your Flows with Flow Screen Components		✓		
MuleSoft: Blend and Roostify Connectors		✓		
Document Tracking and Approvals (Generally Available)			✓	
Insurance for Financial Services Cloud: Business Policy Management, Portal for Independent Agents, Enhanced Components, and More				
Protect Your Policyholders' Sensitive Information			✓	
Automate Repetitive Tasks for Insurance Agents with Action Plans			✓	
Alert Agents About Policies and Claims			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Give Independent Agents a Productivity Boost with a Feature-Rich Portal			✓	
Plan and Prioritize Better with Insurance Agent Action Items			✓	
Give Agents and Managers a Complete Customer Intelligence Solution With Einstein Analytics for Insurance			✓	
Person Life Event Component: Business Milestones, Contextual Actions, Filters, and More			✓	
Organize Policies by Type			✓	
Lightning Scheduler: Optimize Customer Appointment Scheduling			✓	
Deepen Customer Relationships with Expanded Account Relationship Structures			✓	
Focus on the Financial Services Data that Matters Most With Analytics for Wealth Management			✓	
Fine-Tune Customer Insights with New Release of Analytics for Retail Banking			✓	
Financial Services Cloud Has New Objects		✓		
New and Changed Financial Services Cloud Object Fields		✓		
Health Cloud				
Enroll Patients in Programs and Capture Their Consent				✓
Keep Close Track of Provider Relationships				✓
Quickly Connect Patients With the Right Health Care Provider				✓
Use Lightning Scheduler to Book Care Provider Visits				✓

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Simplify Medical Device Sales with Sales Agreements and Account Forecasting (Generally Available)				✓
Life Events: Deepen and Improve Patient Relationships				
Get Insights into a Patient's Life Events			✓	
Hide Sensitive Life Event Types			✓	
Filter Life Events			✓	
Improve Health Outcomes and Increase Patient Engagement with Einstein Analytics				✓
Turn Metrics from Your Medical Device Business Into Actionable Insights with Manufacturing Analytics				✓
Security Upgrade for Utilization Management				✓
Edit Field Level Security for Health Cloud Objects			✓	
Health Cloud Has New and Changed Objects		✓		

Customization

Use filters for predictions and comparisons in Einstein Prediction Builder. Configure pages for the new Salesforce Mobile App with Lightning App Builder. Build better processes and flows with more building blocks.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
		Einstein Prediction Builder		
Filter by Comparison in Einstein Prediction Builder			✓	
		Lightning App Builder		
Customize Lightning Record Pages for the Phone Form Factor		✓		
Add List and Related List Components to the New Salesforce Mobile App	✓			

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Select a Lightning Page Template Based on Form Factor		✓		
View Supported Form Factors in the Component Palette		✓		
View App Default Form Factor Assignments from the Pages Menu		✓		
Set Record Page Component Visibility Rules Based on Device		✓		
Add Tabs and Accordion Components to Your Home Pages		✓		
See Survey Results Faster with the Customer Experience Score Component (Pilot)			✓	
Add Topics to Surveys			✓	
Set Component Visibility Rules by Form Factor More Easily with Updated Labels		✓		
Placeholder Components Have Improved Design and Messaging		✓		
Pinned Region Page Template Labels Have Changed		✓		
Tour Lightning App Builder Record Pages More Easily		✓		
Approvals				
Increased Limits for Approval Processes		✓		
Manage Delivery Settings for Approval Requests			✓	
Next Best Action				
Call Autolaunched Flows from Your Next Best Action Recommendations		✓		
Create Strategy Templates and Protect Strategies as Your Intellectual Property		✓		
Undo and Redo Your Work When Creating Strategies		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Create Expressions for Branches More Easily in Next Best Action Strategy Builder		✓		
Title Your Recommendations for Easy Identification		✓		
Display Recommendations on Your App's Home Page		✓		
Lightning Flow				
Flow Builder				
Add Powerful and Performant Lightning Web Components to Your Flow Screens		✓		
Start a Flow on a Schedule		✓		
Configure Screens and Get Records Elements Without Creating Variables		✓		
Help Your Users Search for Records in Flows		✓		
Make Your Flow Screens Dynamic with Conditional Visibility		✓		
Use Apex-Defined Data Type Collection Variables with Operators in Assignment and Decision Elements		✓		
Use Flow Builder to Send Custom Notifications			✓	
Create Resources More Easily in Flow Builder		✓		
Use Rich Text in Text Templates		✓		
Get Longer Element Labels, Improved Panning, and Drag Selection in Flow Builder		✓		
Activate Your Flow Without Leaving Flow Builder		✓		
Find the Flow Type in Advanced Settings		✓		
Goodbye, Desktop Flow Designer		✓		
Lightning Flow Management				
Manage Your Flows with the Enhanced Flows List View		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Alert the Right People When a Flow Error Event Occurs		✓		
Control Users' Ability to Run Individual Flows Using Profiles and Permission Sets		✓		
Enable Partial Save for Invocable Actions (Critical Update)		✓		
Control Access to Flow Activity Charts in Automation Home (Beta)	✓			
Set Your Own Flow Test Coverage Requirements		✓		
Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas (Critical Update, Postponed)			✓	
Require User Access to Apex Classes Invoked by Flow (Critical Update, Postponed)		✓		
Process Builder				
Automate Account Team Creation with Process Builder		✓		
Automate Sending Survey Invitations by Email		✓		
Add Merge Fields from Platform Events in Process Builder		✓		
Know Whether a Process Publishes Event Messages Even When Transactions Fail		✓		
Evaluate Criteria Based on Original Record Values in Process Builder (Critical Update, Postponed)		✓		
		Data Protection and Privacy		
Record a Compliance Categorization Related to a Field's Data		✓		
Create Reports for Your Data Classification Metadata		✓		
Receive Notifications for Consent Record Changes		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Permission Set Groups: Group Permission Sets Based on User Roles for Easier Assignment (Beta)			✓	
Objects and Fields				
Install Even More Custom Objects in Your Org		✓		
Check a Field's References and Find Reports Using It (Generally Available)		✓		
Sharing				
Secure Guest Users' Sharing Settings			✓	
Safeguard Your Data by Setting External Access Levels for More Standard Objects (Generally Available)		✓		
Set an External Access Level for Leads (Beta)				✓
Keep Sharing Records When Migrating to Enterprise Territory Management				✓
Globalization				
Enable ICU Locale Formats (Critical Update)			✓	
Write Longer Translations for Individual Components	✓			
Read Right to Left in Reports and Dashboards (Beta)	✓			
Telangana Added to State Picklist for India	✓			
AppExchange				
Gain Insight into Your Company's Installed AppExchange Packages		✓		
Strong Customer Authentication Is Supported for AppExchange Checkout		✓		
General Setup				
Set a Lightning App to Support Desktop, Phone, or Both		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Enhanced External Services: Get Better Connections for a Better Tomorrow (Beta)				✓
Monitor Your Custom Object and Settings Count in System Overview		✓		
Show or Hide Lightning-Only Tabs		✓		
Layout Changes for Records Are Delayed After Save		✓		
Get Accurate Daylight Savings Time Values with DATEVALUE()			✓	
Troubleshoot OData Connections with OData Tracer (available within 24 hours after the release)				
Allow Access to Customized Actions Perm Is No Longer Required		✓		
Custom Settings: More Protection and Finer Access Control				
Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Postponed)		✓		
Grant Access to Custom Settings After Restricting Org-Wide Access (Critical Update)		✓		
Control Who Gets Read Access to Custom Settings		✓		

Security and Identity

Upgrade to Identity Connect 3.0 for faster syncs with Microsoft Active Directory and easier user management. Create your own identity verification page to register a user's verification methods. Use Salesforce Edge to service Salesforce and Community domains, gaining better connectivity and performance. Manage connected apps with the Setup Audit Trail and custom labels, and view more HTTPS details on the Domains Setup page. Real-Time Event Monitoring and Enhanced Transaction Security are generally available.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Authentication and Identity				
Customize Identity Verification Methods			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Require Verification for Email Address Changes			✓	
Custom Labels for Custom Scopes		✓		
Track Connected App Setup Changes		✓		
Identity Connect Enhancements				✓
Build a Connected App	✓			
Exclude Consumer Secrets from API Responses			✓	
Track Identity Verification Events		✓		
Improved Security for Authorization Errors	✓			
Change to SamlSsoConfig MDAPI Type			✓	
Salesforce Shield				
Platform Encryption: Insurance Fields, Settings via Metadata API, and Skinny Tables for Deterministic Encryption (Generally Available)				
Encrypt Your Customers' Insurance Information			✓	
Sync Data in More Fields with Self-Service Background Encryption			✓	
Turn On Platform Encryption Settings Programmatically Through Metadata API			✓	
Enhance Filtering on Encrypted Data with Skinny Tables (Generally Available)			✓	
Enable Encryption for Chat Transcripts on Your Own		✓		
Event Monitoring: General Availability of Real-Time Event Monitoring and Enhanced Transaction Security, Legacy Transaction Security Retiring				
Real-Time Event Monitoring Generally Available			✓	
Enhanced Transaction Security Generally Available			✓	
AdminSetupEventStream and AdminSetupEvent Still Beta				✓

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Migrate Legacy Transacation Security Policies (Critical Update)			✓	
New TxnSecurity.AsyncCondition Apex Interface			✓	
Condition Builder Changes			✓	
Packages Support All Policies			✓	
Policies Don't Fail for Inactive Users		✓		
LoginEvent Captures Invalid Login Attempts			✓	
New Apex REST Api EventLogFile Event Type		✓		
Better Apex Execution Event Data		✓		
New Platform Events Org Preferences Type		✓		
Other Changes				
Route My Domains Through Salesforce Edge (Critical Update)			✓	
Speed Up Custom Domain Requests Through Salesforce Edge	✓			
Get More Details About Your Domains	✓			
Manage Access to Permission Sets, Profiles, and Password Resets with Session-Security-Level Policies		✓		
Require TLS 1.2 for HTTPS Connections (Critical Update, Enforced)			✓	
Stabilize the Hostname for My Domain URLs in Sandboxes (Previously Released Critical Update)			✓	
Secure Your Guest User Profiles			✓	

Development

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Lightning Components				
Lightning Web Components: Open Source		✓		
Add Lightning Web Components as Custom Tabs		✓		
DOM API Changes		✓		
New Package Name for Testing with Jest		✓		
Increase Productivity with Local Development for Lightning Web Components (Beta)		✓		
Communicate Across Salesforce UI Technologies with Lightning Message Service (Developer Preview)		✓		
Hitting Apex Limits in Server-Side Actions Is More Predictable		✓		
Lightning Components Can Access Public Apex Methods Only in the Same Package		✓		
Aura Components in the ui Namespace Are Being Retired			✓	
Override Aura CSS Flipping for RTL Languages		✓		
Select the API Version for Lightning Locker		✓		
Navigate Users Directly to an App		✓		
Critical Updates: Default @AuraEnabled Apex Classes to with sharing, Profile-Based Access for @AuraEnabled Apex Classes, and More				
Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update)			✓	
Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Critical Update)			✓	
Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Critical Update)			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Retired)			✓	
Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update)			✓	
Prevent Creation of Function Expressions in Dynamically Created Aura Components (Previously Released Critical Update)			✓	
Disable Access to Non-global Apex Controller Methods in Managed Packages (Critical Update, Postponed)			✓	
API Only Users Can Access Only Salesforce APIs (Critical Update, Postponed)			✓	
Einstein Platform Services				
Einstein Vision: New language and algorithm Fields				
API Response JSON Contains a New language Field		✓		
Object Detection API Response JSON Contains a New algorithm Field		✓		
Object Detection Maximum Image Size Increased to 5 MB		✓		
Einstein Language: New language and algorithm Fields				
API Response JSON Contains a New language Field		✓		
Intent API Response JSON Contains a New algorithm Field		✓		
Text Datasets Can Contain Up to 3 Million Words		✓		
Einstein Platform				
Build Better Predictions with Insights		✓		
Visualforce				
Communicate Across Salesforce UI Technologies with Lightning Message Channel (Developer Preview)		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
"Show Label" Checkbox Now Available in Lightning App Builder		✓		
Review Old Sites and Communities Sandbox Bookmarks			✓	
Remove Instance Names from URLs for Visualforce, Community Builder, Site.com Studio, and Content Files (Previously Released Critical Update)			✓	
Apex				
Enforce Field-Level Security in Apex (Beta)		✓		
Callouts Are Excluded from Long-Running Request Limit		✓		
Expand Apex Testing with the ApexSettings Metadata Type		✓		
Enable Improved Caching of Org Schema (Critical Update, Postponed)		✓		
API				
Untangle Your Dependencies with MetadataComponentDependency Queries (Beta)		✓		
Query in Bulk API 2.0		✓		
Eliminate the Guesswork for How Many Retrieve Jobs Is Too Many				
Custom Metadata Types				
Control Who Gets Read Access to Custom Metadata Types		✓		
Protect Your Custom Metadata Types in Second-Generation Packages		✓		
Require Customize Application Permission for Direct Read Access to Custom Metadata Types (Critical Update)		✓		
Packaging				

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Develop Apps with Ease Using Second-Generation Managed Packages (Generally Available)			✓	
Compute Code Coverage for Unlocked Packages			✓	
Scratch Orgs: New Features				
Create Scratch Orgs with More Features		✓		
Make the Move to Scratch Org Settings		✓		
Sandboxes				
Secure Your Sandbox Data with Salesforce Data Mask		✓		
AppExchange Partners				
See the Health of Your AppExchange Listing with Marketplace Analytics		✓		
Analyze Managed Package API Event Usage				✓
Test Your Package Versions with ISV Hammer (Beta)				
Run ISV Hammer on Package Versions and Subscriber Orgs				✓
Execute Apex Tests Written by a Subscriber to Test Your Package Functionality		✓		
Opt Out of ISV Hammer Tests				✓
Share Due Diligence and Compliance Information More Easily		✓		
Change Data Capture				
Migrate Change Data Capture Channels and Members with Metadata API and Tooling API		✓		
Enrich Change Event Messages with Fields That Are Always Included (Pilot)				✓
Determine Which Fields Changed with the New changedFields Header Field		✓		
Receive Change Event Notifications for More Objects		✓		

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Platform Events				
Receive Relevant Event Messages Using Event Filters with a CometD Subscription (Pilot)				✓
Monitor Platform Event Publishing Usage in REST API		✓		
Configure Streaming API Settings with Metadata API		✓		
Disabled /event/AsyncOperationEvent Channel (Beta)		✓		

Quip

Read your Quip documents on the go. Open Einstein Analytics dashboards in Quip. Embed Salesforce data in Quip, such as Salesforce List Views and Salesforce Reports. Use new Quip actions in Process Builder and Flow Builder to automate your business and save your team time.

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Connect Quip to Salesforce Faster			✓	
Add Quip Documents and Spreadsheets to Salesforce Records (Generally Available)			✓	
Stay Up-to-Date with Quip Documents on Mobile			✓	
Log Calls from Quip Documents	✓			
Update Your Salesforce List Views from Quip	✓			
Add Salesforce Reports to Quip Documents	✓			
Share Quip Documents Embedded on a Record Automatically with Synced Permissions (Granular Permissions)			✓	
See Linked Salesforce Records from a Quip Document			✓	

Feature	Enabled for users	Enabled for administrators/ developers	Requires administrator setup	Contact Salesforce to enable
Publish Einstein Analytics Dashboards and Lenses to Quip Slides	✓			
Update Quip Slides and Spreadsheets Automatically with Processes and Flows		✓		

Supported Browsers

We've made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

IN THIS SECTION:

Supported Browsers for Lightning Experience
See the supported browsers and limitations for Lightning Experience.

Ensure IE11 Lightning Experience Users Can't Access Salesforce Classic
If your org doesn't have extended support for Internet Explorer 11, Lightning Experience–only users working in IE11 can no longer access Salesforce Classic. Previously, after receiving a message regarding the lack of support for IE11, user could choose to go to Salesforce Classic. Now the error message suggests that the user switch to a Lightning Experience–supported browser, and the user can no longer proceed to Salesforce Classic.

Supported Browsers for Salesforce Classic
Salesforce Classic supports Microsoft® Internet Explorer® 11 and Apple® Safari® version 12.x on macOS. The most recent stable versions of Microsoft Edge, Mozilla® Firefox®, and Google Chrome™ are also supported.

Supported Browsers for Einstein Analytics
The supported browsers for Einstein Analytics are Microsoft® Edge, Microsoft Internet Explorer® 11, and the most recent stable versions of Mozilla® Firefox® and Google Chrome™. Analytics isn't supported on Apple® Safari®.

Supported Browsers for Lightning Experience

See the supported browsers and limitations for Lightning Experience.

Where: Lightning Experience is available in the Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Note:

- Salesforce doesn't support non-browser applications that embed WebView or similar controls to render content for Salesforce Classic, Lightning Experience, or Salesforce mobile web. Examples of approaches that embed this type of control include Salesforce Mobile SDK, Microsoft's WebBrowser Control, Electron's embedded Chromium browser, iOS's UIWebView and WKWebView, and Android's WebView.
- You can't access Lightning Experience in a mobile browser. Instead, we recommend using the Salesforce app when you're working on a mobile device. For a list of supported mobile browsers on Salesforce, see Requirements for the Salesforce App.
- As a beta feature, we're allowing admins to give iPad iOS 12.0 users access to the full desktop version of Lightning Experience on their devices. For more information, see Lightning Experience on iPad Browsers (Beta). Also, Apple plans to release a new

operating system for iPad called iPadOS in fall 2019. By default, accessing Salesforce via Safari on iPadOS will load the desktop browser user experience rather than the previous Salesforce mobile browser experience. For more information, see the knowledge article Salesforce on the New iPadOS Operating System.

Important: Support for Internet Explorer 11 to access Lightning Experience is retiring beginning in Summer '16.

- You can continue to use IE11 to access Lightning Experience until December 16, 2017.
- If you opt in to Extended Support for IE11, you can continue to use IE11 to access Lightning Experience until December 31, 2020.
- IE11 has significant performance issues in Lightning Experience.
- It is strongly recommended that you do not use Internet Explorer 11 with Community Builder.
- This change doesn't impact Salesforce Classic.

	Microsoft® Internet Explorer®	**Microsoft® Edge**	**Google Chrome™**	**Mozilla® Firefox®**	**Apple® Safari®**
Lightning Experience	IE 11 (EOL December 31, 2020)	Latest	Latest	Latest	12.x+
Lightning Communities	IE 11	Latest	Latest	Latest	12.x+
Special setup considerations?	No	No	No	No	No
Limitations?	Yes	Yes	No	Yes	Yes

Note: The term "latest" is defined by the browser vendors. Check with your browser vendor to determine the latest version available.

Ensure IE11 Lightning Experience Users Can't Access Salesforce Classic

If your org doesn't have extended support for Internet Explorer 11, Lightning Experience–only users working in IE11 can no longer access Salesforce Classic. Previously, after receiving a message regarding the lack of support for IE11, user could choose to go to Salesforce Classic. Now the error message suggests that the user switch to a Lightning Experience–supported browser, and the user can no longer proceed to Salesforce Classic.

Where: This change applies to Lightning Experience in all editions.

Who: This change applies if all the following criteria are met.

- Your org doesn't have extended support for IE11.
- A user has access only to Lightning Experience, either because the user or the org doesn't have access to Salesforce Classic.
- A user is working in the IE11 browser.

Why: Salesforce wants to ensure that users who only have access to Lightning Experience can't access Salesforce Classic pages.

If you plan on continuing to use IE11 with Lightning Experience at your company, Salesforce recommends opting in for extended support for IE11 until December 31, 2020.

Supported Browsers for Salesforce Classic

Salesforce Classic supports Microsoft® Internet Explorer® 11 and Apple® Safari® version 12.x on macOS. The most recent stable versions of Microsoft Edge, Mozilla® Firefox®, and Google Chrome™ are also supported.

Where: Salesforce Classic is available in all editions.

Note: Using Salesforce Classic in a mobile browser isn't supported. Instead, we recommend using the Salesforce app when you're working on a mobile device. To see the mobile browsers that are supported for Salesforce, check out Requirements for the Salesforce App.

	Microsoft Internet Explorer	**Microsoft Edge**	**Google Chrome**	**Mozilla Firefox**	**Apple Safari**
Salesforce Classic	IE 11	Latest	Latest	Latest	12.x+
Salesforce Console	IE 11	Latest	Latest	Latest	No
Special setup considerations?	Yes	No	No	Yes	No
Limitations?	Yes	Yes	No	No	Yes

Note: The term "latest" is defined by the browser vendors. Check with your browser vendor to determine the latest version available.

Supported Browsers for Einstein Analytics

The supported browsers for Einstein Analytics are Microsoft® Edge, Microsoft Internet Explorer® 11, and the most recent stable versions of Mozilla® Firefox® and Google Chrome™. Analytics isn't supported on Apple® Safari®.

Salesforce Overall: More Tools to Help You Transition to Lightning Experience and Supercharge Productivity

Lightning Experience is permanently enabled when it's turned on, and we help guide your transition to the new interface with more tools and in-app prompts. Plus, we provide more ways to engage and guide your users in Lightning Experience with in-app guidance. Get more control of what your users see in Help Menus. Access the Recycle Bin in Lightning Experience. Organize records and list views by topic with new themes and topic filters. Fine-tune mass actions on lists with search terms and quick filters. Save ink with condensed printable lists. Say hello to Einstein Search, a smarter and more personalized way to get work done in Salesforce. Get more insight and more ways to manage surveys with Salesforce Surveys. Optimize scheduling with more tools to manage resources and concurrent appointments in Lightning Scheduler. Keep your data safe with an improved security update hub. Streamline how you process documents with more tracking and management tools. Maintain your workflow with dialogs that display only on the tab where it opened, and customize utility icon colors in Lightning Console Apps. Set and override the default font for emails.

Lightning Scheduler: Multi-Resource and Concurrent Scheduling

Create a group of professionals for customer appointments with multi-resource scheduling, and optimize scheduling efficiency with concurrent scheduling.

Give Feedback to Salesforce with a Revised Form

Feedback helps Salesforce improve the user experience for you and everyone, so we made some changes to make it easier to let us know what you think or to get help. If you need help, we offer links to the Trailblazer Community and Salesforce support. When you give feedback, you can pick from a list of subjects to help zero-in on the area. And skip typing out lengthy issue descriptions by attaching a screenshot.

Keep Up with Security Updates in the New Hub

Keeping your data safe is our most important job. So we made security alerts more visible and intuitive, with a new user interface, and more detailed explanations and recommendations.

Manage Security Contacts for Your Org

Keeping key members of your org in the know about security incidents is important to us. You can now designate your org's security contacts in Salesforce Help so that if an information security incident impacts your org, your contacts are notified.

Lightning Console Apps: Focused Dialogs and Customizable Utility Icon Colors

Dialogs no longer block the entire screen. Use a new API to change the color of your utility icons.

Look to Files, Not Your Inbox for Optimizer Reports

Starting at the end of September 2019, the Optimizer PDF report is no longer attached to the email announcing that the report was successfully created. Go to Salesforce Files to find a copy of the report instead.

Access Salesforce from Safari on iPad Devices (Beta)

The new iPadOS operating system opens the full desktop version of Lightning Experience or Salesforce Classic, depending on your org configuration, in Safari. Previously you had to turn on access to give your users the ability to run the full desktop version of Lightning Experience on their iPad devices. If you upgrade to iPadOS, you can skip this setup step.

Optimizer Setup Gets a Makeover

The Optimizer page in Setup has a refreshed look, but it still delivers the same recommendations about simplifying customizations and driving feature adoption. Instead of creating your personalized PDF report using the Run Report button, start by clicking Create PDF.

Entity Element Type of the TopicAssignment Object Was Changed

We changed the entity element type of the TopicAssignment object to correctly reference object types, such as account or opportunity. Previously, the entity element type referenced only the contract object type. This change ensures that you can use the TopicAssignment object to properly query the names and IDs of records of various object types that have topics.

Set a Default Email Font

Everywhere the email composer is used, the default font in your sales reps' email composer reflects the one they have set for themselves in their browser. Similarly, email recipients see the email in the default font set for their browser. To override the default browser font for the sender and the recipient, reps can use the email composer toolbar and explicitly choose a font for the content they send.

Try New Lightning Features with the Lightning Extension for Chrome (Generally Available)

Are you an early adopter of the latest and greatest technology … or do you want to become one? With the Lightning Extension, now generally available, you can gain access to the latest Lightning features and try them before everyone else.

Lightning Experience Transition: Critical Update, Prompts, and Tools

In January 2020, we're turning on Lightning Experience for all orgs, and we're removing the option to disable it. We've updated Lightning Experience transition tools that help you prepare your org and users for the new interface, and provided access to transition tools for Government Cloud orgs.

IN THIS SECTION:

Turn On Lightning Experience Critical Update Now Activates Starting January 7, 2020

Salesforce is turning on Lightning Experience for all orgs that don't already have it enabled. Previously, we announced that this critical update would activate with Winter '20. However, the auto-activation date has changed to January 7, 2020 and all orgs will have the update within 72 hours. After Lightning Experience is turned on, users will still have access to Salesforce Classic. But Lightning Experience is where you want to be for driving business growth and improving productivity. To get ready, verify your org's existing features and customizations in the new interface, and prepare your users with change management best practices.

Where: This critical update applies to Group, Developer, Professional, Enterprise, Performance, and Unlimited editions for all orgs that don't yet have Lightning Experience turned on.

Note: Rather watch a video that has the 411 on this critical update? Here you go: Understand How the Lightning Experience Critical Update Affects My Users.

When: This update has been available since Spring '19. We'll auto-activate the update starting on January 7, 2020. The critical update will be activated for all orgs within 72 hours.

Who: Admins with the Modify All Data and Customize Application permissions see the critical update in Setup.

This update applies to users who have the Lightning Experience User permission, including all users with standard profiles and users with custom profiles or permission sets that have the Lightning Experience User permission enabled. Custom profiles created before Winter '16 don't include the Lightning Experience User permission by default. Starting with Winter '16, custom profiles that were cloned from a standard profile include the user permission, but admins can edit the profile to disable it.

After Lightning Experience is turned on, users who have the Lightning Experience User permission see the **Switch to Lightning Experience** link in the Salesforce Classic header. Once a week, Lightning Experience–enabled users who are working in Salesforce Classic are automatically logged in to Lightning Experience. These users can switch back to Salesforce Classic as needed.

Why: Lightning Experience is the future of Salesforce. It's where all new Salesforce innovation happens, with reimagined classic functionality and "only in Lightning Experience" features. Moving to Lightning Experience benefits everyone, from business leaders and users to admins and IT teams. The new user interface improves user efficiency and productivity. And you get the power of the Lightning Platform, making it easy and flexible to align the UI with your processes, keep up with changes in your business, and improve your company's bottom line.

Why was the critical update activation date changed? As part of our release process, we conduct rigorous testing and build in multiple checkpoints to ensure quality. We've discovered a potential technical issue unrelated to Lightning Experience that could impact your general experience with the Winter '20 release. To prioritize customer success, we're applying an abundance of caution and delaying some post-release activities, including the Lightning Experience critical update.

How: You can self-enable Lightning Experience before January and we encourage you to do so to take advantage of everything the new interface has to offer. If you've been preparing your org and users for the critical update, be confident that the update's delay isn't related to Lightning Experience and you're safe to enable it now.

We recommend that you test this update in a sandbox or Developer Edition org before activating the update in production. To activate the update, go to Critical Updates in Setup, and select **Activate** next to Turn on Lightning Experience.

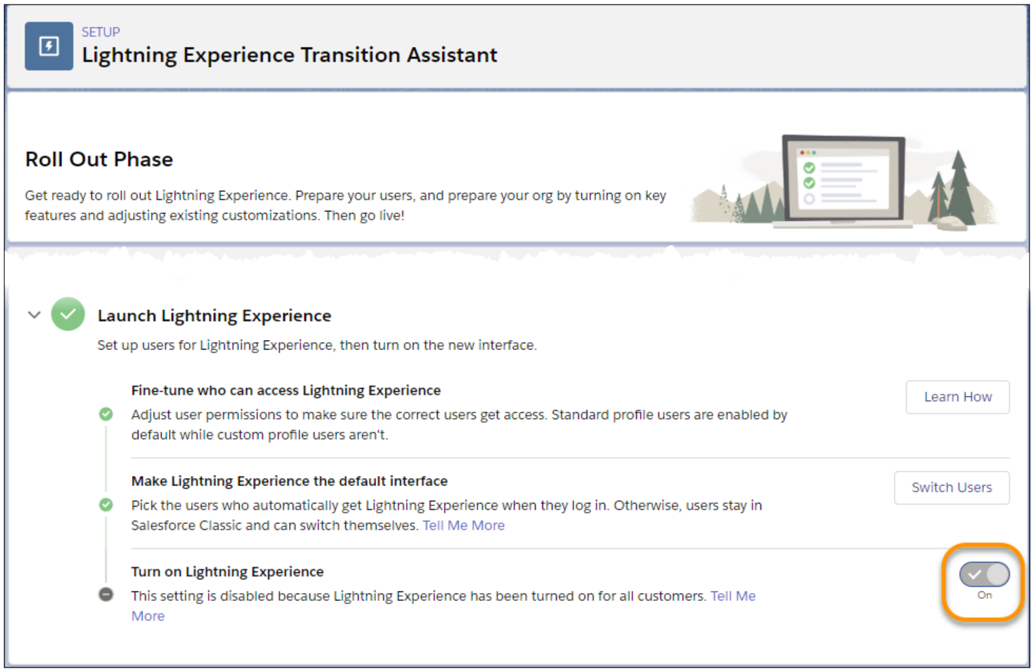
We provide several tools that automate and speed up the transition process, including the Lightning Experience Transition Assistant. For more help, get answers to frequently asked questions or visit the Lightning Now Trailblazer Community.

Lightning Experience Graduates to a Permanent Fixture in Salesforce

Starting with Winter '20, Lightning Experience is permanently enabled when it's turned on, either by an admin at your company or via the Lightning Experience Critical Update. After Lightning Experience is turned on, you can't disable it. All users still have access to Salesforce Classic and can switch between the two interfaces as needed.

Where: This change applies to Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: After Lightning Experience is enabled in your org, the Turn on Lightning Experience toggle in the Lightning Experience Transition Assistant is grayed out.



And the option to turn off Lightning Experience using the `S1DesktopEnabled` org preference setting with any version of Metadata API is also disabled.

SEE ALSO:

Turn On Lightning Experience Critical Update Now Activates Starting January 7, 2020

Salesforce Help: Turn on Lightning Experience for Your Org (can be outdated or unavailable during release preview)

Default User Experience After Lightning Experience Is Turned On

After Lightning Experience is turned on, a user's default interface is determined by when they were added to your org. Regardless of the default interface, Lightning Experience-enabled users can use the Switcher to move themselves between Lightning Experience and Salesforce Classic.

Where: This change applies to Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How:

- **When Lightning Experience is turned on**

  All users who exist at this time remain in Salesforce Classic when they're assigned the Lightning Experience User permission. This is true whether an existing user has the permission at the time that Lightning Experience is enabled or is assigned the permission later on. It doesn't matter if the user permission comes from a standard profile, a custom profile that has the permission enabled, or a permission set.

- **After Lightning Experience is turned on**

  Things change for users who are added to your org after Lightning Experience is enabled. These users get Lightning Experience as their default interface whenever they're assigned the Lightning Experience User permission—whether at the time they're first added or at a later date. Again, it doesn't matter if the user permission comes from a standard profile, a custom profile that has the permission enabled, or a permission set.

All Lightning Experience-enabled users automatically get the Switcher, which allows them to switch between Lightning Experience and Salesforce Classic, as needed.

SEE ALSO:

Salesforce Help: Set Up Users for Lightning Experience (can be outdated or unavailable during release preview)

Use the Readiness Check to Guide Your Lightning Experience Transition

Run the Lightning Experience Readiness Check to get the latest Lightning Experience news on features that we evaluate. The Readiness Check is updated for Winter '20 to keep in tune with feature changes and better address your feedback. Starting in October, 2019, the Readiness Check report is stored in your Salesforce files instead of being attached to an email.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: We listened to your feedback about the Lightning Experience Readiness Check. The report is streamlined to coordinate better with the Lightning Experience Configuration Converter so you can get the most accurate information about your Salesforce org's readiness.

How: Run the Readiness Check from Setup. In the Lightning Experience Transition Assistant tile, click **Get Started**. On the Discover Phase tile, click **Go to steps**. Expand the Evaluate Lightning Experience Benefits and Readiness stage, then click **Check Readiness**.

To view the Readiness Check report, click the link in the email you receive when the check is completed. Or, log in to Salesforce and check your Salesforce files.

Lightning Experience Configuration Converter: Home Tab, Visualforce Pages, Hard-Coded URLs, AppExchange Packages, and More

Streamline and automate common transition tasks using the Lightning Experience Configuration Converter. Visit the Home tab for a quick overview of each tab's status. We made the Actions and Buttons tab generally available. You can also convert JavaScript alerts. And the tool now helps with AppExchange packages and hard-coded URLs.

IN THIS SECTION:

Keep Your URLs Alive in Lightning Experience (Beta)

Hard-coded references to your org's original URL might not work when you enable My Domain. Use the Hard-Coded URLs tab in the Lightning Experience Configuration Converter to root out all your hard-coded URLs, and then update them with a single click. The Hard-Coded URLs tab replaces and enhances the Hard-Coded URLs section of the Lightning Experience Readiness Check.

Make Sure Your AppExchange Packages are Ready for Lightning Experience (Beta)

Visit the AppExchange Packages tab in the Lightning Experience Configuration Converter to scan your installed package metadata and prepare your AppExchange packages for Lightning Experience. Find out which packages are ready for Lightning Experience. Get recommendations on updating, replacing, or verifying the rest. The AppExchange Packages tab replaces and enhances the AppExchange section in the Lightning Experience Readiness Check.

Actions and Buttons Tab (Generally Available)

The Actions and Buttons tab in the Lightning Experience Configuration Converter, which was released as a beta feature in Winter '19, is now generally available. Scan your org for standard, custom, and global actions and buttons, and easily move them from Salesforce Classic actions and buttons to Lightning Experience actions. Move all actions and buttons at once, or let the tool guide you through the move process for each object.

Convert JavaScript Alerts to Lightning Components

Speed your org's transition to Lightning Experience by converting your simple JavaScript alerts to Lightning Components using the Lightning Experience Configuration Converter. For complex alerts that the tool can't convert, such as alerts with multiple operations, the Configuration Converter recommends actions that you can take to manually convert them.

Get the Big Picture on Your Transition with the Lightning Experience Configuration Converter Home Tab (Beta)

Individual tiles summarize the status of each tab in the Lightning Experience Configuration Converter. Kick off scans of individual tabs, and find out what's left to do.

View Scan Results in the Configuration Converter, Not in Email

Emails sent to admins after scans of Visualforce pages and JavaScript actions and buttons are completed no longer include scan results as attached files.

Convert JavaScript Buttons on Contract and Task Objects

The JavaScript Buttons tab on the Lightning Experience Configuration Converter now includes support for Contract and Task objects. Convert JavaScript buttons on those objects when you transition from Salesforce Classic to Lightning Experience.

Keep Your URLs Alive in Lightning Experience (Beta)

Hard-coded references to your org's original URL might not work when you enable My Domain. Use the Hard-Coded URLs tab in the Lightning Experience Configuration Converter to root out all your hard-coded URLs, and then update them with a single click. The Hard-Coded URLs tab replaces and enhances the Hard-Coded URLs section of the Lightning Experience Readiness Check.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions that have enabled My Domain.

Note: As a beta feature, the Hard-Coded URLs tab in the Lightning Experience Configuration Converter is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Hard-Coded URLs tab in the Lightning Exp Configuration Converter Trailblazer Community.

Who: The Hard-Coded URLs feature requires the Customize Application and Modify All Data permissions.

How: The tool replaces static references to your original URL with new My Domain URLs. You can select individual URLs and replace them one at a time, or replace all hard-coded URLs at once.

The Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer org first, and then migrate your changes to your production org. To get started, visit https://lightning-configuration.salesforce.com/ and log in with your org credentials.

Make Sure Your AppExchange Packages are Ready for Lightning Experience (Beta)

Visit the AppExchange Packages tab in the Lightning Experience Configuration Converter to scan your installed package metadata and prepare your AppExchange packages for Lightning Experience. Find out which packages are ready for Lightning Experience. Get recommendations on updating, replacing, or verifying the rest. The AppExchange Packages tab replaces and enhances the AppExchange section in the Lightning Experience Readiness Check.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

Note: As a beta feature, the AppExchange Packages tab in the Lightning Experience Configuration Converter is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for the AppExchange Packages tab in the Lightning Exp Configuration Converter Trailblazer Community.

How: The Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer org first and then migrate your changes to your production org. To get started, visit https://lightning-configuration.salesforce.com/ and log in with your org credentials.

Actions and Buttons Tab (Generally Available)

The Actions and Buttons tab in the Lightning Experience Configuration Converter, which was released as a beta feature in Winter '19, is now generally available. Scan your org for standard, custom, and global actions and buttons, and easily move them from Salesforce Classic actions and buttons to Lightning Experience actions. Move all actions and buttons at once, or let the tool guide you through the move process for each object.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

Who: The Actions and Buttons feature requires the Customize Application and Modify All Data permissions.

How: The Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer org first, and then migrate your changes to your production org. To get started, visit https://lightning-configuration.salesforce.com/ and log in with your org credentials.

Convert JavaScript Alerts to Lightning Components

Speed your org's transition to Lightning Experience by converting your simple JavaScript alerts to Lightning Components using the Lightning Experience Configuration Converter. For complex alerts that the tool can't convert, such as alerts with multiple operations, the Configuration Converter recommends actions that you can take to manually convert them.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

Who: The JavaScript Buttons tab requires the Customize Application and Modify All Data permissions.

The Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer org first, and then migrate your changes to your production org. To get started, visit https://lightning-configuration.salesforce.com/ and log in with your org credentials.

Get the Big Picture on Your Transition with the Lightning Experience Configuration Converter Home Tab (Beta)

Individual tiles summarize the status of each tab in the Lightning Experience Configuration Converter. Kick off scans of individual tabs, and find out what's left to do.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

Note: As a beta feature, the Home tab in the Lightning Experience Configuration Converter is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Home tab in the Lightning Exp Configuration Converter Trailblazer Community.

Who: The Lightning Experience Configuration Converter feature requires the Customize Application and Modify All Data permissions.

Why: Revel in your progress as you reduce the number of necessary fixes and move each tab's status icon to green.

How:

The Lightning Experience Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer org first, and then migrate your changes to your production org. To get started, visit https://lightning-configuration.salesforce.com/ and log in with your org credentials.

View Scan Results in the Configuration Converter, Not in Email

Emails sent to admins after scans of Visualforce pages and JavaScript actions and buttons are completed no longer include scan results as attached files.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

Where: Files will no longer be attached to emails starting in October, 2019.

How: To view scan results, log in to the Lightning Experience Configuration Converter at https://lightning-configuration.salesforce.com/.

Convert JavaScript Buttons on Contract and Task Objects

The JavaScript Buttons tab on the Lightning Experience Configuration Converter now includes support for Contract and Task objects. Convert JavaScript buttons on those objects when you transition from Salesforce Classic to Lightning Experience.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Performance, Unlimited, and Developer editions.

Who: The JavaScript Buttons tab requires the Customize Application and Modify All Data permissions.

The Configuration Converter is a standalone tool that lives outside of Salesforce. We recommend that you run it in a sandbox or Developer org first, and then migrate your changes to your production org. To get started, visit https://lightning-configuration.salesforce.com/ and log in with your org credentials.

Access Lightning Experience Transition Tools in Government Cloud Orgs

Get your transition rolling by enabling access to Lightning Adoption Transition Tools housed on Heroku. When any admin in the org reads and acknowledges the terms of use for Heroku-based apps, all admins in the org get access to the Salesforce Optimizer, Lightning Experience Configuration Converter, Lightning Experience Readiness Check, and Change Management Hub.

Where: This feature is available to Government Cloud customers in Professional, Enterprise, Performance, and Unlimited editions.

Who: All admins with the Modify All Data and Customize Application user permissions.

Why: Heroku is a service offered by Salesforce on a separate infrastructure. Government Cloud orgs must understand where their data is processed before accessing the transition tools.

How: When any admin in the org accepts the terms of use, all admins in the org can access Heroku-based transition tools. From Setup, enter `External Application Settings` in the Quick Find box, and then select **External Application Settings**.

Lightning Experience Engagement: Prompts and Help Menu

In-App Guidance is generally available with enhancements to make authoring and testing prompts easier. Control which Salesforce resources appear in the Help Menu.

IN THIS SECTION:

Add In-App Guidance for Feature Discovery and Adoption (Generally Available)

Clone prompts. Test prompts. Now you even have an easy way to control all prompts created by Salesforce.

Where: This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Based on feedback from early adopters of prompts during the Summer '19 beta release, we made several enhancements that make prompt authoring and testing easier.

Prompts keep the publish status set by the package owner

For example, a prompt marked as active in the package is active after installing in your org. Previously, package prompts were inactive after installation, regardless of the publish setting set by the package owner.

Prompts update when apps and packages change

When you update the app name, the change is reflected in the list view. When you delete an app, its prompts are deleted. When you remove the package, the prompts installed from the package are deleted.

Full support for managing licenses

With prompts installed from managed packages, you can assign, reassign, remove, or add licenses.

Hiding prompts authored by Salesforce

You can turn off all Lightning Experience in-app guidance created by Salesforce to control what your users see. Salesforce offers helpful, productivity-boosting prompts, welcome mats, and other guidance, such as:

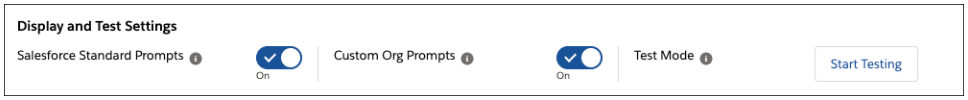
- Onboarding welcome mats for Essentials edition, Lightning Experience, Setup Assistant, and High Velocity Sales
- Feature discovery prompts and popovers about Lightning Dialer, display density, Recycle Bin, navigation bar personalization, Salesforce mobile app, Help Menu, various related list features, list view pinning, Calendar, Opportunity score, Einstein Search (Beta), and Kanban
- Feature adoption prompts explaining how Dashboards, Reports, Calendar, and Tasks are better in Lightning Experience

New location for turning off active prompts

Turning off all prompts installed or created in your org is now front and center. Previously, the toggle was located in the prompt list view.

Testing prompts

Test prompts logged in as a specific user to see the user experience firsthand. While testing prompts, schedule settings and timed delays between prompts are removed. We also don't log interaction metrics. Testing also works in sandbox without the extra step of turning on the Adoption Assistance in Sandbox Orgs setting on the Adoption Assistance setup page.



Cloning as a row-level action

Quickly make a series of prompts for different users from prompts you have already created or installed from packages. You can edit all settings in a cloned prompt, except the prompt type and page location.

Numbered and bulleted lists for docked prompts

The rich text editor includes two list styles.

Longer URLs

The character limit for URLs has increased from 255 characters to 1,000 characters.

Relative URLs

We removed the limitation of adding only fully qualified (or absolute) URLs to your custom action button. In previous releases, you added the full URL: `https://www.org.lightning.force.com/lightning/o/Account/home`. Now you can enter `/lightning/o/Account/home`.

How: From Setup in Lightning Experience, enter `In-App Guidance` in the Quick Find box, and then select **In-App Guidance**.

SEE ALSO:

Salesforce Help: Define Prompts in Lightning Experience (can be outdated or unavailable during release preview)

Control Which Help Menu Links Appear to Users

Depending on your users, org setup, or custom help settings, you might not want to show all Salesforce items to users when they open the Help Menu. Use the revised Help Menu Setup page to decide which Salesforce sections and links appear in the Lightning Experience Help Menu.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

When: The new section is grayed out for several days after the release to give Salesforce time to migrate existing Help Menu display settings. For example, if you previously turned off **Show Salesforce Help Content to Users**, the Getting Started section, the Help for This Page section, and the ability to search Salesforce documentation continue to be hidden from users. After the transition process has completed, the setup settings reflect your previous settings and are available to make more changes.

Why: Past releases had the single setting Show Salesforce Help Content to Users. Now you can control user visibility for each item in the Help Menu.

- Getting Started section
- Help for This Page section
- Search Documentation link
- View Keyboard Shortcuts link
- Go to Trailhead link
- Get Support link
- Give Feedback to Salesforce link

As an admin, you see all resources, including a link to the release notes.

How: From Setup in Lightning Experience, enter `Help Menu` in the Quick Find box, and select **Help Menu**. Under Salesforce Help Content, choose which items to display to users.

SEE ALSO:

Salesforce Help: Define Custom Help for the Lightning Experience Help Menu (can be outdated or unavailable during release preview)

Add Longer URLs to Your Custom Help Menu

Based on customer feedback, we increased the character limit for URLs from 255 characters to 1,000.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Define Custom Help for the Lightning Experience Help Menu (can be outdated or unavailable during release preview)

Customer 360 Data Manager: Deliver a Unified Customer Experience

Integrate data among multiple Service Cloud orgs and Commerce Cloud. To help you connect case history, order history, and customer data across your enterprise, Customer 360 Data Manager assigns a global profile to each unique customer. Having a global profile lets service agents, for example, view a customer's order history in Service Console without having to swivel to Commerce Cloud.

Where: For connecting to Service Cloud or Commerce Cloud, Customer 360 Data Manager requires either Enterprise, Performance, or Unlimited editions.

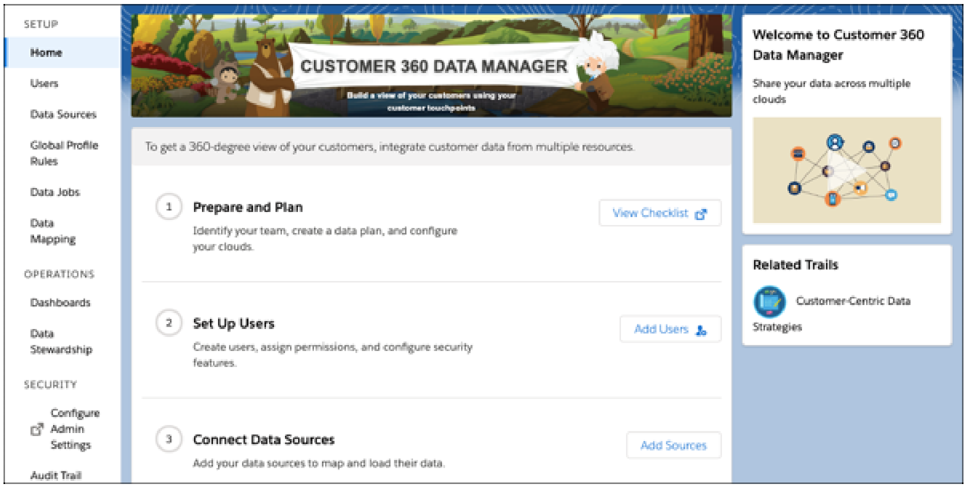
When: Generally available on November 19, 2019.

Who: Admins for any of these Salesforce products.

- B2C Commerce Cloud
- One or more Sales Cloud, Service Cloud, or Salesforce Platform orgs for Salesforce Enterprise, Performance, or Unlimited editions

Why: Connect Service Cloud and Commerce Cloud through an easy-to-use interface. Customer 360 Data Manager helps your company:

- Reduce implementation and maintenance time by eliminating costly point-to-point integration projects.
- Easily create and manage global profiles that uniquely identify each customer across multiple systems. Global profiles reference and access the best and most recent data in your enterprise.
- Get better insight into the quality of data within and across your connected systems using data validation dashboards.



How: To learn whether Customer 360 Data Manager is right for your company, contact your Salesforce account representative.

SEE ALSO:

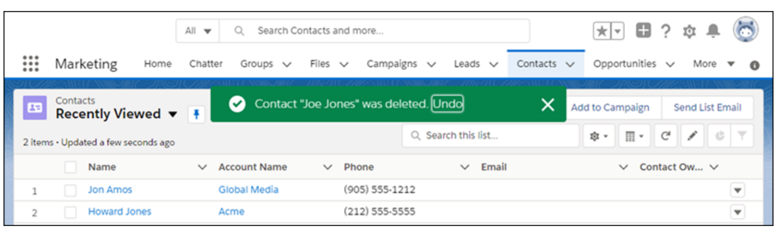
Salesforce Help: Customer 360 Data Manager Basics

New Undo Link on the Delete Record Toast

If you change your mind when deleting a record, you can undo the deletion without going to the Recycle Bin.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Delete a record. Click the Undo link in the toast message at the top of your browser window.



SEE ALSO:

Access the Recycle Bin in Lightning Experience

Access the Recycle Bin in Lightning Experience

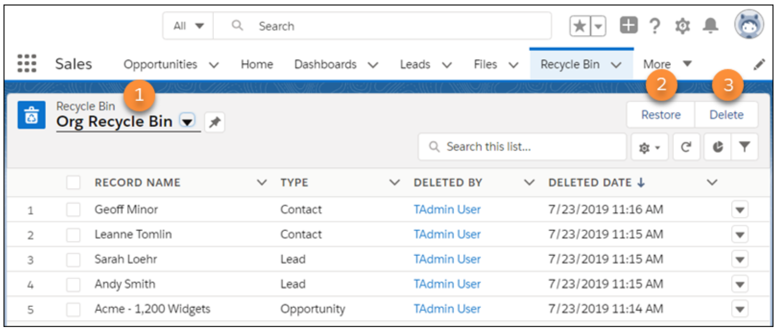
You no longer have to switch to Salesforce Classic to access the Recycle Bin. You can now view, restore, and permanently delete the items in your Recycle Bin and the org Recycle Bin.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Access the Recycle Bin by selecting it in the App Launcher under All Items or personalizing your navigation bar. Or add the Recycle Bin tab for your org in the Lightning App Builder.

The Recycle Bin in Lightning Experience works the same as it does in Salesforce Classic, except for a few differences. In Lightning Experience:

- The org's Recycle Bin is called Org Recycle Bin (1). The Salesforce Classic name is All Recycle Bin.
- Restore records by clicking **Restore** (2) instead of Undelete in Salesforce Classic.
- Permanently delete records by selecting them and clicking **Delete** (3) versus Undelete or Empty in Salesforce Classic.
- You can't view or restore reports and dashboards. Switch to Salesforce Classic to access them in the Recycle Bin.



SEE ALSO:

New Undo Link on the Delete Record Toast

Salesforce Help: Access the Recycle Bin in Lightning Experience (can be outdated or unavailable during release preview)

IdeaExchange: Lightning Experience - Recycle Bin

Make Your List Views Stay on Topic with Topic Filters

Keep your list views #organized by adding filters based on topics. You can add filters for up to two topics per list view.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Edit List View Filters in Lightning Experience (can be outdated or unavailable during release preview)

IdeaExchange: Lightning Topics - Filter List Views by Topics

IdeaExchange: To use Topics in view filters and to get Related to Topics in global search *(partially delivered)*

IdeaExchange: Topics: Ability to pull a list of records together in Lightning

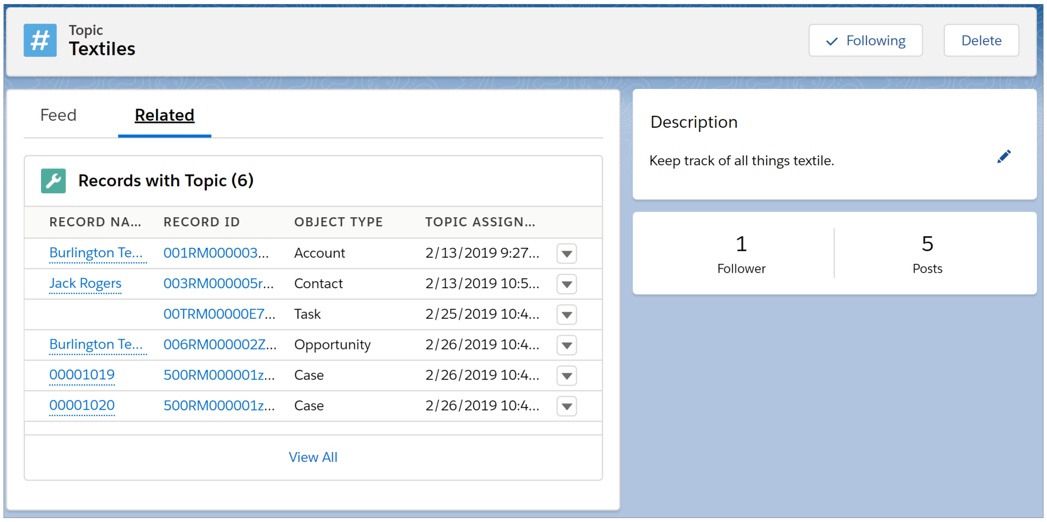
IdeaExchange: View all Files Related to a Topic in Chatter

View Records by Topic on the Topic Detail Page

Topics provide a way to organize records by theme. Now in Lightning Experience, you can see all records with the same topic in one convenient list. Click a topic from wherever you're working to get to its detail page, and view the records on the Related tab.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: For example, you can add the Textiles topic to various records to organize them. You can see up to six records, regardless of type, in a list on the Related tab of the Textiles topic page.



Click **View All** for a complete list that you can sort by record name, record ID, or topic assignment date. Use quick filters to narrow the complete list by record name or topic assignment date.

The Feed tab hasn't changed and continues to show you all the posts and comments with the topic.

SEE ALSO:

IdeaExchange: Topics: Ability To Pull a List of Records Together in Lightning

IdeaExchange: View all Files Related to a Topic in Chatter

IdeaExchange: View Subject Records for Topics in Lightning

IdeaExchange: Provide List Views for Topics To See Object Records

IdeaExchange: Topics for Object Added to Topic Pages

Get Precise with Mass Actions on Search Results and Quick Filters

Need to perform a mass action on only a subset of your list? You don't have to create a special one-off list just to narrow down your targets. Mass actions now work on your list view search results or the results from your related list quick filters. To perform a mass action on your results, apply your search terms or filters, and then select all or a subset of the results. Clear your search terms or quick filters to get back to working on the bigger list.

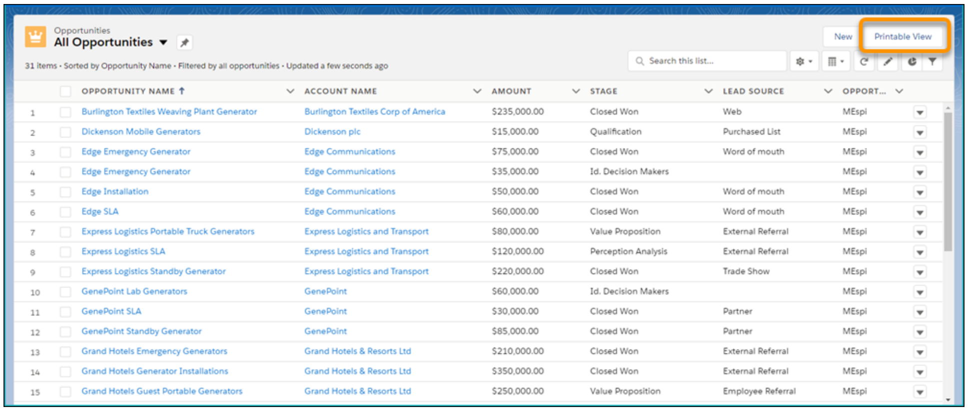
Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Save Ink and Paper with Printable View for Lists

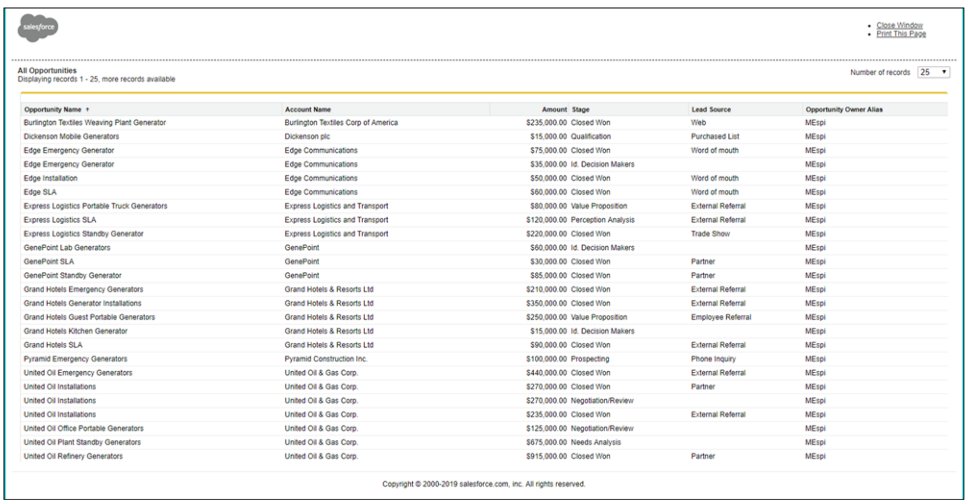
You don't have to print your entire screen just to make a hard copy of your list. Generate a condensed, minimalist, ink-saving view of your lists and related lists with Printable View.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Select **Printable View** from a list.



The columns and fields shown on the printable view reflect your page layout or related list preferences.



Printable View supports these objects:

- Accounts
- Activities
- Campaigns
- Cases
- Contacts
- Contracts
- Custom objects
- Documents
- Leads
- Opportunities
- Permission sets
- Price books
- Profiles

- Products
- Solutions

Printable View isn't available on the Recently Viewed lists or for related lists. Search results or related list quick filters aren't used when generating the printable view.

Navigate Directly to an App

Navigate directly to an app and construct app-specific links for bookmarking and sharing.

Where: This change applies to Lightning Experience in all editions. This change doesn't apply to Lightning Out, Lightning communities, or the Salesforce mobile app.

How: Now you can open an app in a new tab from the App Launcher and get an app's URL.

- To open an app in a new window, right-click the app from the App Launcher and open it.
- To construct an app-specific link for bookmarking or sharing, right-click the app from the App Launcher and copy its URL. Then, add the app context to the end of the URL. For example, to construct a link to an object record's page in the app using the `appDeveloperName`, use this URL pattern: `/lightning/app/standard__LightningSales/o/Case/home`.

SEE ALSO:

Salesforce Release Notes: Navigate Users to an App

Search: Introducing Einstein Search (Beta), a Smarter Way to Work in Salesforce

Einstein gives search a big boost in brain power. Now you can find and do things faster with search results that are more actionable and tailored to how you work in Salesforce. You can enable Einstein Search on or after October 25, 2019. Einstein Search is available in English only.

Note: As a beta feature, Einstein Search is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Einstein Search in the Trailblazer Community.

IN THIS SECTION:

Create Instant Reports with All the Right Filters with Conversational Search (Beta)

Can't find a report or don't have time to create one? Conversational search gives you instant access to important data by turning your search terms into record filters. Just enter search terms the way you start a conversation. For example, enter "my closed cases this month" to see a list of your recent cases with a closed status.

Find the Right Record Faster with Recommended Result (Beta)

Recommended Result gets you to the right record faster when we're confident we know what you're looking for. It's like putting purple stripes on your luggage at the airport carousel to make sure it stands out from the crowd.

Put the Pro in Profile with Profile-Specific Search Results Layouts (Beta)

Search results should show what matters most. If you're in sales, knowing the account owner and the industry is critical. If you're a service rep, the account's support level is key information. With profile-specific layouts, you can fine-tune search results layouts for an object for each unique profile in your org. Profile-specific layouts are supported only by objects with customizable layouts. Users who don't have a profile-specific layout assigned to them see the default search results layout.

Get Search Results for More Objects

More objects in Financial Services Cloud, Health Cloud, Sales Cloud, and Consumer Goods Cloud are now searchable.

Navigation Bar Items No Longer Determine Top Search Results

We removed the feature that ties app navigation bar personalization to top search results because of slower than expected performance. The feature dates from the Summer '19 release.

SEE ALSO:

Knowledge Article: Notice of Einstein Search Data Usage (can be outdated or unavailable during release preview)

Boost Productivity with Personalized Search Results (Beta)

Want to find stuff faster with search results that are tailored to the unique way you work in Salesforce? Search personalization is here. It helps you cut through the clutter with search results based on what's most important to you, including geographical locations, industries, statuses, product areas, and people.

Where: This change applies to Lightning Experience and all version of the Salesforce mobile app in Unlimited, Enterprise, and Performance editions.

Who: To turn on search personalization, your org must meet these requirements:

- At least 150 active user licenses
- Unlimited, Enterprise, or Performance Edition
- Lightning Experience enabled
- Salesforce Shield Platform Encryption isn't enabled

Why: Now when you search for accounts, contacts, or opportunities, you see results that are related to you by:

- Activity—How frequently or recently you've viewed the records
- Location—Records that are related to a city, state, or country that's important to you
- Ownership—Records that are owned by or modified by people that are important to you
- Specialization—Records that are related to an industry or product area that you prefer or have a status or stage that interests you

Note:

- Instant results are personalized based on activity only.
- Search personalization isn't available in sandbox orgs.

How: To turn on search personalization, from Setup, enter `Search Settings` in the Quick Find box, then select **Search Settings**. Then select **All users get personalized search results. (Beta)**.

SEE ALSO:

Knowledge Article: Notice of Einstein Search Data Usage (can be outdated or unavailable during release preview)

Salesforce Help: Enable Search Personalization (can be outdated or unavailable during release preview)

Break Open the Search Box with Enhanced Instant Results (Beta)

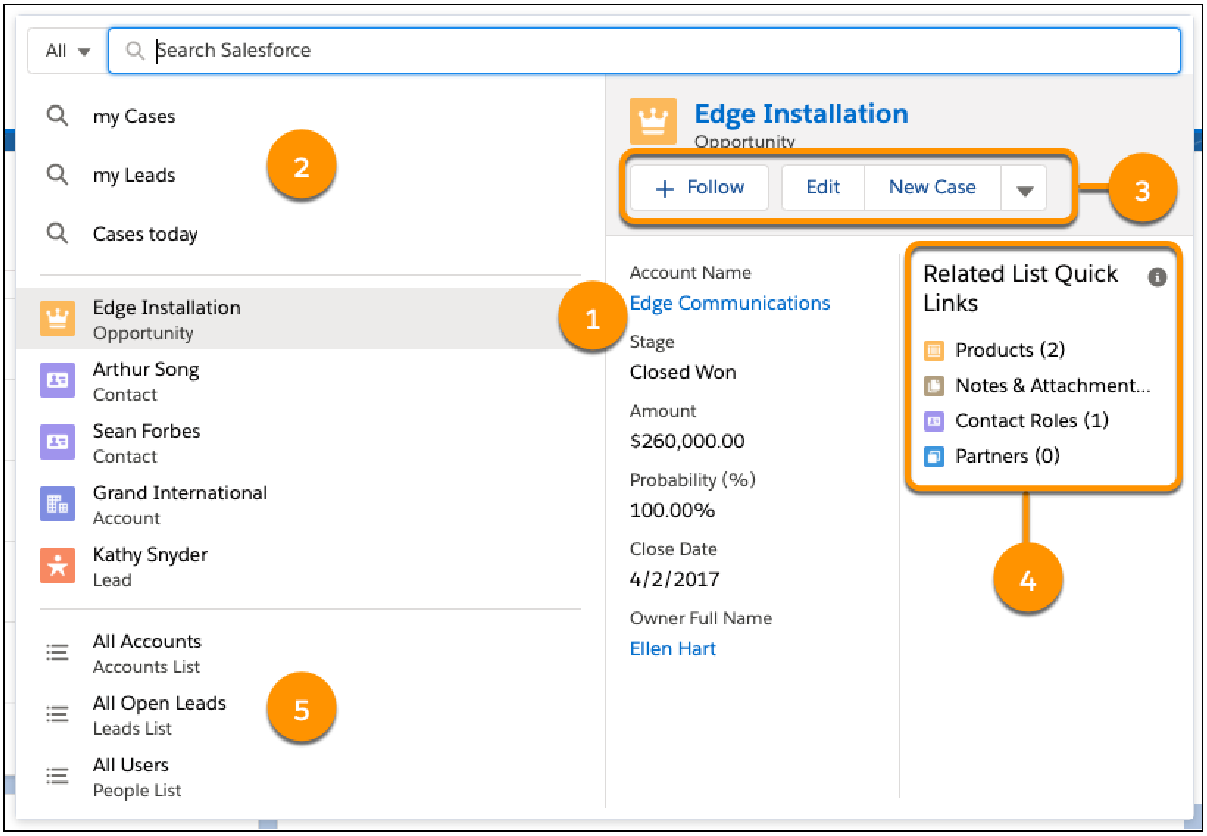
Enhanced instant results turns the global search box into a supercharged productivity hub. Click in the search box to instantly access record previews, page-level record actions, related list quick links, and suggested searches.

Where: This change applies to Lightning Experience in Unlimited, Enterprise, and Performance editions.

Who: Enhanced instant result requires the Einstein Search permission set license.

Why: Some clicks are more powerful than others. With enhanced instant results, as soon as you click in the search box, you have access to:

- (1) **Record previews**. See if it's what you're looking for by hovering over a record. See up to 10 fields and go straight to a related list.
- (2) **Suggested conversational searches**. Conversational search turns your search terms into record filters. For example, search for "my open opportunities this month" to see a list of your recent opportunities with an open status.
- (3) **Page-level record actions**. The same actions (including custom actions) from record pages you know and love are now instantly accessible.
- (4) **Related List Quick Links**. Go right to a record's related lists.
- (5) **List views**. Find the right list views with fewer clicks without going to a list view page. You see suggested list views when you click in the search box, and they're updated as you type. Hover over one to see a preview.



Note: Knowledge Advanced Search isn't available in the enhanced instant results dropdown.

Create Instant Reports with All the Right Filters with Conversational Search (Beta)

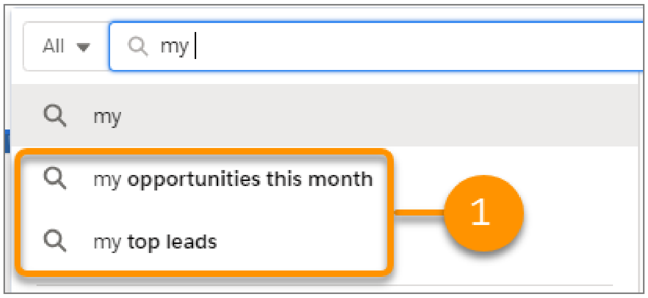
Can't find a report or don't have time to create one? Conversational search gives you instant access to important data by turning your search terms into record filters. Just enter search terms the way you start a conversation. For example, enter "my closed cases this month" to see a list of your recent cases with a closed status.

Where: This change applies to Lightning Experience in Unlimited, Enterprise, and Performance editions.

Who: Conversational search requires the Einstein Search and Einstein Search Results Based on Conversational Search permission set licenses.

Why: Conversational search works when you enter the name of a Salesforce object along with everyday terms, like "my" or "last week" or "closed." We show conversational search results only when we recognize an intent in your search. And don't worry, you can still see standard search results when you want.

Not sure how to get started? Try starting a conversational search. When you click in the global search box and start typing, Salesforce suggests conversational searches (1) that you might be interested in.



Note: Conversational search supports Account, Contact, Case, Lead, and Opportunity objects.

SEE ALSO:

Knowledge Article: Notice of Einstein Search Data Usage (can be outdated or unavailable during release preview)

Salesforce Help: Create Filtered Reports with Conversational Search (Beta) (can be outdated or unavailable during release preview)

Find the Right Record Faster with Recommended Result (Beta)

Recommended Result gets you to the right record faster when we're confident we know what you're looking for. It's like putting purple stripes on your luggage at the airport carousel to make sure it stands out from the crowd.

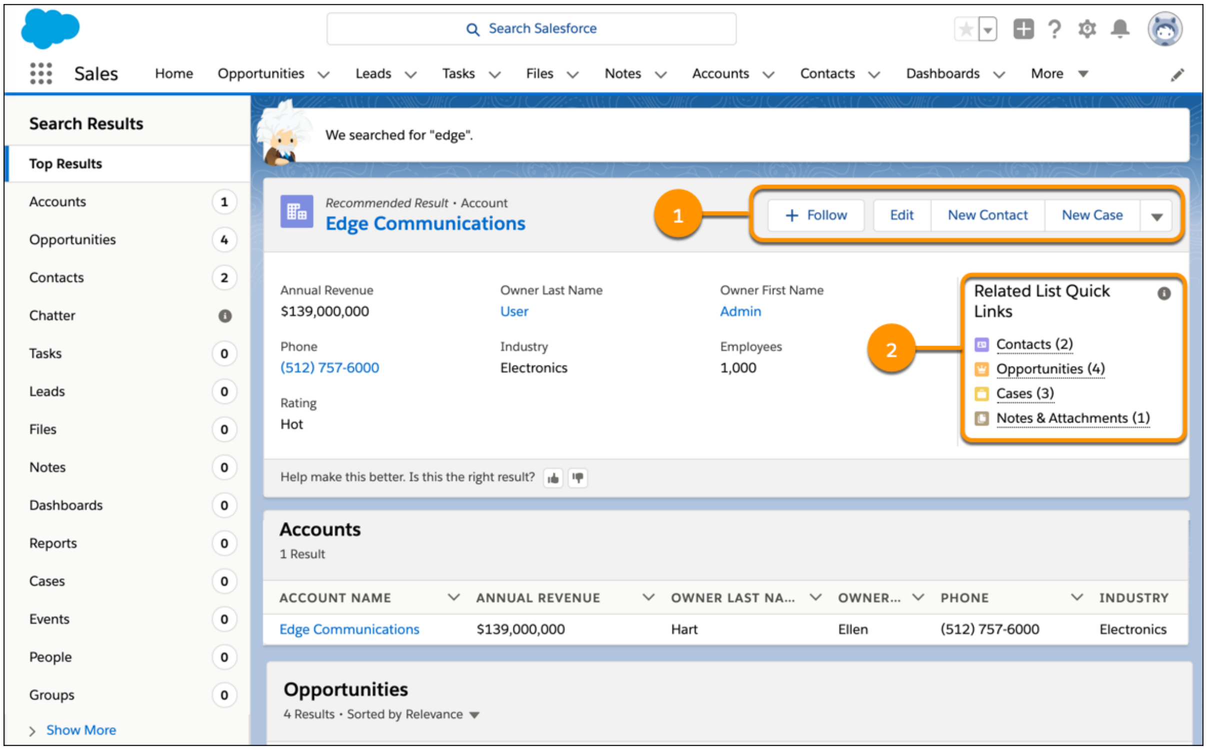
Where: This change applies to Lightning Experience in Unlimited, Enterprise, and Performance editions.

Who: Recommended Result requires the Einstein Search permission set license. Record Previews requires the Einstein Search Record Previews permission set license.

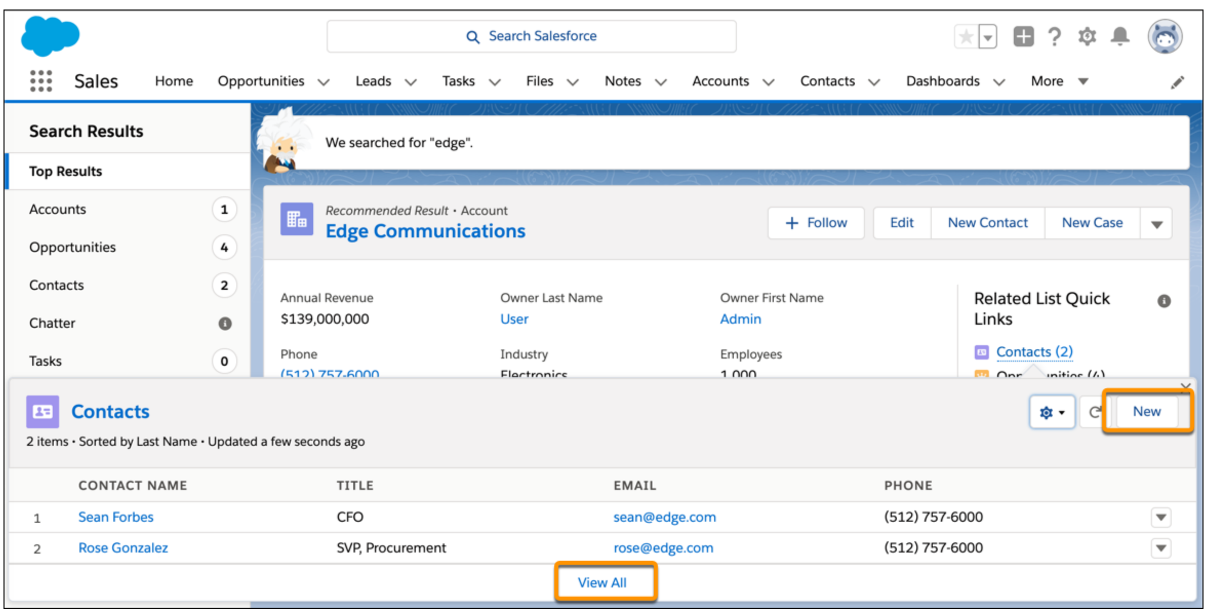
Why: At the top of your search results page, you see a preview of the record. That way you know instantly whether it's the one you want.

It's not only highly visible, it's actionable. The same actions that you have on the record page are here too, so you can get more done without leaving the search results page (1).

You can also take actions on the recommended result's related records. Under Related List Quick Links (2), hover over a link to see up to 10 related records and their available actions.



To see the complete list of related records, click **View All**. The list opens on a new page.



SEE ALSO:

Put the Pro in Profile with Profile-Specific Search Results Layouts (Beta)

Salesforce Help: Find the Right Record Faster with Recommended Result (Beta) (can be outdated or unavailable during release preview)

Put the Pro in Profile with Profile-Specific Search Results Layouts (Beta)

Search results should show what matters most. If you're in sales, knowing the account owner and the industry is critical. If you're a service rep, the account's support level is key information. With profile-specific layouts, you can fine-tune search results layouts for an object for each unique profile in your org. Profile-specific layouts are supported only by objects with customizable layouts. Users who don't have a profile-specific layout assigned to them see the default search results layout.

Where: This change applies to Lightning Experience in Unlimited, Enterprise, and Performance editions.

Who: Profile-specific search results layouts requires the Einstein Search permission set license.

How: To specify search results layouts for an object based on a user profile, you have two options:

- From Setup in Lightning Experience, enter `Search Layouts` in the Quick Find box, then select **Search Layouts**. Or:
- From Setup in Lightning Experience, go to Object Manager, select an object, then select **Search Layouts**.

SEE ALSO:

Find the Right Record Faster with Recommended Result (Beta)

Salesforce Help: Create Profile-Specific Search Results Layouts (Beta) (can be outdated or unavailable during release preview)

Get Search Results for More Objects

More objects in Financial Services Cloud, Health Cloud, Sales Cloud, and Consumer Goods Cloud are now searchable.

Where: These changes apply to both Lightning Experience and Salesforce Classic.

Why: These objects are searchable in Lightning Experience.

Object	Where
Account Forecast Adjustment	Developer, Enterprise, Unlimited editions
Account Forecast Period Metric	Developer, Enterprise, Unlimited editions
Account Forecast	Developer, Enterprise, Unlimited editions
Account Product Forecast	Developer, Enterprise, Unlimited editions
Account Product Period Forecast	Developer, Enterprise, Unlimited editions
Datasets	Consumer Goods Cloud in Enterprise and Unlimited editions
Detected Objects	Consumer Goods Cloud in Enterprise and Unlimited editions
Vision Modules	Consumer Goods Cloud in Enterprise and Unlimited editions
Model Metrics	Consumer Goods Cloud in Enterprise, and Unlimited editions
Object Metrics	Consumer Goods Cloud in Enterprise, and Unlimited editions
Images	Consumer Goods Cloud in Enterprise, and Unlimited editions
Business Milestone	Financial Services Cloud in Enterprise, Professional, and Unlimited editions
Business Profile	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Applicant	Financial Services Cloud in Enterprise, Professional, Unlimited editions

Object	Where
Loan Applicant Address	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Applicant Declaration	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Applicant Employment	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Applicant Income	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Applicant Liability	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Application Asset	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Application Financial	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Application Liability	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Application Property	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Loan Application Title Holder	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Residential Loan Application	Financial Services Cloud in Enterprise, Professional, Unlimited editions
Sales Agreement	Developer, Enterprise, Unlimited
Securities Holding	Enterprise, Unlimited, Professional
Snippet	Enterprise, Unlimited, Preboot Execution Environment, Professional, Pardot (any edition)

These objects are searchable in Lightning Experience and Salesforce Classic.

Object	Where
Care Program Enrollment Card	Health Cloud in Enterprise, Performance, Unlimited editions
Care Program Provider	Health Cloud in Enterprise, Performance, Unlimited editions
Care Provider Adverse Action	Health Cloud in Enterprise, Performance, Unlimited editions

Navigation Bar Items No Longer Determine Top Search Results

We removed the feature that ties app navigation bar personalization to top search results because of slower than expected performance. The feature dates from the Summer '19 release.

Where: This change applies to Lightning Experience in all editions.

SEE ALSO:

Salesforce Release Note: Find What You Need Fast with Search Results That Reflect How You Navigate

Salesforce Surveys: Easy Integration, More Controls, and Better Analysis

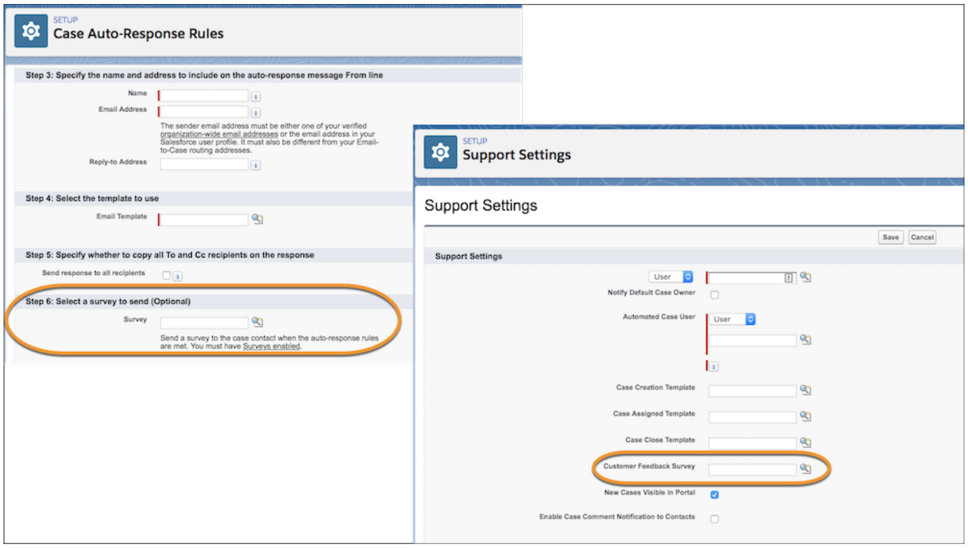
Send surveys for cases and marketing campaigns. Use Process Builder to automate survey invitations. Test out functionality using sample surveys. Decide if participants see the Welcome page and if survey owners can manage responses. Check out invitations and responses associated with a particular record. Use the revamped Analyze tab to download responses or review the response distribution for each question.

IN THIS SECTION:

Get Insight into Support Cases

Send follow-up emails to a case's contact with a survey question or a link to the survey. Send the email when the auto-response rules are met or when a case is closed.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions.



SEE ALSO:

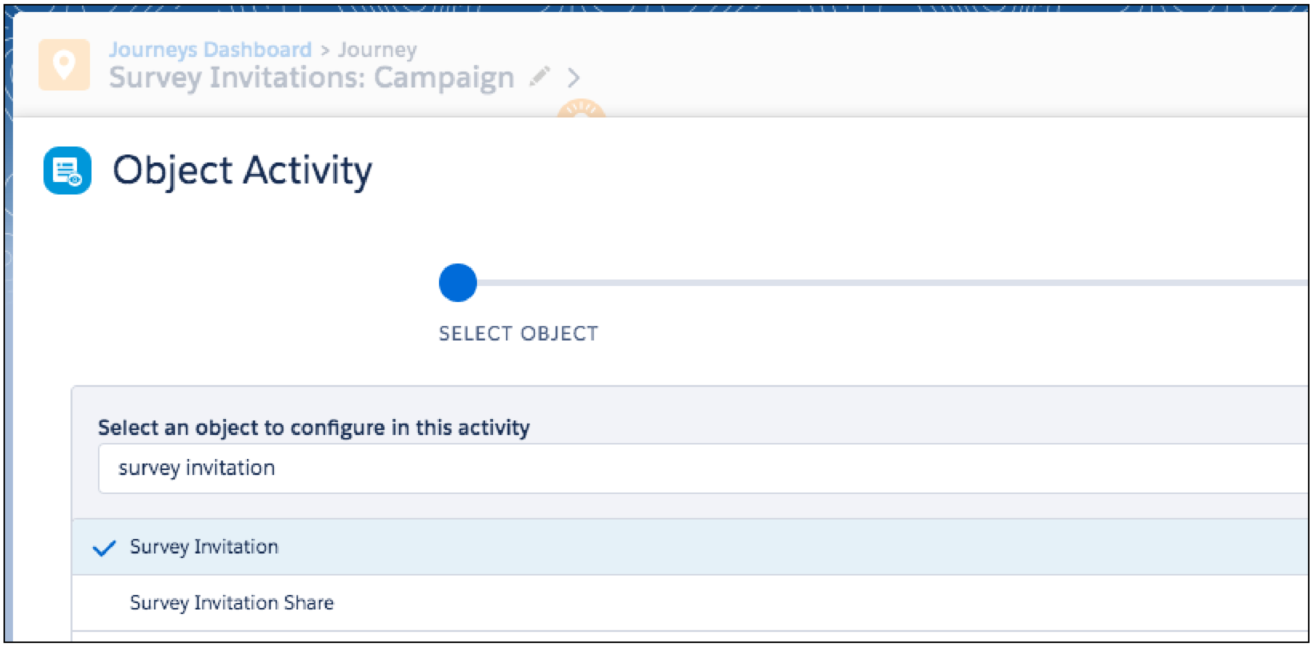
- Send Surveys for Cases
- *Salesforce Help*: Set Up a Customer Feedback Survey (can be outdated or unavailable during release preview)

Boost Marketing Campaigns with Surveys

Amp up your marketing efforts by sending surveys at any time during the campaign lifecycle.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

How: Drop Object Activity onto the Journey Builder canvas, and click it. Select **Survey Invitation** as the object to configure for this activity.



SEE ALSO:

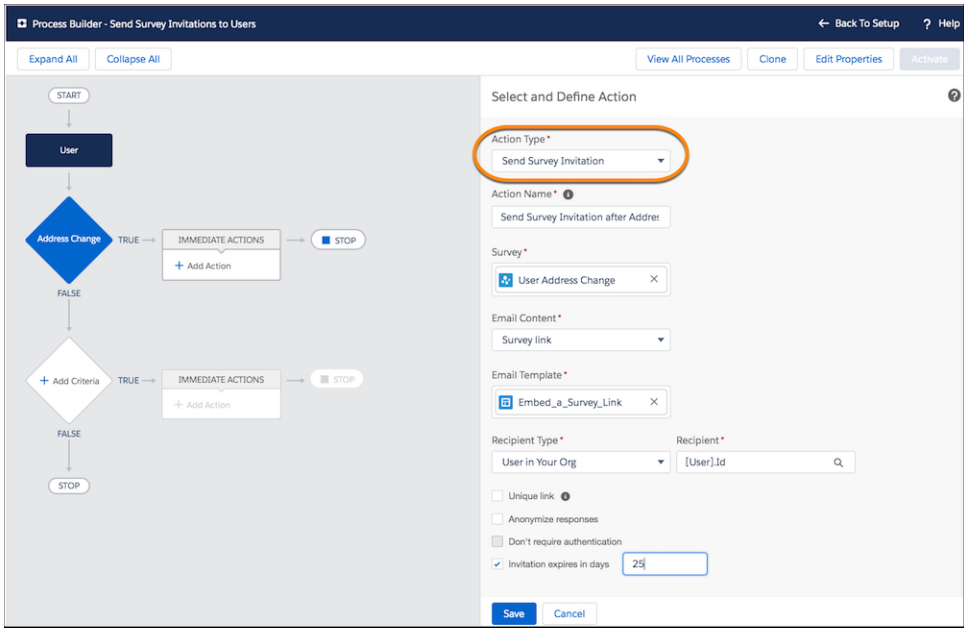
Salesforce Help: Send Surveys During a Marketing Campaign (can be outdated or unavailable during release preview)

Automate Survey Invitations with Process Builder

Define the criteria for the Send Survey Invitations action type in Process Builder, and email survey invitations to leads, contacts, and users.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

How: Select **Send Survey Invitations** as the Action Type in Process Builder.



SEE ALSO:

Salesforce Help: Send Survey Invitations Using the Process Builder (can be outdated or unavailable during release preview)

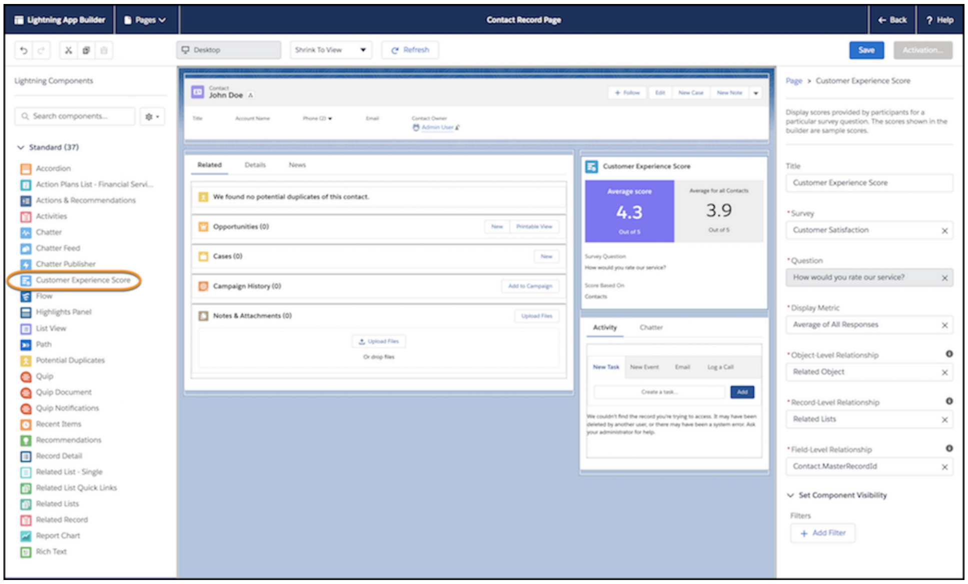
Display Customer-Provided Scores for a Particular Record (Pilot)

Use the Customer Experience Score Lightning component to display the score provided by your customers. Add the component to custom objects and the following standard objects: Account, Case, Contact, and User.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

Note: We provide Customer Experience Score component to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Customer Experience Score component isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

How: Drag the Customer Experience Score component to a record page. Choose whether to display the latest or the average score, and how the score is calculated.



SEE ALSO:

Salesforce Help: View Scores Provided by Participants (can be outdated or unavailable during release preview)

Assign Topics to Surveys

Tag surveys, questions, answer choices, and responses with topics to make it easy to organize them by theme.

Where: This change applies to Lightning Experience and Salesforce Classic in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

How: Enable Topics for the following objects in Salesforce Classic: Survey, Survey Question, Survey Question Choice, Survey Question Response. Add the Topics Lightning component to these objects' record pages.

SEE ALSO:

Salesforce Help: Assign Topics to Survey Records (can be outdated or unavailable during release preview)

Empower Survey Owners to Manage Responses

Previously only survey invitation owners had the power to manage survey responses. Now survey owners also have this super power.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

How: To allow survey owners to manage responses, enable **Survey Owners Can Manage Responses** on the Survey Settings page.

SEE ALSO:

Salesforce Help: Enable Surveys (can be outdated or unavailable during release preview)

Get Going Faster with Sample Surveys

Get a head start on survey creation with two sample surveys that are ready to go. You can also quickly customize them and send them off. Two sample surveys are added to your org's Survey list view when you enable Surveys.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

Export Responses for Detailed Insights

Set export criteria to download responses via email for a survey version. Select **Export Responses** in the Analyze tab.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

SEE ALSO:

Salesforce Help: Export Responses (can be outdated or unavailable during release preview)

Analyze Survey Responses Effortlessly

Analyze responses for each question type with improved reports and charts. You can now view response distribution one page at a time.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

Choose Whether Your Participants See the Welcome Page

Show off your jazzy welcome message or disable the Welcome Page to save your participants clicks. Disable the Welcome Page on the Build tab of the Survey Builder.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

Switch Between Survey Versions in a Click

It's easy to compare your survey versions with a version selector dropdown in Survey Builder.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

View Invitations and Responses Associated with Records

You can now see which invitations are associated to a record supported by the SurveySubject object. You can also see the response record associated with the invitation. Add the Survey Invitations and Responses related list to an object's page layout.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

SEE ALSO:

Salesforce Help: SurveySubject (can be outdated or unavailable during release preview)

Salesforce Help: Add the Survey Invitations and Responses Related List to Objects (can be outdated or unavailable during release preview)

Allow Unauthenticated Participants to Respond

Unauthenticated survey invitations allow guest users to view and respond to a survey. To continue receiving responses from participants outside your Salesforce org, do not restrict guest user access to object records in the org.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions.

How: From Setup, enter `Sharing Settings` in the Quick Find box, and then select **Sharing Settings**. Click **Edit** in the Organization-Wide Default section. In the Other Settings section, deselect the **Secure guest user record access** checkbox.

SEE ALSO:

Knowledge Article: Unauthenticated Survey Invitations Don't Open When Guest User Record Access is Secured (can be outdated or unavailable during release preview)

Lightning Scheduler: Multi-Resource and Concurrent Scheduling

Create a group of professionals for customer appointments with multi-resource scheduling, and optimize scheduling efficiency with concurrent scheduling.

Where: This change applies to Lightning Scheduler in Enterprise, Performance, and Unlimited editions.

IN THIS SECTION:

Book Group Appointments with Multi-Resource Scheduling

Assemble a group of professionals—such as a financial advisor, CPA, and attorney—for customer appointments with multi-resource scheduling. Find the right people and assets to meet customer needs based on each resource's skills and availability. See available times for all meeting attendees, making it easy to find a slot for the appointment.

Enhance Efficiency with Concurrent Scheduling

Now it's easy to schedule multiple customer appointments during the same time slot. For example, a medical office can let several patients book a 1 PM appointment to ensure no downtime for doctors. Optimize scheduling efficiency by defining the maximum number of appointments for each resource and location.

Quickly Schedule International Appointments

Want to schedule appointments with participants across several time zones? View the time zone selection menu to see all available time slots in the right time zone.

Build Meeting Prep and Travel Time into Appointment Scheduling

Give users more control over their calendar availability by blocking time before and after appointments for meeting preparation or travel time. And now, these time blocks display on the Salesforce Calendar.

SEE ALSO:

Lightning Scheduler: Optimize Customer Appointment Scheduling

Book Group Appointments with Multi-Resource Scheduling

Assemble a group of professionals—such as a financial advisor, CPA, and attorney—for customer appointments with multi-resource scheduling. Find the right people and assets to meet customer needs based on each resource's skills and availability. See available times for all meeting attendees, making it easy to find a slot for the appointment.

Where: This change applies to Lightning Scheduler in Enterprise, Performance, and Unlimited editions.

Who: Asset scheduling is available to orgs with the Asset Scheduling license.

How: Enable the Multi-Resource Scheduling org preference.

Enhance Efficiency with Concurrent Scheduling

Now it's easy to schedule multiple customer appointments during the same time slot. For example, a medical office can let several patients book a 1 PM appointment to ensure no downtime for doctors. Optimize scheduling efficiency by defining the maximum number of appointments for each resource and location.

Where: This change applies to Lightning Scheduler in Enterprise, Performance, and Unlimited editions.

How: Enable the Concurrent Scheduling org preference.

Quickly Schedule International Appointments

Want to schedule appointments with participants across several time zones? View the time zone selection menu to see all available time slots in the right time zone.

Where: This change applies to Lightning Scheduler in Enterprise, Performance, and Unlimited editions.

How: In Flow Builder, set the showTimeZone picklist variable to {!$Global.Constant.True}.

Build Meeting Prep and Travel Time into Appointment Scheduling

Give users more control over their calendar availability by blocking time before and after appointments for meeting preparation or travel time. And now, these time blocks display on the Salesforce Calendar.

Where: This change applies to Lightning Scheduler in Enterprise, Performance, and Unlimited editions.

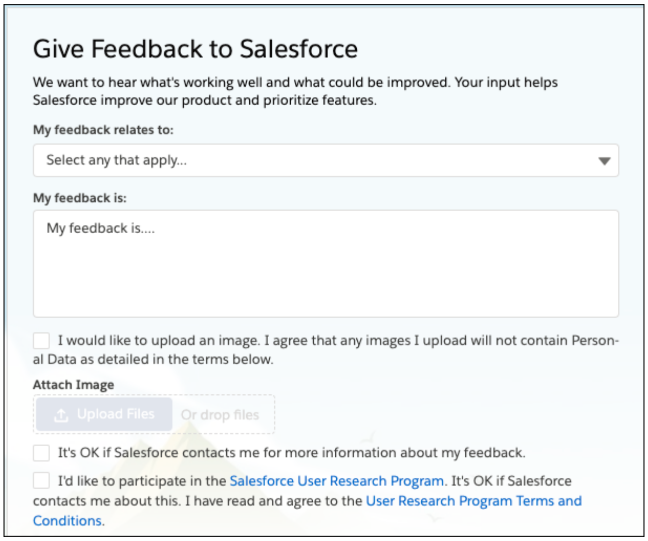
How: Enable the Block Resource Availability and Event Management org preferences.

Give Feedback to Salesforce with a Revised Form

Feedback helps Salesforce improve the user experience for you and everyone, so we made some changes to make it easier to let us know what you think or to get help. If you need help, we offer links to the Trailblazer Community and Salesforce support. When you give feedback, you can pick from a list of subjects to help zero-in on the area. And skip typing out lengthy issue descriptions by attaching a screenshot.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. A similar version of the feedback form appears in all versions of the Salesforce mobile app.

How: Open the Help Menu from any page in Lightning Experience, and select **Give Feedback to Salesforce**.



SEE ALSO:

Control Which Help Menu Links Appear to Users

Switch Accounts, Give Feedback, and Get Help in the Profile Menu

Salesforce Help: Find Help in Lightning Experience (can be outdated or unavailable during release preview)

Salesforce Help: Define Custom Help for the Lightning Experience Help Menu (can be outdated or unavailable during release preview)

Keep Up with Security Updates in the New Hub

Keeping your data safe is our most important job. So we made security alerts more visible and intuitive, with a new user interface, and more detailed explanations and recommendations.

Where: This change applies to all Lightning Experience and Salesforce Classic orgs.

Who: This feature is visible to all users with the Customize Application permission.

How: To see the security alerts that need your attention, go to the new Security Alerts node in Setup.

Although all security enhancements are important, we're assigning different levels of attention for each one so that you can prioritize your efforts.

Status	Definition
Required	A required security enhancement can impact your configuration. Use our recommendations and step-by-step guides to assess the impact on your org. You can't opt out of this security update.
Recommended	This security enhancement doesn't impact your current org configuration, but we recommend that you use our step-by-step guides to assess how it works.
Info Only	We've done some security cleanup to improve your org's security. Check out the recommendations, but you don't need to take action on your configuration.

The alert and recommendations tell you when to complete the tasks, what is changing in the org, and how your org is impacted. A series of steps helps you prepare your org for the security enhancement. Sometimes, you don't need to do anything, but we want to inform you of what's happening. When a change could affect your org, we want you to be fully aware of how you could be impacted, and have all the information that you need to make fixes. At the end of the recommendations, there's a review and confirmation step that tells us you've gone through the information and recommendations.

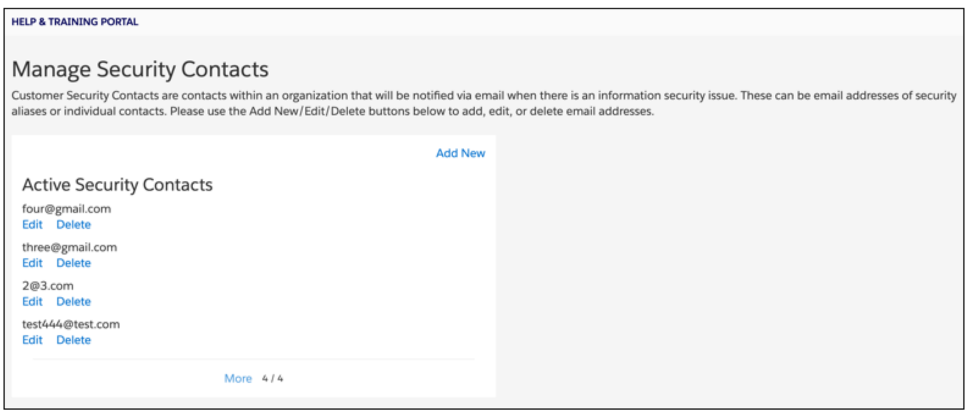
Note: The security alert just informs you of the best practices and recommendations regarding security updates. You can't enable or disable the security enhancement from the Security Alert interface.

Manage Security Contacts for Your Org

Keeping key members of your org in the know about security incidents is important to us. You can now designate your org's security contacts in Salesforce Help so that if an information security incident impacts your org, your contacts are notified.

Where: This feature is accessible through the Support & Services link on the Trailblazer Community.

How: To set your security contacts, log in to Salesforce Help. Click **Support & Services** > **Manage** next to Customer Security Contacts on the My Profile Settings tile. Here you can add, edit, or delete the email addresses of your security contacts.



SEE ALSO:

Knowledge Article: Manage Security Contacts for Your Organization

Lightning Console Apps: Focused Dialogs and Customizable Utility Icon Colors

Dialogs no longer block the entire screen. Use a new API to change the color of your utility icons.

Note: Lightning console apps don't yet have full parity with Salesforce Classic console apps. For example, some features in Salesforce Classic console apps, such as push notifications, aren't available in Lightning console apps. Learn more.

IN THIS SECTION:

Keep Working with Tab-Focused Dialogs (Critical Update)

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This critical update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it.

Customize Utility Icon Colors with New Lightning Console JavaScript APIs

Use the `iconVariant` option to define the color of your utility icons.

Keep Working with Tab-Focused Dialogs (Critical Update)

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This critical update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it.

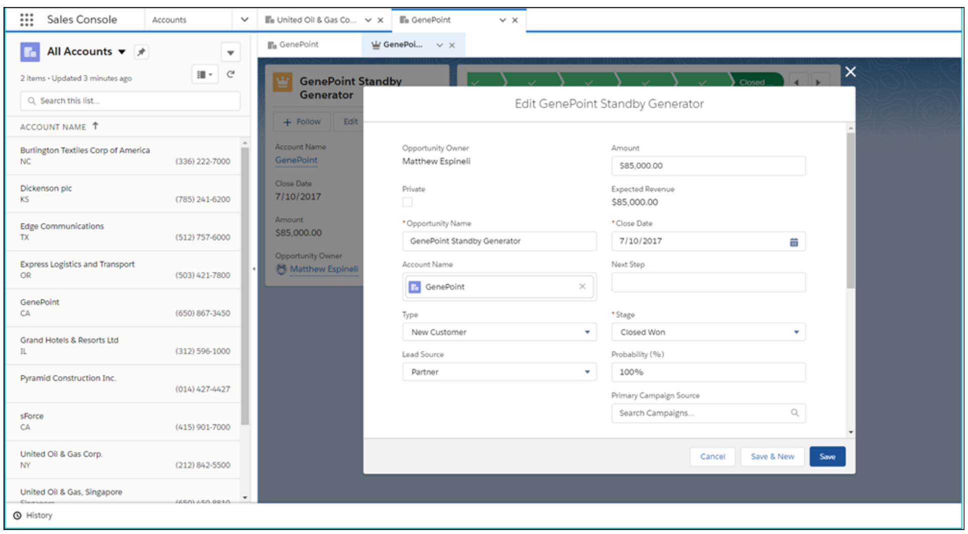
Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Lightning console apps are available for an extra cost to users with Salesforce Platform user licenses for certain products. Some restrictions apply. For pricing details, contact your Salesforce account executive.

When: You can activate this update in Winter '20. Otherwise, we auto-activate it on October 19, 2020.

Why: Before the Winter '20 release, all dialogs triggered by a workspace tab or subtab in a Lightning console app took the focus of the entire app. This update makes dialogs require the focus of only the tab that triggered them, allowing users to interact with the rest of the app.

How: To activate this critical update before October 19, 2020, from Setup, enter *`Critical Updates`* in the Quick Find box, then select **Critical Updates**. For Enable Tab-Focused Dialogs in Lightning Console Apps, click **Activate**.

After the update, when you trigger a dialog, it's limited to the tab that created it.



SEE ALSO:

Critical Updates and Security Alerts

Customize Utility Icon Colors with New Lightning Console JavaScript APIs

Use the `iconVariant` option to define the color of your utility icons.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Lightning console apps are available for an extra cost to users with Salesforce Platform user licenses for certain products. Some restrictions apply. For pricing details, contact your Salesforce account executive.

SEE ALSO:

Lightning Console JavaScript API

Look to Files, Not Your Inbox for Optimizer Reports

Starting at the end of September 2019, the Optimizer PDF report is no longer attached to the email announcing that the report was successfully created. Go to Salesforce Files to find a copy of the report instead.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Access Salesforce from Safari on iPad Devices (Beta)

The new iPadOS operating system opens the full desktop version of Lightning Experience or Salesforce Classic, depending on your org configuration, in Safari. Previously you had to turn on access to give your users the ability to run the full desktop version of Lightning Experience on their iPad devices. If you upgrade to iPadOS, you can skip this setup step.

Where: This change applies to Lightning Experience and Salesforce Classic in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, Lightning Experience on iPad Browser is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Lightning Experience on iPad Browser in the IdeaExchange.

Note: Using Salesforce Classic on an iPad isn't recommended or supported. Some features can behave unexpectedly.

SEE ALSO:

Salesforce Help: Lightning Experience on iPad Browsers (Beta)

Salesforce Help: Supported Browsers for Salesforce Classic

Knowledge Article: Salesforce on the new iPad operating system

Optimizer Setup Gets a Makeover

The Optimizer page in Setup has a refreshed look, but it still delivers the same recommendations about simplifying customizations and driving feature adoption. Instead of creating your personalized PDF report using the Run Report button, start by clicking Create PDF.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Entity Element Type of the TopicAssignment Object Was Changed

We changed the entity element type of the TopicAssignment object to correctly reference object types, such as account or opportunity. Previously, the entity element type referenced only the contract object type. This change ensures that you can use the TopicAssignment object to properly query the names and IDs of records of various object types that have topics.

Where: This change applies to Salesforce Classic (not available in all orgs) and Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: In the Enterprise Web Services Description Language (WSDL), the entity element of the TopicAssignment object was:

```
<element name="Entity" nillable="true" minOccurs="0" type="ens:Contract"/>
```

We changed the entity element to:

```
<element name="Entity" nillable="true" minOccurs="0" type="ens:sObject"/>
```

If you’re relying on the entity element of the TopicAssignment object to return only contract object types, you must change your code and integrations that rely on this behavior.

How: To ensure that your integrations continue to work, review your custom code, reports, flows, processes, and triggers to identify any use of the TopicAssignment object. Ensure that you’re querying the entity element of TopicAssignment for name or ID only.

SEE ALSO:

Knowledge Article: Changes to “Entity” Field on TopicAssignment Object

Set a Default Email Font

Everywhere the email composer is used, the default font in your sales reps’ email composer reflects the one they have set for themselves in their browser. Similarly, email recipients see the email in the default font set for their browser. To override the default browser font for the sender and the recipient, reps can use the email composer toolbar and explicitly choose a font for the content they send.

Where: This change applies to Lightning Experience in all editions.

SEE ALSO:

Salesforce Release Notes: Set Your Default Email Font

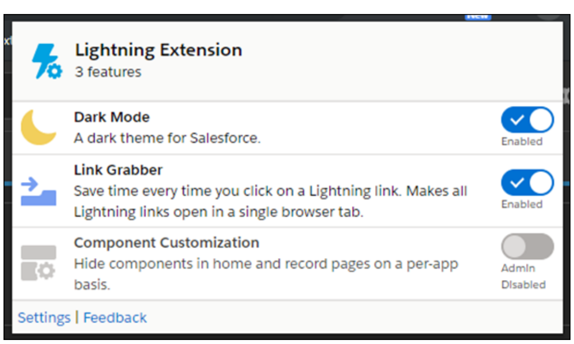
Try New Lightning Features with the Lightning Extension for Chrome (Generally Available)

Are you an early adopter of the latest and greatest technology . . . or do you want to become one? With the Lightning Extension, now generally available, you can gain access to the latest Lightning features and try them before everyone else.

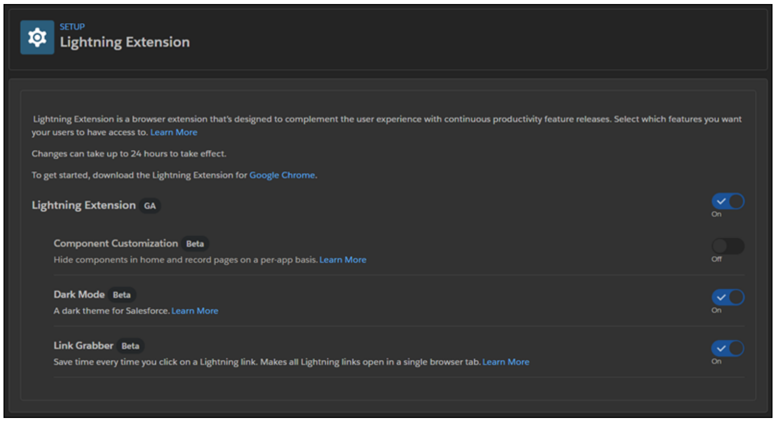
Where: This change applies to Lightning Experience in all editions.

Why: The Lightning Extension lets us roll out new features on a continuous basis. Admins can control which features are available to their users.

How: Download the Lightning Extension for your browser. From the Lightning Extension features panel, choose which features to turn on.



To control which features are available to your users, from Setup, in the Quick Find box, enter Lightning Extension, and then select Lightning Extension. From there, you can activate individual features or disable the extension as a whole. Changes can take up to 24 hours to take effect.



SEE ALSO:

External Link: Download the Lightning Extension from the Chrome Web Store

Salesforce Help: Try New Features with the Lightning Extension for Chrome

Mobile: Customized Mobile Experiences and the New Salesforce Mobile App

With our latest mobile updates, users can take advantage of the familiar Lightning Experience they know on desktop, optimized for the new Salesforce mobile app beginning the week of October 14, 2019. Mobile Publisher gets custom notifications, deep linking, and other key features admins can use to customize the mobile experience for users. Across our mobile portfolio, admins have more power than ever to customize the mobile experience and create one unified Salesforce experience for users.

IN THIS SECTION:

Everything That's New in the Salesforce App

Our latest round of new and improved Salesforce app features makes it easier to access Salesforce on the go.

Get Ready for the New Salesforce Mobile App

The highly anticipated new Salesforce mobile app arrives the week of October 14, 2019. Admins have more power than ever to create mobile experiences that delight users and ease their workload across devices with components optimized for mobile. Salesforce users get a unified experience working across desktop and mobile, no matter how or where they work.

Other Enhancements to the Salesforce Mobile App

In Winter '20, users get more functionality for the current and new versions of the Salesforce mobile app. With a more intuitive navigation experience, access to reports and dashboards, greater control over notifications, and more, admins can create customized mobile solutions to better serve users.

Mobile Publisher: Custom Push Notifications, File Downloading and Sharing Anywhere, and More

Keep transforming and customizing your communities with new Mobile Publisher features and improvements. Send custom push notifications to Mobile Publisher apps and access device location. Set up deep linking, download and share Salesforce files, and keep users in your app with AppLinks for Android.

Everything That's New in the Salesforce App

Our latest round of new and improved Salesforce app features makes it easier to access Salesforce on the go.

The current Salesforce mobile app is available for all editions, except Database.com, without an additional license. The new Salesforce mobile app is available for all editions, except Essentials and Database.com, without an additional license. Your org's Salesforce edition and licenses, as well as a user's assigned profile and permission sets, determines the Salesforce data and features that are available to each user.

Most features become available for the current and new Salesforce mobile apps the week of October 14, 2019.

Salesforce App Enhancements and Changes	Salesforce for Android	Salesforce for iOS	Salesforce Mobile Web	Set Up in the Full Site
Get Started				
Upgrade with Ease with the New Salesforce Mobile App QuickStart				✓
Switch Without a Hitch with the New Salesforce Mobile App Documentation				
Unlock Mobile Configuration Options in the Lightning App Builder				✓
Give Your Users Access to the New Salesforce Mobile App	✓	✓		✓
Get Around				
Transition Seamlessly to the New Mobile App with Familiar Navigation Items	✓	✓		✓
Get Around Faster with the Thumb-Friendly Navigation Bar	✓	✓		✓
Find Actions in a New Place and Get to Them in a New Way	✓	✓		
Launch into Lightning Experience Apps with the Mobile App Launcher	✓	✓		✓
Do More on Record Pages with New Styling and Components	✓	✓		✓
Switch Accounts, Give Feedback, and Get Help in the Profile Menu	✓	✓		
Customize Your Users' Experience				
Give Your Users Custom Record Pages on Their Phones	✓	✓		✓
Show or Hide Record Page Components by Device	✓	✓		✓
Make Your Lightning Apps Accessible on Phone, Desktop, or Both	✓	✓		✓
Browser and Operating System				
Salesforce App Requirements Have Changed	✓	✓	✓	
Open Salesforce Links in Safari on Your iPad		✓*		
Einstein Analytics				
Interact with Embedded Einstein Analytics Dashboards in the Salesforce Mobile App	✓	✓*		

Salesforce App Enhancements and Changes	Salesforce for Android	Salesforce for iOS	Salesforce Mobile Web	Set Up in the Full Site
Access Einstein Analytics Dashboards from Links in Salesforce for iOS		✔ *		
Your Favorite Dashboards Are Just One Tap Away in Salesforce for iOS		✔ *		
Search for Einstein Analytics Dashboards in Salesforce for iOS		✔ *		
Data Access and Views				
List and Related List Components Are Optimized for the New Salesforce Mobile App	✔	✔	✔	✔
View More Fields in the Record Highlights Panel	✔	✔	✔	✔
Sales Features				
Support More Account Team Business Cases Anywhere	✔ *	✔ *	✔ *	✔
Productivity Features				
Give Users Access to the Twitter Component in the New Salesforce Mobile App	✔ *	✔ *	✔ *	✔
Reports and Dashboards				
Easily Find Reports and Dashboards with Familiar Lists		✔		
Chatter				
See More Record Details When You Want (and Not When You Don't)	✔	✔	✔	✔
Notifications				
Manage Delivery Settings for Standard Notifications with Notification Builder	✔ *	✔ *		✔
Route Your Custom Push Notifications to the Salesforce Mobile App	✔ *	✔ *		✔
Send Custom Notifications with Flow Builder	✔ *	✔ *		✔
Access and Security				
Protect Your Salesforce App with Enhanced Mobile Security	✔ *	✔ *		✔

* Indicates a feature is available on the current Salesforce mobile app, in addition to the new Salesforce mobile app.

Get Ready for the New Salesforce Mobile App

The highly anticipated new Salesforce mobile app arrives the week of October 14, 2019. Admins have more power than ever to create mobile experiences that delight users and ease their workload across devices with components optimized for mobile. Salesforce users get a unified experience working across desktop and mobile, no matter how or where they work.

IN THIS SECTION:

The New Salesforce Mobile App: Get Started

The new mobile experience is opt-in, so you can get started whenever you're ready. The QuickStart page walks you through setup. Get tips and best practices. And check out the new mobile options in the Lightning App Builder. When you have everything lined up, giving access to users is easy.

IN THIS SECTION:

Give Your Users Access to the New Salesforce Mobile App

Whether your Lightning customizations are ready for prime time or you just want to give your users a fresh and intuitive navigation experience, you decide when the the new Salesforce mobile app goes live. After you enable your org, assign the New Salesforce Mobile App user permission to some or all of your users, as well as yourself. You and your users can still use Salesforce Classic on desktop.

Upgrade with Ease with the New Salesforce Mobile App QuickStart

The New Salesforce Mobile App QuickStart is your one-stop shop for a seamless upgrade to the new Salesforce mobile app experience. Learn about convenient and powerful new features available to you and your users. Turn on mobile configuration options in Lightning App Builder. Run the Salesforce Optimizer for Mobile Lightning Pages Report (Beta) to ready your Lightning pages for the transition. Update your existing apps and pages for mobile with a few clicks. And when you're ready, give your users access to the new Salesforce mobile app.

Where: This change applies to Lightning Experience in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019. The Salesforce Optimizer for Mobile Lightning Pages Report (Beta) is available the week of October 28, 2019.

Note: As a beta feature, the Salesforce Optimizer for Mobile Lightning Pages Report is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for the Salesforce Optimizer for Mobile Lightning Pages Report in the Salesforce Optimizer Trailblazer Community.

How: Search for `QuickStart` in Setup to get started.

SEE ALSO:

Salesforce Help: Run the Salesforce Optimizer for Mobile Report

Switch Without a Hitch with the New Salesforce Mobile App Documentation

Thinking about switching users to the new Salesforce mobile app? Not sure how disruptive the process will be? Our docs have your back. Check out these resources to make change management a breeze.

- Lightning Components Roadmap—Keep up with all of the components available for the new Salesforce mobile app.
- Lightning App Builder Help—Discover all you need to know about using your new mobile customization superpowers with these Help topics.
- Salesforce Mobile App Help—Visit our mobile Help topics for the latest guidance on security, navigation, notifications, and more for the new Salesforce mobile app.
- Customize Navigation—Learn more about the Mobile Only app in this Salesforce Mobile App Customization Trailhead module unit.
- Salesforce Mobile App Basics—Send your users to this Trailhead module for a tour of the new app so that they can keep their workflows flowing through the switch.
- In-App Help Portal—Get information on the spot with in-app help, which has practical guidance for end users. Highlights include the App Launcher, the Mobile Only app, and a thumb-friendly navigation shortcut for iOS users.

As we welcome in updated resources, it's also time to bid farewell to the *Salesforce App Admin Guide*, which we retired. All the information from this guide—and so much more—is available in Salesforce Help, which is fully searchable and translated into all supported languages, and Trailhead. We also retired the *Salesforce App Developer Guide*, so you can focus on the new Salesforce mobile app's growing parity with Lightning Experience desktop.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Unlock Mobile Configuration Options in the Lightning App Builder

Creating customized Lightning apps, components, and record pages for your users is a great way to give them exactly what they need to be productive. Now users can get your new and existing customizations on their phones, too. Want to see how great your customizations look? Opt in to the new Salesforce mobile app to see mobile previews and play with new configuration options. And don't worry. Your users don't see any changes until you give them access to the new mobile app.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

When: The new Salesforce mobile app is available the week of October 14, 2019.

How: To enable your org, search for `QuickStart` in Setup to visit The New Salesforce Mobile App QuickStart. If you're using Salesforce Classic, first turn on your Lightning Experience org preference. You and your users can still use Salesforce Classic on desktop.

Give Your Users Access to the New Salesforce Mobile App

Whether your Lightning customizations are ready for prime time or you just want to give your users a fresh and intuitive navigation experience, you decide when the the new Salesforce mobile app goes live. After you enable your org, assign the New Salesforce Mobile App user permission to some or all of your users, as well as yourself. You and your users can still use Salesforce Classic on desktop.

Where: This change applies to Lightning Experience in all editions, except Essentials and Database.com. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

When: The new Salesforce mobile app is available the week of October 14, 2019.

The New Salesforce Mobile App: Get Around

Big little changes in mobile. When users switch to the new Salesforce mobile app, they'll notice a few changes to navigation and record pages. We redesigned the navigation to be more intuitive, taking cues from other familiar and easy-to-navigate apps and our own Lightning Experience desktop. These changes are small enough that users won't miss a beat, but mighty enough to amp up user productivity in a big way.

IN THIS SECTION:

Launch into Lightning Experience Apps with the Mobile App Launcher

The App Launcher has landed on mobile. You can switch between all your favorite Lightning apps, just like in Lightning Experience desktop.

Do More on Record Pages with New Styling and Components

Improvements to record pages in Lightning Experience desktop have made it to mobile. Refreshed styling and improved functionality make it easier to find data and take the needed actions.

Switch Accounts, Give Feedback, and Get Help in the Profile Menu

Users can now access their profile and account actions from the profile icon at the top of the screen. They can access different Salesforce accounts and orgs, update settings, get help, and give feedback.

Transition Seamlessly to the New Mobile App with Familiar Navigation Items

When users first log in to the new Salesforce mobile app, they see the same items they used in the previous Salesforce mobile app. We've moved them to an app called Mobile Only. The Mobile Only app ensures that users' workflows aren't disrupted when switching to the new mobile app.

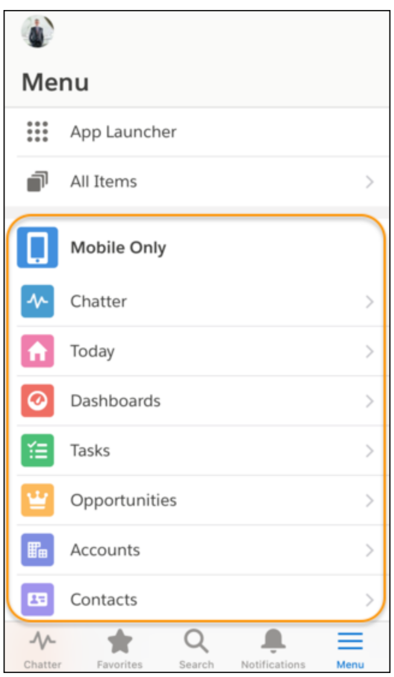
Where: This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

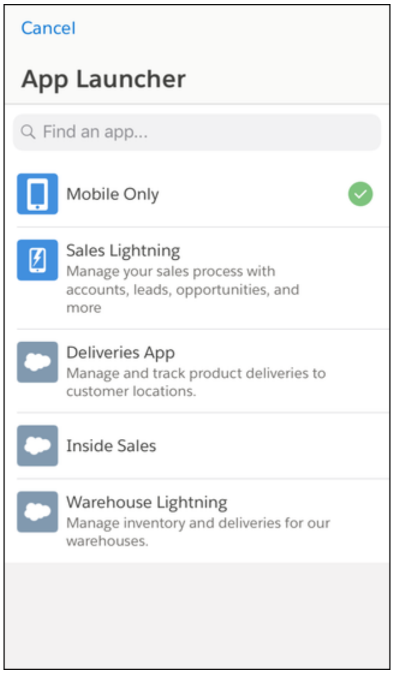
Who: Available to users with the New Salesforce Mobile App user permission.

Why: The mobile experience is now more aligned with the Lightning Experience desktop. For example, users can now access Lightning apps from the mobile version of the Lightning App Launcher. When they use a Lightning app, the navigation tabs on the desktop version of the app sync to the mobile Menu navigation items. The synced navigation items provide a seamless experience from desktop to mobile. We understand, however, that your org might not have mobile-ready Lightning apps. Or if your org does, the synced navigation could be too much of a change for users' first day in the new app.

Enter Mobile Only. When users first log in to the new mobile app, they see their previous Menu items.



Users can keep using the Mobile Only app, or they can switch to a Lightning app using the App Launcher. If they need access to the previous navigation items again, they can switch back to Mobile Only via the App Launcher.



How: You can configure the navigation items that appear in the Mobile Only app. In Setup, enter `Salesforce Navigation` in the QuickFind box, then select **Salesforce Navigation**. But we encourage you to keep things as they are while users make the transition to the new mobile app.

If you've previously made a Lightning app available for mobile, the Mobile Only app might not make sense for your transition. You can disable it by adding a connected app custom attribute. In Setup, enter `Connected Apps` in the Quick Find box, select **Manage Connected Apps**, then click the name of the connected app you want to modify. In the Custom Attributes section on the connected app page, click **New**. Enter `HIDE_MOBILE_ONLY_APP` for the attribute key and `"true"` for the attribute value.

Get Around Faster with the Thumb-Friendly Navigation Bar

Frequently used items are now part of a new navigation bar for easier access. The navigation bar is where users can always find their favorites (if enabled), search, notifications (if enabled), and a link to the menu.

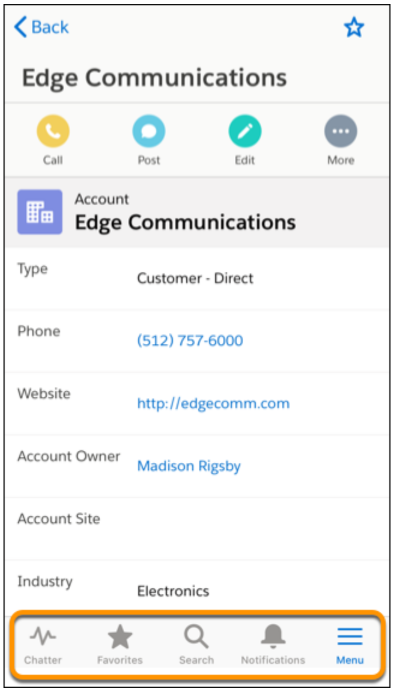
Where: This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

How: Users can't customize the favorites, search, notifications, or menu items. But if they use Lightning apps, the first icon in the mobile navigation bar reflects the first tab of the Lightning app that users are working in. If users have permission to personalize that tab on desktop, their changes are reflected in the mobile app.

In the Mobile Only app, the first item in the navigation bar is the first item from the navigation menu.



Find Actions in a New Place and Get to Them in a New Way

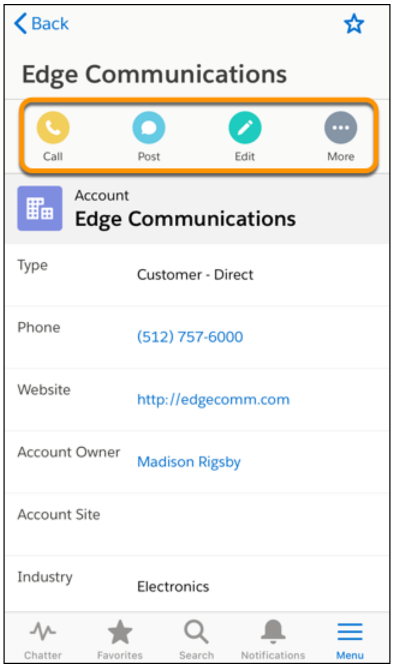
Actions got a raise. . . to the top of the screen. The new location of the action bar replaces list item actions and makes room for the new the navigation bar, putting actions and navigation front and center.

Where: This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Essentials and Database.com.

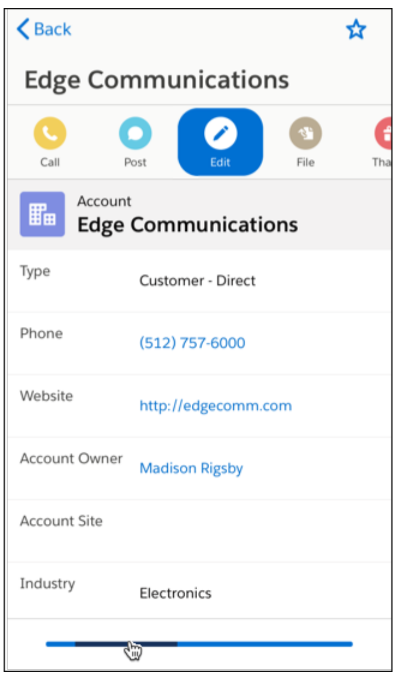
When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

Why: The action bar shows the first three actions from the page layout, instead of the first four.



But if you're on an iOS device and prefer using your thumbs, you can do that, too. Press and hold the navigation bar to highlight and expand the action bar. To scroll through the actions, swipe back and forth. To select an action, release your hold. To navigate away without making a selection, drag your finger off the navigation bar and release.



Launch into Lightning Experience Apps with the Mobile App Launcher

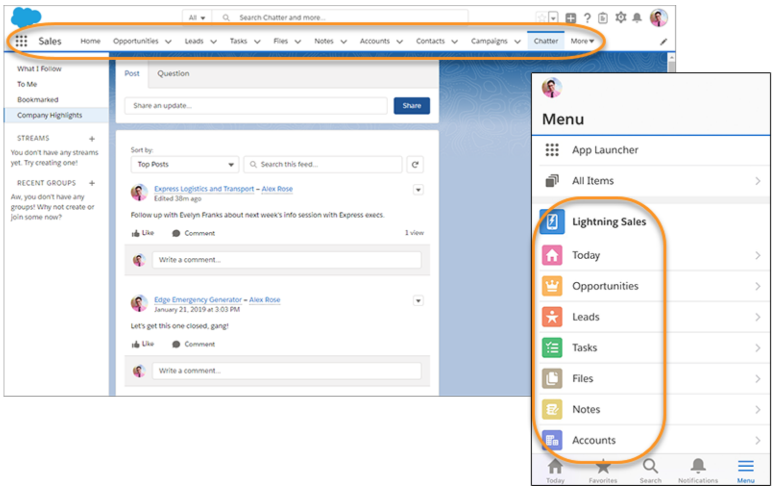
The App Launcher has landed on mobile. You can switch between all your favorite Lightning apps, just like in Lightning Experience desktop.

Where: This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

Why: Previously, to use all the cool features that are available in Lightning apps, you needed to be on a desktop computer. Now you can access Lightning apps from anywhere.



Do More on Record Pages with New Styling and Components

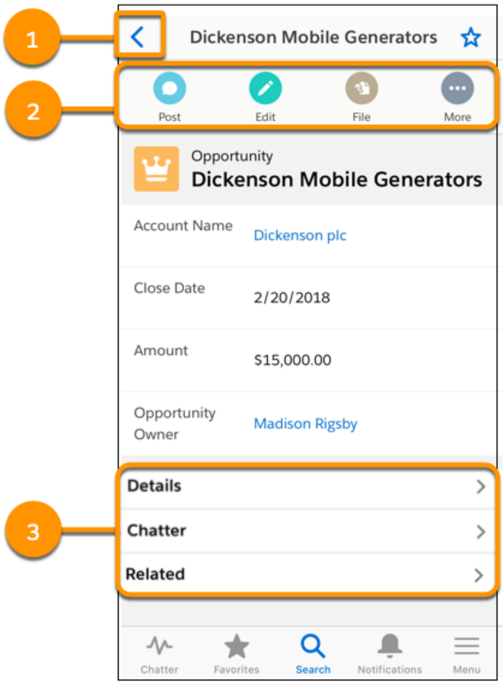
Improvements to record pages in Lightning Experience desktop have made it to mobile. Refreshed styling and improved functionality make it easier to find data and take the needed actions.

Where: This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

Why: The back button is easier to see (1). Actions are now at the top of the screen (2), followed by the record details. Tabs are stacked vertically (3), so you can drill down with a quick tap. Navigation items are at the bottom, as they are throughout the app. And the Path component is now supported in mobile for the same objects that support it on desktop. Use it to give reps the guidance they need to close deals on the go.



SEE ALSO:

Give Your Users Custom Record Pages on Their Phones

Show or Hide Record Page Components by Device

View More Fields in the Record Highlights Panel

See More Record Details When You Want (and Not When You Don't)

Switch Accounts, Give Feedback, and Get Help in the Profile Menu

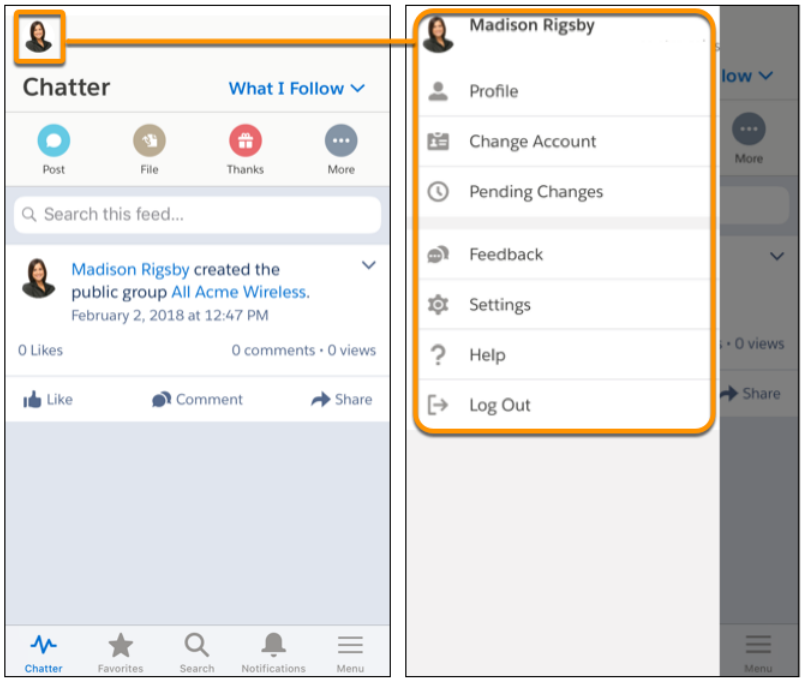
Users can now access their profile and account actions from the profile icon at the top of the screen. They can access different Salesforce accounts and orgs, update settings, get help, and give feedback.

Where: This change applies to the new Salesforce mobile app for iOS and Android in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

Why: Previously, you had to scroll to the bottom of a long menu to find these important personal and account-related settings. Now they're right at the top of the screen.



Next time you're there, give us some feedback. The new mobile feedback form is based on the new form in Lightning Experience, presented in a mobile-friendly layout.

SEE ALSO:

Give Feedback to Salesforce with a Revised Form

The New Salesforce Mobile App: Customize Your Users' Experience

If you've opted in to the new Salesforce mobile app, you can configure Lightning apps, record pages, and component visibility rules for use on a phone.

IN THIS SECTION:

Give Your Users Custom Record Pages on Their Phones
Custom Lightning record pages are no longer restricted to desktop. Now you can create record pages tailored to the needs of your mobile users that they see only when viewing the page on a phone.

Show or Hide Record Page Components by Device
Give your mobile users exactly what they need on record pages by showing or hiding record page components based on the type of device they're being viewed on.

Make Your Lightning Apps Accessible on Phone, Desktop, or Both
When you create or edit a Lightning app, you can configure which form factors it supports and can be viewed on. Creating an app just for your mobile app users? Designate that Lightning app for a phone.

Give Your Users Custom Record Pages on Their Phones

Custom Lightning record pages are no longer restricted to desktop. Now you can create record pages tailored to the needs of your mobile users that they see only when viewing the page on a phone.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

When: You can give this feature a try in Lightning App Builder right away, but your changes won't be visible to users until the new Salesforce mobile app is released the week of October 14, 2019.

SEE ALSO:

Customize Lightning Record Pages for the Phone Form Factor

Show or Hide Record Page Components by Device

Give your mobile users exactly what they need on record pages by showing or hiding record page components based on the type of device they're being viewed on.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

When: You can give this feature a try in Lightning App Builder right away, but your changes won't be visible to users until the new Salesforce mobile app is released the week of October 14, 2019.

SEE ALSO:

Set Record Page Component Visibility Rules Based on Device

Make Your Lightning Apps Accessible on Phone, Desktop, or Both

When you create or edit a Lightning app, you can configure which form factors it supports and can be viewed on. Creating an app just for your mobile app users? Designate that Lightning app for a phone.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

When: You can give this feature a try in Lightning App Builder right away, but your changes won't be visible to users until the new Salesforce mobile app is released the week of October 14, 2019.

SEE ALSO:

Set a Lightning App to Support Desktop, Phone, or Both

Einstein Analytics in the Salesforce App: More Powerful Interactions

With the latest version of the Salesforce app, Einstein Analytics users can do more on the go without switching between apps. Access your Einstein Analytics dashboards from favorites, global search, links, record pages, and Lightning pages all in the Salesforce for iOS. For orgs that upgrade to the new Salesforce mobile app, Salesforce for Android users can access dashboards embedded in record pages.

IN THIS SECTION:

Salesforce app users can now interact with embedded dashboards in most places in the Salesforce app with some known limitations and differences between iOS and Android. The experience is familiar for Einstein Analytics app users. Mobile users often access dashboards on the go, so being able to use just one app saves users time. Unifying the mobile experience between apps makes moving between them intuitive when users must access both to get their work done.

Access Einstein Analytics Dashboards from Links in Salesforce for iOS

You can access Einstein Analytics dashboards from links in Salesforce for iOS. Whether from a Chatter post, Lightning page, or somewhere else, you get an optimized mobile dashboard experience without leaving the Salesforce app. Users with Einstein Analytics for iOS installed on their device can open dashboards from Salesforce for iOS for deeper exploration.

Your Favorite Dashboards Are Just One Tap Away in Salesforce for iOS

Open Einstein Analytics dashboards from favorites in Salesforce for iOS. Users can access their most used dashboards quickly along with other important Salesforce objects all in one convenient location. Add Einstein Analytics assets to favorites in the full Salesforce site. Although you can add lenses and other assets to your favorites and see them in the Salesforce app, only dashboards open in the Salesforce app.

Search for Einstein Analytics Dashboards in Salesforce for iOS

You can now search for Einstein Analytics dashboards in global search in Salesforce for iOS. Search includes any dashboard the user has access to so it's easy to find any dashboard that the user knows the name of. Previously, you could access dashboards only through direct links. Although lenses are returned in Salesforce app search results, only dashboards open in the Salesforce app.

SEE ALSO:

Use Einstein Analytics in the Salesforce Mobile App

Use Einstein Analytics in the Salesforce Mobile App

Interact with Embedded Einstein Analytics Dashboards in the Salesforce Mobile App

Salesforce app users can now interact with embedded dashboards in most places in the Salesforce app with some known limitations and differences between iOS and Android. The experience is familiar for Einstein Analytics app users. Mobile users often access dashboards on the go, so being able to use just one app saves users time. Unifying the mobile experience between apps makes moving between them intuitive when users must access both to get their work done.

Where: This change applies to the current Salesforce mobile app for iOS and the new Salesforce mobile app for iOS and Android. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

When: The new Salesforce mobile app is available the week of October 14, 2019.

How: Salesforce for iOS users can apply filters and interact with components in full-screen dashboards that are optimized for speed and ease of use.

Note: Embedded dashboards in record pages and Lightning pages have known limitations in Salesforce for Android. Embedded dashboards in record pages in the current version of Salesforce for iOS have the same limitations.

SEE ALSO:

Salesforce Help: View Embedded Dashboards on Mobile Devices (can be outdated or unavailable during release preview)

Access Einstein Analytics Dashboards from Links in Salesforce for iOS

You can access Einstein Analytics dashboards from links in Salesforce for iOS. Whether from a Chatter post, Lightning page, or somewhere else, you get an optimized mobile dashboard experience without leaving the Salesforce app. Users with Einstein Analytics for iOS installed on their device can open dashboards from Salesforce for iOS for deeper exploration.

Where: This change applies to the current Salesforce mobile app and the new Salesforce mobile app for iOS. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Your Favorite Dashboards Are Just One Tap Away in Salesforce for iOS

Open Einstein Analytics dashboards from favorites in Salesforce for iOS. Users can access their most used dashboards quickly along with other important Salesforce objects all in one convenient location. Add Einstein Analytics assets to favorites in the full Salesforce site. Although you can add lenses and other assets to your favorites and see them in the Salesforce app, only dashboards open in the Salesforce app.

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Search for Einstein Analytics Dashboards in Salesforce for iOS

You can now search for Einstein Analytics dashboards in global search in Salesforce for iOS. Search includes any dashboard the user has access to so it's easy to find any dashboard that the user knows the name of. Previously, you could access dashboards only through direct links. Although lenses are returned in Salesforce app search results, only dashboards open in the Salesforce app.

Where: This change applies to the current Salesforce mobile app and the new Salesforce mobile app for iOS. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Protect Your Salesforce App with Enhanced Mobile Security

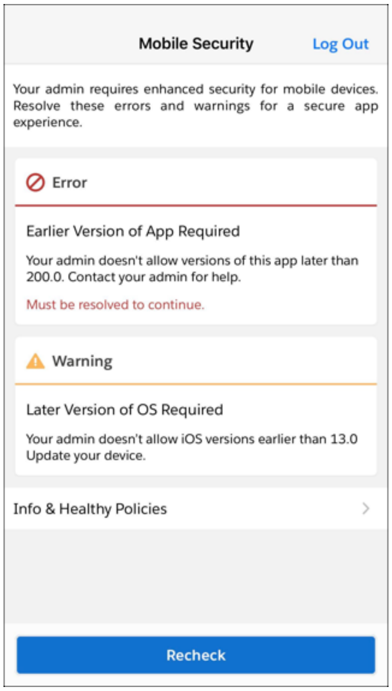
Mobile application management (MAM) has come to the new Salesforce mobile app. Secure your app with the convenient, highly customizable protection of enhanced Mobile Security. Previously, customers with high security and compliance needs had to rely on external mobile device management (MDM) solutions to use the app. Unlike MDM, MAM protects at the app level, so it doesn't need to manage users' entire devices.

Where: Available for an extra cost for the current Salesforce mobile app in all editions, except Database.com, and the new Salesforce mobile app in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

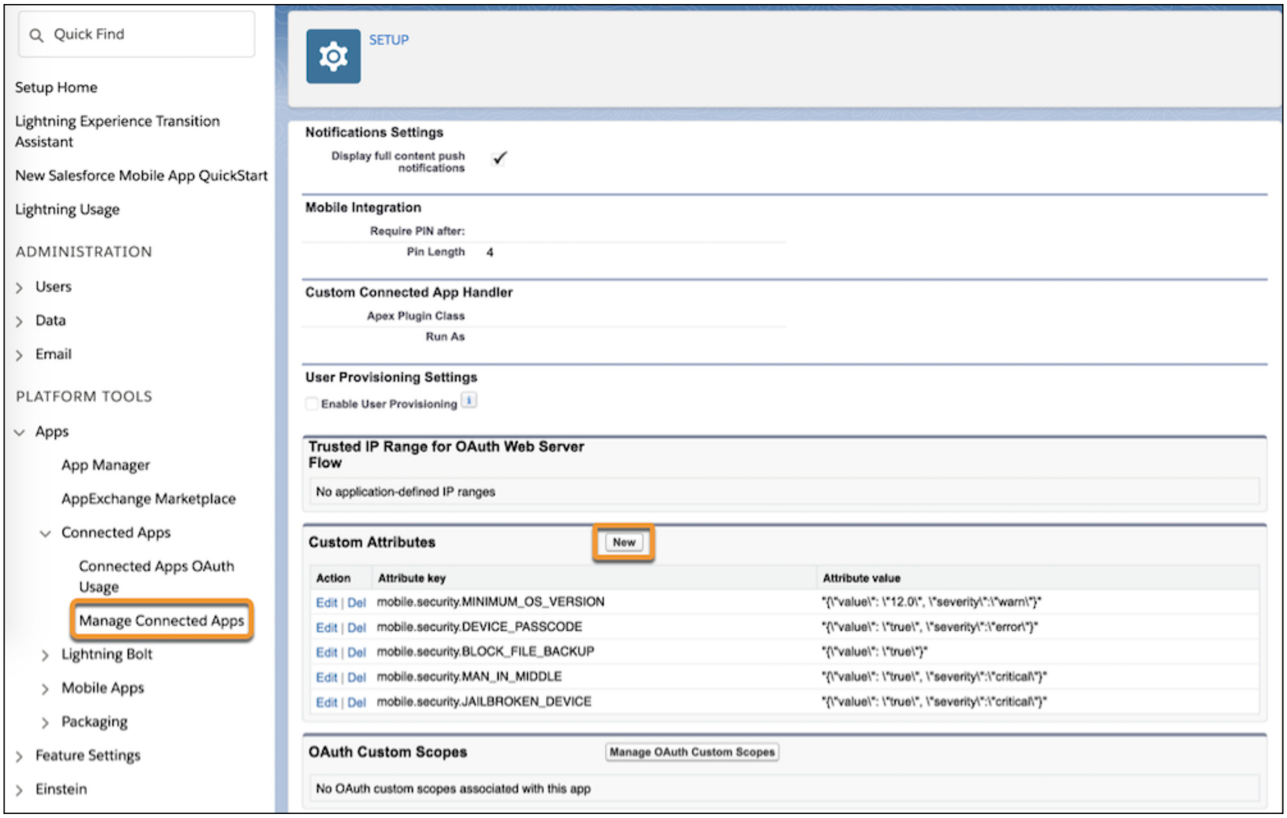
Who: Available for users with the Enforce Enhanced Mobile App Security user permission.

Why: Mobile Security keeps Salesforce app data safe and users' personal data personal. You can control a range of policies to create a security solution tailored to your org's needs. You can limit user access based on operating system versions, app versions, and device and network security. You can also specify the severity of a violation.



Other policies prohibit unsecure behaviors in the app, such as blocking file backups or 3D Touch. And you can log user actions required for your compliance checks, including calls, texts, emails, and screenshots.

How: In Setup, search for `Connected Apps` and select **Manage Connected Apps**. Select the app that you want to modify, and add and configure policies as custom attributes.



SEE ALSO:

Salesforce Mobile App Security Guide (can be outdated or unavailable during release preview)

New and Changed Standard Platform Events

Other Enhancements to the Salesforce Mobile App

In Winter '20, users get more functionality for the current and new versions of the Salesforce mobile app. With a more intuitive navigation experience, access to reports and dashboards, greater control over notifications, and more, admins can create customized mobile solutions to better serve users.

IN THIS SECTION:

Salesforce App Requirements Have Changed

Salesforce is revising the requirements for using the Salesforce mobile app for Android, iOS, and mobile web. Learn about the mobile platform requirements and the devices that we use for feature and performance testing as we continue improving the Salesforce experience.

List and Related List Components Are Optimized for the New Salesforce Mobile App

We updated the List View, Related List - Single, Related Lists, and Related List Quick Links components to support mobile navigation and the new Salesforce mobile app. In the List View component on a record page, a View More button loads more records in batches, so you can easily get more records or scroll to the information you want. The Related Lists component groups all your related lists in one section and no longer includes News and Twitter. The Related Lists component also uses a View More button for efficient navigation.

Give Users Access to the Twitter Component in the New Salesforce Mobile App

Sales reps can easily access Twitter profiles for contacts and accounts in Salesforce with the Twitter component in the new Salesforce mobile app.

Support More Account Team Business Cases Anywhere

Team selling involves complex account relationships. Now your account teams can manage those relationships wherever they are by using custom fields and buttons that you add to account team layouts. The new Salesforce mobile app supports validation rules and Apex triggers for account teams. Collect more information, maintain data integrity, and automate processes no matter which devices your teams use.

View More Fields in the Record Highlights Panel

Your reps have access at the top of their record pages to more of the information that they use most. We increased the number of compact layout fields that display in the highlights area from 4 to 10.

See More Record Details When You Want (and Not When You Don't)

A new View More button appears after the first set of Chatter posts, record detail fields, and related list items on a record. If you want to see more of these items, just click View More. If you don't need all that information, the button makes it possible to hide those details for quicker access to the information that lies beyond.

Easily Find Reports and Dashboards with Familiar Lists

Find reports and dashboards in the new Salesforce mobile app the same way you find them in Lightning Experience on the full Salesforce site, with lists. When you visit Reports or Dashboards, choose from lists like Created by Me, Private Reports, and All Reports to see matching reports or dashboards. Want to quickly resume your last reporting session? Just below the lists, choose from recently run reports or dashboards.

Manage Delivery Settings for Standard Notifications with Notification Builder

Deliver standard notifications, like Chatter notifications, where your users want them. Previously, Salesforce defined the delivery channels for standard notification types. Now you can use Notification Builder to choose which desktop and mobile delivery channels, including which supported Salesforce apps, you want your notifications to appear on. You can also mute a standard notification entirely by deselecting all delivery channels or replace a standard notification by muting it and creating a custom notification to take its place.

Route Your Custom Push Notifications to the Salesforce Mobile App

Notification Builder now supports custom notifications to multiple apps. When you create a custom notification type with the mobile channel enabled, you must also select which app or apps you want notifications to be sent to. Previously, notification types with the mobile channel enabled routed notifications to the Salesforce mobile app by default.

Send Custom Notifications with Flow Builder

Flow Builder puts you in control of who needs to know what and when. You can use Flow Builder to send customized notifications when important events occur. Previously, custom notification actions were fully supported only in Process Builder. Now the Notification Type IDs that you create in Notification Builder are available directly in the Flow Builder UI, so you can more easily reach your users when important events occur.

Open Salesforce Links in Safari on Your iPad

If you have the Salesforce mobile app installed on an iPad and you upgrade to iPadOS, some link functionality will change. When you tap a link to a Salesforce record from your email or another application, the link won't open in the Salesforce mobile app. Instead, it'll open in the Safari web browser. By default, the browser will show the desktop website experience, not the mobile website experience.

Salesforce App Requirements Have Changed

Salesforce is revising the requirements for using the Salesforce mobile app for Android, iOS, and mobile web. Learn about the mobile platform requirements and the devices that we use for feature and performance testing as we continue improving the Salesforce experience.

Mobile Platform Requirements

Users can run Salesforce on mobile devices that meet these mobile platform requirements.

Operating System and Version Requirements	Mobile Browser Requirements*
Android 6.0 or later	Google Chrome on Android
iOS 12.0 or later	Apple Safari on iOS

* The latest mobile browser version is required. Mobile browser requirements apply to Salesforce mobile web only.

To allow for innovation and to keep Salesforce current in the rapidly evolving mobile market, minimum platform requirements are subject to change at the sole discretion of Salesforce, with or without advance notice.

Mobile Devices Used for Salesforce Testing

Salesforce performs automated and manual testing of the Salesforce mobile app for Android, iOS, and mobile web on a select set of mobile devices. For the Winter '20 release, we used these devices for testing.

Platform	Phones	Tablets
Android	• Google Pixel 3 • Google Pixel 2 / Pixel 2 XL • Google Nexus 6P • Samsung Galaxy S10 • Samsung Galaxy S9 / S9+ • Samsung Galaxy S8 • Samsung Galaxy S7 • Samsung Galaxy Note 9 • Samsung Galaxy Note 5 • Samsung Galaxy Note 4	• Samsung Tab A 9.7 • Samsung Tab A 8.0
iOS	• iPhone XS Max • iPhone XR • iPhone X • iPhone 8 / 8 Plus • iPhone 7 / 7 Plus • iPhone 6S / 6S Plus • iPhone 6 / 6 Plus	• iPad Pro 12.9" (2nd Generation) • iPad Pro 10.5" • iPad Pro 9.7" • iPad 2017 (5th Generation) • iPad Air 2 • iPad Mini 4

Platform	Phones	Tablets
	• iPhone 5S • iPhone SE	

Customers aren't blocked from using Salesforce on untested devices that meet current platform requirements. Salesforce might not be able to replicate some issues for customers using Salesforce on untested devices due to manufacturer-specific customizations.

To allow for innovation and to keep Salesforce current in the rapidly evolving mobile market, the list of Salesforce-tested devices is subject to change at the sole discretion of Salesforce, with or without advance notice.

Salesforce Updates

Customers whose devices meet current minimum platform requirements are eligible to receive Salesforce feature updates and fixes.

Our goal is to release Salesforce mobile feature and functionality updates to coincide with each Salesforce major release. This information is provided to help with your release planning, but is subject to change at Salesforce's discretion.

Salesforce Mobile Web

Enhanced features and functionality are automatically available with each Salesforce major release.

Salesforce Mobile App for Android and iOS

Enhanced features and functionality are provided in major version updates. We aim to release a new major version of the Salesforce mobile app for Android and iOS after the completion of each Salesforce major release to all production instances. The timeframe in which a new major version is released varies and can be impacted by factors outside of Saleforce's control, including new requirements from Apple or Google or changes to the iOS or Android operating systems.

Customers can install new major and bug fix versions from the App Store and Google Play as long as their mobile devices meet Salesforce's current minimum mobile operating system requirements. If a device is running an older operating system, updated versions of Salesforce don't appear in the app stores.

Customer Support Services for Salesforce

Salesforce Customer Support uses commercially reasonable efforts to troubleshoot issues with Salesforce, provided:

- A user's device meets current minimum platform requirements
- Salesforce for Android and iOS users have the most recent version installed

When customers run Salesforce on Salesforce-tested devices, it's more efficient for us to troubleshoot issues. For customers using untested devices, even those meeting minimum platform requirements, we might not be able to replicate some issues due to device manufacturer–specific customizations.

Running Salesforce on older devices or devices with low computation and memory capabilities can adversely impact performance, as compared to performance on Salesforce-tested devices.

Because we enhance functionality with every release, customers should install the latest update of the Salesforce app available in Google Play or the App Store. We can only support the latest version.

List and Related List Components Are Optimized for the New Salesforce Mobile App

We updated the List View, Related List - Single, Related Lists, and Related List Quick Links components to support mobile navigation and the new Salesforce mobile app. In the List View component on a record page, a View More button loads more records in batches, so you can easily get more records or scroll to the information you want. The Related Lists component groups all your related lists in one section and no longer includes News and Twitter. The Related Lists component also uses a View More button for efficient navigation.

Where: This change applies to the new Salesforce mobile app in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

SEE ALSO:

Unlock Mobile Configuration Options in the Lightning App Builder

Add List and Related List Components to the New Salesforce Mobile App

Give Users Access to the Twitter Component in the New Salesforce Mobile App

Sales reps can easily access Twitter profiles for contacts and accounts in Salesforce with the Twitter component in the new Salesforce mobile app.

Where: This change applies to the new Salesforce mobile app in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

How: From Setup, enter `Social Accounts` in the `Quick Find box`, then select **Social Accounts and Contacts Settings** and **Enable Social Accounts and Contacts**. Select **Enable Twitter** and **Save**. To make the component available in the New Salesforce Mobile App, add it to Lightning pages in the Lightning App Builder while in the mobile view.

SEE ALSO:

Set Up Social Accounts, Contacts, and Leads

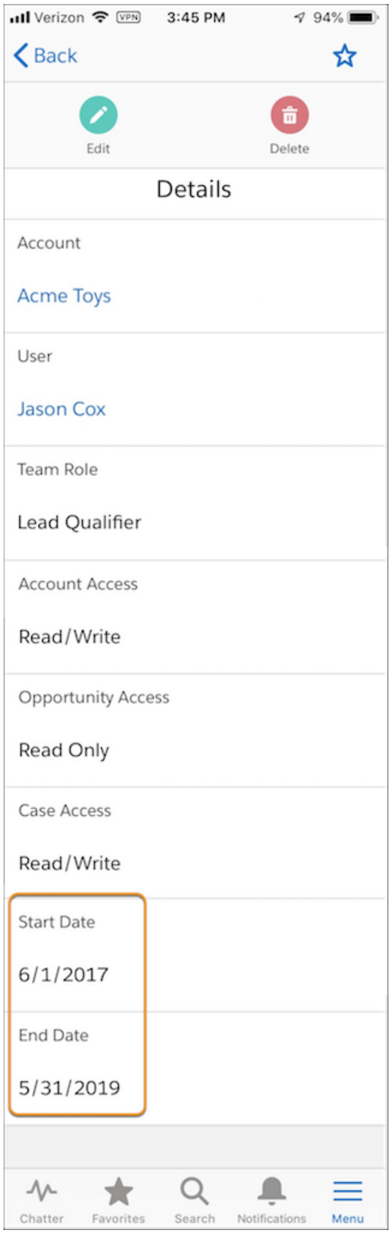
Link Twitter Profiles to Accounts, Contacts, and Leads

Support More Account Team Business Cases Anywhere

Team selling involves complex account relationships. Now your account teams can manage those relationships wherever they are by using custom fields and buttons that you add to account team layouts. The new Salesforce mobile app supports validation rules and Apex triggers for account teams. Collect more information, maintain data integrity, and automate processes no matter which devices your teams use.

Where: This change applies to Lightning Experience and the current Salesforce mobile app in Essentials, Enterprise, Performance, Unlimited, and Developer editions, and the new Salesforce mobile app in Enterprise, Performance, Unlimited, and Developer editions.

Why: Sales reps can gather data in custom fields and rely on automated processes, even when they're working on their phones.



SEE ALSO:

Accounts: Customize Account Teams to Better Support Team Selling

View More Fields in the Record Highlights Panel

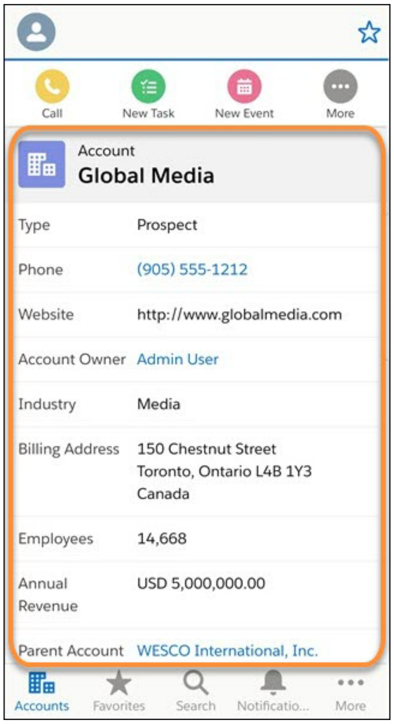
Your reps have access at the top of their record pages to more of the information that they use most. We increased the number of compact layout fields that display in the highlights area from 4 to 10.

Where: This change applies to the new Salesforce mobile app in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

Why: Mobile device users have easier access to the information they need.



See More Record Details When You Want (and Not When You Don't)

A new View More button appears after the first set of Chatter posts, record detail fields, and related list items on a record. If you want to see more of these items, just click View More. If you don't need all that information, the button makes it possible to hide those details for quicker access to the information that lies beyond.

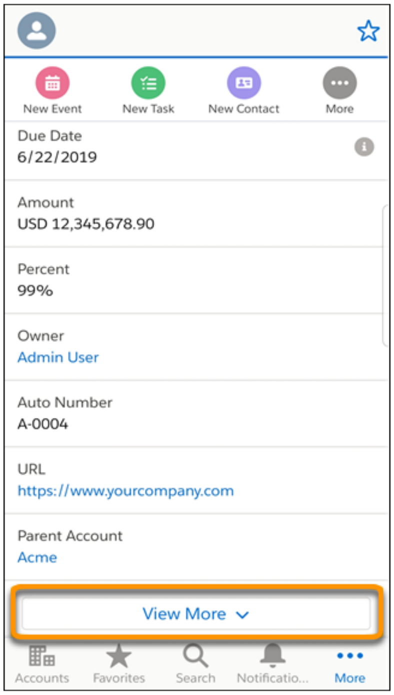
Where: This change applies to the new Salesforce mobile app in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

Who: Available to users with the new Salesforce mobile app user permission.

Why: Use the View More button to see more items, and use View Less to hide them. The number of items that load initially and each time you click View More depends on where you're looking.

- For details, up to 20 load initially, and 50 are added.
- For related lists, up to 8 list items load initially, and 15 are added.
- For Chatter, up to 6 posts load initially, and 20 are added.



Easily Find Reports and Dashboards with Familiar Lists

Find reports and dashboards in the new Salesforce mobile app the same way you find them in Lightning Experience on the full Salesforce site, with lists. When you visit Reports or Dashboards, choose from lists like Created by Me, Private Reports, and All Reports to see matching reports or dashboards. Want to quickly resume your last reporting session? Just below the lists, choose from recently run reports or dashboards.

Where: This change applies to the new Salesforce mobile app for iOS in all editions, except Essentials and Database.com.

When: The new Salesforce mobile app is available the week of October 14, 2019.

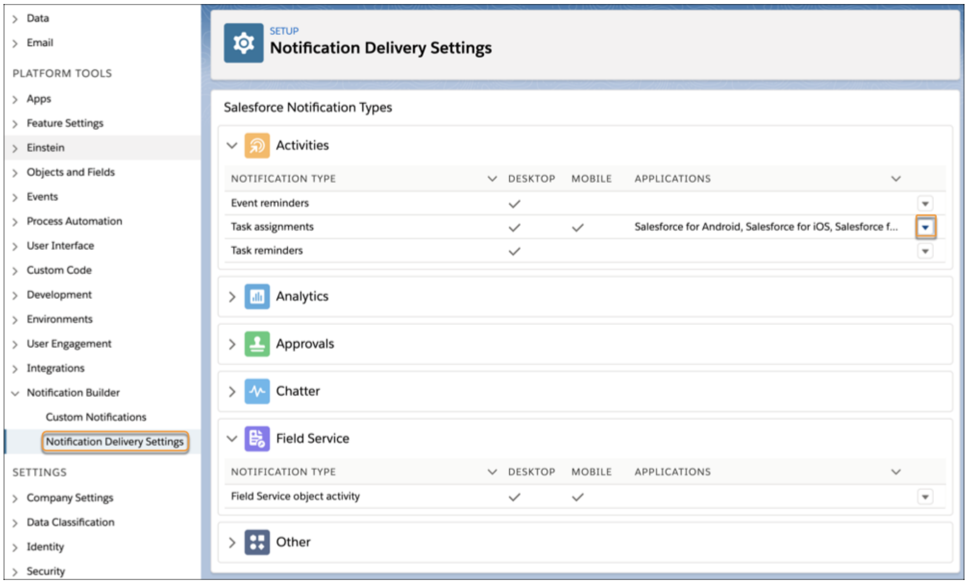
Who: Available to users with the New Salesforce Mobile App user permission.

Manage Delivery Settings for Standard Notifications with Notification Builder

Deliver standard notifications, like Chatter notifications, where your users want them. Previously, Salesforce defined the delivery channels for standard notification types. Now you can use Notification Builder to choose which desktop and mobile delivery channels, including which supported Salesforce apps, you want your notifications to appear on. You can also mute a standard notification entirely by deselecting all delivery channels or replace a standard notification by muting it and creating a custom notification to take its place.

Where: This change applies to Lightning Experience in all editions, except Database.com. You can send notifications to desktop users in Lightning Experience and Salesforce Classic in all editions and to mobile users in the current Salesforce mobile app in all editions, except Database.com, and the new Salesforce mobile app in all editions, except Essentials and Database.com. You can also send notifications to users in Mobile Publisher apps for an extra cost.

How: In Setup, search for `Notification Builder` and select **Notification Delivery Settings**.



SEE ALSO:

Salesforce Help: Manage Notification Delivery Settings (can be outdated or unavailable during release preview)

Route Your Custom Push Notifications to the Salesforce Mobile App

Notification Builder now supports custom notifications to multiple apps. When you create a custom notification type with the mobile channel enabled, you must also select which app or apps you want notifications to be sent to. Previously, notification types with the mobile channel enabled routed notifications to the Salesforce mobile app by default.

Where: This change applies to the current Salesforce mobile app in all editions, except Database.com, and the new Salesforce mobile app in all editions, except Essentials and Database.com.

How: To send a custom push notification to the Salesforce mobile app, search for `Notification Builder` in Setup, create a Custom Notification Type, and enable the mobile delivery channel. Then visit Notification Delivery Settings to edit your new type and select the Salesforce mobile app from the list of supported applications.

SEE ALSO:

Salesforce Help: Create a Notificiation Type

Salesforce Help: Considerations for Notification Builder

Send Custom Notifications with Flow Builder

Flow Builder puts you in control of who needs to know what and when. You can use Flow Builder to send customized notifications when important events occur. Previously, custom notification actions were fully supported only in Process Builder. Now the Notification Type IDs that you create in Notification Builder are available directly in the Flow Builder UI, so you can more easily reach your users when important events occur.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. You can send notifications to desktop users in Lightning Experience and Salesforce Classic in all editions and to mobile users in the current Salesforce mobile app in all editions, except Database.com, and the new Salesforce mobile app in all editions, except Essentials and Database.com. You can also send notifications to users in Mobile Publisher apps for an extra cost.

How: In Setup, search for `Notification Builder` and create a Custom Notification Type.

Then add the Send Custom Notification action to an action in Flow Builder, and select your Notification Type ID.

SEE ALSO:

Salesforce Help: Flow Core Action: Send Custom Notification (can be outdated or unavailable during release preview)

Open Salesforce Links in Safari on Your iPad

If you have the Salesforce mobile app installed on an iPad and you upgrade to iPadOS, some link functionality will change. When you tap a link to a Salesforce record from your email or another application, the link won't open in the Salesforce mobile app. Instead, it'll open in the Safari web browser. By default, the browser will show the desktop website experience, not the mobile website experience.

Where: This change applies to Lightning Experience and Salesforce Classic in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: In iOS 12 and earlier, if you tap a link in an email or another application to a Salesforce record page or a Chatter post, the link opens in the Salesforce mobile app that's installed on your iPad. If you upgrade to iPadOS, the link opens in the Safari web browser on the iPad. You see Lightning Experience or Salesforce Classic, depending on how your org is configured.

By default, you see the desktop website experience, not the mobile website experience. See your browser's documentation for instructions on changing the default to the mobile website experience.

Note: Using Salesforce Classic on an iPad isn't recommended or supported. Some features can behave unexpectedly.

SEE ALSO:

Knowledge Article: Salesforce on the new iPad operating system

Access Salesforce from Safari on iPad Devices (Beta)

Salesforce Help: Lightning Experience on iPad Browsers (Beta)(can be outdated or unavailable during release preview)

Mobile Publisher: Custom Push Notifications, File Downloading and Sharing Anywhere, and More

Keep transforming and customizing your communities with new Mobile Publisher features and improvements. Send custom push notifications to Mobile Publisher apps and access device location. Set up deep linking, download and share Salesforce files, and keep users in your app with AppLinks for Android.

IN THIS SECTION:

Keep Users in the Know with Custom Push Notifications for iOS and Android

Send custom notifications to Mobile Publisher apps with Notification Builder. Previously, notifications were available only for cases predefined by Salesforce. Now you can reach your users wherever they work and give them the information, updates, and reminders they need.

Access Native Capabilities for an Enhanced User Experience

Use location-based metrics to deliver customized content and streamline your location-based marketing.

Set Up Deep Linking for an In-App Experience

With deep linking, you can specify URL schemes for other apps that you authorize users to open from Mobile Publisher apps. Previously, users went outside the Mobile Publisher app to access another app. Now you can send users to content inside the Mobile Publisher app.

Download and Share Salesforce Files for Access on the Go

Now you can download and share Salesforce files from the Mobile Publisher community, giving users access to files anytime and anywhere.

Bring Users Directly to Your App with AppLinks for Android

Previously, when a user clicked a link to your community from an Android device, the community opened in a browser, even if the app was installed on their device. Now with AppLinks for Android, users have direct and quick access to your community app when they open a link from their Android device.

Keep Users in the Know with Custom Push Notifications for iOS and Android

Send custom notifications to Mobile Publisher apps with Notification Builder. Previously, notifications were available only for cases predefined by Salesforce. Now you can reach your users wherever they work and give them the information, updates, and reminders they need.

Where: This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

When: This feature is available the week of October 14, 2019.

How: In Notification Builder, create a custom notification type and select your Mobile Publisher app as a delivery channel. Then add the Send Custom Notification action to a process in Process Builder.

SEE ALSO:

Salesforce Help: Send Custom Notifications (can be outdated or unavailable during release preview)

Access Native Capabilities for an Enhanced User Experience

Use location-based metrics to deliver customized content and streamline your location-based marketing.

Where: This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

When: This feature is available the week of October 14, 2019.

How: Location-based features are enabled automatically in Mobile Publisher communities that use location data.

Set Up Deep Linking for an In-App Experience

With deep linking, you can specify URL schemes for other apps that you authorize users to open from Mobile Publisher apps. Previously, users went outside the Mobile Publisher app to access another app. Now you can send users to content inside the Mobile Publisher app.

Where: This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

When: This feature is available the week of October 14, 2019.

How: In Setup, in the Quick Find box, enter `Mobile Publisher` and select **Mobile Publisher**. Select the app where you want to set up deep linking. In the Whitelisted Custom URL Schemes section, click **Add Custom URL Scheme**, and enter the deep-linking URL for the app.

Download and Share Salesforce Files for Access on the Go

Now you can download and share Salesforce files from the Mobile Publisher community, giving users access to files anytime and anywhere.

Where: This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions where Salesforce Files is enabled.

When: This feature is available the week of October 14, 2019.

Bring Users Directly to Your App with AppLinks for Android

Previously, when a user clicked a link to your community from an Android device, the community opened in a browser, even if the app was installed on their device. Now with AppLinks for Android, users have direct and quick access to your community app when they open a link from their Android device.

Where: This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

When: This feature is available the week of October 14, 2019.

Salesforce Essentials: Email-to-Case Enhancements, New Videos, Setup Flow Updates, and Other Changes

Get cases from your Gmail support email address in a snap by connecting to your Google account during the setup flow. Check out our new video series to get quick 1-minute tips so you can get the most from your Salesforce subscription. We revamped a few more Service-focused setup flows to make your setup even easier (and more fun!). Take a look at the other changes in Sales and Service using the new Essentials filter, so you can find the updates that are relevant to you.

IN THIS SECTION:

Get Connected Faster with Enhancements to Email-to-Case

Turning your support emails into cases is easier than ever. Skip the manual Gmail setup by connecting your Google account to Salesforce and selecting the email address you want to use.

Where: This change applies to Lightning Experience in the Essentials edition.

How: In one easy setup flow, you can swiftly connect your Gmail inbox that receives customer support emails directly to Essentials. From Service Setup, click **Connect Your Support Email**.

When you select Gmail for your email provider, you can log into your Google account using the popup window. Then, select your support email address. You can manage your connected Google account from the **Google Email-to-Case** page in Setup.

Get to Know Essentials, One Minute at a Time

There's a lot to learn about Essentials, and we know that you might not have as much time to explore as you'd like. Check out our new Salesforce Essentials 1-Minute Feature Tours video series. See how you can use Salesforce to import and organize your data, streamline your sales process, and get cases from your email and social media pages. Learn how to use a phone inside Salesforce, and offer instant conversation to your customers. We have more videos in the works, so bookmark this playlist and keep checking back.

SEE ALSO:

Video Series: Salesforce Essentials 1-Minute Feature Tours

Set Up Your Email and Social Cases with Revamped Setup Flows

We simplified the instructions in the Facebook, Twitter, and Email-to-Case setup flows. In the Email-to-Case setup flow, we made sure that our instructions are super clear and easy to follow. We refreshed the Facebook and Twitter setup flows to make the titles clearer. All three flows help Salesforce create cases from your incoming emails and social media posts, so you can spend less time tracking and more time answering your customers' issues and questions.

See Changes to Sales and Service with an Essentials Filter

We've got tons to announce in Salesforce each release, and we want to make it easier for you to find what's relevant to Essentials. Use the new Essentials filter to cut through the noise and find what's most important for your small business.

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Use Einstein Forecasting with a quarterly forecasting schedule. Save predicted field values to cases automatically with Einstein Case Classification. Write Einstein Discovery prediction scores automatically to selected Salesforce fields without coding.

Here's the list of Einstein features that help make Salesforce the world's smartest CRM.

Salesforce Overall

Boost Productivity with Personalized Search Results (Beta)

Want to find stuff faster with search results that are tailored to the unique way you work in Salesforce? Search personalization is here. It helps you cut through the clutter with search results based on what's most important to you, including geographical locations, industries, statuses, product areas, and people.

Break Open the Search Box with Enhanced Instant Results (Beta)

Enhanced instant results turns the global search box into a supercharged productivity hub. Click in the search box to instantly access record previews, page-level record actions, related list quick links, and suggested searches.

Create Instant Reports with All the Right Filters with Conversational Search (Beta)

Can't find a report or don't have time to create one? Conversational search gives you instant access to important data by turning your search terms into record filters. Just enter search terms the way you start a conversation. For example, enter "my closed cases this month" to see a list of your recent cases with a closed status.

Find the Right Record Faster with Recommended Result (Beta)

Recommended Result gets you to the right record faster when we're confident we know what you're looking for. It's like putting purple stripes on your luggage at the airport carousel to make sure it stands out from the crowd.

Put the Pro in Profile with Profile-Specific Search Results Layouts (Beta)

Search results should show what matters most. If you're in sales, knowing the account owner and the industry is critical. If you're a service rep, the account's support level is key information. With profile-specific layouts, you can fine-tune search results layouts for an object for each unique profile in your org. Profile-specific layouts are supported only by objects with customizable layouts. Users who don't have a profile-specific layout assigned to them see the default search results layout.

Sales

Einstein Forecasting: Support for Quarterly Forecasting (Generally Available)

If you use a quarterly forecasting schedule, you can now use the power of Einstein to improve forecasting accuracy, predict results, and track how sales teams are doing.

Einstein Lead Scoring: Control Which Leads to Score

Does your sales team need lead scores for only some leads? Tell Einstein to score only leads that contain certain values in lead fields. For example, if your sales team wants to score only leads from the communications industry, tell Einstein to include only those leads.

Einstein Automated Contacts: See Only the Contact Data You Have Access To

Opportunity Contact Role suggestions now respect the field-level security from the Contact object. Sales reps without access to contact fields, such as Email, Title, or Phone, no longer see those fields in the Einstein component or list views. Also reps don't see contact field values for contact records they don't have access to. Lastly, when viewing the detail page for Opportunity Contact Role suggestions, contact fields don't appear. To see the contact fields, navigate to the contact record.

Einstein Activity Capture: Decide What to Capture and Sync

Get more control over whose email data is captured. Use the Excluded Addresses list to prevent data from syncing. Plus, let reps sync event series.

Add Opportunity Scores to Standard Reports

Use standard reports to analyze opportunities based on opportunity scores. Previously, you could use opportunity scores with only custom report types.

Add Model Factors to Opportunity Custom Report Types

Get a clearer picture of what drives your opportunity scores. The factors used to create the opportunity scoring model are now available in custom report types.

Use SOAP API to Access Information About the Opportunity Scoring Model

We introduced two new objects for Einstein Opportunity Scoring. Use the SalesAIScoreCycle and SalesAIScoreModelFactors objects to retrieve information about opportunity scores and their factors.

Service

Help Your Agents Resolve Cases Faster with Einstein Article Recommendations (Pilot)

Einstein Article Recommendations uses data from past cases to identify Knowledge articles that are most likely to help your agents address customer inquiries.

Automatically End Bot Chats

Build bots that clean up after themselves! Use an End Chat rule action to add conditions that help the bot sense the natural end of a conversation and automatically close the session on behalf of the visitor.

Connect Your Bots to Third-Party NLPs (Pilot)

Bring your own natural language processor (NLP) into Einstein Bots to create a multilanguage experience or to tie into your existing systems. Intents and utterance data are passed through Apex to the processor of your choice. A two-way system connects your NLP to Einstein via an Apex template, so customer inputs are sent from your Einstein bot to your provider. The bot can also receive intent and entity information from your third-party provider to use conversation routing.

Improve Bot Handoffs by Confirming Agent Availability

Bots and agents work better together, and we've made transfers even smarter by checking the availability of agents before a transfer takes place. Define custom messaging to keep the customer informed as to the status of the transfer.

Improve Your Skills with the Bots Setup Help Carousel

Get the most helpful Einstein Bot content at your fingertips with a carousel on the Setup screen. Get access to bot recipes, troubleshooting tips, and best practices.

Einstein Bots: Other Bot Updates

Learn about other changes to Einstein Bots.

Analytics

Deploy Predictions on Salesforce Records Without Writing Code (Generally Available)

You can write prediction scores automatically to selected Salesforce fields without coding. Easily integrate predictions without involving Process Builder or a managed package with a trigger.

Get the Best Predictions of Two Different Models (Pilot)

Previously, Einstein Discovery relied on regression models to predict outcomes. Einstein Discovery now adds a second type of model that is based on a prediction optimization approach known as *gradient boosting* learning algorithms. When you create a story, Einstein Discovery generates predictions using both types of models and shows the results of the model that performed better. You get the best of both approaches.

Monitor the Accuracy of Deployed Models in Real Time (Generally Available)

Determine the accuracy of your logistic models by visually comparing predicted outcomes with actual ones. Then use this feedback to fine-tune your model and produce better predictions. An actual outcome is data that is not expected to change because it has reached its *terminal state*. An example of finalized data is the date on which an order shipped. Define the conditions under which your story's outcome variable has attained its terminal state. That way, Einstein Discovery knows which outcomes to include in the performance analysis.

Improve Your Models by Comparing Metrics

In Model Metrics, you can now display the metrics for multiple models side by side. See how model metrics stack up against each other. Compare segments to reveal the most important variables in each segment. Use what you learn to improve your models and achieve better predictions.

Improve Model Accuracy with Target Thresholds

When developing a model for a categorical field, you can set an optimal threshold that represents the cutoff for the two buckets you are predicting. For example, you can specify a cost ratio between the false positives and false negatives. Then let Einstein Discovery pinpoint an optimized threshold for the business case associated with your story. The threshold value represents the tradeoff between the true positive and false positive rates.

Speed Up Story Creation with Automated Setup

Let Einstein Discovery select the best data to analyze for your story's goal. It searches your dataset, chooses the columns that correlate to the outcome, and excludes the columns that have no correlation. After your story is created, you can manually change the column selections.

Improve Your Predictions With the Accuracy Analytics App

You can now monitor how well your models predict actual outcomes over time, then use this feedback to fine-tune your models and produce better predictions. You can monitor prediction accuracy for both logistic and linear regressions.

Visualize Model Performance with a Residuals Plot Chart

For logistic regression models in which the outcome variable is a text field, a new residuals plot chart reveals the robustness of your model. A *residual* represents the difference between the model's predicted value and the actual outcome value. An actual outcome is data that is not expected to change because it has reached its *terminal state*. An example of finalized data is the number of items a customer received in a shipment. Define the conditions under which your story's outcome variable has attained its terminal state. That way, Einstein Discovery knows which outcomes to include in the plot chart.

Remove Biased Variables from Your Model

Models built with biased data can produce biased predictions. Disparate impact is one example in which data reflects discriminatory practices toward a particular demographic, such as gender disparities in starting salaries. Einstein Discovery alerts you to variables that are being treated unequally in your model. You can remove disparate impact bias from your predictions to produce more ethical and accountable models.

Speed Up Story Creation for Descriptive-Only Insights

If all you want from your data are What Happened insights, you can skip predictive analysis of your dataset. Story creation is faster because Einstein Discovery doesn't generate predictions and improvements. After your story is created, you can manually add predictive analysis if you change your mind.

Refresh Your Stories with Dataset Updates

When data changes in the source dataset, you can now choose to analyze the updated data instead of the snapshot taken when the story was created. When you open a story, Einstein Discovery notifies you when changes have occurred to columns or rows. Previously, a story was always pinned to the original snapshot of the data.

Crunch More Report Data with Einstein Data Insights

Einstein Data Insights limits have increased. You can now create insights from reports containing up to 500,000 rows and 50 columns of data. In addition, you can create up to 1,000 Einstein Data Insights analyses per org per day.

Create Stories Using Datasets with Predicates

Einstein Discovery can now analyze Einstein Analytics datasets with row-level security predicates and sharing rules that are associated with Salesforce sharing inheritance. All users who access the story can see the results of the story. They don't need the same row-level access as the story creator. Previously, you needed the "Ignore predicate when creating story from dataset" permission, which is deprecated in the Winter '20 release.

Customize the Appearance of Einstein Discovery Predictions on Lightning Experience Record Pages

Customize the look of Einstein Discovery Predictions embedded on Lightning record pages. For logistic regression models (binary classification problems), specify labels that appear when the prediction is higher or lower than the model threshold. Examples: win or loss, retain or churn, and so on. Filter recommendations on how to improve a prediction. Set the maximum number of recommendations or show recommendations that impact the outcome by a minimum percentage.

Get Einstein Predictions in Apex Code

After deploying models with Einstein Discovery, use the `ConnectApi.SmartDataDiscovery.predict` method to get predictions on Salesforce objects in your Apex code.

Einstein Prediction Objects Visible to Privileged Users

Users with certain system permissions now have full access to Einstein Prediction-related Salesforce objects regardless of sharing rules. This occurs in orgs in which predictions are enabled and stories have been created using automated prediction fields.

Retiring Einstein Discovery Classic

We plan to retire Einstein Discovery Classic in Spring '20. Current Einstein Discovery Classic users need the Einstein Analytics Plus license (required for Einstein Discovery in Analytics) to recreate datasets and stories in Analytics Studio. Einstein Discovery Classic will be replaced with the new experience in all Developer Orgs with the Winter '20 release.

Customization

Filter by Comparison in Einstein Prediction Builder

Instead of filtering only on absolute field values, you can now filter on the value of one field compared to the value of another field or on a point in time. Make your filter logic more meaningful and relevant to your prediction question.

Call Autolaunched Flows from Your Next Best Action Recommendations

Help your service agents take action quickly. Call an autolaunched flow to update records or send an email behind the scenes via a recommendation.

Create Strategy Templates and Protect Strategies as Your Intellectual Property

Create strategy templates that your subscribers can customize and build on. Share them in managed packages that you publish on AppExchange. A managed package can contain both strategy templates and strategies protected as your intellectual property (IP). Subscribers can open a template in Strategy Builder and clone it to customize for their own use. Strategies not marked as templates are IP protected and can't be edited or cloned. You can upgrade strategy templates and IP-protected strategies as part of a package upgrade. When you push upgrades to strategy templates, you don't affect subscribers' copies.

Undo and Redo Your Work When Creating Strategies

Accidents can happen when you create strategies. Now you can easily undo and redo changes, like mistakenly deleting a parent element or moving an element from one branch to another.

Create Expressions for Branches More Easily in Next Best Action Strategy Builder

Create expressions more quickly and accurately when using a Branch Selector element to branch recommendations. No more manually entering picklist values. Now you can select the values, and Next Best Action populates the expression for you.

Title Your Recommendations for Easy Identification

We added titles to the list of attributes that you can show for a recommendation in the Next Best Action Lightning component in Lightning App Builder or Communities. Add a title to a recommendation so that your agent or user can easily identify it.

Display Recommendations on Your App's Home Page

Add the Next Best Action Lightning component to an app's Home page to display an aggregated set of recommendations. For example, show an agent a list of key accounts to follow up with after a specific number of days has passed since the previous contact.

Development

Einstein Vision: New language and algorithm Fields

The response for Einstein Vision API calls that return model information now contains the `language` and `algorithm` fields.

Einstein Language: New language and algorithm Fields

The response for Einstein Language API calls that return model information now contains the `language` and `algorithm` fields.

Build Better Predictions with Insights

Get details on the logic behind Einstein predictions via insight objects. When an Einstein feature, such as Einstein Prediction Builder, makes a prediction and saves the results, an AIRecordInsight record and several associated child records are created. Use these records to understand how Einstein predictions are made and apply custom logic after the predictions are saved to improve and customize predictions.

Sales: High Velocity Sales Branching, Einstein Reporting and Quarterly Forecasting, and Customizable Account Teams and Opportunity Contact Roles

Create sales cadences that branch to steps based on call outcomes. Report on opportunity scoring model factors, and use Einstein Forecasting with quarterly forecasts. Use custom fields, triggers, and workflow rules with account teams and opportunity contact roles. Control what Einstein Activity Capture captures and syncs. Enjoy improvements to email integrations for Google and Microsoft. Let customers and partners make payments more easily and securely with the Salesforce Billing payment component. And get insights into engagement patterns with the Pardot activity dataset.

IN THIS SECTION:

Sales managers can create sales cadences that branch to multiple outreach paths depending on the results of a call. Managers can also easily see how their sales teams are doing with more reporting features. And sales reps can sort prospects in the order that's most relevant to them with third-party scores.

Report on opportunity scores and scoring model factors. Use the SOAP API to access model factor information. Improve forecasting accuracy if your org uses a quarterly forecasting schedule. And choose which leads you want Einstein to score.

With customizable opportunity contact roles, you have flexibility to attribute revenue to roles, titles, and individuals. And customizable account teams likewise give you more power and flexibility in managing complex account relationships. Reps can show quote line items and opportunity products in a specific order in Lightning Experience. Collaborative Forecasts supports role-based product family forecasts by schedule and product dates. We enhanced security and reporting for Enterprise Territory Management. Price book entries now support field audit trails and field history tracking. And you can remove paths from first-generation managed packages.

Productivity Features: Improved Einstein Activity Capture, More Robust Emails, Activity Timeline Enhancements, and More Efficient Calendars

Get more control over Einstein Activity Capture configurations. Do more with emails with formatted tables and related files as attachments. Use new HTML tags with Lightning email templates. See archived activities, and enjoy better navigation from the activity timeline. Use custom caller ID with Lightning Dialer. Combine availability view and user list calendars to schedule events faster.

Integration with Google: Reminders to Log and Email Tracking, Scheduling, and Sync Improvements

Get reminders to log emails. Enjoy more flexibility when tracking emails and scheduling emails to send later. Plus, we fine-tuned event sync. Now the records that reps invite or relate to their events are never swapped for different records after syncing.

Integration with Microsoft®: More Relevant Objects, More Relevant Matched Records, and Sync Improvements

See the most frequently accessed object types when logging an email or event. User record is selected as the default people record when Enhanced Email is enabled. Plus, we fine-tuned event sync. And starting in Winter '20, restrictions to Microsoft® Internet Explorer® 11 access disrupted service for some Salesforce for Outlook users.

Salesforce CPQ and Billing: Improved Pricing Guidance, Reliable Contracting for Large Quotes, and Customer Payments in Community and Lightning Pages

Improve the effectiveness of your pricing guidance by viewing where sales reps accepted or avoided suggested discounts. Keep your contracting process running smoothly with improved performance when contracting large quotes. Manage customer payments and credit cards by adding the new Salesforce Billing Lightning component to your partner-facing Communities and Lightning pages.

Pardot: New Dataset in B2B Marketing Analytics, Reusable Content for Email, and More Goodies

We've added a dataset to B2B Marketing Analytics that features prospect demographic and engagement activity data together. The new Snippets feature offers reusable content for emails and email templates. This release also brings updates to the Pardot Einstein features Behavior Scoring and Campaign Insights, and improvements to asset handling in the Object Manager.

Other Changes in the Sales Cloud

Data.com Prospector and Data.com Clean are scheduled for retirement on July 31, 2020. Now you can manage delivery settings for Sales Cloud features with Notification Builder. And you can route messaging channels with Omni-Channel.

High Velocity Sales: Sales Cadence Branching, Performance Dashboards, and Third-Party Score Support

Sales managers can create sales cadences that branch to multiple outreach paths depending on the results of a call. Managers can also easily see how their sales teams are doing with more reporting features. And sales reps can sort prospects in the order that's most relevant to them with third-party scores.

High Velocity Sales and its features are available for an extra cost. For pricing details, contact your Salesforce account executive. Lightning Dialer is also available for an extra cost as an add-on license.

IN THIS SECTION:

Change Your Sales Outreach Based on Call Results

With Sales Cadence Branching, managers can create sales cadences that lead prospects through different outreach steps depending on the results of a call. For example, sales reps can follow one path when they speak to a prospect and another when they leave a voicemail.

High Velocity Sales Reporting: Einstein Analytics Dashboards and Operational Report Improvements

Sales managers can view detailed engagement and sales cadence performance statistics; build custom reports with lead, contact, person account, and sales cadence data; and access more information with included reports.

[Prioritize Records with Third-Party Scores in Work Queue]

Set up sales reps to filter their work queues with custom number fields derived from third-party scores. Reps can focus on the prospect records that need their attention most: person accounts, contacts, and leads.

[Set Up More from Setup in High Velocity Sales]

The redesigned High Velocity Sales Setup page makes setup and configuration easier. We added more options so that you can access settings for the Sales Cadence Steps component, call outcome categories, person accounts, and custom object scores. We also grouped the configuration settings by lead, contact, and person account to make different settings easier to find.

[More Users Can Remove Sales Cadence Targets]

Now the sales cadence target assignee, the target record owner, and the sales cadence owner can remove targets from a sales cadence. Previously, only users who added a target or users with the Modify All Data permission could remove targets. If you must allow broader access, you can assign groups permission to remove targets.

[See Who's Working on a Prospect in a Sales Cadence]

Sales managers can now tell at a glance which sales rep is working on a prospect in a sales cadence—no extra clicks required. The Sales Cadence Assignee field is available in list views and record detail pages.

[Evaluate the Engagement Success of Sales Cadence Steps]

The Sales Cadence Steps related list on Sales Cadence records lets managers and reps easily see the engagement stats of each sales step.

[Use Rich Text for Call Scripts]

Sales managers can now control the font, size, color, and alignment of call script text. They can also add bullet points and numbered lists to create more detailed and better formatted call scripts.

[Other Enhancements in High Velocity Sales]

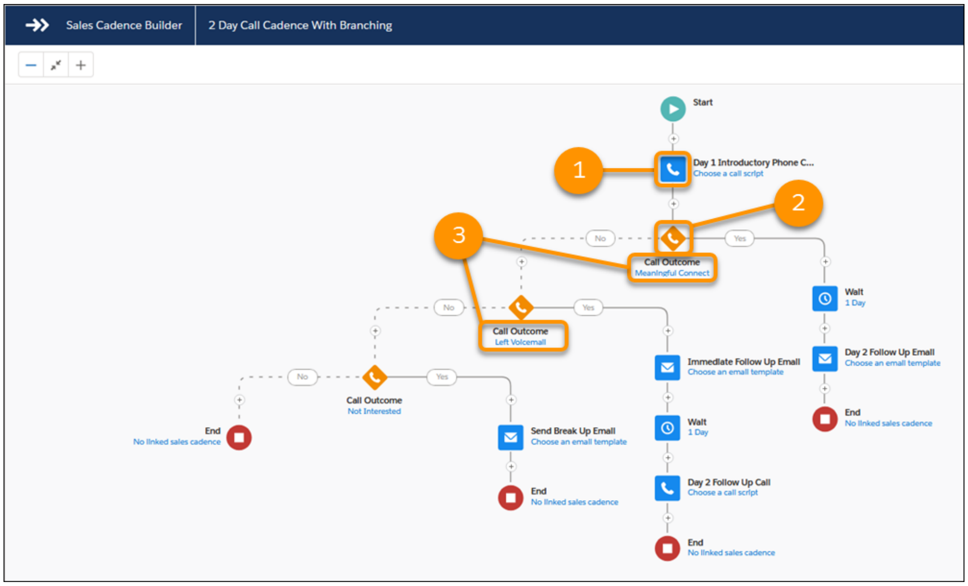
The Sales Cadence Steps component has more detailed information, and signatures are available in email templates.

Change Your Sales Outreach Based on Call Results

With Sales Cadence Branching, managers can create sales cadences that lead prospects through different outreach steps depending on the results of a call. For example, sales reps can follow one path when they speak to a prospect and another when they leave a voicemail.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

How: To enable branched sales cadences, first turn on Call Results on the Log a Call page in Dialer Setup. Call results are disposition values such as "Left Voicemail" captured when you log a call. Then map your Call Outcome values in High Velocity Sales Setup.



When sales managers build a sales cadence, they can add a call step (1) followed by a branch step (2). For each branch step, choose which Call Outcome value to look for, such as Meaningful Connect or Left Voicemail (3).

Then add sales steps to the Yes and No paths. The sales cadence follows the Yes path when the Call Outcome matches the value selected. Otherwise, the sales cadence follows the No path. To check for more than one Call Outcome, add multiple branch steps.

SEE ALSO:

Salesforce Help: Define Call Outcomes for Branching (can be outdated or unavailable during release preview)

High Velocity Sales Reporting: Einstein Analytics Dashboards and Operational Report Improvements

Sales managers can view detailed engagement and sales cadence performance statistics; build custom reports with lead, contact, person account, and sales cadence data; and access more information with included reports.

IN THIS SECTION:

See Sales Cadence and Rep Performance at a Glance (Beta)

Sales managers can use Einstein Analytics performance dashboards to quickly see customer engagement and how sales reps are doing. For example, managers can view how many sales cadences are in progress, with detailed call and email response statistics. And they can see how effectively sales reps work through their sales cadences.

See More Information in Sales Cadence Reports

Reporting enhancements let sales managers see detailed information about call outcomes, email engagement, sales rep timeliness, and more detailed sales cadence and target results.

See Sales Cadence and Rep Performance at a Glance (Beta)

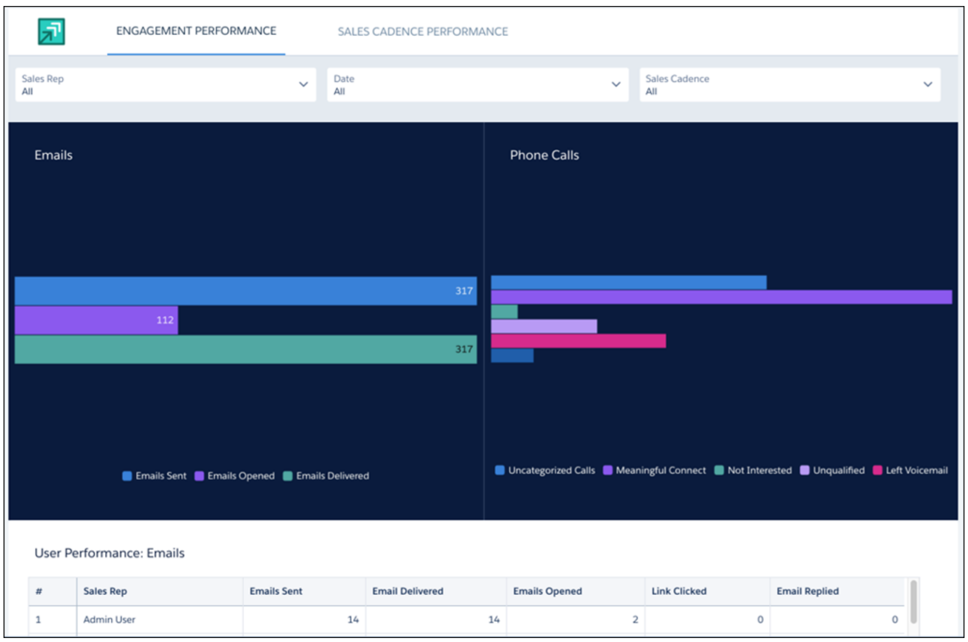
Sales managers can use Einstein Analytics performance dashboards to quickly see customer engagement and how sales reps are doing. For example, managers can view how many sales cadences are in progress, with detailed call and email response statistics. And they can see how effectively sales reps work through their sales cadences.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on for Enterprise, Performance, and Unlimited editions.

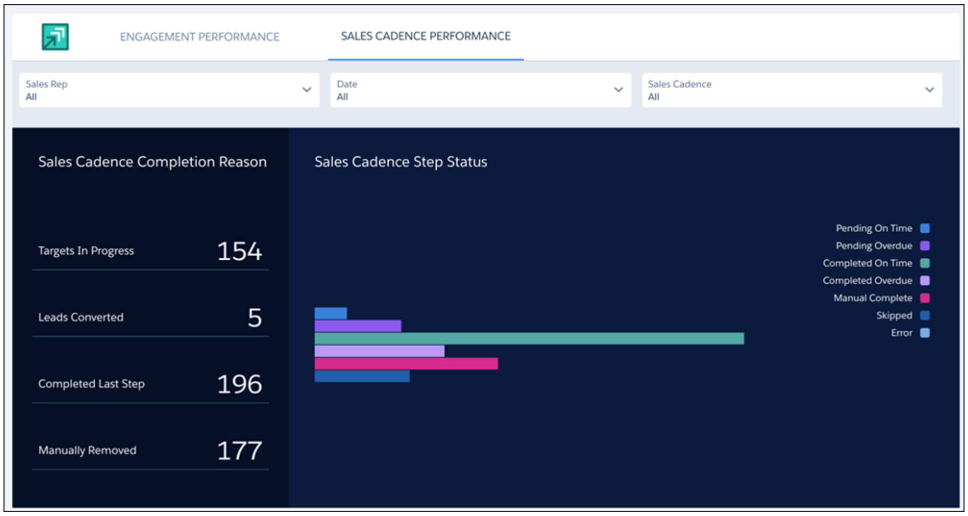
Note: As a beta feature, High Velocity Sales Performance Dashboards is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

Who: To view High Velocity Sales performance dashboards, you need the High Velocity Sales User or High Velocity Sales Cadence Creator permission, and View All Data permission.

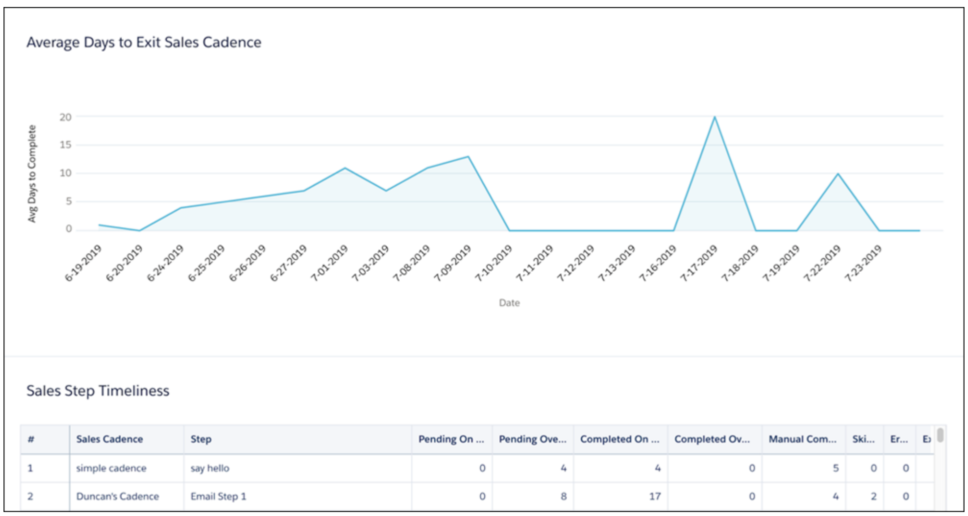
Why: With the Engagement Performance dashboard, managers see prospect engagement statistics for emails and phone calls, sorted by sales cadence, date range, sales rep, or a combination.



With the Sales Cadence Performance dashboard, managers see sales cadence effectiveness. Details include statistics on targets in progress, lead conversion, and sales cadence completions.



Managers can also see how long prospects take to move through sales cadences and whether reps are completing outreach steps on time.



How: To enable the dashboards, map your Call Outcome values and turn on the High Velocity Sales Performance Analytics Application in High Velocity Sales Setup. To view the dashboards, sales managers choose High Velocity Sales Performance from the navigation menu in the High Velocity Sales app.

SEE ALSO:

Salesforce Help: Define Call Outcomes for Branching (can be outdated or unavailable during release preview)

See More Information in Sales Cadence Reports

Reporting enhancements let sales managers see detailed information about call outcomes, email engagement, sales rep timeliness, and more detailed sales cadence and target results.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

Why: Several enhancements to High Velocity Sales reporting give managers deeper understanding of their sales cadence effectiveness.

- See the call outcomes for each call step in the new Call Script Engagement report and the existing Sales Cadence Engagement report.
- The Email Template Engagement report and Call Script Engagement report show managers how prospects responded to emails and calls based on your templates and scripts. See exactly how many prospects replied to each email, and how many calls were successful. These reports are in the Sample Sales Reports folder.
- The metrics fields Completed on Time, Completed Overdue, Skipped, and Manually Completed show managers how sales reps are completing their sales cadence tasks. These fields are available in custom report types and the included Sales Cadence Engagement report. If you've turned on High Velocity Sales, add the fields to the Sales Cadence Engagement report manually.
- The existing Sales Cadence and Trackers custom report type now includes the Sales Cadence Assignee field. This report type shows managers which leads, contacts, and person accounts are in a sales cadence, along with how each target completed the sales cadence.
- Custom report types combining leads, contacts, and person accounts with sales cadence trackers let sales managers see which of their leads, contacts, and person accounts are in a sales cadence and how each completed it.

How: To see Call Outcome values in reports, map your org's call result values to the call outcomes in High Velocity Sales Setup. The available Call Outcome values include Meaningful Connect, Left Voicemail, Call Back Later, Not Interested, and Unqualified.

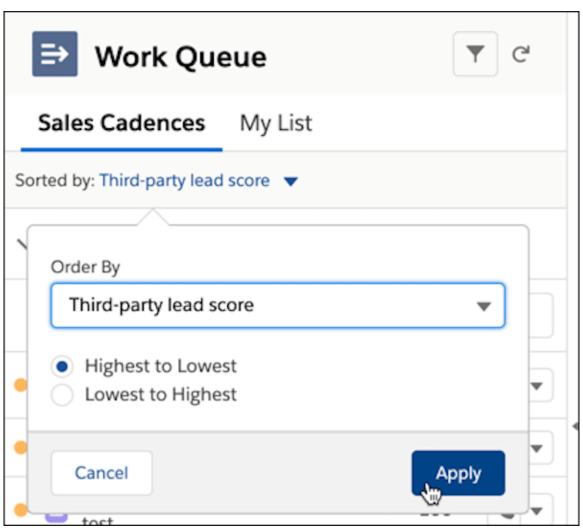
To make custom report types combining leads, contacts, and person accounts with sales cadence trackers available to managers, define them in Report Types Setup.

Prioritize Records with Third-Party Scores in Work Queue

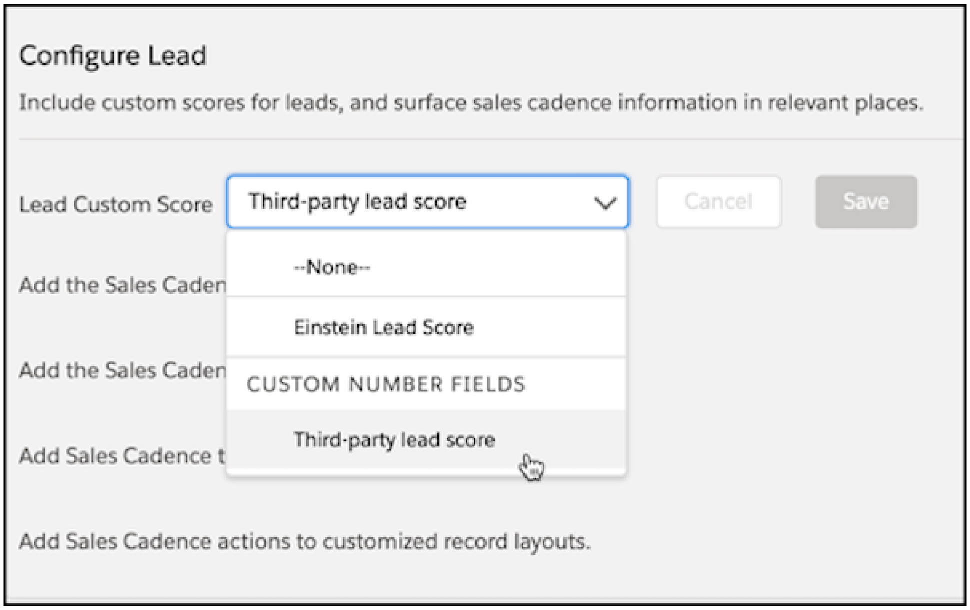
Set up sales reps to filter their work queues with custom number fields derived from third-party scores. Reps can focus on the prospect records that need their attention most: person accounts, contacts, and leads.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on for Enterprise, Performance, and Unlimited editions.

Why: Sales reps have more control over their work queues. To order by custom fields, click the Sorted by link, and then choose a custom field to order by.



How: From the High Velocity Sales setup, click **Edit** next to the object you want to add a custom field for. Next to the object's custom score field, choose the appropriate custom number field. The field displays in the sales rep's work queue and can be used to sort sales cadences. For person accounts, configure custom number fields in the object management settings for contacts.

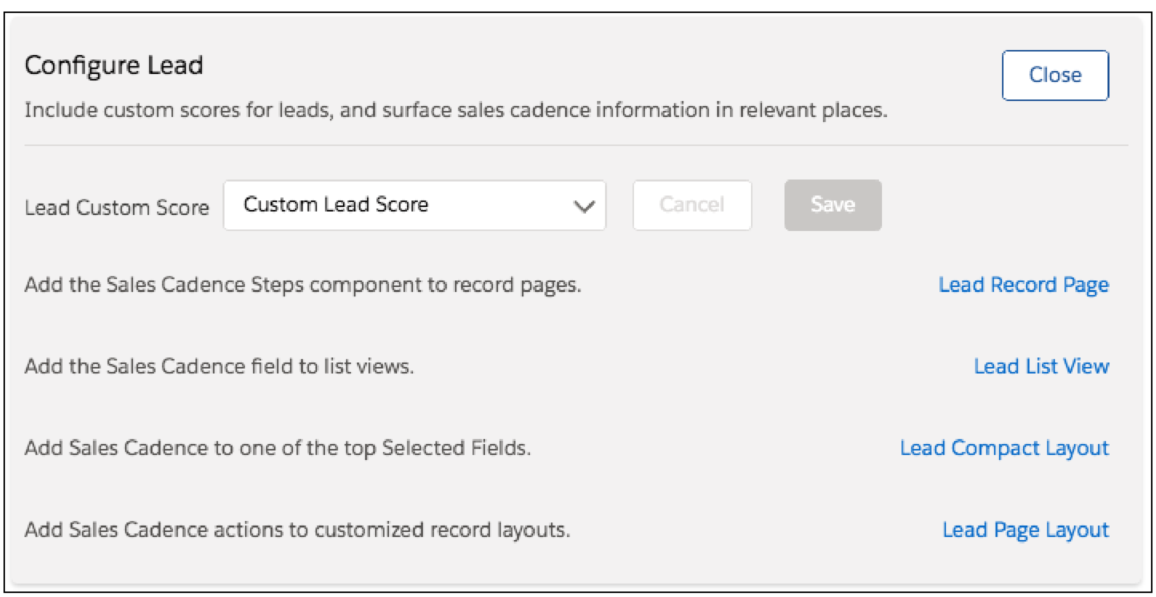


Set Up More from Setup in High Velocity Sales

The redesigned High Velocity Sales Setup page makes setup and configuration easier. We added more options so that you can access settings for the Sales Cadence Steps component, call outcome categories, person accounts, and custom object scores. We also grouped the configuration settings by lead, contact, and person account to make different settings easier to find.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

Why: Easily access the settings for the records that are most relevant to your org. Related settings are grouped in expandable sections, so you only see the detailed settings that you want to.



More Users Can Remove Sales Cadence Targets

Now the sales cadence target assignee, the target record owner, and the sales cadence owner can remove targets from a sales cadence. Previously, only users who added a target or users with the Modify All Data permission could remove targets. If you must allow broader access, you can assign groups permission to remove targets.

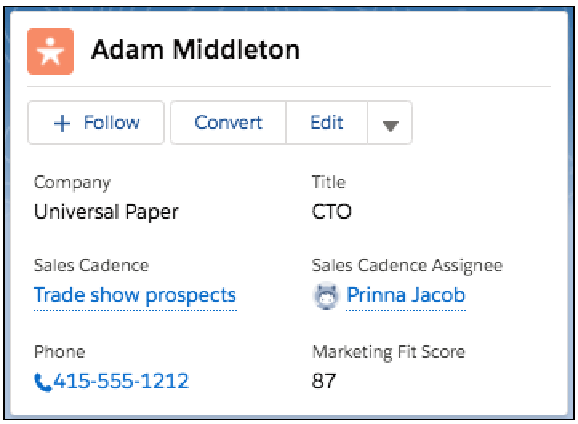
Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on for Enterprise, Performance, and Unlimited editions.

See Who's Working on a Prospect in a Sales Cadence

Sales managers can now tell at a glance which sales rep is working on a prospect in a sales cadence—no extra clicks required. The Sales Cadence Assignee field is available in list views and record detail pages.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

Why: Sales managers and reps can see who's working on a deal from the related lead, contact, or person account record. They can also see the Sales Cadence Assignee field in list views.



How: To add the field to record layouts, go to the Object Manager in Setup. Select the object that you want to modify. Click **Compact Layouts**, and then add Sales Cadence Assignee to one of the top Selected Fields.

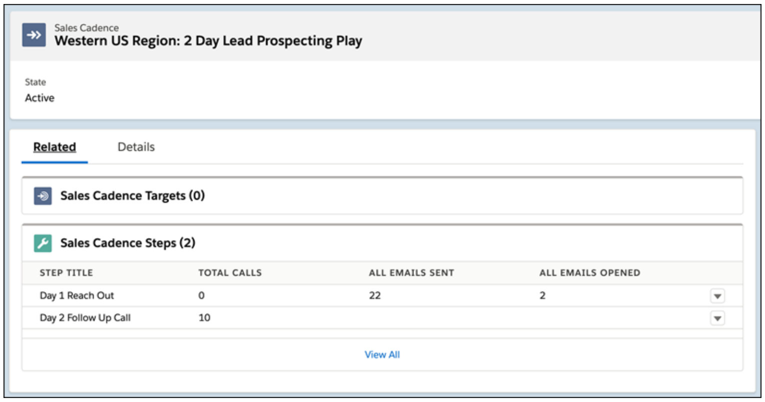
To add Sales Cadence Assignee to list views, navigate to the list view where you want the field to appear. Click the List View Controls dropdown, then click **Select Fields to Display**, and add **Sales Cadence Assignee**.

Evaluate the Engagement Success of Sales Cadence Steps

The Sales Cadence Steps related list on Sales Cadence records lets managers and reps easily see the engagement stats of each sales step.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on for Enterprise, Performance, and Unlimited editions.

Why: For each step in the sales cadence, your users can see the number of calls made, emails sent, and emails opened.

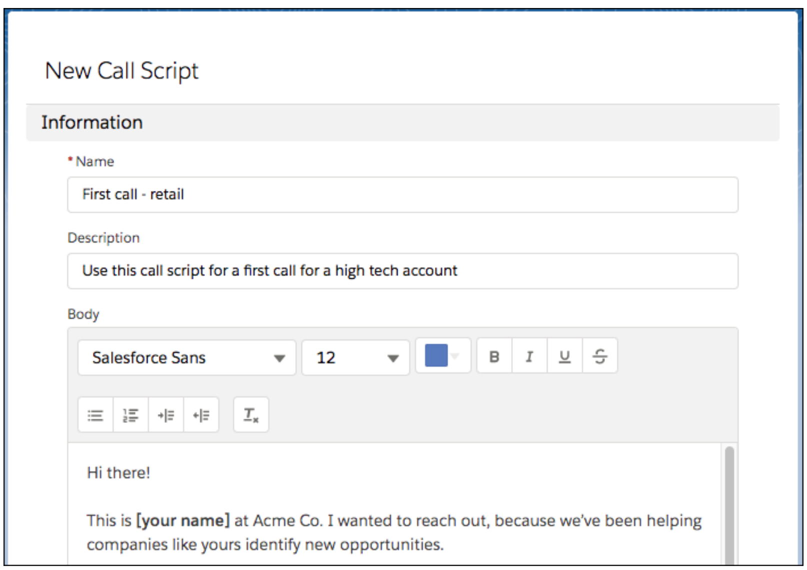


Use Rich Text for Call Scripts

Sales managers can now control the font, size, color, and alignment of call script text. They can also add bullet points and numbered lists to create more detailed and better formatted call scripts.

Where: This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

How: Rich text options are available in the editor. Managers can add formatting to text when they create call scripts.



Other Enhancements in High Velocity Sales

The Sales Cadence Steps component has more detailed information, and signatures are available in email templates.

Where: These changes apply to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

Why: Here's what changed.

- When a step is past due, notifications now appear in the Sales Cadence Steps component. That way, reps always know which steps to prioritize.

- The Sales Cadence Steps component shows if there's a linked sales cadence coming up. Reps know what to expect next and managers can better track the status of a prospect.
- The Sales Cadence Steps component shows if the previous or next step is a branching step.
- Sales managers can now add a {{{Sender.Signature}}} merge field to email templates to dynamically pull in a user's signature.

How: These enhancements are automatically available for High Velocity Sales users.

Sales Cloud Einstein: Reporting Improvements, API Access, Quarterly Forecasting Support, and Data Segmentation

Report on opportunity scores and scoring model factors. Use the SOAP API to access model factor information. Improve forecasting accuracy if your org uses a quarterly forecasting schedule. And choose which leads you want Einstein to score.

IN THIS SECTION:

Einstein Opportunity Scoring: Improved Reports and API Access

Add the Score field to standard Opportunity reports and create custom report types for model factors. Plus, use the SOAP API to access model factor information.

IN THIS SECTION:

Use SOAP API to Access Information About the Opportunity Scoring Model

We introduced two new objects for Einstein Opportunity Scoring. Use the SalesAIScoreCycle and SalesAIScoreModelFactors objects to retrieve information about opportunity scores and their factors.

Add Opportunity Scores to Standard Reports

Use standard reports to analyze opportunities based on opportunity scores. Previously, you could use opportunity scores with only custom report types.

Where: This change applies to Sales Cloud Einstein in Lightning Experience and Salesforce Classic. Sales Cloud Einstein is available for an extra cost in Enterprise, Performance, and Unlimited editions.

Why: Reporting on opportunity scores has many uses. For example, group your opportunities by score. Then compare how values such as opportunity stage compare to the scores. Or, prioritize the opportunities in the report based on the score field.

How: Add the Score field to any opportunity-based report. You can then sort, group, or filter records by the opportunity score.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Add Model Factors to Opportunity Custom Report Types

Get a clearer picture of what drives your opportunity scores. The factors used to create the opportunity scoring model are now available in custom report types.

Where: This change applies to Sales Cloud Einstein in Lightning Experience and Salesforce Classic. Sales Cloud Einstein is available for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To use model factors in custom report types, users must have the View Scoring Model Factors permission. The permission isn't enabled by default. Clone the Sales Cloud Einstein permission set, and enable the View Scoring Model Factors permission. Assign the permission set to users.

Why: Reporting on model factors has many uses. For example, sales reps can review the top model factors for their opportunities to see which factors have the most influence on their deals. Admins and people interested in data science can see which factors are included in the predictive model, which helps them evaluate the model and make improvements.

How: Create a custom report type. For the primary object, choose **Sales AI Score Model Factors**.

SEE ALSO:

Salesforce Help: Create Custom Report Types for Einstein Opportunity Scoring (can be outdated or unavailable during release preview)

Use SOAP API to Access Information About the Opportunity Scoring Model

We introduced two new objects for Einstein Opportunity Scoring. Use the SalesAIScoreCycle and SalesAIScoreModelFactors objects to retrieve information about opportunity scores and their factors.

Where: This change applies to Sales Cloud Einstein in Lightning Experience and Salesforce Classic. Sales Cloud Einstein is available for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To access model factors in the API, users must have the View Scoring Model Factors permission. The permission isn't enabled by default. Clone the Sales Cloud Einstein permission set, and enable the View Scoring Model Factors permission. Assign the permission set to users.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

New and Changed Objects

Einstein Forecasting: Support for Quarterly Forecasting (Generally Available)

If you use a quarterly forecasting schedule, you can now use the power of Einstein to improve forecasting accuracy, predict results, and track how sales teams are doing.

Where: This change applies to Sales Cloud Einstein in Lightning Experience and Salesforce Classic. Sales Cloud Einstein is available for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Einstein Forecasting is available to sales managers with the Sales Cloud Einstein license.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

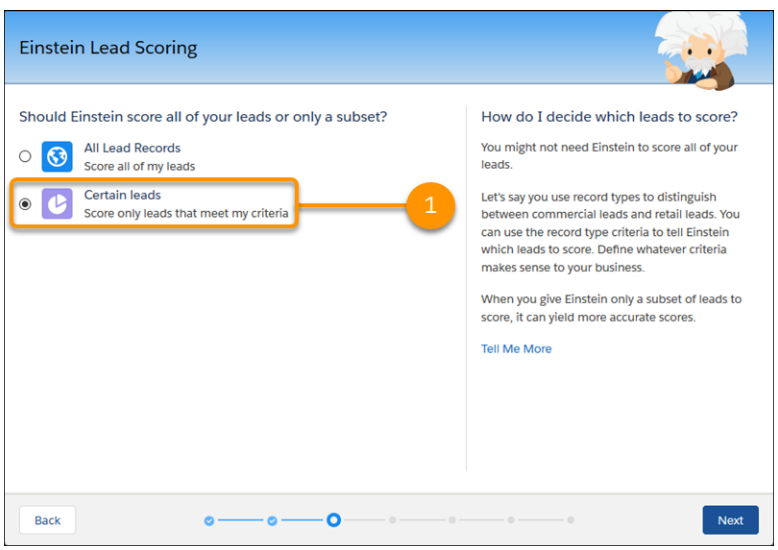
Salesforce Help: Enable Einstein Forecasting (can be outdated or unavailable during release preview)

Einstein Lead Scoring: Control Which Leads to Score

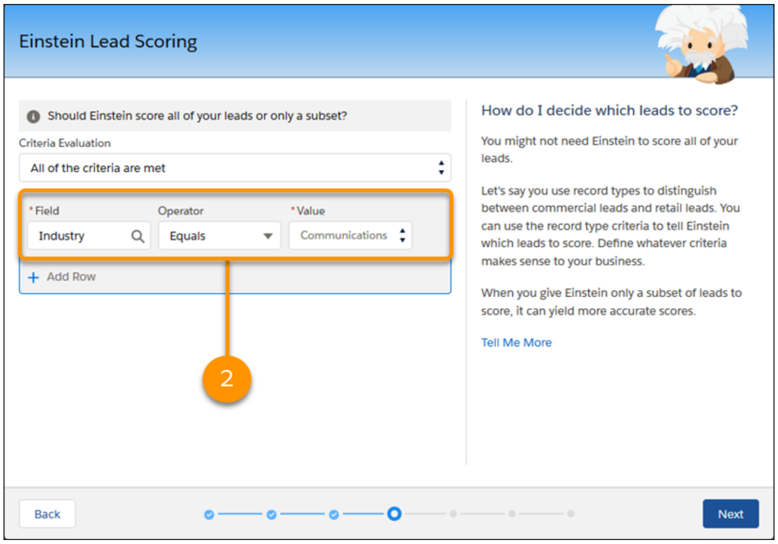
Does your sales team need lead scores for only some leads? Tell Einstein to score only leads that contain certain values in lead fields. For example, if your sales team wants to score only leads from the communications industry, tell Einstein to include only those leads.

Where: This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

How: During setup, tell Einstein that you don't want to include all leads in the analysis (1).



Then choose the lead field values that indicate leads you want to score (2).



SEE ALSO:

Salesforce Help: Considerations for Setting Up Sales Cloud Einstein (can be outdated or unavailable during release preview)

Einstein Automated Contacts: See Only the Contact Data You Have Access To

Opportunity Contact Role suggestions now respect the field-level security from the Contact object. Sales reps without access to contact fields, such as Email, Title, or Phone, no longer see those fields in the Einstein component or list views. Also reps don't see contact field values for contact records they don't have access to. Lastly, when viewing the detail page for Opportunity Contact Role suggestions, contact fields don't appear. To see the contact fields, navigate to the contact record.

Where: This change applies to Sales Cloud Einstein in Lightning Experience. Sales Cloud Einstein is available for an extra cost in Enterprise, Performance, and Unlimited editions.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Einstein Activity Capture: Decide What to Capture and Sync

Get more control over whose email data is captured. Use the Excluded Addresses list to prevent data from syncing. Plus, let reps sync event series.

Where: These changes apply to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

SEE ALSO:

Einstein Activity Capture: More Control Over What Data to Capture and Sync, and Notifications About Account Connections

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Core Sales Features: Opportunity Contact Role and Account Team Customization, Line Item Sorting on Quotes and Opportunities, and More Product Family Forecast Types

With customizable opportunity contact roles, you have flexibility to attribute revenue to roles, titles, and individuals. And customizable account teams likewise give you more power and flexibility in managing complex account relationships. Reps can show quote line items and opportunity products in a specific order in Lightning Experience. Collaborative Forecasts supports role-based product family forecasts by schedule and product dates. We enhanced security and reporting for Enterprise Territory Management. Price book entries now support field audit trails and field history tracking. And you can remove paths from first-generation managed packages.

IN THIS SECTION:

Opportunity contact role customization options give you the flexibility to track and attribute revenue to roles, titles, and individuals. With custom fields and page layouts, validation rules, and Apex triggers, you can design an Opportunity Contact Role to match your specific sales and reporting processes. You can capture new data, such as titles and roles, to help your sales reps be more efficient in targeting the right contacts.

Team selling involves complex account relationships. Now you can manage those relationships better in Salesforce. Collect more information by adding custom fields, buttons, and links to account team layouts. Use validation rules, Apex triggers, Process Builder, and workflow rules with account teams to help keep data clean and minimize manual data entry. You can now report on account teams, too.

Sales reps can easily sort quote line items in the order they want. Their preferred sort order is also updated in related opportunities and PDF quotes when they are synced. Previously, quote line item sorting was available only in Salesforce Classic.

Sales teams working in Lightning Experience can now set the order of products listed on an opportunity. Help reps add products faster by using dependent picklists and a default quantity for opportunity products. A new list view on the opportunity page helps sales managers zero in on a team's progress.

Collaborative Forecasts now supports role-based product family forecasts using product and schedule dates. Previously, product family forecasts used close date. This change means that if your company forecasts by role hierarchy, product family, and product or schedule dates, you can now use Collaborative Forecasts to reflect your business model. Forecast users also get features that aren't in Salesforce Classic, such as quick actions and wrapped text in the opportunity list.

Activities reports can now show territory information. And permissions for running assignment rules have changed to give you more control over what users can do in Setup.

Price book entries now support field audit trails and field history tracking, so now you can easily track changes to price book entry fields.

Sometimes a managed package that you install includes a path that doesn't meet your business needs. Now you can remove paths from first-generation managed packages. The record remains in the database, but it's removed from indexes and subsequent upgrades, and it doesn't count toward quotas.

Other Changes in Core Sales Features

Account and opportunity teams working in Lightning Experience can see team members' access to account and opportunity records. We added the Edit and Delete actions for records in the Schedules related list on opportunity products. We also added the Edit Relationship action to the Related Contacts related list on accounts. Make sure that you enable the critical update for Enterprise Territory Management. Customizable Forecasting and the original territory management feature are scheduled for retirement. And we updated Metadata API to make your migration to Enterprise Territory Management easier.

Contacts: Customize Opportunity Contact Roles for Better Tracking and Reporting

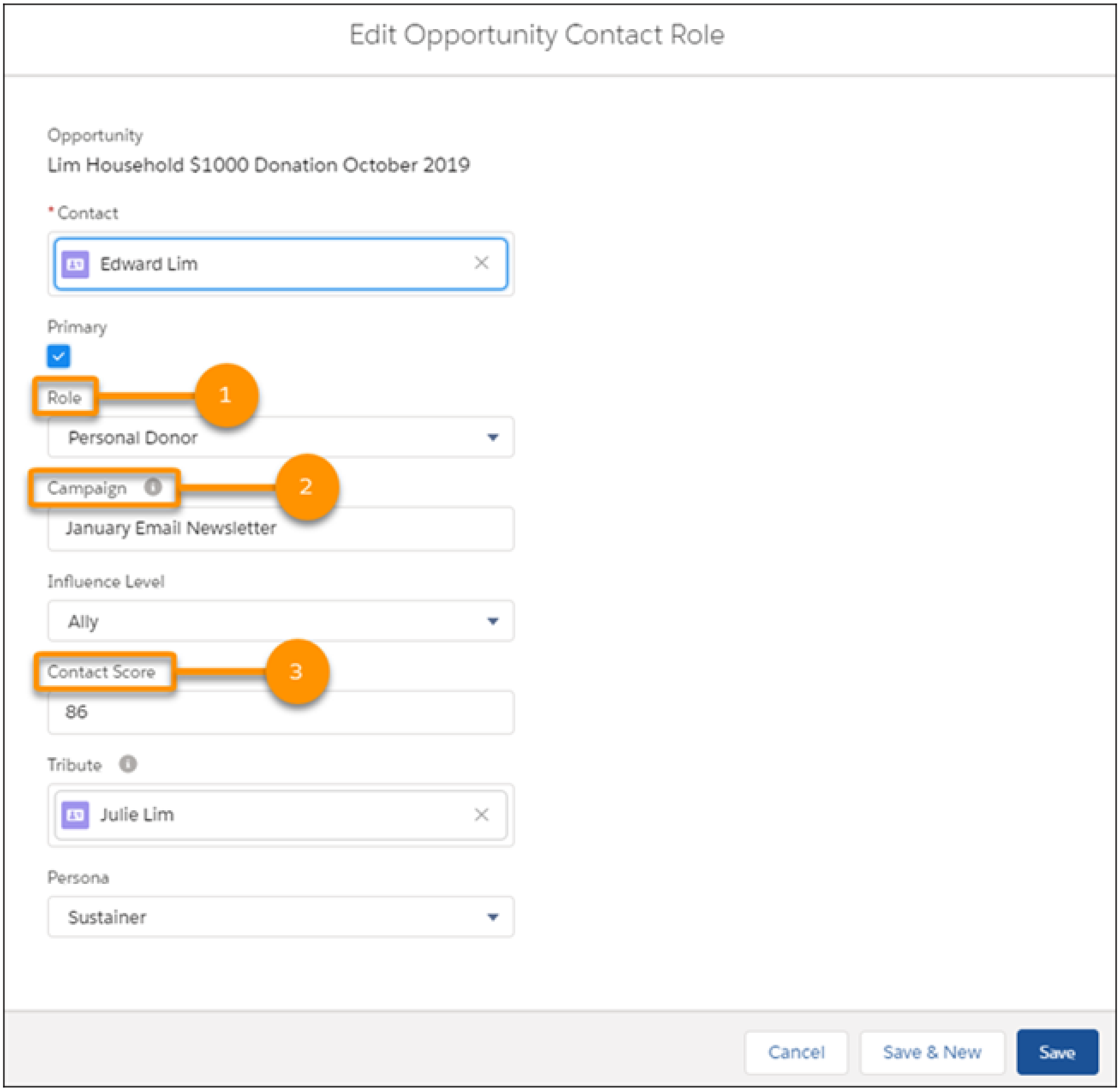
Opportunity contact role customization options give you the flexibility to track and attribute revenue to roles, titles, and individuals. With custom fields and page layouts, validation rules, and Apex triggers, you can design an Opportunity Contact Role to match your specific sales and reporting processes. You can capture new data, such as titles and roles, to help your sales reps be more efficient in targeting the right contacts.

Where: This change applies to Lightning Experience in all Salesforce editions with the Sales or Service Cloud.

Who: Users with the Customize Application permission can customize Opportunity Contact Roles. Users with Read on Opportunity permissions can view customizations, such as custom fields. Users also need Edit on Opportunity and Read on Contact to add, edit or remove Contact Roles from an Opportunity.

Why: When you customize opportunity contact roles to capture and track data, you can report ROI and revenue based on lead conversion, campaigns, contact roles, and more. See the impact on revenues and opportunity close rates from specific roles (1), such as decision-makers, or from leads converted to contacts.

For example, a nonprofit organization can create a custom opportunity contact role called "personal donor" that allows it to track donations directly from individual donors. The organization can then identify its best donors and set up triggers to send thank you emails or other communications based on donation amounts or contact changes.



A custom opportunity contact role record can also help you target contacts for campaign-based marketing (2). With the new data you capture, such as revenue, product interest, and scoring data (3), you are more effective in identifying the candidates for targeted campaigns.

Triggers can kick off internal actions for sales reps, such as updating information and fields when opportunity contact roles change. With validation rules, you can ensure that sales reps enter required contact roles in their opportunities.

How: In Setup, go to Object Manager and enter `Opportunity Contact Role` in the Quick Find box. In the Opportunity Contact Role object manager, create custom fields, buttons, and links; design custom page layouts; and set up triggers and validation rules.

SEE ALSO:

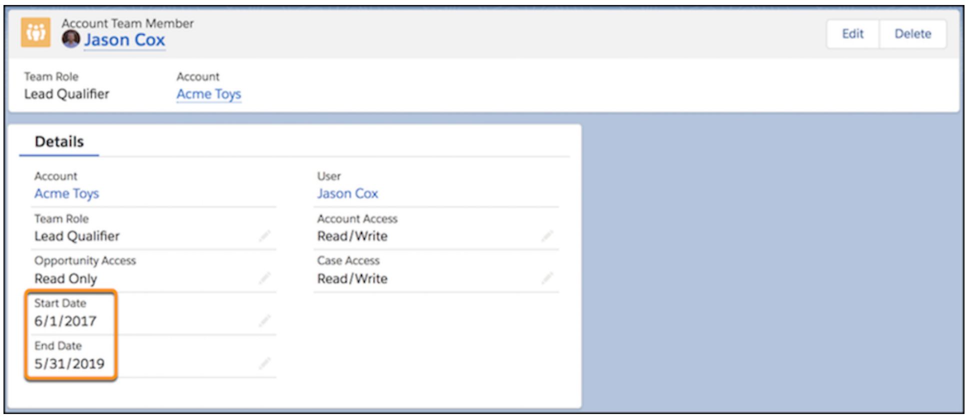
IdeaExchange: Make Opportunity Contact Role a First Class Object

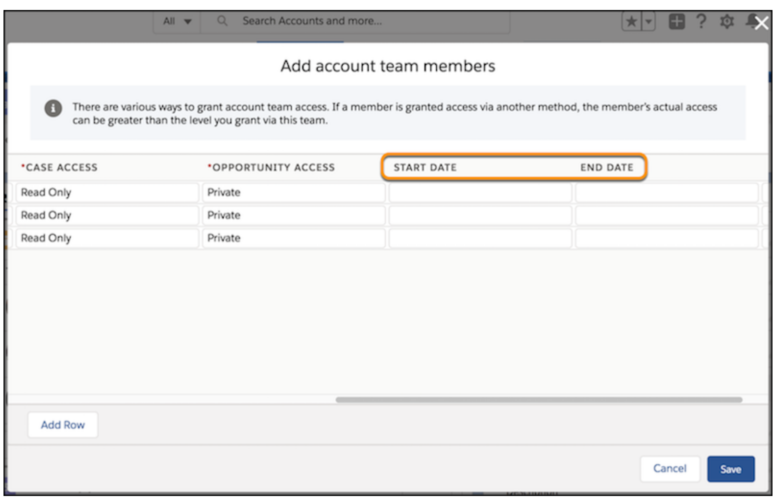
Accounts: Customize Account Teams to Better Support Team Selling

Team selling involves complex account relationships. Now you can manage those relationships better in Salesforce. Collect more information by adding custom fields, buttons, and links to account team layouts. Use validation rules, Apex triggers, Process Builder, and workflow rules with account teams to help keep data clean and minimize manual data entry. You can now report on account teams, too.

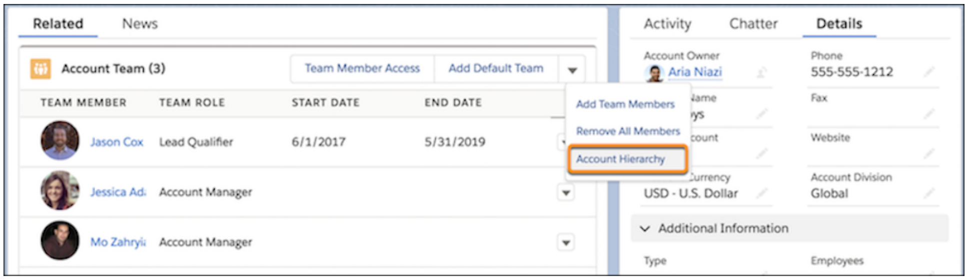
Where: This change applies to Lightning Experience, Salesforce Classic, and the new Salesforce mobile app in Enterprise, Performance, Unlimited, and Developer editions.

How: Use custom fields, buttons, and links on the Account Team Member page and the Add Account Team Members multiline editor. For example, facilitate account management over time by adding the start and end dates of each team member's involvement.



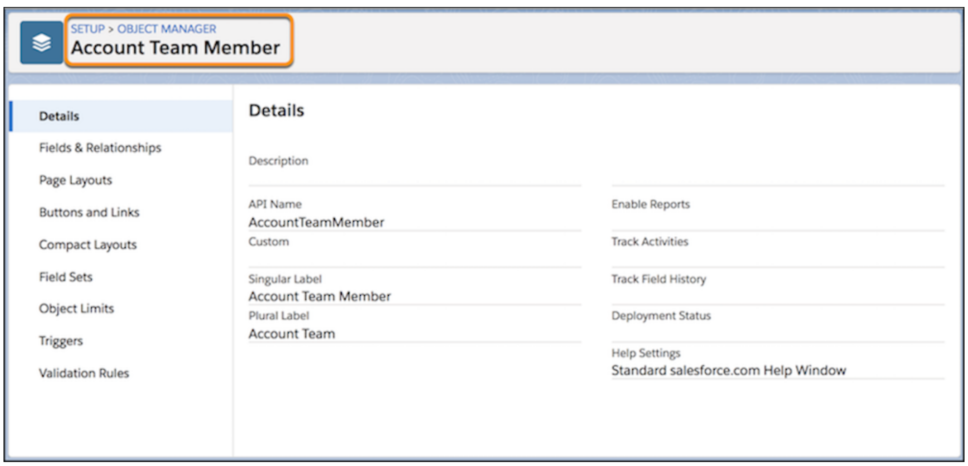


You can also add custom buttons to the Account Team related list.

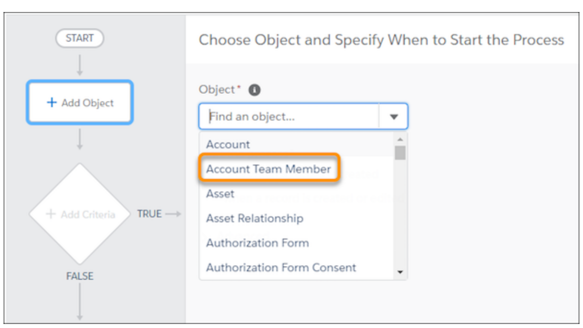


In Lightning Experience, validation rules and Apex triggers are applied when users create or edit a single account team member or multiple team members, remove all members of a team, or add a default account team. In Salesforce Classic, validation rules and Apex triggers are bypassed.

The Object Manager now includes Account Team Member so that you can add custom buttons, links, and fields to the account team member layout.



The Account Team Member object is available in Process Builder.



The Account Team Member object is also available when you create a workflow rule.

Report on account teams using the UserId field on Account Team Member in a custom report type.

SEE ALSO:

Salesforce Help: Account Teams (can be outdated or unavailable during release preview)

Contacts: Customize Opportunity Contact Roles for Better Tracking and Reporting

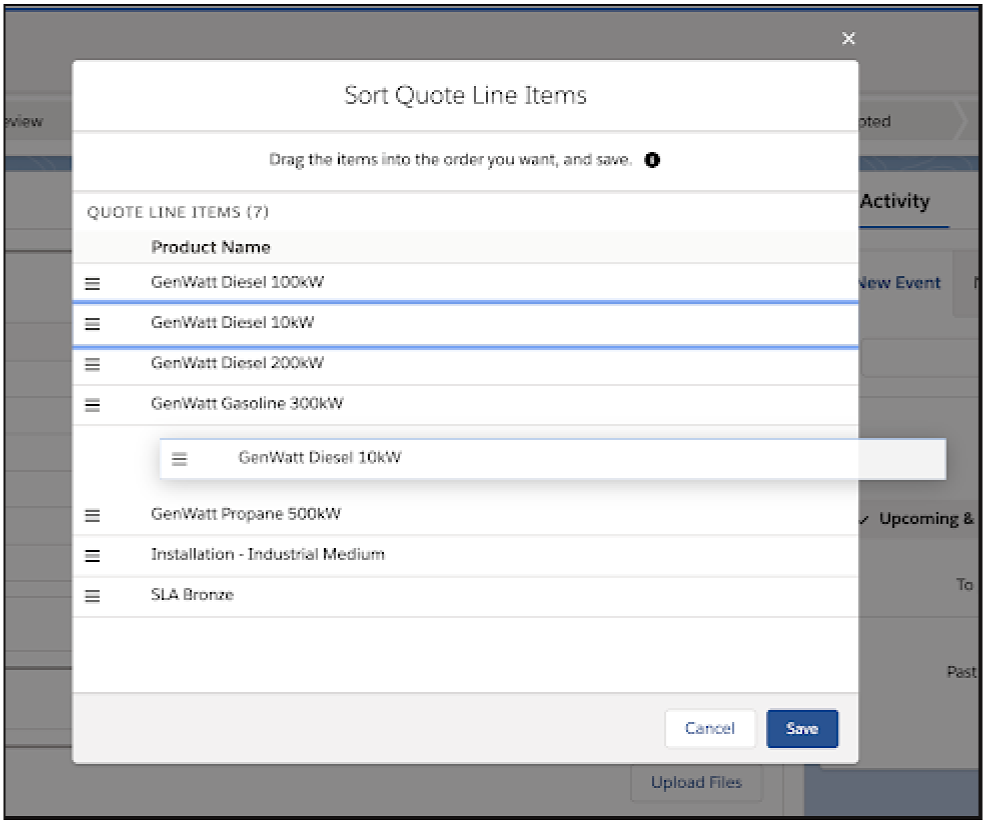
Automate Account Team Creation with Process Builder

Quotes: Sort Quote Line Items in Lightning Experience into Any Order

Sales reps can easily sort quote line items in the order they want. Their preferred sort order is also updated in related opportunities and PDF quotes when they are synced. Previously, quote line item sorting was available only in Salesforce Classic.

Where: This change applies to Lightning Experience in Performance and Developer editions and in Professional, Enterprise, and Unlimited editions with the Sales Cloud.

How: In the list view for the quote that you're editing, drag the items to the order you want. You can sort quotes with up to 200 lines.



SEE ALSO:

[Sort Products on Opportunities the Way You Want in Lightning Experience]

[Create and Manage Quotes]

[*IdeaExchange*: Quote Line Item Sorting]

Opportunities: Sorting, Dependent Picklists, Default Product Quantity, and a List View for Teams

Sales teams working in Lightning Experience can now set the order of products listed on an opportunity. Help reps add products faster by using dependent picklists and a default quantity for opportunity products. A new list view on the opportunity page helps sales managers zero in on a team's progress.

IN THIS SECTION:

Let the Product Quantity Take Care of Itself When Sales Reps Work with Opportunities

When you set the opportunity product quantity to 1 by default, you cut down on clicks when sales reps add products to opportunities. By adding a default value, you can remove the Quantity field from the product layout. Previously, to provide a default quantity, you had to contact Customer Support.

View Opportunities Owned by Your Team with One Click in Lightning Experience

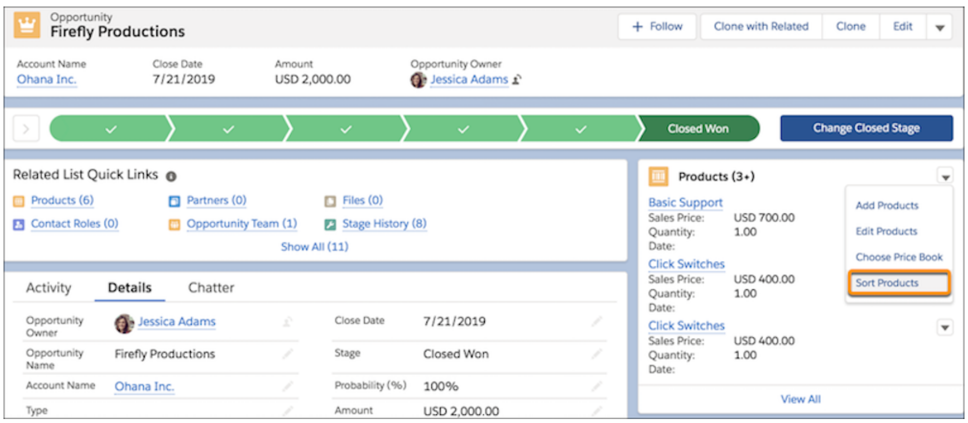
The new **My team's opportunities** list view is based on role hierarchy. Sales managers can use it to easily see all the opportunities owned by their direct and indirect reports without creating a list view.

Sort Products on Opportunities the Way You Want in Lightning Experience

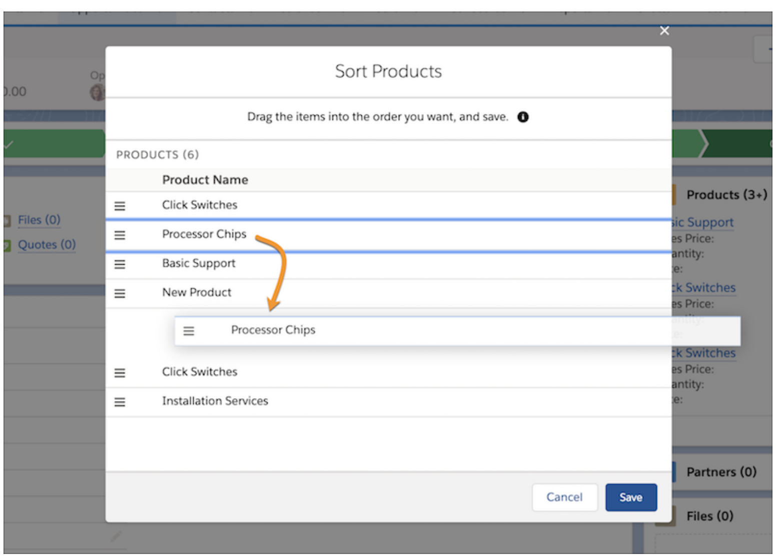
Sales reps working in Lightning Experience can easily organize the Products related list on an opportunity. They're no longer limited to the order in which products were added. Previously, the ability to determine sort order was available only in Salesforce Classic. If an opportunity and a quote are linked and the sort order of either record is changed, the sort order is updated during syncing.

Where: This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Sales reps can reorder items using the Sort Products action on the Products related list.



Drag items into place.



Users can set the order on opportunities with up to 200 products.

SEE ALSO:

Quotes: Sort Quote Line Items in Lightning Experience into Any Order

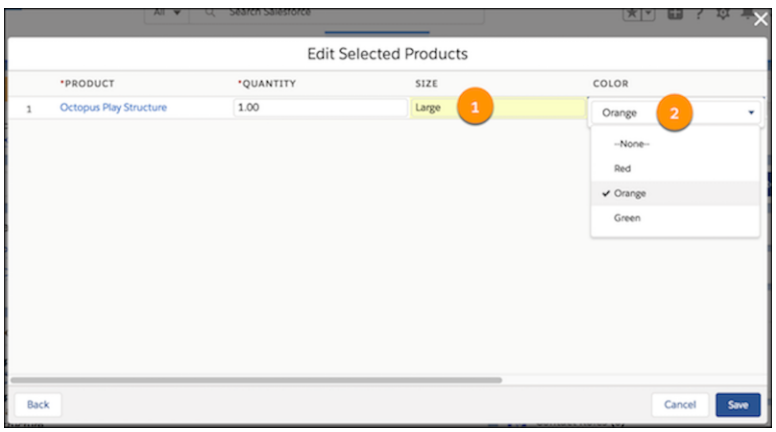
Salesforce Help: Sync Quotes and Opportunities (can be outdated or unavailable during release preview)

Add Products to Opportunities Faster in Lightning Experience

Boost sales reps' productivity when they add products to opportunities. With dependent picklists, sales teams can specify complete product information as they create opportunities. Reps no longer have to open each opportunity product separately to complete fields. If you already use dependent picklists in the multiline editor for opportunity products, reps can now edit the fields. Previously, dependent picklist fields were read-only.

Where: This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: When you use dependent picklists in the multiline editor for opportunity products, options in the parent picklist (1) determine the available selections in the child picklist (2).



SEE ALSO:

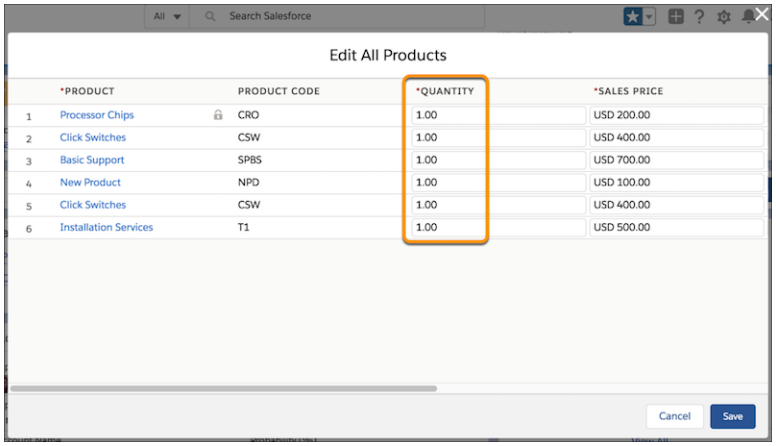
Salesforce Help: Define Dependent Picklists (can be outdated or unavailable during release preview)

Let the Product Quantity Take Care of Itself When Sales Reps Work with Opportunities

When you set the opportunity product quantity to 1 by default, you cut down on clicks when sales reps add products to opportunities. By adding a default value, you can remove the Quantity field from the product layout. Previously, to provide a default quantity, you had to contact Customer Support.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: If the quantity is always 1 (as with a subscription) or is unknown until later, a default quantity of 1 helps reps add products faster.



How: To add a default quantity of 1, go to the Opportunity Settings page and select the option. If you contacted Customer Support to add the default value, the option is selected for you.

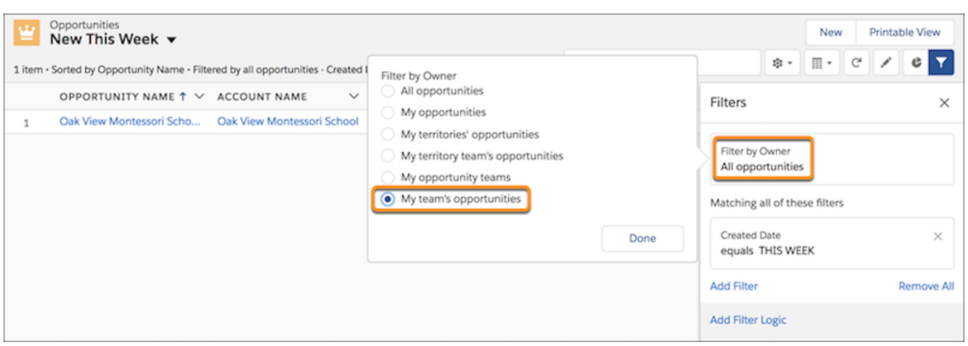
To hide the Quantity field, go to the Object Manager and remove the field from the Opportunity Line Item page layout and multiline editor layout.

View Opportunities Owned by Your Team with One Click in Lightning Experience

The new **My team's opportunities** list view is based on role hierarchy. Sales managers can use it to easily see all the opportunities owned by their direct and indirect reports without creating a list view.

Where: This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: On the Opportunities page, click , and then **Filter by Owner**. Then select **My team's opportunities**. Click **Done**.



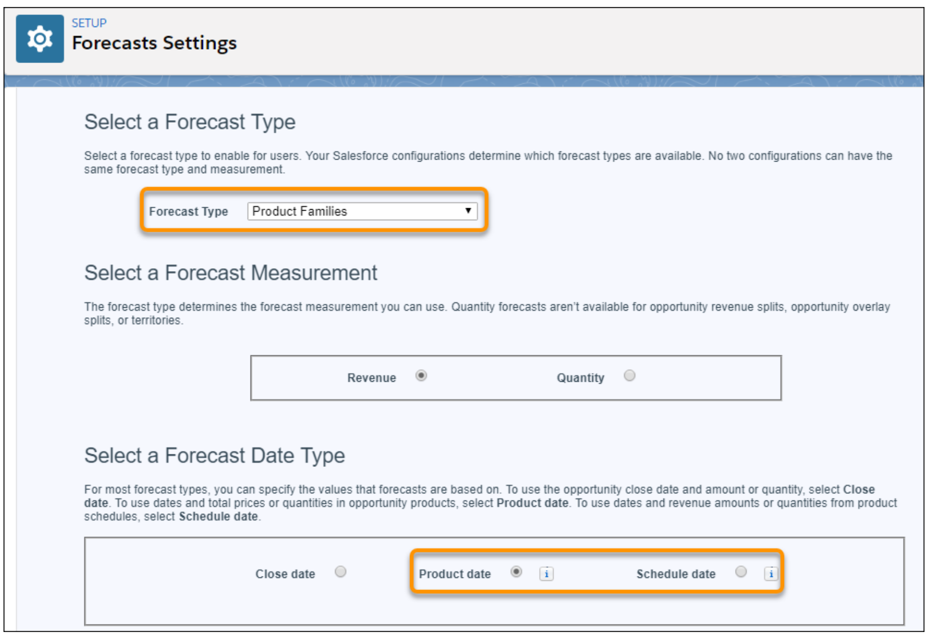
Collaborative Forecasts: Get More Options for Product Family Forecasting in Lightning Experience

Collaborative Forecasts now supports role-based product family forecasts using product and schedule dates. Previously, product family forecasts used close date. This change means that if your company forecasts by role hierarchy, product family, and product or schedule dates, you can now use Collaborative Forecasts to reflect your business model. Forecast users also get features that aren't in Salesforce Classic, such as quick actions and wrapped text in the opportunity list.

Where: This change applies to Lightning Experience in Professional, Performance, and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

How: Add forecast types on the Forecasts Settings page in Setup. These new role-based types are available.

- Product Family Revenue by Product Date
- Product Family Revenue by Schedule Date
- Product Family Quantity by Product Date
- Product Family Quantity by Schedule Date



SOAP API, REST API, and Metadata API support Collaborative Forecasts.

SEE ALSO:

Salesforce Help: Forecast Types in Collaborative Forecasts (can be outdated or unavailable during release preview)

Salesforce Help: Enable Forecast Types for Collaborative Forecasts (can be outdated or unavailable during release preview)

Salesforce Help: Understanding Forecast Date Types (can be outdated or unavailable during release preview)

Salesforce Help: Enable Schedule or Product Date Forecast Types (can be outdated or unavailable during release preview)

Enterprise Territory Management: Improved Reports and Setup

Activities reports can now show territory information. And permissions for running assignment rules have changed to give you more control over what users can do in Setup.

IN THIS SECTION:

SEE ALSO:

Enable Manual Account Sharing in Enterprise Territory Management (Previously Released Critical Update)

Settings Exposed in Metadata API

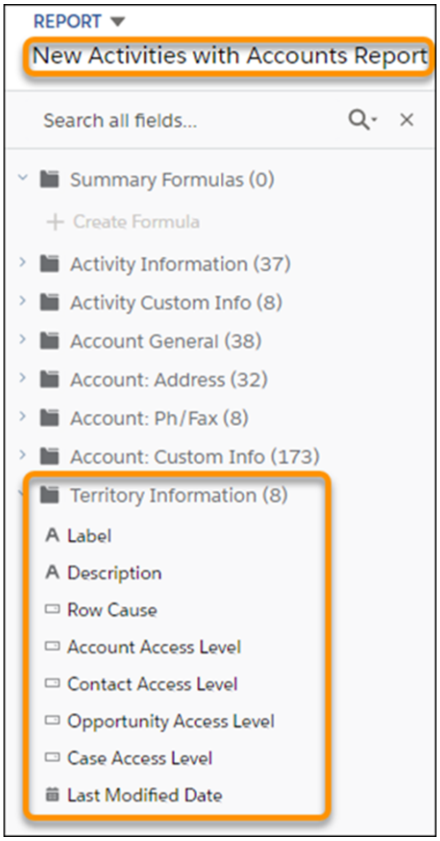
Enrich Your Activities Reports with Territory Details

Now your sales team can include information about their active territory model on Activities reports. For example, they can create a list of tasks with their associated accounts and the active territories assigned to them.

Where: This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

How: Add territory fields when you create or edit these standard reports.

- Activities with Accounts
- Activities with Contacts
- Activities with Opportunities
- Activities with Contracts



Note: In the Activities reports' output:

- "Label" is the territory name.
- "Description" is the territory description.

If you migrated from the original territory management feature:

- Re-create your Activities reports using Enterprise Territory Management. Territory fields added to Activities reports in the original feature don't appear on reports for Enterprise Territory Management.
- If you assigned accounts to territories in the original territory management feature, Activities reports for Enterprise Territory Management include rows for those records, but without other information. Filter reports to exclude rows where the Label cell is empty and the Row Cause cell is defined.

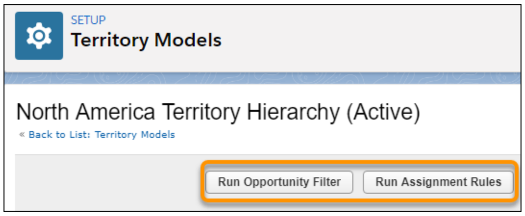
Permission Requirements for Assigning Territories Have Changed

The Customize Application permission is no longer required for running territory assignment rules and the opportunity territory assignment filter. Users need only the Manage Territories permission to perform these tasks. This security enhancement gives you more control over what users can do in Setup. For example, let interested parties such as Business Ops managers run territory assignment rules without letting them customize features.

Where: This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

Who: Users with Manage Territories *or* Customize Application can run assignment rules and the assignment filter.

How: To let users automate territory assignments without being able to customize features, assign Manage Territories instead of Customize Application.



With Manage Territories or Customize Application assigned, users see the Run Opportunity Filter and Run Assignment Rules buttons in Setup.

Price Book Entries: Track Changes with Field History Tracking and Audit Trails

Price book entries now support field audit trails and field history tracking, so now you can easily track changes to price book entry fields.

Where: This change applies to Salesforce Classic and Lightning Experience.

SEE ALSO:

Salesforce Help: Field History Tracking (can be outdated or unavailable during release preview)

Salesforce Help: Field Audit Trail (can be outdated or unavailable during release preview)

Path: Clear Away Unused Paths from Managed Packages

Sometimes a managed package that you install includes a path that doesn't meet your business needs. Now you can remove paths from first-generation managed packages. The record remains in the database, but it's removed from indexes and subsequent upgrades, and it doesn't count toward quotas.

Where: This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: In Setup, use the Quick Find box to open **Path Settings**. Find the path and delete it.

Other Changes in Core Sales Features

Account and opportunity teams working in Lightning Experience can see team members' access to account and opportunity records. We added the Edit and Delete actions for records in the Schedules related list on opportunity products. We also added the Edit Relationship action to the Related Contacts related list on accounts. Make sure that you enable the critical update for Enterprise Territory Management. Customizable Forecasting and the original territory management feature are scheduled for retirement. And we updated Metadata API to make your migration to Enterprise Territory Management easier.

IN THIS SECTION:

Know Who Sees What on Account and Opportunity Teams in Lightning Experience

Teams can collaborate more effectively when they know who can view or edit an account or opportunity and related records. Now teams working in Lightning Experience can see other team members' access to records. Previously, team member access was viewable only in Salesforce Classic.

Row-Level Actions Added to the Schedules Related List for Opportunity Products

To improve usability for reps working with opportunities, we added the actions Edit and Delete to items in the Schedules related list on opportunity products.

Row-Level Action Added to the Related List for Contacts Related to Accounts

To simplify working with contacts related to an account, we added the row-level Edit Relationship action to items in the Related Contacts related list on accounts. Previously, to edit an account–contact relationship, users had to navigate to the Account Contact Relationship detail page.

Enable Manual Account Sharing in Enterprise Territory Management (Previously Released Critical Update)

This update changes the `TerritoryManual` reason code in AccountShare records to `Territory2AssociationManual` and is required to let users share accounts manually with territory groups. This critical update was first made available in Spring '19.

Customizable Forecasting Is Being Retired

Customizable Forecasting is scheduled for retirement as of Summer '20. After the feature is retired, users can't access the Customizable Forecasting feature and its underlying data. We encourage you to migrate to Collaborative Forecasts.

Original Territory Management Is Being Retired

The original territory management feature is scheduled for retirement as of Summer '21. After the feature is retired, users can't access the original territory management feature and its underlying data. We encourage you to migrate to Enterprise Territory Management.

Reduce Disruption During the Migration to Enterprise Territory Management

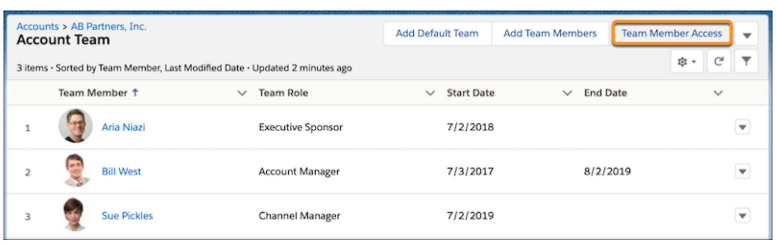
If you're migrating from the original territory management feature, use Metadata API to delete your territory sharing records when the time is right. As a safeguard, the sharing records aren't deleted when Salesforce Customer Support turns off the original feature. That way, your sales team can continue to access the records based on the original territory management sharing records while the migration is in progress.

Know Who Sees What on Account and Opportunity Teams in Lightning Experience

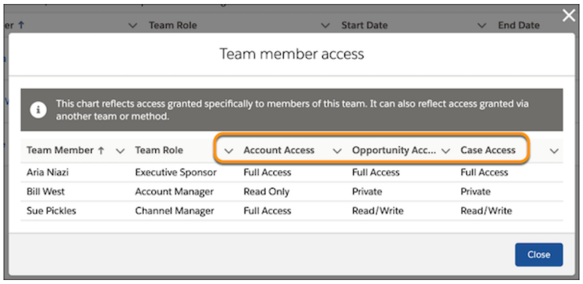
Teams can collaborate more effectively when they know who can view or edit an account or opportunity and related records. Now teams working in Lightning Experience can see other team members' access to records. Previously, team member access was viewable only in Salesforce Classic.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

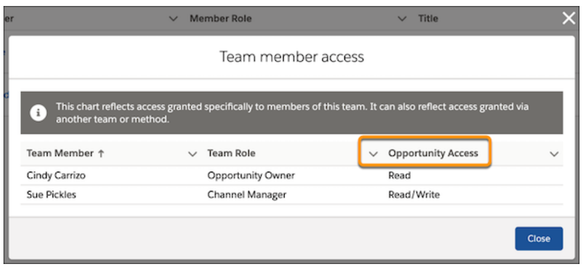
How: The Team Member Access action opens a window showing which records each team member can edit or view. It shows each team member's maximum access, which can differ from the access granted for that account or opportunity.



For account teams, the window shows each member's access to the account and to related cases and opportunities. If the organization-wide default sharing setting for contacts is Controlled by Parent, the window can also show access to related contacts.



For opportunity teams, the window shows each member's access to the opportunity.



SEE ALSO:

Salesforce Help: Guidelines for Updating Opportunity Team Members (can be outdated or unavailable during release preview)

Row-Level Actions Added to the Schedules Related List for Opportunity Products

To improve usability for reps working with opportunities, we added the actions Edit and Delete to items in the Schedules related list on opportunity products.

Where: This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Row-Level Action Added to the Related List for Contacts Related to Accounts

To simplify working with contacts related to an account, we added the row-level Edit Relationship action to items in the Related Contacts related list on accounts. Previously, to edit an account–contact relationship, users had to navigate to the Account Contact Relationship detail page.

Where: This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Enable Manual Account Sharing in Enterprise Territory Management (Previously Released Critical Update)

This update changes the `TerritoryManual` reason code in AccountShare records to `Territory2AssociationManual` and is required to let users share accounts manually with territory groups. This critical update was first made available in Spring '19.

Where: This update applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

When: You can activate this update now. We'll auto-activate this update when you get Spring '20.

Why: In Winter '19 and earlier:

- The `TerritoryManual` reason code was written to AccountShare records when you manually assigned an account to a territory.
- Manually sharing an account with territory groups wasn't available.

With this update activated:

- The `Territory2AssociationManual` reason code replaces all instances of `TerritoryManual`.
- The `Territory2AssociationManual` reason code is written to AccountShare records when you manually assign an account to a territory.
- Manually sharing an account with territory groups is available.

How: We recommend that you test this update in a sandbox or Developer Edition org before activating the update in production. To activate the update, go to Critical Updates in Setup, and then click **Activate** next to Enable Manual Account Sharing in Enterprise Territory Management. You can't deactivate the update after it's activated.

If you have Apex code or integrations that work directly with the AccountShare object, make sure that you update all instances of the `TerritoryManual` reason code to `Territory2AssociationManual`. If you encounter issues with Apex code or integrations after activating this update, contact Salesforce Customer Support.

SEE ALSO:

Critical Updates and Security Alerts

Customizable Forecasting Is Being Retired

Customizable Forecasting is scheduled for retirement as of Summer '20. After the feature is retired, users can't access the Customizable Forecasting feature and its underlying data. We encourage you to migrate to Collaborative Forecasts.

Where: This change applies to Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Review our documentation and follow the instructions for setting up Collaborative Forecasts. If you use the original territory management feature, we also encourage you to migrate to Enterprise Territory Management.

SEE ALSO:

Knowledge article: Customizable Forecasting Will Be Retired in the Summer '20 Release
Original Territory Management Is Being Retired

Original Territory Management Is Being Retired

The original territory management feature is scheduled for retirement as of Summer '21. After the feature is retired, users can't access the original territory management feature and its underlying data. We encourage you to migrate to Enterprise Territory Management.

Where: This change applies to Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

How: Review our documentation and follow the instructions for setting up Enterprise Territory Management. If you use Customizable Forecasting, we also encourage you to migrate to Collaborative Forecasts.

SEE ALSO:

Knowledge article: The Original Territory Management Module Will Be Retired in the Summer '21 Release
Reduce Disruption During the Migration to Enterprise Territory Management
Customizable Forecasting Is Being Retired

Reduce Disruption During the Migration to Enterprise Territory Management

If you're migrating from the original territory management feature, use Metadata API to delete your territory sharing records when the time is right. As a safeguard, the sharing records aren't deleted when Salesforce Customer Support turns off the original feature. That way, your sales team can continue to access the records based on the original territory management sharing records while the migration is in progress.

Where: This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

How: After you activate your territory model, use the `enableRemoveTMGroupMembership` field to delete the original territory sharing records. Turn this field on via the new Sharing Settings Metadata API type, or contact Salesforce Customer Support to enable `enableRemoveTMGroupMembership` on your behalf.

SEE ALSO:

Original Territory Management Is Being Retired

Productivity Features: Improved Einstein Activity Capture, More Robust Emails, Activity Timeline Enhancements, and More Efficient Calendars

Get more control over Einstein Activity Capture configurations. Do more with emails with formatted tables and related files as attachments. Use new HTML tags with Lightning email templates. See archived activities, and enjoy better navigation from the activity timeline. Use custom caller ID with Lightning Dialer. Combine availability view and user list calendars to schedule events faster.

IN THIS SECTION:

Einstein Activity Capture: More Control Over What Data to Capture and Sync, and Notifications About Account Connections

Decide whether to capture email data, use the Excluded Addresses list to prevent data from syncing, and allow reps to sync event series. Plus, we made it easier for reps to troubleshoot connection issues.

IN THIS SECTION:

Control Whether to Capture Email Data with Einstein Activity Capture

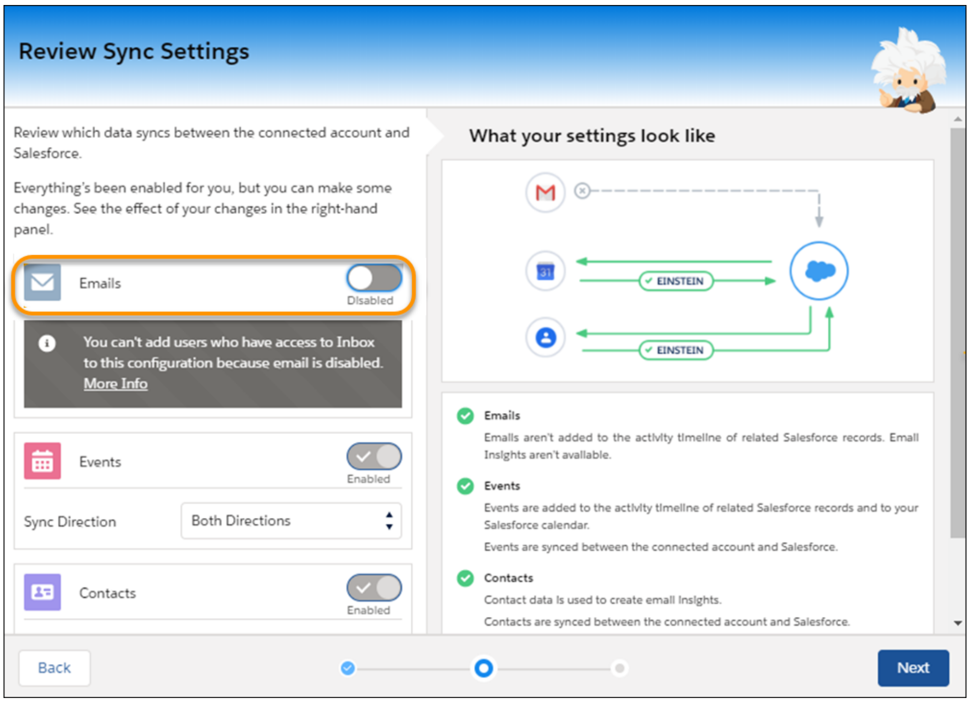
By default, Einstein Activity Capture adds email from sales reps' connected accounts to the activity timeline of related Salesforce records. Now you can disable the email capture process to get more control over how Einstein Activity Capture works.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

Why: Some Einstein Activity Capture users' emails contain sensitive data that you don't want to appear on Salesforce records. When you disable email capture for those users, none of their emails show up on related Salesforce records. Plus, Salesforce doesn't store their emails.

How: From an Einstein Activity Capture configuration, disable emails. Email capture is disabled for all users in the configuration.

Note: You can't disable email capture for Einstein Activity Capture users who have access to Inbox. Email data is used for Inbox productivity features, such as Insert Availability and Recommended Connections.



SEE ALSO:

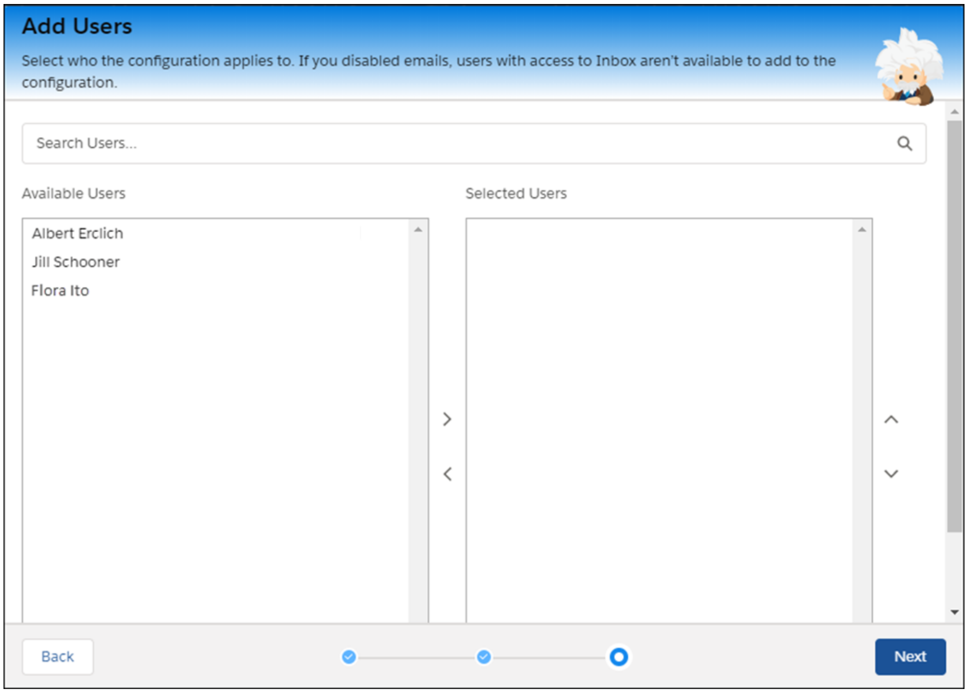
Get Clarity About Who's Eligible to Add to an Einstein Activity Capture Configuration

Get Clarity About Who's Eligible to Add to an Einstein Activity Capture Configuration

When you add users to an Einstein Activity Capture configuration, the list of available users now includes only Einstein Activity Capture users. Previously, the list included all users, even users whom the configuration didn't apply to.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

Why: By seeing only sales reps who use Einstein Activity Capture, you can tell more easily who you'd like to add to the configuration. Plus, if you disable emails, reps with access to Inbox aren't available to add to the configuration, which ensures Inbox features work at their best.



SEE ALSO:

[Control Whether to Capture Email Data with Einstein Activity Capture]

Prevent Specific Events from Syncing with Einstein Activity Capture

When you or your sales reps add an email address or domain to the Excluded Addresses list, events associated with the person or company don't sync between Salesforce and the connected accounts. This change gives you a more predictable experience when excluding specific data from Einstein Activity Capture. Previously, the Excluded Addresses list applied only to email and event capture.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

SEE ALSO:

Salesforce Help: Considerations for Excluding Data from Einstein Activity Capture (can be outdated or unavailable during release preview)

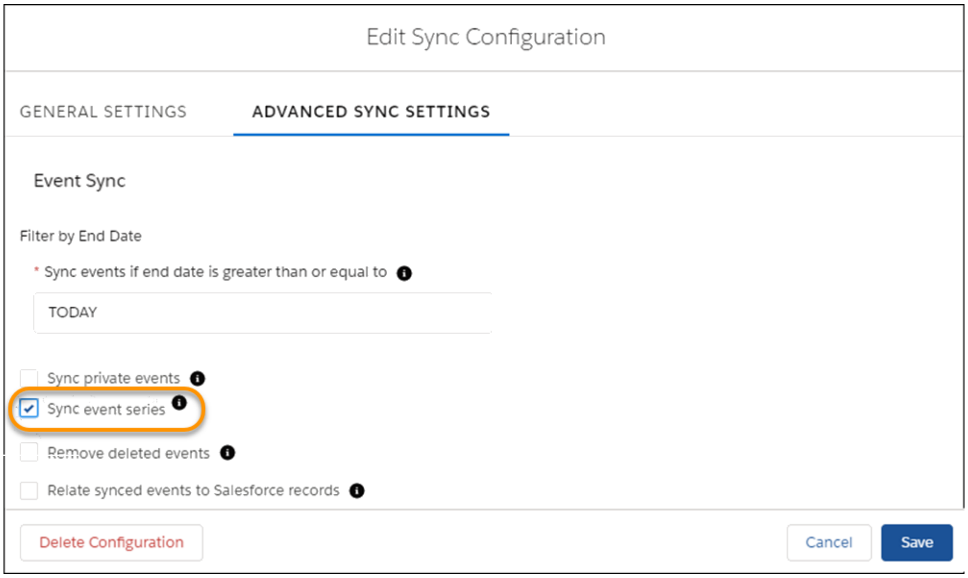
Sync Repeating Events Between Salesforce and Microsoft Accounts with Einstein Activity Capture

You can now let sales reps sync repeating events, known as event series, between Lightning Experience or the Salesforce app and their connected Microsoft accounts. Previously, Einstein Activity Capture didn't allow any users to sync event series.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

Who: Event series sync is available for Einstein Activity Capture users who connect a Microsoft account to Salesforce.

How: Edit a configuration, and click the **Advanced Sync Settings** tab. Select **Sync event series**.



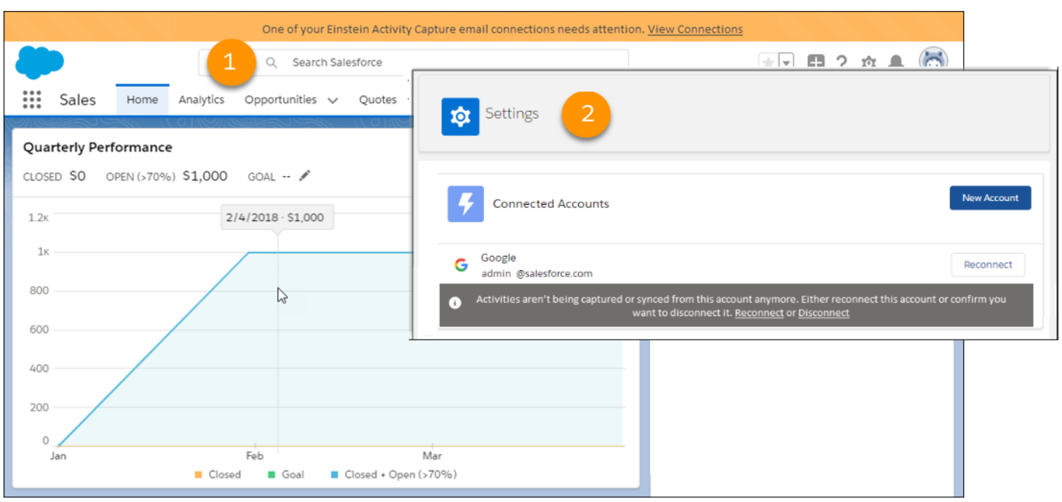
Get Notified When Your Account Connections Need Attention

To use Einstein Activity Capture, sales reps connect their Google or Microsoft account to Salesforce. Now when one of their account connections has a problem, we let reps know so that they can reconnect the account.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

Why:

If a sales rep's connection has an issue, a notification (1) takes the rep to the connection settings page (2).



SEE ALSO:

Salesforce Help: Connect Your Email and Calendar to Salesforce with Einstein Activity Capture (can be outdated or unavailable during release preview)

Improved Event Syncing

We fine-tuned event sync. Previously, after syncing, sometimes the users, contacts, and leads that reps invited or related to events were changed to different records with the same email address. We improved the matching criteria so that reps don't have to double-check their records. Einstein Activity Capture always retains the records that sales reps originally invite or relate to their events.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

Change to Einstein Activity Capture Data Storage Allowance

The amount of activity data that's stored over time has a default amount. If you use Einstein Activity Capture through Sales Cloud Einstein, Inbox, or High Velocity Sales, you can change the default amount to a range of three months to five years. Previously, the range was 30 days to five years. If you use Einstein Activity Standard, you can change the default amount to a range of three to six months. Previously you couldn't change the default amount.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

How: To change your default storage amount, contact Salesforce Customer Support.

SEE ALSO:

Salesforce Help: Data Retention for Einstein Activity Capture (can be outdated or unavailable during release preview)

Activities Dashboard No Longer Shows Accounts and Opportunities by Users

The Details tab on the Activities dashboard includes charts that break down activities by accounts and by opportunities. To improve performance, the charts no longer include users in the breakdowns.

Where: This change applies to Lightning Experience in Professional, Enterprise, Performance, and Unlimited editions.

SEE ALSO:

Salesforce Help: Review the Activities Dashboard (can be outdated or unavailable during release preview)

Email Experience: Images, Tables, and File Attachments

Sales reps get more ways to spice up their emails. Reps can include formatted tables, copy inline images, and easily add related files as attachments.

IN THIS SECTION:

Add Inline Images to Emails in a Flash

Now it's faster to add images to emails. Copy and paste images from the internet and from other applications directly into the email composer without saving the image first.

Add Tables to Emails Without Losing Styles

The email composer now supports copying and pasting tables while maintaining style tags. The tables preserve styling, such as bold fonts and background colors, so that your reps can share information with customers in the original format. In email preview, the table appears the same as the table in the email body in the composer, and the table that's sent to the recipient. No more guesswork about what customers receive.

Set Your Default Email Font

Everywhere the email composer is used, the default font in your sales reps' email composer reflects the one they have set for themselves in their browser. Similarly, email recipients see the email in the default font set for their browser. To ensure email recipients read text in the same font, reps can use the email composer toolbar and explicitly choose a font for the content they send.

Improve Email Security with Redesigned DKIM Keys (Critical Update, Enforced)

Improve Email Security with Redesigned DKIM Keys was a critical update in Winter '19 and is enforced in Winter '20. To address potential security vulnerabilities with DomainKeys Identified Mail (DKIM) keys, we improved the way they're created. You no longer have to work with public and private keys. Instead, Salesforce publishes the TXT record containing your public key to DNS. We also added automatic key rotation to reduce the risk of your keys becoming compromised by a third party. Keys generated via the old method continue to work, but in Winter '20, when you generate new keys, you must use the more secure method. And, because sharing keys can introduce security vulnerabilities, we removed the ability to import DKIM keys.

Get Ready for Email Address Internationalization in Summer '20

Starting in Summer '20, Salesforce will support Email Address Internationalization (EAI) through UTF-8 encoding so that you can use non-Latin-based language characters in email addresses. We're making sure that all standard email fields are ready for the switch and sharing steps that you can take so that your custom email fields are ready, too. You don't have to use international email addresses after the switch, but if you do, preparing your org ensures a smooth transition.

Get Flexible with Email TO, CC, and BCC Fields

You can send email from Salesforce to up to 150 recipients. Previously, you could have 100 email addresses in the TO field, and 25 addresses each in the CC and BCC fields. Now you can send to 150 email addresses across the three fields in any combination, up to 4,000 characters per field.

Amp Up Communication with List Emails for Partner and Customer Community Users

Users with a Partner or Customer Community license can use Lightning Experience to send a list email to recipients on a campaign and to contact, lead, and person account lists. They can also choose individual records on a list view. The list email sends an individual email to each recipient on the list instead of one email to the entire group. And users can make each copy of the email specific to the recipient and their related records by using merge fields.

Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

Who: List Email support is available to users in community-enabled orgs with the Partner Community or Customer Community Permission Set Licenses.

SEE ALSO:

Salesforce Help: Objects Supported by Out-of-the-Box Components and Pages in Community Templates (can be outdated or unavailable during release preview)

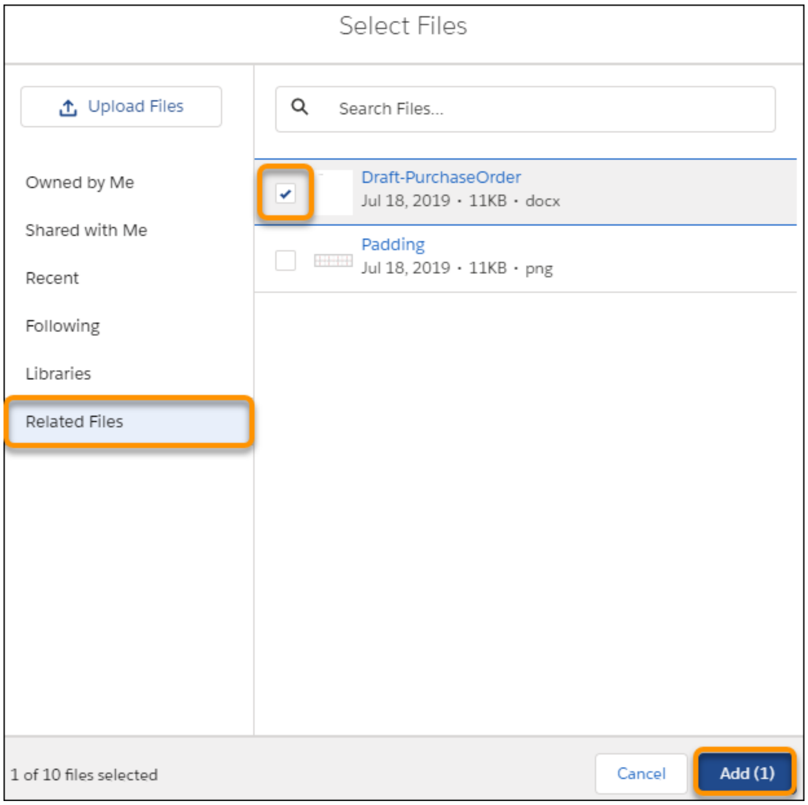
Salesforce Help: Considerations for Sending List Email in Lightning Experience (can be outdated or unavailable during release preview)

Find Email File Attachments in One Click

Now it's easy to send files as an email attachment. When reps choose files to attach to an email, they can use the new Related Files link. Click the link to show all the files that are part of the record. This feature applies to all activity-enabled objects, such as leads, contacts, person accounts, opportunities, cases, and custom objects.

Where: This change applies to Lightning Experience in all editions.

How: When selecting a file to attach to an email, click **Related Files**. Select the files to attach, and then click **Add**.



Note: To use Related Files when sending an email, users need access to the Name and Related To fields in the task object.

SEE ALSO:

Salesforce Help: Access and Sharing for Email Merge Fields, Templates, and Attachments in Lightning Experience (can be outdated or unavailable during release preview)

Add Inline Images to Emails in a Flash

Now it's faster to add images to emails. Copy and paste images from the internet and from other applications directly into the email composer without saving the image first.

Where: This change applies to Lightning Experience in all editions.

SEE ALSO:

Salesforce Help: Using Images in Emails, Email Templates, and Enhanced Letterheads (can be outdated or unavailable during release preview)

Add Tables to Emails Without Losing Styles

The email composer now supports copying and pasting tables while maintaining style tags. The tables preserve styling, such as bold fonts and background colors, so that your reps can share information with customers in the original format. In email preview, the table appears the same as the table in the email body in the composer, and the table that's sent to the recipient. No more guesswork about what customers receive.

Where: This change applies to Lightning Experience in all editions.

SEE ALSO:

Salesforce Help: Guidelines for Working with Email (can be outdated or unavailable during release preview)

Set Your Default Email Font

Everywhere the email composer is used, the default font in your sales reps' email composer reflects the one they have set for themselves in their browser. Similarly, email recipients see the email in the default font set for their browser. To ensure email recipients read text in the same font, reps can use the email composer toolbar and explicitly choose a font for the content they send.

Where: This change applies to Lightning Experience in all editions.

How: Change the font of an email by using the buttons. This choice overrides the default browser font for the sender and the recipient.

SEE ALSO:

Salesforce Help: Guidelines for Working with Email (can be outdated or unavailable during release preview)

Improve Email Security with Redesigned DKIM Keys (Critical Update, Enforced)

Improve Email Security with Redesigned DKIM Keys was a critical update in Winter '19 and is enforced in Winter '20. To address potential security vulnerabilities with DomainKeys Identified Mail (DKIM) keys, we improved the way they're created. You no longer have to work with public and private keys. Instead, Salesforce publishes the TXT record containing your public key to DNS. We also added automatic key rotation to reduce the risk of your keys becoming compromised by a third party. Keys generated via the old method continue to work, but in Winter '20, when you generate new keys, you must use the more secure method. And, because sharing keys can introduce security vulnerabilities, we removed the ability to import DKIM keys.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

When: This critical update is enforced in the Winter '20 release.

SEE ALSO:

Winter '19 Release Notes: Improve Email Security with Redesigned DKIM Keys

Salesforce Help: Set Up Secure DKIM Keys (can be outdated or unavailable during release preview)

Critical Updates and Security Alerts

Get Ready for Email Address Internationalization in Summer '20

Starting in Summer '20, Salesforce will support Email Address Internationalization (EAI) through UTF-8 encoding so that you can use non-Latin-based language characters in email addresses. We're making sure that all standard email fields are ready for the switch and sharing steps that you can take so that your custom email fields are ready, too. You don't have to use international email addresses after the switch, but if you do, preparing your org ensures a smooth transition.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

Note: EAI support isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

How: If you want to use internationalized emails, there are three parts to preparing for Email Address Internationalization (EAI) support.

- Ensure that UTF-8 support exists throughout the email's path
- Adopt the latest Apex and API version
- Ensure that all fields storing email addresses use the email data type

For details, see the knowledge article, Prepare for Email Address Internationalization.

Get Flexible with Email TO, CC, and BCC Fields

You can send email from Salesforce to up to 150 recipients. Previously, you could have 100 email addresses in the TO field, and 25 addresses each in the CC and BCC fields. Now you can send to 150 email addresses across the three fields in any combination, up to 4,000 characters per field.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

Email Templates: New HTML Tags, Signature Merge Field, and Easier Template Insertion

Template creators can add more zip to Lightning email templates with new HTML tags, and use a merge field to automatically add a sender's signature. Sales reps can insert templates quickly with the updated Insert Email Template modal.

IN THIS SECTION:

Show More Style in Email Templates

Email templates now support the `<head>`, `<meta>`, `<title>`, and `<style>` tags. These tags let your sales support staff be more creative and design responsive HTML emails with code using the `<style>` tag. Use email templates with these tags in emails, list emails, and cases.

Add a Signature to Email Templates

With the new {{{Sender.Signature}}} merge field, email template creators can include a sender's existing signature in an email template. The field is available wherever the merge field picker exists, including in emails, list emails, and enhanced letterheads.

Find Important Email Templates Quickly

We improved the Insert Email Template modal to make the templates that sales reps use most easier to find. Plus, reps can see the template details that they need.

Restrict Use of Salesforce Classic HTML-Based Email Templates to Secure Browsers (Critical Update, Enforced)

Restrict Use of Salesforce Classic HTML-Based Email Templates was a critical update in Summer '18 and is enforced in Winter '20. This critical update prevents using HTML-based email templates, such as custom, Visualforce, or standard HTML templates, when accessing Salesforce from Microsoft Internet Explorer. Internet Explorer doesn't support the Salesforce Content Security Policy (CSP), so it can't provide the required browser protection. We recommend a browser with CSP support, such as Microsoft Edge, Google Chrome, or Mozilla Firefox.

Show More Style in Email Templates

Email templates now support the `<head>`, `<meta>`, `<title>`, and `<style>` tags. These tags let your sales support staff be more creative and design responsive HTML emails with code using the `<style>` tag. Use email templates with these tags in emails, list emails, and cases.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

How: When creating an email template, type or copy the tags into the body.

Note: You can't type the tags into enhanced letterheads, emails, or list emails.

SEE ALSO:

Salesforce Help: Access and Sharing for Email Merge Fields, Templates, and Attachments in Lightning Experience (can be outdated or unavailable during release preview)

Add a Signature to Email Templates

With the new {{{Sender.Signature}}} merge field, email template creators can include a sender's existing signature in an email template. The field is available wherever the merge field picker exists, including in emails, list emails, and enhanced letterheads.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

How: Users set up their signature in My Email Settings.

Note: In the merge picker, the {{{Sender.Signature}}} merge field is listed as Email Signature.

SEE ALSO:

Salesforce Help: Edit Your Email Settings (can be outdated or unavailable during release preview)

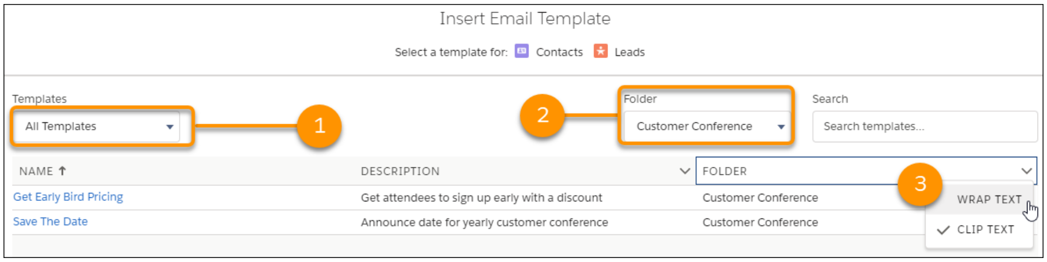
Salesforce Help: Considerations for Using Merge Fields in Email Templates and Letterheads (can be outdated or unavailable during release preview)

Find Important Email Templates Quickly

We improved the Insert Email Template modal to make the templates that sales reps use most easier to find. Plus, reps can see the template details that they need.

Where: This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Salesforce remembers the last template category (1) and folder (2) the rep used. Reps can see all the text in the Description and Folder columns by selecting **Wrap Text** (3).



We removed the Created By, Created Date, and Delete columns so that reps can focus on the most important information.

Restrict Use of Salesforce Classic HTML-Based Email Templates to Secure Browsers (Critical Update, Enforced)

Restrict Use of Salesforce Classic HTML-Based Email Templates was a critical update in Summer '18 and is enforced in Winter '20. This critical update prevents using HTML-based email templates, such as custom, Visualforce, or standard HTML templates, when accessing Salesforce from Microsoft Internet Explorer. Internet Explorer doesn't support the Salesforce Content Security Policy (CSP), so it can't provide the required browser protection. We recommend a browser with CSP support, such as Microsoft Edge, Google Chrome, or Mozilla Firefox.

Where: This change applies to Salesforce Classic in all editions, except Personal Edition.

When: This critical update is enforced in the Winter '20 release.

How: Although we recommend not using Internet Explorer for HTML-based templates, you can override this restriction. From Setup, enter `Session Settings` in the Quick Find box, then select **Session Settings**. Select **Override Restriction for Accessing HTML-Based Email Templates in Salesforce Classic Using Internet Explorer**.

SEE ALSO:

Summer '18 Release Notes: Restrict Use of Salesforce Classic HTML-Based Email Templates to Secure Browsers (Critical Update)

Critical Updates and Security Alerts

Activities and Tasks: Archived Activities, Expanded Scrolling in the Activity Timeline, and Click-to-Close Tasks

Sales reps can stay up to date on their customers' history with archived activities in the activity timeline. With expanded scrolling and activities grouped by month, reps can home in on the activity they're looking for. And, reps can now close tasks in one click from the table view.

IN THIS SECTION:

Find Archived Activities Faster

Now your sales reps have a complete view of all their activities. Activities, including archived activities, are visible in the activity timeline and the Activity History related list. Reps can open and edit any activity, including archived activities. Previously, they could only view archived activities, not interact with them.

Scan and Scroll the Activity Timeline

Improvements to the activity timeline make scanning, finding, and acting on activities easier for your sales reps. Expanded scrolling—up to 32 activities—reduces clicks and eases scanning for the activity that a rep is looking for. Grouping activities in the activity timeline by month lets reps find activities quickly and make sense of periods of time without customer activity. Relative dates, for example, one, two, or three months ago, let reps see the pace of activities.

Complete Tasks in a Single Click

Now sales reps can mark tasks complete from table view. This means reps can spend more time getting things done and less time crossing them off their list.

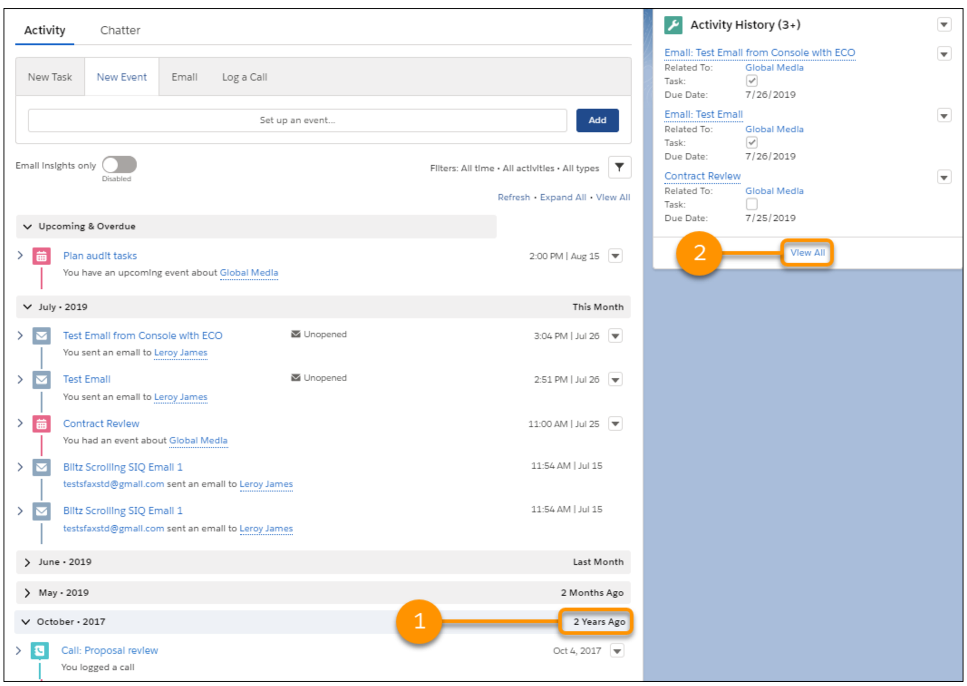
Find Archived Activities Faster

Now your sales reps have a complete view of all their activities. Activities, including archived activities, are visible in the activity timeline and the Activity History related list. Reps can open and edit any activity, including archived activities. Previously, they could only view archived activities, not interact with them.

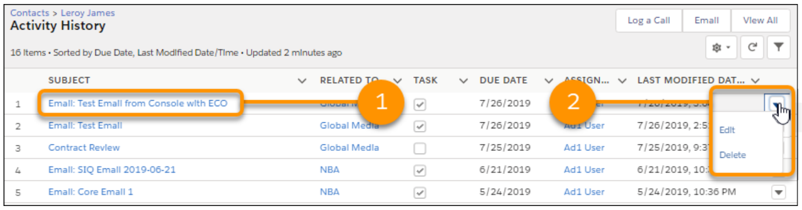
Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Reps can view the history of their work with customers, including archived activities (1), from several places.

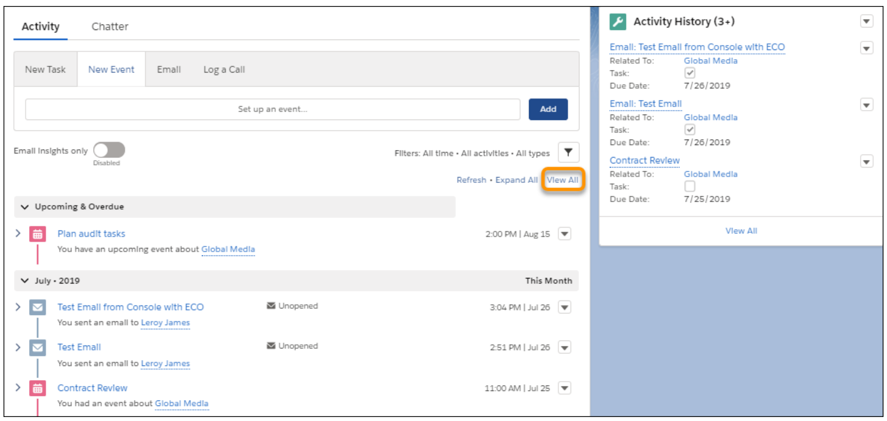
Clicking **View All** (2) in the Activity History related list opens the Activity History tab.



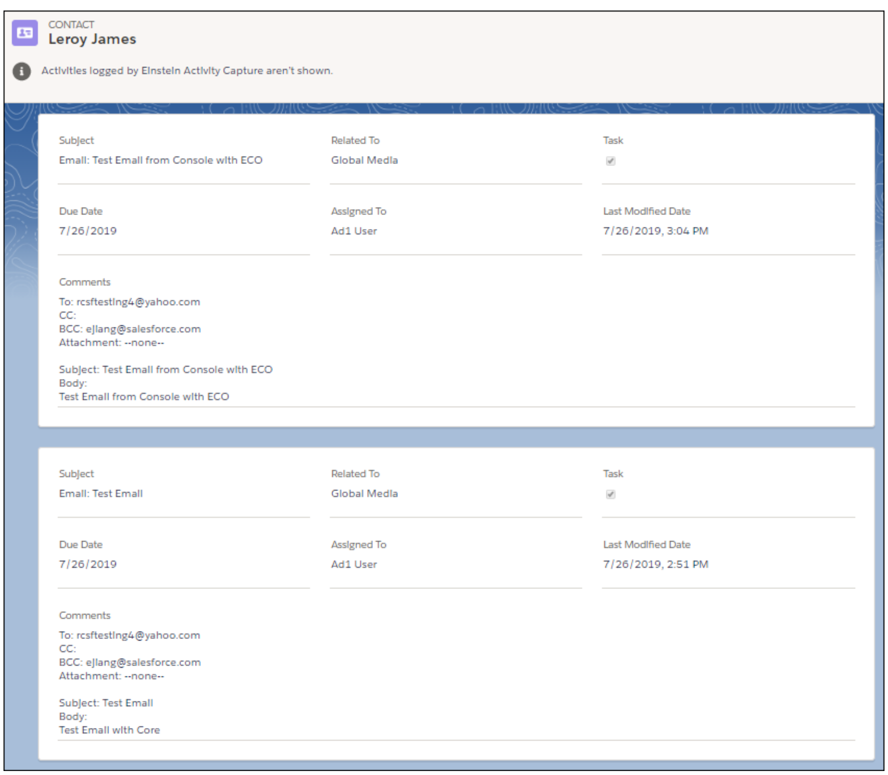
In the Activity History tab, reps can sort entries. They can click the subject (1) to open and edit activities, or use the row-level dropdown (2) to edit or delete activities.



Clicking **View All** in the activity timeline opens the All Activity History list.



The All Activity History list is ideal for printing.



SEE ALSO:

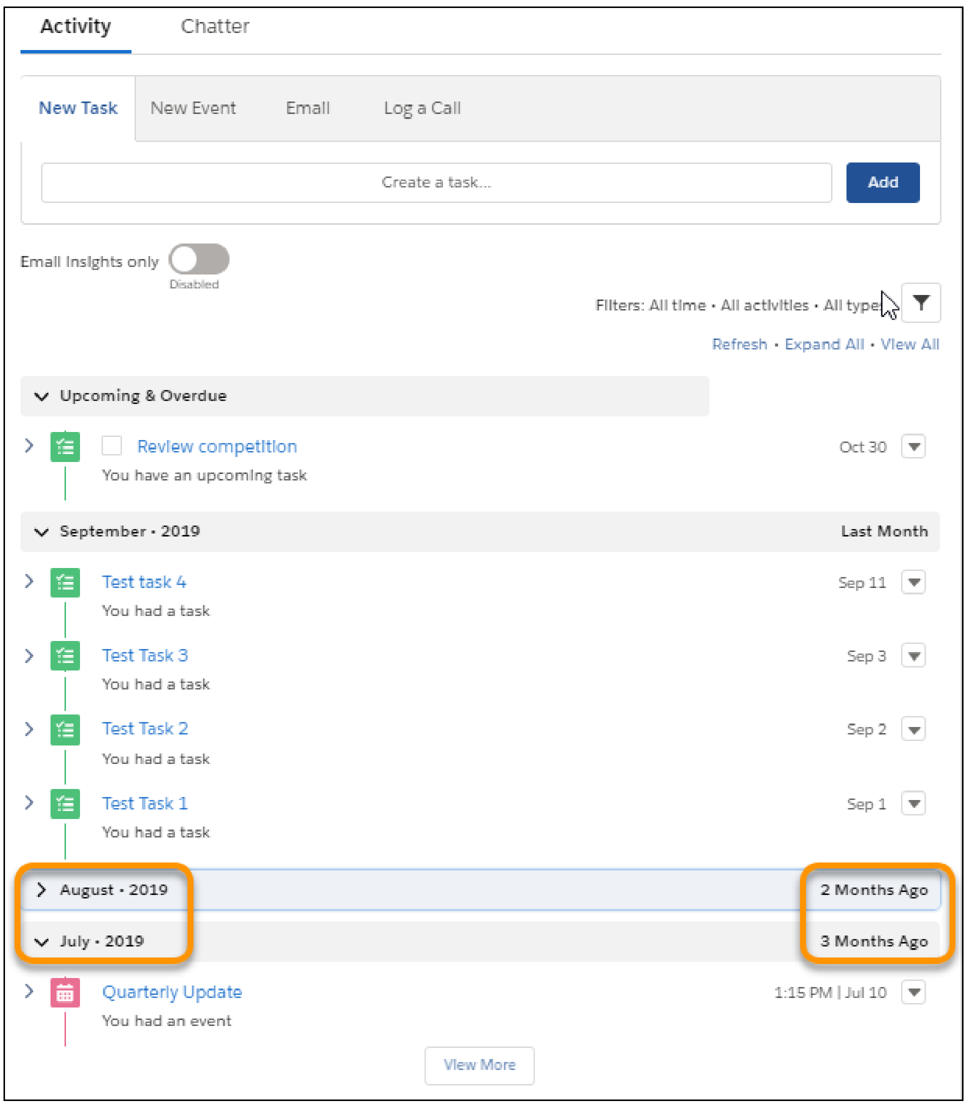
Salesforce Help: View Archived Activities (can be outdated or unavailable during release preview)

Scan and Scroll the Activity Timeline

Improvements to the activity timeline make scanning, finding, and acting on activities easier for your sales reps. Expanded scrolling—up to 32 activities—reduces clicks and eases scanning for the activity that a rep is looking for. Grouping activities in the activity timeline by month lets reps find activities quickly and make sense of periods of time without customer activity. Relative dates, for example, one, two, or three months ago, let reps see the pace of activities.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

Why: Monthly groups of activities make it easier to find that event in May or the email received three months ago.



Note: We recommend that you put the activity timeline component at the bottom of a layout, with no other components beneath it.

SEE ALSO:

Salesforce Help: Activity Timeline Customization Considerations (can be outdated or unavailable during release preview)

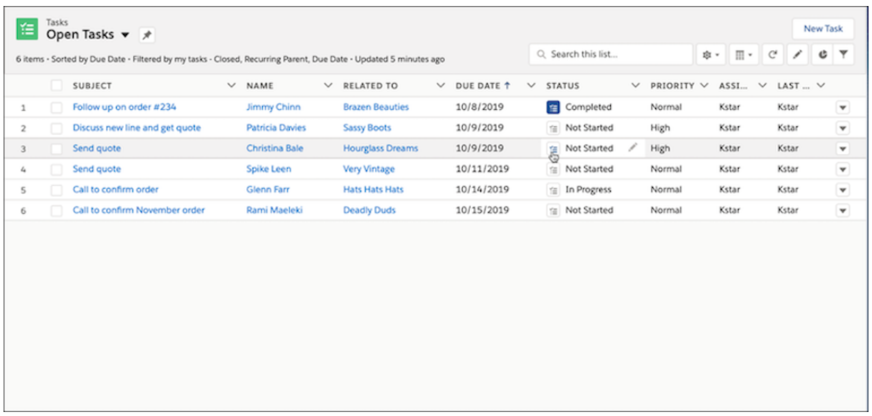
Salesforce Help: Lightning App Builder Considerations (can be outdated or unavailable during release preview)

Complete Tasks in a Single Click

Now sales reps can mark tasks complete from table view. This means reps can spend more time getting things done and less time crossing them off their list.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: To update a task's status, select **Mark Complete**.



Lightning Dialer: Use a Custom Caller ID

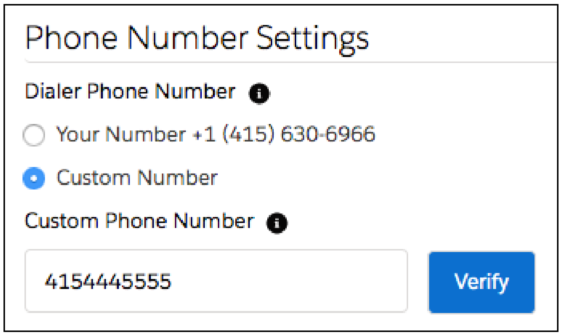
Do your reps want to use their existing phone number as the caller ID when making calls? Now they can assign their mobile number or main business line to Lightning Dialer from their personal settings.

Note: For now, we support outgoing calls only to the United States and Canada.

Where: This change applies to Lightning Dialer in Lightning Experience. Lightning Dialer is available for an extra cost in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

Who: Users need both Dialer Inbound and Dialer Outbound licenses to assign a custom number.

How: Sales reps can add a custom caller ID from the Dialer Settings page from their personal settings or the call panel.



Before a rep can use the number, the rep must enter a provided code to verify it. More than one sales rep can't use the same custom number.

Note: Inbound calls made to the custom number go directly to the mobile or business line, not through Lightning Dialer.

Salesforce Inbox Mobile: Smarter Selling from Your Inbox

Salesforce Inbox integrates your email and calendar with Salesforce, so sales reps can manage their work sales more efficiently. Inbox increases reps' productivity on every email message, whether they're on the go or at their desk.

Learn about the latest features and enhancements to Inbox mobile in Salesforce Help.

- Inbox Mobile for iOS
- Inbox Mobile for Android

To learn about the latest features and enhancements in Inbox desktop, see the Outlook Integration and Gmail Integration sections of the Salesforce release notes.

SEE ALSO:

Outlook® Integration: Most Frequently Accessed Records Shown First and More Relevant People Records

Gmail™ Integration: Reminder to Log, Email Tracking Improvements, and Scheduled Email Updates

Calendar: More Info, More Efficiency in Lightning Experience

Reps see more details in less time in Lightning Experience. Sales reps can combine availability view and user lists to compare calendars for quicker scheduling with customers. Plus, the calendar shows their most recent view automatically, instead of the default week view. And reps can see subjects, related records, and times without opening events.

IN THIS SECTION:

Find a Time That Works for Everyone in Availability View

The new availability view helps reps easily scan to see who's free to host a lunch or make a client pitch right in Lightning Experience. They no longer have to switch to Multi-User View in Salesforce Classic. Set up user lists so that reps can add multiple users to their calendar view without the headache of adding them separately.

Open Your Favorite Calendar View in One Click

Sales reps can see the calendar view they used most recently without selecting a view from the dropdown. Now they can start scheduling business even faster. Previously, the calendar showed the week view as the default view.

See More Event Details Faster

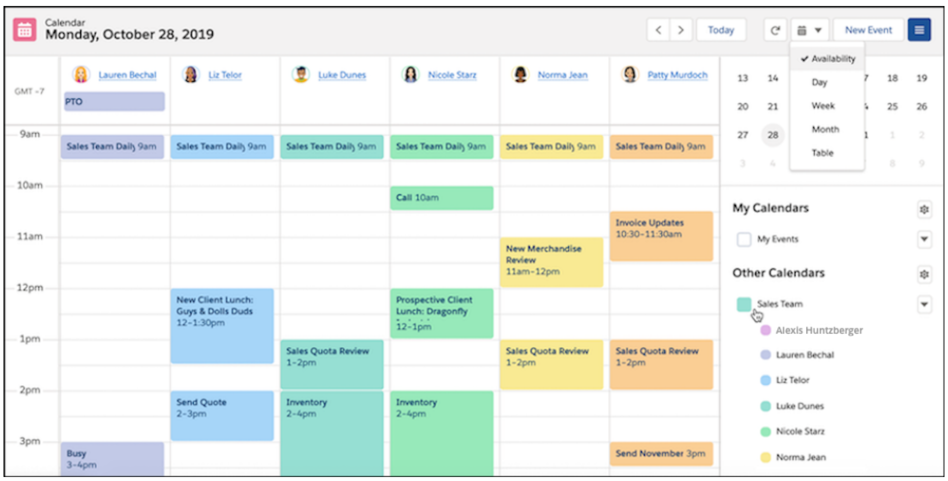
No need to hover, click, or open an event to see more details. We added the subject, time, and related records to event cards. Everything you need is there at a glance!

Find a Time That Works for Everyone in Availability View

The new availability view helps reps easily scan to see who's free to host a lunch or make a client pitch right in Lightning Experience. They no longer have to switch to Multi-User View in Salesforce Classic. Set up user lists so that reps can add multiple users to their calendar view without the headache of adding them separately.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Sales reps can use availability view with shared calendars instead of user lists but they benefit most when combining features. After they select the shared calendars or user lists to compare, reps can see the best time to meet in availability view.



How: Availability view doesn't require any additional setup. To let sales reps see user lists in their calendars, from the Activities Settings setup, choose **Add user lists to calendar views** in Lightning Experience.

SEE ALSO:

Salesforce Help: View and Manage Users (can be outdated or unavailable during release preview)

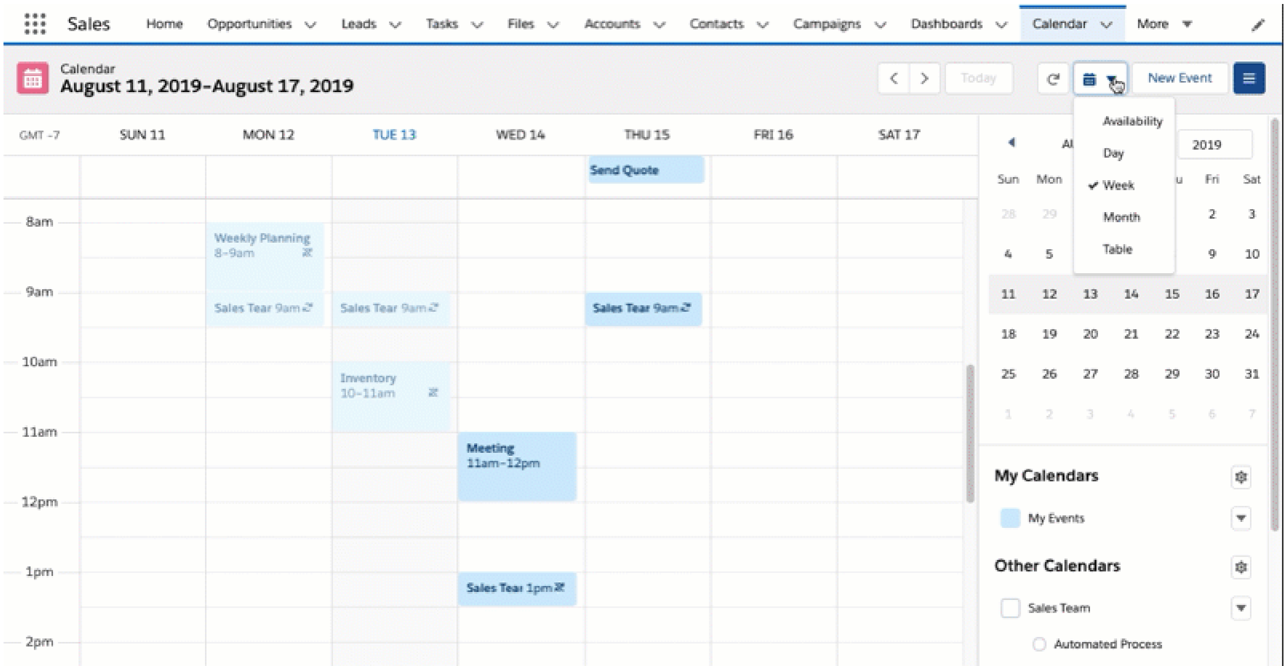
Salesforce Help: Customization Options for Events and Calendars (can be outdated or unavailable during release preview)

Open Your Favorite Calendar View in One Click

Sales reps can see the calendar view they used most recently without selecting a view from the dropdown. Now they can start scheduling business even faster. Previously, the calendar showed the week view as the default view.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Nicole, a busy sales rep, often uses the calendar's month view to schedule client meetings. Now when Nicole switches Salesforce tabs after scheduling a meeting, the month view is there waiting for her, every time. She doesn't have to choose the month view each time she returns to her calendar.



SEE ALSO:

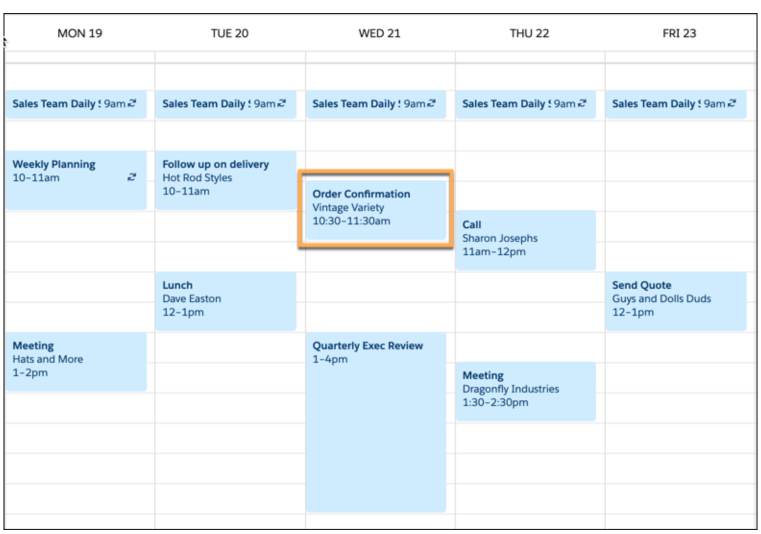
Salesforce Help: Calendar Views in Lightning Experience (can be outdated or unavailable during release preview)

See More Event Details Faster

No need to hover, click, or open an event to see more details. We added the subject, time, and related records to event cards. Everything you need is there at a glance!

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: View your events on any calendar view to see more details.



Integration with Google: Reminders to Log and Email Tracking, Scheduling, and Sync Improvements

Get reminders to log emails. Enjoy more flexibility when tracking emails and scheduling emails to send later. Plus, we fine-tuned event sync. Now the records that reps invite or relate to their events are never swapped for different records after syncing.

IN THIS SECTION:

Gmail™ Integration: Reminder to Log, Email Tracking Improvements, and Scheduled Email Updates

Sales reps receive a reminder to log the emails they send. Reps can track emails with the side panel closed and navigate from the tracking history to the original email. And more options are available for emails scheduled to send later.

IN THIS SECTION:

See More Relevant Records Matched to an Email in Gmail

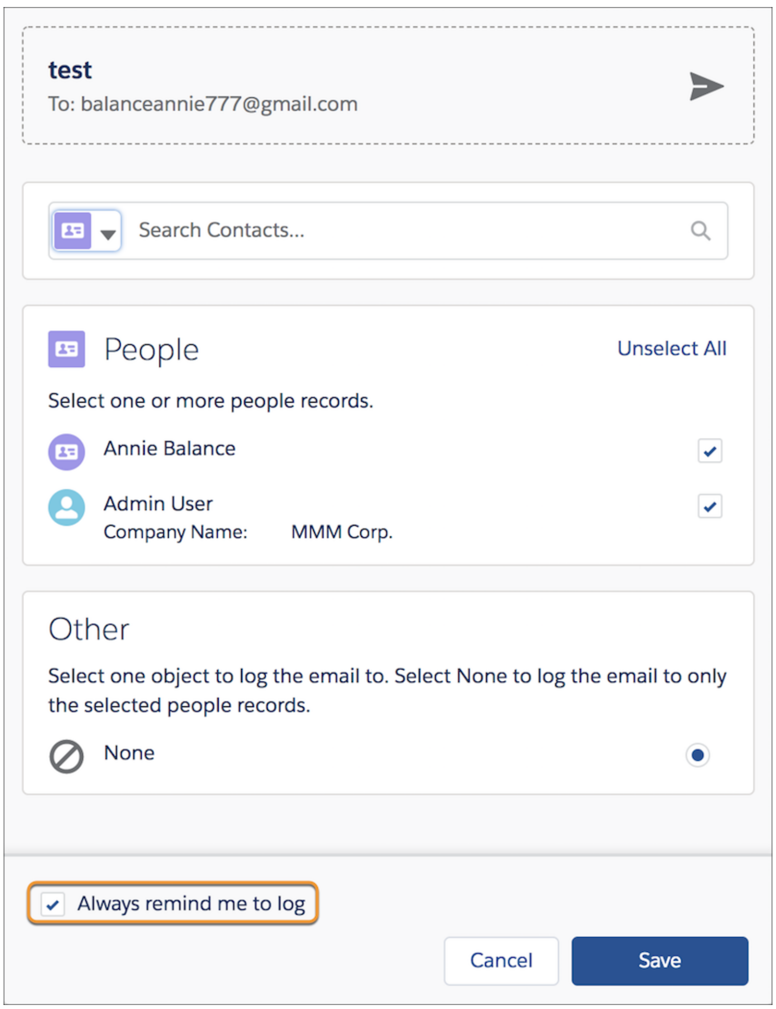
If an email address matches a Salesforce contact or lead and also matches a Salesforce user, the user record is selected as the default matching record. This selection helps to refine the list of related records. If necessary, reps can choose a different record type as the default selection for the matched pair.

Get Reminders to Log Emails from Gmail to Salesforce

Sales reps are busy and must log emails quickly and with fewer clicks. Reps are now prompted to log their emails to Salesforce after they send them. No need to expand the Gmail integration pane to log the email, and reps no longer have to sift through their Sent folder to log emails. This feature gives reps flexibility and control over their workflow, and allows them to log emails how they want to.

Where: This change applies to Lightning Experience and Salesforce Classic in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Everyone can use a reminder now and again. Reps are prompted the first time they send an email, and they can choose to turn off the reminder. They can change the setting **Always remind me to log** anytime in the prompt or the email integration pane when selecting to log an email.



SEE ALSO:

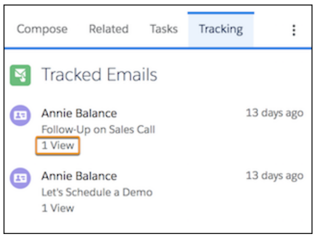
Salesforce Help: Tips for Working in the Gmail Integration with Inbox (can be outdated or unavailable during release preview)

Track Emails in Gmail Automatically

Reps can now track emails without opening the Gmail integration side panel, reducing the number of clicks while ensuring information they need is captured. Enable email tracking in the integration pane, and rest assured that the last tracking preference is remembered

Where: This change applies to Salesforce Inbox on desktop, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials edition.

How: Users can view email tracking details in the Tracking tab and change the tracking preference in the Compose tab when writing an email. If the setting is enabled, emails are tracked whether the integration pane is expanded or collapsed.



SEE ALSO:

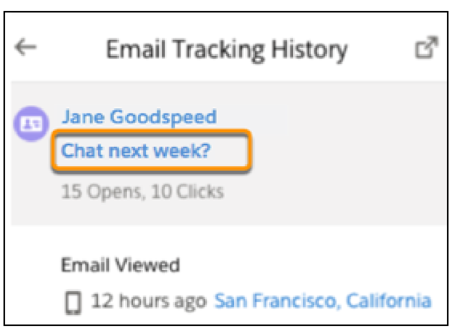
Salesforce Help: Do More While Composing Emails in Outlook and Gmail (can be outdated or unavailable during release preview)

Save Time When Viewing Tracking Details in Gmail

Reps can now navigate from the engagement information in the Tracking tab directly to the email that was tracked. Less time searching for email communications means a quicker response and more efficient selling.

Where: This change applies to Salesforce Inbox on desktop, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials edition.

How: To open a sent email directly from the Tracking tab, expand the tracking details, and then click the email subject line.



Note: Some emails that were sent from the new Gmail interface before Winter '20 don't allow reps to navigate to it directly from the Tracking tab.

SEE ALSO:

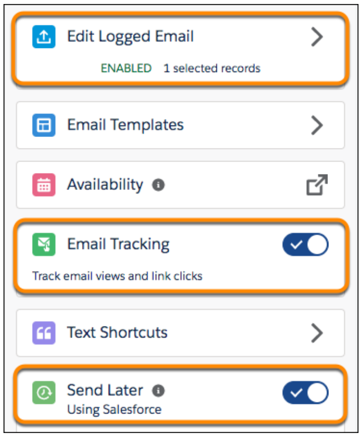
Salesforce Help: Considerations for Tracking Emails in the Gmail Integration (can be outdated or unavailable during release preview)

Do More with Scheduled Emails

Have your cake and eat it too. Sales reps can now schedule emails to send later while also logging and tracking their email when it is sent. Previously, reps couldn't track or log scheduled emails. Now, reps can send emails at opportune times for the biggest impact, and set their email to know when their recipient is engaged.

Where: This change applies to Salesforce Inbox on desktop, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials edition.

How: For each email, schedule the email to send later and set or edit logging and tracking preferences in the Compose tab.



SEE ALSO:

Salesforce Help: Do More While Composing Emails in Outlook and Gmail (can be outdated or unavailable during release preview)

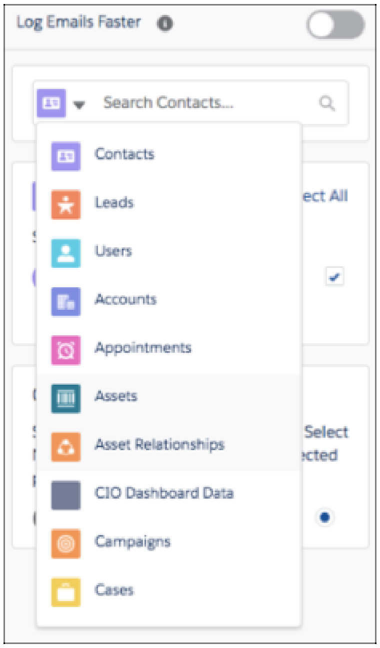
Salesforce Help: Tips for Working in the Gmail Integration with Inbox (can be outdated or unavailable during release preview)

See the Object Types Accessed Most Often in Gmail

When logging an email or event, reps now see their most frequently accessed object types first. Seeing what they access most often first reduces the need to scroll through a long list looking for what they need.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: The list of objects shows the rep's top-10 most frequently accessed object types, followed by an alphabetical list of other objects.



SEE ALSO:

Salesforce Help: Email and Event Logging From Outlook and Gmail to Salesforce (can be outdated or unavailable during release preview)

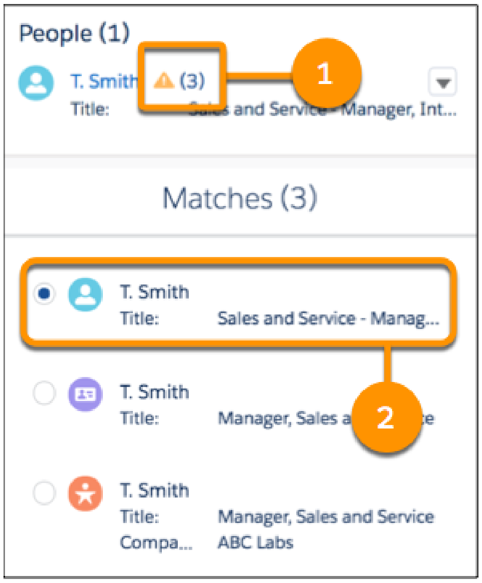
See More Relevant Records Matched to an Email in Gmail

If an email address matches a Salesforce contact or lead and also matches a Salesforce user, the user record is selected as the default matching record. This selection helps to refine the list of related records. If necessary, reps can choose a different record type as the default selection for the matched pair.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Who: This change is available in orgs with Enhanced Email enabled.

Why: Previously, the Gmail integration suggested related records by returning all people records that matched an address on the email. Reps could select the correct people record for the email (1). If a user record is returned, it's now selected by default (2). Other related records are still returned according to the selected people record, providing a more relevant list of records to log the email to.



SEE ALSO:

Salesforce Help: How Salesforce Records Are Matched to Emails and Events(can be outdated or unavailable during release preview)

Lightning Sync for Google: Improved Event Syncing

We fine-tuned event sync. Previously, after syncing, sometimes the users, contacts, and leads that reps invited or related to events were changed to different records with the same email address. We improved the matching criteria so that reps don't have to double-check their records. Lightning Sync always retains the records that sales reps originally invite or relate to their events.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Considerations for Syncing Events (can be outdated or unavailable during release preview)

Integration with Microsoft®: More Relevant Objects, More Relevant Matched Records, and Sync Improvements

See the most frequently accessed object types when logging an email or event. User record is selected as the default people record when Enhanced Email is enabled. Plus, we fine-tuned event sync. And starting in Winter '20, restrictions to Microsoft® Internet Explorer® 11 access disrupted service for some Salesforce for Outlook users.

IN THIS SECTION:

Salesforce for Outlook: Disrupted Service for Some Customers

Starting in Winter '20, restrictions to Microsoft® Internet Explorer® 11 access disrupted service for some Salesforce for Outlook users. Learn more about who's impacted and the workarounds available to enable your users to access Salesforce for Outlook again.

Outlook® Integration: Most Frequently Accessed Records Shown First and More Relevant People Records

The most frequently accessed object types are shown first when logging an email or event. And when Enhanced Email is on and multiple people records match an email, the user record is matched as the default.

IN THIS SECTION:

See the Object Types Accessed Most Often in Outlook

When logging an email or event, reps now see their most frequently accessed object types first. Seeing what they access most often first reduces the need to scroll through a long list looking for what they need.

See More Relevant Records Matched to an Email in Outlook

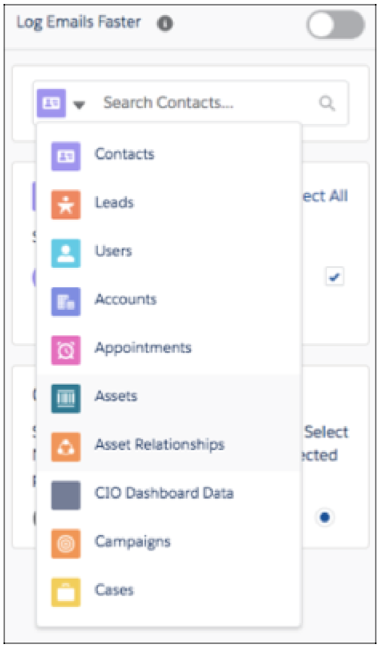
If an email address matches a Salesforce contact or lead and also matches a Salesforce user, the user record is selected as the default matching record. This selection helps to refine the list of related records. If necessary, reps can choose a different record type as the default selection for the matched pair.

See the Object Types Accessed Most Often in Outlook

When logging an email or event, reps now see their most frequently accessed object types first. Seeing what they access most often first reduces the need to scroll through a long list looking for what they need.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: The list of objects shows the rep's top-10 most frequently accessed object types, followed by an alphabetical list of other objects.



SEE ALSO:

Salesforce Help: Email and Event Logging From Outlook and Gmail to Salesforce (can be outdated or unavailable during release preview)

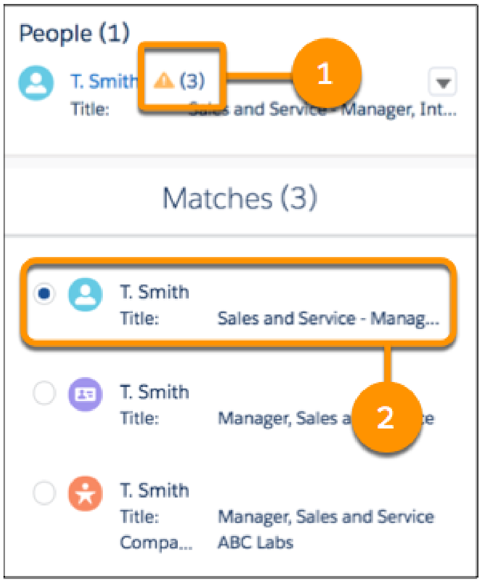
See More Relevant Records Matched to an Email in Outlook

If an email address matches a Salesforce contact or lead and also matches a Salesforce user, the user record is selected as the default matching record. This selection helps to refine the list of related records. If necessary, reps can choose a different record type as the default selection for the matched pair.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Who: This change is available in orgs with Enhanced Email enabled.

Why: Previously, the Outlook integration suggested related records by returning all people records that matched an address on the email. Reps could select the correct people record for the email (1). If a user record is returned, it's now selected by default (2). Other related records are still returned according to the selected people record, providing a more relevant list of records to log the email to.



SEE ALSO:

Salesforce Help: How Salesforce Records Are Matched to Emails and Events(can be outdated or unavailable during release preview)

Lightning Sync for Microsoft® Exchange: Improved Event Syncing, Action Required for Some Users on Microsoft Office 365

Learn how we fine-tuned event sync. Plus, get details about an October 2020 Microsoft retirement that requires some Office 365® customers to adjust their Lightning Sync settings to continue syncing.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

IN THIS SECTION:

Event Syncing Improved

We fine-tuned event sync. Previously, after syncing, sometimes the users, contacts, and leads that reps invited or related to events were changed to different records with the same email address. We improved the matching criteria so that reps don't have to double-check their records. Lightning Sync always retains the records that sales reps originally invite or relate to their events.

Disrupted Service in October 2020 for Some Lightning Sync Users on Microsoft Office 365

A pending Microsoft retirement requires some Office 365® customers to adjust their Lightning Sync settings. Otherwise, your sales reps' contacts and events stop syncing at that time.

Event Syncing Improved

We fine-tuned event sync. Previously, after syncing, sometimes the users, contacts, and leads that reps invited or related to events were changed to different records with the same email address. We improved the matching criteria so that reps don't have to double-check their records. Lightning Sync always retains the records that sales reps originally invite or relate to their events.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Considerations for Syncing Events (can be outdated or unavailable during release preview)

Disrupted Service in October 2020 for Some Lightning Sync Users on Microsoft Office 365

A pending Microsoft retirement requires some Office 365® customers to adjust their Lightning Sync settings. Otherwise, your sales reps' contacts and events stop syncing at that time.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

When: In October 2020, Microsoft will retire Basic Authentication for Exchange Online.

Who: This retirement impacts only Office 365 customers who use a service account to connect to Salesforce.

Why: Lightning Sync users on Office 365 who connect using a service account require Basic Authentication for Exchange Online. Before October 2020, those users must migrate to the other Lightning Sync connection method available for Office 365 customers, OAuth 2.0.

Basic Authentication is also required for Lightning Sync users working with Exchange 2016® or Exchange 2013®. However, Microsoft is not retiring Basic Authentication for those on-premises servers at this time.

How: First, check with the Microsoft admin or IT professional at your company to see whether your company uses Exchange Online. If you use Exchange 2016® or Exchange 2013®, no further action is necessary.

Next, check which Lightning Sync connection method you're using. From Setup, visit the Outlook Integration and Sync page. If OAuth 2.0 is selected, no further action is necessary. If Service Account is selected, coordinate with your Microsoft admin or IT professional to migrate to OAuth 2.0 before October 2020. Before you start that process, check on the required steps and Exchange permissions. See Connect Salesforce and Microsoft Exchange using OAuth 2.0.

SEE ALSO:

External Link: End of support for Basic Authentication access to Exchange Online API's for Office 365 customers

Salesforce Help: OAuth 2.0 Connection for Microsoft Users

Salesforce Help: Lightning Sync System Requirements

Salesforce for Outlook: Disrupted Service for Some Customers

Starting in Winter '20, restrictions to Microsoft® Internet Explorer® 11 access disrupted service for some Salesforce for Outlook users. Learn more about who's impacted and the workarounds available to enable your users to access Salesforce for Outlook again.

Where: This change applies to Lightning Experience in Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Who: Only certain Salesforce for Outlook customers experience this service disruption.

- Either the user or the Salesforce org doesn't have access to Salesforce Classic.
- Your company has not opted to extend Microsoft Internet Explorer 11 support until December 31, 2020.

Why: As a result of Salesforce retiring Lightning Experience support for IE11, Salesforce enabled a change in Winter '20. This change prevents users who only have access to Lightning Experience from logging into Salesforce from IE11. Because Salesforce for Outlook relies on IE11 to publish the side panel and the setup wizard in Outlook, Lightning Experience-only customers can't maintain a connection. Users impacted by this issue experience one or all of these limitations:

- Users see the error "You're not connected to Salesforce" in the side panel, and can't use any side panel features.
- Users who have been logged out of Salesforce for Outlook no longer can sync contacts, events, or tasks between Salesforce and Microsoft Outlook.
- Users who try to enter their credentials from the Salesforce for Outlook setup wizard see the error "Can't access this page."

How: You can take one of these suggested workarounds to let users continue working with Salesforce for Outlook.

- Opt in to extended support for IE11. From the Session Settings page in Setup, enable **Extended use of IE11 with Lightning Experience**.
- For customers whose Salesforce subscriptions offer access to Salesforce Classic, admins must make sure that users still have access to that interface. Make sure that both:
  1. Salesforce Classic isn't turned off for your whole Salesforce org. See Turn Off Salesforce Classic for your org.
  2. The "Hide Option to Switch to Salesforce Classic" is disabled on any permission sets assigned to your Salesforce for Outlook users' profiles. See Make Lightning Experience the Only Experience for Some Users. Users aren't required to switch back to Salesforce Classic to reinstate access to Salesforce for Outlook—the switcher simply must be available to them.

Alternatively, if you meet the system requirements, consider moving to our next-generation products, Outlook Integration, and either Einstein Activity Capture or Lightning Sync. You then can take advantage of our latest email integration features. Plus, these products are cloud-based, which means that you get patches and product updates automatically, with each Salesforce release. So your IT professionals no longer have to manage manual updates.

Keep in mind that at this time, the Outlook integration also requires IE11 for some desktop versions of Microsoft Outlook. See The Outlook Integration No Longer Connects to Salesforce for Some Customers to learn about the workarounds and how Salesforce is addressing this issue in 2020.

To gain deeper understanding of the features offered and see the system requirements, review our email integration comparison table.

SEE ALSO:

Salesforce Help: Outlook and Gmail Integration on Desktop

Salesforce Help: Einstein Activity Capture

Salesforce Help: Lightning Sync

Salesforce CPQ and Billing: Improved Pricing Guidance, Reliable Contracting for Large Quotes, and Customer Payments in Community and Lightning Pages

Improve the effectiveness of your pricing guidance by viewing where sales reps accepted or avoided suggested discounts. Keep your contracting process running smoothly with improved performance when contracting large quotes. Manage customer payments and credit cards by adding the new Salesforce Billing Lightning component to your partner-facing Communities and Lightning pages.

IN THIS SECTION:

Salesforce CPQ: Pricing Guidance Usage, Improved Contracting for Large Quotes, New Subscription Proration Options, and Quote Line Sorting

Manage the effectiveness of your pricing guidance by viewing whether sales reps viewed and accepted the suggested discounts. Sort quote lines in the quote line editor, and contract larger quotes without errors or timeouts.

Salesforce Billing: Save Credit Cards and Accept Payments in Communities and Lightning Pages, and Improved Security

Provide customers with a safe and convenient way to save credit card information in their Lightning and Community pages. Get greater control over sensitive data using new permission settings.

SEE ALSO:

Knowledge Article: New Objects and Fields for Salesforce CPQ and Billing Winter '20 (can be outdated or unavailable during release preview)

Salesforce CPQ: Pricing Guidance Usage, Improved Contracting for Large Quotes, New Subscription Proration Options, and Quote Line Sorting

Manage the effectiveness of your pricing guidance by viewing whether sales reps viewed and accepted the suggested discounts. Sort quote lines in the quote line editor, and contract larger quotes without errors or timeouts.

Note: Salesforce CPQ is offered for an extra cost. For pricing, contact your Salesforce account executive.

IN THIS SECTION:

SEE ALSO:

Knowledge Article: New Objects and Fields for Salesforce CPQ and Billing Winter '20 (can be outdated or unavailable during release preview)

See How Often Sales Reps Are Using Pricing Guidance

View the effectiveness of your pricing guidance with fields that show whether sales reps viewed the guidance and whether they accepted its target discount. When used in reports, the fields help you see where pricing guidance was used and evaluate whether it improved sales.

Where: This change applies to Salesforce Classic and Lightning Experience in Salesforce CPQ.

Who: Pricing Guidance is available for Salesforce CPQ+ users. The Create Pricing Guidance page is available for Salesforce CPQ+ users with an Einstein Analytics Plus or CPQ Einstein Analytics license.

How: Add the Viewed field and the Guidanced Used field to the quote line pricing guidance page layout.

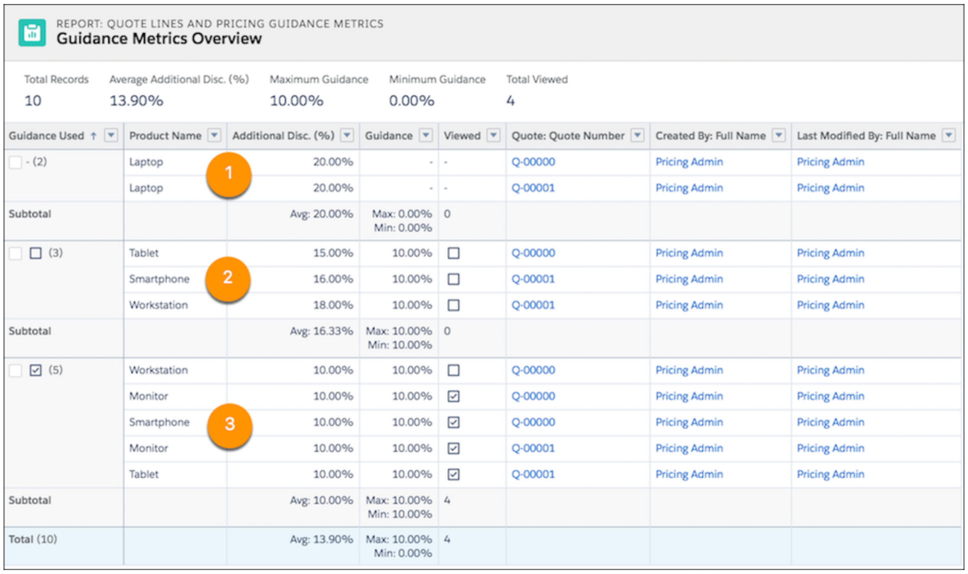
Viewed

Salesforce CPQ selects the Viewed field when a sales rep clicks a quote line's Pricing Guidance icon, then saves or quick saves the quote.

Guidance Used

Salesforce CPQ selects the Guidance Used field when a sales rep applies an additional discount that matches the Target Discount value on the quote line's pricing guidance.

For an easy way to review pricing guidance usage in a report, we recommend including the Guidance Used field in your Group Rows.



REPORT: QUOTE LINES AND PRICING GUIDANCE METRICS

Guidance Metrics Overview

Total Records	Average Additional Disc. (%)	Maximum Guidance	Minimum Guidance	Total Viewed
10	13.90%	10.00%	0.00%	4

Guidance Used ↑	Product Name	Additional Disc. (%)	Guidance	Viewed	Quote: Quote Number	Created By: Full Name	Last Modified By: Full Name
- (2)	Laptop	20.00%	-	-	Q-00000	Pricing Admin	Pricing Admin
	Laptop	20.00%	-	-	Q-00001	Pricing Admin	Pricing Admin
Subtotal		Avg: 20.00%	Max: 0.00% Min: 0.00%	0			
☐ (3)	Tablet	15.00%	10.00%	☐	Q-00000	Pricing Admin	Pricing Admin
	Smartphone	16.00%	10.00%	☐	Q-00001	Pricing Admin	Pricing Admin
	Workstation	18.00%	10.00%	☐	Q-00001	Pricing Admin	Pricing Admin
Subtotal		Avg: 16.33%	Max: 10.00% Min: 10.00%	0			
☑ (5)	Workstation	10.00%	10.00%	☐	Q-00000	Pricing Admin	Pricing Admin
	Monitor	10.00%	10.00%	☑	Q-00000	Pricing Admin	Pricing Admin
	Smartphone	10.00%	10.00%	☑	Q-00000	Pricing Admin	Pricing Admin
	Monitor	10.00%	10.00%	☑	Q-00001	Pricing Admin	Pricing Admin
	Tablet	10.00%	10.00%	☑	Q-00001	Pricing Admin	Pricing Admin
Subtotal		Avg: 10.00%	Max: 10.00% Min: 10.00%	4			
Total (10)		Avg: 13.90%	Max: 10.00% Min: 0.00%	4			

See quote lines where pricing guidance wasn't available (1), where pricing guidance wasn't used (2), and where pricing guidance was used (3).

SEE ALSO:

Salesforce Help: Reports For Pricing Guidance Usage (can be outdated or unavailable during release preview)

Quote Prorated Subscription Products More Accurately

Sales reps can now quote prorated subscription products with greater pricing accuracy. For Day-based proration, we added a Subscription Proration Precision value that evaluates whether the subscription term contains a leap year. For month- or month + day–based proration, we added a Subscription Proration Precision value that evaluates the length of each month within the subscription term.

Where: This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

Why: Previously, when Salesforce CPQ calculated prorate multipliers using a Subscription Proration Precision value of Day, it used either 365 days for a standard year or 366 days for a leap year. This calculation caused inaccurate prorate multipliers during leap years if the quote line's subscription term didn't contain February 29. Now, when the value is Day with Calendar Month Weighted, Salesforce CPQ uses 366 days for the prorate multiplier calculation only if the quote line's subscription term includes February 29.

When Salesforce CPQ calculated prorate multipliers using a Subscription Proration Precision value of Monthly or Monthly + Daily, it used (365/12) as the length of one month. This calculation caused inaccurate prorate multipliers because it didn't use the specific length of each month in the quote line's subscription term. Now, when the value is Calendar Monthly + Daily, Salesforce CPQ evaluates the length of each month in the quote line's subscription term when calculating the prorate multiplier.

SEE ALSO:

Salesforce Help: Subscription Proration Precisions (can be outdated or unavailable during release preview)

Other Changes in Salesforce CPQ

New license and setup options for pricing guidance, and improved support for contracting large volumes of quote lines.

IN THIS SECTION:

Enable Pricing Guidance With a New License Option

Salesforce CPQ+ users can now enable pricing guidance with the Einstein Analytics for CPQ license, which is available by default with CPQ+ licenses. The license includes five user licenses and all the Einstein Analytics features needed to set up pricing guidance. The Einstein Analytics Plus license, which also includes all Einstein Analytics features, is no longer needed to use pricing guidance.

Enable Pricing Guidance Differently

We've changed the steps to enable pricing guidance in Salesforce CPQ. You now need to enable analytics templates and create a Pricing Guidance app in the Analytics studio. You no longer need to whitelist analytics URLs.

Contract More Quote Line Items

Sales reps working with large contracts are now less likely to experience errors and timeouts as the contracting process supports more quote line items.

Enable Pricing Guidance With a New License Option

Salesforce CPQ+ users can now enable pricing guidance with the Einstein Analytics for CPQ license, which is available by default with CPQ+ licenses. The license includes five user licenses and all the Einstein Analytics features needed to set up pricing guidance. The Einstein Analytics Plus license, which also includes all Einstein Analytics features, is no longer needed to use pricing guidance.

Where: This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

Who: Pricing Guidance is available for Salesforce CPQ+ users. The Create Pricing Guidance page is available for Salesforce CPQ+ users with an Einstein Analytics Plus or CPQ Einstein Analytics license.

SEE ALSO:

Salesforce Help: Enable Pricing Guidance in Salesforce CPQ (can be outdated or unavailable during release preview)

Enable Pricing Guidance Differently

We've changed the steps to enable pricing guidance in Salesforce CPQ. You now need to enable analytics templates and create a Pricing Guidance app in the Analytics studio. You no longer need to whitelist analytics URLs.

Where: This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

Who: Pricing Guidance is available for Salesforce CPQ+ users. The Create Pricing Guidance page is available for Salesforce CPQ+ users with an Einstein Analytics Plus or Einstein Analytics For CPQ license.

SEE ALSO:

Salesforce Help: Enable Pricing Guidance in Salesforce CPQ (can be outdated or unavailable during release preview)

Contract More Quote Line Items

Sales reps working with large contracts are now less likely to experience errors and timeouts as the contracting process supports more quote line items.

Where: This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

Salesforce Billing: Save Credit Cards and Accept Payments in Communities and Lightning Pages, and Improved Security

Provide customers with a safe and convenient way to save credit card information in their Lightning and Community pages. Get greater control over sensitive data using new permission settings.

IN THIS SECTION:

Salesforce Billing: Save Credit Cards and Accept Payments in Communities and Lightning Pages

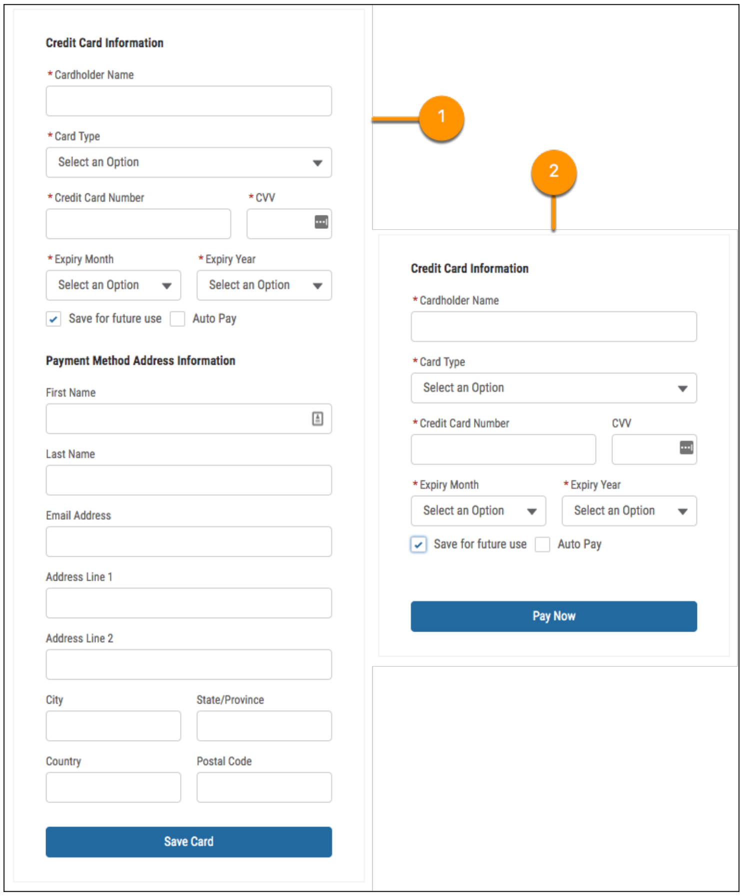
Managing customer payment information and staying PCI-compliant can be stressful. Use the new Hosted Card Payments component to let customers safely send and save credit card information from your communities and Lightning pages.

Where: This change applies to Lightning Experience in Salesforce Billing.

Who: You need Salesforce CPQ to install Salesforce Billing. Some subscriptions offer this package for an extra cost. For pricing, contact your Salesforce account executive.

To use the component, log a case with Salesforce CPQ & Salesforce Billing support to select the Enable Billing HPP component functionality.

Why: The Hosted Card Payments component sends customer payment information to Salesforce Billing, which then passes it to the payment gateway. The gateway sends its response back to Salesforce Billing and the component, so you don't have to handle any sensitive customer data. Developers can customize the component's required fields, hidden fields and labels, and enable admins to customize component fields and labels as well.



For example, a developer can configure a component to save credit card and billing address information for future use (1). Or, they can configure it to receive payments with credit card information (2).

How: Before you can add the Hosted Card Payments component (API name: `force:cardPayment`) to communities and Lightning pages, a developer must configure the component. Then, add the component to your communities or Lightning pages. If your developer allowed for you to edit the component, use the properties pane to configure fields and labels.

SEE ALSO:

Salesforce Help: Salesforce Billing Card Hosted Payments in Community and Lightning Pages (can be outdated or unavailable during release preview)

Salesforce Developer Documentation: Hosted Card Payments Component (can be outdated or unavailable during release preview)

New Permission Requirements for Non-Admin Users

We're improving security by adding Edit permission requirements for non-admin users in several Salesforce Billing actions. Previously, non-admin users without Edit permissions could still change field values on several objects.

Where: This change applies to Lightning Experience in Salesforce Billing.

Who: You need Salesforce CPQ to install Salesforce Billing. Some subscriptions offer this package for an extra cost. For pricing, contact your Salesforce account executive.

How: For non-Admin users, turn on Edit access for these actions.

Action	Edit Access Required For
Post an invoice	Invoice and invoice line
Post a credit note	Credit note, credit note line, credit note's Status field, credit note line's Status field
Post a debit note	Debit note, debit note line, debit note's Status field, debit note line's Status field
Apply tax to credit notes (standard tax or tax integrations)	Invoice, invoice line, credit note, credit note line
Apply tax to debit notes (standard tax or tax integrations)	Invoice, invoice line, debit note, debit note line

Pardot: New Dataset in B2B Marketing Analytics, Reusable Content for Email, and More Goodies

We've added a dataset to B2B Marketing Analytics that features prospect demographic and engagement activity data together. The new Snippets feature offers reusable content for emails and email templates. This release also brings updates to the Pardot Einstein features Behavior Scoring and Campaign Insights, and improvements to asset handling in the Object Manager.

IN THIS SECTION:

Encourage users to add the Prospect and Activity Dataset to their lenses and dashboards to help them further understand prospect engagement. The dataset includes three years of engagement information tied to the default and custom prospect fields in the Pardot Prospect dataset. With this super dataset, you can unearth valuable connections without heavy report customization.

To improve performance and accessibility, B2B Marketing Analytics is now directly available in Salesforce. No managed package needed! Datasets, lenses, and dashboards that were created after February 11, 2019 continue to be updated until Summer '20.

Snippets give your users the power of content reuse. When your company promotes a series of webinars or other recurring events, your marketers probably have to create many similar promotional emails. With Snippets, they can create a robust block of text, images, and links and pull it into email or email templates. Next time they make changes, they only have to update the snippet, and the email and email templates inherit the changes.

Pardot landing pages, marketing forms, and marketing links are now available in the Object Manager with customization options. You can view fields and relationships and edit page layouts, record pages, compact layouts, and search layouts. The Object Manager makes it easy to customize objects in Salesforce to meet your business needs.

Research suggests that people develop better insights when they manipulate their own data. Give your sales and marketing users the power of data exploration by adding Engagement History Dashboards to a tab on account records. Use account dashboards together with dashboards on campaign records to see a bigger picture of prospect engagement.

To bring the latest and greatest data to Engagement History, we added web page visits and automated email to your embedded dashboards. Automated email includes any email that is sent from Engagement Studio, an automation rule, or a completion action. The new data appears on your Engagement History dashboards by default.

Find Out Which Assets Resonate Best with Prospects

Einstein Behavior Scoring can now tell you which specific marketing assets typically have a role in sealing new deals. These new insights explain how a prospect engaged with an asset, such as the email Fall Promotion or the landing page Signup for New Classes. Einstein brings these data points together to determine which assets' engagement activities are most likely to generate opportunities.

Group Prospect Reports by Behavior Score

Einstein Behavior Score is now available as a column on standard reports. Scores are already valuable on individual records, but grouping by behavior scores helps you identify and analyze your best leads, contacts, or accounts simultaneously. Create a list of your highest or lowest scoring prospects, and iterate on the marketing strategies that you use with each. Run the report regularly to see which methods resonate with each group.

Get Only the Einstein Lead or Behavior Scores You Need

Einstein scoring is a powerful tool, but certain scores can be more valuable to some types of users than others. New visibility settings can declutter your users' record home pages. Decide which profiles need to see Behavior Scores, Lead Scores, or both, and configure those visibility settings on your lead record home pages.

Review Campaign Insights in a Custom Report

Wouldn't it be great to see all the performance-driving factors that Einstein Campaign Insights digs up? Build a custom report from these valuable insights to find your own trends and themes in the data. For example, draw connections between a high-performing campaign and the industry or location of its members, or find out which marketing assets people engage with most.

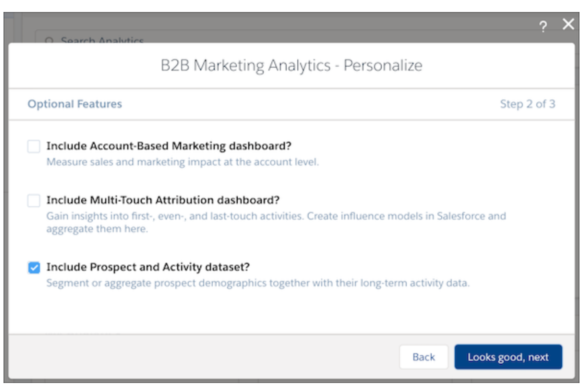
Explore Combined Prospect and Activity Data in B2B Marketing Analytics

Encourage users to add the Prospect and Activity Dataset to their lenses and dashboards to help them further understand prospect engagement. The dataset includes three years of engagement information tied to the default and custom prospect fields in the Pardot Prospect dataset. With this super dataset, you can unearth valuable connections without heavy report customization.

Where: This change applies to Lightning Experience and Salesforce Classic and is included with Pardot Plus and Advanced. The change also affects Pardot Pro and Ultimate editions with the B2B Marketing Analytics add-on.

Who: To create a B2B Marketing Analytics app, users need the Create B2B Marketing Analytics Apps permission. To reconfigure B2B Marketing Analytics apps, users need one of these permissions: Use Analytics Templated Apps, Manage Analytics Templated Apps, *or* B2B Marketing Analytics.

How: During setup for a new B2B Marketing Analytics app, select the Prospect and Activity Dataset on the Optional Features list. If you've set up an app previously and want to add the dataset, reconfigure the app and choose the dataset when you're prompted.



SEE ALSO:

Salesforce Help: Reconfigure B2B Marketing Analytics (can be outdated or unavailable during release preview)

Datasets Have Moved to B2B Marketing Analytics 2.0

To improve performance and accessibility, B2B Marketing Analytics is now directly available in Salesforce. No managed package needed! Datasets, lenses, and dashboards that were created after February 11, 2019 continue to be updated until Summer '20.

Where: This change applies to Lightning Experience and Salesforce Classic and is included with Pardot Plus and Advanced. The change also affects Pardot Pro and Ultimate editions with the B2B Marketing Analytics add-on.

Who: To create apps, dashboards, and dataflows, users need the Create B2B Marketing Analytics Apps or the Manage Analytics user permission.

Why: Customers told us that the managed package implementation was more difficult than they anticipated. We want you to get the most out of B2B Marketing Analytics, and that means getting up and running faster. We eliminated the managed package from the setup and moved the process into Salesforce to streamline your workflow.

How: Open the B2B Marketing Analytics page from Setup, and then click **B2B Marketing Analytics**. Set up your connector user and user permissions, and get started. To migrate an existing app, check out Salesforce Help.

SEE ALSO:

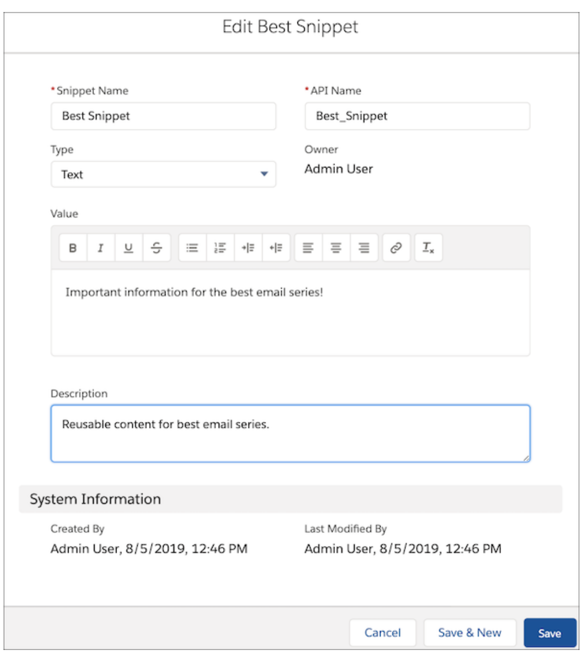
Salesforce Help: Upgrade B2B Marketing Analytics Template (can be outdated or unavailable during release preview)

Reuse Content Across Campaign Emails with Snippets

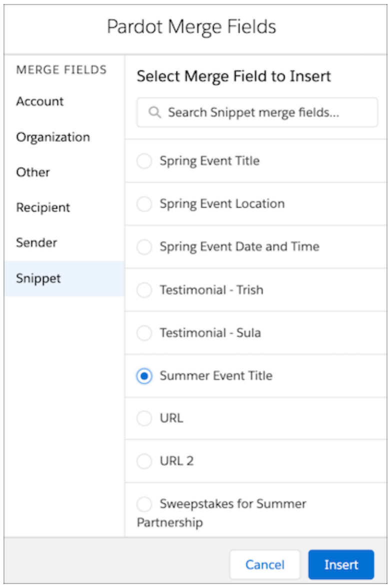
Snippets give your users the power of content reuse. When your company promotes a series of webinars or other recurring events, your marketers probably have to create many similar promotional emails. With Snippets, they can create a robust block of text, images, and links and pull it into email or email templates. Next time they make changes, they only have to update the snippet, and the email and email templates inherit the changes.

Where: This change applies to all Pardot editions with the Pardot Lightning app.

Why: After you create a snippet, you can use it over and over. To create a snippet, open a connected campaign. From the Snippet Assignments related list, create a snippet assignment and the new snippet record. From there, use the editor to enter the new snippet content.



After you save a snippet, it becomes available on the Snippets tab where it can be edited or deleted. Then use Handlebars Merge Language (HML) to pull the snippet into an email or email template. Snippets are available in the HML merge field picker.



How: To let users create and manage snippets, add the Snippet tab and related lists to record pages. Add the Assignments related list to snippet records and the Snippet Assignments related list to campaigns.

SEE ALSO:

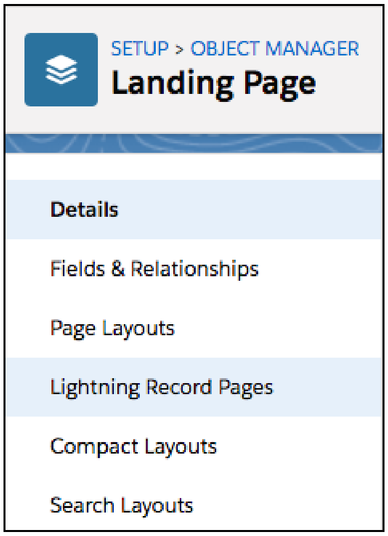
Salesforce Help: Reuse Content in Emails (can be outdated or unavailable during release preview)

Customize Marketing Content in the Object Manager

Pardot landing pages, marketing forms, and marketing links are now available in the Object Manager with customization options. You can view fields and relationships and edit page layouts, record pages, compact layouts, and search layouts. The Object Manager makes it easy to customize objects in Salesforce to meet your business needs.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Performance, and Unlimited editions.

Why: You might have certain ways that you customize record homes that works best for your business. With Pardot content available in the Object Manager, you have more control over how record homes for your Pardot marketing content are structured in Salesforce.



SEE ALSO:

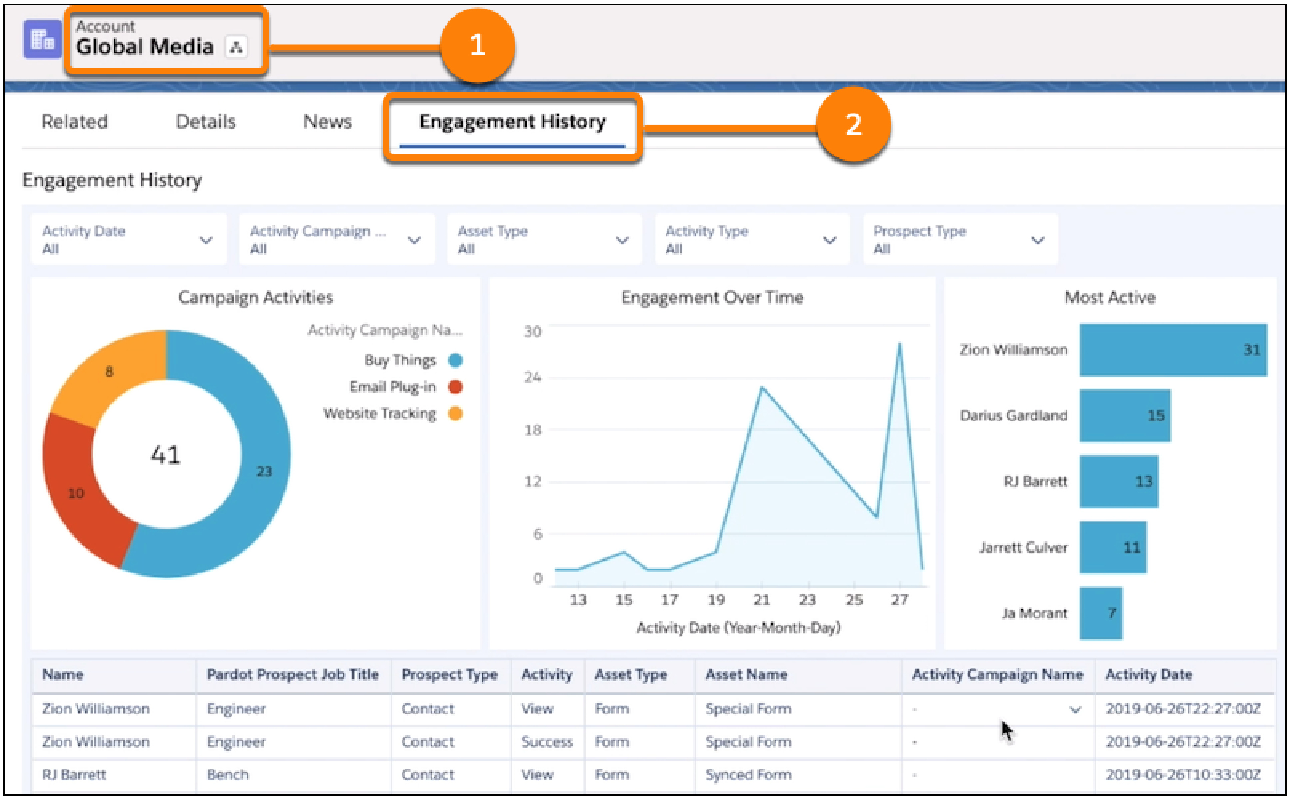
Salesforce Help: Manage Pardot Content in Salesforce (can be outdated or unavailable during release preview)

Dig into Account Records with Engagement History Dashboards

Research suggests that people develop better insights when they manipulate their own data. Give your sales and marketing users the power of data exploration by adding Engagement History Dashboards to a tab on account records. Use account dashboards together with dashboards on campaign records to see a bigger picture of prospect engagement.

Where: This change applies to Lightning Experience in Pardot Growth, Plus, and Advanced editions with Salesforce Professional, Enterprise, and Unlimited editions.

How: If you have a dashboard component on your campaign records, all you need to do is add the embedded dashboard to a tab on account records. To set up Engagement History dashboards for the first time, check out Salesforce Help.



In the Lightning App Builder, edit an account record (1) and drag the Engagement History Dashboard component to a tab (2).

SEE ALSO:

Salesforce Help: Using Engagement History Lightning Components (can be outdated or unavailable during release preview)

Find More Data Types in Engagement History

To bring the latest and greatest data to Engagement History, we added web page visits and automated email to your embedded dashboards. Automated email includes any email that is sent from Engagement Studio, an automation rule, or a completion action. The new data appears on your Engagement History dashboards by default.

Where: This change applies to Lightning Experience in Pardot Growth, Plus, and Advanced editions with Salesforce Professional, Enterprise, and Unlimited editions.

Find Out Which Assets Resonate Best with Prospects

Einstein Behavior Scoring can now tell you which specific marketing assets typically have a role in sealing new deals. These new insights explain how a prospect engaged with an asset, such as the email Fall Promotion or the landing page Signup for New Classes. Einstein brings these data points together to determine which assets' engagement activities are most likely to generate opportunities.

Where: This change applies to Lightning Experience in Pardot Advanced with Salesforce Enterprise and Unlimited editions.

How: If you already placed the Behavior Scoring component on lead or contact records, you're all set. The new insights appear after they're discovered. To set up Behavior Scoring, check out Salesforce Help.

SEE ALSO:

Salesforce Help: Einstein Behavior Scoring (can be outdated or unavailable during release preview)

Group Prospect Reports by Behavior Score

Einstein Behavior Score is now available as a column on standard reports. Scores are already valuable on individual records, but grouping by behavior scores helps you identify and analyze your best leads, contacts, or accounts simultaneously. Create a list of your highest or lowest scoring prospects, and iterate on the marketing strategies that you use with each. Run the report regularly to see which methods resonate with each group.

Where: This change applies to Lightning Experience in Pardot Advanced with Salesforce Enterprise and Unlimited editions.

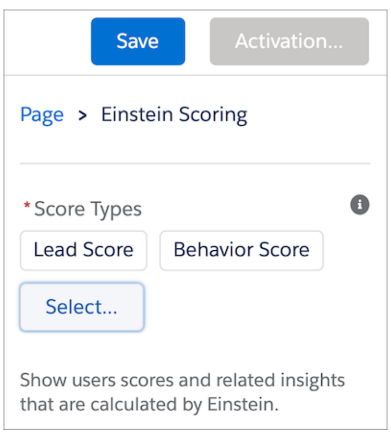
How: In standard contact and lead reports, show the Behavior Score field as a column or select it in the filtering pane.

Get Only the Einstein Lead or Behavior Scores You Need

Einstein scoring is a powerful tool, but certain scores can be more valuable to some types of users than others. New visibility settings can declutter your users' record home pages. Decide which profiles need to see Behavior Scores, Lead Scores, or both, and configure those visibility settings on your lead record home pages.

Where: This change applies to Lightning Experience in Pardot Advanced with Salesforce Enterprise and Unlimited editions.

How: To choose which Einstein scoring components appear for your users, edit a lead record home page in the Lightning App Builder. Select the component, and choose Behavior Scoring or Lead Scoring under the Score Type heading.



Create or edit as many lead record home pages as you need, and assign them to the correct user profiles.

SEE ALSO:

Salesforce Help: Activate Lightning Experience Record Pages (can be outdated or unavailable during release preview)

Review Campaign Insights in a Custom Report

Wouldn't it be great to see all the performance-driving factors that Einstein Campaign Insights digs up? Build a custom report from these valuable insights to find your own trends and themes in the data. For example, draw connections between a high-performing campaign and the industry or location of its members, or find out which marketing assets people engage with most.

Where: This change applies to Lightning Experience in Pardot Advanced with Salesforce Enterprise and Unlimited editions.

How: Several new fields are available to help you build the right custom report. You can combine fields at the insight level, such asset ID, with specific rationale values, including job title, industry, and state. Here's the list of available fields.

Campaign Insights

Campaign ID

Insights Type

Trend Type

Asset Field 1 (Email Subject)

Marketing Asset ID (or Name)

Insight Rationales

Campaign Insight ID

Parent ID

Insights Type

Email Title Phrase

Country

State

Job Title

Industry

Asset Field 1 refers to an email subject. Marketing Asset ID shows the asset name when it's available. When no name is available, it shows a unique identifier.

Other Changes in the Sales Cloud

Data.com Prospector and Data.com Clean are scheduled for retirement on July 31, 2020. Now you can manage delivery settings for Sales Cloud features with Notification Builder. And you can route messaging channels with Omni-Channel.

IN THIS SECTION:

Data.com Prospector and Data.com Clean Are Being Retired

Data.com Prospector and Data.com Clean licenses can no longer be renewed. These products are scheduled for retirement on July 31, 2020. Existing contracts will be honored.

Where: This change applies to Lightning Experience and Salesforce Classic.

SEE ALSO:

Knowledge Article: Data.com Clean and Prospector Retirement

Manage Delivery Settings for Sales Cloud Features

Use Notification Builder to choose desktop and mobile delivery channels, including supported Salesforce apps, for standard notification types. Previously, Salesforce defined the delivery channels for standard notifications. Now you get more control over them.

Where: This change applies to Lightning Experience in all editions, except Database.com. You can send notifications to users in Lightning Experience and Salesforce Classic in all editions, to users in the current Salesforce mobile app in all editions, except Database.com, and to users in the new Salesforce mobile app in all editions, except Essentials and Database.com. You can send notifications to users in Mobile Publisher apps for an extra cost.

SEE ALSO:

Manage Delivery Settings for Standard Notifications with Notification Builder

Route Messaging Channels with Omni-Channel

Sales cloud license users with a Digital Engagement add-on license can use Omni-Channel routing and Omni-Channel Supervisor for routing messaging channels.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Service: Einstein Article Recommendations, Time Sheets for Field Service, More Knowledge Channels, Quick Pre-Chat Information, and a Raft of Other Improvements

Save your agents time and delight your customers with the many updates we've made in Service. Help your agents resolve cases faster with recommended articles. Empower your Field Service mobile workers to log their hours on the go. Send Knowledge articles through more channels. Before accepting a chat, let agents see pre-chat details and pages visited. Let your agents tackle the right cases first with Secondary Routing Priority. Improve agent productivity with an enhanced email experience in the case feed. Find out what your customers think by automatically sending a survey when a case is closed. Integrate third-party natural language processing engines into your Einstein bots.

IN THIS SECTION:

Einstein for Service: Recommended Articles for Agents, Third-Party NLPs for Einstein Bots, and Automated Case Classification

Help your agents resolve cases faster with recommended articles. Create two-way integrations with third-party natural language processors (NLPs) into Einstein bots. Save predicted field values to cases automatically with Einstein Case Classification.

Field Service: Time Sheets, Health Check, and Extended Match Work Rules

Let your mobile workers log their hours on their mobile devices. Use Health Check to make sure your Field Service configuration aligns with our best practices. Find the right service resource for the job with Extended Match work rules.

Channels: Conversations Available on Contact Detail Pages, Attached Files Shown in Chat Window, Embedded Service for Mobile Apps More Accessible

Email, Chat, and Messaging have expanded to deliver a better agent experience and higher productivity. WeChat and WhatsApp channels are available as pilot programs. Agents can start a conversation from a contact's detail page. Files are available in the chat window, so agents don't have to download them before viewing. We made Embedded Service for Mobile Apps more accessible.

Knowledge: Expanded Channels, Flexible Styles, and Improved Article Management

Share articles in more channels. Insert the contents of an article or a link from your Communities and Sites in social posts. Or, insert article contents to Chat and Messaging conversations. We beefed up search and user access with more control over draft, archived, and published articles.

Routing: Attribute Setup for Skills-Based Routing (Generally Available), Secondary Routing Priority, Omni-Channel for Sales, and More

Set up skills-based routing with clicks, not code, using Attribute Setup for Skills-Based Routing. Use field values to specify a secondary routing priority. Sales customers can now use Omni-Channel Routing. Search public groups, see agent status with color-coding on the Omni-Channel widget, and give your customers an estimated wait time.

Case Management: Critical Update to Deployments in Lightning Flow for Service, Feed Item Visibility Comes To Lightning, Usability Improvements in Case Feed

A critical update to Lightning Flow for Service requires you to select a deployment for the Actions & Recommendations component. Add autolaunched flows for your agents. Agents now can set feed item visibility to public or private in Lightning Experience. Usability improvements in Lightning Experience make it easier for agents to know when they have new feed items and when case comments are private.

Einstein for Service: Recommended Articles for Agents, Third-Party NLPs for Einstein Bots, and Automated Case Classification

Help your agents resolve cases faster with recommended articles. Create two-way integrations with third-party natural language processors (NLPs) into Einstein bots. Save predicted field values to cases automatically with Einstein Case Classification.

IN THIS SECTION:

Einstein Bots: Automatically End Bot Chats, Deliver Knowledge Articles, Connect to Third-Party NLPs, and More

Our bots spent the summer getting smarter! Einstein Bots now includes rule actions to check agent availability and end chats gracefully. We also created a way to connect third-party natural language processors to Einstein Bots, and a quick action to deliver relevant knowledge articles straight to your customers.

Einstein Case Classification: Automated Values, Performance Dashboard, and On-Demand Classification

Save predicted field values to cases automatically, identify an Einstein user for automated changes, and set rules. See how well Einstein Case Classification is working, and deliver classified cases on demand.

Help Your Agents Resolve Cases Faster with Einstein Article Recommendations (Pilot)

Einstein Article Recommendations uses data from past cases to identify Knowledge articles that are most likely to help your agents address customer inquiries.

Einstein Bots: Automatically End Bot Chats, Deliver Knowledge Articles, Connect to Third-Party NLPs, and More

Our bots spent the summer getting smarter! Einstein Bots now includes rule actions to check agent availability and end chats gracefully. We also created a way to connect third-party natural language processors to Einstein Bots, and a quick action to deliver relevant knowledge articles straight to your customers.

IN THIS SECTION:

Automatically End Bot Chats

Build bots that clean up after themselves! Use an End Chat rule action to add conditions that help the bot sense the natural end of a conversation and automatically close the session on behalf of the visitor.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

Who: Einstein Bots is available to orgs with both Service Cloud and Chat user licenses. The End Chat rule action is for bots that use Chat and Omni-Channel. Each org is provided with 25 Einstein Bots conversations per month for each Chat user with an active subscription.

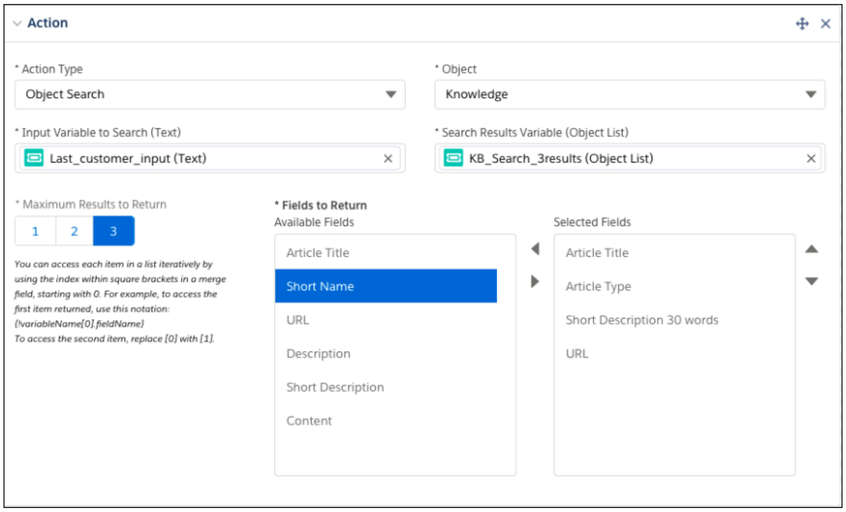
Easily Deliver Knowledge Articles to Your Customers

Let bots share your library of knowledge articles based on a customer's search terms. Place this action on dialogs to deliver the top Lightning Knowledge articles to your customers by using clicks, not code.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

Who: Einstein Bots is available to orgs with both Service Cloud and Chat user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat user with an active subscription.

Why: When a customer enters a search term, the bot delivers one, two, or three articles that solve the request best. You can choose which fields to show customers to deliver a customized experience.



Connect Your Bots to Third-Party NLPs (Pilot)

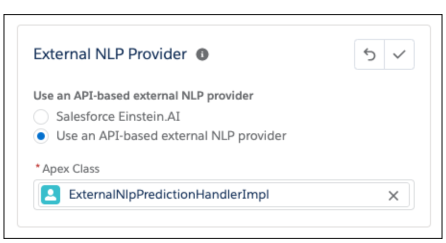
Bring your own natural language processor (NLP) into Einstein Bots to create a multilanguage experience or to tie into your existing systems. Intents and utterance data are passed through Apex to the processor of your choice. A two-way system connects your NLP to Einstein via an Apex template, so customer inputs are sent from your Einstein bot to your provider. The bot can also receive intent and entity information from your third-party provider to use conversation routing.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

Note: We provide this feature to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. This feature isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

Who: Einstein Bots is available to orgs with both Service Cloud and Chat user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat user with an active subscription.

How: Connect your preferred third-party NLP, such as IBM Watson's Conversation Service (WCS), Microsoft's Language Understanding Intelligence Service (LUIS), or Google Natural Language (NL) API into Einstein Bots.



If you are interested in this feature, contact your Salesforce account executive.

Improve Bot Handoffs by Confirming Agent Availability

Bots and agents work better together, and we've made transfers even smarter by checking the availability of agents before a transfer takes place. Define custom messaging to keep the customer informed as to the status of the transfer.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience. This feature is available for bots using Chat and Omni-Channel.

Who: Einstein Bots is available to orgs with both Service Cloud and Chat user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat user with an active subscription.

How: The No Available Agents dialog is included with all new bots. To make this dialog active, select **No Available Agents**.

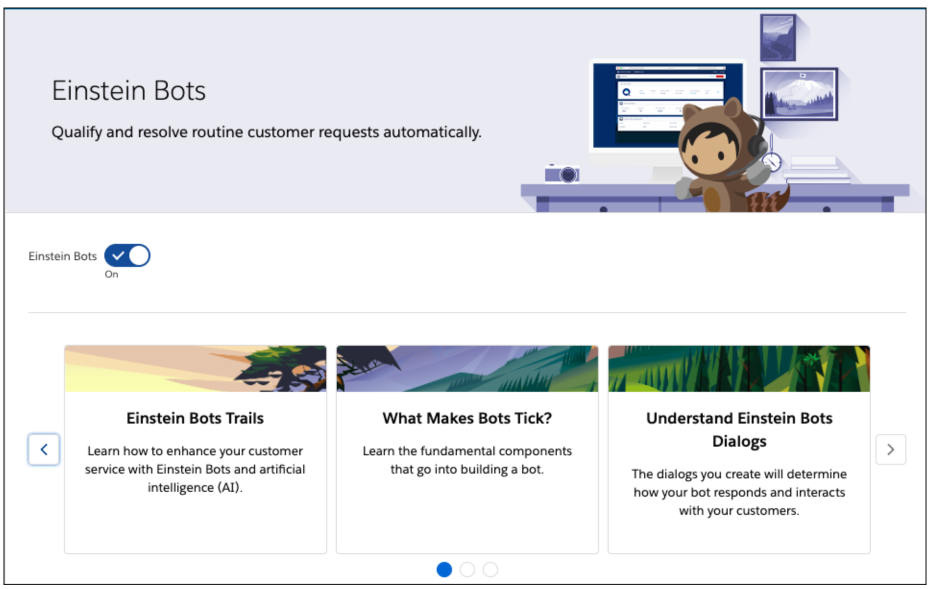
Improve Your Skills with the Bots Setup Help Carousel

Get the most helpful Einstein Bot content at your fingertips with a carousel on the Setup screen. Get access to bot recipes, troubleshooting tips, and best practices.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

Who: Einstein Bots is available to orgs with both Service Cloud and Chat user licenses. Each org is provided with 25 Einstein Bots conversations per month for each Chat user with an active subscription.

How: From Setup, in the Quick Find box, enter `Einstein Bots`, and then select **Einstein Bots**.



Einstein Case Classification: Automated Values, Performance Dashboard, and On-Demand Classification

Save predicted field values to cases automatically, identify an Einstein user for automated changes, and set rules. See how well Einstein Case Classification is working, and deliver classified cases on demand.

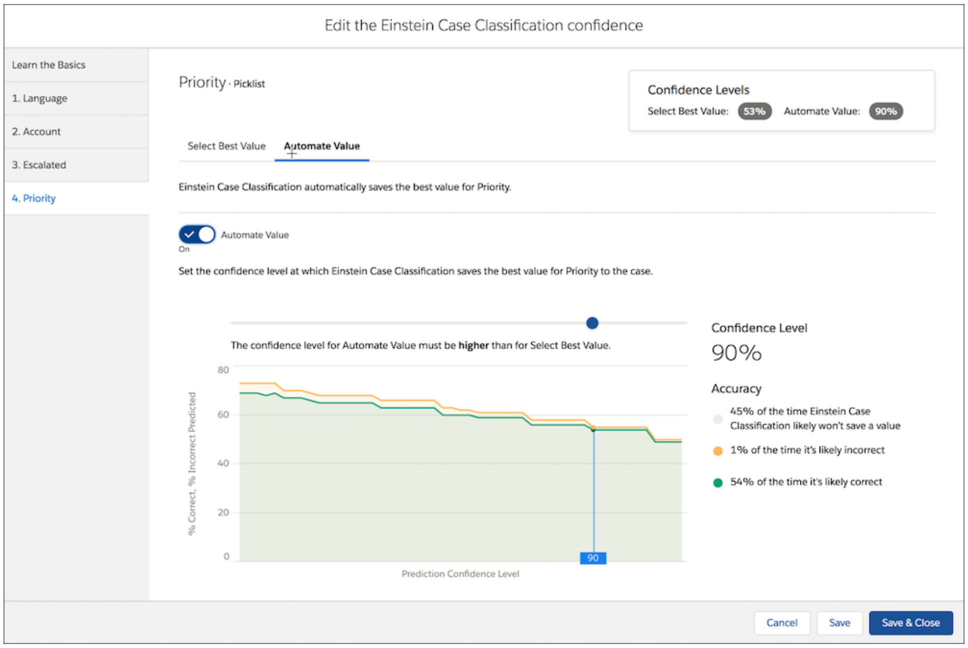
IN THIS SECTION:

Automatically Apply Einstein Predicted Values to Cases with Einstein Case Routing

You save your agents time and improve their accuracy with predicted field values. Save them even more time by applying and saving predicted field values to cases. Assign and route cases to the right agents and resolve them more quickly.

Where: This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience in Enterprise and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

How: Add the fields that you want to predict for your agents. Then build the predictive model. Einstein Case Classification analyzes the fields in your closed-case data to determine predictions for these fields in new cases. For each field, you can turn on **Automate Value** to apply and save predictions to the case.



SEE ALSO:

- Run Rules After Einstein Makes Changes
- Identify Which Changes Einstein Made
- Understand How Effective Einstein Case Classification Is for Your Agents
- Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

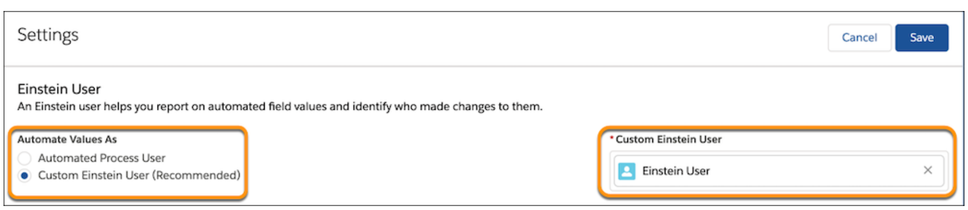
Identify Which Changes Einstein Made

If you choose to automatically save the predictions made by Einstein Case Classification to a case, it's handy to create an Einstein user to identify when Einstein is responsible for the changes. Alternatively, you can use the default automated process user.

Where: This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience in Enterprise and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

How: From Settings, in the Einstein User section of Case Classification setup, select **Custom Einstein User (Recommended)**. Then select a user. We recommend that you create a user just for this purpose to distinguish from other users.

The Einstein user must have edit permission on Cases and predicted fields.



SEE ALSO:

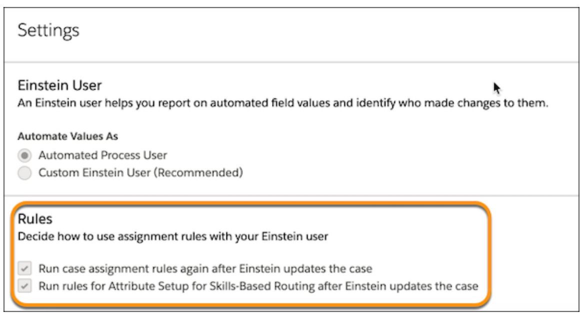
Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Run Rules After Einstein Makes Changes

When Einstein Case Classification automatically saves predicted values to cases, you can run case assignment and Attribute Setup for Skills-Based Routing rules to route cases to the right agent.

Where: This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience in Enterprise and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

How: From Settings, enable rules in Case Classification setup.



SEE ALSO:

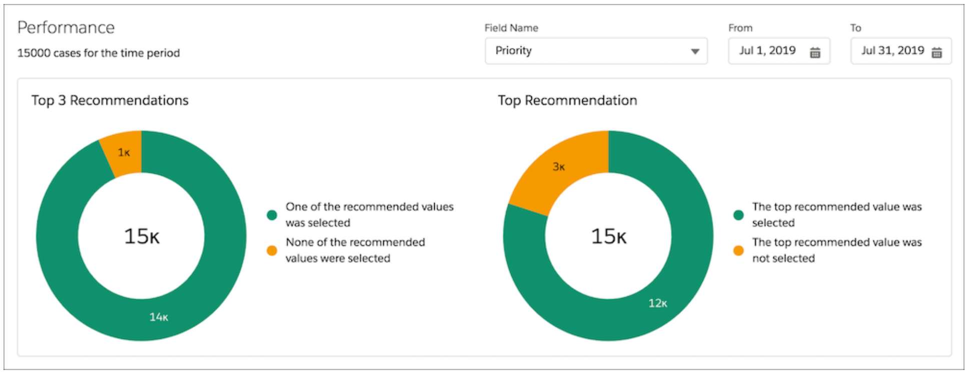
Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Understand How Effective Einstein Case Classification Is for Your Agents

The Performance dashboard shows you how well Einstein predictions are working. View the performance of Einstein predictions compared to the final field value saved in the case. Use this information to help decide when to automate values on incoming cases.

Where: This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience in Enterprise and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

How: One chart shows how effective the top recommendations are. The other chart indicates how often one of the top three recommendations is selected as the final value.



SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

See Einstein Recommendations Without Delay

Einstein classifies cases as soon as they're created, so recommended field values are available for your agents within seconds.

Where: This change applies to Lightning Experience and Salesforce Classic. Einstein Case Classification is available for an extra fee in Lightning Experience in Enterprise and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience. Einstein Case Classification is not available in the Salesforce Government Cloud.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Einstein Bots: Other Bot Updates

Learn about other changes to Einstein Bots.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

When: This change is in effect at the beginning of the Winter 20 release.

Who: Einstein Bots is available to orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Using SMS requires a Digital Engagement license. Each org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription.

- Previously, if a session did not have any activity for 24 hours, the session would close. We've now changed the idle timeout for Chat and Messaging sessions from 24 hours to 2 hours.

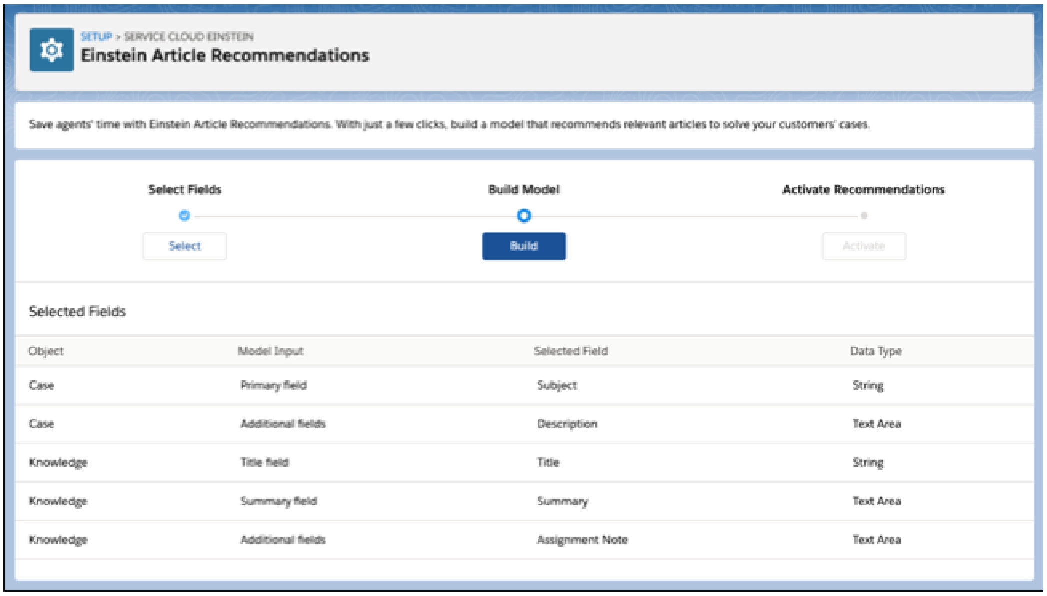
Help Your Agents Resolve Cases Faster with Einstein Article Recommendations (Pilot)

Einstein Article Recommendations uses data from past cases to identify Knowledge articles that are most likely to help your agents address customer inquiries.

Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

Note: We provide Einstein Article Recommendations to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Einstein Recommended Articles isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

Why: When you set up Einstein Article Recommendations, you can identify the fields on your Case and Knowledge objects that are most applicable to your business and solving your customers' cases.



When a customer submits a case, Einstein uses that information to:

- Identify the most important information in the case record
- Match that information to the most relevant articles from your knowledgebase
- Present those articles to your agents in the Einstein Article Recommendations Lightning component

How: For information on enabling this feature, contact Salesforce.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Field Service: Time Sheets, Health Check, and Extended Match Work Rules

Let your mobile workers log their hours on their mobile devices. Use Health Check to make sure your Field Service configuration aligns with our best practices. Find the right service resource for the job with Extended Match work rules.

IN THIS SECTION:

Let mobile workers log their hours on their mobile devices. They can also view their time sheet history and see the status of time sheets under review. Field service managers can then approve time sheets in Salesforce.

Stay in Shape with Health Check (Beta)

Sit back and relax while Health Check runs a suite of automated tests on your Field Service settings and configuration data, like service appointments and resource preferences. When Health Check identifies problem areas, it provides on-the-spot recommendations to align your configuration with our best practices.

Schedule Smarter Service Appointments with Extended Match Work Rules

Set up extended match work rules to find the perfect service resource for every job. For example, perhaps your mobile workers support specific ZIP codes. Use an extended match work rule to assign them appointments within their area.

Map Your Reports with Icons and Colors

Give your reports contrast on the Gantt map by customizing their icons and colors. You can map any tabular report that has geolocation fields.

Switch Crew Management Scheduling Policies in a Flash

To swap scheduling policies, use the Policy dropdown menu for Crew Management. Previously, you had to use your org's default scheduling policy to find candidates for a service appointment.

Build Trust with Your Customers with Service Contracts and Contract Line Items in Communities

Establish transparency by giving your users and partners access to service contracts and contract line items directly within a community.

Leverage Quick Actions for Service Contracts and Contract Line Items

Simplify your agents' workflows by adding shortcuts for common actions on service contracts and contract line items. For instance, add quick actions to let your users create new service contracts and contract line items or to perform common tasks.

Extend Access to Service Contracts with Criteria-Based Sharing Rules

Create custom, criteria-based sharing rules to give your users access to service contracts. Previously, you couldn't create sharing rules with specific criteria for service contracts.

Filter Information in the Assets Related List on Accounts

Your users can find information about assets related to accounts by filtering values in the Assets related list. Previously, users couldn't filter these values.

Performance Improvements for Field Service

Take advantage of these changes to Field Service Lightning.

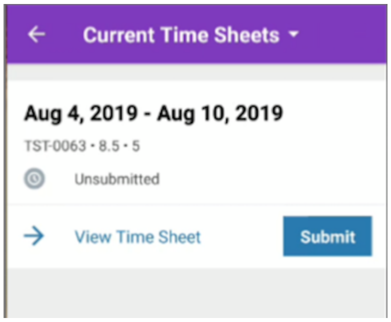
Log Hours on the go with Mobile Time Sheets (Beta)

Let mobile workers log their hours on their mobile devices. They can also view their time sheet history and see the status of time sheets under review. Field service managers can then approve time sheets in Salesforce.

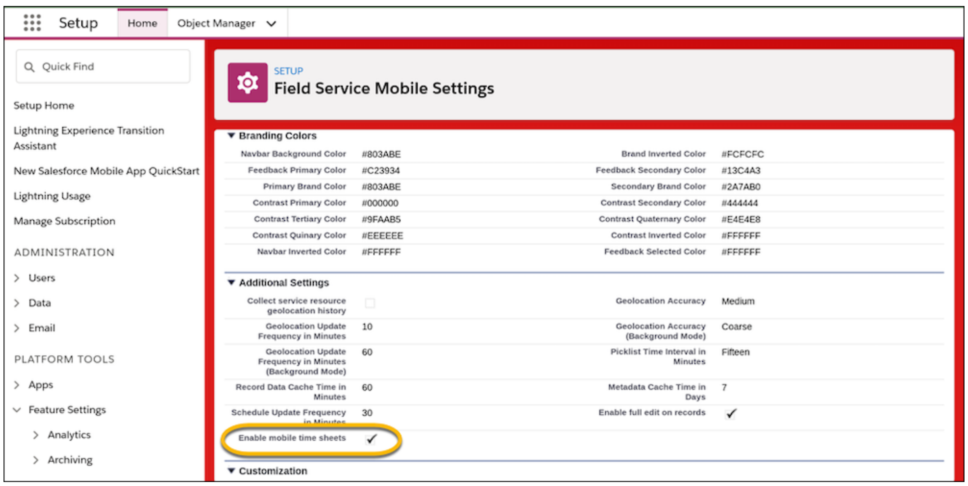
Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, Time Sheets is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Time Sheets in the Field Service Lightning group in the Trailblazer Community.

How: Navigate to Profile, and tap the Time Sheets icon. On the Current Time Sheets page, to see a time sheet, tap **View Time Sheet**. To create entries, tap the + sign.



Note: The Time Sheet mobile setting must be enabled to view Time Sheets.



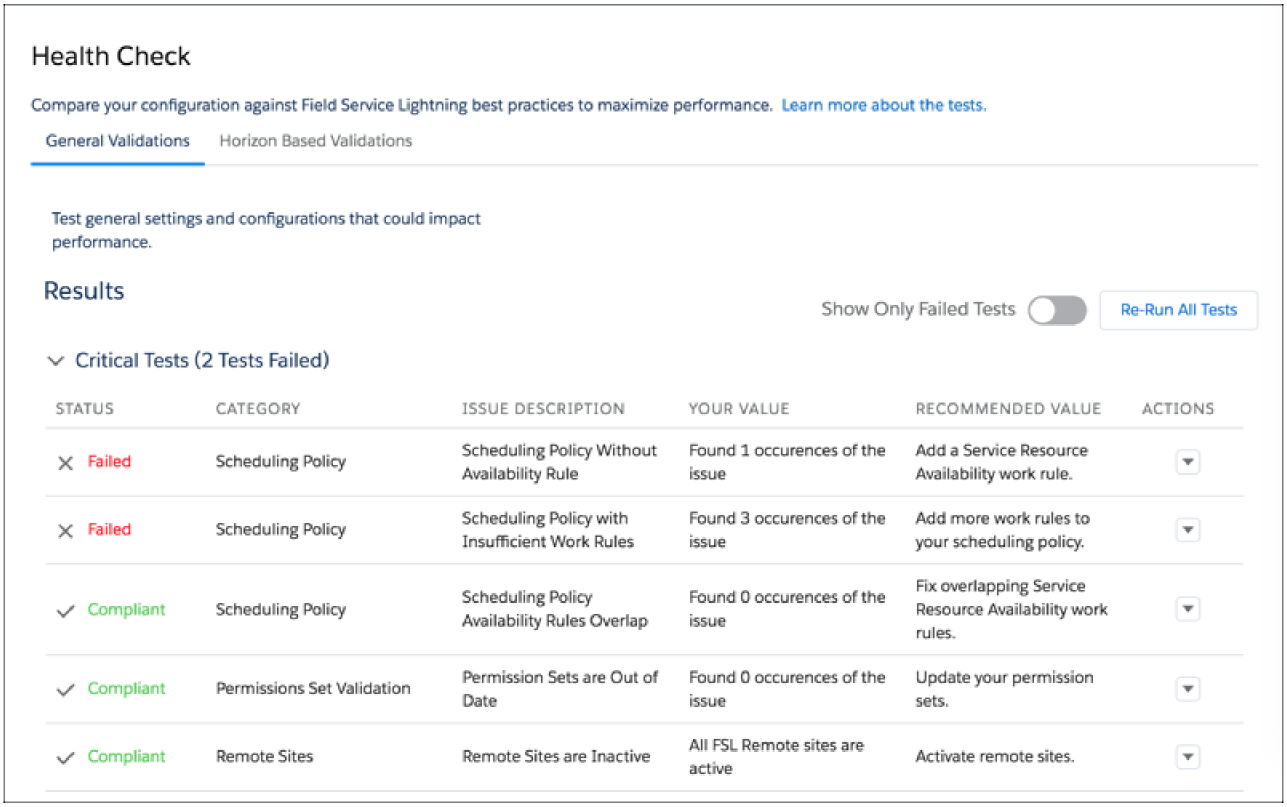
Stay in Shape with Health Check (Beta)

Sit back and relax while Health Check runs a suite of automated tests on your Field Service settings and configuration data, like service appointments and resource preferences. When Health Check identifies problem areas, it provides on-the-spot recommendations to align your configuration with our best practices.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

Note: As a beta feature, Health Check is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only from generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Health Check in the IdeaExchange and through the Trailblazer Community.

How: From Field Service Settings in the managed package, select **Health Check**. Run tests, perform horizon-based validations, and view detailed recommendations.


Health Check

Compare your configuration against Field Service Lightning best practices to maximize performance. Learn more about the tests.

General Validations | Horizon Based Validations

Test general settings and configurations that could impact performance.

Results

Show Only Failed Tests | Re-Run All Tests

Critical Tests (2 Tests Failed)

STATUS	CATEGORY	ISSUE DESCRIPTION	YOUR VALUE	RECOMMENDED VALUE	ACTIONS
Failed	Scheduling Policy	Scheduling Policy Without Availability Rule	Found 1 occurences of the issue	Add a Service Resource Availability work rule.	
Failed	Scheduling Policy	Scheduling Policy with Insufficient Work Rules	Found 3 occurences of the issue	Add more work rules to your scheduling policy.	
Compliant	Scheduling Policy	Scheduling Policy Availability Rules Overlap	Found 0 occurences of the issue	Fix overlapping Service Resource Availability work rules.	
Compliant	Permissions Set Validation	Permission Sets are Out of Date	Found 0 occurences of the issue	Update your permission sets.	
Compliant	Remote Sites	Remote Sites are Inactive	All FSL Remote sites are active	Activate remote sites.	

SEE ALSO:

Salesforce Help: Test Your Field Service Configuration with Health Check (Beta) (can be outdated or unavailable during release preview)

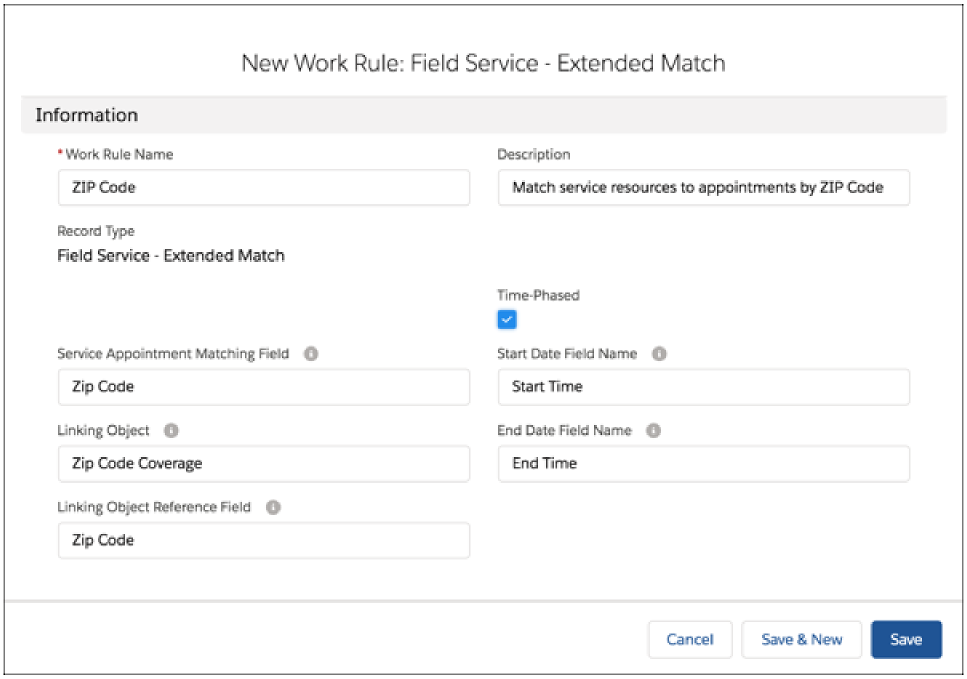
Schedule Smarter Service Appointments with Extended Match Work Rules

Set up extended match work rules to find the perfect service resource for every job. For example, perhaps your mobile workers support specific ZIP codes. Use an extended match work rule to assign them appointments within their area.

Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

Who: To add a custom Lightning component to a record page in Lightning Experience, you must have My Domain set up.

How: For example, create a ZIP Code lookup field on the Service Appointment object. Then create a ZIP Code Coverage linking object, add the ZIP Code field, and attach it to the Service Resource object as a related list. Use the Extended Match Rule Lightning component to create a work rule.



SEE ALSO:

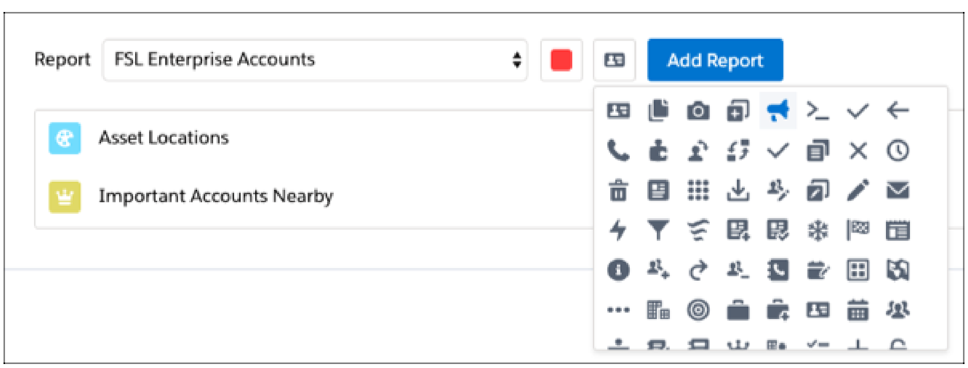
Salesforce Help: Work Rule Type: Extended Match (can be outdated or unavailable during release preview)

Map Your Reports with Icons and Colors

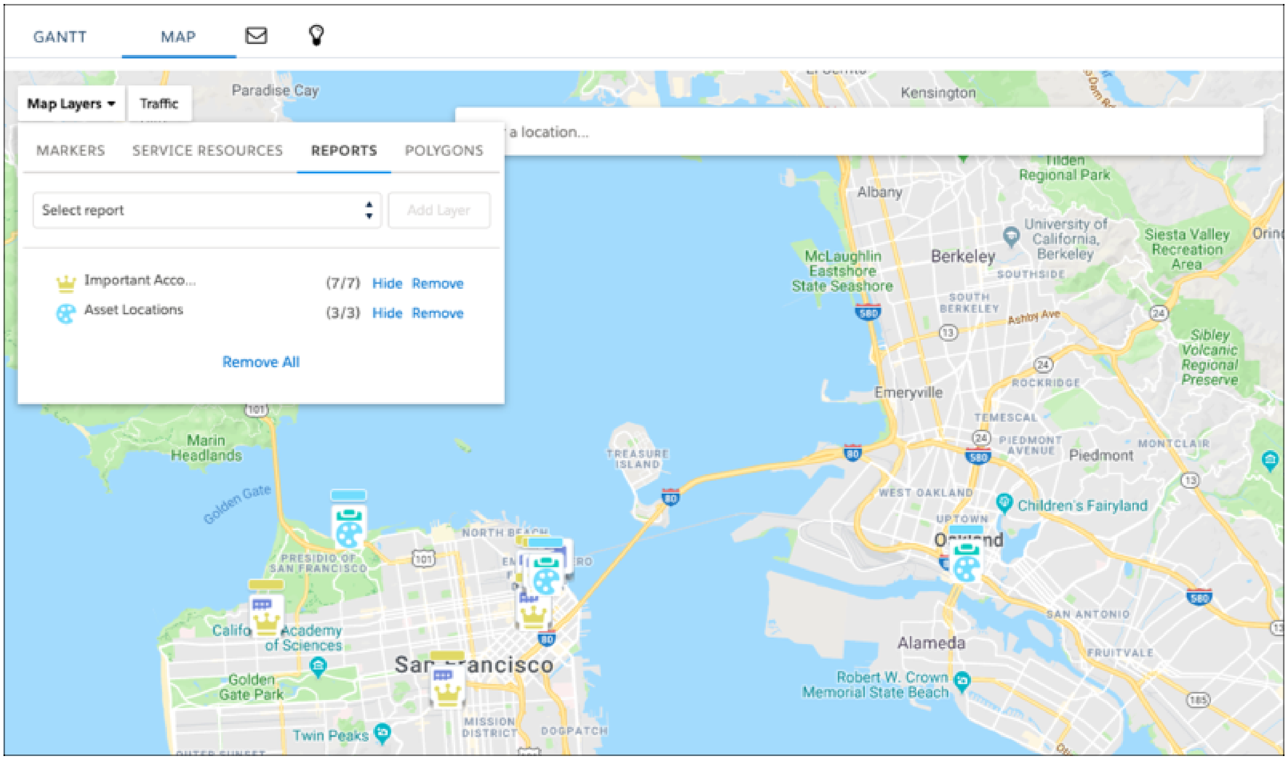
Give your reports contrast on the Gantt map by customizing their icons and colors. You can map any tabular report that has geolocation fields.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

How: From the Dispatcher Console UI section of Field Service Settings, click Map. Select a report, a color, and an icon.



Then add it as a layer in the Gantt map.



SEE ALSO:

Salesforce Help: Customize Icons and Colors for Reports (can be outdated or unavailable during release preview)

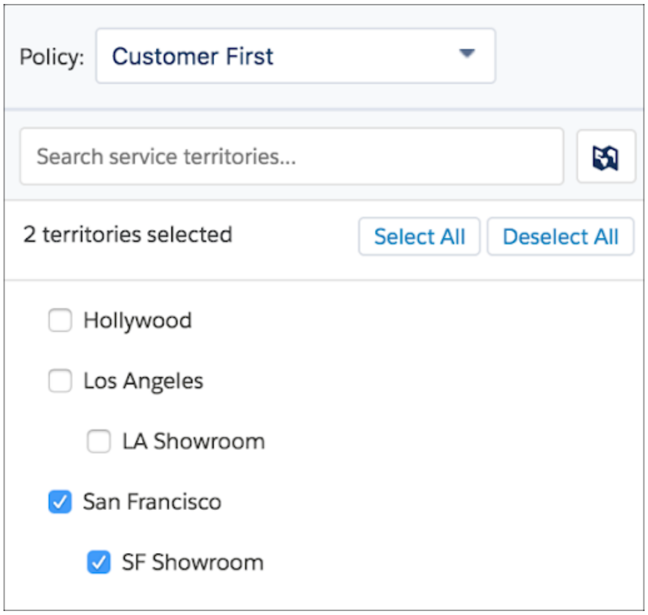
Switch Crew Management Scheduling Policies in a Flash

To swap scheduling policies, use the Policy dropdown menu for Crew Management. Previously, you had to use your org's default scheduling policy to find candidates for a service appointment.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

Who: To access crew management, users need the FSL Admin Permissions or FSL Dispatcher Permissions permission set. They also need access to crew management Visualforce pages and Apex classes. For details, see Set Up Crew Management (can be outdated or unavailable during release preview).

How: In the left column of the Crew Management tab, select a scheduling policy from the dropdown menu.



Build Trust with Your Customers with Service Contracts and Contract Line Items in Communities

Establish transparency by giving your users and partners access to service contracts and contract line items directly within a community.

Where: This change applies to Lightning Experience and n Enterprise, Performance, Unlimited, and Developer editions where Entitlements and Communities are enabled.

Who: These objects are available to users and community members based on their community license.

- Salesforce users from your company who are members of your community have access to service contracts and contract line items.
- Community members who are assigned to the Partner Community or Partner Community Login profile have access to service contracts and contract line items.
- Community members who are assigned to the Customer Community Login or Customer Community Plus Login profile have access to service contracts, but don't have access to contract line items.

How: Add service contract and contract line items to a community page. Then assign users and community members to the license that gives them the access they need.

SEE ALSO:

Salesforce Help: Objects Supported by Out-of-the-Box Components and Pages in Community Templates (can be outdated or unavailable during release preview)

Salesforce Help: Communities User Licenses (can be outdated or unavailable during release preview)

Leverage Quick Actions for Service Contracts and Contract Line Items

Simplify your agents' workflows by adding shortcuts for common actions on service contracts and contract line items. For instance, add quick actions to let your users create new service contracts and contract line items or to perform common tasks.

Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions with Entitlements enabled.

How: You can create object-specific or global quick actions to help save your agents time while they work with service contracts and contract line items. For example:

- Add a quick action to service contracts, such as creating a contract line item directly from the service contract record.
- Add a quick action to contract line items, such as updating contract line item details.
- Create a global quick action in your Salesforce app to quickly create service contracts or contract line items.

As part of this change, we added these fields in the Salesforce UI.

- The Price Book field is now available on the Service Contract object.
- The Price Book Entry field is now available on the Service Contract Line Item object.

SEE ALSO:

Salesforce Help: Create Global Quick Actions (can be outdated or unavailable during release preview)

Salesforce Help: Create Object-Specific Quick Actions (can be outdated or unavailable during release preview)

Salesforce Help: Create Global Quick Actions (can be outdated or unavailable during release preview)

Salesforce Help: Create Object-Specific Quick Actions (can be outdated or unavailable during release preview)

Extend Access to Service Contracts with Criteria-Based Sharing Rules

Create custom, criteria-based sharing rules to give your users access to service contracts. Previously, you couldn't create sharing rules with specific criteria for service contracts.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with Entitlements enabled.

How: From Setup, enter `Sharing Settings` in the Quick Find box, and select **Sharing Settings**. In the Sharing Rules related list for the Service Contract object, click **New**, and define the sharing rule and its criteria.

SEE ALSO:

Salesforce Help: Create Sharing Rules (can be outdated or unavailable during release preview)

Filter Information in the Assets Related List on Accounts

Your users can find information about assets related to accounts by filtering values in the Assets related list. Previously, users couldn't filter these values.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with Entitlements enabled.

How: On an account, click **Related**, then navigate to the Assets related list. Click the filter icon to filter values in the list.

Performance Improvements for Field Service

Take advantage of these changes to Field Service Lightning.

Where: These changes apply to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service Lightning managed package installed.

Add More Map Polygons to Your Org

We increased the performance limit for map polygons in your org from 200 to 30,000. Time to get mapping!

Schedule In-Day Optimization Jobs During Working Hours

You can schedule in-day optimization to run on a set frequency during your working hours. For example, schedule in-day optimization to run every two hours between 10:00 AM and 7:00 PM for your Los Angeles service territory.

View up to 500 Rows on the Gantt

To improve performance, we added a visibility limit of 500 service resource rows on the Gantt.

Search for Service Territories and Find Them Fast

If you have too many territories to scroll through, use the search bar to find service territories of interest. You can search for territories in the Gantt territory filter, global actions, optimization jobs, scheduling recipes, and operating hours. When there are more than 2,000 service territories, we show only selected service territories. The search bar lets you select which ones to view.

Use the Resource Priority Service Objective with Enhanced Optimization (Beta)

Enhanced Optimization now takes into account the Priority field on service resources when optimizing the schedule.

Channels: Conversations Available on Contact Detail Pages, Attached Files Shown in Chat Window, Embedded Service for Mobile Apps More Accessible

Email, Chat, and Messaging have expanded to deliver a better agent experience and higher productivity. WeChat and WhatsApp channels are available as pilot programs. Agents can start a conversation from a contact's detail page. Files are available in the chat window, so agents don't have to download them before viewing. We made Embedded Service for Mobile Apps more accessible.

IN THIS SECTION:

Embedded Service for Web: Custom Events, Right-to-Left Support, and Appointment Home

Custom events in Lightning Experience give agents control. Easy layout conversion is available for right-to-left languages in Chat. Preview your default and custom labels in Appointment Home before deployment.

Email: Contact Lookups, Popout-to-Docked Mode, Collapsible Emails, Responsive Email Templates

Enjoy increased productivity when using email in the case feed in Lightning Experience. Write an email and scroll the case feed at the same time with popout-to-docked mode, or maximize the email composer so it's easier to focus. Use your favorite Salesforce Classic features, such as contact lookups and collapsed email threads, in Lightning Experience.

IN THIS SECTION:

Find the Right Person to Email with Contact Lookups in Lightning Experience

Identify the correct contact to email by looking up contacts from the email composer in Lightning Experience. Agents can filter to see account contacts and their colleagues, and search for contacts by name. Previously, this feature was available only in Salesforce Classic.

Increase Screen Real Estate with Collapsed Emails in Case Feed in Lightning Experience

Let agents spend more time helping customers and less time scrolling in Lightning Experience. Previously, this feature was available only in Salesforce Classic.

Write Emails in the Docked Email Composer

Agents can open the email composer in docked mode and view the case feed while writing an email. You also can maximize the email composer from the docked email composer, so it's easier to focus on writing.

Wow Customers with Responsive Email Templates

Let agents use responsive email templates, so that emails to customers look their best on the customer's desktop, phone, or other mobile device. Create an email template that uses HTML `<head>`, `<meta>`, `<title>`, and `<style>` tags and make it available for agents to use.

Know When You Try to Embed an Image That's Too Big

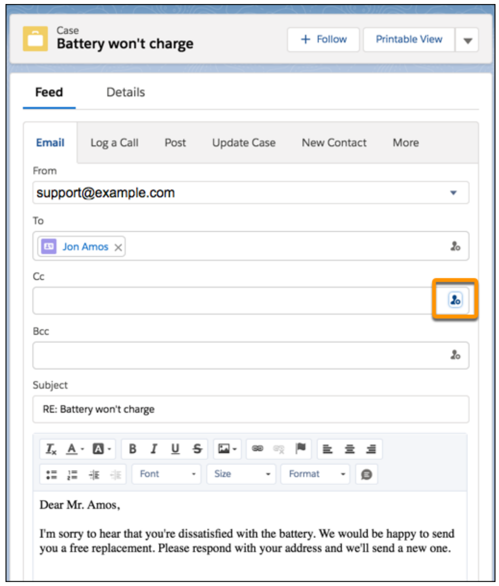
If an agent tries to insert an image that's over 5 MB into an email in the case feed, a warning appears immediately. Previously, we didn't show a warning for oversized images until the agent clicked the send button.

Find the Right Person to Email with Contact Lookups in Lightning Experience

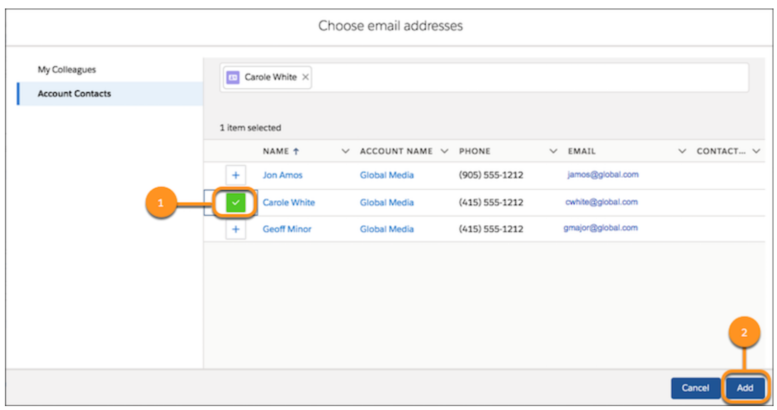
Identify the correct contact to email by looking up contacts from the email composer in Lightning Experience. Agents can filter to see account contacts and their colleagues, and search for contacts by name. Previously, this feature was available only in Salesforce Classic.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: In the email composer in the case feed, click the lookup contacts icon in the To, CC, or BCC field.



The lookup modal opens, where you can search and filter contacts.



Select the contacts to send the email to (1). You can select multiple contacts. Then click **Add** (2).

SEE ALSO:

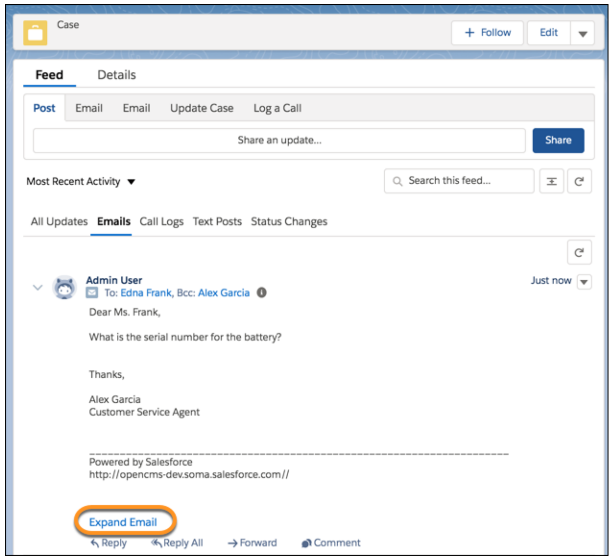
Salesforce Help: Email Customers in Lightning Experience (can be outdated or unavailable during release preview)

Increase Screen Real Estate with Collapsed Emails in Case Feed in Lightning Experience

Let agents spend more time helping customers and less time scrolling in Lightning Experience. Previously, this feature was available only in Salesforce Classic.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: Click **Expand Email** to see the full thread. To collapse email feed items, refresh the browser.



SEE ALSO:

Salesforce Help: Email Customers in Lightning Experience (can be outdated or unavailable during release preview)

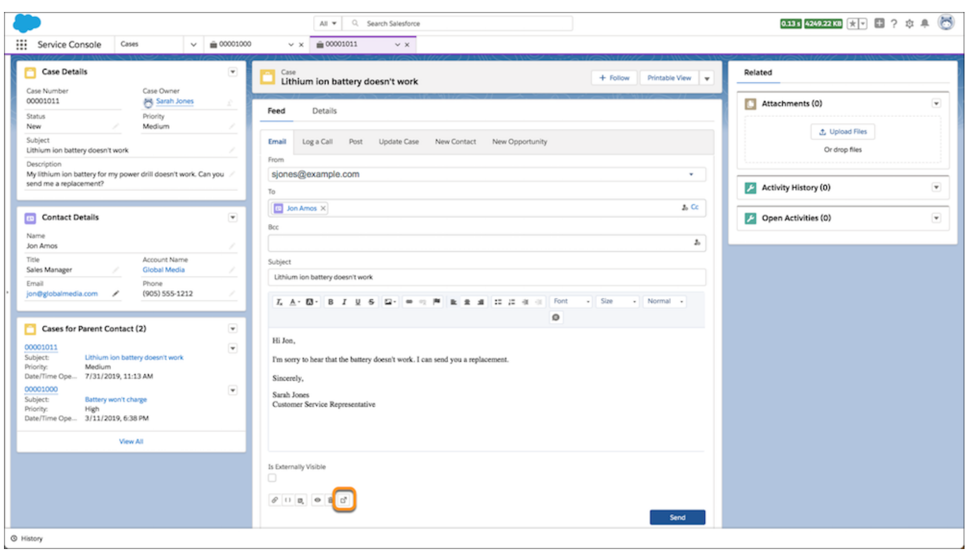
Write Emails in the Docked Email Composer

Agents can open the email composer in docked mode and view the case feed while writing an email. You also can maximize the email composer from the docked email composer, so it's easier to focus on writing.

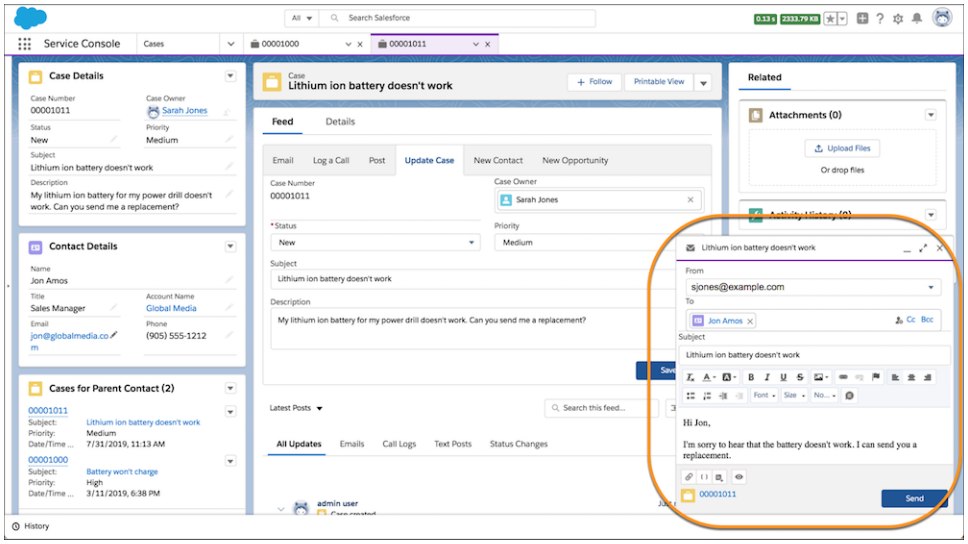
Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: In the email action in case feed, click the popout-to-docked view icon.

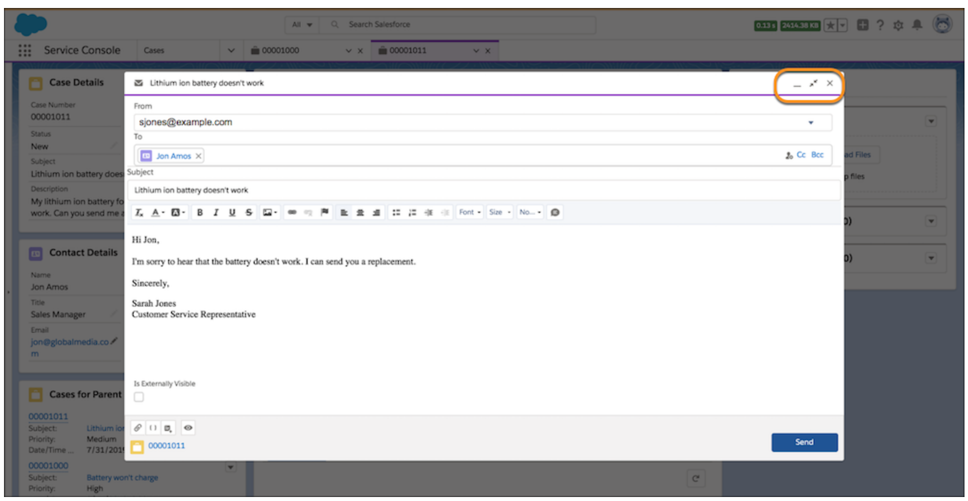
Note: If email drafts are enabled, the popout-to-docked email composer action in the toolbar is disabled.



The docked email composer opens.



You can maximize the email composer from the docked composer, and can minimize and close the window.



SEE ALSO:

Salesforce Help: Email Customers in Lightning Experience (can be outdated or unavailable during release preview)

Wow Customers with Responsive Email Templates

Let agents use responsive email templates, so that emails to customers look their best on the customer's desktop, phone, or other mobile device. Create an email template that uses HTML `<head>`, `<meta>`, `<title>`, and `<style>` tags and make it available for agents to use.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

SEE ALSO:

Salesforce Help: Email Customers in Lightning Experience (can be outdated or unavailable during release preview)

Salesforce Help: Access and Sharing for Email Merge Fields, Templates, and Attachments in Lightning Experience (can be outdated or unavailable during release preview)

Know When You Try to Embed an Image That's Too Big

If an agent tries to insert an image that's over 5 MB into an email in the case feed, a warning appears immediately. Previously, we didn't show a warning for oversized images until the agent clicked the send button.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

SEE ALSO:

Salesforce Help: Email Customers in Lightning Experience (can be outdated or unavailable during release preview)

Messaging: WeChat and WhatsApp Channels in Pilot, Messaging Available on the Contact Detail Page, and Reporting Support for Conversations

Messaging channels have expanded to include WeChat and WhatsApp as pilot programs. Agents can start a conversation from a contact's detail page. Admins can analyze how and when Messaging is used in their org.

IN THIS SECTION:

Connect to Your Customers with WhatsApp (Pilot)

Let customers communicate with support agents using WhatsApp. Customers use WhatsApp to send messages internationally and agents reply from the Service Console.

Connect to Your Customers with WeChat (Pilot)

Let customers communicate with support agents using WeChat. With a WeChat Official Service Account, you can provide service in China and globally. Agents reply from the Service Console.

Initiate a Conversation from a Contact Detail Page

When agents want to contact a customer without creating a case, they can start a conversation from a contact's detail page. This function is the same as starting a conversation from the Messaging User's detail page.

Clear Hanging Sessions with a Click

When agents have multiple sessions open but not operating on their screens, they can close them from the Messaging Session list view. To get rid of a hanging or stuck session, click **End Session** on the Messaging Session list view.

Run Standard Reports for Conversations

Analyze how and when Messaging is used in your org. The ConversationEntry object is now included in Salesforce standard reporting.

Create Messaging Session Related Lists on the Contact Detail Page

Add Messaging Sessions as related lists on the contact page layout. Agents don't have to click through the Messaging User related list to see the related Messaging sessions.

Quickly Link Interactions to the Right People (Beta)

Save your agents time by creating rules to link Messaging interactions to records, such as contacts. You can set up rules for automatic linking, or you can prompt the agent to choose from recommended records, search for a record, or create a new one. For example, while an agent is having a conversation with a customer on Facebook Messenger, a rule can automatically link that conversation to a contact with the same name.

Connect to Your Customers with WhatsApp (Pilot)

Let customers communicate with support agents using WhatsApp. Customers use WhatsApp to send messages internationally and agents reply from the Service Console.

Where: This change applies to orgs with access to Messaging through a Digital Engagement add-on. Messaging in Lightning Experience is available in Enterprise, Performance, Unlimited, and Developer editions with the Service Cloud.

Note: We provide Messaging WhatsApp to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact your Success Manager or log a case in https://help.salesforce.com/home. Because pilot programs are subject to change, we can't guarantee acceptance. This pilot feature isn't generally available, as referenced in this document or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available features.

Connect to Your Customers with WeChat (Pilot)

Let customers communicate with support agents using WeChat. With a WeChat Official Service Account, you can provide service in China and globally. Agents reply from the Service Console.

Where: This change applies to orgs with access to Messaging through a Digital Engagement add-on. Messaging in Lightning Experience is available in Enterprise, Performance, Unlimited, and Developer editions with the Service Cloud.

Note: We provide Messaging WeChat to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact your Success Manager or log a case in https://help.salesforce.com/home. Because pilot programs are subject to change, we can't guarantee acceptance. This pilot feature isn't generally available, as referenced in this document or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available features.

How: To set up a WeChat channel, use the guided setup flow. You need your WeChat app ID, app secret, encryption key, and verification token.

Initiate a Conversation from a Contact Detail Page

When agents want to contact a customer without creating a case, they can start a conversation from a contact's detail page. This function is the same as starting a conversation from the Messaging User's detail page.

Where: This change applies to orgs with access to Messaging through a Digital Engagement add-on. Messaging in Lightning Experience is available in Enterprise, Performance, Unlimited, and Developer editions with the Service Cloud.

How: To enable outbound conversations add the `Agent Initiated Outbound Messaging` user preference to your Messaging permission set..

Note: Messaging Agent must be enabled, to send and receive messages in Messaging.

To proactively relay information to customers, agents navigate to the customer's contact or Messaging User's detail page and click **Start Conversation**. A new tab opens with the most recent session and a message that a new session has started. Agents continue the conversation where they left off. They can send multiple messages.

If the customer isn't available to respond, agents can close the conversation tab and they are notified once the customer responds. If the agent isn't available when the customer responds, the conversation goes to the fallback queue or skill and the original agent can't contribute to the conversation.

An outbound message has a new status doesn't take up agent capacity. The session remains new when the agent sends the message. It moves to a waiting status when customer responds, and finally active when the agent accepts.

Clear Hanging Sessions with a Click

When agents have multiple sessions open but not operating on their screens, they can close them from the Messaging Session list view. To get rid of a hanging or stuck session, click **End Session** on the Messaging Session list view.

Where: This change applies to orgs with access to Messaging through a Digital Engagement add-on. Messaging in Lightning Experience is available in Enterprise, Performance, Unlimited, and Developer editions with the Service Cloud.

Note: Be careful not to end an active session.

Who: The owner of the session, or the user in the `Messaging Session Owner` field, and users with the Configure Messaging permission can end a session.

How: Ending the session changes its status to ended and generates a transcript. If agents were actively engaged in the chat, they see the session end and the text box is disabled. Outbound sessions can be ended at any time, before or after the user has engaged.

Run Standard Reports for Conversations

Analyze how and when Messaging is used in your org. The ConversationEntry object is now included in Salesforce standard reporting.

Where: This change applies to orgs with access to Messaging through a Digital Engagement add-on. Messaging in Lightning Experience is available in Enterprise, Performance, Unlimited, and Developer editions with the Service Cloud.

How: To run a standard report, see Reporting on Support Activity.

Create Messaging Session Related Lists on the Contact Detail Page

Add Messaging Sessions as related lists on the contact page layout. Agents don't have to click through the Messaging User related list to see the related Messaging sessions.

Where: This change applies to orgs with access to Messaging through a Digital Engagement add-on. Messaging in Lightning Experience is available in Enterprise, Performance, Unlimited, and Developer editions with the Service Cloud.

Quickly Link Interactions to the Right People (Beta)

Save your agents time by creating rules to link Messaging interactions to records, such as contacts. You can set up rules for automatic linking, or you can prompt the agent to choose from recommended records, search for a record, or create a new one. For example, while an agent is having a conversation with a customer on Facebook Messenger, a rule can automatically link that conversation to a contact with the same name.

Where: This change applies to orgs with access to Messaging through a Digital Engagement add-on. Messaging in Lightning Experience is available in Enterprise, Performance, Unlimited, and Developer editions with the Service Cloud.

Note: As a beta feature, Channel-Object Linking is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. For information on enabling this feature, contact Salesforce.

How: For more information see, Channel-Object Linking: Create Rules to Quickly Link Interactions to the Right People (Beta) on page 235

Chat: Files in the Chat Body, Direct-to-Agent Chats, and Quick Pre-Chat Details

Chat delivers a better agent experience. Files are available in the chat window, so agents don't have to download them before viewing. Direct agent routing is available with Omni-Channel and Lightning Experience. Before entering a chat, agents can hover over the request to view the pre-chat details.

IN THIS SECTION:

Quickly Preview Customer Information Before Chatting

Before accepting a chat, agents can hover over a chat request in Omni-Channel and see pre-chat details and pages visited.

Where: This change applies to Lightning Experience. Chat is available in Performance and Developer edition orgs created after June 14, 2012, and in Unlimited and Enterprise edition orgs with the Service Cloud.

Send Customers to a Specific Agent with Omni-Channel

For faster resolutions, use Omni-Channel to send customers directly to the correct agent. Direct-to-Agent routing respects agent capacity and doesn't send chat requests to an agent without capacity.

Where: This change applies to Lightning Experience. Chat is available in Performance and Developer edition orgs created after June 14, 2012, and in Unlimited and Enterprise edition orgs with the Service Cloud.

How: Request a direct-to-agent chat with the pre-chat form or the deployment API.

- With a pre-chat form, override the default button by passing the agent's user ID as the value for liveagent.prechat.buttons. Agents provide a URL to customer to start a chat.

- With the deployment API, pass the agent's user ID as a second argument to `startChat()`. For more information see, startChat in the Service Cloud Chat Developer Guide.

If the agent isn't available, the Chat goes to the fallback queue or skill and the original agent can't contribute to the conversation.

Preview Files in the Chat Window

Agents can click an attached file, such as an image, video, or PDF, to view it within the chat window. No need to take the time to download files or expose a desktop vulnerability.

Where: This change applies to Lightning Experience. Chat is available in Performance and Developer edition orgs created after June 14, 2012, and in Unlimited and Enterprise edition orgs with the Service Cloud.

Bring Chatter to the Conversation

For quick internal collaboration, Chatter, Chatter feed, and Chatter publisher are available to add to the page layouts of Chat transcripts detail pages.

Where: This change applies to Lightning Experience. Chat is available in Performance and Developer edition orgs created after June 14, 2012, and in Unlimited and Enterprise edition orgs with the Service Cloud.

How: To add Chatter components to the chat transcript detail pages, enable feed tracking on the Chat Transcript object or Messaging Session object. Then add the components to the page layouts in Lightning App Builder. A case feed item is recorded when a chat or messaging session ends.

Track Conversations in the Case Feed

A feed item is recorded whenever a chat is associated to a case. After the chat is closed, the complete conversation body appears in the feed item. If you use cases to track customer interactions and Chat for longer conversations, you can see all chats associated with complicated cases.

Where: This change applies to Lightning Experience and Salesforce Classic. Chat is available in Performance and Developer edition orgs created after June 14, 2012, and in Unlimited and Enterprise edition orgs with the Service Cloud.

Social Customer Service: Staying Social with Fewer Clicks

Respond to customers with Social quick actions. Reply to Instagram comments from Social Publisher. Migrate and delete Social Persona accounts that use Facebook's old app-scoped IDs (ASIDs).

IN THIS SECTION:

Respond to Customers Faster with Social Quick Action for Leads

In Lightning Experience, your social activity is now just a tab away when viewing a lead.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: If you already have Social Customer Service enabled, turn off the feature and then back on again to create this new quick action. Then, from Setup, select **Feed Tracking**. From the feed tracking page, select **Leads**. Select **Enable Feed Tracking** and **All Related Objects**. After feed tracking is enabled for related objects, you can go to the **Lead Page Layouts** setup page and drag the **Social** quick action onto your layout.

Reply to Instagram Comments in Lightning Experience

You can now reply to an Instagram comment directly from Social Publisher—even reply to a reply! The reply is threaded correctly under the original comment.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Migrate Your Facebook Social Posts from App-Scoped IDs to Page-Scoped IDs

Use our new migration utility to transfer your social posts from the deprecated app-scoped social persona to the new page-scoped social persona. The utility then deletes the obsolete app-scoped persona to avoid ambiguity down the road.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: In 2018, Facebook switched from using app-scoped IDs (ASIDs) to page-scoped IDs (PSIDs) for Facebook pages. Because of this change, you could have two Social Persona records for the same Facebook page.

How: For details, review the Knowledge article about this migration. To learn more about this utility, contact Salesforce.

Channel-Object Linking: Create Rules to Quickly Link Interactions to the Right People (Beta)

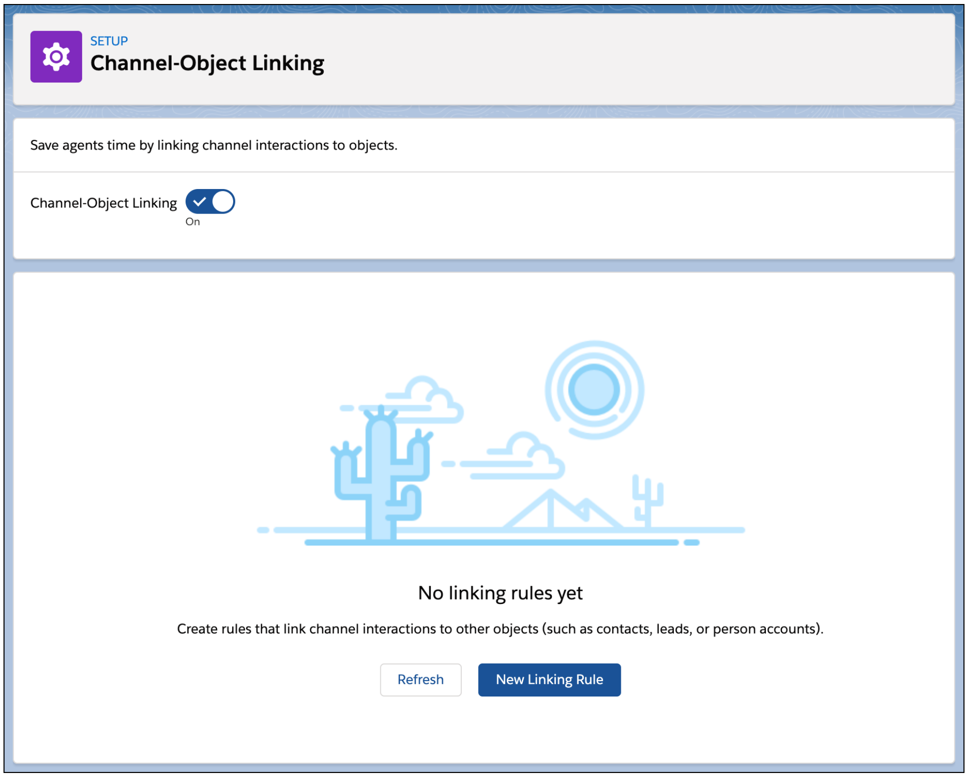
Save your agents time by creating rules to link Messaging interactions to records, such as contacts. You can set up rules for automatic linking, or you can prompt the agent to choose from recommended records, search for a record, or create a new one. For example, while an agent is having a conversation with a customer on Facebook Messenger, a rule can automatically link that conversation to a contact with the same name.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Agent notifications are supported only in the Lightning console.

Note: As a beta feature, Channel-Object Linking is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. For information on enabling this feature, contact Salesforce.

Who: This feature is in beta for Messaging users. Stay tuned as it becomes available for other types of channels.

How: Create rules from Service Setup. Enter `Channel-Object` in the Quick Find box, and select **Channel-Object Linking**. Click **New Linking Rule** to start the guided flow.



After you've created a rule, the agent receives a notification during the session when the rule is performed.

Embedded Service for Mobile Apps: Give Customers a More Accessible Experience

We made Chat more accessible for customers that use a screen reader. We also zapped a few bugs.

Where: This change applies to the Service SDK for Mobile Apps for iOS (version 220.1.0) and Android (version 220.1.0).

How: For details about new features, see the release notes for iOS and Android. Visit the Embedded Service SDK Developer Center for other resources.

Embedded Service for Web: Custom Events, Right-to-Left Support, and Appointment Home

Custom events in Lightning Experience give agents control. Easy layout conversion is available for right-to-left languages in Chat. Preview your default and custom labels in Appointment Home before deployment.

IN THIS SECTION:

Reach Right-to-Left Language Customers in Chat (Beta)

Make right-to-left (RTL) language users feel more at home in Embedded Chat. Enhancements for layout that support Arabic and Hebrew include right-justified text, reverse button placement, and a left-hand scroll bar.

Preview Labels for Appointment Home

Create the perfect customer interaction in Appointment Home with Lightning App Builder. Preview your default and customized labels in real time and before deployment.

Give Agents Greater Control with Custom Events for Chat

Let agents send scripted messages to chat visitors from the Lightning Console to Embedded Chat. Agents can see when to load a custom event message based on a visitor's actions, such as browsing web pages while in the waiting-to-chat and chat-page-reload states. Agents can also confirm that their custom event has loaded.

Where: This change applies to Lightning Experience in Professional, Performance, and Unlimited editions that use the embedded code snippet 5.0 or later.

How: Listen to your events `onChatStateLoaded` and `onCustomScriptsLoaded`. Write a JavaScript handler for the web page hosting the code snippet. In the handler function, fire the custom event that you want to send to your agents.

SEE ALSO:

Salesforce Help: Create Custom Events (can be outdated or unavailable during release preview)

Reach Right-to-Left Language Customers in Chat (Beta)

Make right-to-left (RTL) language users feel more at home in Embedded Chat. Enhancements for layout that support Arabic and Hebrew include right-justified text, reverse button placement, and a left-hand scroll bar.

Where: This change applies to Lightning Experience in Professional, Performance, and Unlimited editions that use the embedded code snippet 5.0 or later. This feature is not available in Communities or for mobile or tablet users.

Note: As a beta feature, right-to-left layout support is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

How: Enable RTL in the Setup User Interface under Translation Workbench in Translation Settings. Add a language value set to your code snippet. Hebrew is `embedded_svc.settings.language = 'he'`. Arabic is `embedded_svc.setting.language = 'ar'`.

Preview Labels for Appointment Home

Create the perfect customer interaction in Appointment Home with Lightning App Builder. Preview your default and customized labels in real time and before deployment.

Where: This change applies to Lightning Experience in Professional, Performance, and Unlimited editions that use the embedded code snippet 5.0 or later.

SEE ALSO:

Salesforce Help: Set Up Appointment Home (can be outdated or unavailable during release preview)

Knowledge: Expanded Channels, Flexible Styles, and Improved Article Management

Share articles in more channels. Insert the contents of an article or a link from your Communities and Sites in social posts. Or, insert article contents to Chat and Messaging conversations. We beefed up search and user access with more control over draft, archived, and published articles.

IN THIS SECTION:

Spread Knowledge Far and Wide in More Channels

Share articles in Social Customer Service, Chat, and Messaging conversations. Agents can add a URL link to an article in case interactions. With a bit of setup, you can also let agents insert article contents in social posts and conversations.

Find More Articles in List Views

Select multiple items on the Language and Publication Status fields when you filter list views in Lightning Knowledge. Create list views that show you everything you want in one place, like drafts and published articles in French and Portuguese.

Fine-Tune Access to Draft and Archived Articles

Choose whether Knowledge users and viewers can see drafts or archived articles. For example, your agents might need access to view draft articles used internally. Or, you can give customers access to archived articles so that they can return to a specific version of an article attached to the case. Two new user permissions, View Draft Articles and View Archived Articles, control which profiles can see articles that aren't published. Review your permission setup to decide which profiles require access.

Maintain Access to Attached Files When You Migrate to Lightning Knowledge

Choose the default visibility for migrated files when you use the Lightning Knowledge Migration Tool. Choose whether all users or only internal users can access files by default. Access to the article record still controls who can see the attachments in the Files related list in Lightning Knowledge. Previously, migrated files were accessible only internally, which meant that partner and customer users in communities could lose access.

Write with Style in the Rich Text Editor

When you want to fine-tune your Knowledge content, it's nice to have options. We expanded the list of allowed HTML styles in the rich text editor.

Set Targets for Lightning Smart Links

Keep the right context and give your users the experience that they want with targets for smart links in Lightning Knowledge. Choose the Lightning target in addition to the traditional target. Options include the current app's default behavior and a new browser tab, subtab, or workspace tab. We also updated the default behavior for smart links in Lightning Experience when the target isn't set.

Delete Articles from More Places

Add the Delete Article action to your page layouts to let authors and Knowledge admins delete archived articles from record pages. Previously, this action was available only on list views in Knowledge home.

Spread Knowledge Far and Wide in More Channels

Share articles in Social Customer Service, Chat, and Messaging conversations. Agents can add a URL link to an article in case interactions. With a bit of setup, you can also let agents insert article contents in social posts and conversations.

Where: This change applies to all editions of Knowledge in Lightning Experience except Essentials edition.

Who: Agents with permission to view Knowledge articles and edit cases can use these actions in the Lightning Knowledge component and related lists. Admins with Customize Application permission can manage communication channels.

How: When Social Customer Service, Chat, or Messaging is available in the case feed, the actions appear next to articles in the Knowledge component and Knowledge related lists. Articles must be shared in customer, partner, or public knowledge base channels

To use the Insert Article into Social Post and Insert Article into Conversation actions, set up communication channel layouts in the object manager. The layout determines which fields are included in the message. Only plain text is inserted, so skip your formatted article contents and choose text fields designed for these channels.

To share article URLs in social posts, you need a social channel enabled and articles in your communities or sites.

SEE ALSO:

Salesforce Help: Set Up Knowledge Component Actions (can be outdated or unavailable during release preview)

Salesforce Help: Let Agents Share Article URLs in Channels (can be outdated or unavailable during release preview)

Find More Articles in List Views

Select multiple items on the Language and Publication Status fields when you filter list views in Lightning Knowledge. Create list views that show you everything you want in one place, like drafts and published articles in French and Portuguese.

Where: This change applies to all editions of Knowledge in Lightning Experience. Essentials edition orgs are limited to a single language.

How: Check and adjust the filters on existing list views. Previously, lists were filtered by default to published articles in the org's default language. If a list has no filter, all draft, archived, and published versions and all translations for an article are returned. An exception to this is in the Article Management tab in Salesforce Classic, where list views with no filter return articles in the user's language.

SEE ALSO:

Fine-Tune Access to Draft and Archived Articles

Fine-Tune Access to Draft and Archived Articles

Choose whether Knowledge users and viewers can see drafts or archived articles. For example, your agents might need access to view draft articles used internally. Or, you can give customers access to archived articles so that they can return to a specific version of an article attached to the case. Two new user permissions, View Draft Articles and View Archived Articles, control which profiles can see articles that aren't published. Review your permission setup to decide which profiles require access.

Where: This change applies to all editions of Knowledge in Lightning Experience.

Who: Managing Knowledge permissions requires View Setup and Configuration and Manage Profiles and Permission Sets.

How: Knowledge viewers and users can always view published articles. To grant access to archived and draft articles, go to **Setup** > **Users** and edit your profiles and permission sets.

Authors and users with Manage Articles permission already have the View Draft Articles and View Archived Articles permissions. And because they're required to manage articles, removing either of them deactivates Manage Articles.

SEE ALSO:

Salesforce Help: Lightning Knowledge User Access (can be outdated or unavailable during release preview)

Find More Articles in List Views

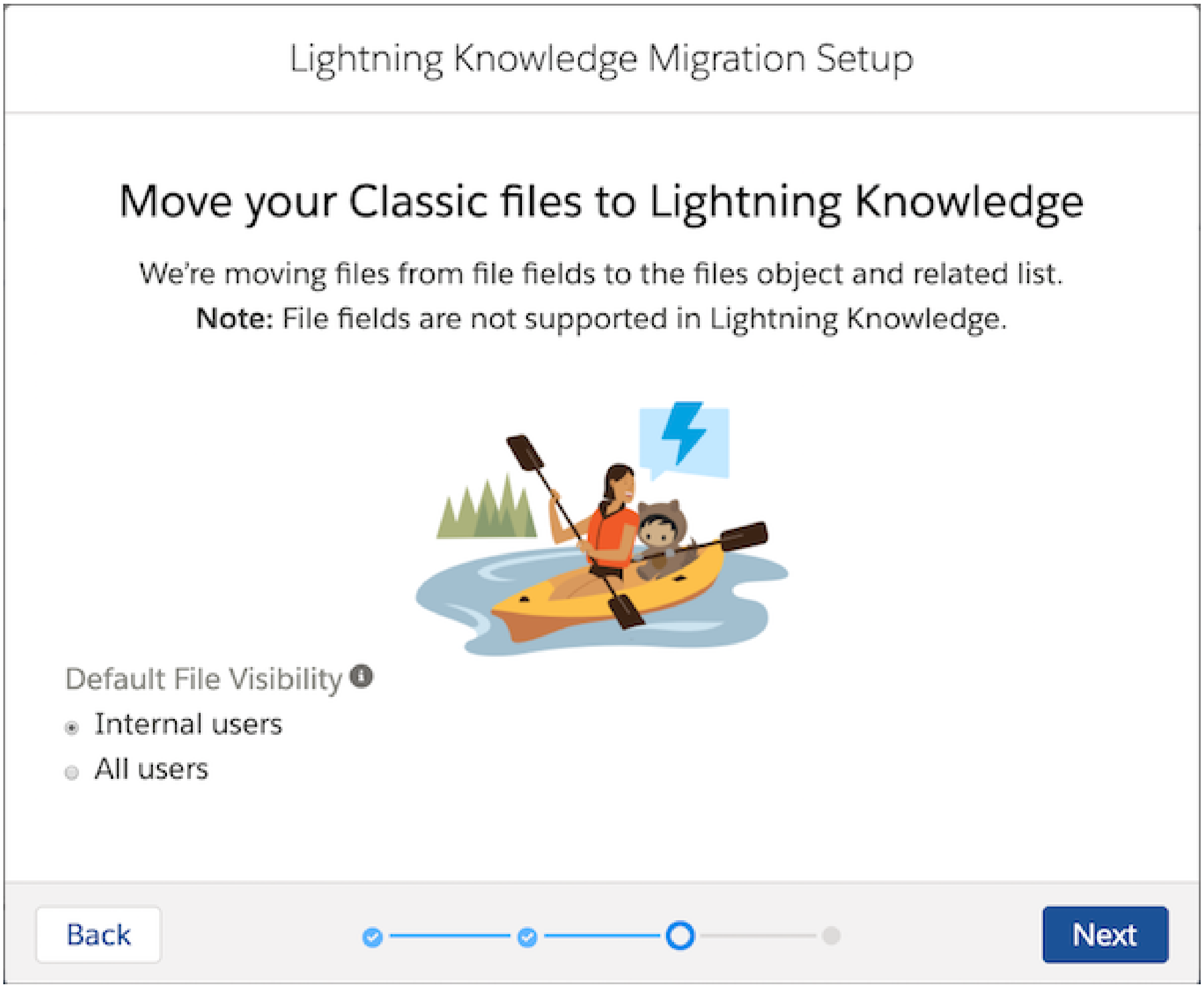
Maintain Access to Attached Files When You Migrate to Lightning Knowledge

Choose the default visibility for migrated files when you use the Lightning Knowledge Migration Tool. Choose whether all users or only internal users can access files by default. Access to the article record still controls who can see the attachments in the Files related list in Lightning Knowledge. Previously, migrated files were accessible only internally, which meant that partner and customer users in communities could lose access.

Where: This change applies to all editions of Knowledge migrating from Salesforce Classic to Lightning Knowledge.

Who: Admins with Customize Application and Knowledge User permission can run the Lightning Knowledge Migration Tool.

How: During the file migration step, choose which users can access files by default. All users includes your internal users and all customer, partner, and unauthenticated users viewing articles in your Communities and Sites. Choose the setting that applies to most of your files, and then adjust access to specific files after migration.



SEE ALSO:

Salesforce Help: Plan Your Lightning Knowledge Migration (can be outdated or unavailable during release preview)

Make Files on Records Visible to Customers

Salesforce Help: Make Files on Records Visible to Customers (can be outdated or unavailable during release preview)

Write with Style in the Rich Text Editor

When you want to fine-tune your Knowledge content, it's nice to have options. We expanded the list of allowed HTML styles in the rich text editor.

Where: This change applies to all editions of Knowledge in Lightning Experience.

Why: Previously, some styles were removed from the source HTML in rich text fields upon saving. Now, only `background-image`, `position` and `z-index` style attributes are removed. Your users can keep more formatting when they paste from other sources.

SEE ALSO:

Salesforce Help: Rich Text Editor (can be outdated or unavailable during release preview)

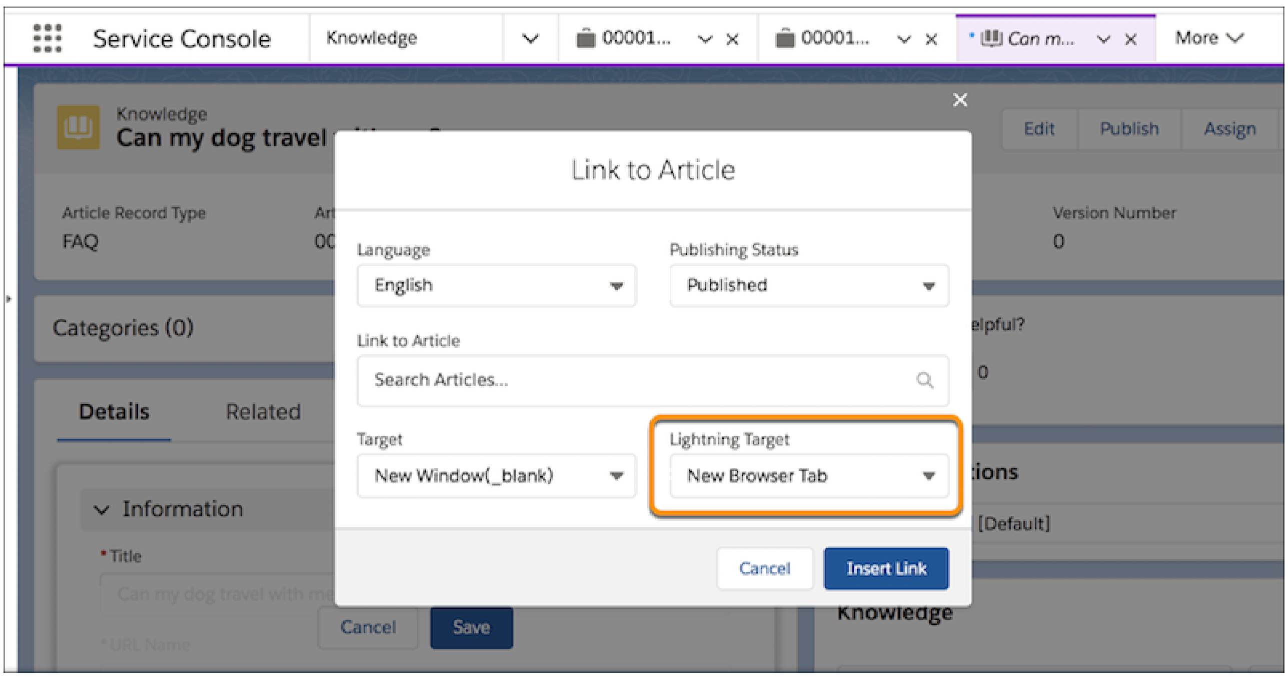
Salesforce Help: Edit Rich Text Area Fields (can be outdated or unavailable during release preview)

Set Targets for Lightning Smart Links

Keep the right context and give your users the experience that they want with targets for smart links in Lightning Knowledge. Choose the Lightning target in addition to the traditional target. Options include the current app's default behavior and a new browser tab, subtab, or workspace tab. We also updated the default behavior for smart links in Lightning Experience when the target isn't set.

Where: This change applies to all editions of Knowledge in Lightning Experience.

How: Click the smart link icon to use the Lightning target in your links. You can edit an existing link to set or change targets.



SEE ALSO:

Salesforce Help: Target Behavior for Smart Links (can be outdated or unavailable during release preview)

Salesforce Help: Insert Smart Links into Articles (can be outdated or unavailable during release preview)

Delete Articles from More Places

Add the Delete Article action to your page layouts to let authors and Knowledge admins delete archived articles from record pages. Previously, this action was available only on list views in Knowledge home.

Where: This change applies to all editions of Knowledge in Lightning Experience.

Who: Users with Modify All permission on Knowledge can delete archived articles.

SEE ALSO:

Salesforce Help: Lightning Knowledge User Access (can be outdated or unavailable during release preview)

Routing: Attribute Setup for Skills-Based Routing (Generally Available), Secondary Routing Priority, Omni-Channel for Sales, and More

Set up skills-based routing with clicks, not code, using Attribute Setup for Skills-Based Routing. Use field values to specify a secondary routing priority. Sales customers can now use Omni-Channel Routing. Search public groups, see agent status with color-coding on the Omni-Channel widget, and give your customers an estimated wait time.

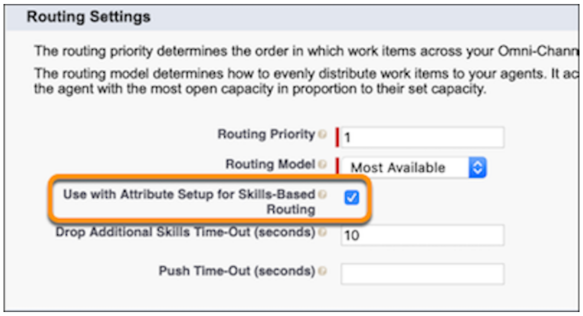
IN THIS SECTION:

Skip the Coding When You Set Up Attributes for Skills-Based Routing (Generally Available)

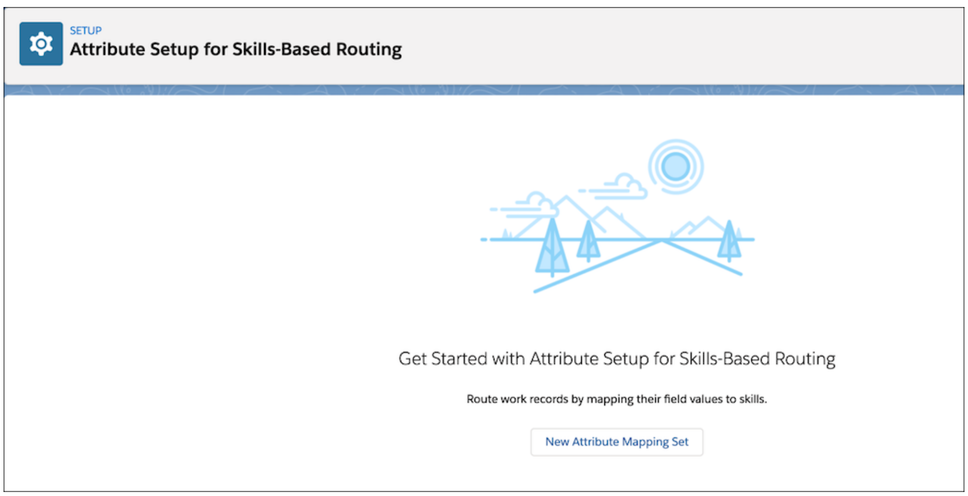
Use a setup flow to associate an object's field values with the skills needed to route a work item to the right agent. Attribute Setup for Skills-Based Routing is easier to use than writing API code, although you can't use complex rules. For example, map the case type field value, Product Return, to the Returns Processing skill to route returns to an agent assigned that skill. We also adjusted the feature name to clarify that this feature is an easier method of setting up skills-based routing, not a new routing method.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Setup for Attribute Setup for Skills-Based Routing is available only in Lightning Experience.

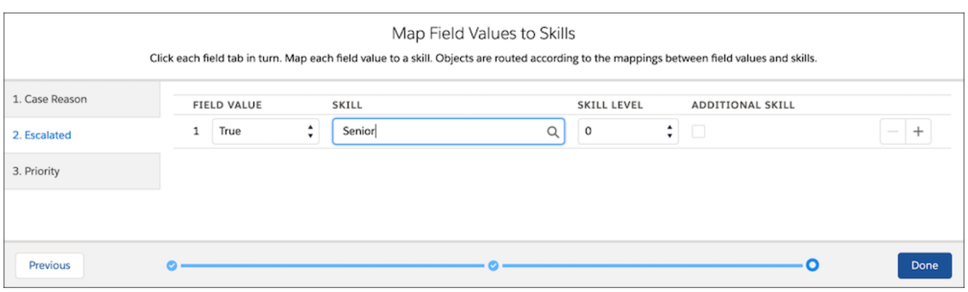
How: On the routing configuration for the service channel, select **Use with Attribute Setup for Skills-Based Routing**.



Run the Attribute Setup for Skills-Based Routing flow.



Map field values to skills.



SEE ALSO:

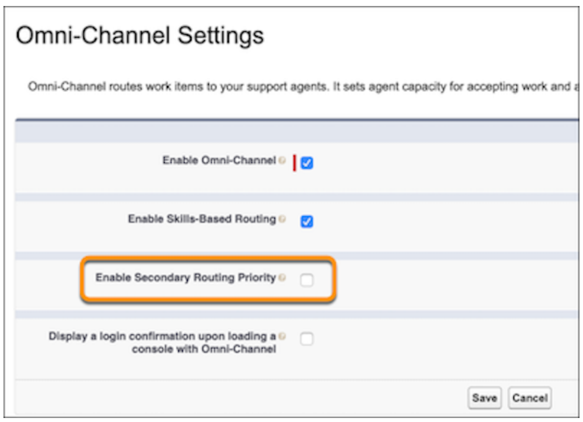
Salesforce Help: Attribute Setup for Skills-Based Routing (can be outdated or unavailable during release preview)

Let Your Agents Tackle the Right Cases First

In a queue, priority is determined by how long the work item has been waiting—first in, first out. However, while a work item is pending in the queue, new work could come in that is more urgent. For example, transferred work, an item that has been waiting on someone's response, or work that is about to reach a service agreement deadline. You can shift an item to a different queue, but within that queue, it's behind older items. Also, some queues might have the same priority. Secondary Routing Priority solves this problem by moving a work item forward in a queue over older items and resolving conflicts across queues for items with the same routing configuration priority.

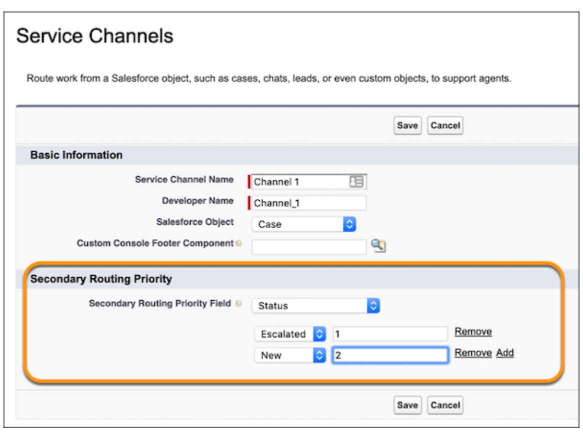
Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Enable Secondary Routing Priority in Omni-Channel settings. You can now configure secondary routing priority mappings for each channel.



Create or edit a service channel, and select a priority field. Then map field values to priorities.

For example, to prioritize escalated cases first and new cases next, select **Status** as the priority field. Then set the Escalated field value to priority 1, and the New field value to priority 2. The highest priority is 0.



Note: Secondary Routing Priority is not automatically updated for skills-based routed chat and messaging channels. To update the SecondaryRoutingPriority field on the PendingServiceRouting object, use the API.

Use Omni-Channel Routing in the Sales Cloud

Sales Cloud license users with a Digital Engagement add-on license can use Omni-Channel routing and Omni-Channel Supervisor for routing messaging channels.

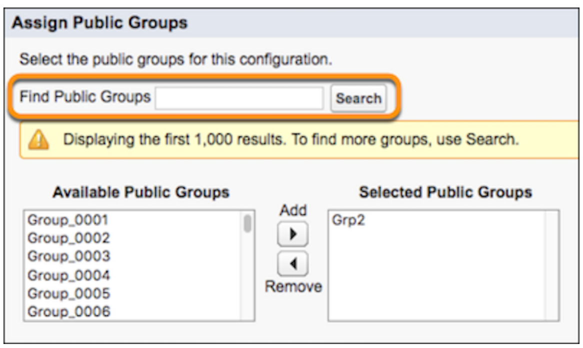
Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Search Public Groups

If you have lots of Public groups, it can be a challenge to locate the one you want in a long list. Use the new search field to zero in on the group you want.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Look for Find Public Groups on the Supervisor Configurations, Presence Configurations, Chat Agent Configurations, and Skills pages.

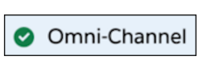


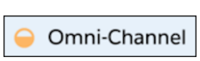
View Agent Status with a Color-Coded Widget

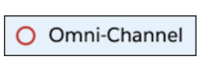
Agents are busy and clicks count. The Omni-Channel widget in the Salesforce console now uses color-coding to indicate an agent's availability status.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: A color-coded indicator on the widget makes it easy for agents to see their status at a glance.

The agent is available. 

The agent is away. 

The agent is offline. 

The Omni-Channel channel widget is minimized with assigned work. 

Give Chat Customers an Estimated Wait Time (Beta)

Your chat customers know their position in the queue but not how soon they'll get help. The estimated wait time helps set expectations.

Where: This change is available through the Chat REST API or by using the Embedded Service SDK for Mobile Apps.

Note: As a beta feature, Estimated Wait Time is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

How: Implement Estimated Wait Time using the Chat API and Service SDK. You can display a queue position or an estimated wait time, but not both.

SEE ALSO:

Salesforce Help: Using Estimated Wait Time Instead of Queue Position for a Chat Session (can be outdated or unavailable during release preview)

Case Management: Critical Update to Deployments in Lightning Flow for Service, Feed Item Visibility Comes To Lightning, Usability Improvements in Case Feed

A critical update to Lightning Flow for Service requires you to select a deployment for the Actions & Recommendations component. Add autolaunched flows for your agents. Agents now can set feed item visibility to public or private in Lightning Experience. Usability improvements in Lightning Experience make it easier for agents to know when they have new feed items and when case comments are private.

IN THIS SECTION:

Cases: Increased Agent Productivity with Case Feed in Lightning Experience

Favorite Salesforce Classic features, such as contact lookups and the ability to set feed item visibility, come to Lightning Experience. Bold font makes it easier for agents to identify unread feed items, and a lock icon indicates when a case comment is private. Agents can also sort the case feed chronologically, and expand all posts with one click. Automatically send customers a survey when a case is closed or when case auto-response rules are met.

IN THIS SECTION:

Set Public and Private Visibility of Feed Items in Case Feed in Lightning Experience

Agents can control whether a feed item is public or private in Lightning Experience and in Lightning Service Console. Agents can mark feed items public to make them visible to both internal and external users. Feed items marked private are visible only to internal users. Previously, this feature was available only in Salesforce Classic.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: To turn on this feature, contact Salesforce. Community case feed and compact case feed must be enabled in your org. Users must have the permission to **Edit My Own Posts** and **Edit Posts on Records I Own**.

To make a feed item publicly visible, open a case, click the arrow on the feed item, and click **Make Public**. To make a feed item private, click the arrow on the feed item, and click **Make Private.**

SEE ALSO:

Salesforce Help: Expose or Hide a Published Post or Email in the Community Case Feed (can be outdated or unavailable during release preview)

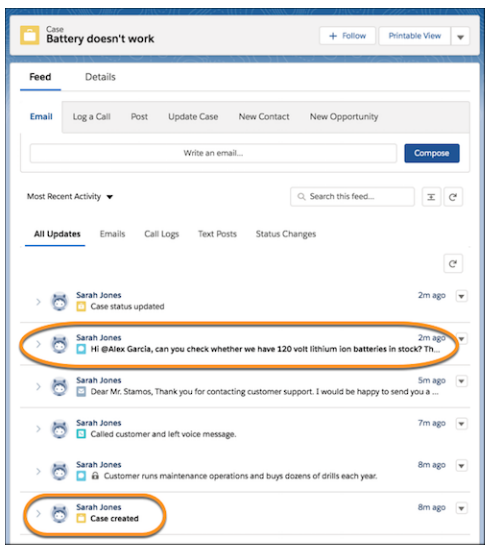
Salesforce Help: Feed Post and Comments Editing Overview (can be outdated or unavailable during release preview)

Know When You Have Unread Feed Items in Case Feed

Make it easier for agents to know when they have new feeds, including emails and other posts, in the case feed. The summaries of unread feed items are in bold. Previously, the summaries of both read and unread feed items were in regular font.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

Why: When any agent opens a feed item, the summary changes to regular font. Feed items that are liked, bookmarked, edited, or commented on are marked as read.



How: To turn on this feature, contact Salesforce. Then, on the Support Settings page, select **Enable Unread/Read on Compact Case Feed**.

When you first enable this feature, feed items in existing cases can be considered unread and are shown in bold. As a workaround, click **Expand All** to mark all feed items as read.

SEE ALSO:

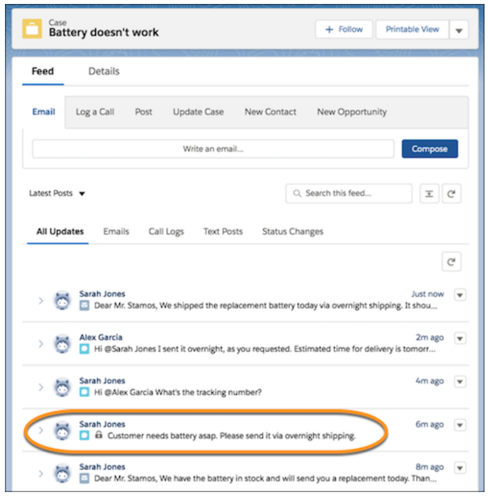
Salesforce Help: Customize Support Settings (can be outdated or unavailable during release preview)

Know When Case Comments Are Private

Agents can tell instantly whether a case comment is private or public now that private comments show a lock icon.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: When agents create an internal comment or a private case comment, a lock icon appears on the feed item.



SEE ALSO:

Salesforce Help: Create and Edit Case Comments on Case Detail Pages (can be outdated or unavailable during release preview)

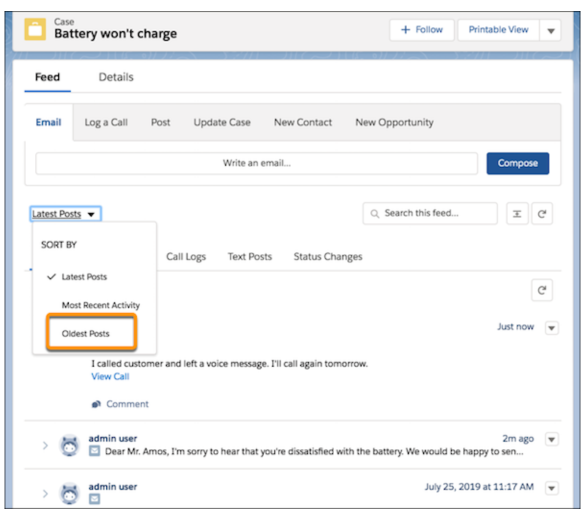
Salesforce Help: Create and Edit Case Comments on Case Edit Pages (can be outdated or unavailable during release preview)

Sort Feed Items from Oldest to Newest

Agents can sort feed items in case feed chronologically from oldest to newest, so it's easier for them to find what they're looking for. Previously, agents could sort feed items only by latest posts and most recent activity.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: To sort feed items chronologically, click the sort arrow and select **Oldest Posts**.

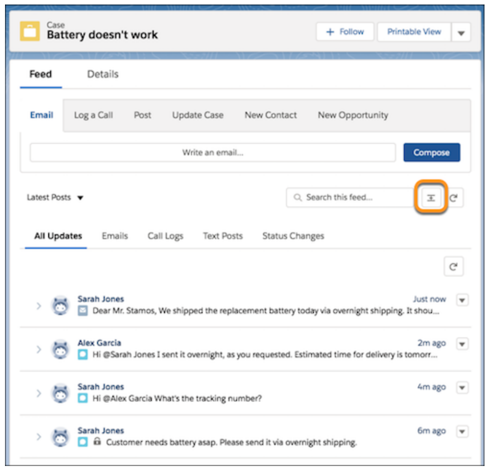


Save a Click with Expand All Posts

Fully expand all posts in the case feed with one click. Previously, some posts were truncated, and agents had to use the expand post button in each post.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: Click the **Expand All** icon to expand all posts.



SEE ALSO:

Salesforce Help: Customize Support Settings (can be outdated or unavailable during release preview)

Send Surveys for Cases

Find out what your customers think about their experiences with customer support. Automatically email a survey to the case contact when a case is closed or when case auto-response rules are met.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: Enable surveys, and then create a survey to send to customers. To send a survey when a case is closed, select a survey on the Support Settings page. To send a survey when a case auto-response rule is met, select a survey on the Case Auto-Response Rules page.

SEE ALSO:

Salesforce Help: Customize Support Settings (can be outdated or unavailable during release preview)

Salesforce Help: Set Up a Customer Feedback Survey (can be outdated or unavailable during release preview)

Salesforce Help: Set Up Auto-Response Rules (can be outdated or unavailable during release preview)

Accordion and Related Record Components Supported for Case Record Page on Phone

The Accordion and Related Record components are now available for the Case Record Page on the phone.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Developer, Performance, and Unlimited editions.

How: In the Lightning App Builder, create or select a record page on the Cases object, and then select the **Phone** form factor. The Accordion and Related Record components are displayed in the Standard list. You can drag the components onto the record page. The Accordion component is a container component, so you can add other components into the Accordion component.

SEE ALSO:

Lightning Web Component: Accordion (can be outdated or unavailable during release preview)

Answer the Phone While Working with Dialogs

When agents answer a customer call using an Open CTI softphone in a Lightning console app, the screen pop opens in a new tab. If agents were working in a dialog, they can continue to enter data into that dialog on the original tab. Previously, if agents answered a call using screen pop mode, it closed the dialog, potentially causing agents to lose their work.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Lightning console apps are available for an extra cost to users with Salesforce Platform user licenses for certain products. Some restrictions apply. For pricing details, contact your Salesforce account executive.

Why: In Lightning console apps, dialogs are now limited to the tab that triggers them. When a softphone is popped out of a utility bar to a separate window, the screen pop doesn't affect dialogs in other workspace tabs.

SEE ALSO:

Keep Working with Tab-Focused Dialogs (Critical Update)

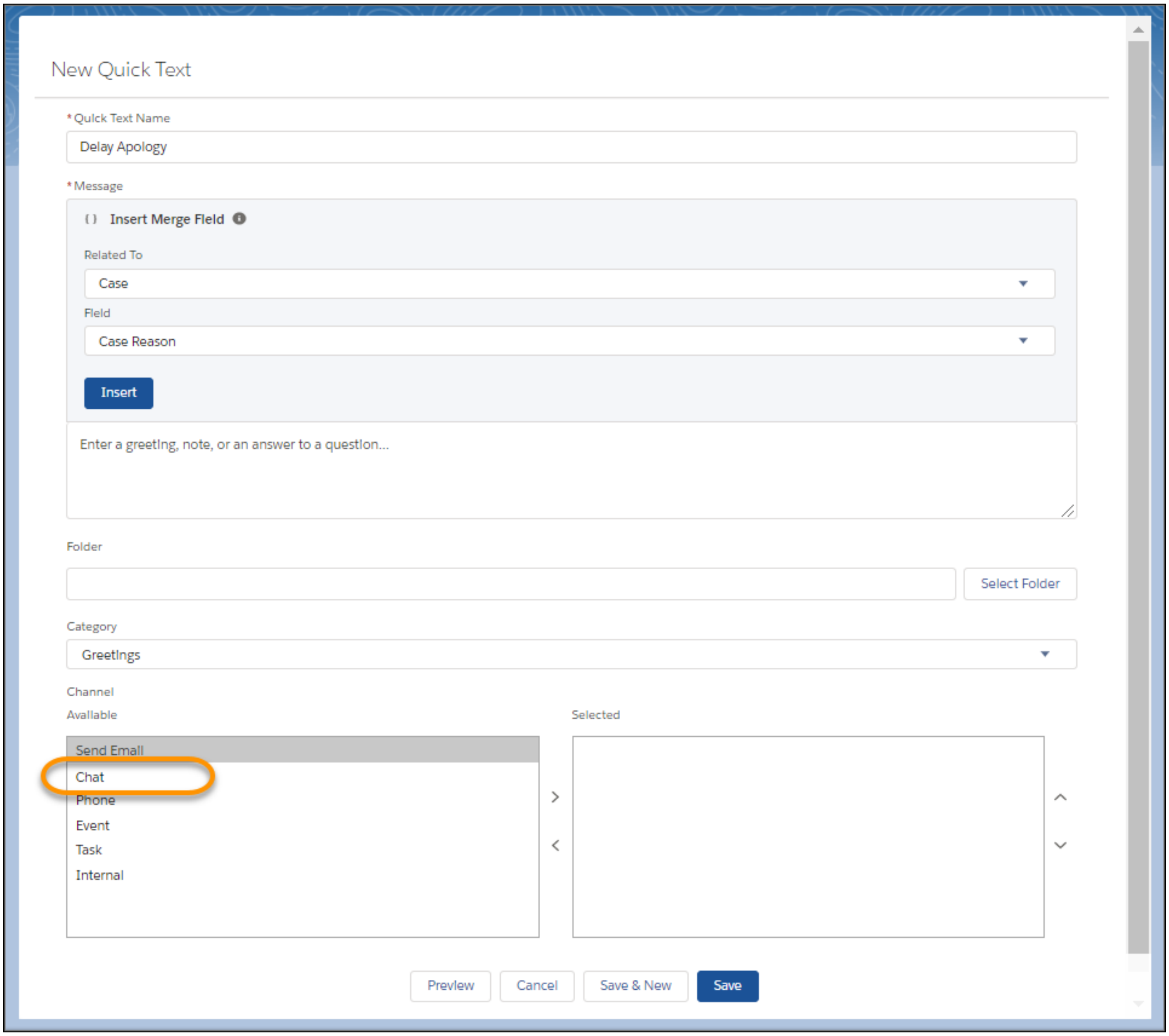
Salesforce Help: Using Pop-Out Utilities (can be outdated or unavailable during release preview)

Select Chat as a Channel for Quick Texts

In Summer '19, we renamed Live Agent to Chat. When you create a quick text, the list of channels reflects this change and shows Chat.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: If Chat is available in your org, you can select it as a channel for your quick texts.



Lightning Flow for Service: Required Deployments for the Right Steps, More Flow Support, and Better List Visibility

Require an Actions & Recommendations deployment, and control which actions agents can launch from the component. To let agents run non-interactive steps, you can include autolaunched flows as actions. We also adjusted where paused flows appear so that your agents' to-do list remains front and center.

IN THIS SECTION:

[Require a Deployment and Show the Right Actions (Critical Update)](#)

This update requires that you select a deployment for the Actions & Recommendations component. When you configure Lightning Flow for Service, a deployment lets you control the actions that agents can start when they need an action that doesn't appear in the component's to-do list.

Add Autolaunched Flows to Your Agents' To-Do List

Let your agents perform actions that run in the background without user input. You can specify an autolaunched flow in the Actions & Recommendations component. We support this flow type as a step that agents can start from the component or as a Next Best Action recommendation.

View Paused Flows Without Blocking Your List

We adjusted where paused flows appear so that your steps in the Actions & Recommendations component remain visible. Previously, the list of paused flows obscured the list of actions.

Require a Deployment and Show the Right Actions (Critical Update)

This update requires that you select a deployment for the Actions & Recommendations component. When you configure Lightning Flow for Service, a deployment lets you control the actions that agents can start when they need an action that doesn't appear in the component's to-do list.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Deployments specify which actions agents can launch from the component and whether recommendations from a Next Best Action strategy appear. Previously, selecting a deployment in component properties was optional. If you didn't select a deployment, channel defaults were undefined, and users saw all available actions when they clicked **Add**. Requiring a deployment lets you control which actions your agents see when another step is needed.

How: From Setup, in the Quick Find box, enter `Critical Updates`. Click **Review** to learn more about the update. Click **Activate** to require the use of a deployment.

Note: After you activate this update or it's enforced, if you don't select a deployment, no actions appear when the user clicks **Add**. In addition, the component displays an empty list unless other RecordActions exist for the record.

To verify behavior after activation, add the component to a record page. In properties, select an Actions & Recommendations deployment. View record pages where the component appears.

SEE ALSO:

Salesforce Help: Create an Actions & Recommendations Deployment (can be outdated or unavailable during release preview)

Critical Updates and Security Alerts

Add Autolaunched Flows to Your Agents' To-Do List

Let your agents perform actions that run in the background without user input. You can specify an autolaunched flow in the Actions & Recommendations component. We support this flow type as a step that agents can start from the component or as a Next Best Action recommendation.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Flow Types (can be outdated or unavailable during release preview)

Salesforce Help: Lightning Flow for Service & the Actions and Recommendations Component (can be outdated or unavailable during release preview)

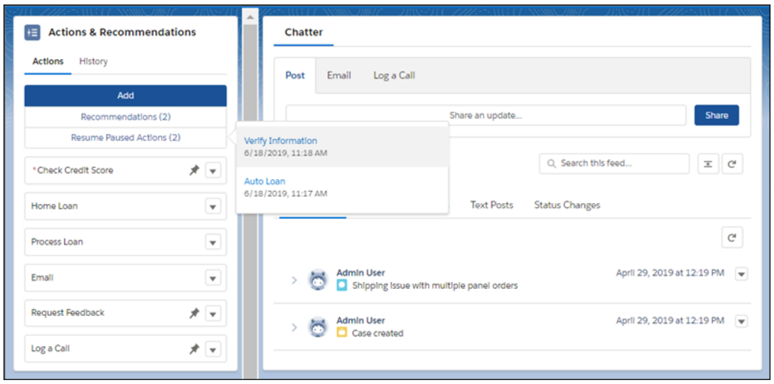
Lightning Flow for Service Developer Guide (English only)

View Paused Flows Without Blocking Your List

We adjusted where paused flows appear so that your steps in the Actions & Recommendations component remain visible. Previously, the list of paused flows obscured the list of actions.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: To give your users the option to pause a flow, click **Let users pause flows** in process automation settings. To see which flows are paused, click **Resume Paused Actions** in the component. To resume a paused flow, select it from the list.



SEE ALSO:

Salesforce Help: Let Users Pause Flow Interviews (can be outdated or unavailable during release preview)

Analytics: Row-Level Formulas, Code-Free Model Deployment, New Home, Salesforce Mobile App Integration

Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. The number and scope of Analytics features this release could delight you all Winter '20 long. Writing row-level formulas directly in the Lightning report builder is generally available. Write Einstein Discovery prediction scores automatically to selected Salesforce fields without writing code. The new Analytics Home is your personalized launchpad for finding, favoriting, curating, and interacting with the assets and insights that are most important to you. Without leaving the Salesforce mobile app, perform many important Einstein Analytics tasks, from viewing full-screen dashboards to adding favorites. And much more.

IN THIS SECTION:

Reports feature new and updated tools to further refine the data they return. Row-level formulas, now generally available, provide new ways to evaluate report data. Use field-to-field filters to filter data based on the value of columns in your reports. The new unique count summary, tell you how many unique records exist in the report and in each group.

Write Einstein Discovery scores automatically to selected Salesforce fields without writing code. In the Analytics Studio explorer, write formulas with string results to create labels, provide simple buckets, or add image URLs. Consider the new Analytics Home your personalized launchpad for finding, favoriting, curating, and interacting with the assets and insights that are most important to you.

Reports and Dashboards: Row-Level Formulas (Generally Available), Field-to-Field Filters (Beta), Unique Value Counts (Beta)

Reports feature new and updated tools to further refine the data they return. Row-level formulas, now generally available, provide new ways to evaluate report data. Use field-to-field filters to filter data based on the value of columns in your reports. The new unique count summary, tell you how many unique records exist in the report and in each group.

IN THIS SECTION:

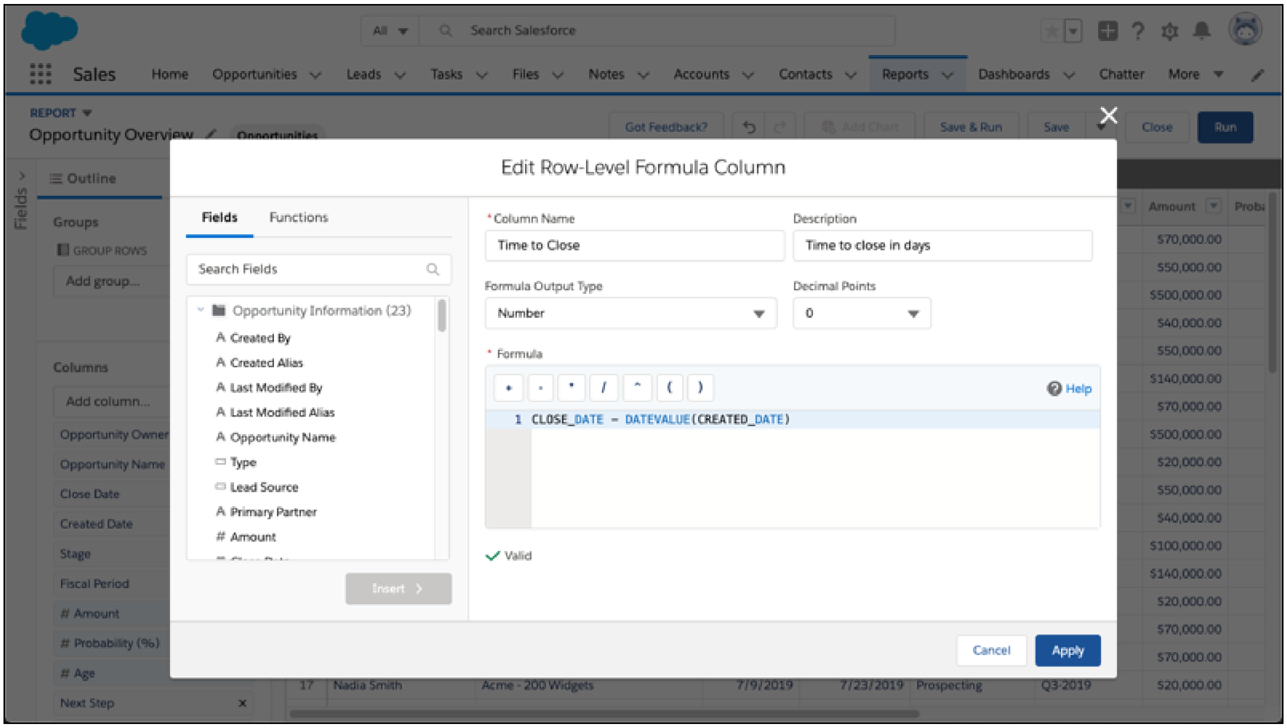
Evaluate Each Record in Reports with Row-Level Formulas (Generally Available)

Answering business questions sometimes means making a calculation on every row in a report. With row-level formulas, you don't need to export report data to a spreadsheet or ask an admin to create a one-off custom formula field. Instead, write a row-level formula directly in the Lightning report builder.

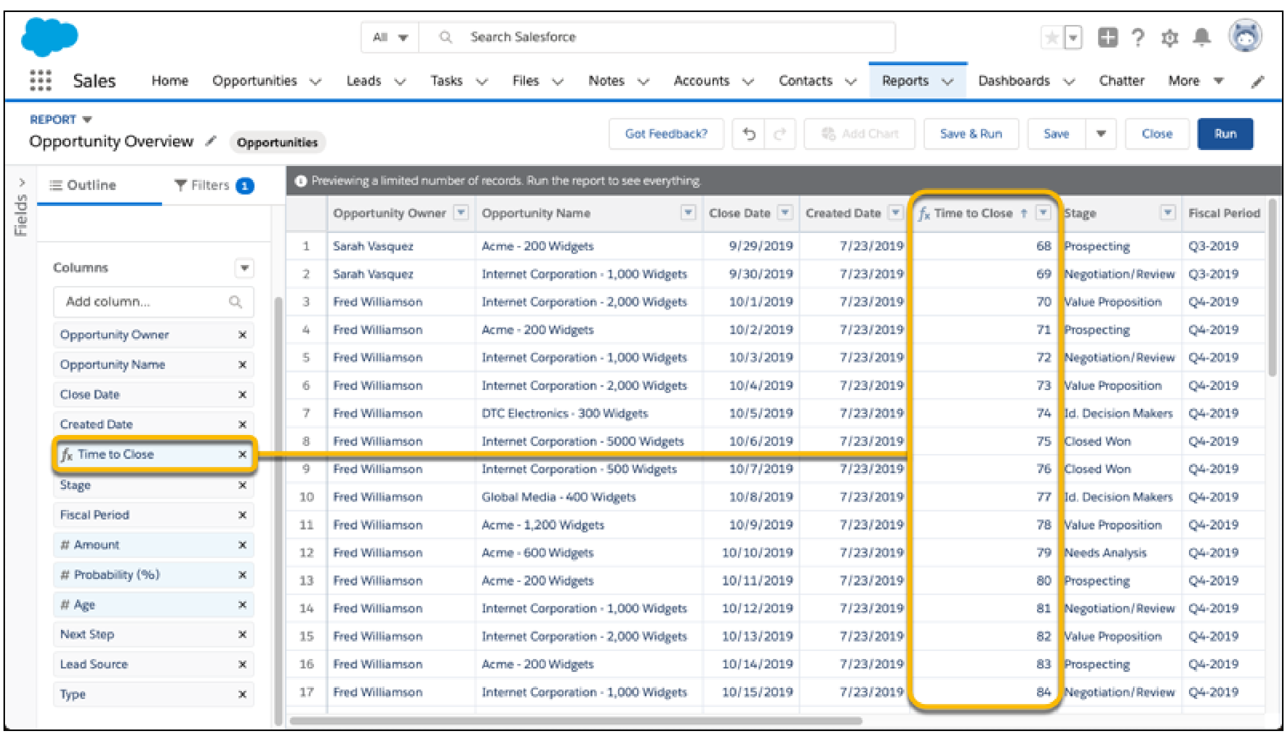
Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: For example, write a row-level formula on a closed opportunity report to calculate how long each opportunity took to close. Click **Add Row-Level Formula**, and write a formula that subtracts created date from close date.

```
CLOSE_DATE - DATEVALUE(CREATED_DATE)
```



The row-level formula appears as a column on the report.



Now that row-level formulas are generally available, these actions are supported.

- Filter and group report data by row-level formulas.
- Sort groups by row-level formulas.
- Reference row-level formulas in summary formulas.
- Dashboard components, including charts, metrics, gauges, funnels, and tables, now support row-level formulas.
- Row-level formulas support:
  - Summaries, such as sum and average
  - Picklist fields
  - Conditional formatting
  - Report charts
  - Formatted report export
  - Report subscriptions

Note: Because row-level formulas are now generally available, admins no longer need to enable the feature in Setup. We removed **Enable Row-Level Formulas (Lightning Experience Only)** from Reports and Dashboards Settings in Setup.

Filter Reports Using Field Comparisons with Field-To-Field Filters (Beta)

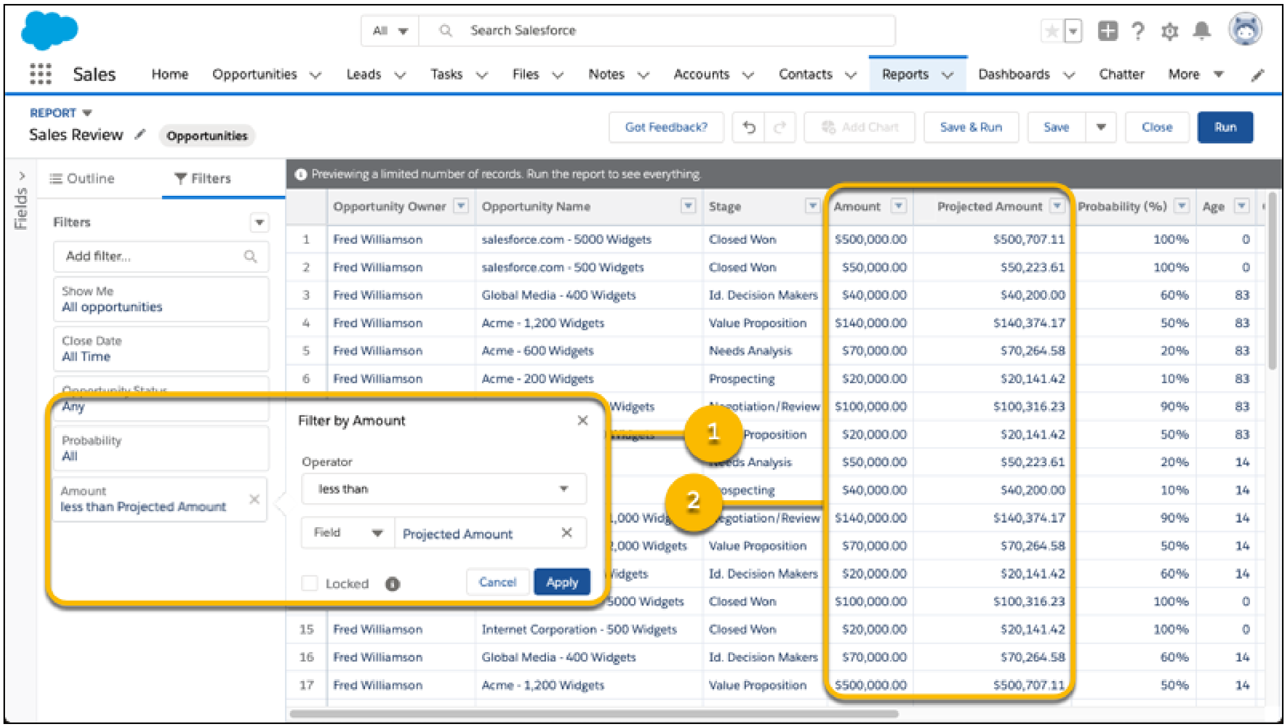
Filter a report by comparing the values of two different report fields. For example, see which cases were modified after the closing date by filtering on cases with a last modified date after the closed date.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, field-to-field filtering is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or about it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for field-to-field filtering in Lightning Experience in the Trailblazer Community.

How: In Setup, in Reports and Dashboards Settings, select **Enable Field-to-Field Filtering in Reports (Lightning Experience Only)** and click **Save**.

Add a field filter, and change **Value** to **Field** in the filter dialog. In this example, a field-to-field filter (1) returns opportunities worth less than projected (2).



SEE ALSO:

IdeaExchange: Report Filters Should Be Able To Compare Fields To Each Other

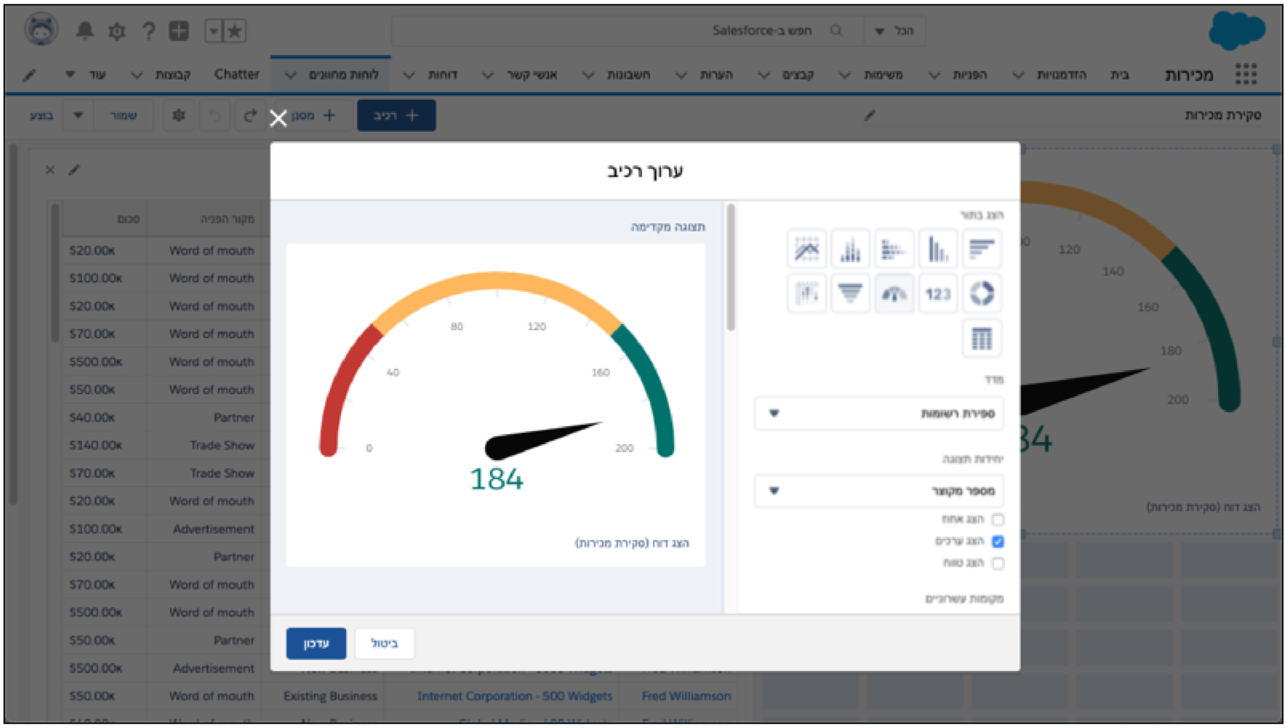
Right-to-Left Language Support for Reports and Dashboards (Beta)

Reports and Dashboards now support right-to-left (RTL) languages and locales, such as Hebrew, Arabic, and Urdu. Hebrew and Arabic are supported as end-user languages, and Urdu as a platform language. To better support RTL languages, we rearranged the reports and dashboards interface so that it flows from right to left.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

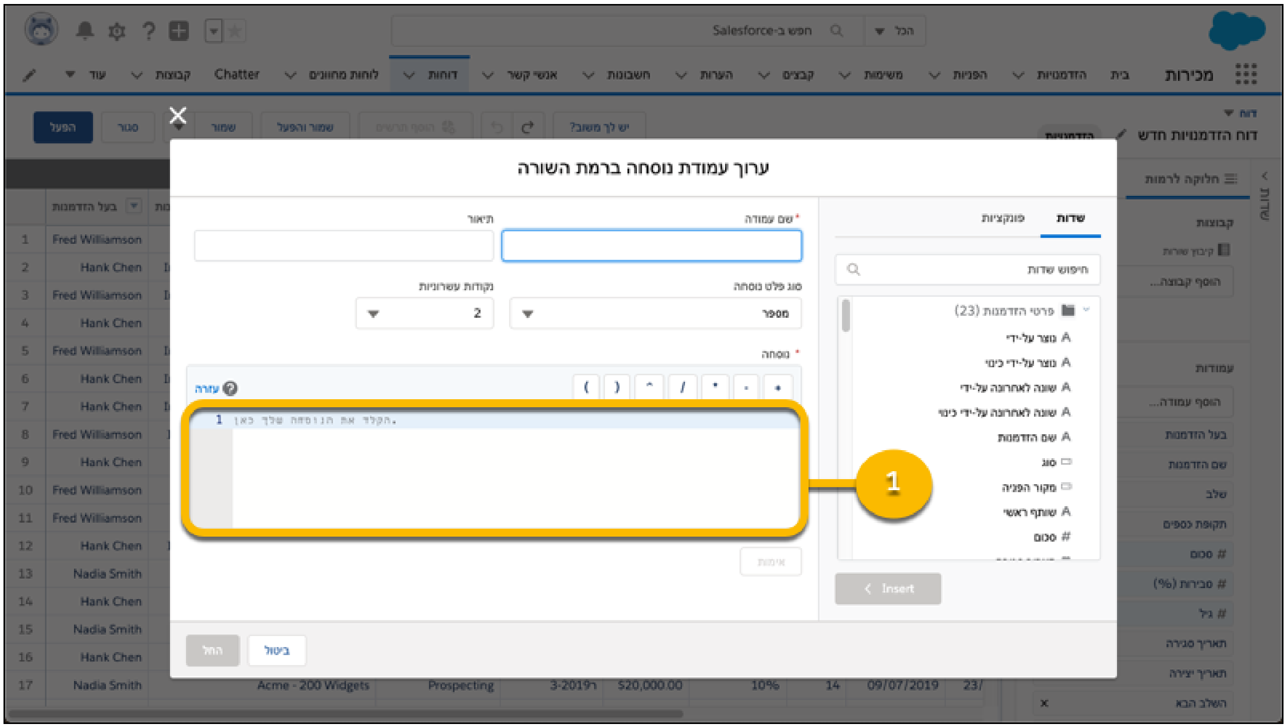
Note: As a beta feature, right-to-left support is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

Why: Here's what adding a dashboard component in Hebrew looks like.



When working in a RTL language, these parts of the report builder are translated but are still laid out from left to right.

- When adding columns to a report, the top-most column in the Overview pane is the left-most column of the report table.
- The formula editing field for both summary and row-level formulas is left-to-right, but the formula editing menu flows from right to left (1).



SEE ALSO:

Salesforce Help: Enhanced Right-to-Left (RTL) Language Layout in Lightning Experience (Beta) (can be outdated or unavailable during release preview)

Count Unique Values in Report Results (Beta)

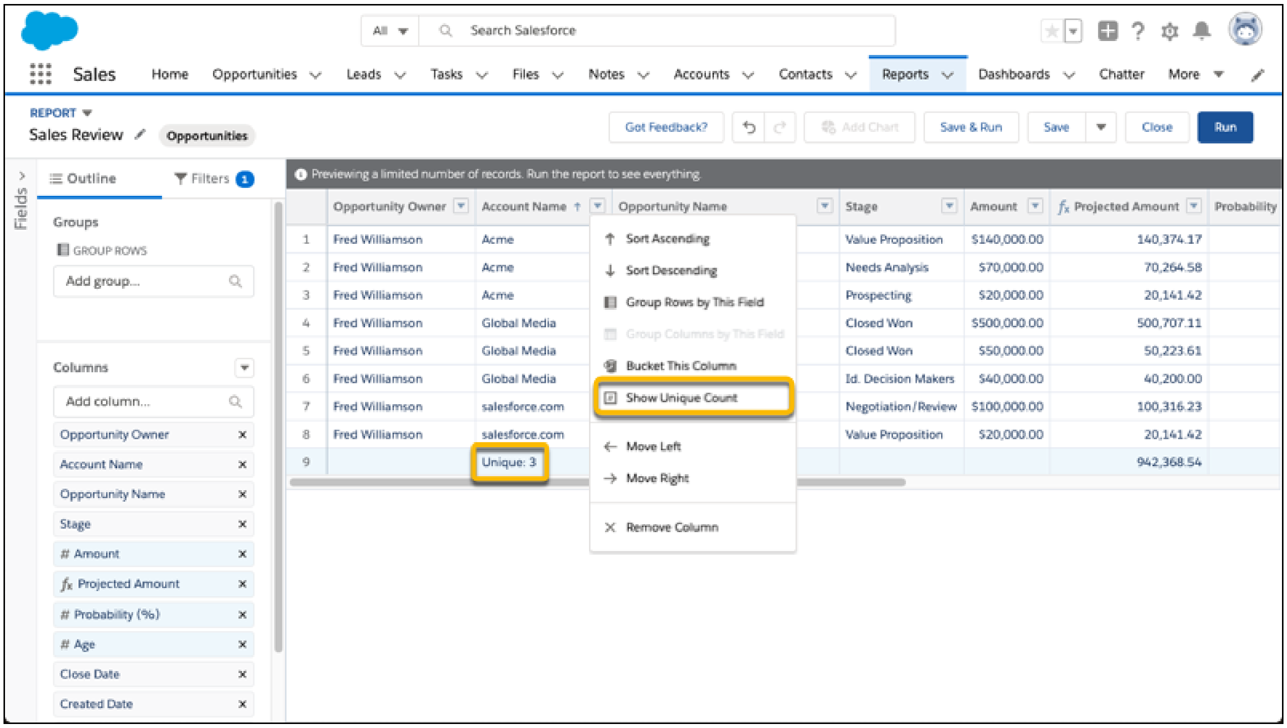
See how many distinct values your report returns with a unique count. For example, opportunity reports often list multiple opportunities with the same account. Add a unique count to the Account Name column to see how many individual account values appear in the report. Unique counts appear as grand totals at the bottom of the report and as subtotals for each group.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, unique count is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or about it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for unique count in Lightning Experience in the Trailblazer Community.

How: In Setup, in Reports and Dashboards Settings, select **Enable Unique Row Count Aggregate in Reports (Lightning Experience Only)** and click **Save**.

To add a unique count of values for a field, in the column, click ▼ > **Show Unique Count**.



SEE ALSO:

IdeaExchange: Report Option for Distinct/Unique Records

Easily Read Wrapped Long Text Fields in Report Results

By default, long text fields in report results now wrap instead of truncate. With text wrapping, you can read all content in a long text field without expanding the column.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Show Territory Details on Activities Reports

If you use Enterprise Territory Management, you can now show information about your active territory model on Activities reports. For example, create a list of tasks with their associated accounts and the territories assigned to them.

Where: This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

SEE ALSO:

Enrich Your Activities Reports with Territory Details

Account Team Support Was Added to Reports and Dashboards

To support account team reporting, the `UserId` field on Account Team Member is now available in reports and dashboards.

Where: This change applies to Lightning Experience and Salesforce Classic in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Accounts: Customize Account Teams to Better Support Team Selling

Folders:

Folders are key to organizing and sharing reports and dashboards. Now, you can find report and dashboard folders using Salesforce search. And once you find the folder you're looking for, favorite it for easy access later. These changes apply to Lightning Experience only.

IN THIS SECTION:

Legacy Folder Sharing Is Retiring in Summer '20

It's time to say goodbye to Legacy Folder Sharing, which is heading for retirement in the Summer '20 release. For several releases we've been phasing out Legacy Folder Sharing in favor of Enhanced Folder Sharing, which has an improved UI and more fine-grained access control.

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Where: This change applies to Group, Professional, Enterprise, Performance, Unlimited, and Developer Editions.

When: Retirement is targeted for June 2020 and is subject to change. For details, see the knowledge article on Legacy Folder Sharing Retirement.

How: If your org was created in the Summer '13 release or later, you already have Enhanced Folder Sharing by default and won't notice any change. If your org was created before Summer '13, migration is easy. Go to Setup and enable Enhanced Folder Sharing. For details, see Transition Your Org to Enhanced Folder Sharing for Reports and Dashboards. You can make the change now or any time prior to June 2020. Once you make the change, you can't revert back to Legacy Folder Sharing.

Einstein Analytics: Code-Free Model Deployment, Dimension Formulas, New Analytics Home

Write Einstein Discovery scores automatically to selected Salesforce fields without writing code. In the Analytics Studio explorer, write formulas with string results to create labels, provide simple buckets, or add image URLs. Consider the new Analytics Home your personalized launchpad for finding, favoriting, curating, and interacting with the assets and insights that are most important to you.

IN THIS SECTION:

Analytics Data Integration: In-App Setup Assistance, Data Sync Schedule Reminders, More Recipe Transformations

Get in-app help when you set up Analytics. Get a reminder when a data job includes potentially stale data from unscheduled data sync. Convert dataset field types and date formats with new recipe transformations.

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Identify Users Not Covered by Sharing Inheritance

Are some users complaining that they can't see data from a particular dataset? To identify users who don't have access to the dataset based on inherited sharing rules, run the Sharing Inheritance Coverage report. Use this report to determine if you must add a security predicate to grant more users access to the dataset. For example, add a predicate to grant a user access to the Opportunities dataset when the user isn' t covered by sharing rules for the Opportunity object.

Recipe Editor Is Renamed Data Prep

It's your key data preparation tool, so let's call it what it is—"data prep," short for data preparation. Use data prep to create recipes that clean, combine, transform, and filter data loaded into datasets.

Complete Your Data by Predicting Missing Values

Missing data can throw off your query results. To minimize the impact, fill in missing values in a dimension column with the Predict Missing Values transformation in a recipe. Analytics intelligently predicts values based on values in other strongly correlated columns in your data.

Convert Columns to Dimensions and Dates

The field type of a dataset column determines how you can query that field's data. For example, you can filter and group by a dimension or date, or perform math calculations on a measure. When you create a dataset, Analytics sometimes tags a column with the wrong field type. If needed, use the To Dimension recipe transformation to convert measure columns to dimensions, and the To Date transformation to convert dimension columns to dates.

Standardize Date Formats in Your Datasets

If a dimension column in a dataset contains dates in different formats, use the Format Dates recipe transformation to standardize the format for all values in the column. A consistent format enables you to correctly filter and group records by date, including filtering by date component, such as day or month. It also ensures that you can successfully convert the field type from dimension to date.

Get the Right Data with More Flexible Recipe Filters

You can now filter on measure and date columns, not just dimensions. We added new operators, such as less than and greater than, for dimension filters. And you can now manually enter your own filter values, instead of selecting from existing values. For example, you can filter on a string value that you expect to show up in your data.

Manage Recipes and Dataflows More Easily

You can now search for a recipe by name, see who last modified it, and view its next scheduled run—all in the Recipes tab. You can also search for dataflows by name in the Dataflows tab.

Analytics Applies Security to Datasets Exported to Einstein Discovery

When exporting a dataset to Einstein Discovery using the export dataflow transformation, Analytics now applies the security predicate. Analytics applies the security predicate based on the user specified in the transformation parameters, omitting records that the user doesn't have access to. Previously, the transformation exported all records, regardless of the security predicate.

Make Datasets More Secure with Longer Security Predicates

Some security predicates, like territory management with multiple territory levels, require more security conditions. To enable you to create finer row-level security on a dataset, a security predicate now supports up to 5,000 characters, instead of 1,000.

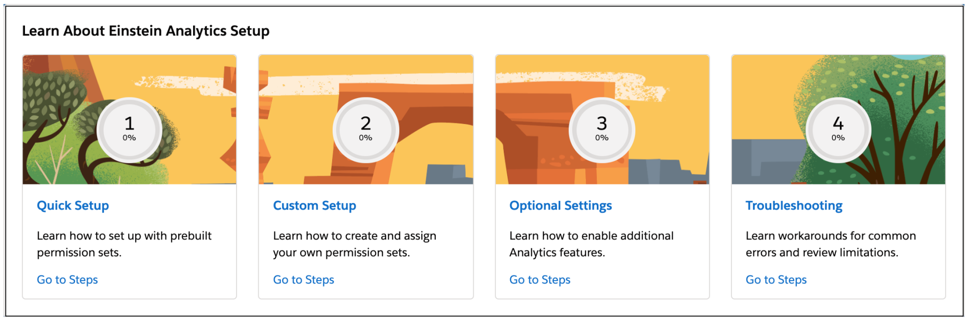
Ease into Setup with In-App Guided Learning

We redesigned the Analytics Getting Started page in Setup and added extensive in-app assistance and a What's New section.

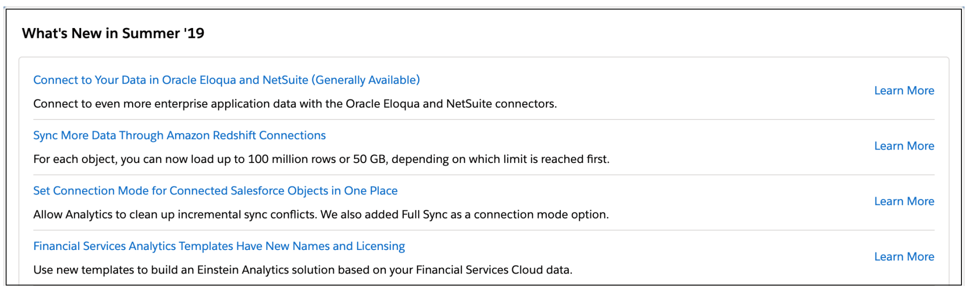
Where: This change applies to Einstein Analytics in Lightning Experience. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Why: The new heart of the page is Learn About Einstein Analytics Setup, with guided learning paths for quick start, custom setup, settings, and troubleshooting. The learning paths break down key tasks, present setup options, and provide troubleshooting guidance.

Complete the learning paths to understand all that's possible with setup, and then apply what you need for your org. We track your learning progress so that you can easily continue where you left off whenever you want.



The other learning opportunity on the page is the What's New section, where you can stay on top of the latest release without leaving Setup.



Data Sync Is Enabled by Default in New Analytics Orgs

Starting in Winter '20, Data Sync is enabled by default when you turn on Analytics for your org. Data Sync speeds up your dataflows by loading your Salesforce and external data to Analytics before the dataflows runs. Data Sync also enables Analytics connectors that enrich Analytics with data stored outside your org. If you turned on Analytics for your org before Winter '20, you can manually enable Data Sync.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: Data sync is on by default in new Analytics orgs, but you schedule when the sync occurs per connection. For the most up-to-date data, set your sync to run before your dataflow.

SEE ALSO:

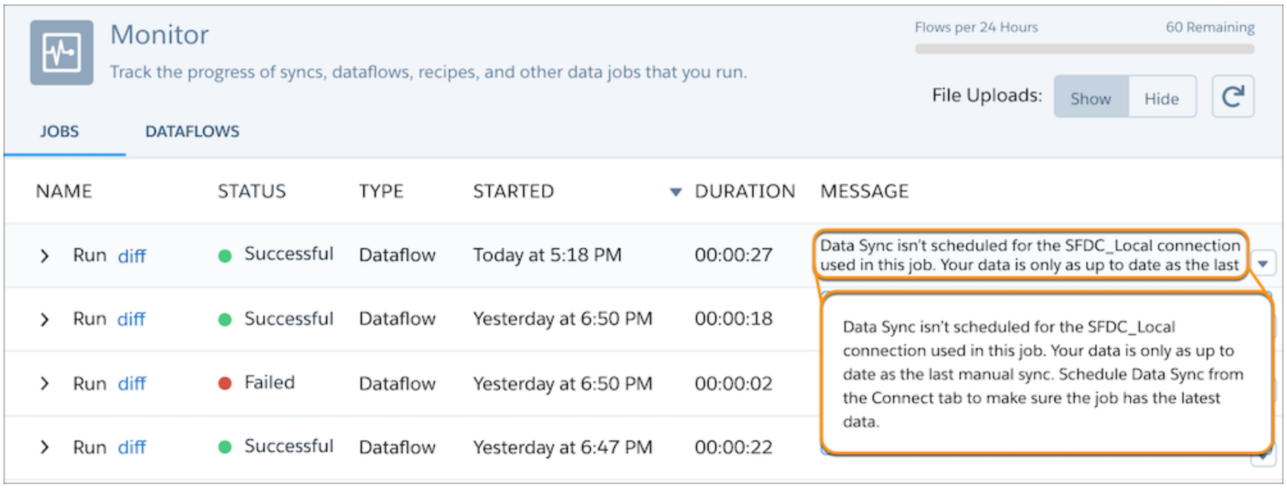
Salesforce Help: Schedule Sync

Data Sync Schedule Reminders Help You Keep Your Data Current

The Monitor page now displays a message when an SFDC_Local connected object is used in a job but the connection's data sync isn't scheduled. You wouldn't rely on last week's movie times to decide what you'll see tomorrow, and the same is true for data in Analytics. Lenses and dashboards are most valuable when a dataset has up-to-date data. This message keeps you aware of any job using potentially stale local org data from the SFDC_Local connection.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Why: Schedule data sync for the SFDC_Local connection on the Connect tab. When you schedule data sync, the message doesn't show up after the next job run.



SEE ALSO:

Salesforce Help: Schedule Sync

Sync More Data Through Snowflake Computing and Amazon S3 Connections

Bring your remote data into Analytics for richer analysis, smarter insights, more accurate forecasting, and more. Now you can sync more data per connected Snowflake Computing and Amazon S3 object, up to 100 million rows or 50 GB, whichever limit is reached first. We're applying the increased data sync limit to Snowflake Computing and Amazon S3 connections on a rolling basis during the Winter '20 release.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

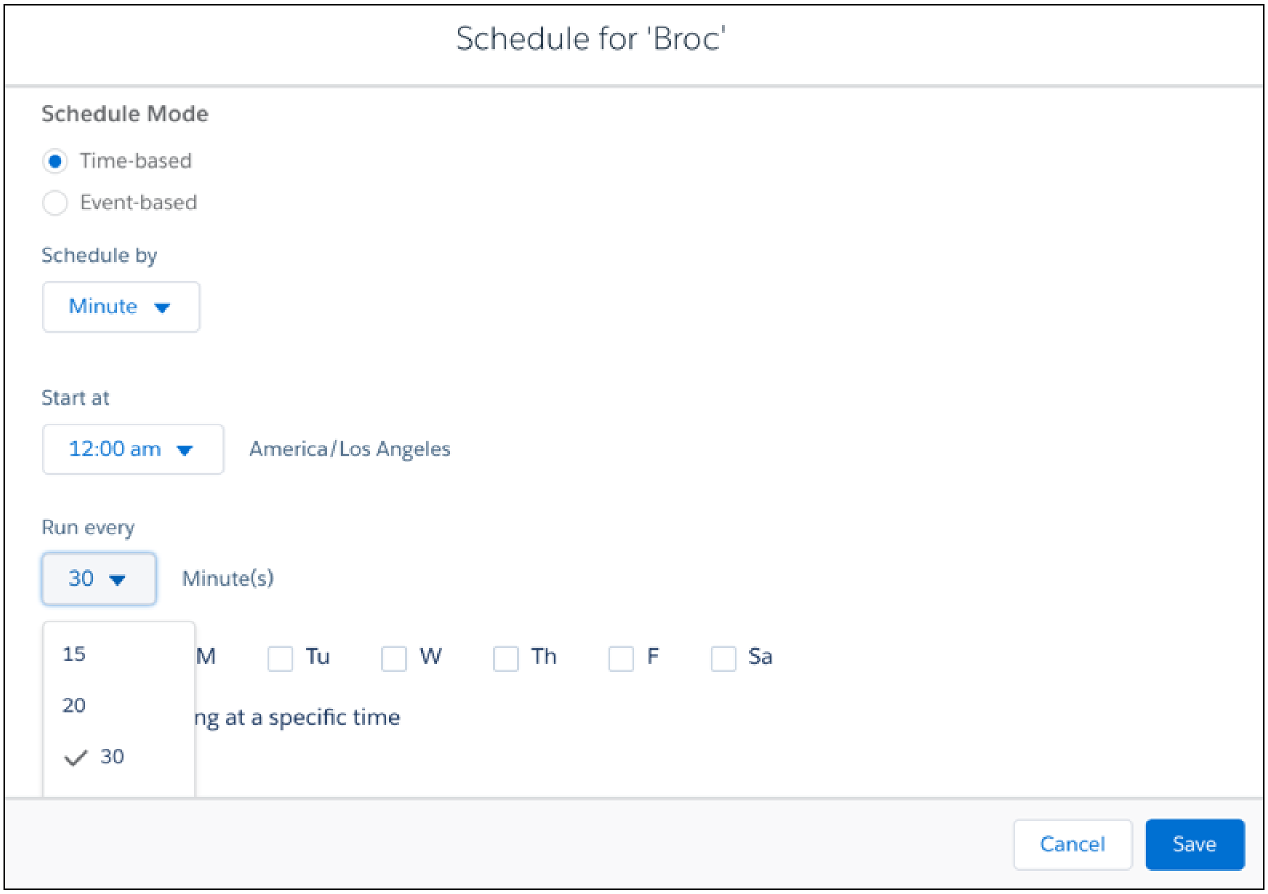
Capture the Latest Data Faster

Schedule data sync, dataflow, and recipe jobs to run on shorter intervals. You can now schedule these jobs to run every 15, 20, 30, or 60 minutes.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: To enable subhour scheduling in your production org, contact Salesforce Support. This feature isn't fully supported in sandbox. When this feature is enabled, you can run up to 120 (instead of 60) dataflows in a rolling 24-hour period. We increase this limit to support more frequent dataflow runs.

To schedule more frequent jobs, select a subhour schedule in the Schedule By field and then choose the interval in the Run Every field. Next, choose the days of the week to run the job and click **Save**.



If the scheduler tries to run a data sync, dataflow, or recipe that's already running or in queue, the currently running job continues, but the new job fails. To prevent the failure, ensure that the schedule interval is greater than the time it takes to complete the job. See historical runs to determine how much time the job takes to complete.

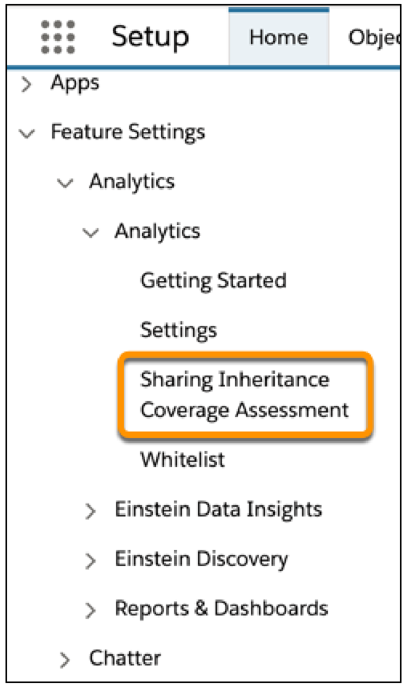
Identify Users Not Covered by Sharing Inheritance

Are some users complaining that they can't see data from a particular dataset? To identify users who don't have access to the dataset based on inherited sharing rules, run the Sharing Inheritance Coverage report. Use this report to determine if you must add a security predicate to grant more users access to the dataset. For example, add a predicate to grant a user access to the Opportunities dataset when the user isn' t covered by sharing rules for the Opportunity object.

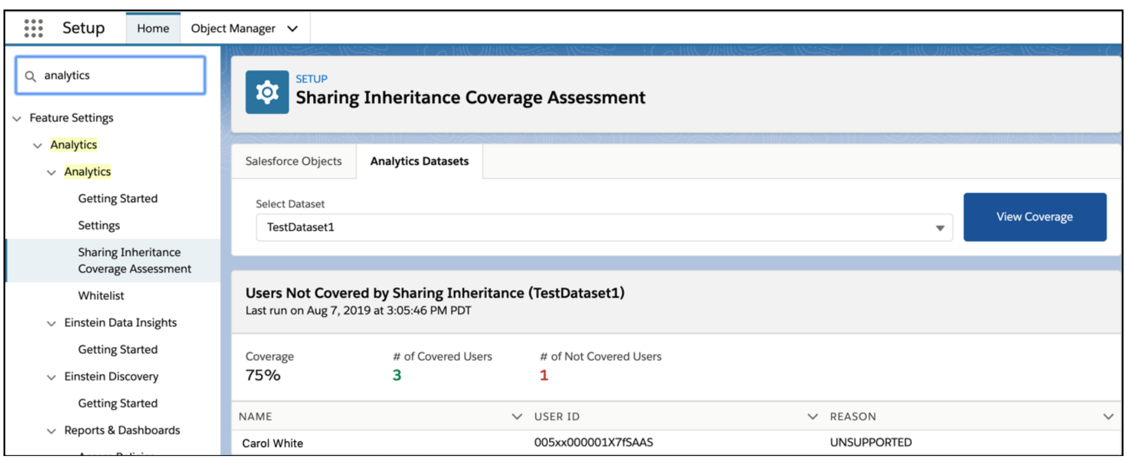
Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To access the Sharing Inheritance Coverage Assessment report, you need the Edit Analytics Dataflows user permission.

How: In the Salesforce Setup menu, under Analytics, select **Sharing Inheritance Coverage Assessment**.



In the Analytics Datasets tab, select the dataset, and click **View Coverage**. The report shows all users who don't have access to the dataset based on the inherited sharing rules.

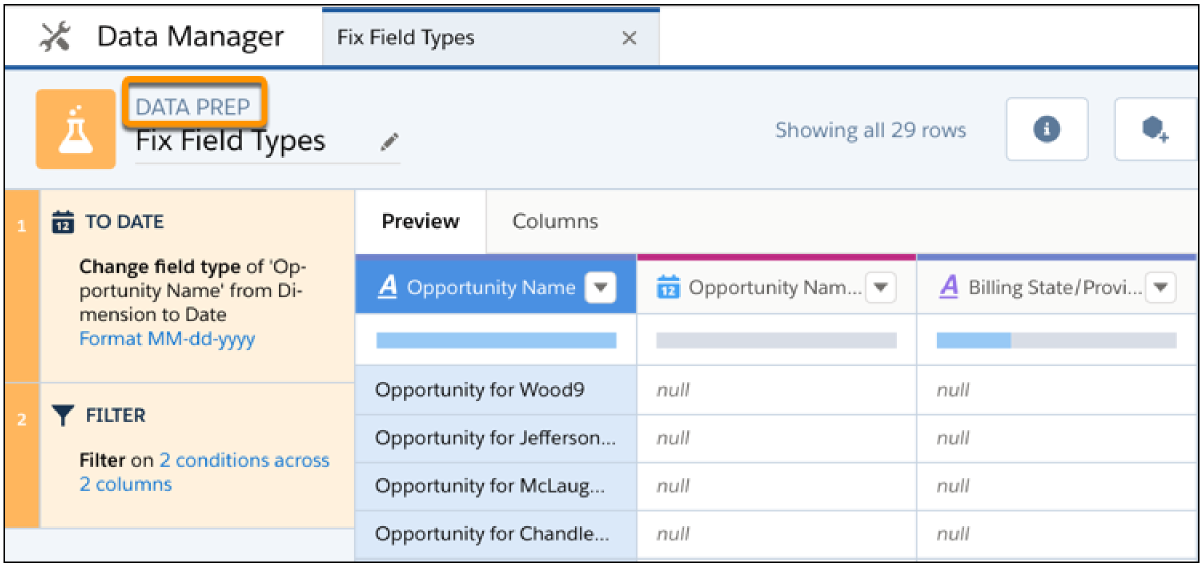


Recipe Editor Is Renamed Data Prep

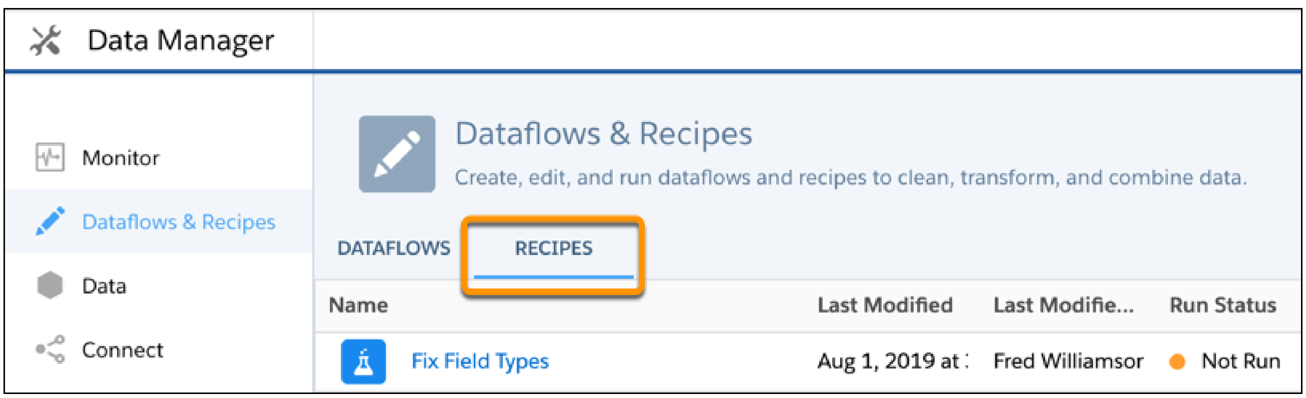
It's your key data preparation tool, so let's call it what it is—"data prep," short for data preparation. Use data prep to create recipes that clean, combine, transform, and filter data loaded into datasets.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: You see the new label when you create or edit a recipe.



To keep it short and sweet, we also shortened the name of the Dataset Recipes tab to Recipes.

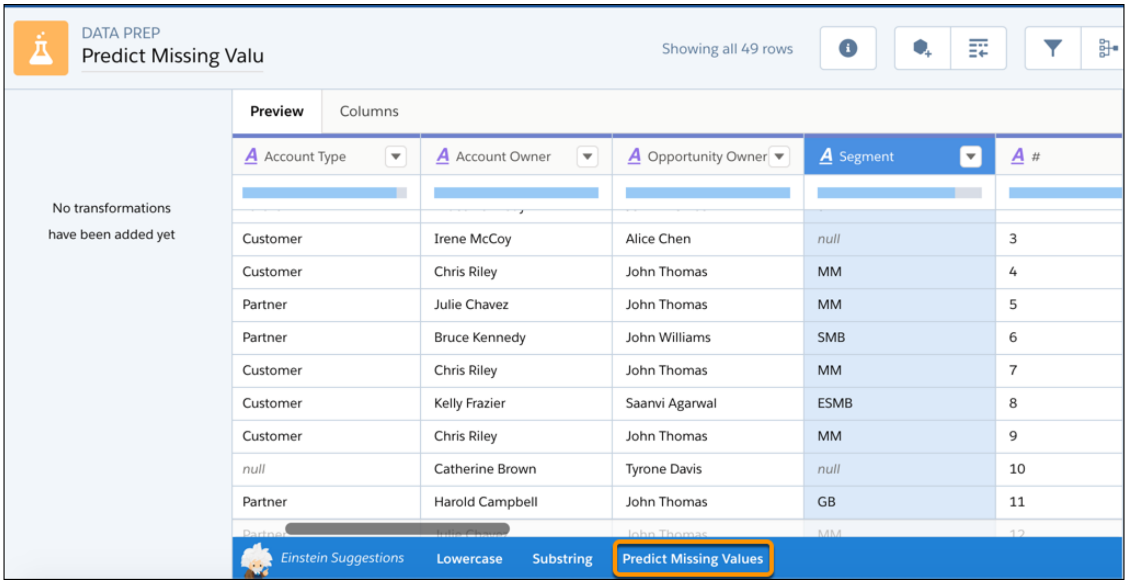


Complete Your Data by Predicting Missing Values

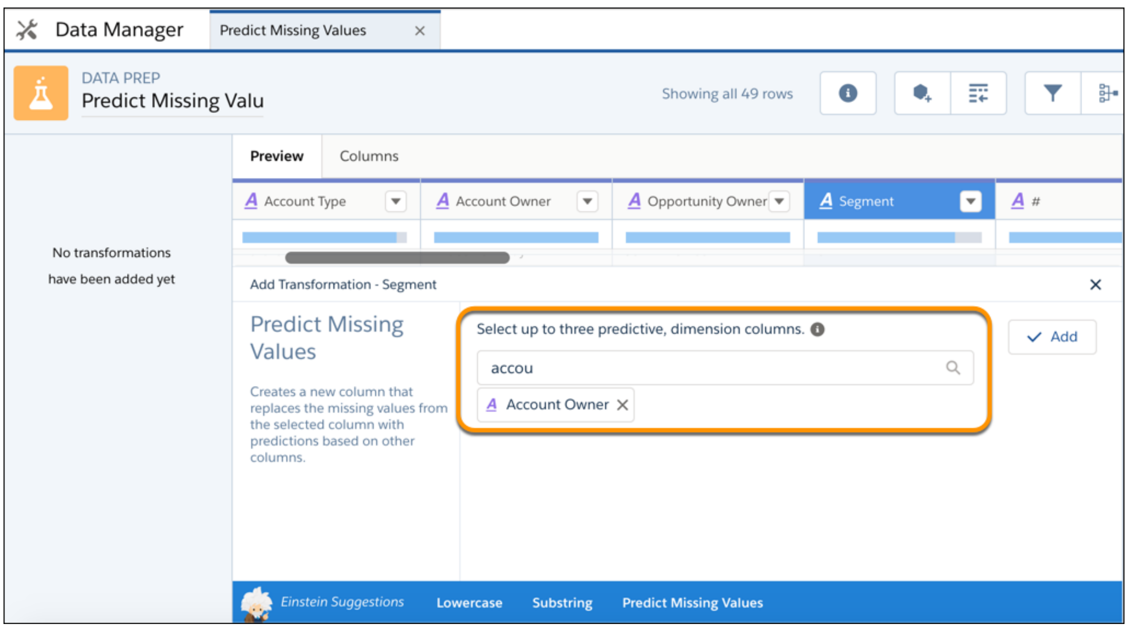
Missing data can throw off your query results. To minimize the impact, fill in missing values in a dimension column with the Predict Missing Values transformation in a recipe. Analytics intelligently predicts values based on values in other strongly correlated columns in your data.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

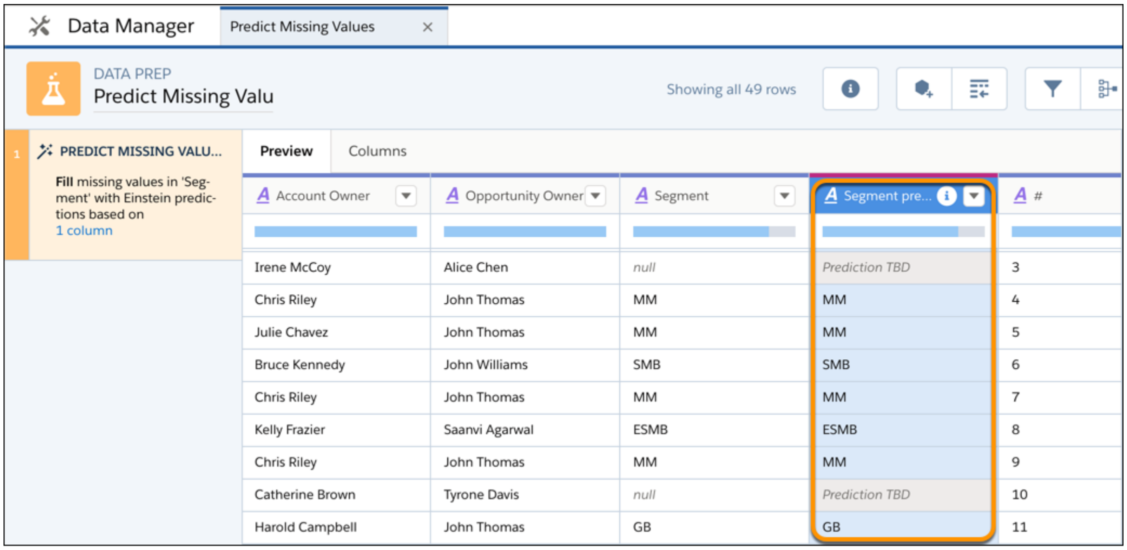
How: In a recipe, select the dimension column and click **Predict Missing Values** from the Einstein Suggestions bar.



Select up to three dimension columns to use to predict the missing values for the selected column.



To add the transformation to the recipe, click **Add**. The preview shows the original column with the missing values and the new column with "predict" at the end. The preview shows "Prediction TBD" for predicted values in the new column. The predicted values don't appear until after you run the recipe.



Convert Columns to Dimensions and Dates

The field type of a dataset column determines how you can query that field's data. For example, you can filter and group by a dimension or date, or perform math calculations on a measure. When you create a dataset, Analytics sometimes tags a column with the wrong field type. If needed, use the To Dimension recipe transformation to convert measure columns to dimensions, and the To Date transformation to convert dimension columns to dates.

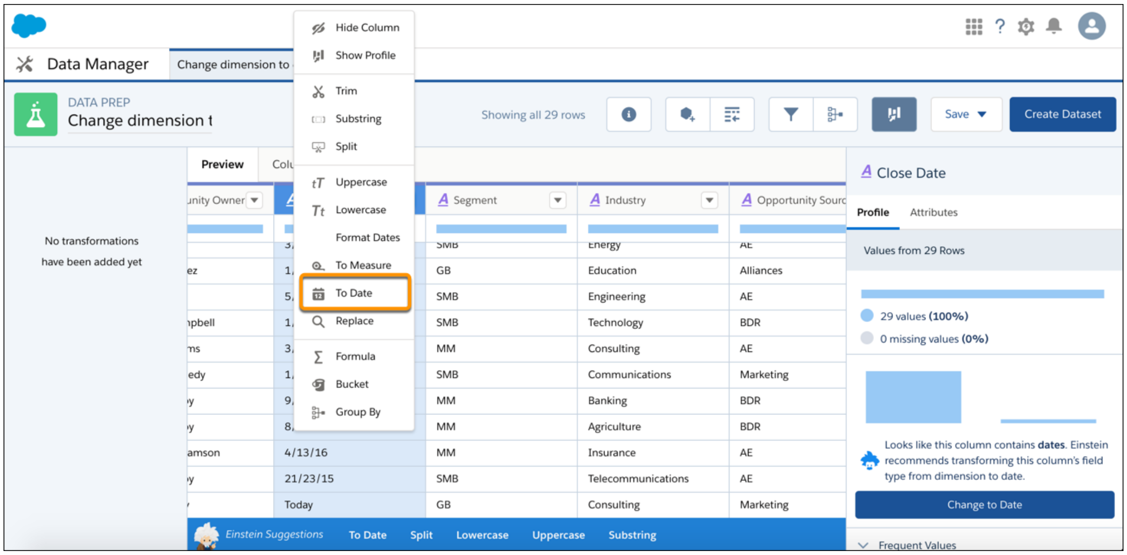
Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

When: This feature is being added on a rolling basis during the Winter '20 release.

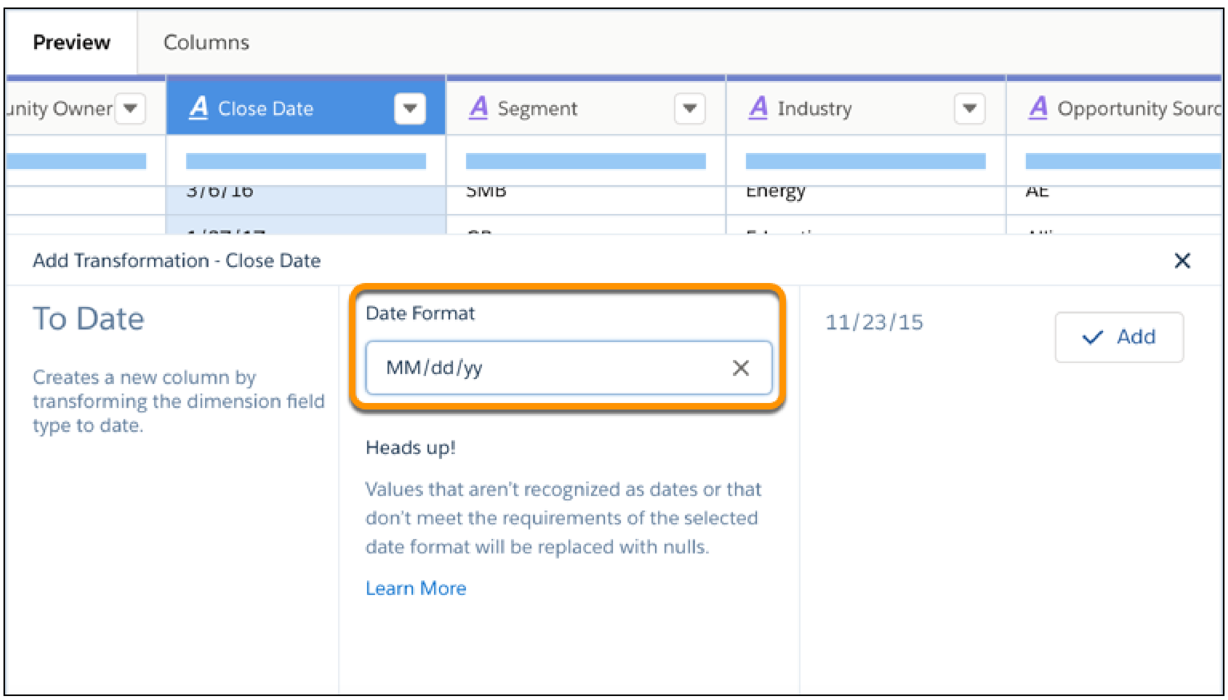
Why: Analytics could tag a date column as a dimension if it contains dates in different formats or unexpected string values. To use date functionality, such as grouping by month, use the To Date transformation to change the dimension field type to date. To convert a measure to a dimension, use the To Dimension transformation.

How: In data prep, select the transformation from the column menu in data prep.

To convert a dimension to a date field, select **To Date**.



In the Date Format field, select the date format, and click **Add**.



Run the recipe to create a column with the date field type and convert the date values to the specified format. If the transformation can't parse a date value, it replaces the value with null.

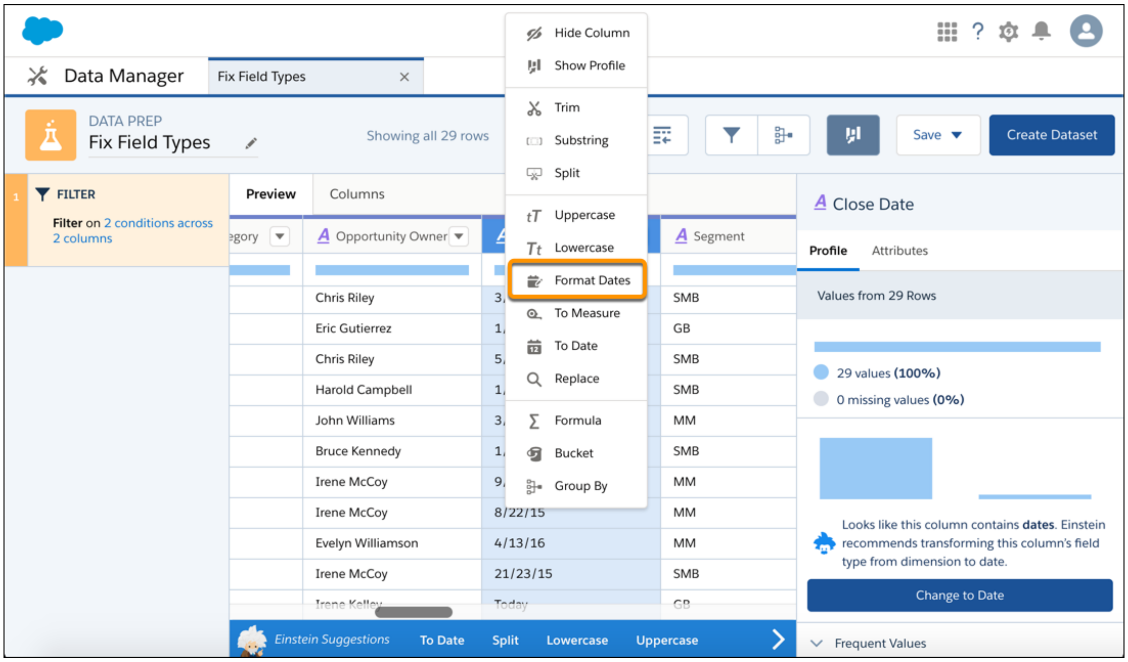
Standardize Date Formats in Your Datasets

If a dimension column in a dataset contains dates in different formats, use the Format Dates recipe transformation to standardize the format for all values in the column. A consistent format enables you to correctly filter and group records by date, including filtering by date component, such as day or month. It also ensures that you can successfully convert the field type from dimension to date.

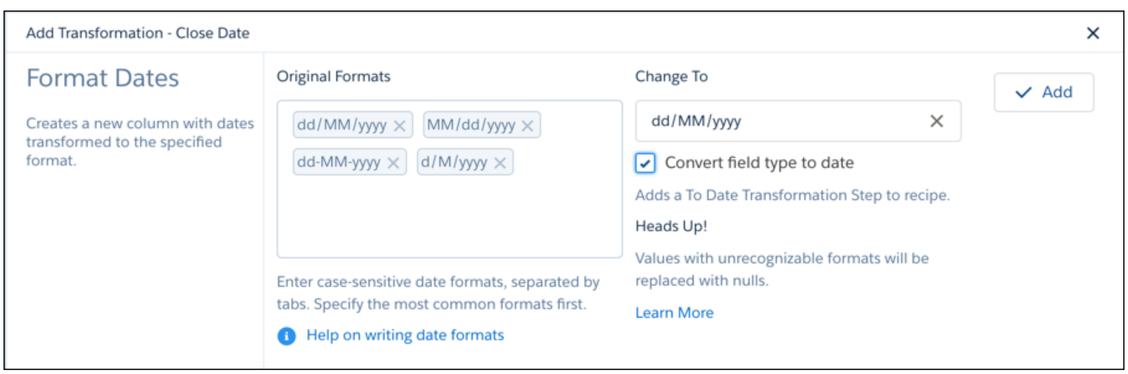
Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

When: This feature is being added on a rolling basis during the Winter '20 release.

How: In data prep, select **Format Dates** from the menu for the dimension column with date values.



Analytics detects the formats of the dates in the column. If a date format isn't detected, enter it in the Original Formats box. To convert a dimension field with dates to a date field type, select **Convert field type to date**. Select the desired date format in the Change To field, and click **Add**.



When you run the recipe, the transformation creates a column with the dates in the selected format. If Analytics can't determine the original format or the date doesn't have a value for a date component, the transformation replaces the date with null. For example, if you standardize on the `MM/dd/yyyy: hh:mm:sssz` format and a date value doesn't have the seconds date component, the replacement value is null.

Get the Right Data with More Flexible Recipe Filters

You can now filter on measure and date columns, not just dimensions. We added new operators, such as less than and greater than, for dimension filters. And you can now manually enter your own filter values, instead of selecting from existing values. For example, you can filter on a string value that you expect to show up in your data.

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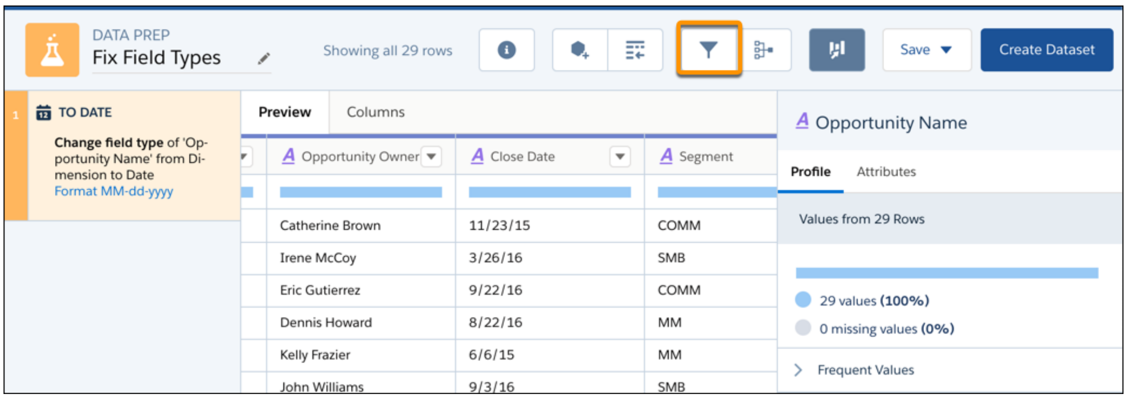
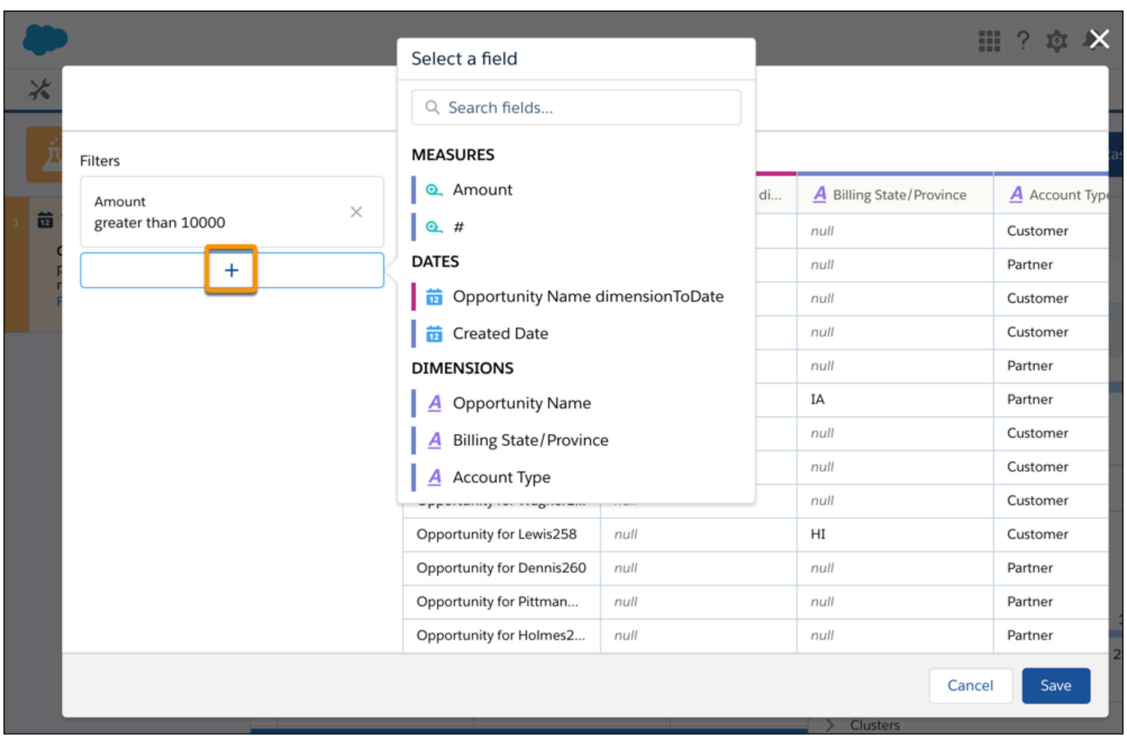
When: This feature is being added on a rolling basis during the Winter ’20 release.

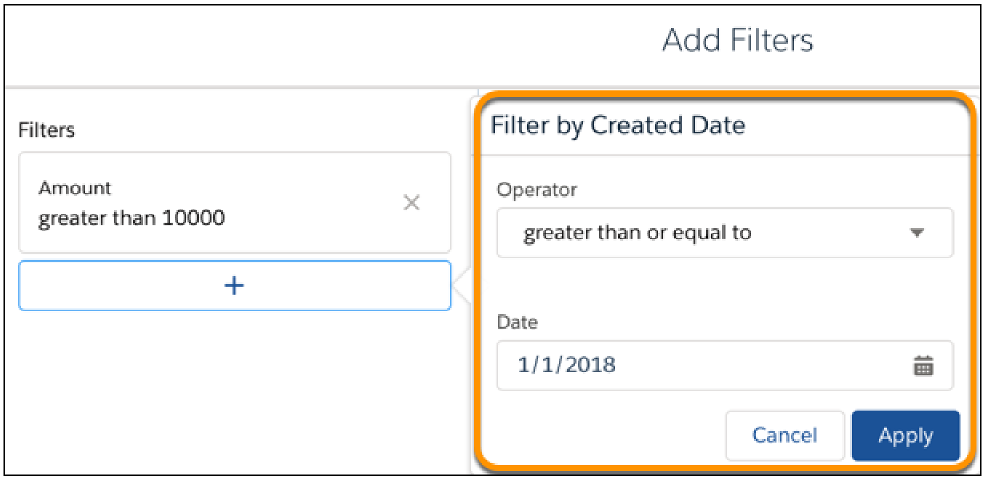
How: We moved the filter option out of the column menu and to the top of data prep. Click the filter button ( ).



Click + and select the column to filter by.



Enter the filter condition, and click **Apply**. When you're filtering on a dimension column, you can use the new operators: less than, greater than, is null, is not null, contains, does not contain, starts with, or ends with. For a dimension column, you can enter your own value instead of selecting an existing column value.



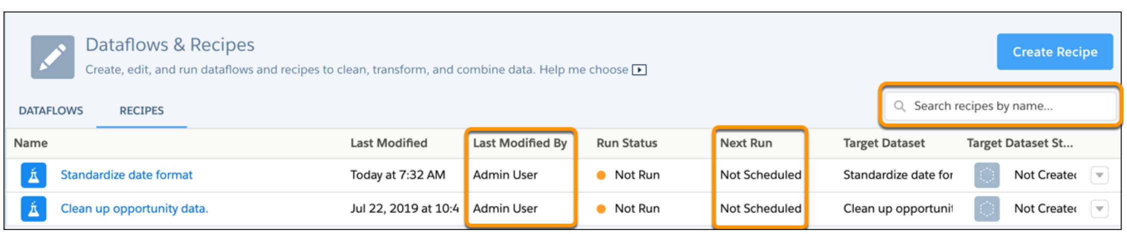
Add as many filter conditions as you like. When you run the recipe, it returns results that meet all filter conditions.

Manage Recipes and Dataflows More Easily

You can now search for a recipe by name, see who last modified it, and view its next scheduled run—all in the Recipes tab. You can also search for dataflows by name in the Dataflows tab.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Why: It's easier to work with dataflows and recipes in the data manager.



And to make room for more columns on the Recipe tab, we shortened these column names.

Old Column Name	New Column Name
Recipe Status	Run Status
Recipe Last Saved	Last Modified
Recipe Name	Name

Analytics Applies Security to Datasets Exported to Einstein Discovery

When exporting a dataset to Einstein Discovery using the export dataflow transformation, Analytics now applies the security predicate. Analytics applies the security predicate based on the user specified in the transformation parameters, omitting records that the user doesn't have access to. Previously, the transformation exported all records, regardless of the security predicate.

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Some security predicates, like territory management with multiple territory levels, require more security conditions. To enable you to create finer row-level security on a dataset, a security predicate now supports up to 5,000 characters, instead of 1,000.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Analytics Prebuilt Apps: Einstein Discovery Predictions in the Sales Analytics App, Analytics for Insurance and Health Care, Einstein Accuracy Analytics

Add predictive analytics to the Sales Analytics app, create apps from the Insurance and Health Care Analytics templates, and improve the reliability of Einstein Discovery stories with Accuracy Analytics.

IN THIS SECTION:

SEE ALSO:

Fine-Tune Customer Insights with New Release of Analytics for Retail Banking
Focus on the Financial Services Data that Matters Most With Analytics for Wealth Management
Give Agents and Managers a Complete Customer Intelligence Solution With Einstein Analytics for Insurance
Grow Your Business and Simplify Sales Operations with Einstein Analytics for Manufacturing
Improve Health Outcomes and Increase Patient Engagement with Einstein Analytics

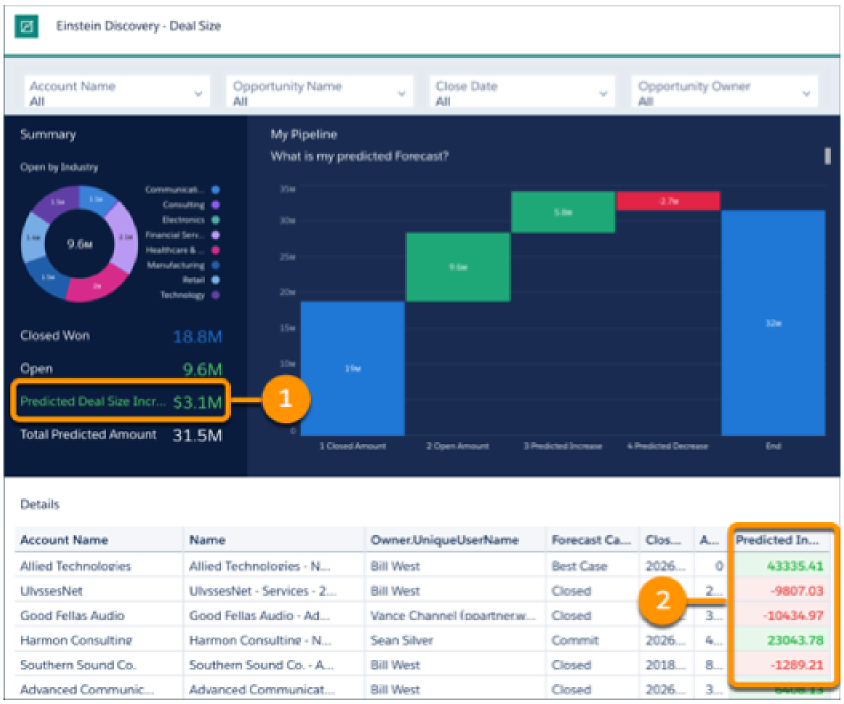
Fortify Your Sales Data with Einstein Discovery for Sales Analytics

Apply the power of predictive analytics to your Sales Cloud data. Use the Einstein Discovery for Sales template to create an app that surfaces your most promising opportunities to help you boost sales.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To create an app from the Einstein Discovery for Sales Analytics Template, you must have an Einstein Analytics Plus license and have created the Sales Analytics app.

Why: The app's Einstein Discovery stories and dashboards identify your potentially most valuable deals or the ones that have the greatest chance of closing quickly. For example, the Deal Size dashboard predicts how much total revenue from opportunities (1) could increase over the amount set by your reps. The table (2) shows the possible revenue increase for each opportunity. Use the predictions to focus your team's activities on the opportunities with the greatest potential revenue increase.



How: In Analytics Studio, click **Create**, select **App**, and click **Start from Template**. Select the Einstein Discovery for Sales Analytics template. The wizard guides you the rest of the way.

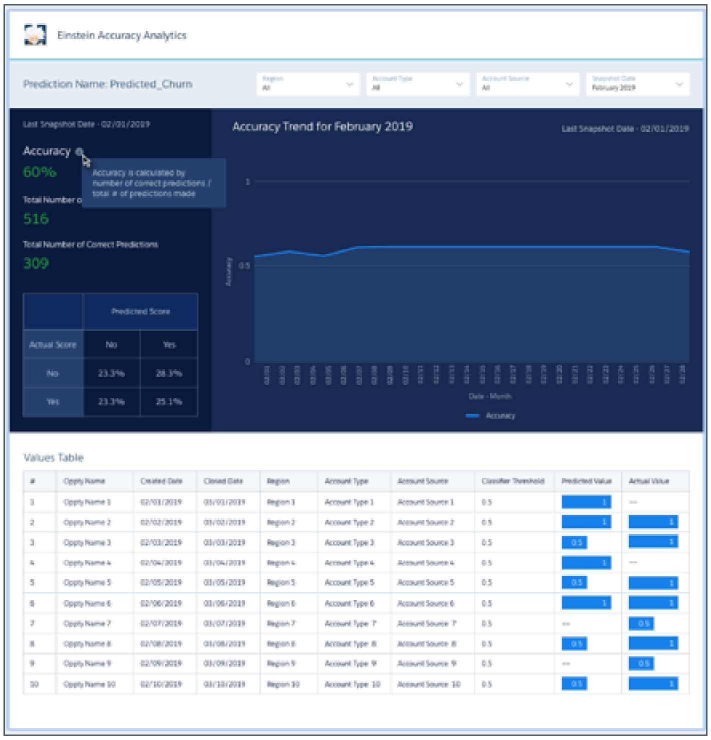
Make Einstein Discovery Predictions More Precise with the Accuracy Analytics Template

Looking for a quick way to fine-tune insights from Einstein Discovery? Use the Einstein Accuracy Analytics template to analyze and improve the accuracy of predictions from Einstein Discovery stories.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To create an app from the Einstein Accuracy Analytics template, you must have an Einstein Analytics Plus license.

How: In Analytics Studio, go to the **Model Manager**, select the model you'd like to analyze, and click the **Analyze Accuracy** button. Follow the on-screen instructions, then open the dashboard, which assesses the accuracy of the model's previous predictions.



Create the Latest Version of the Einstein Adoption Analytics App Without Installing a Managed Package

Create an app from the Adoption Analytics template following the standard Analytics app creation process. No more downloading and configuring a managed package to extract Analytics asset metadata! In just a few clicks, you get an app that measures how your team uses Analytics apps, dashboards, lenses, and datasets.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To create an app from the Analytics Adoption template, you must have an Einstein Analytics Growth or Einstein Analytics Plus license.

Why: The Analytics Adoption app gives you ready-made insights into how your team uses Analytics assets. See how each member of your team uses Analytics assets—apps, dashboards, and lenses. The app also shows how app assets use datasets by mapping apps, dashboards, and lenses to the datasets where they get data.

How: In Analytics Studio, click **Create**, select **App**, and click **Start from Template**. If you're creating the app for the first time, select the Adoption Analytics template. The wizard guides you the rest of the way.

If you've already created the app, click the **New version available** link in the app's home page and follow the wizard's instructions. On its third page, the wizard give you the choice to upgrade the current app or create a new app. If you choose upgrade, Analytics retains the historical log data in the WaveChangeEA dataset that you use to track Analytics adoption. For a new app, Analytics leaves the current app as is and creates a new app. The new app collects log data starting when you create it and updates it based on future asset use.

Analytics App Building: Totals and Subtotals, Dimension Formulas, Asset Version History

You can add totals and subtotals directly to values and compare tables in dashboards and lenses. Formulas now support using string values to create labels, set simple buckets, or add image URLs without writing SAQL. Save snapshots of your Einstein Analytics dashboards, lenses, and dataflows.

IN THIS SECTION:

Display Grand Totals and Subtotals in Tables (Beta)

You can add totals and subtotals directly to values and compare tables in dashboards and lenses. Previously, you had to add columns to a table and run these calculations yourself. Now you can add or remove grand totals and subtotals with just a few clicks.

Compare Metrics Against Qualitative Benchmarks with Bullet Charts

Bullet charts measure a value against a target, such as current revenue with target revenue. For example, you can show revenue for each lead source against target revenue in a set of opportunities.

Use String Values in Formulas in the Compare Table Column Editor

Create formulas with string values without using the SAQL editor. Now you can write simple statements directly in the Explorer's compare table formula editor. Use string values to create labels, concatenate dimension values, provide simple buckets, or add image URLs.

Apply Conditional Formatting to Calculated Dimensions

Select your calculated dimensions when applying conditional formatting in tables and charts. In the Explorer's Formatting panel, add any string as a value for conditional formatting. You're no longer restricted to values available in the dataset.

Format Numbers Your Way in Every Chart and Table

On-demand number formatting is now available in the Explorer. You can assign number formats for each measure field in charts and tables. You can also remove number formats and revert to formats used in the dataset.

Explore Salesforce Data Directly, Without Datasets

With Einstein Analytics Salesforce Direct, you can explore Salesforce objects directly from the dashboard designer. You no longer need to set up replication or complete any data prep to bring Salesforce data into datasets. With Salesforce Direct, you can explore data declaratively using the UI or create custom queries using Salesforce Object Query Language (SOQL), and get near real-time insights.

Einstein Analytics Classic Designer Is Retiring

Classic designer is scheduled for retirement in all Salesforce orgs in November 2019. Starting with Winter '20, you can't create, edit, or open dashboards in Classic designer. Be sure to convert your Classic designer dashboards to the new dashboard designer now.

Steps in Dashboards Are Now Called Queries

Queries, previously called steps, retrieve data from one or more data sources, including datasets, Salesforce objects, user-defined data, or external data. You can display query results in different formats (such as a table or chart) or use them as inputs to another query. We changed the name based on customer feedback, but your processes and workflows haven't changed.

Create Custom Queries With User-Defined Values

We made it easier to create and edit custom queries (previously known as static steps) in your dashboards. Custom queries are a powerful tool for creating interactions across widgets in dashboards. Now you select datasets and fields for your query from a list, instead of entering them manually. No more typos or having to remember developer names. You can edit a query, change a query name, add and remove columns, add row values, reorder columns, and pick values from a dataset. All this without switching to JSON.

Preview Your Custom Onboarding Videos in the Dashboard Designer

Building an app is one thing, but training your users how to use it is another. Widget-level onboarding empowers you to bring learning materials front and center to train and engage users and ultimately drive adoption. Now when you add the Learn action to a dashboard widget, you can preview the video you're planning to provide to dashboard users.

Collaborate on a New Version of a Dashboard Behind the Scenes with Publisher Feature (Pilot)

The publisher feature lets you and your team review, test, and edit a draft version of a dashboard while keeping the current version live. Analytics Studio users continue to see the current live version until you're ready to publish a new one.

Calculate Grand Totals and Subtotals with the rollup Modifier and grouping() Function in SAQL

Calculate subtotals of grouped data in your SAQL query using the `rollup` modifier on the `group by` statement, then work with subtotaled data using `grouping()`. For example, to see the subtotaled value of opportunities by type and lead source, roll up the type and lead source groups. Then label the subtotals with the grouping function.

Back Up and Restore Your Analytics Dashboards, Lenses, and Dataflows with Asset Version History

Asset Version History automatically saves snapshots of your Einstein Analytics dashboards, lenses, and dataflows. When you save an asset, a snapshot of the asset is preserved, including conditional formatting. You can even enter a description for the snapshot of a dashboard or lens in the Save dialog box. Einstein Analytics also saves a snapshot when you create an app from a template or upgrade an app to a new version. Use REST API calls to add or change descriptions, preview the JSON of earlier versions of an asset, and revert an asset to an earlier version.

List and Get Saved Views and Execute Multiple Queries with the Analytics Web SDK

Using the Analytics Web SDK, you can now list and get saved views of dashboards, and you can execute multiple queries in a Lightning component.

Get and Set Dashboard States with the Analytics Web SDK

You can now get and set dashboard state, similar to the values in saved views, by calling getState and setState on the wave:waveDashboard component. You can also determine whether a dashboard has finished loading by calling isLoaded.

Give Your Lightning Components the Power of the Analytics Template SDK

Call the Analytics Template SDK from a Lightning component to accomplish many of the same tasks that the template and folder REST API calls can do. You can list available templates, get information about a template, and create a folder from a template. You can also list available folders; update the metadata of a folder; and upgrade, reset, or delete a folder.

Enable CDN to Load Einstein Analytics Faster

Load Einstein Analytics and other Lightning Experience apps faster by enabling Akamai's content delivery network (CDN) to serve the static content for Lightning Component framework. A CDN generally speeds up page load time of static content by storing cached versions in multiple geographic locations. Einstein Analytics assets automatically use the CDN for customers who enabled CDN in their orgs before Winter '20. This setting is disabled by default for existing orgs and enabled by default for new orgs.

Display Grand Totals and Subtotals in Tables (Beta)

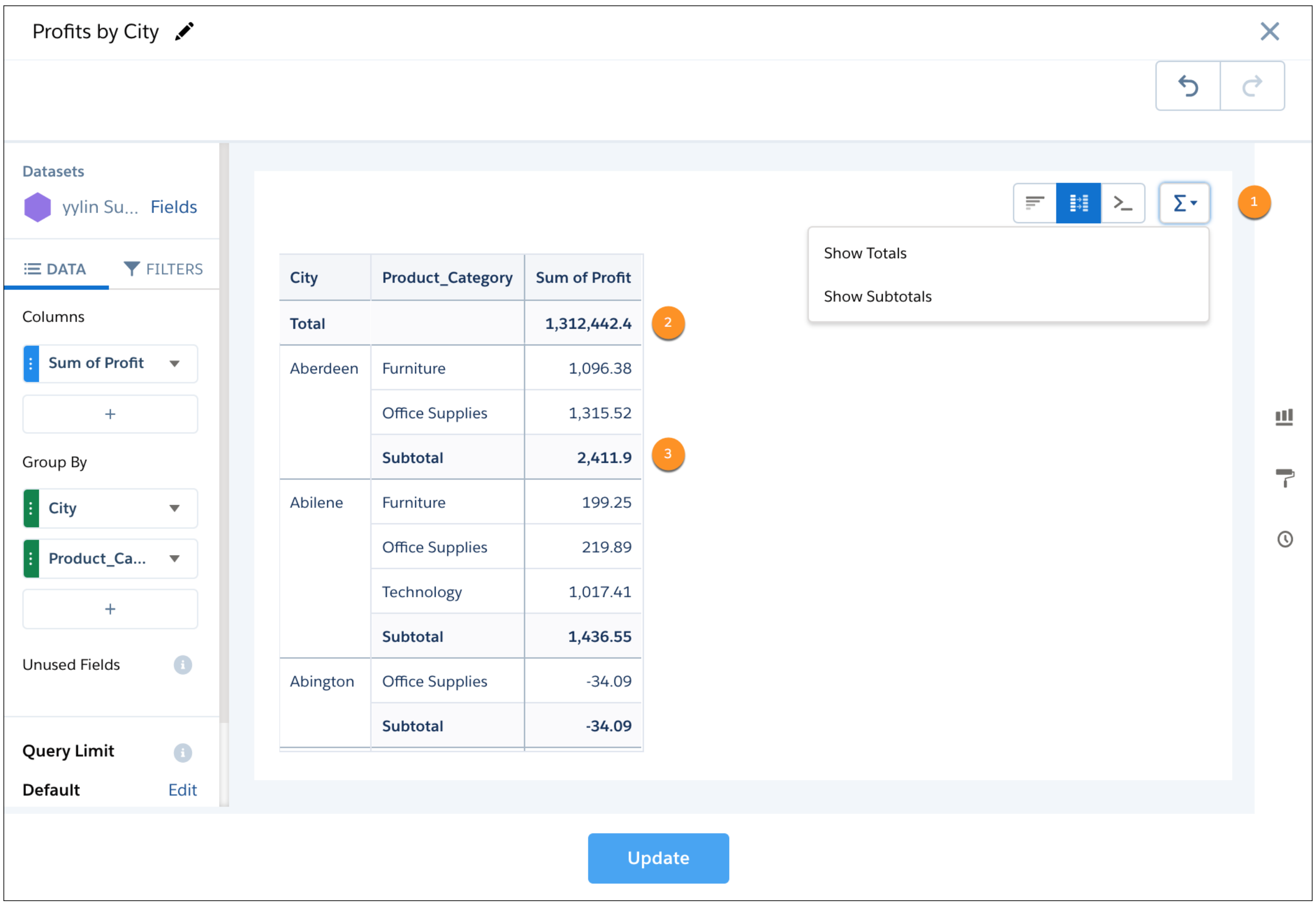
You can add totals and subtotals directly to values and compare tables in dashboards and lenses. Previously, you had to add columns to a table and run these calculations yourself. Now you can add or remove grand totals and subtotals with just a few clicks.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

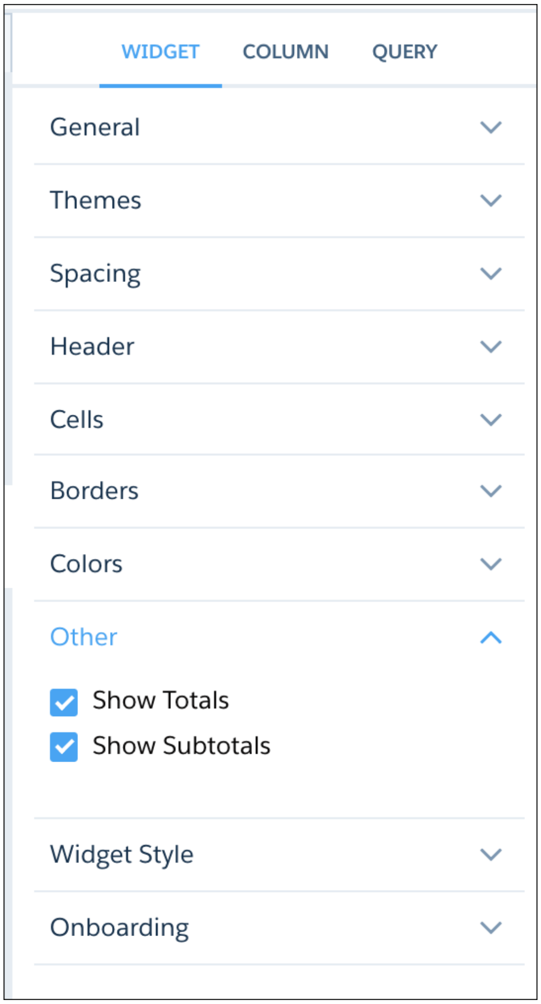
Note: As a beta feature, totals and subtotals is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

How: From Setup, enter `Analytics` in the `Quick Find` box and select **Settings**. Select **Enable Subtotals for Einstein Analytics tables** to use this feature.

Click  to add or hide totals and subtotals in the table editor (1). Totals are added as a row at the top of the table (2), and subtotals are added as a row directly below each grouping (3). For subtotals, your dataset requires at least two groupings.



You can also show or hide totals and subtotals in the widget properties panel.

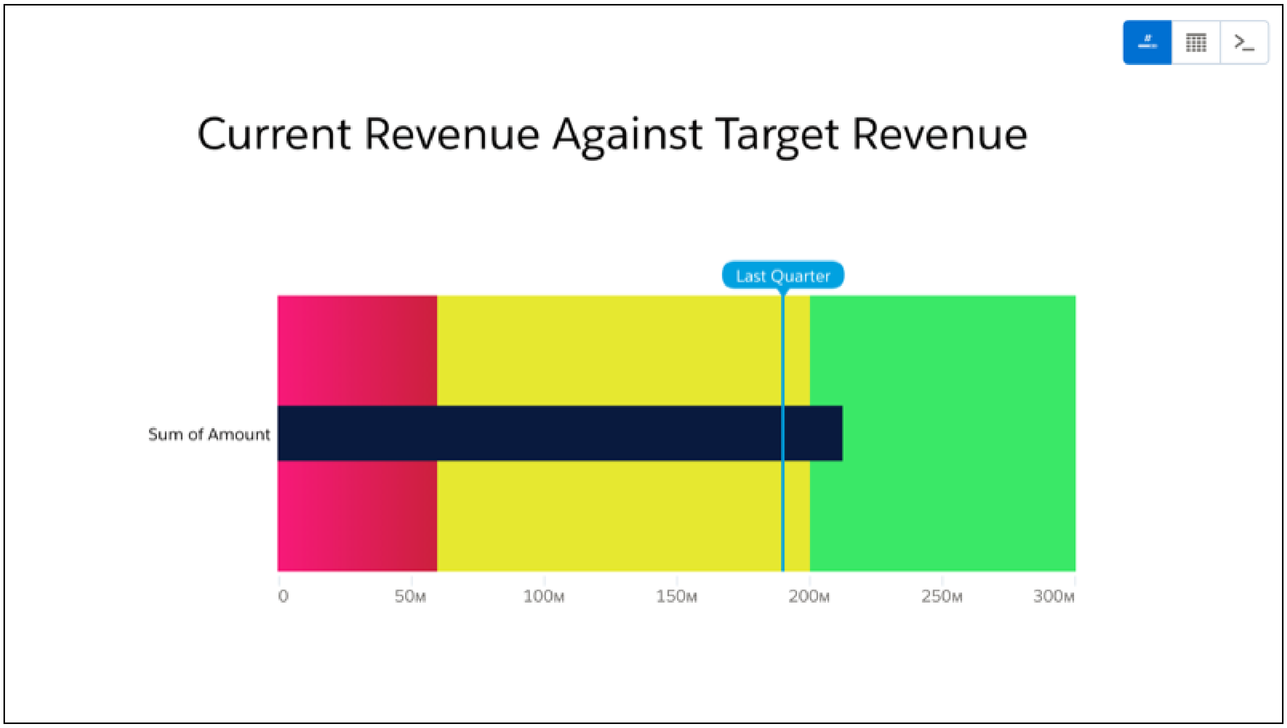


Compare Metrics Against Qualitative Benchmarks with Bullet Charts

Bullet charts measure a value against a target, such as current revenue with target revenue. For example, you can show revenue for each lead source against target revenue in a set of opportunities.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: The background bar represents target revenue, divided into three sections that represent qualitative performance: red for bad, yellow for good, and green for great. The black bar (also known as a bullet) shows the current revenue. The blue reference line marks last quarter's revenue.

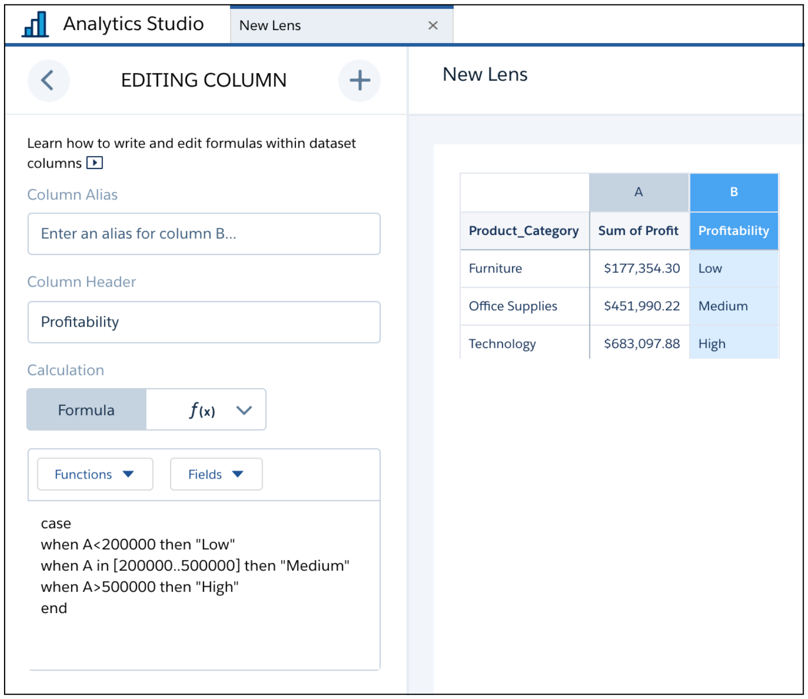


Use String Values in Formulas in the Compare Table Column Editor

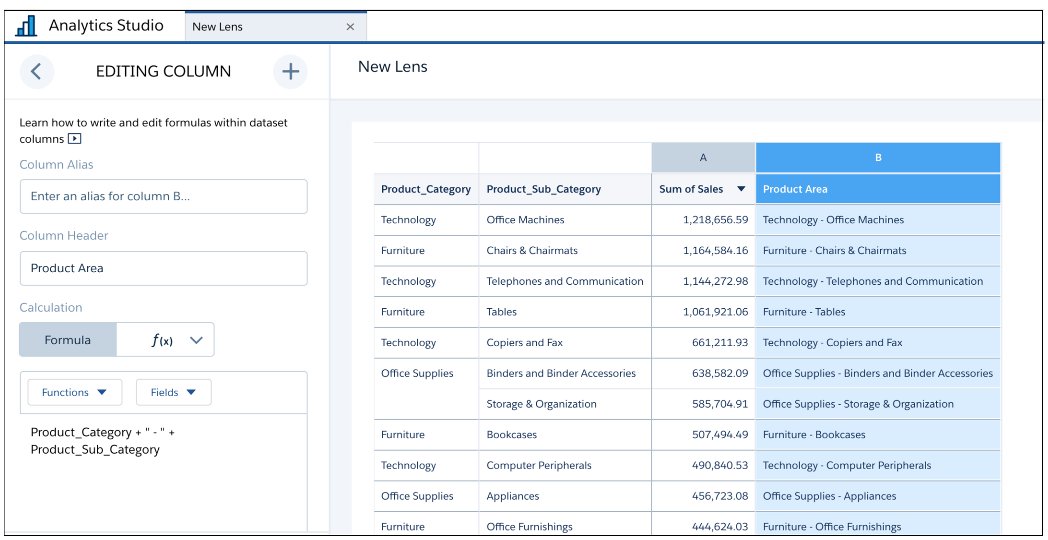
Create formulas with string values without using the SAQL editor. Now you can write simple statements directly in the Explorer's compare table formula editor. Use string values to create labels, concatenate dimension values, provide simple buckets, or add image URLs.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

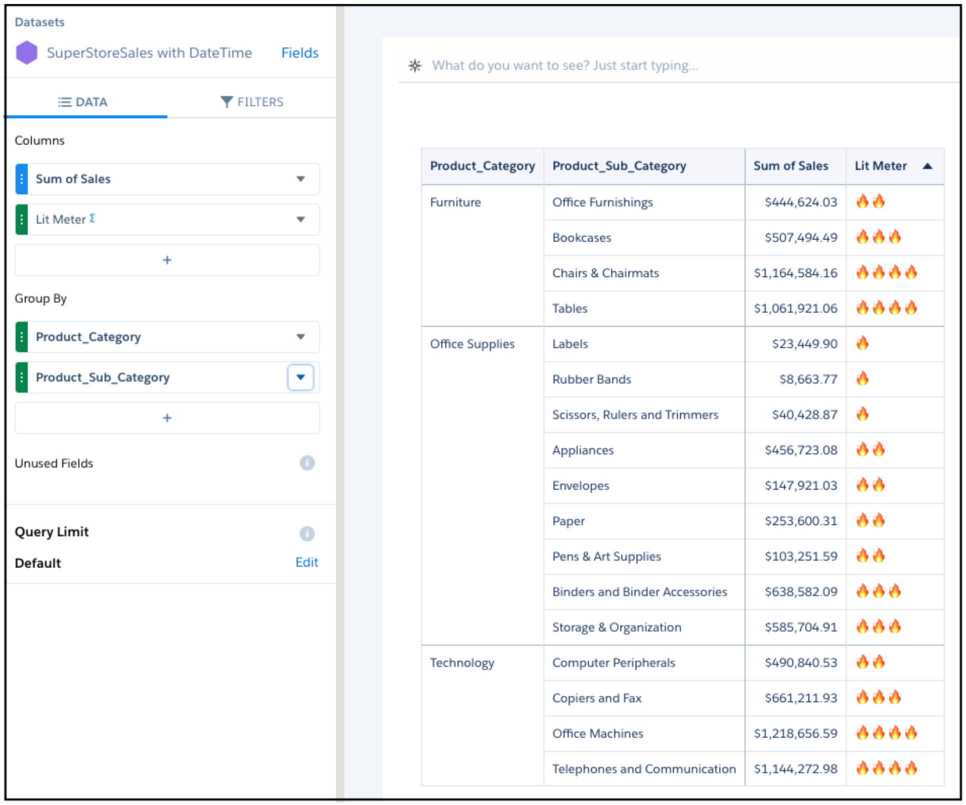
How: Edit a column and enter your string formula. In this example, the formula creates simple buckets.



This formula concatenates two dimension fields.



The Lit Meter column in this table has a string formula that returns a number of icons.



Tip: Columns based on string formulas can't be used as dimensions for grouping in charts, but they can be used to apply conditional formatting in charts.

SEE ALSO:

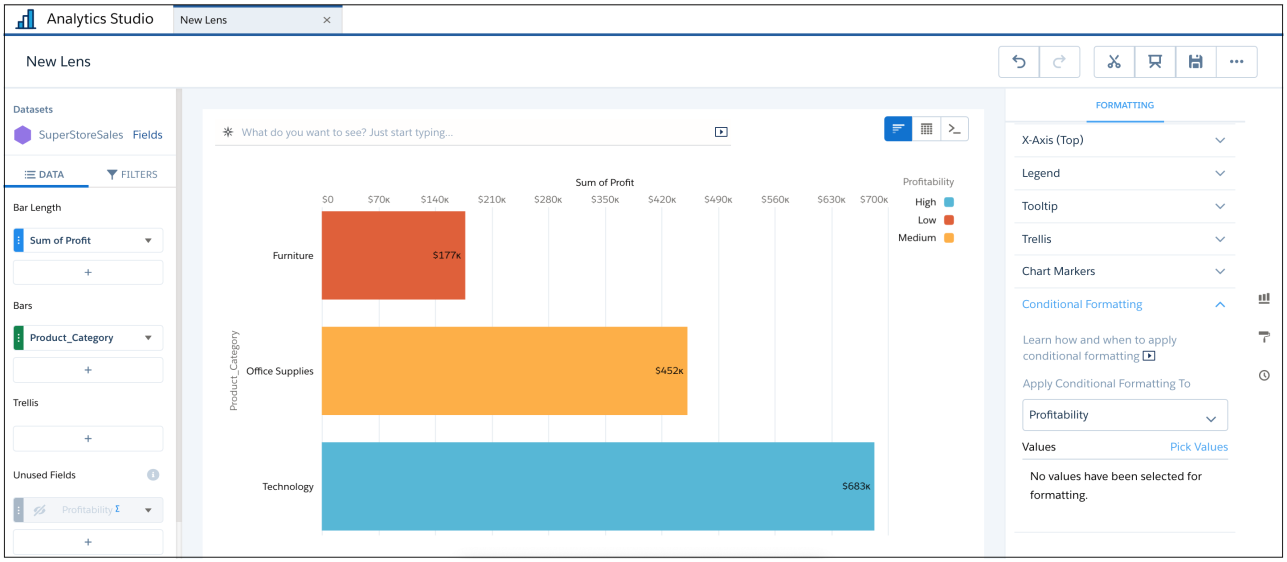
Apply Conditional Formatting to Calculated Dimensions

Apply Conditional Formatting to Calculated Dimensions

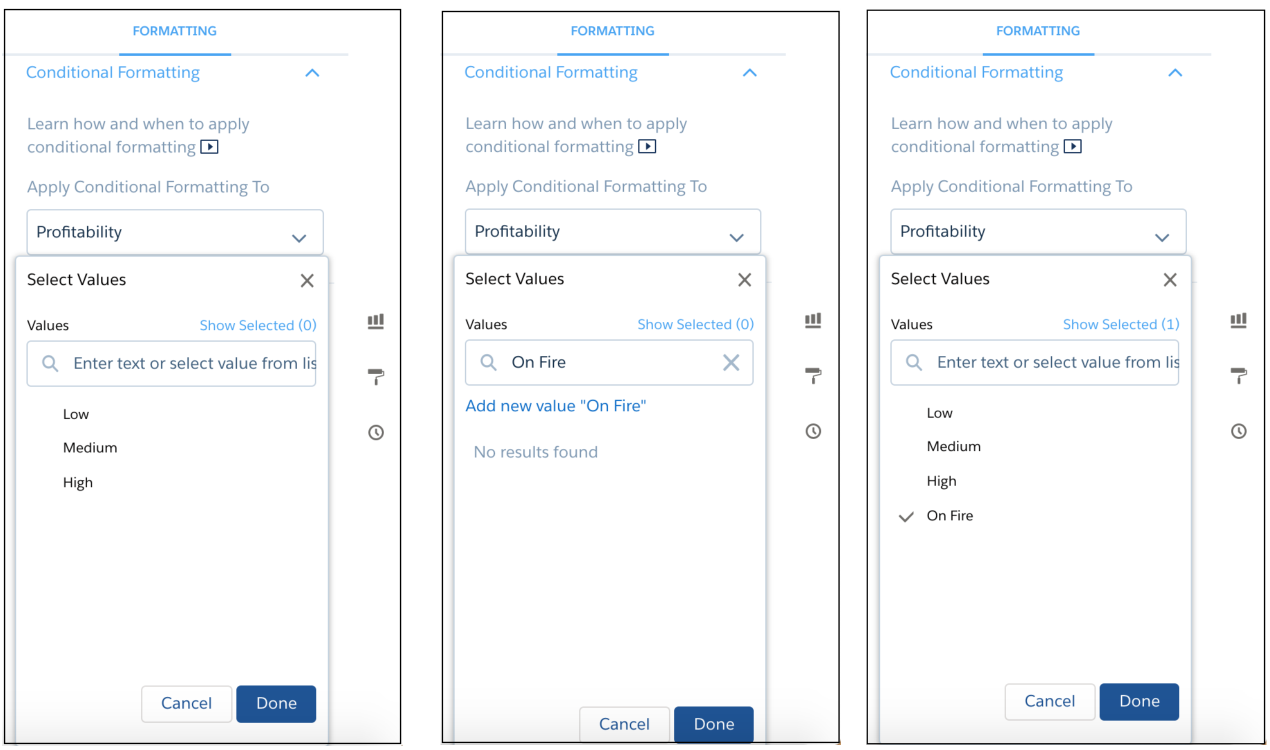
Select your calculated dimensions when applying conditional formatting in tables and charts. In the Explorer's Formatting panel, add any string as a value for conditional formatting. You're no longer restricted to values available in the dataset.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: In the Conditional Formatting section of the Formatting panel, select your calculated dimension, and click **Pick Values**.



Enter a custom string value, and click to add it to the Select Values list.



SEE ALSO:

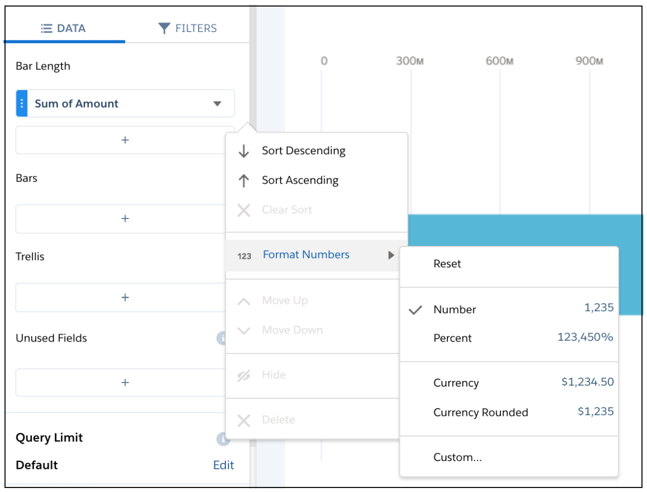
Use String Values in Formulas in the Compare Table Column Editor

Format Numbers Your Way in Every Chart and Table

On-demand number formatting is now available in the Explorer. You can assign number formats for each measure field in charts and tables. You can also remove number formats and revert to formats used in the dataset.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: Select the new **Format Numbers** option in the field menu, and choose a format. If the current format is different from the field's format in the dataset, the Reset option appears in the submenu. These options are also available in the compare table column editor.



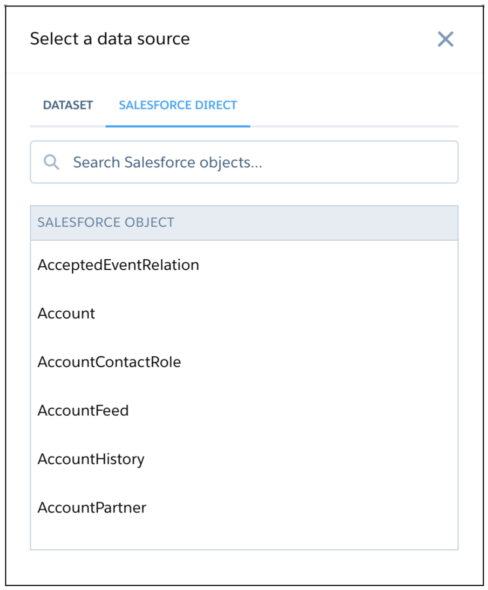
To assign a custom format, select **Custom**.

Explore Salesforce Data Directly, Without Datasets

With Einstein Analytics Salesforce Direct, you can explore Salesforce objects directly from the dashboard designer. You no longer need to set up replication or complete any data prep to bring Salesforce data into datasets. With Salesforce Direct, you can explore data declaratively using the UI or create custom queries using Salesforce Object Query Language (SOQL), and get near real-time insights.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: In the dashboard designer, click **Create Query**, and then select the Salesforce Direct tab. Select an object and the dashboard designer's explorer opens with the object's data ready to explore.



Important: Salesforce Direct widgets aren't automatically refreshed but are updated when the dashboard is refreshed.

Take the following into consideration.

- For best performance, use Salesforce Direct only where data changes often and scheduled dataflows aren't frequent enough. Queries on Salesforce objects with a large number of records could increase query time. Use filters to limit the data that's queried. For example, rather than querying all cases opened, query only cases opened within a defined period of time.
- Salesforce Direct is accessible only in the dashboard designer. After a Salesforce Direct widget is added to a dashboard, you can select **Explore** from the widget's dropdown and open a Salesforce Direct exploration in a new tab. However, saving custom queries on Salesforce Direct lenses isn't supported.
- In the explorer, these features aren't available: compare tables; totals and subtotals in tables; conversational querying; suggested charts; record actions; drilling into data by hour, minute, or second; and applying filters based on aggregated measures or Boolean logic.
- In the dashboard designer, only chart, number, and table widgets are supported, and these options aren't available: creating a query from an sObject in the queries panel (+ button); broadcasting or faceting between SOQL queries; data source linking; record actions; and global filters.
- These sharing options aren't available from a Salesforce Direct widget: Download as CSV, Download as Excel, and Export to Quip.
- These actions aren't available from a Salesforce Direct widget: Annotate, Set Notification, and Subscribe.
- Maximum limits on Analytics API calls apply to Salesforce Direct.
- Salesforce Direct queries are run in user context, and the current user's permissions, field-level security, and sharing rules apply.

Einstein Analytics Classic Designer Is Retiring

Classic designer is scheduled for retirement in all Salesforce orgs in November 2019. Starting with Winter '20, you can't create, edit, or open dashboards in Classic designer. Be sure to convert your Classic designer dashboards to the new dashboard designer now.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

SEE ALSO:

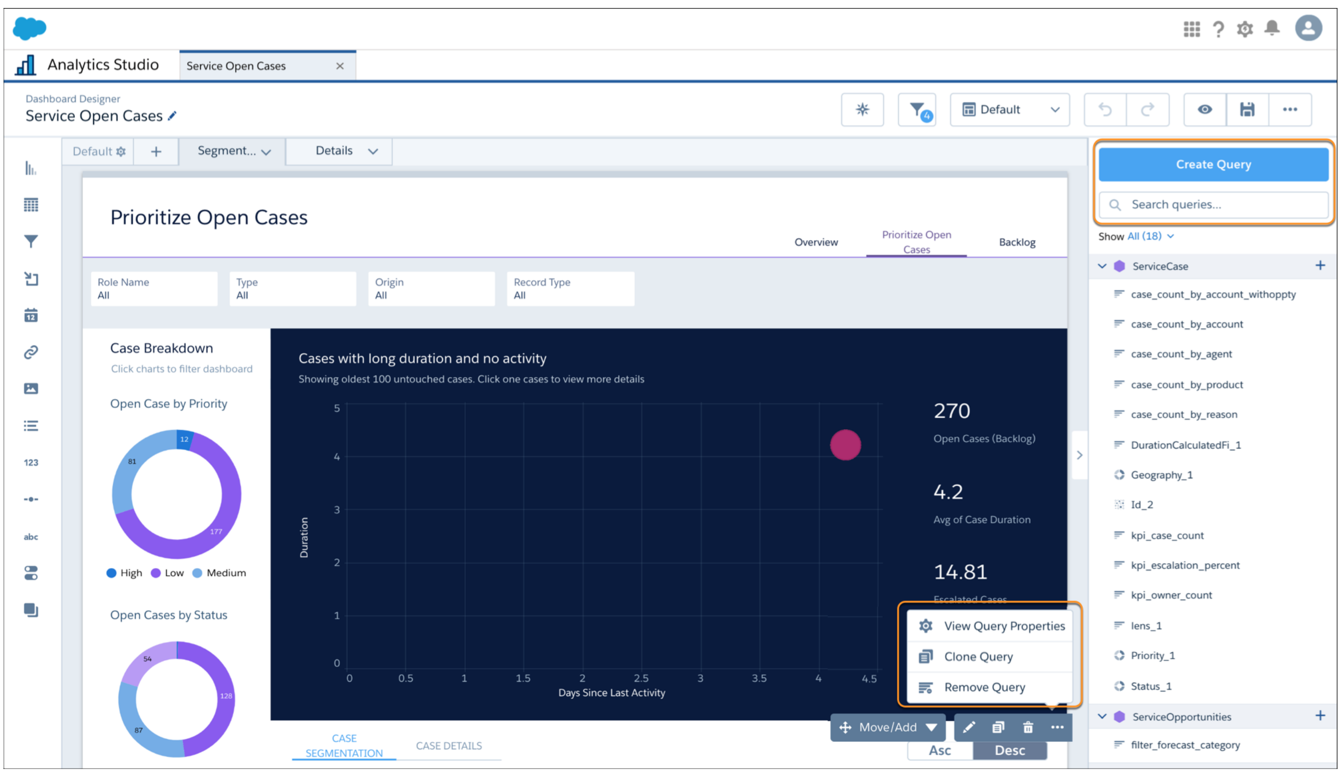
Salesforce Help: Convert Your Classic Designer Dashboard to Dashboard Designer (can be outdated or unavailable during release preview)

Steps in Dashboards Are Now Called Queries

Queries, previously called steps, retrieve data from one or more data sources, including datasets, Salesforce objects, user-defined data, or external data. You can display query results in different formats (such as a table or chart) or use them as inputs to another query. We changed the name based on customer feedback, but your processes and workflows haven't changed.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: We updated our documentation and the entire Einstein Analytics product, including Dashboard Designer and Explorer, to reflect the name



These are the main name changes throughout the product.

Previous Name	New Name
Step	Query

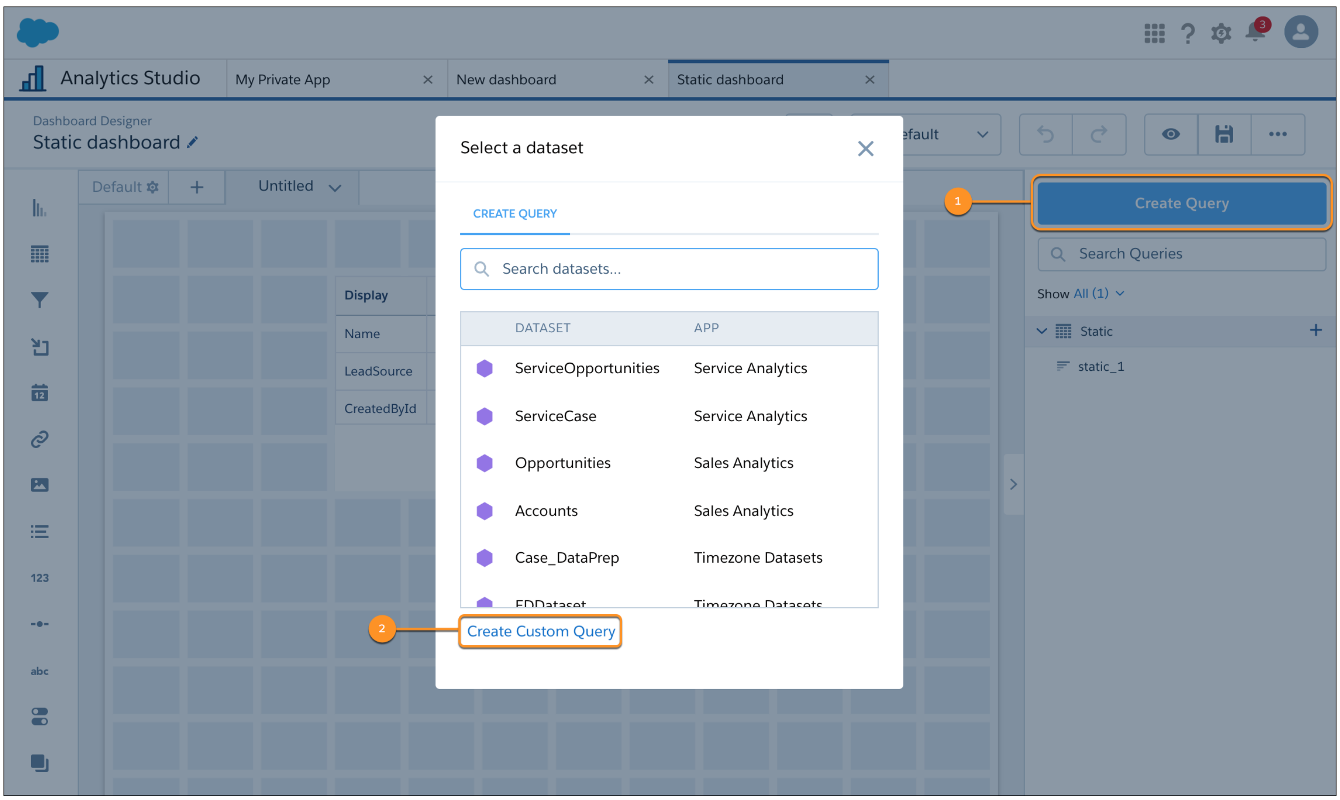
Previous Name	New Name
Static step	Custom query
Query step	Query

Create Custom Queries With User-Defined Values

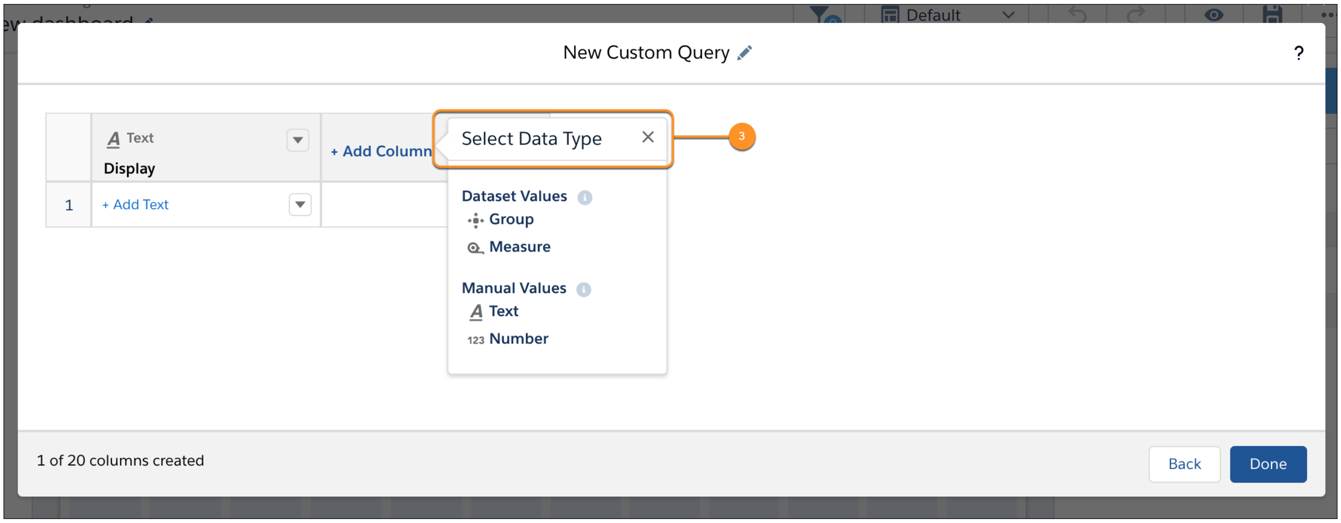
We made it easier to create and edit custom queries (previously known as static steps) in your dashboards. Custom queries are a powerful tool for creating interactions across widgets in dashboards. Now you select datasets and fields for your query from a list, instead of entering them manually. No more typos or having to remember developer names. You can edit a query, change a query name, add and remove columns, add row values, reorder columns, and pick values from a dataset. All this without switching to JSON.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: To create a custom query, click **Create Query** (1). Click **Create Custom Query** (2).



Add dimensions, measurements, text, and numeric values to your custom query (3)



Note: To use a custom query for linking, make the column the first column in the dialog.

SEE ALSO:

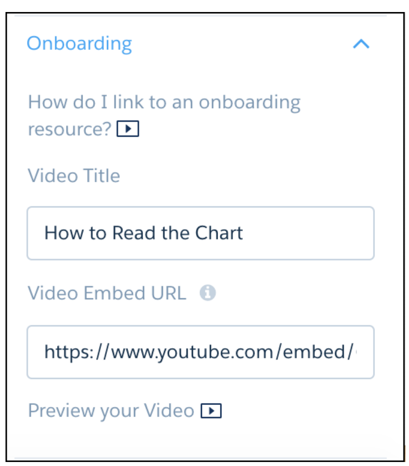
Salesforce Help: Create a Custom Query With User-Defined Values (can be outdated or unavailable during release preview)

Preview Your Custom Onboarding Videos in the Dashboard Designer

Building an app is one thing, but training your users how to use it is another. Widget-level onboarding empowers you to bring learning materials front and center to train and engage users and ultimately drive adoption. Now when you add the Learn action to a dashboard widget, you can preview the video you're planning to provide to dashboard users.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: The preview option appears when you enter an embed URL for the Onboarding property in the dashboard designer. Click the player icon to verify your URL and view the video.



Collaborate on a New Version of a Dashboard Behind the Scenes with Publisher Feature (Pilot)

The publisher feature lets you and your team review, test, and edit a draft version of a dashboard while keeping the current version live. Analytics Studio users continue to see the current live version until you're ready to publish a new one.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

> Note: We provide the publisher feature to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. The feature isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

Why: With the publisher feature, you can add yourself as a dashboard publisher, which gives lets you review and publish dashboard versions. Once you are on the publishers list, you can set previous versions as live and work on the next draft. Publishers always see the draft while users not on the publishers list continue to see the live version.

How:

> Note: To use the publisher feature, contact your Salesforce representative to ask for the Einstein Analytics Asset Version permission to be enabled in your org. The permission is automatically enabled in SFDX scratch orgs.

Open an Analytics dashboard, click the ••• icon at upper right, and select **Version History**. Then open the **Publishers** tab and click **Add yourself as a Publisher**. Other members of the team with Editor or Manager access to the app that the dashboard is part of can do the same thing. As a publisher, you can review the draft version of a dashboard. When you decide that the draft is ready for prime time, you can make it live for other Analytics users

Calculate Grand Totals and Subtotals with the `rollup` Modifier and `grouping()` Function in SAQL

Calculate subtotals of grouped data in your SAQL query using the `rollup` modifier on the `group by` statement, then work with subtotaled data using `grouping()`. For example, to see the subtotaled value of opportunities by type and lead source, roll up the type and lead source groups. Then label the subtotals with the grouping function.

Where: This feature is available in Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To use SAQL, you must have an Analytics Platform license.

Why: Invoking `rollup` adds rows to your query results with null values for dimensions and subtotaled results for measures. Invoking `grouping()` returns 1 if null dimension values are due to higher-level aggregates, which usually indicates that the row is a subtotal, otherwise it returns 0.

Using `grouping()` with `rollup` lets you work with subtotaled data. After you subtotal data, common next steps include logically evaluating the subtotaled data with a case statement, or filtering it with a filter statement.

How: Use `rollup` to subtotal opportunities by type and then by lead source. Then use `grouping()` to label the subtotaled row.

To calculate subtotals, open the SAQL editor in the dashboard. Instead of grouping data by a field, specify the `rollup` modifier as the group, and pass the fields to subtotal—`Type` and `LeadSource`—as parameters. Set `q = group q by rollup('Type', 'LeadSource');`. Here's the full query.

```
q = load "opportunityData";
q = group q by rollup('Type', 'LeadSource');
q = order q by ('Type', 'LeadSource');
q = foreach q generate
    'Type' as 'Type',
```

```
    'LeadSource' as 'LeadSource',
    sum('Amount') as 'sum_Amount';
```

The query results show the sum of the amount by opportunity type and then by lead source. Subtotaled and grand-totaled rows have null values for dimensions.

Type	LeadSource	Sum of Amount
Existing Business	Advertisement	6,870,000
	Internet	6,660,000
	Partner	9,500,000
	Trade Show	39,860,000
	Word of mouth	23,400,000
	-	86,290,000
New Business	Advertisement	87,760,000
	Partner	6,750,000
	Trade Show	7,200,000
	Word of mouth	24,310,000
	-	126,020,000
-	-	212,310,000

Sometimes, null values in place of labeled totals can confuse query results. Avoid this confusion by labeling totals as `All Types` or `All Lead Sources` using case statements with `grouping()` functions.

```
q = load "opportunityData";
q = group q by rollup('Type', 'LeadSource');
q = order q by ('Type', 'LeadSource');
q = foreach q generate
    (case
        when grouping('Type') == 1 then "All Types"
        else 'Type'
    end) as 'Type',
    (case
        when grouping('LeadSource') == 1 then "All Lead Sources"
        else 'LeadSource'
    end) as 'LeadSource',
    sum('Amount') as 'sum_Amount';
```

Now the query results include labeled totals.

Type	LeadSource	Sum of Amount
Existing Business	Advertisement	6,870,000
	Internet	6,660,000
	Partner	9,500,000
	Trade Show	39,860,000
	Word of mouth	23,400,000
	All Lead Sour...	86,290,000
New Business	Advertisement	87,760,000
	Partner	6,750,000
	Trade Show	7,200,000
	Word of mouth	24,310,000
	All Lead Sour...	126,020,000
All Types	All Lead Sour...	212,310,000

Back Up and Restore Your Analytics Dashboards, Lenses, and Dataflows with Asset Version History

Asset Version History automatically saves snapshots of your Einstein Analytics dashboards, lenses, and dataflows. When you save an asset, a snapshot of the asset is preserved, including conditional formatting. You can even enter a description for the snapshot of a dashboard or lens in the Save dialog box. Einstein Analytics also saves a snapshot when you create an app from a template or upgrade an app to a new version. Use REST API calls to add or change descriptions, preview the JSON of earlier versions of an asset, and revert an asset to an earlier version.

Where: This feature is available in Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: To view saved versions of a dashboard or revert a dashboard, edit the dashboard, click the **More** button, and click **Version History**. For lenses and dataflows, use the following REST API calls.

To obtain history records for a dashboard, lens, or dataflow, use these GET commands.

- GET /services/data/v47.0/wave/dashboards/<dashboardId>/histories
- GET /services/data/v46.0/wave/dashboards/<lensId>/histories
- GET /services/data/v46.0/wave/dataflows/<dataflowId>/histories

When you save a dashboard, lens, or dataflow, Einstein Analytics assigns a sequential name to the version. Use a PATCH command to add a description to a history record or change an existing description.

- PATCH /services/data/v47.0/wave/dashboards/<dashboardId>/histories/<historyId>
- Request body: {"label" : "new description"}

To revert an asset, find revertUrl in the history record. Perform a PUT command on the value of revertUrl.

- `PUT /services/data/v46.0/wave/dashboards/<dashboardId>/bundle`
- Request body: `{"historyId": "<historyId>", "historyLabel": "optional description of change"}`

When you revert an asset to an earlier version, you actually create another version that matches the earlier version. If the reverted asset no longer works as expected, you can revert to the previous version.

List and Get Saved Views and Execute Multiple Queries with the Analytics Web SDK

Using the Analytics Web SDK, you can now list and get saved views of dashboards, and you can execute multiple queries in a Lightning component.

Where: These changes apply to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: To list and get saved views of dashboards, use the invokeMethod method of the wave:sdk component to call listDashboardSavedViews, getDashboardInitialSavedView, and getDashboardSavedView.

To execute more than one query, we recommend using the executeQuery method in a Lightning component. You can call executeQuery with code similar to the following.

```
({
init : function(cmp, event, helper) {
    var sdk = cmp.find('wave-sdk');
    var context = {apiVersion: '47'};

    var methodName = 'executeQuery';
    var methodParameters = {
        'query': 'q = load \"0Fbxx0000004JVUCA2/0Fcxx0000004KZcCAM\"; q = group q by
\'Industry\';'
           + ' q = foreach q generate \'Industry\' as \'Industry\', sum(\'AnnualRevenue\')
 as \'sum_AnnualRevenue\';'
             + ' q = order q by \'Industry\' asc; q = limit q 2000;'
    };

    sdk.invokeMethod(context, methodName, methodParameters, $A.getCallback(function (err,
 data){
        if (err !== null) {
            console.error('executeQuery error', err);
        } else {
            var result = data;

            var obj = JSON.parse(result);

            var results = obj.results;
            var records = results.records;

            cmp.set('v.recordsList', records);
            cmp.set('v.queryResult', JSON.stringify(records));
        }
    }))
}
})
```

The query in methodParameters uses the same syntax as a SAQL query for a REST API call to /wave/query.

Get and Set Dashboard States with the Analytics Web SDK

You can now get and set dashboard state, similar to the values in saved views, by calling getState and setState on the wave:waveDashboard component. You can also determine whether a dashboard has finished loading by calling isLoaded.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: A call to getState returns the ID of the current page in the pageId attribute and the current dashboard state in the state attribute. To cleanly convert the payload to a JSON string, use `JSON.stringify(res.payload, null, 4)` or similar.

```
getState : function(component, event, helper) {
    let dashboard = component.find('myDashboard');
    let config = {};

    dashboard.getState(config, function(res, err) {
        if (err) {
            component.set('v.gserrMessage', err);
        }
        if (res) {
            component.set('v.dashboardState', JSON.stringify(res.payload, null, 4));
        }
    });
}
```

In config, the state attribute is required; the pageId attribute is not. Currently, setState returns nothing for the callback.

```
setState: function(component, event, helper) {
    let dashboard = component.find('myDashboard');
    let config = {
        "pageId":"Public_Page",
        "state": {
          "datasets": {},
          "steps": {
            "LeadSource_1": {"values": [],"metadata": {"groups": ["LeadSource"]}},
            "CloseDate_Year_Close_1": {"values": [],"metadata": {
                "groups": ["CloseDate_Year~~~CloseDate_Month~~~CloseDate_Day"]}},
            "StageName_1": {"values": [],"metadata": {"groups": ["StageName"]}},
            "Amount_1": {"values": [],"metadata": {"groups": []}},
            "Type_1": {"values": [],"metadata": {"groups": ["Type"]}},
            "Category_1": {"values": [],"metadata": {"groups": ["Category"]}},
            "all_1": {"values": [],"metadata": {"groups": ["StageName"]}},
            "all_2": {"values": [],"metadata": {"groups": []}},
            "Id_1": {"values": [],"metadata": {"groups": ["Id"]}}
          }
        }
    };

    dashboard.setState(config, function(res, err) {
    });
}
```

The isLoaded attribute is false while the dashboard is loading and true when loading is complete.

Give Your Lightning Components the Power of the Analytics Template SDK

Call the Analytics Template SDK from a Lightning component to accomplish many of the same tasks that the template and folder REST API calls can do. You can list available templates, get information about a template, and create a folder from a template. You can also list available folders; update the metadata of a folder; and upgrade, reset, or delete a folder.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: To call the SDK, use sdk.invokeMethod to specify the method and parameters.

```
sdk.invokeMethod(context, methodName, methodParameters, callback)
```

Enable CDN to Load Einstein Analytics Faster

Load Einstein Analytics and other Lightning Experience apps faster by enabling Akamai's content delivery network (CDN) to serve the static content for Lightning Component framework. A CDN generally speeds up page load time of static content by storing cached versions in multiple geographic locations. Einstein Analytics assets automatically use the CDN for customers who enabled CDN in their orgs before Winter '20. This setting is disabled by default for existing orgs and enabled by default for new orgs.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: To enable CDN, from Setup, enter *`Session`* in the `Quick Find` box, and then select **Session Settings**. Select **Enable Content Delivery Network (CDN) for Lightning Component framework**, and click **Save**. This setting turns on CDN delivery for the static content in the Lightning Component framework. It doesn't distribute your org's data or metadata in a CDN.

If you experience issues, ask your IT department if your company's firewall blocks Akamai CDN content. If your company has IP range restrictions for content served from Salesforce, test thoroughly before enabling this setting.

Einstein Discovery: Code-Free Model Deployment, Gradient Boosting, and Live Prediction Monitoring

Write scores automatically to selected Salesforce fields without coding. Enjoy the benefits of gradient-boosting algorithms in your models. Use live prediction monitoring to fine-tune your models and produce better predictions.

IN THIS SECTION:

Improve Your Models by Comparing Metrics

In Model Metrics, you can now display the metrics for multiple models side by side. See how model metrics stack up against each other. Compare segments to reveal the most important variables in each segment. Use what you learn to improve your models and achieve better predictions.

Improve Model Accuracy with Target Thresholds

When developing a model for a categorical field, you can set an optimal threshold that represents the cutoff for the two buckets you are predicting. For example, you can specify a cost ratio between the false positives and false negatives. Then let Einstein Discovery pinpoint an optimized threshold for the business case associated with your story. The threshold value represents the tradeoff between the true positive and false positive rates.

Speed Up Story Creation with Automated Setup

Let Einstein Discovery select the best data to analyze for your story's goal. It searches your dataset, chooses the columns that correlate to the outcome, and excludes the columns that have no correlation. After your story is created, you can manually change the column selections.

Improve Your Predictions With the Accuracy Analytics App

You can now monitor how well your models predict actual outcomes over time, then use this feedback to fine-tune your models and produce better predictions. You can monitor prediction accuracy for both logistic and linear regressions.

Visualize Model Performance with a Residuals Plot Chart

For logistic regression models in which the outcome variable is a text field, a new residuals plot chart reveals the robustness of your model. A *residual* represents the difference between the model's predicted value and the actual outcome value. An actual outcome is data that is not expected to change because it has reached its *terminal state*. An example of finalized data is the number of items a customer received in a shipment. Define the conditions under which your story's outcome variable has attained its terminal state. That way, Einstein Discovery knows which outcomes to include in the plot chart.

Remove Biased Variables from Your Model

Models built with biased data can produce biased predictions. Disparate impact is one example in which data reflects discriminatory practices toward a particular demographic, such as gender disparities in starting salaries. Einstein Discovery alerts you to variables that are being treated unequally in your model. You can remove disparate impact bias from your predictions to produce more ethical and accountable models.

Speed Up Story Creation for Descriptive-Only Insights

If all you want from your data are What Happened insights, you can skip predictive analysis of your dataset. Story creation is faster because Einstein Discovery doesn't generate predictions and improvements. After your story is created, you can manually add predictive analysis if you change your mind.

Refresh Your Stories with Dataset Updates

When data changes in the source dataset, you can now choose to analyze the updated data instead of the snapshot taken when the story was created. When you open a story, Einstein Discovery notifies you when changes have occurred to columns or rows. Previously, a story was always pinned to the original snapshot of the data.

Crunch More Report Data with Einstein Data Insights

Einstein Data Insights limits have increased. You can now create insights from reports containing up to 500,000 rows and 50 columns of data. In addition, you can create up to 1,000 Einstein Data Insights analyses per org per day.

Create Stories Using Datasets with Predicates

Einstein Discovery can now analyze Einstein Analytics datasets with row-level security predicates and sharing rules that are associated with Salesforce sharing inheritance. All users who access the story can see the results of the story. They don't need the same row-level access as the story creator. Previously, you needed the "Ignore predicate when creating story from dataset" permission, which is deprecated in the Winter '20 release.

Display Einstein Discovery Predictions in Lightning Experience Community Pages

Add Einstein Discovery predictions as a standard component in any Lightning community page. In Community Builder, drag the new Einstein Predictions component onto your community page. Then simply choose a prediction definition, set prediction units, and select display settings. On the community page, predictions are updated in real time, and no writeback to Salesforce is necessary.

Customize the Appearance of Einstein Discovery Predictions on Lightning Experience Record Pages

Customize the look of Einstein Discovery Predictions embedded on Lightning record pages. For logistic regression models (binary classification problems), specify labels that appear when the prediction is higher or lower than the model threshold. Examples: win or loss, retain or churn, and so on. Filter recommendations on how to improve a prediction. Set the maximum number of recommendations or show recommendations that impact the outcome by a minimum percentage.

Get Einstein Predictions in Apex Code

After deploying models with Einstein Discovery, use the `ConnectApi.SmartDataDiscovery.predict` method to get predictions on Salesforce objects in your Apex code.

Einstein Prediction Objects Visible to Privileged Users

Users with certain system permissions now have full access to Einstein Prediction-related Salesforce objects regardless of sharing rules. This occurs in orgs in which predictions are enabled and stories have been created using automated prediction fields.

Retiring Einstein Discovery Classic

We plan to retire Einstein Discovery Classic in Spring '20. Current Einstein Discovery Classic users need the Einstein Analytics Plus license (required for Einstein Discovery in Analytics) to recreate datasets and stories in Analytics Studio. Einstein Discovery Classic will be replaced with the new experience in all Developer Orgs with the Winter '20 release.

Deploy Predictions on Salesforce Records Without Writing Code (Generally Available)

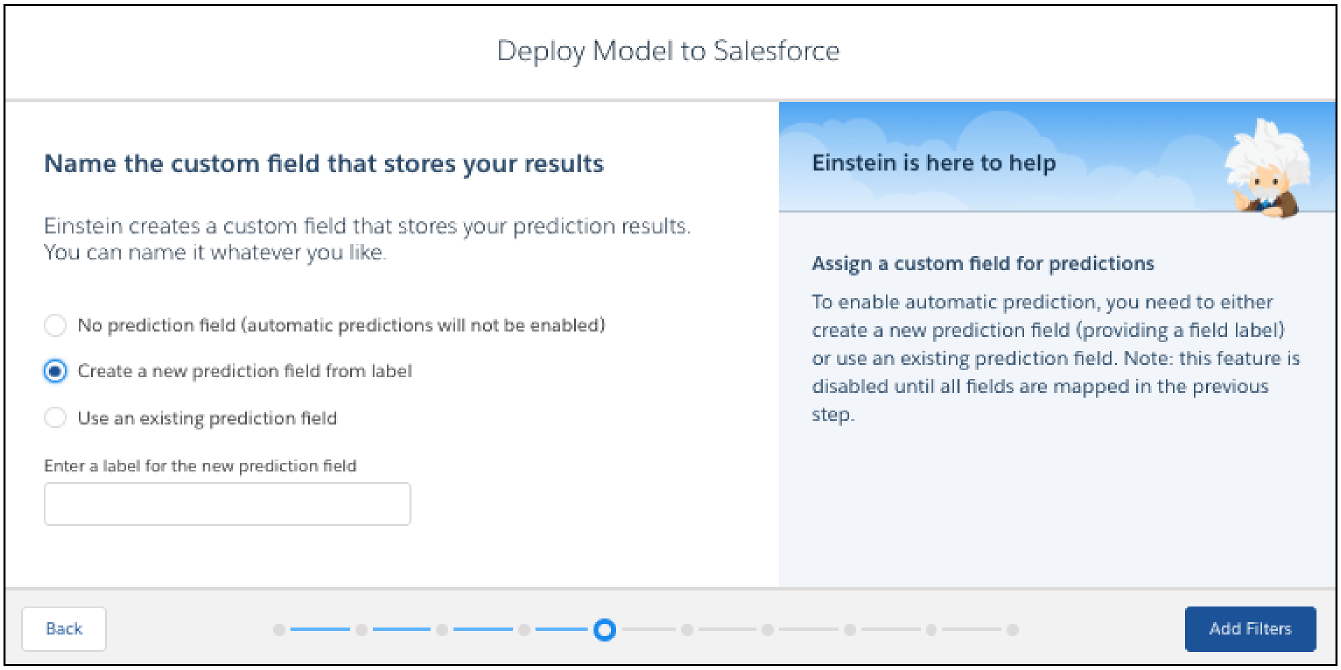
You can write prediction scores automatically to selected Salesforce fields without coding. Easily integrate predictions without involving Process Builder or a managed package with a trigger.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

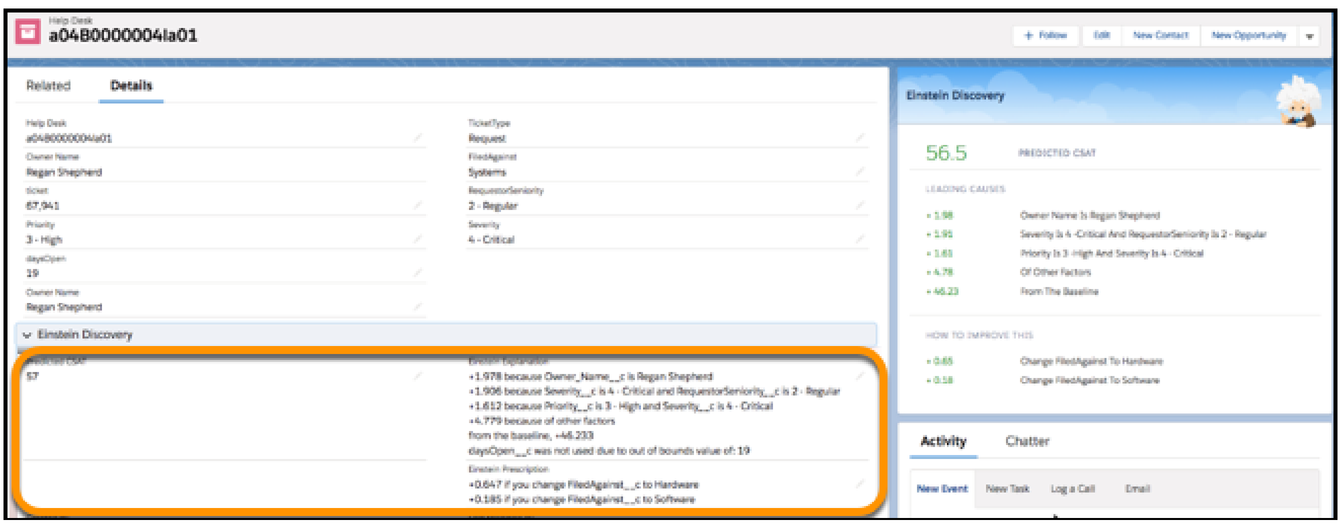
Who: Deploying a model requires the Connect Einstein Discovery Model permission.

How: Deploy the model you want to use for predictions. During deployment, you must map all model fields back to Salesforce fields. When prompted, specify whether to:

- create a new AI Prediction field and specify the label, or
- use an existing AI Prediction field and specify the label



After you deploy the model, add the AI Prediction field to the page layout.



SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Get the Best Predictions of Two Different Models (Pilot)

Previously, Einstein Discovery relied on regression models to predict outcomes. Einstein Discovery now adds a second type of model that is based on a prediction optimization approach known as *gradient boosting* learning algorithms. When you create a story, Einstein Discovery generates predictions using both types of models and shows the results of the model that performed better. You get the best of both approaches.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Note: We provide gradient boosting functionality to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. GBM not generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available products and features. You can provide feedback and suggestions for GBM in the applicable IdeaExchange group in the Trailblazer Community.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

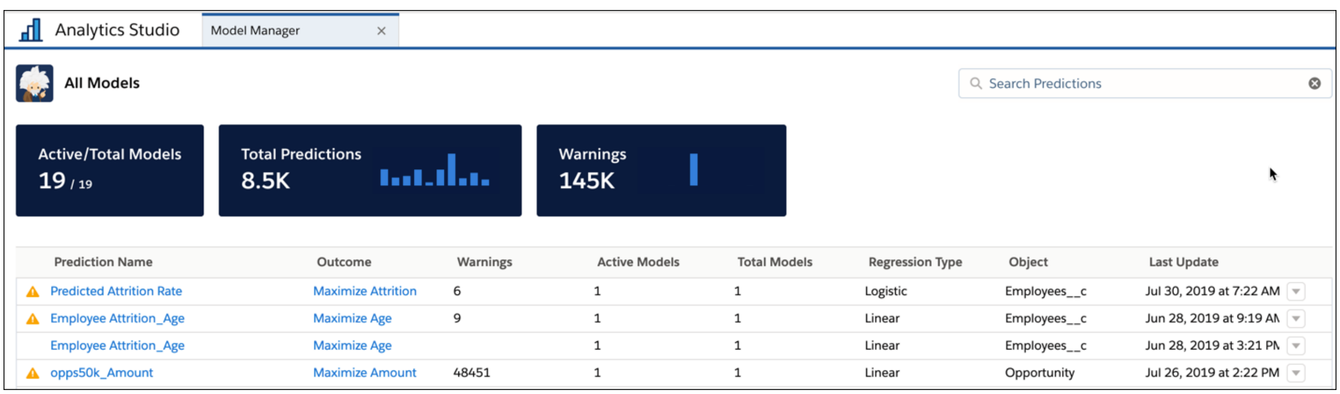
Monitor the Accuracy of Deployed Models in Real Time (Generally Available)

Determine the accuracy of your logistic models by visually comparing predicted outcomes with actual ones. Then use this feedback to fine-tune your model and produce better predictions. An actual outcome is data that is not expected to change because it has reached its *terminal state*. An example of finalized data is the date on which an order shipped. Define the conditions under which your story's outcome variable has attained its terminal state. That way, Einstein Discovery knows which outcomes to include in the performance analysis.

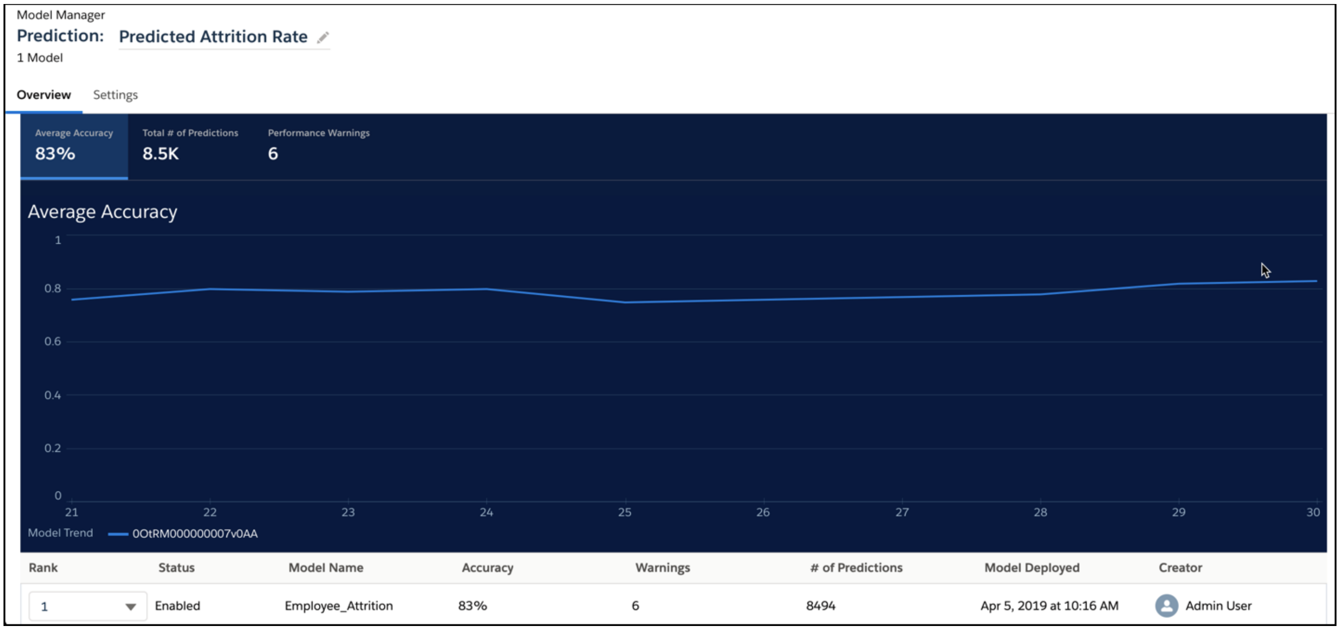
Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Viewing model accuracy requires the Connect Einstein Discovery Model permission.

How: Open the Model Manager to see a summary of active models.



View an active model. In the following example for a logistic model, a live graph shows its average accuracy (% of correct predictions) over time.



SEE ALSO:

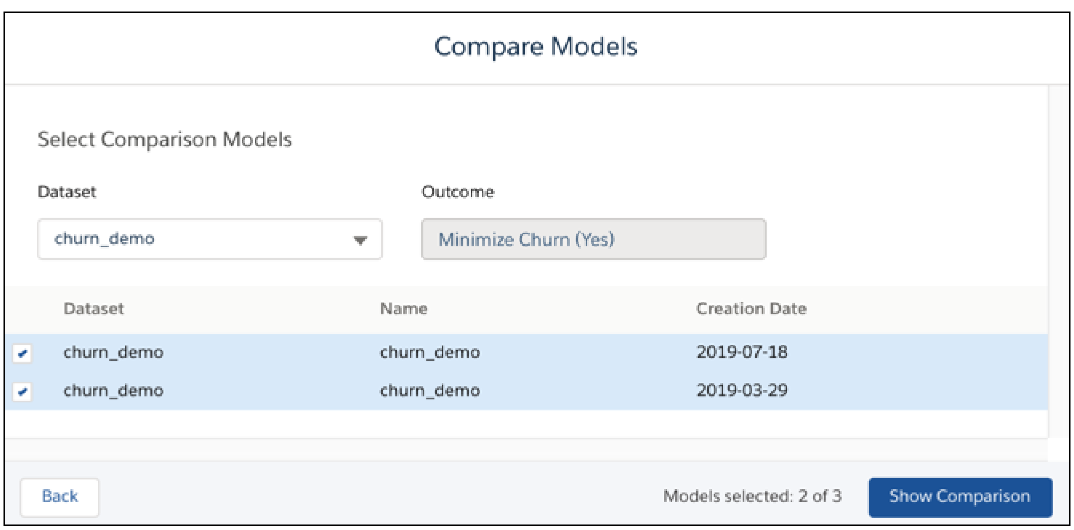
Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Improve Your Models by Comparing Metrics

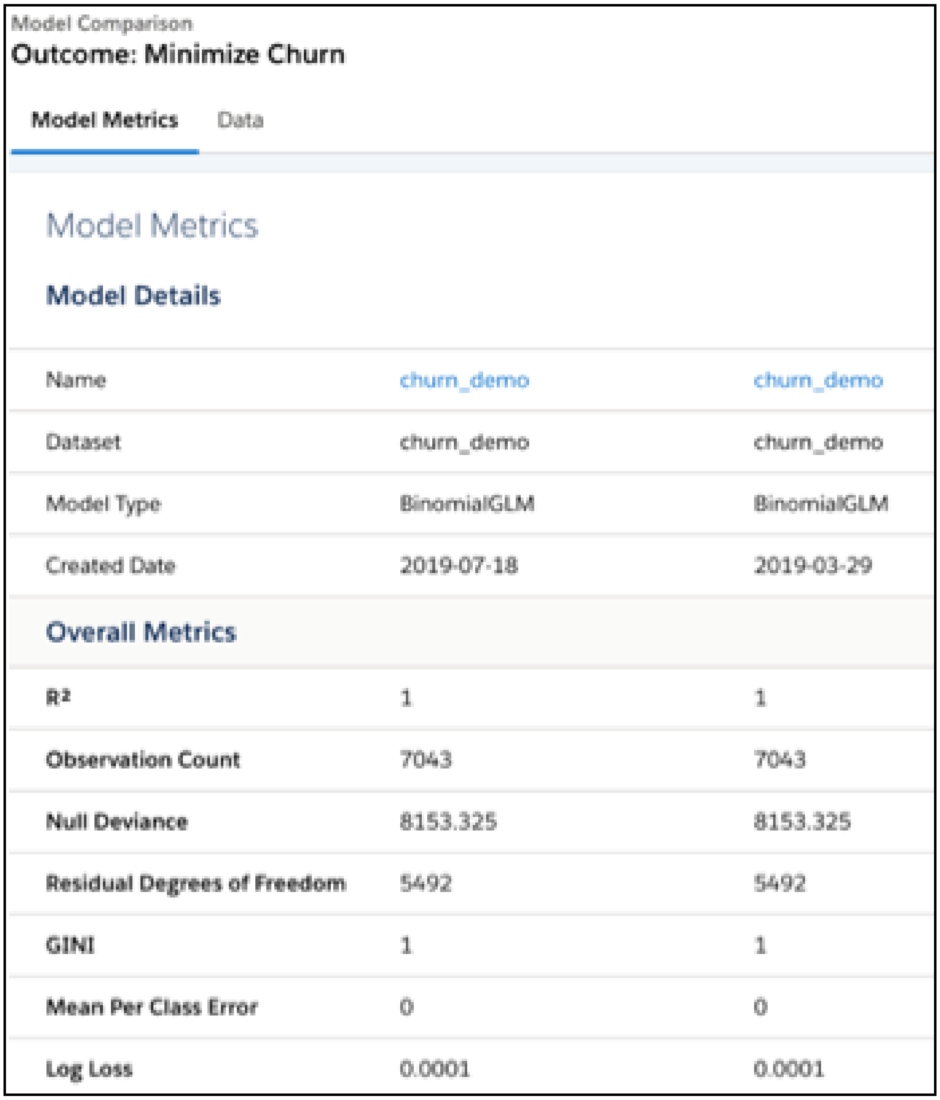
In Model Metrics, you can now display the metrics for multiple models side by side. See how model metrics stack up against each other. Compare segments to reveal the most important variables in each segment. Use what you learn to improve your models and achieve better predictions.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: In the Model Metrics screen, click **Compare Models**. In the Compare Models screen, select the models that you want to compare.



To see the model metrics next to each other, click **Show Comparison**. Einstein Discovery displays rows of metrics and columns of selected models.



Model Comparison

Outcome: Minimize Churn

Model Metrics | Data

Model Metrics

Model Details		
Name	churn_demo	churn_demo
Dataset	churn_demo	churn_demo
Model Type	BinomialGLM	BinomialGLM
Created Date	2019-07-18	2019-03-29
Overall Metrics		
R^2	1	1
Observation Count	7043	7043
Null Deviance	8153.325	8153.325
Residual Degrees of Freedom	5492	5492
GINI	1	1
Mean Per Class Error	0	0
Log Loss	0.0001	0.0001

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Improve Model Accuracy with Target Thresholds

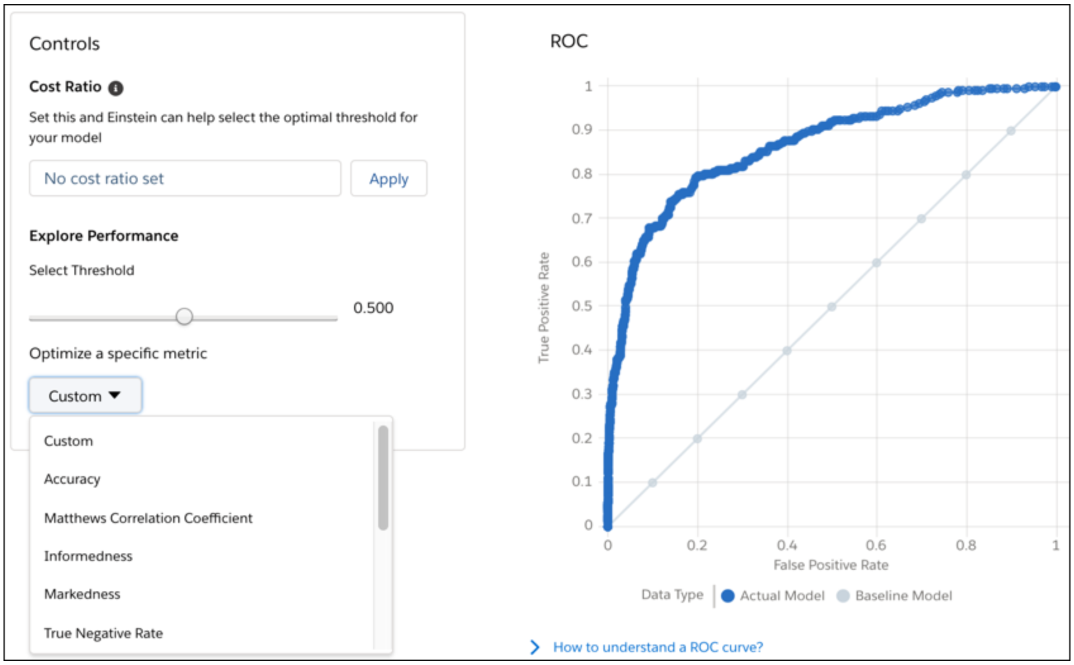
When developing a model for a categorical field, you can set an optimal threshold that represents the cutoff for the two buckets you are predicting. For example, you can specify a cost ratio between the false positives and false negatives. Then let Einstein Discovery pinpoint an optimized threshold for the business case associated with your story. The threshold value represents the tradeoff between the true positive and false positive rates.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: Open a story with an outcome variable that is a categorical field. In Model Metrics, on the Model Evaluation tab, set the threshold for the model by:

- specifying a cost ratio and clicking **Apply**
- moving the slider, or
- Selecting a standard metric from the list

The ROC graph refreshes based on the selected metric.



To deploy the model with this threshold, click **Deploy Model**.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

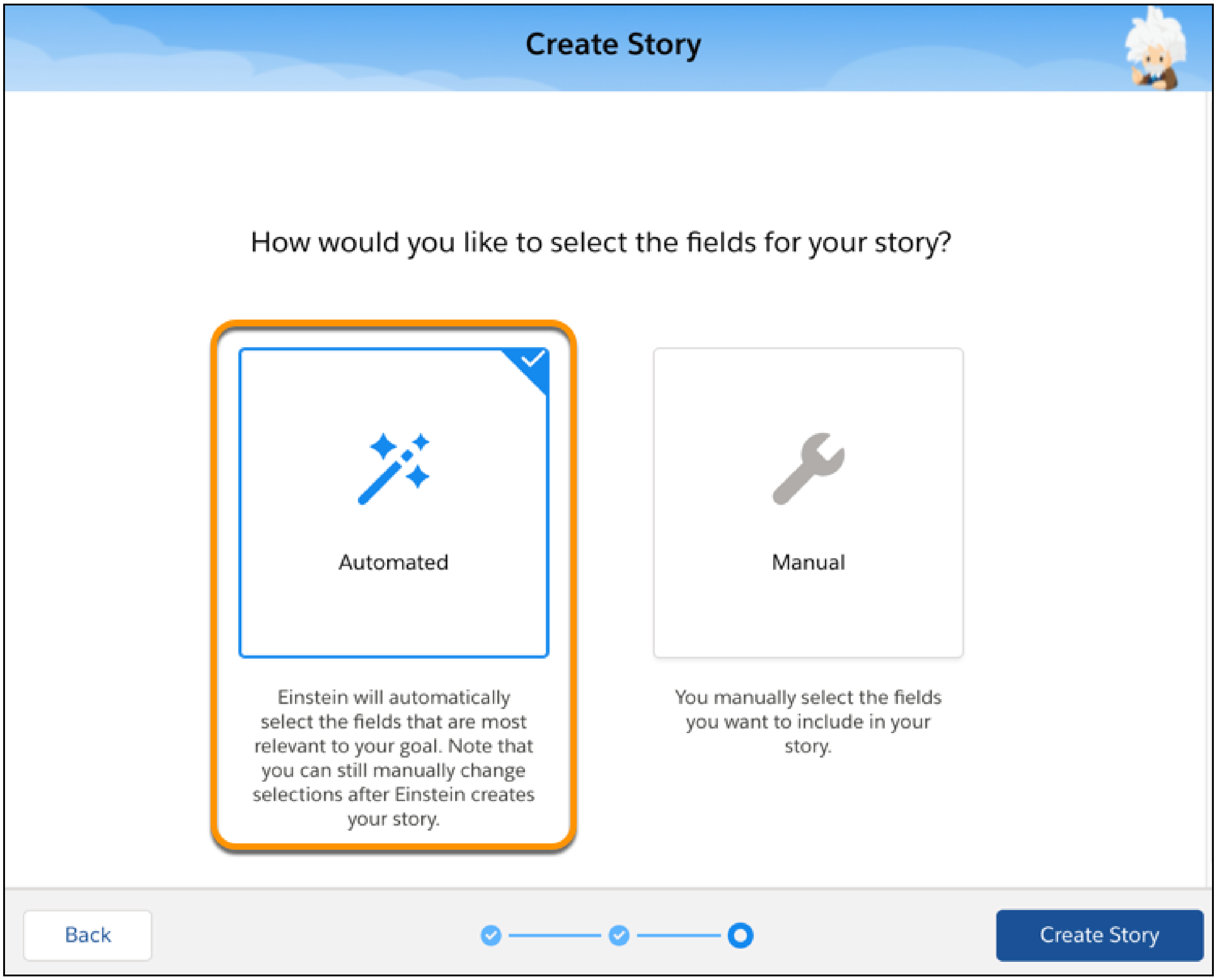
Speed Up Story Creation with Automated Setup

Let Einstein Discovery select the best data to analyze for your story's goal. It searches your dataset, chooses the columns that correlate to the outcome, and excludes the columns that have no correlation. After your story is created, you can manually change the column selections.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Creating stories with automated setup requires the Create and Update Einstein Discovery Stories permission.

How: When you create a story, select **Automated** and click **Create Story**.



SEE ALSO:

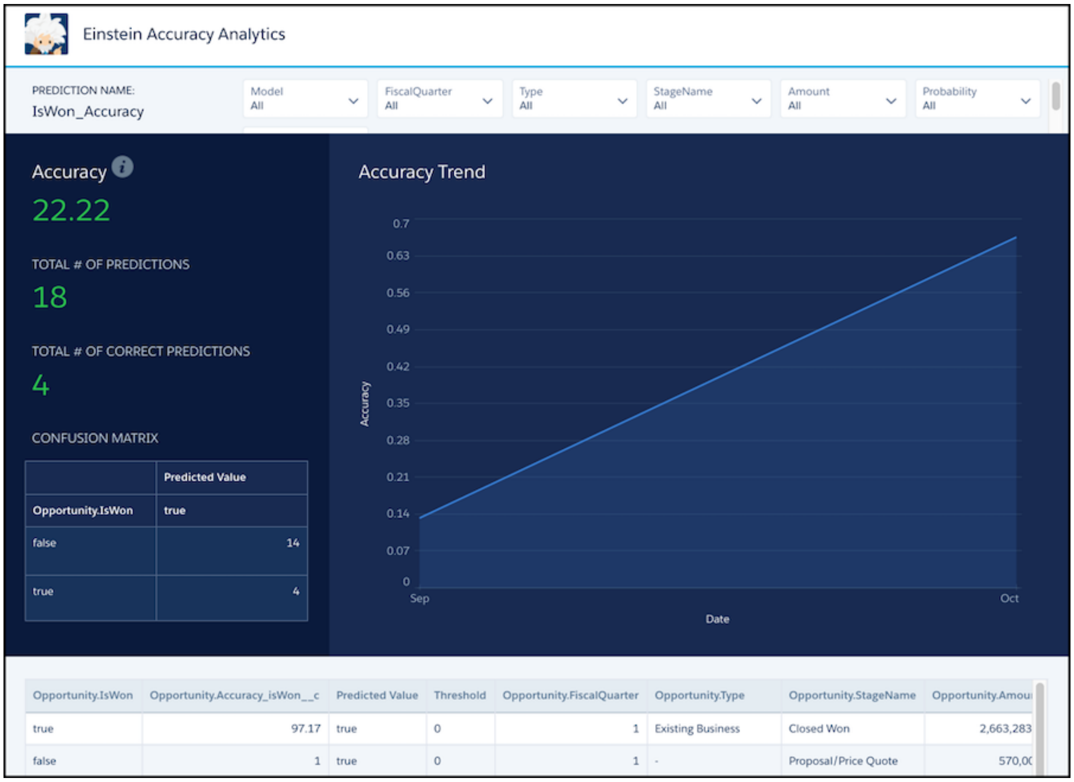
Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Improve Your Predictions With the Accuracy Analytics App

You can now monitor how well your models predict actual outcomes over time, then use this feedback to fine-tune your models and produce better predictions. You can monitor prediction accuracy for both logistic and linear regressions.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: Deploy models to use automated prediction fields and configure the terminal state. In Model Manager, view a prediction, click **Analyze Accuracy** to set up and create the app, then run the app to see its dashboard with accuracy metrics and a trend chart.



SEE ALSO:

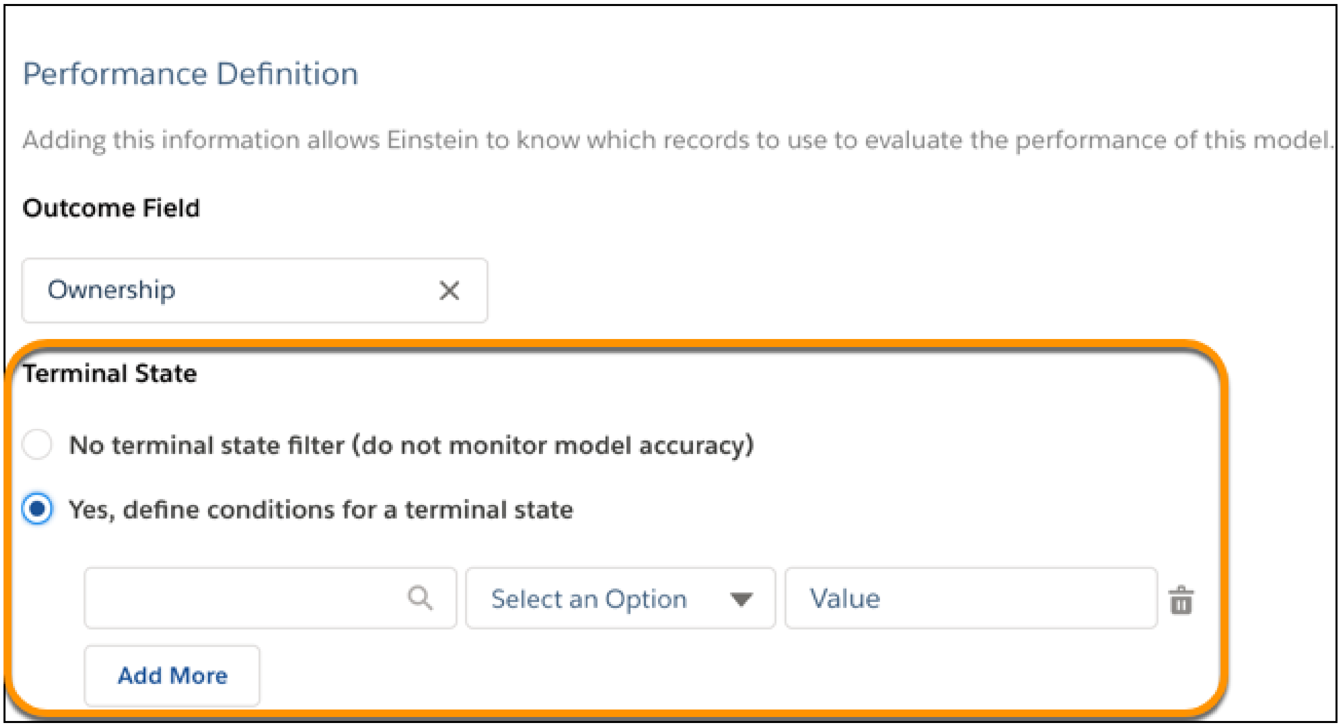
Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Visualize Model Performance with a Residuals Plot Chart

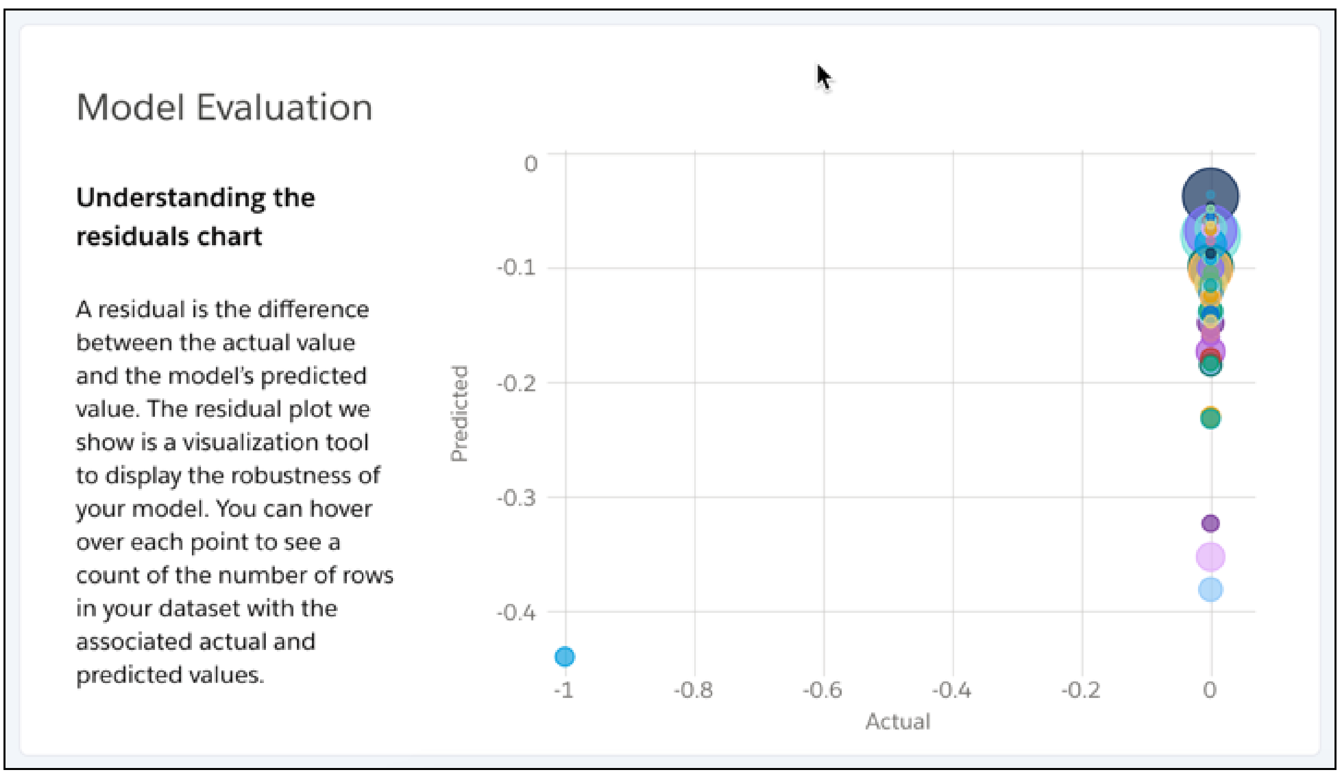
For logistic regression models in which the outcome variable is a text field, a new residuals plot chart reveals the robustness of your model. A *residual* represents the difference between the model's predicted value and the actual outcome value. An actual outcome is data that is not expected to change because it has reached its *terminal state*. An example of finalized data is the number of items a customer received in a shipment. Define the conditions under which your story's outcome variable has attained its terminal state. That way, Einstein Discovery knows which outcomes to include in the plot chart.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: Deploy a classification story. During deployment, define the conditions that indicate when your story's outcome variable has achieved a terminal state.



Open Model Metrics, and click the **Model Evaluation** tab.



Hover over a point to see a count of the number of rows in your dataset with the associated actual and predicted values.

SEE ALSO:
Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

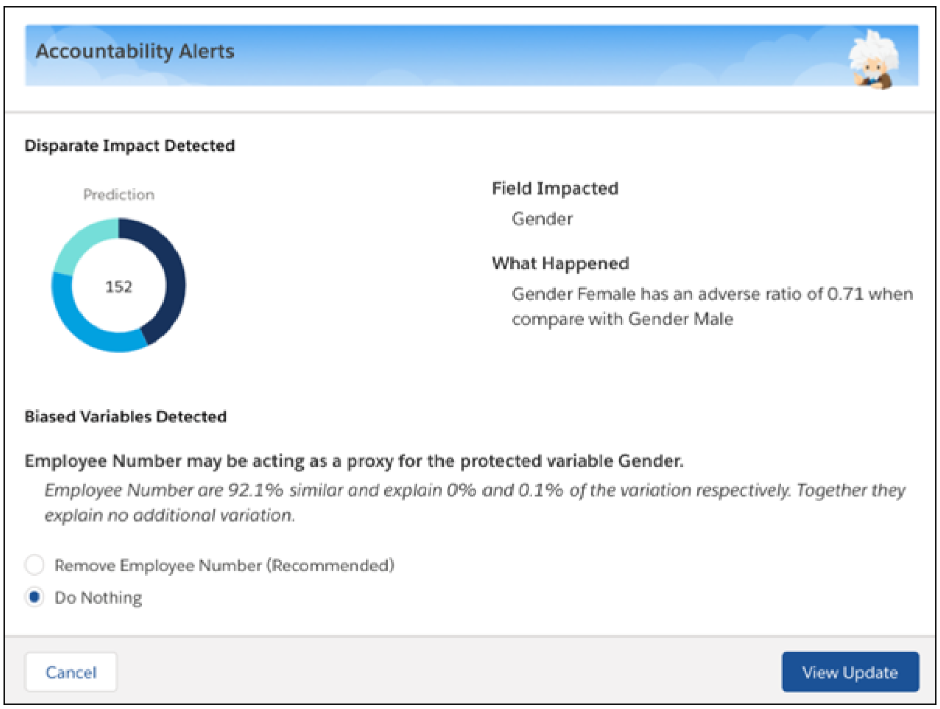
Remove Biased Variables from Your Model

Models built with biased data can produce biased predictions. Disparate impact is one example in which data reflects discriminatory practices toward a particular demographic, such as gender disparities in starting salaries. Einstein Discovery alerts you to variables that are being treated unequally in your model. You can remove disparate impact bias from your predictions to produce more ethical and accountable models.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Removing disparate impact bias from a story requires the Create and Update Einstein Discovery Stories permission.

How: Einstein Discovery notifies you of possible disparate impact bias in your data and suggests remedies. Choose which suggestions to implement in your model.



For general information about removing bias from your analysis, take the Responsible Creation of Artificial Intelligence TrailHead.

SEE ALSO:
Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

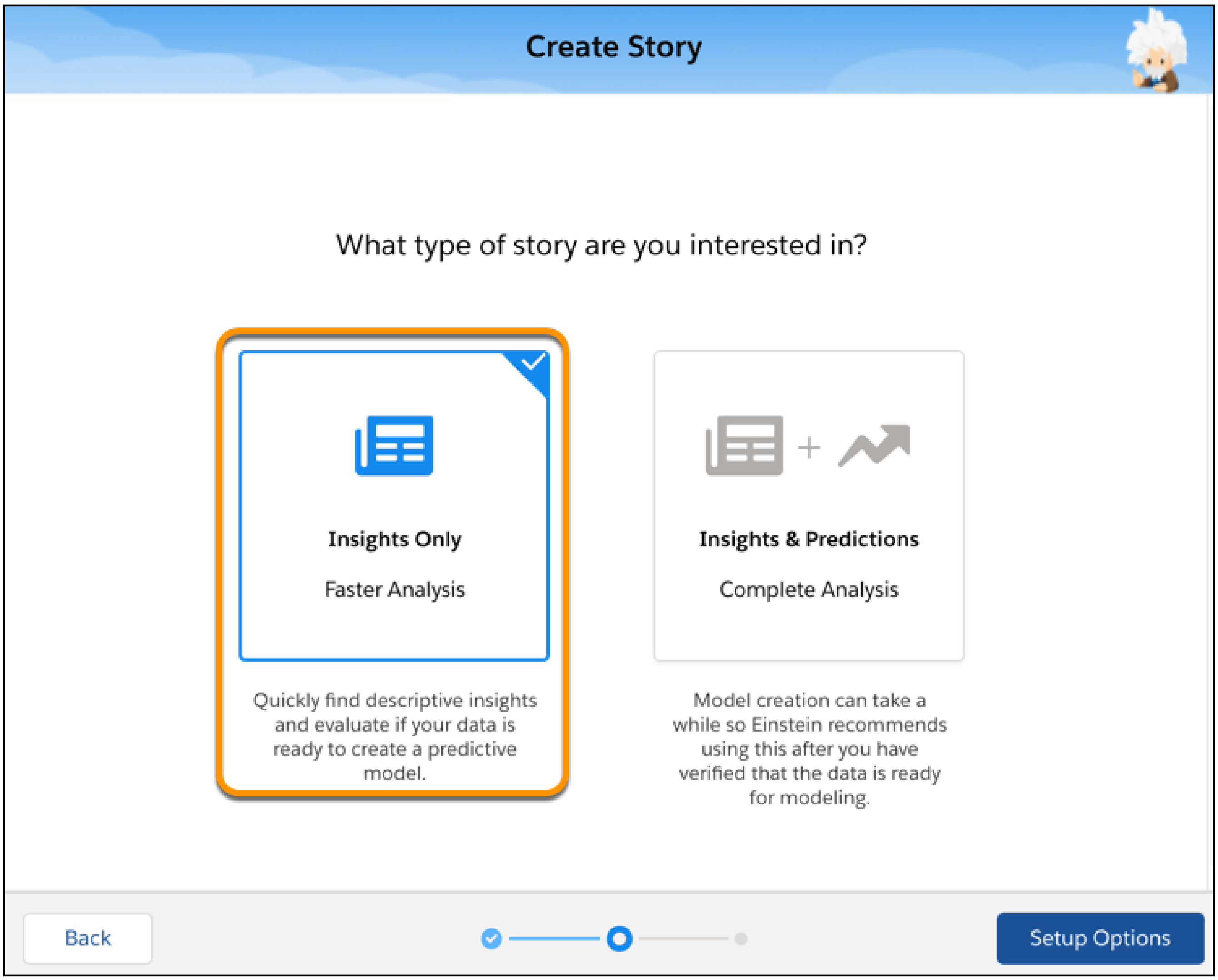
Speed Up Story Creation for Descriptive-Only Insights

If all you want from your data are What Happened insights, you can skip predictive analysis of your dataset. Story creation is faster because Einstein Discovery doesn't generate predictions and improvements. After your story is created, you can manually add predictive analysis if you change your mind.

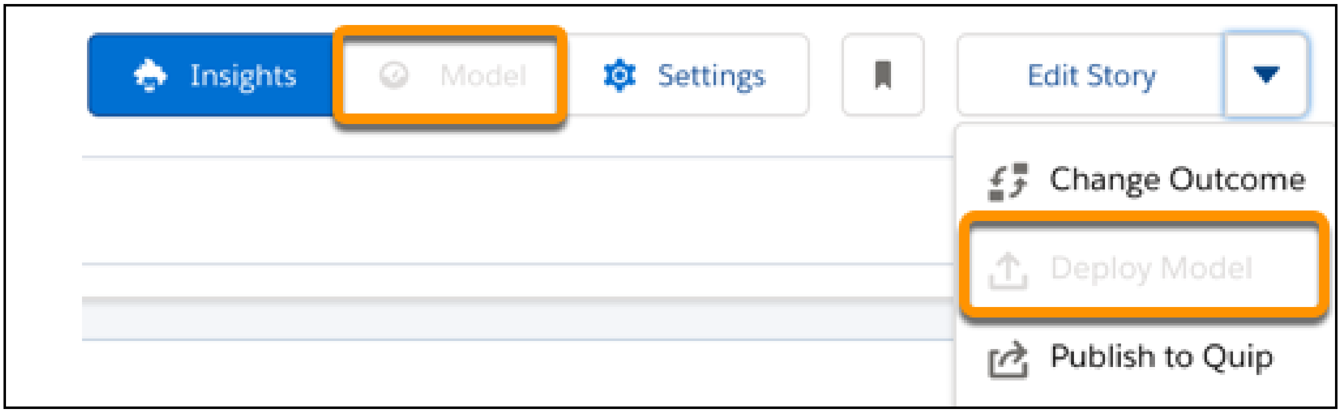
Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Creating descriptive-only stories requires the Create and Update Einstein Discovery Stories permission.

How: When you create a story, select **Insights Only**.



After you create your story, only **What Happened** insights are available. Descriptive-only stories do not use models. Therefore, model-related features are unavailable, such as the **Metrics** option on the toolbar and the **Deploy Model** command in the dropdown menu.



SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

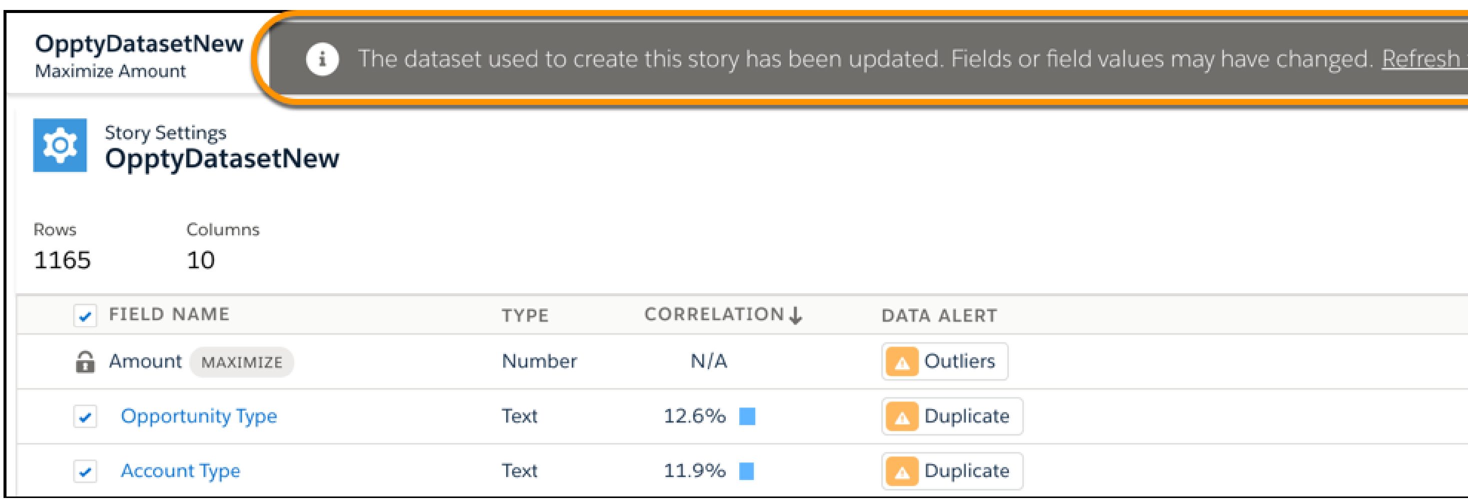
Refresh Your Stories with Dataset Updates

When data changes in the source dataset, you can now choose to analyze the updated data instead of the snapshot taken when the story was created. When you open a story, Einstein Discovery notifies you when changes have occurred to columns or rows. Previously, a story was always pinned to the original snapshot of the data.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Refreshing stories with dataset updates requires the Create and Update Einstein Discovery Stories permission.

How: Open a story. Einstein Discovery notifies you when the dataset changes with the message: **The dataset used to create this story has been updated. Fields or field values may have changed.**.



Click **Refresh field options from latest version** and click **Create Story**. Einstein Discovery analyzes the latest data, which can result in new suggested improvements (such as different buckets).

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Crunch More Report Data with Einstein Data Insights

Einstein Data Insights limits have increased. You can now create insights from reports containing up to 500,000 rows and 50 columns of data. In addition, you can create up to 1,000 Einstein Data Insights analyses per org per day.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Crunching report data with Einstein Data Insights requires the Can Run Einstein Data Insights permission.

How: If you don't see the **Insights** button on your reports, verify that it is enabled. For instructions, see Set Up Einstein Data Insights.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Create Stories Using Datasets with Predicates

Einstein Discovery can now analyze Einstein Analytics datasets with row-level security predicates and sharing rules that are associated with Salesforce sharing inheritance. All users who access the story can see the results of the story. They don't need the same row-level access as the story creator. Previously, you needed the "Ignore predicate when creating story from dataset" permission, which is deprecated in the Winter '20 release.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Creating stories using datasets with predicates requires the Create and Update Einstein Discovery Stories permission.

How: When you create a story, select a dataset with a predicate. As the story creator, you must have access to enough rows of data to create the story.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

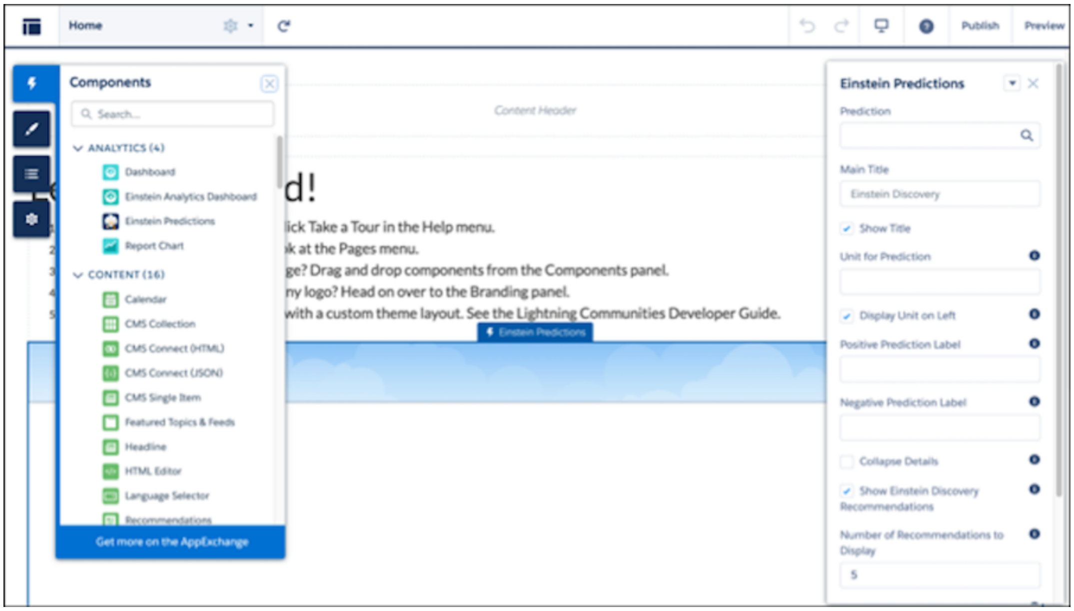
Display Einstein Discovery Predictions in Lightning Experience Community Pages

Add Einstein Discovery predictions as a standard component in any Lightning community page. In Community Builder, drag the new Einstein Predictions component onto your community page. Then simply choose a prediction definition, set prediction units, and select display settings. On the community page, predictions are updated in real time, and no writeback to Salesforce is necessary.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Who: To add the component to a Lightning community page, you must have the Customize Application system permission. To view the predictions, you must have the View Einstein Discovery Recommendations permission.

How: Drag the Einstein Predictions component to the page layout. Choose the prediction to show and, optionally, configure the settings.



SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Customize the Appearance of Einstein Discovery Predictions on Lightning Experience Record Pages

Customize the look of Einstein Discovery Predictions embedded on Lightning record pages. For logistic regression models (binary classification problems), specify labels that appear when the prediction is higher or lower than the model threshold. Examples: win or loss, retain or churn, and so on. Filter recommendations on how to improve a prediction. Set the maximum number of recommendations or show recommendations that impact the outcome by a minimum percentage.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: To configure the component to a page, you must have the Customize Application system permission. To view the predictions, you must have the View Einstein Discovery Recommendations permission.

How: Drag the Einstein Predictions Standard Lightning Component to the page layout. Choose the prediction to show and configure these display settings. For instructions, see Add Einstein Predictions to a Lightning Page.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Get Einstein Predictions in Apex Code

After deploying models with Einstein Discovery, use the `ConnectApi.SmartDataDiscovery.predict` method to get predictions on Salesforce objects in your Apex code.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

When: The `ConnectApi.SmartDataDiscovery.predict` method was available in v46.0 but undocumented.

Who: To access and run the API, you need the View Einstein Discovery Recommendations permission.

How: For instructions, see Get Predictions in Apex.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Einstein Prediction Objects Visible to Privileged Users

Users with certain system permissions now have full access to Einstein Prediction-related Salesforce objects regardless of sharing rules. This occurs in orgs in which predictions are enabled and stories have been created using automated prediction fields.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: Orgs where predictions are enabled via the Einstein Analytics Plus or Einstein Predictions license for users with one or more of the following user permissions:

- Manage Analytics
- Edit Analytics Dataflows
- Edit Dataset Recipes

Users with the necessary permissions have access to the following Einstein Predictions-related objects :

Object	Description
AI Feedback Value	Contains information on whether or not the prediction and outcome are the same.
AI Record Insights	Contains information on when a record is scored.
AI Insight Value	Contains information on the raw prediction value.

These objects may contain Einstein Predictions generated from Einstein Discovery, Prediction Builder, and other Einstein-related products that run on Salesforce. These objects provide visibility into the raw prediction scores and outcome fields in the associated Salesforce object. However, they provide no visibility into any other record details.

Retiring Einstein Discovery Classic

We plan to retire Einstein Discovery Classic in Spring '20. Current Einstein Discovery Classic users need the Einstein Analytics Plus license (required for Einstein Discovery in Analytics) to recreate datasets and stories in Analytics Studio. Einstein Discovery Classic will be replaced with the new experience in all Developer Orgs with the Winter '20 release.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: If you currently use Einstein Discovery Classic and already have the Einstein Analytics Plus license, log a case with Salesforce Support to be switched over to the new experience. If you have the Discovery Analysts license and not EA Growth, contact your Account Executive to swap your license to Einstein Analytics Plus. Free Developer orgs have all the correct licenses and we will automatically switch them to the new experience.

If you want to keep data from your Einstein Discovery datasets, use the "Export to Einstein Analytics" feature *before* switching over. Once Einstein Discovery in Analytic is enabled in your org, use Analytics Studio to build your Einstein Analytics datasets and manually create your stories.

SEE ALSO:

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Analytics for Everyone: New Analytics Home, Learning Center, Email Subscriptions (Beta)

The new Analytics Home is your personalized launchpad for finding, favoriting, curating, and interacting with the assets and insights that are most important to you. With guided learning journeys and Trailhead tracking, the Learning Center is now an in-app goldmine of helpful resources. Subscribe to dashboard widgets and get a daily or weekly email with snapshots of your most important charts and KPIs.

IN THIS SECTION:

Analytics Mobile Apps: Einstein Analytics and the Salesforce Mobile App

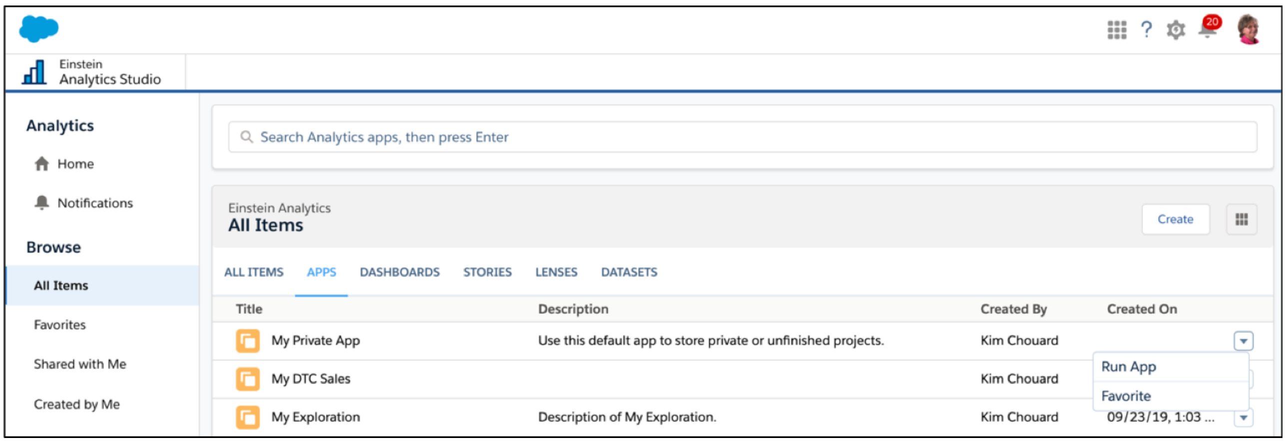
Einstein Analytics for iOS and Android version 8.0 include favorites for iOS and support for new charts on Android, among many other performance enhancements. With the latest version of Salesforce mobile app, Einstein Analytics users can do more on the go without switching between apps. Access your Einstein Analytics dashboards from favorites, global search, links, record pages, and Lightning pages all in the Salesforce for iOS.

Get to the Insights That Matter Faster with Einstein Analytics Home

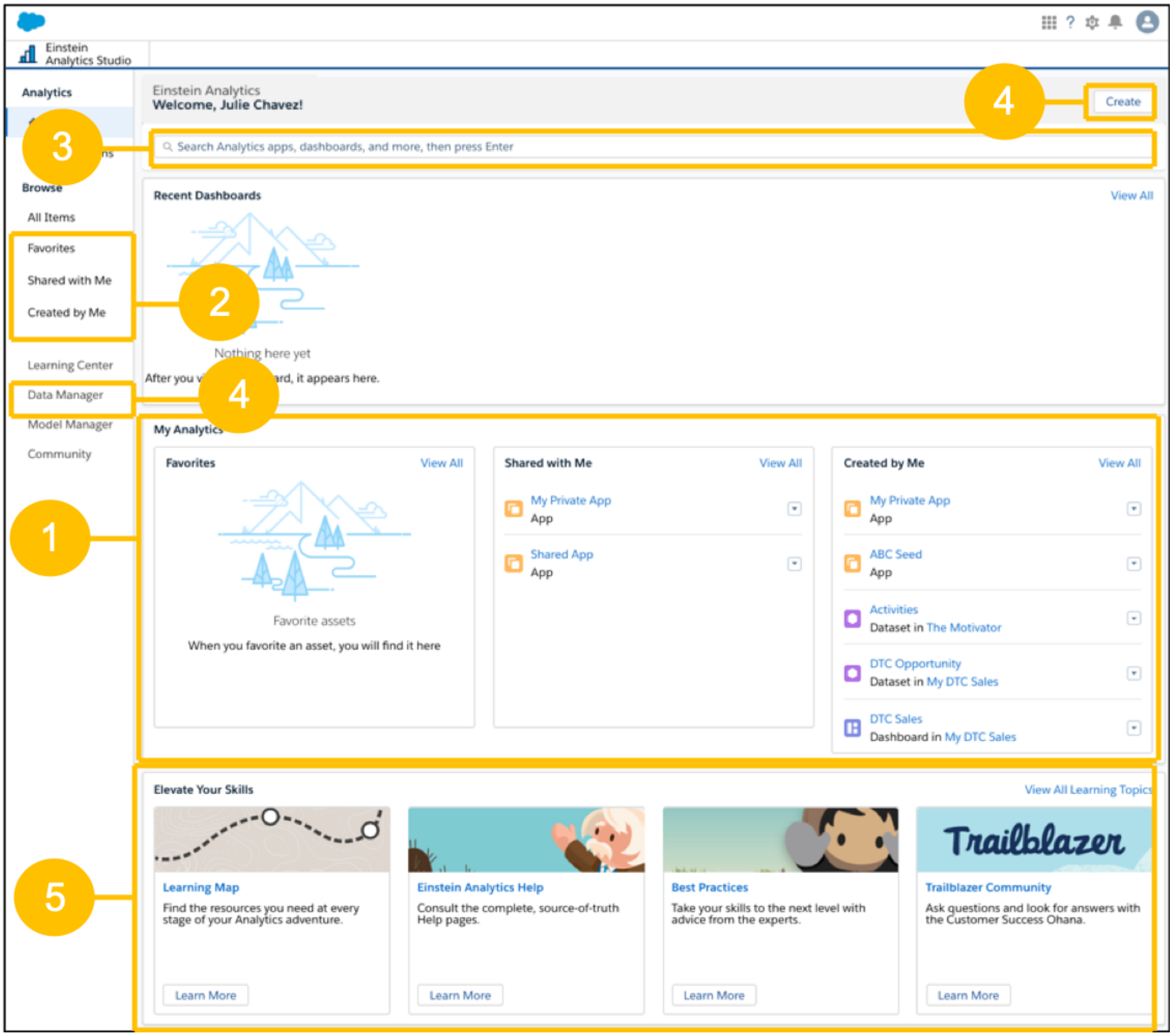
The new Einstein Analytics Home offers a personalized launchpad from which you can easily find, curate, discover, and interact with the assets and insights that are most important to you.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: To access Einstein Analytics Home, click **Home** on the Analytics tab or in Einstein Analytics Studio.

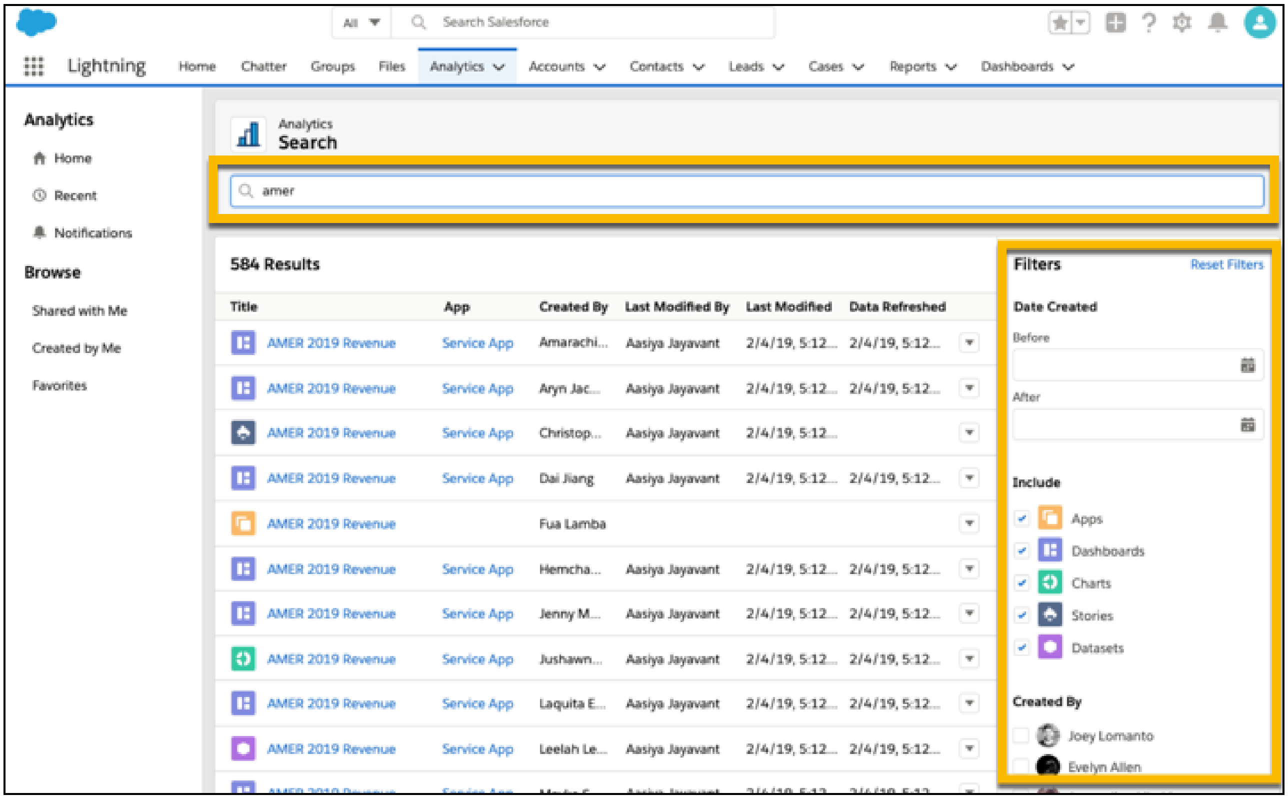


You'll notice a refreshed and modular page design, with new buttons and one-click access to your assets. And, we didn't forget Run App which you'll now find as a drop-down option.

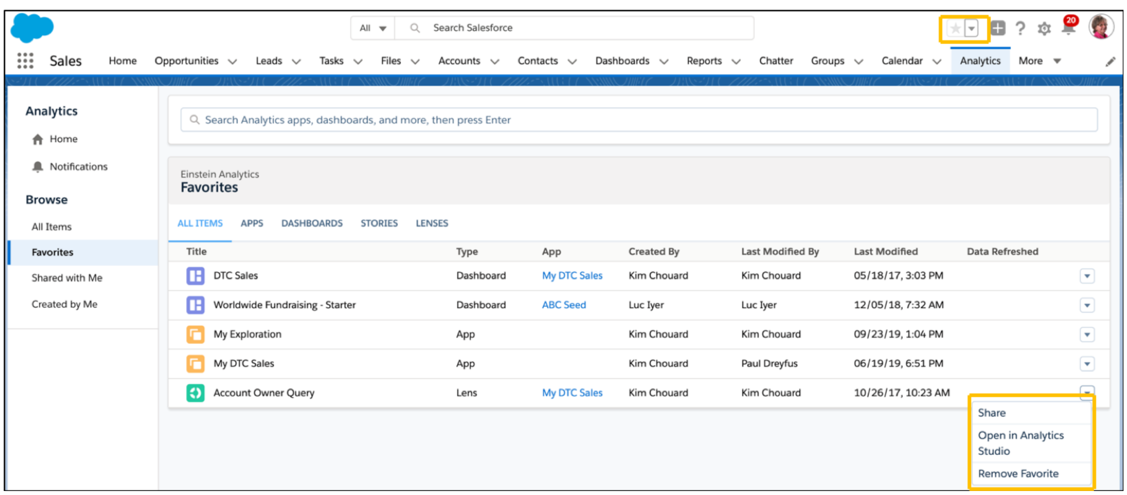


See your most immediate assets, such as recently created and shared items (1). The new Einstein Analytics Home has common navigation links to relevant content (2), and a search bar for additional content (3).

Einstein Analytics users with the appropriate permissions can also create apps, datasets, and dashboards (4). And for whenever help is needed, Einstein Analytics Home suggests learning resources (5), including the Trailblazer community.



Einstein Analytics Home has a more prominent global search bar and advanced filtering to surface insights and assets.



Einstein Analytics assets can be favorited for quick access. Favorite an Einstein Analytics asset using the row level action drop down menu or clicking the star in the global header available in Lightning. Favorites now include all your pinned apps. When you first click **Favorites** on Einstein Analytics Home, Einstein Analytics imports your pinned apps for you.

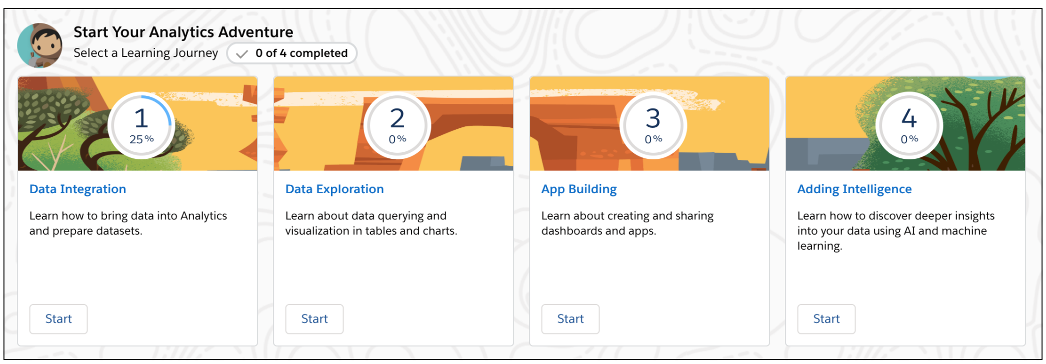
Journey Through Guided Learning and Track Your Progress in the Learning Center

In the Analytics Studio, the Learn tab is renamed Learning Center and now provides an even richer source of in-app assistance. We added a Trailhead badge tracker and expanded the guided learning into broad, introductory journeys through all of Analytics. These journeys are designed to help new users get started quickly and learn about the possibilities for building and deploying Analytics.

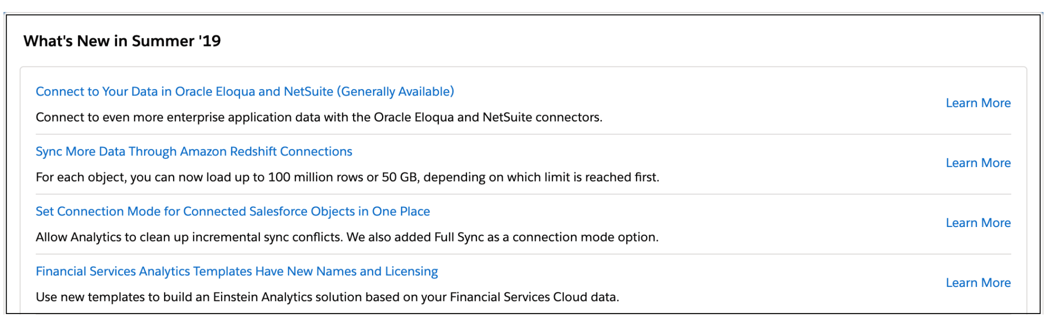
Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Why: Know what you've learned and continue exploring what you haven't. We added the Analytics Badges section so that you can quickly view your Trailhead progress and see what's still left to accomplish. This section appears if you have a Trailhead account. Because it's integrated with Trailhead, click **View All Badges** to go directly to your Trailhead page.

Click a tile in the Start Your Analytics Adventure section to open a fast-paced journey through key product areas. Take an entire journey at once, or stop anywhere along the way and later pick up where you left off. You never lose your place because we're tracking each step. The available journeys depend on your permissions.



We also rearranged the What's New section to make it easier to scroll through information about top features and general updates in each release.



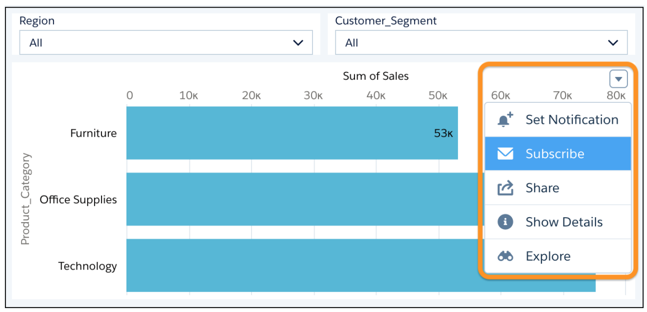
Subscribe for Email Updates on Key Metrics (Beta)

No more hunting through dashboards for the data queries that you routinely consult. Now you can subscribe to dashboard widgets, and Einstein Analytics sends you a daily or weekly email with snapshots of your most important charts and KPIs. With an email subscription, you can watch up to 20 widgets. Set up subscriptions in the Analytics Studio, the Analytics tab, and embedded Analytics dashboards.

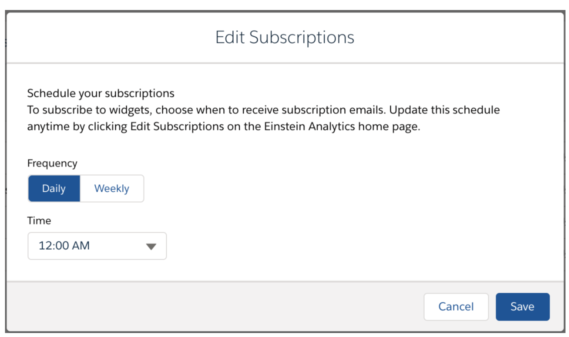
Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Note: As a beta feature, Einstein Analytics subscription is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

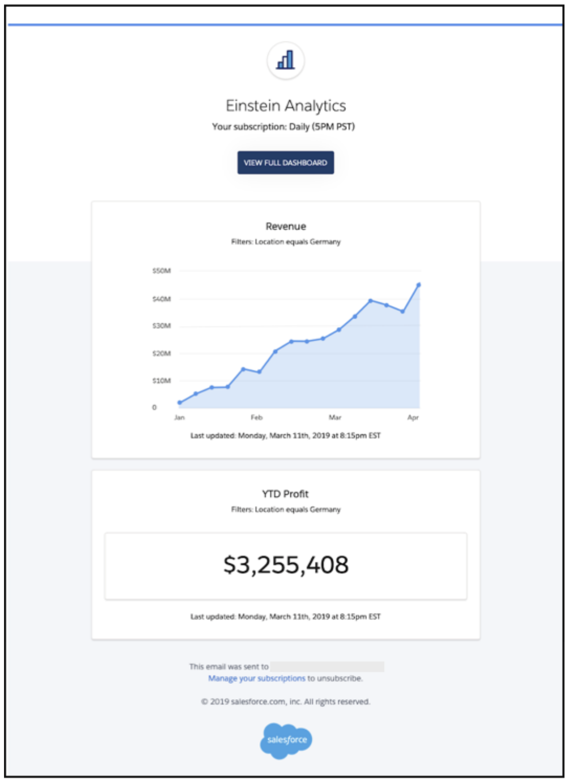
How: In Setup, on the Analytics Settings page, select **Enable email subscriptions to Einstein Analytics dashboard widgets (Beta)**. Then the **Subscribe** option appears in all widget menus (except tables, maps, and custom charts).



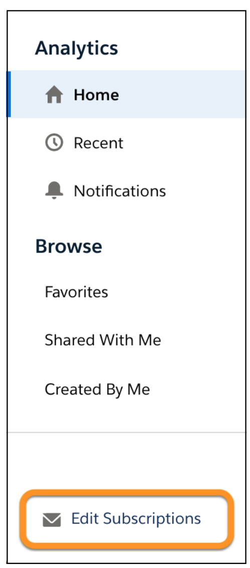
When you subscribe, set the schedule for the subscription emails.



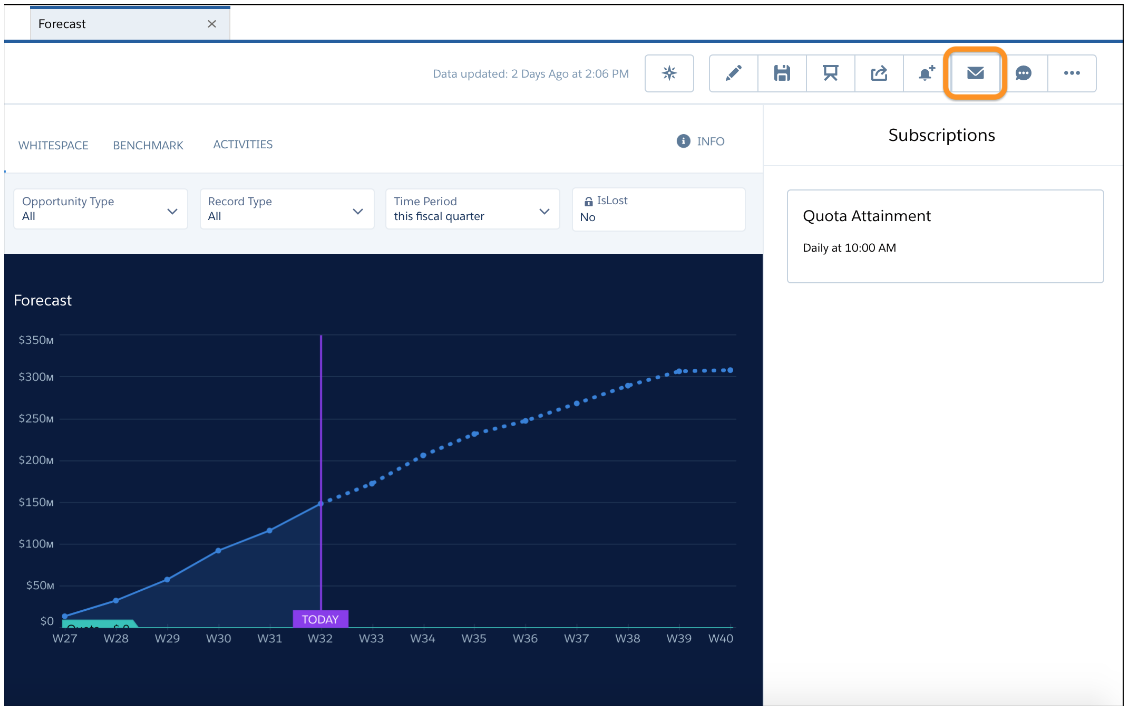
All widget subscriptions come together in one email.



Manage your subscriptions from the Analytics home page with the new **Edit Subscriptions** option.



When viewing a dashboard, you can open the Subscriptions panel by clicking the envelope ( ) in the icon bar.



Note: We recommend not subscribing to widgets that have query dependencies. Or, consider revising the queries to remove the dependencies. If a widget's query includes results from another query, the outside query is run only at the time that the subscription is created. Queries with dependencies can cause subscription emails to become inaccurate over time.

SEE ALSO:

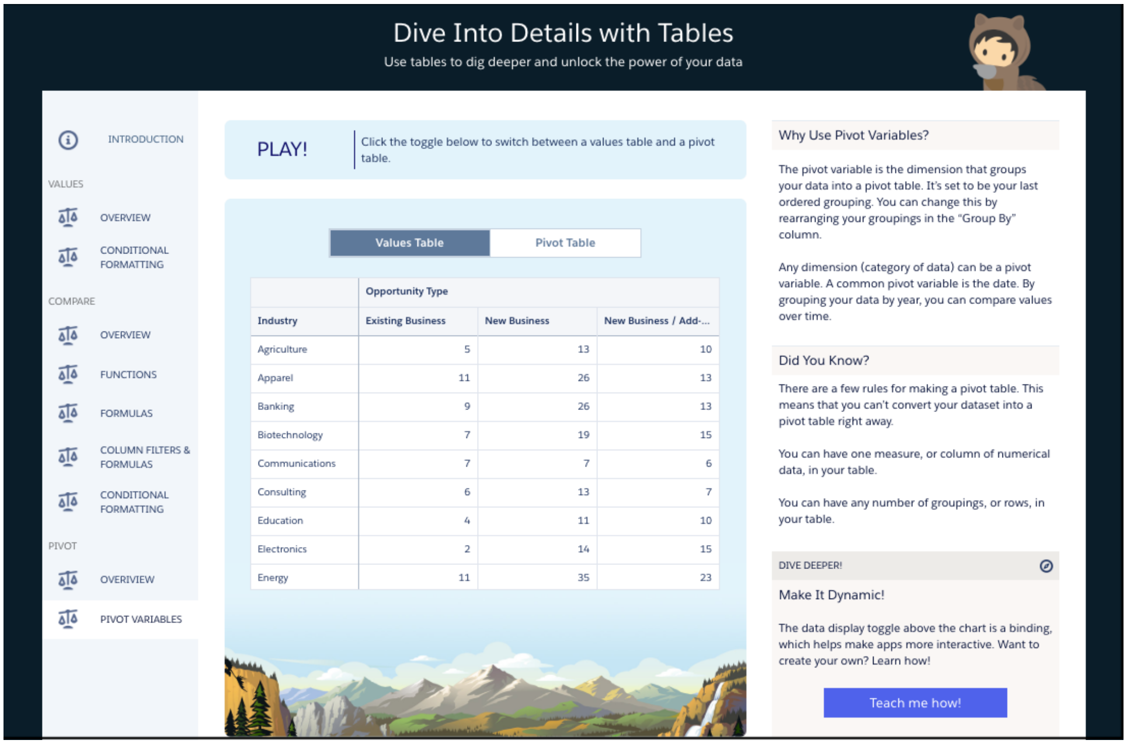
IdeaExchange: Possibility to subscribe to an Einstein Analytics dashboard

Learn More in Studio with the Learning Adventure App

The Einstein Analytics Learning Adventure app walks you through best practice examples for designing visualizations and building powerful, dynamic apps. The app comes as a template in the Analytics Studio, and it's updated with new charts, SAQL use cases, and a deep dive on tables.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Why: The new content about tables clarifies table types and properties and helps builders choose the right format for their data.



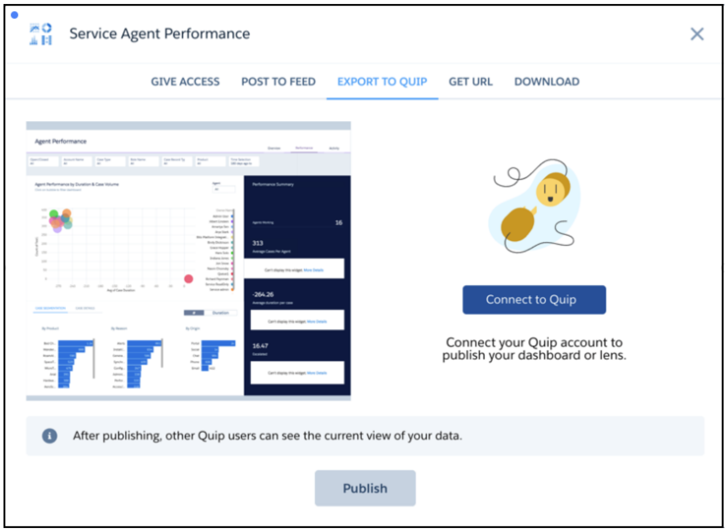
Publish Dashboards and Lenses to Quip Slides

Collaborate in Quip with exported images of lenses, widgets, and entire dashboards. Each snapshot image is published to a new Quip slide deck.

Where: This change applies to Einstein Analytics tabs and embedded Einstein Analytics dashboards in Lightning Experience and Salesforce Classic. The feature isn't available in the Analytics Studio. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Who: This change is available in orgs with Quip for Salesforce.

How: Select the Share action from any dropdown menu or icon bar, and click the **Export to Quip** tab. If you're not already connected, click **Connect to Quip**.



Important: After publishing an Analytics snapshot, other Quip users in your org can view the data in the image, including confidential data.

SEE ALSO:

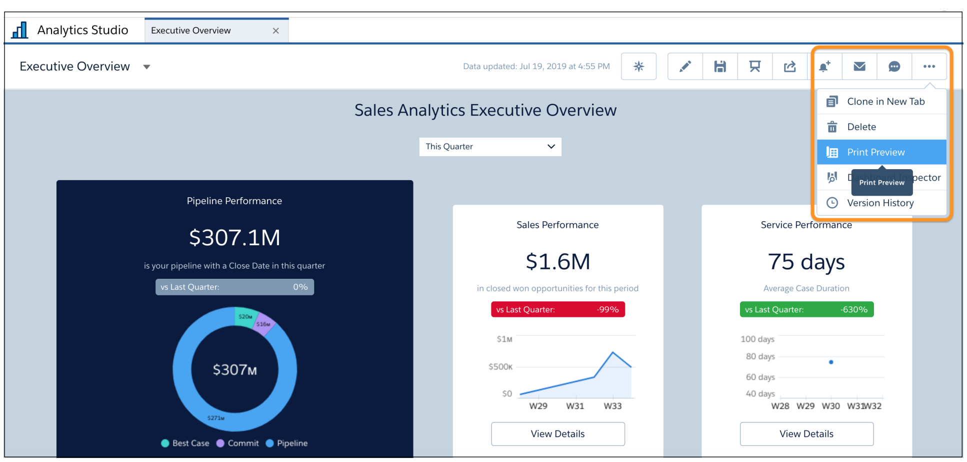
Salesforce Help: Quip Integration Setup for Salesforce Administrators

Preview Dashboards Before You Print or Save Them as PDFs

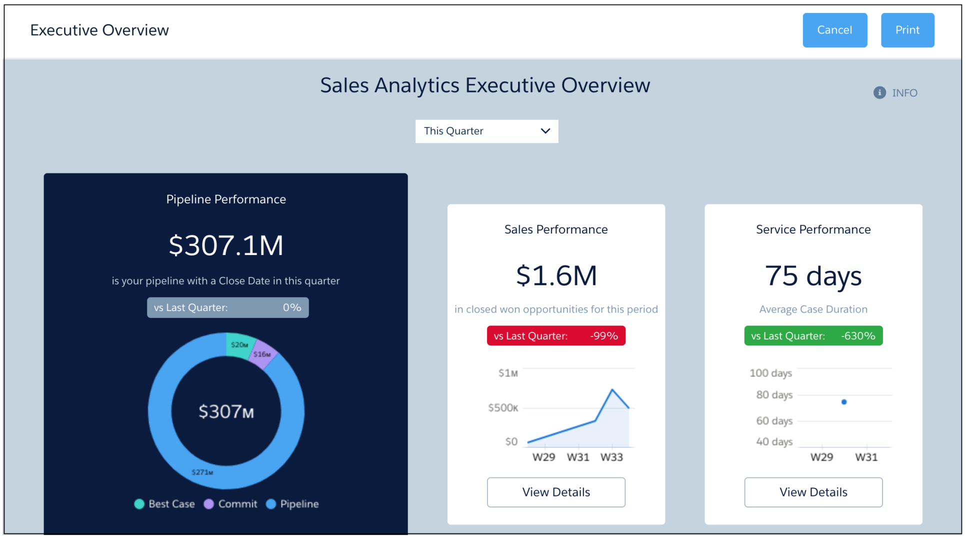
The print process is more intuitive. Now it's clear that the dashboard action is to preview, and then you can print from your browser.

Where: This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: The print option in the dashboard's action menu is now called Print Preview, and it opens a printer-friendly view of the dashboard.



In the print preview, click **Print** to open your browser's print dialog, where you can send the image to your printer or save it as a PDF file. The **Cancel** button closes the preview and returns you to the running dashboard.



Open Records from Einstein Analytics Dashboards in Lightning Page Tabs

Records opened from an embedded Einstein Analytics dashboard or the Analytics tab open in a Lightning page tab instead of a new browser window. Users get a familiar experience with Lightning page tabs and fewer clicks to perform actions on insights from their dashboards.

Where: This change applies to Einstein Analytics in Lightning Experience. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

How: Select **Open Links in New Windows** in the Lightning App Builder Einstein Analytics Dashboard component. This setting is enabled by default.

Analytics Mobile Apps: Einstein Analytics and the Salesforce Mobile App

Einstein Analytics for iOS and Android version 8.0 include favorites for iOS and support for new charts on Android, among many other performance enhancements. With the latest version of Salesforce mobile app, Einstein Analytics users can do more on the go without switching between apps. Access your Einstein Analytics dashboards from favorites, global search, links, record pages, and Lightning pages all in the Salesforce for iOS.

IN THIS SECTION:

Upgrade to the Winter '20 Versions of Einstein Analytics for iOS and Android

Einstein Analytics version 8.0 is generally available starting the week of October 14, 2019.

Use Einstein Analytics in the Salesforce Mobile App

With the latest updates to Einstein Analytics in the Salesforce mobile app, users can do more without switching between mobile apps on their device. From viewing full-screen dashboards to adding favorites, users can perform many important Einstein Analytics tasks without leaving Salesforce for iOS. There are known differences between the Einstein Analytics experience in Salesforce for iOS and Android.

Upgrade to the Winter '20 Versions of Einstein Analytics for iOS and Android

Einstein Analytics version 8.0 is generally available starting the week of October 14, 2019.

IN THIS SECTION:

Additional Enhancements in Einstein Analytics for iOS

Einstein Analytics for iOS 8.0 includes a new date widget, faster loading dashboards, access to favorites, and more.

Where: These changes apply to Einstein Analytics for iOS. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

Why: Enhancements in the latest releases include the following features.

- - Performance Improvements: Dashboards load even faster.
  - Favorites: Add your assets to favorites for quick access on mobile and desktop.
  - New Date Widget: The brand new date widget has preset dates, a range operator, and more freedom in setting relative dates.
  - Bullet Chart: Compare metrics against qualitative benchmarks with the new Bullet chart.
  - New Sample Data: Explore the power of Einstein Analytics with the new Playground app.
  - Bug fixes and other usability enhancements.

How: Analytics is available for devices running iOS 10 and later. For the latest enhancements, download Einstein Analytics version 8.0 from the App Store.

Additional Enhancements in Einstein Analytics for Android

Einstein Analytics for Anroid 8.0 includes support for all chart types, access to favorites, deep-linking support, and more.

Where: These changes apply to Einstein Analytics for Android. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited Editions.

Why: Enhancements in the latest releases include the following features.

- New Charts: Every desktop chart is now supported, including Sankey, Rating, and Bullet.
- Images in Charts: Add faces, flags, icons, or images next to bars or numbers for more visually appealing charts.
- Better Charts: Experience richer visualizations with improved text rendering in charts.
- Favorites: Quick access to your favorite assets.
- Deep-linking: Directly launch an asset in Einstein Analytics app.
- Improved User Interface: Enjoy updated UI for an enhanced user experience.
- Bug fixes and performance improvements.

How: Analytics is available for devices running Android 5 or later. For the latest enhancements, download Einstein Analytics version 8.0 from Google Play™.

Use Einstein Analytics in the Salesforce Mobile App

With the latest updates to Einstein Analytics in the Salesforce mobile app, users can do more without switching between mobile apps on their device. From viewing full-screen dashboards to adding favorites, users can perform many important Einstein Analytics tasks without leaving Salesforce for iOS. There are known differences between the Einstein Analytics experience in Salesforce for iOS and Android.

Where: This change applies to the new Salesforce mobile app. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

When: The new Salesforce mobile app is available the week of October 14, 2019.

SEE ALSO:

Einstein Analytics in the Salesforce App: More Powerful Interactions

Communities: Salesforce CMS, Access Control, and Better Security for Guest Users

Create, organize, and publish content in Salesforce with Salesforce CMS, now generally available. Take better control of who can publish and edit a community with Access Control in Workspaces. And give access to unauthenticated community users while knowing that Salesforce is keeping your data safe.

Tip: There's lots of Lightning striking Salesforce these days—Lightning Experience, the Lightning framework, Lightning web components—and it can be tricky to know how it all applies to Communities. Here's the rundown.

Lightning communities use the same underlying technology as Lightning Experience—namely, the Lightning Platform and Lightning components—but you aren't required to enable Lightning Experience to use them.

Also check out the Lightning Components section of the release notes for changes that affect community users.

IN THIS SECTION:

Salesforce CMS: Generally Available, Custom Content Types, Translations, and New Layout Options

Salesforce CMS is now generally available with an updated design and some new options, including the ability to localize your content, and making content available to the B2B Commerce managed package and communities created using Salesforce Tabs + Visualforce.

Lightning Communities: Flexible Layouts, Access Control, and Navigation Menu Variations

You're no longer limited to our page layouts. Now you can build highly customized pages with flexible layouts. Use role-based access to control who can do what as your team builds and customizes your communities. Create multiple navigation menus, and use and reuse them in any navigation menu component, including tile menus.

Lightning Components in Community Builder: Tile Menu Generally Available and Record List Header Customizations

The Tile Menu component is now generally available and ready for prime time. Customize the record list component's header to include list actions, list searches, filters, and more. And hide user profile pictures for users who don't want to show them.

Guest User: Restricted Access, Private Org-Wide Default for Guest Users, and New Sharing Rules

We've greatly enhanced guest user security to adhere to the Salesforce principle of least access. We've changed guest user org-wide defaults, record ownership, and driving guest user record access through a simplified and explicit sharing model. You can also use a new sharing rule type to share data with guest users.

Salesforce CMS: Generally Available, Custom Content Types, Translations, and New Layout Options

Salesforce CMS is now generally available with an updated design and some new options, including the ability to localize your content, and making content available to the B2B Commerce managed package and communities created using Salesforce Tabs + Visualforce.

IN THIS SECTION:

Harness the Power of Salesforce CMS (Generally Available)

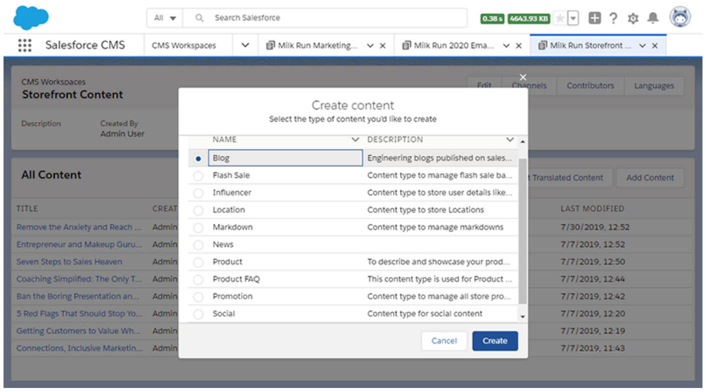
Salesforce CMS is now generally available with an updated design and some new options. Localize your content, create your own custom content types, and make content available to B2B Commerce managed packages and communities created with Salesforce Tabs + Visualforce. Check out Salesforce CMS in the App Launcher.

Where: This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions. Salesforce CMS is available via Lightning and Salesforce Tabs + Visualforce communities.

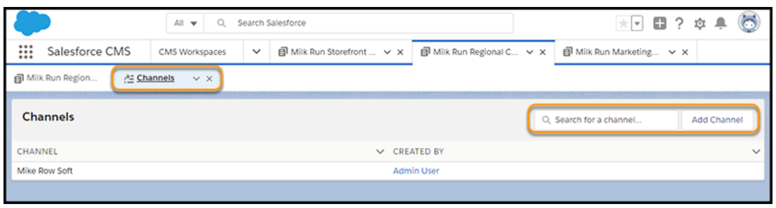
Who: To access Salesforce CMS and create content, you must be a Salesforce admin or have a contributor role in that CMS workspace. To add a community as a channel to a CMS workspace, you must have admin privileges in that community. To organize and publish content in a community, you must have appropriate privileges in that community.

Why: When getting Salesforce CMS ready for prime time, we've put on some finishing touches.

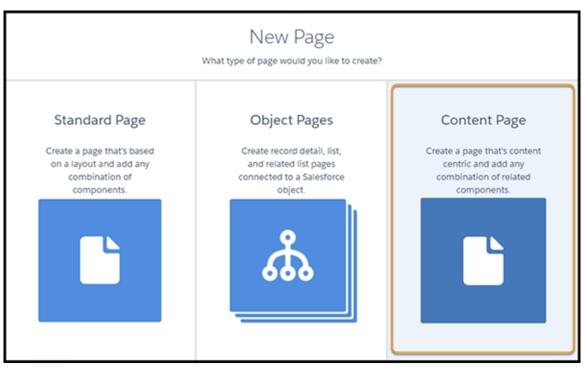
- Content isn't just for Lightning communities anymore. Get content created and managed in Salesforce CMS using Chatter REST API or Apex and add it to Salesforce Tabs + Visualforce communities.
- Create custom content types to meet your content creation needs, like banners, product announcements, or FAQs, with the ManagedContentType in Metadata API. Custom content types appear as forms in the Salesforce CMS app and can also be used as a way to create collections for publication.



- In the Salesforce CMS app, **Share To...** is now **Channels**. Still the place to add communities that share content, just a new name to look for in CMS Workspaces.



- In Community Workspaces, we've enhanced Collections. Now manual and dynamic CMS Content collections are based on a specific content type to help you target content delivery better.
- In Community Workspaces, each content type gets its own content detail page to give you better presentation control.



- In Community Builder dozens of new layout options let you get creative with enhanced CMS Components, giving you greater ability to match your needs and your imagination.

  Note: The layout of content created with previous versions of updated components can still be seen, but not edited. For example, if you created a banner in a previous release, you can't change the properties for that layout. However, you can switch to the new layout so you can customize it. Previously set customizations don't carry forward, so take a note of what you've done before updating to the new components.

How: To see Salesforce CMS in the App Launcher, Communities must be enabled in your org. Users must have **Salesforce CMS** enabled in Custom App Settings and CMS Workspaces must be set to **Default On** in Tab Settings of their profile in Setup.

SEE ALSO:

Salesforce Help: Salesforce Content Management System (CMS) (can be outdated or unavailable during release preview)

Salesforce Help: Communities User Licenses (can be outdated or unavailable during release preview)

Lightning Communities Developer Guide: Create Custom Content Types (can be outdated or unavailable during release preview)

Metadata API: Custom Content Types for Salesforce CMS

Chatter REST API Developer Guide: Managed Content Delivery

APEX Developer Guide: ManagedContent Class

Take Control of How You Display Your Salesforce CMS Custom Content

We added the Content Page page type to Community Builder to support your custom content types in Salesforce CMS.

Where: This change applies to Lightning Experience in Essentials, Enterprise, Performance, Unlimited, and Developer editions. Salesforce CMS is available via Lightning and Salesforce Tabs + Visualforce communities.

SEE ALSO:

Salesforce Help: Custom Content Types (can be outdated or unavailable during release preview)

Salesforce Help: Create a Detail Page (can be outdated or unavailable during release preview)

Harness the Power of Salesforce CMS (Generally Available)

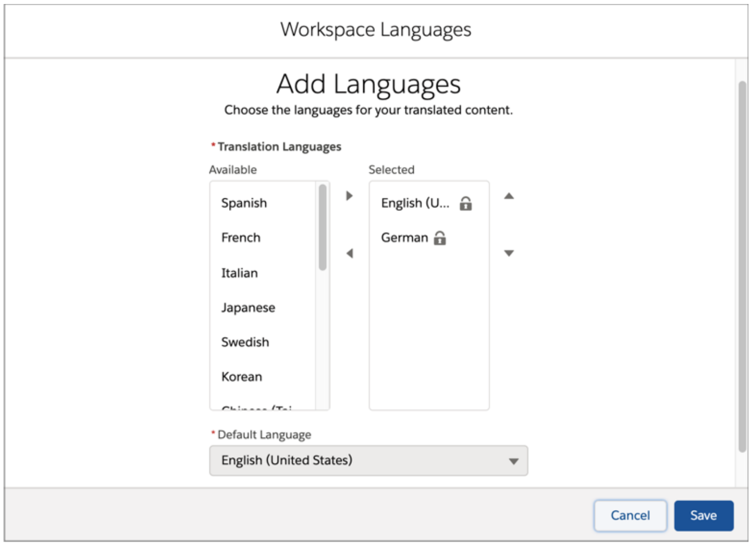
Add Languages to Your Salesforce CMS Workspaces

Your business is global, and so is your CMS. Now you can add languages to new and existing CMS workspaces and offer content in all the languages that your publishing channels need to support.

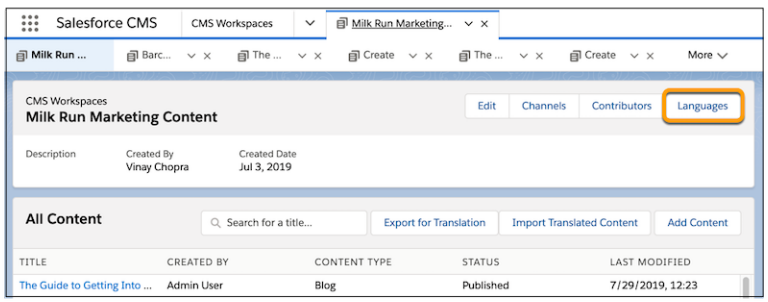
Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. Salesforce CMS is available via Lightning and Salesforce Tabs + Visualforce communities.

Who: To update Language settings, you must be a Salesforce admin or a content admin in that CMS workspace.

How: Set up translation languages when creating a content space.



To add a language to an existing workspace, click the **Languages** button. If you're not a content admin, you see a read-only list of the languages available in the workspace.



Work with Translated Content in the Salesforce CMS

When your CMS is set up with multiple languages, you can offer translated content and manage all versions from your content workspace. Identify content to be translated, export it to your localization partner for translation, import the translated content, and publish it to the destination.

Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions. Salesforce CMS is available via Lightning and Salesforce Tabs + Visualforce communities.

Who: To update a content item's translation status, you must have the content admin or content manager role in the CMS workspace. To import or export content translations, you must be a content admin in the CMS workspace.

Lightning Communities: Flexible Layouts, Access Control, and Navigation Menu Variations

You're no longer limited to our page layouts. Now you can build highly customized pages with flexible layouts. Use role-based access to control who can do what as your team builds and customizes your communities. Create multiple navigation menus, and use and reuse them in any navigation menu component, including tile menus.

IN THIS SECTION:

Get Warned Before Switching Community Templates

Changing your community's template can cause unintended and unsupported issues for your existing community. Switching a template also permanently deletes your customizations and pages within the community. Now when you attempt to switch to a different template, you receive a message confirming that you want to make the change.

Customize Account Teams to Enhance Team Selling

Use customizable account teams to manage complex account relationships better in Salesforce. Collect more information by adding custom fields, buttons, and links to account team layouts. Use validation rules, Apex triggers, Process Builder, and workflow rules with account teams to help keep data clean and minimize manual data entry. You can now report on account teams, too.

Set the Order of Products on Opportunities and Quotes

Sales reps can easily organize the Products related list on an opportunity or the Quote Line Items related list on a quote. They're no longer limited to the order in which products were added. If an opportunity and a quote are linked and the sort order of either record is changed, the sort order is updated during syncing.

Row-Level Actions Added to the Schedules Related List for Opportunity Products

To improve usability for reps working with opportunities, we added the actions Edit and Delete to items in the Schedules related list on opportunity products.

Filter for Opportunities Owned by Your Team with One Click

Sales managers can use a new opportunities list view based on role hierarchy to see opportunities owned by their direct and indirect reports without creating a list view.

Get Insight into Account and Opportunity Team Member Access

Teams can collaborate more effectively when they know who can view or edit an account or opportunity and related records. Now teams working in Lightning communities can use the Team Member Access action to see other team members' access to records.

Update Your Lightning Community to the Latest Template

We're always adding improvements to Lightning communities, but you can't take advantage of them without the latest template. If you haven't updated yet, don't get left behind.

Where: This change applies to Lightning communities, accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: If you created your community in Summer '19, there's no need to do anything. If it's time to update your community, you see an update flag  in Community Builder. Follow the prompts to update your community.

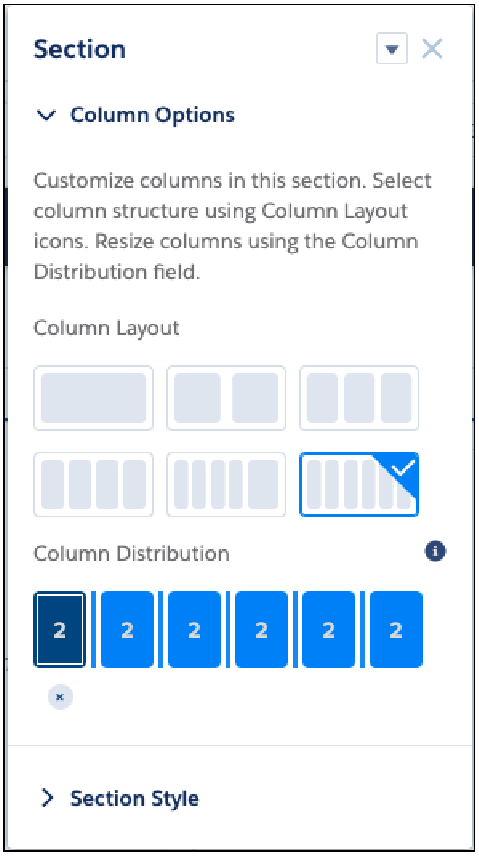
Important: Before updating your community, make sure to review Update Your Community to understand how the update can affect your community. The only feature included in this manual update is Improve Tracking with New Google Analytics™ Standard.

Break the Mold with Flexible Layouts

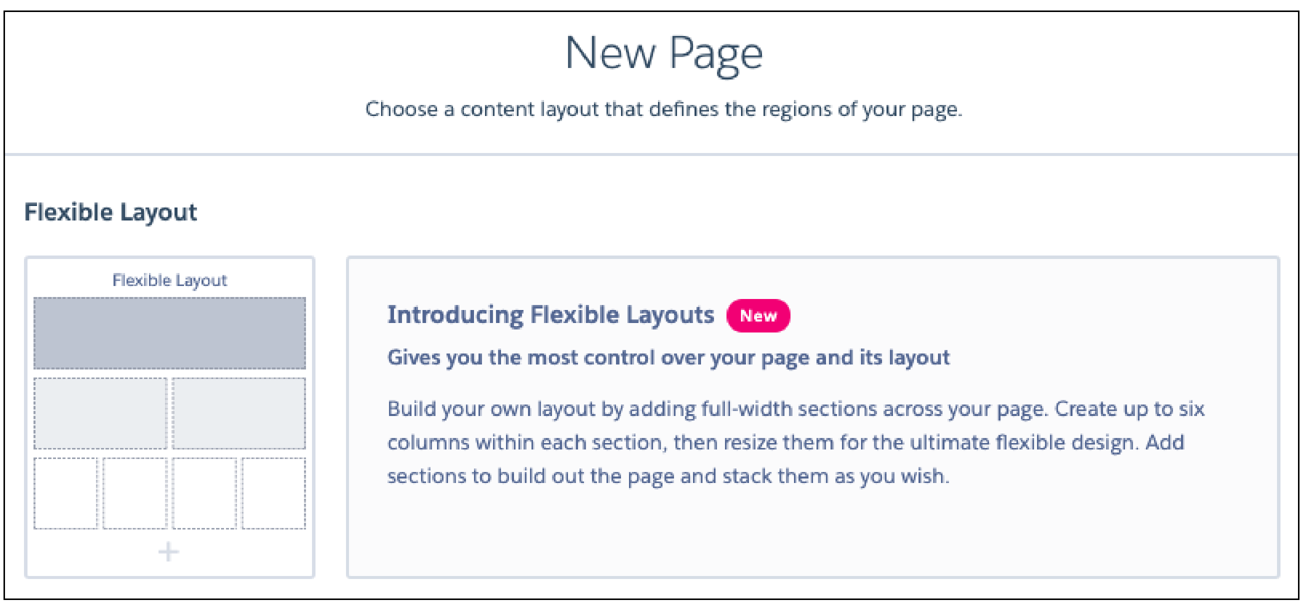
Sometimes cookie cutter doesn't cut it. Experience the freedom of flexible layouts and use them to build highly customized pages. Get fancy with adjustable columns and easy-to-add sections. Bring it all to life using background images and color.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Why: Unique content requires a unique approach. You can quickly decide how many sections and columns fill your page by clicking the layout icon distribution. To change a column size, grab and drag the handles between the columns. Use the Section Style options to customize your images, color, section height, and content width. Add sections using the + icon to stack them and build out the page.



How: In Community Builder, open the Pages menu in the top toolbar. Select **New Page** > **Standard Page**. Then select **Flexible Layout**, and begin building your page. To use a flexible layout with an existing page, create a page variation.



Manage Contributors and Their Roles in Builder

Role-based access makes it easy to control who can do what as your team builds and customizes your site in Community Builder. Add contributors and assign roles from the Administration tile in Community Workspaces.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Why: Managing a community used to be a challenge because administrators with community management permissions had complete access to all communities and their functionality. Administrative access was required to make most community updates. Now you can add users as contributors to Community Workspaces in a specific community and assign them one of the following roles.

Experience admin

These contributors can do just about everything in an assigned community. They have access to Community Builder, can manage contributors, and publish the site.

Publisher

These contributors help you build and publish. They have access to Community Builder and they can publish the site in an assigned community. They can't manage contributors. They have read-only access to the Community Workspaces **Administration** > **Contributors** tab.

Builder

These contributors help build the assigned community. They have access to Community Builder. They can't publish the site or manage contributors. They have read-only access to the Community Workspaces **Administration** > **Contributors** tab.

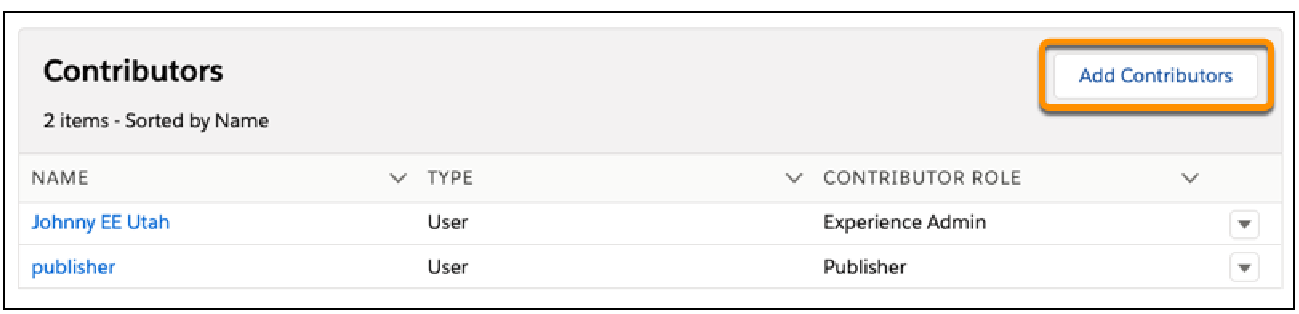
Viewer

These contributors have read-only access to Community Builder in an assigned community. They can't publish the site or manage contributors. They have read-only access to the Community Workspaces **Administration** > **Contributors** tab.

How: To add contributors, you must be a Salesforce admin or an experience admin in that community. In your community, go to Community Workspaces, and select the **Administration** tile. Then select **Contributors** > **Add Contributor**, and assign roles as required.

Note: Each contributor must meet these prerequisites.

- The Create and Set Up Communities permission is disabled.
- The user's profile or permission set has been added to the community from **Administration** > **Membership**.



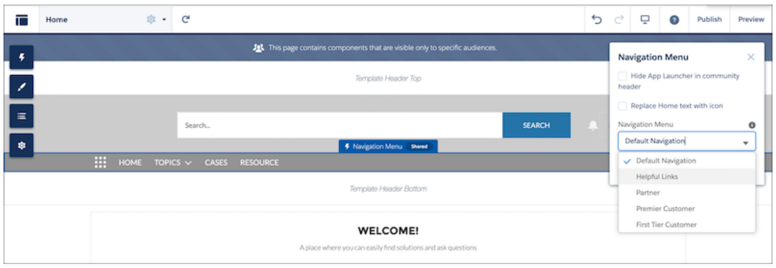
SEE ALSO:

Add Members to Your Community

Set Up Navigation Menu Variations

Gone are the days of a single navigation menu that you could use in just one place. Now you can create multiple navigation menus and use and reuse them in any navigation menu and tile menu components. But why stop there? You can have different navigation menus on different theme layouts and create custom navigation menu components that are based on existing menus.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.



Get Clearer Character Limits on Questions

Community feeds have had an unspoken limit of 255 characters on a Question field. When a question exceeded that limit, you found out only after you clicked Ask. Now the limit is clearly noted on the Question field, and we're enforcing it by stopping you when you reach 255 characters.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Get Clearer Character Limits on Questions

Enjoy Better Navigation Between Topics and Details

It used to be when you paged through Topics questions, selected a question, and then clicked Back in your browser, you returned to page one. Now, after you page through and click Back, you return to the page that shows the question that you clicked. As you navigate between list and detail, you don't have to start from page one every time.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Why: This change applies to the Compact Feed when it's used on a Topics detail page. You can see it, too, in a Search Results component on a Topics detail page.

Note: Paging through means you're clicking the **View More** button to see more content.

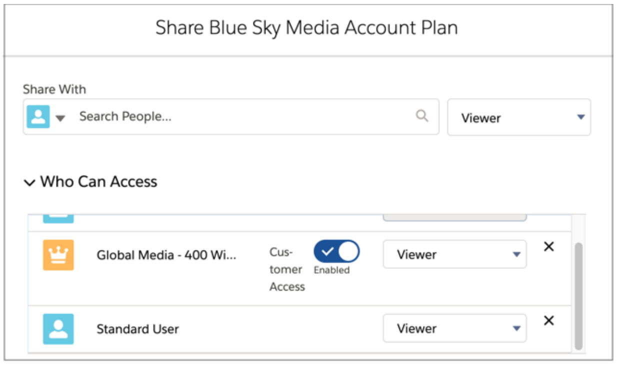
Make Files on Records Visible to Customers

You share records with customers in your communities, and now you can decide which files customers can see on those records. By default, files on records aren't visible to customers in communities. Use the new Customer Access option on a file's sharing detail page to choose when customers can see the file.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Who: Users with collaborator or owner access to the file can change the Customer Access option. Users with view-only access to the file have read-only access to the Customer Access Option. External users can't see this option.

How: On Files home in Salesforce, from the row-level action list or file preview, click **Share**. To see where the file is shared, in the sharing detail window, expand the **Who Can Access** section. The customer access option is visible in the sharing detail of any file shared with a record.



To set the sharing level, in the picklist next to the toggle, select **Viewer** to give the customer view access to the file. If you choose Set by Record, then the customer's file access depends on their record access. View access on the record provides view access to the file, and edit access on the record provides collaborator access on the file.

The Customer Access option isn't available to files shared with users, groups, workspaces, communities, or orgs.

Note: You can only share files to records from the record using the Files related list or posting in the record's feed.

Create and Assign Many Audiences at Once Using APIs (Pilot)

Use Chatter REST API and Metadata API to create audiences and programmatically assign them to targets, such as pages, components, and branding sets. Assigning a large number of audiences at once is useful when you want to assign a location-based audience to multiple components across your org.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

Note: We provide Personalization to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Personalization isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

If you have Developer Edition, contact Salesforce to use the Personalization features without participating in the pilot. Regardless of edition, Personalization isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. All commands, parameters, and other features are subject to change or deprecation at any time, with or without notice.

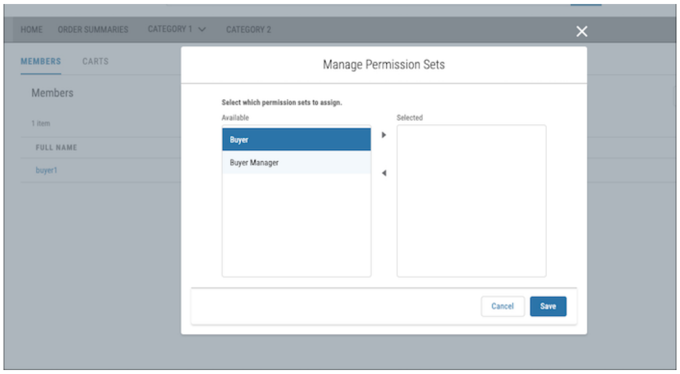
See Chatter REST API and Metadata API release notes for more detail.

Delegate Management of Permission Sets

Delegated external user administrators can now manage the permission sets of other external users on their account. No more duplicate profiles!

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

How:

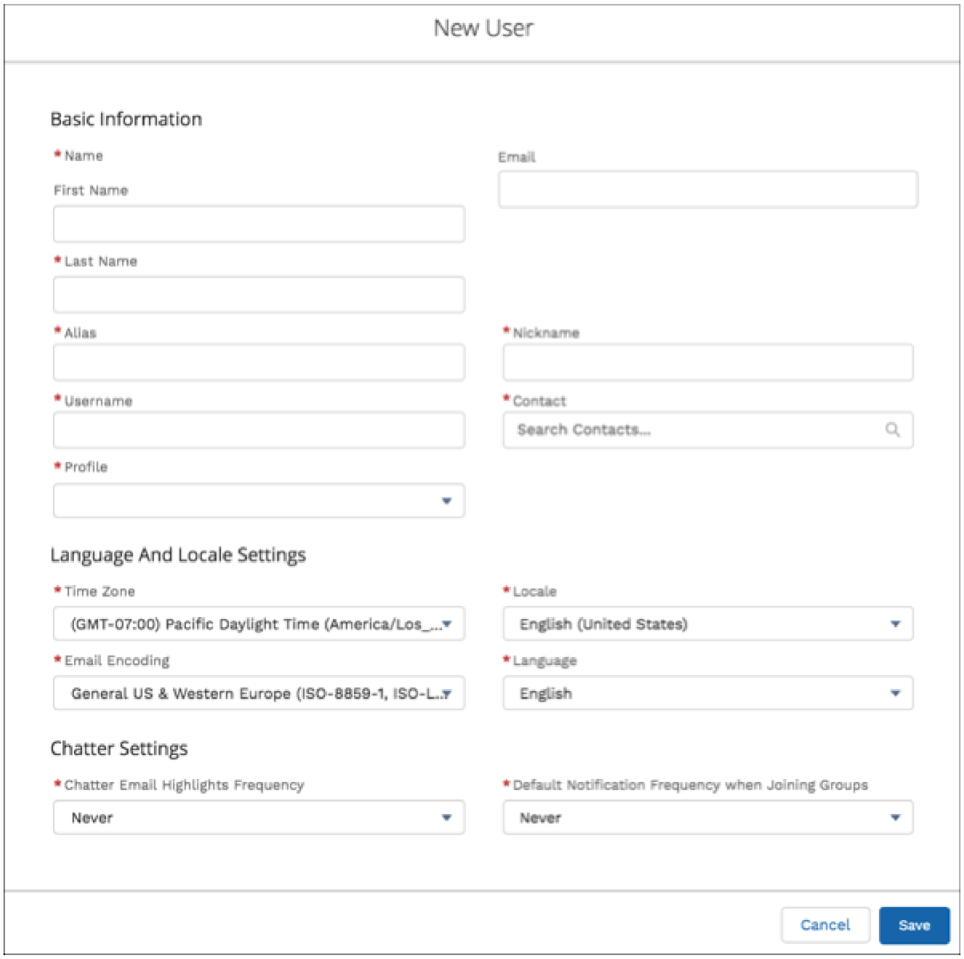


Make It Easier for Delegated Admins to Create New Users

When adding members to a partner community, delegated external admins no longer need to enter language and locale settings manually. Instead, you can use a dropdown menu with prepopulated fields to enter language, locale, and Chatter settings.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: Now admins can configure a light user creation form for delegated administrators to use when they create users on their accounts. Mandatory fields, like Language and Locale Settings and Chatter Settings can be removed from the form. Field information is auto-populated and defaults to the settings of the delegated admin. If the delegated admin is creating users with different locale, language, and Chatter settings, the fields can be left on the form and updated from a dropdown list in the field.



SEE ALSO:

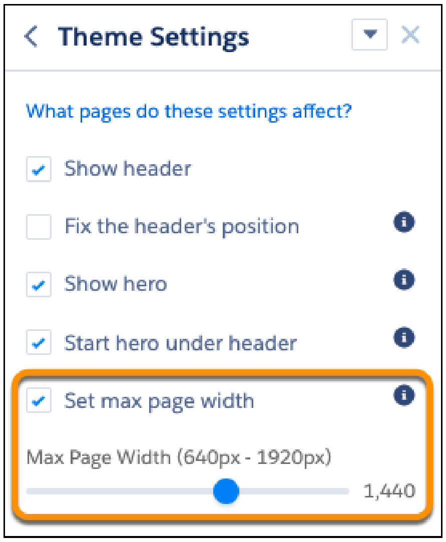
[Delegated Account Management]

Broaden Your Horizons with More Width Control

Decide how much space your content commands on a page. All default theme layouts in Lightning theme templates now include the option to set the maximum page width. Let your pages boldly span to the edges of the browser window, or set specific pixel size boundaries to control the width of the content across the page.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

How: In Community Builder, select **Theme Panel** > **Theme Settings**. Select **Set max page width** and use the slider to set the width. If you deselect**Set max page width**, the page width fills the page. This setting doesn't affect the header, hero or footer, custom overrides, and existing theme layouts.



SEE ALSO:

Lightning Aura Components Developer Guide: Create Custom Theme Layout Components for Communities (can be outdated or unavailable during release preview)

Improve Tracking with the New Google Analytics™ Standard

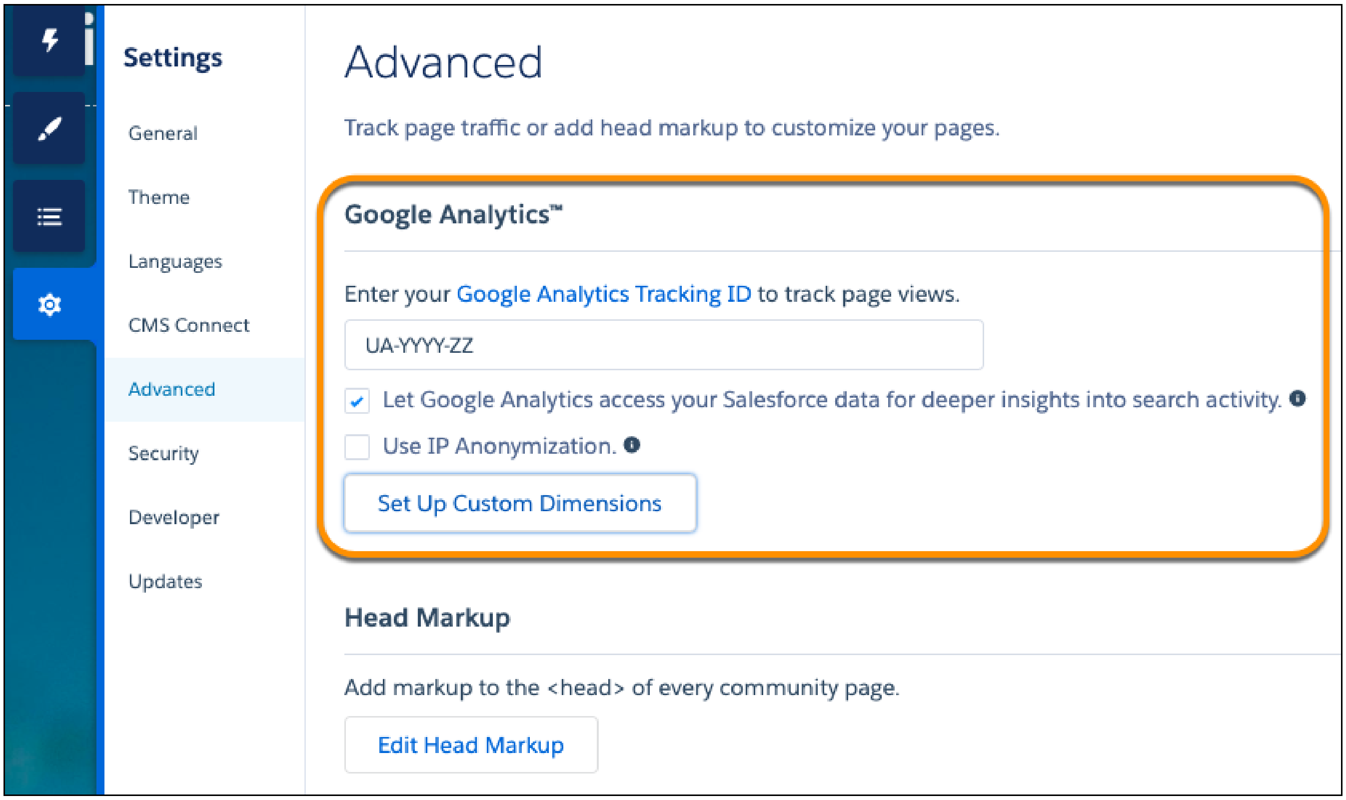
We integrated the new global site tag (gtag.js) standard, so you now have access to the latest tracking features and integrations from Google.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic. This change applies to Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Who: This feature is available to all Community and Experience admins.

How: New communities are automatically using the gtag standard. Communities created before Winter '20 must manually update to the newest community template to take advantage of this capability.

Note: We automatically add `https://www.googletagmanager.com/gtag/js` to your org's CSP Trusted Sites to ensure that both Analytics and the AdWords features can function.



For developers of custom Lightning components for Communities, use the `forceCommunity:analyticsInteractionGtag` to track events triggered by your custom component. For example, you could create a custom button and include the `forceCommunity:analyticsInteractionGtag` event in the button's controller. Whenever a user clicks the button, event data is sent to Google Analytics.

Note: To allow you time to update your community to the new template, new and updated communities can still use the legacy `forceCommunity:analyticsInteraction` aura event. However, we recommend updating to the new standard to take advantage of the improved tracking and integration.

SEE ALSO:

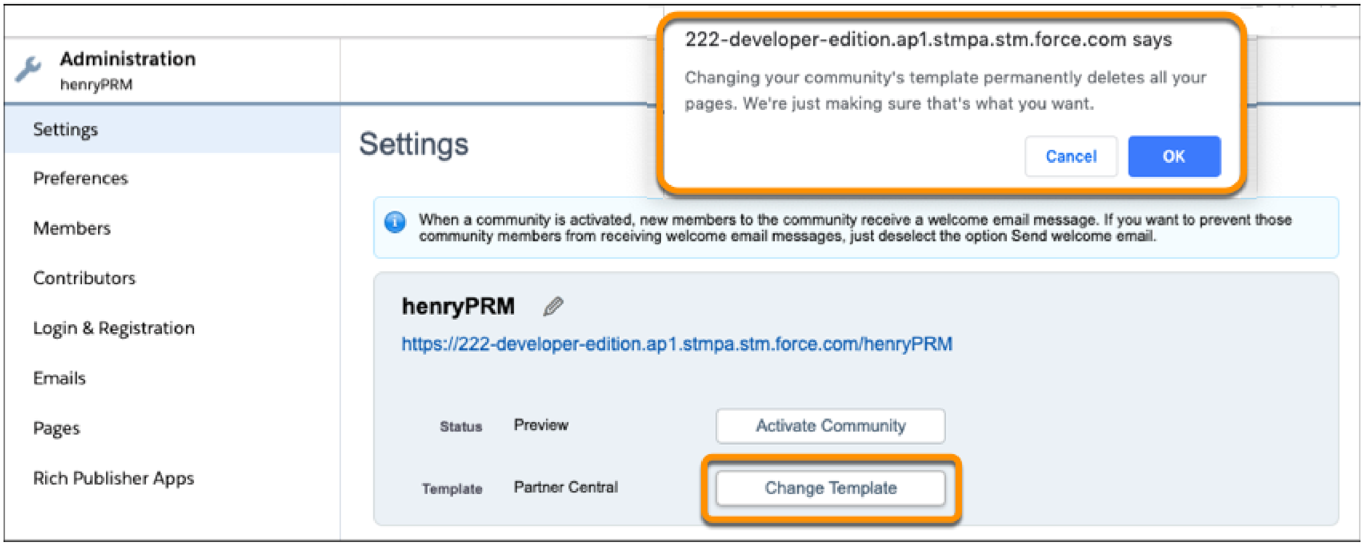
Update Your Community's Template
Track Community Users with Your Google Analytics Tracking ID
Lightning Web Components: Component Reference(can be outdated or unavailable during release preview)

Get Warned Before Switching Community Templates

Changing your community's template can cause unintended and unsupported issues for your existing community. Switching a template also permanently deletes your customizations and pages within the community. Now when you attempt to switch to a different template, you receive a message confirming that you want to make the change.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

How: A message warns you that changing your community s template permanently deletes all existing customizations and pages.



Customize Account Teams to Enhance Team Selling

Use customizable account teams to manage complex account relationships better in Salesforce. Collect more information by adding custom fields, buttons, and links to account team layouts. Use validation rules, Apex triggers, Process Builder, and workflow rules with account teams to help keep data clean and minimize manual data entry. You can now report on account teams, too.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Accounts: Customize Account Teams to Better Support Team Selling

Set the Order of Products on Opportunities and Quotes

Sales reps can easily organize the Products related list on an opportunity or the Quote Line Items related list on a quote. They're no longer limited to the order in which products were added. If an opportunity and a quote are linked and the sort order of either record is changed, the sort order is updated during syncing.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Sort Products on Opportunities the Way You Want in Lightning Experience

Quotes: Sort Quote Line Items in Lightning Experience into Any Order

Row-Level Actions Added to the Schedules Related List for Opportunity Products

To improve usability for reps working with opportunities, we added the actions Edit and Delete to items in the Schedules related list on opportunity products.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Row-Level Actions Added to the Schedules Related List for Opportunity Products

Filter for Opportunities Owned by Your Team with One Click

Sales managers can use a new opportunities list view based on role hierarchy to see opportunities owned by their direct and indirect reports without creating a list view.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

View Opportunities Owned by Your Team with One Click in Lightning Experience

Get Insight into Account and Opportunity Team Member Access

Teams can collaborate more effectively when they know who can view or edit an account or opportunity and related records. Now teams working in Lightning communities can use the Team Member Access action to see other team members' access to records.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Know Who Sees What on Account and Opportunity Teams in Lightning Experience

Lightning Components in Community Builder: Tile Menu Generally Available and Record List Header Customizations

The Tile Menu component is now generally available and ready for prime time. Customize the record list component's header to include list actions, list searches, filters, and more. And hide user profile pictures for users who don't want to show them.

IN THIS SECTION:

Display Einstein Discovery Predictions in Lightning Experience Community Pages

Add Einstein Discovery predictions as a standard component in any Lightning community page. In Community Builder, drag the new Einstein Predictions component onto your community page. Then simply choose a prediction definition, set prediction units, and select display settings. On the community page, predictions are updated in real time, and no writeback to Salesforce is necessary.

Case Detail Page Variations and Components Are Retiring Winter '20

After years of service, a host of components and pages that are used for case creation are strolling off into the sunset. Communities with these page variations and components can still use them. However, if you delete the pages or components, you can't use them again.

Deflect More Cases with the Updated Case Deflection Component

The Case Deflection component now suggests articles in a more intuitive way. When a user creates a case, suggested articles appear after the user types three or more characters in either the Subject or Description field. If the user switches to another field, suggested articles continue to display until the user's typed at least three characters in the second field. If the user stops typing, the suggested articles remain.

Use Tile Menus to Brighten Up Your Community (Generally Available)

The navigation Tile Menu component can now be easily deployed through changesets and is generally available for your community.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Tile Menu(can be outdated or unavailable during release preview)

Customize the Record List Component Header

The Record List component property pane has a new section to configure its header. The component header can now include list actions, list searches, refresh, charts, and filter buttons, object names, and image icons.

Where: This change applies to Lightning communities accessed through Lightning Experience or Salesforce Classic in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

How: In Builder, select the options for each setting in the component's property panel.

Hide User Profile Pictures

In Community Builder, you can now choose if users can display a profile photo with a new setting in the User Profile Details component.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

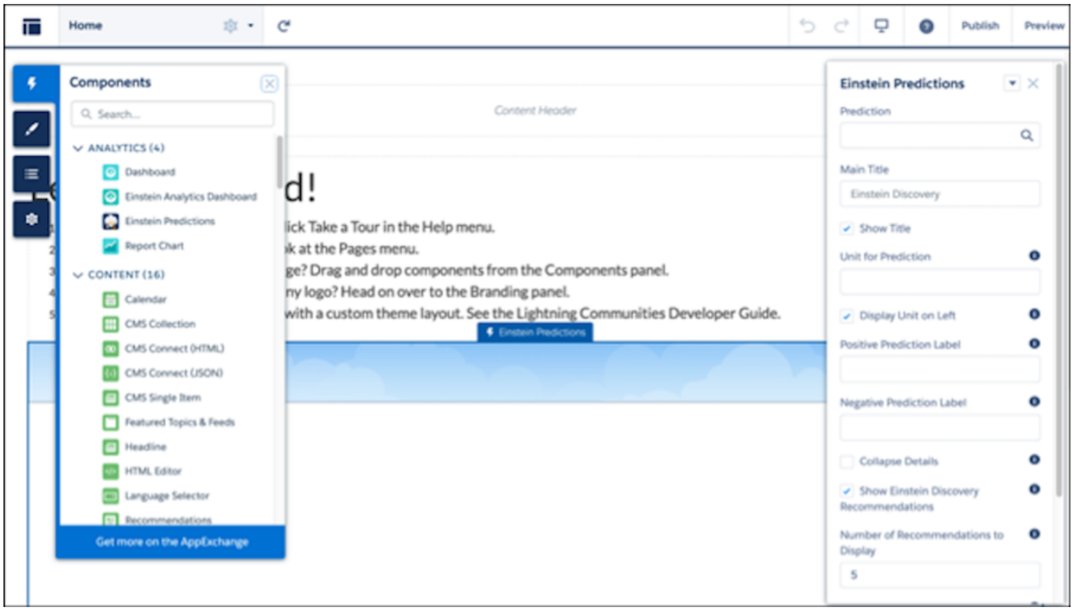
Display Einstein Discovery Predictions in Lightning Experience Community Pages

Add Einstein Discovery predictions as a standard component in any Lightning community page. In Community Builder, drag the new Einstein Predictions component onto your community page. Then simply choose a prediction definition, set prediction units, and select display settings. On the community page, predictions are updated in real time, and no writeback to Salesforce is necessary.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Who: To add the component to a Lightning community page, you must have the Create and Set Up Communities system permission. To view the predictions, you must have the View Einstein Discovery Recommendations permission.

How: Drag the Einstein Predictions component to the page layout. Choose the prediction to show and, optionally, configure the settings.



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Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

How: Rather than using these case-specific page variations and components, use generic record pages and components and associate them with the case object.

Components:

- Case Attachments
- Case Banner
- Case Comments
- Case Details
- Case Feed
- Case Feed Publisher
- Case List

Page variations on the Case Detail page:

- Base Case Detail
- Chatter Case Detail

Deflect More Cases with the Updated Case Deflection Component

The Case Deflection component now suggests articles in a more intuitive way. When a user creates a case, suggested articles appear after the user types three or more characters in either the Subject or Description field. If the user switches to another field, suggested articles continue to display until the user's typed at least three characters in the second field. If the user stops typing, the suggested articles remain.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Guest User: Restricted Access, Private Org-Wide Default for Guest Users, and New Sharing Rules

We've greatly enhanced guest user security to adhere to the Salesforce principle of least access. We've changed guest user org-wide defaults, record ownership, and driving guest user record access through a simplified and explicit sharing model. You can also use a new sharing rule type to share data with guest users.

IN THIS SECTION:

Secure Guest Users' Record Access with a New Setting

Secure the access that unauthenticated guest users have to your org's data with the **Secure guest user record access** setting. When enabled, guest users' org-wide defaults are set to Private for all objects, and you can't change this access level. You also can't add guest users to groups or queues or manually share records with them. You can grant record access only with new guest user sharing rules.

Set Org-Wide Defaults to Private for Guest Users

You can set guest users' org-wide defaults to Private for all objects by enabling the **Secure guest user record access** setting. To help secure your org's data, you can't change this access level. When this setting isn't enabled, external org-wide defaults still apply to guest users. For those orgs, we recommend that you set external org-wide defaults to Private for all objects.

Manage Community and Guest Users' Visibility

We've created a preference that allows more control over visibility between authenticated and unauthenticated users. For orgs created after Winter '20, guest user visibility and community user visibility are turned off by default and can be enabled separately. If **Community User Visibility** is enabled and **See other members of this community** is selected, community users can only view authenticated members of the same community. If you want unauthenticated guest users to interact with authenticated community users, you can also turn on visibility for guest users.

View All Users and Other Permissions Disabled in Guest User Profiles (Security Alert)

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles. If you have an org created before Winter '20, we recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles. To enhance security, we also removed these permissions from the guest user profile: Can Approve Feed Post and Comments, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email.

Automatically Assign Records Created by Guest Users to a Default Owner (Security Alert)

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create. Instead, when a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert)

To increase the security of your Salesforce data, we're enforcing private org-wide defaults for guest users. We're also restricting the sharing mechanisms that you can use to grant record access to guest users. If you have an org created before Winter '20, we recommend that you review the external org-wide defaults, public groups, queues, and manual sharing that you use to grant access to guest users. Then replace the access previously granted by these sharing mechanisms with guest user sharing rules before the security alert is enforced.

Use Sharing Rules to Grant Record Access to Guest Users

Control which records you allow guest users without login credentials to access. A guest user sharing rule is a type of criteria-based sharing rule that can grant Read Only access to guest users. It's the only way that you can share records with unauthenticated users when the **Secure guest user record access** setting is enabled.

SEE ALSO:

Secure Your Guest User Profiles

Secure Guest Users' Record Access with a New Setting

Secure the access that unauthenticated guest users have to your org's data with the **Secure guest user record access** setting. When enabled, guest users' org-wide defaults are set to Private for all objects, and you can't change this access level. You also can't add guest users to groups or queues or manually share records with them. You can grant record access only with new guest user sharing rules.

Where: This change applies to all communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

When: This feature is available in early September.

Why: Restricting guest users' default access to your org's data is a Salesforce security best practice. While we strongly recommend that you enable this setting, changing sharing settings can affect your guest users' ability to access records. Test all changes in a sandbox environment to see the effects on data sharing and visibility before you change your implementation in production.

How: From Setup, enter `Sharing Settings` in the Quick Find box, and select **Sharing Settings**. Select **Secure guest user record access**.

SEE ALSO:

Set Org-Wide Defaults to Private for Guest Users

Automatically Assign Records Created by Guest Users to a Default Owner (Security Alert)

Use Sharing Rules to Grant Record Access to Guest Users

Salesforce Help: Secure Your Community or Portal (can be outdated or unavailable during release preview)

Set Org-Wide Defaults to Private for Guest Users

You can set guest users' org-wide defaults to Private for all objects by enabling the **Secure guest user record access** setting. To help secure your org's data, you can't change this access level. When this setting isn't enabled, external org-wide defaults still apply to guest users. For those orgs, we recommend that you set external org-wide defaults to Private for all objects.

Where: This change applies to all communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

When: This feature is available in early September.

How: From Setup, enter `Sharing Settings` in the Quick Find box, and select **Sharing Settings**. Select **Secure guest user record access**.

SEE ALSO:

Secure Guest Users' Record Access with a New Setting

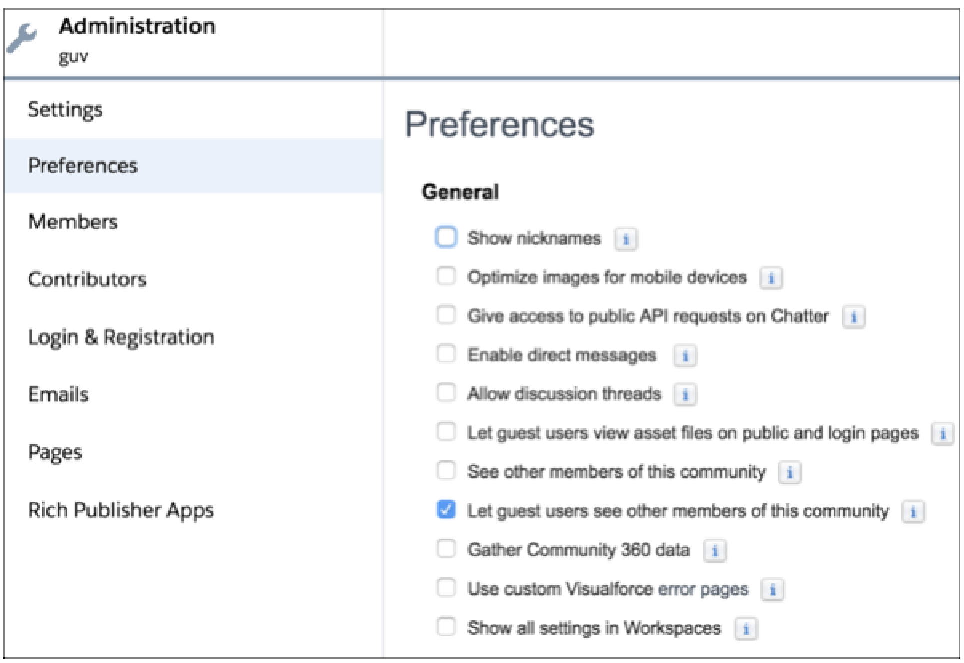
Manage Community and Guest Users' Visibility

We've created a preference that allows more control over visibility between authenticated and unauthenticated users. For orgs created after Winter '20, guest user visibility and community user visibility are turned off by default and can be enabled separately. If **Community User Visibility** is enabled and **See other members of this community** is selected, community users can only view authenticated members of the same community. If you want unauthenticated guest users to interact with authenticated community users, you can also turn on visibility for guest users.

Where: This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

How: To allow unauthenticated users to see other members of their community, go to **Setup** > **Sharing Settings** and select **Community User Visibility**. After Community User Visibility is enabled, go to **Workspaces** > **Administration** > **Preferences** and select **See other members of this community**.

To allow unauthenticated guest users access to your community, go straight to **Workspaces** > **Administration** > **Preferences** and select **Let guest users see other members of this community**.



Note: Use platform sharing tools to allow guest user visibility on for Salesforce Tabs + Visualforce and Site.com.

View All Users and Other Permissions Disabled in Guest User Profiles (Security Alert)

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles. If you have an org created before Winter '20, we recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles. To enhance security, we also removed these permissions from the guest user profile: Can Approve Feed Post and Comments, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email.

Where: This change applies to orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

How: Check all guest user profiles in your org, including guest user profiles for communities, legacy portals, Force.com sites, and Site.com sites. Deselect View All Users where applicable.

SEE ALSO:

Salesforce Help: Secure Your Community or Portal (can be outdated or unavailable during release preview)

Automatically Assign Records Created by Guest Users to a Default Owner (Security Alert)

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create. Instead, when a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

Where: This change applies to orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

Why: Having an internal org user be the owner of records created by guest users is a Salesforce security best practice. While we strongly encourage you to assign a default owner, changing record ownership can affect your guest users' ability to access records. Test all changes in a sandbox environment to see the effects on data sharing and visibility before you change your implementation in production.

How: From Setup, enter `Communities Settings` in the Quick Find box, then select **Communities Settings**. Select **Reassign new records created by guest users to the default owner**. Click **Save**.

In newly created communities, Salesforce automatically assigns the user that created the community as the default owner of all records created by guest users. Change the default owner in the Administration workspace of your community, under Preferences.

Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert)

To increase the security of your Salesforce data, we're enforcing private org-wide defaults for guest users. We're also restricting the sharing mechanisms that you can use to grant record access to guest users. If you have an org created before Winter '20, we recommend that you review the external org-wide defaults, public groups, queues, and manual sharing that you use to grant access to guest users. Then replace the access previously granted by these sharing mechanisms with guest user sharing rules before the security alert is enforced.

Where: This change applies to orgs with active communities and sites in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

When: The timelines for the rollout and enforcement of this setting will be published in the Securing Community Cloud group on the Trailblazer Community (Salesforce login required).

How: From Setup, enter `Security Alerts` in the Quick Find box, then select **Security Alerts**. For Secure Guest Users' Org-Wide Defaults and Sharing Model, click **Get Started**. Follow the instructions in the step-by-step guides for reviewing guest user sharing settings and creating guest user sharing rules.

SEE ALSO:

Salesforce Help: Secure Your Community or Portal (can be outdated or unavailable during release preview)

Critical Updates and Security Alerts

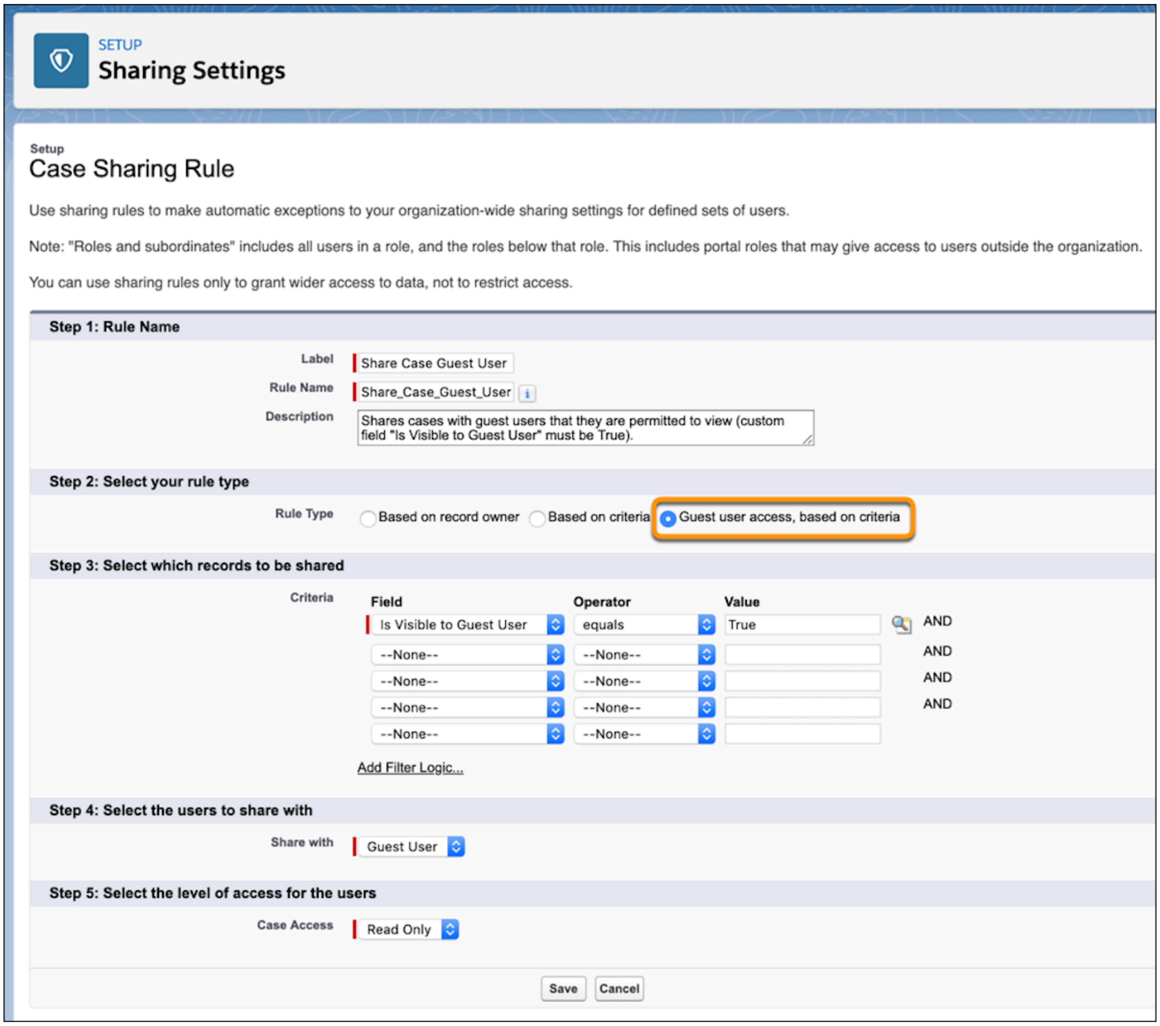
Use Sharing Rules to Grant Record Access to Guest Users

Control which records you allow guest users without login credentials to access. A guest user sharing rule is a type of criteria-based sharing rule that can grant Read Only access to guest users. It's the only way that you can share records with unauthenticated users when the **Secure guest user record access** setting is enabled.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

When: This feature is available in early September.

How: From Setup, enter `Sharing Settings` in the Quick Find box, then select **Sharing Settings**. Enable **Secure guest user record access**. Then, in the Sharing Rules related list for the object, click **New** and select the **Guest user access, based on criteria** rule type.



SEE ALSO:

Secure Guest Users' Record Access with a New Setting

Salesforce Help: Create Sharing Rules (can be outdated or unavailable during release preview)

Security and Sharing: User Visibility Disabled by Default, TLS 1.2, and Email Confirmation

Community and portal visibility is now off by default in newly created Winter '20 orgs. Salesforce is disabling the older Transport Layer Security (TLS) 1.1 encryption protocol and is now requiring TLS 1.2. Set up email confirmations for when your community users change their email address.

IN THIS SECTION:

Community and Portal User Visibility Are Disabled by Default in New Orgs

The Community User Visibility and Portal User Visibility settings are now disabled by default for orgs created in Winter '20 and later that enable communities or portals. External users in portals and communities can see themselves and are visible to users above them in the role hierarchy. When Community User Visibility is enabled, communities users are visible to all other users in the communities that they are a member of. When Portal User Visibility is enabled, portal users are visible to all other portal users in the same account.

Where: This change applies to communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

How: To enable these settings, from Setup, enter `Sharing Settings` in the Quick Find box, then select **Sharing Settings**. For community users, in the Organization-Wide Defaults section, click **Edit** and select **Community User Visibility**. For portal users, select **Portal User Visibility**.

SEE ALSO:

Manage Community and Guest Users' Visibility

Block Certain Fields in the User Record for Orgs with Communities and Portals (Security Alert and Critical Update, Enforced)

Salesforce is giving customers the option to enable a user setting that allows the hiding of certain personal information fields on the user records in orgs with communities or portals. The fields are hidden from view when external users are accessing user records. External users can still see their own user records. This change doesn't apply to queries running in System Mode.

Where: This change applies to all orgs with communities or portals.

How: Salesforce is introducing an org setting that allows for the hiding of other users' personal information in pages showing the user record to external user profiles, and in SOSL and SOQL queries that run as external users.

The affected fields are

- Alias
- EmployeeNumber
- FederationIdentifier
- SenderEmail
- Signature
- Username
- Division
- Title
- Department
- Extension

Admins can enable the setting **Hide Personal Information** for the org under User Management Settings. After enabling the setting, searches on user records don't show the affected fields of other users to external users. Test any changes in a sandbox environment before introducing it in production.

Tip: This update is both a critical and a security update, and appears in both the Critical Update Console and the Security Updates page in Setup. To ensure a smooth transition, follow the step-by-step recommendations on the Security Updates page.

Require TLS 1.2 for HTTPS Connections in Communities and Sites (Critical Update, Enforced)

Require TLS 1.2 for HTTPS Connections in Communities and Sites was a critical update in Summer '19 and is enforced on October 25, 2019. To maintain the highest security standards and promote the safety of your data, Salesforce is disabling the older Transport Layer Security (TLS) 1.1 encryption protocol. All inbound connections to or outbound connections from your Salesforce communities, sites, and portals must use TLS 1.2. Verify that your browser access, API integrations, and other Salesforce features are compliant with TLS 1.2.

Where: This change applies to communities and sites accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

When: This critical update is enforced for production orgs on October 25, 2019. Communities enabled after this date require TLS 1.2 by default. For other implementation dates, see the knowledge article, Salesforce Disabling TLS 1.1.

How: We recommend that you test this update in a sandbox or Developer Edition org to verify end-to-end compatibility before enabling it in your production org. We also recommend that you inform your community users about this upcoming change and encourage them to upgrade to browsers that support TLS 1.2.

To activate this critical update before October 25, 2019, from Setup, enter `Critical Updates` in the Quick Find box, then select **Critical Updates**. For Require TLS 1.2 for HTTPS Connections for Communities and Sites, click **Activate**.

SEE ALSO:

Knowledge Article: Salesforce Disabling TLS 1.1

Summer '19 Release Notes: Require TLS 1.2 for HTTPS Connections in Communities and Sites (Critical Update)

Require TLS 1.2 for HTTPS Connections (Critical Update, Enforced)

Critical Updates and Security Alerts

Prevent Using Standard External Profiles for Self-Registration and User Creation (Security Alert and Critical Update, Enforced)

This update restricts the use of standard external profiles for self-registration and assignment to users.

Where: This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

Who: This change applies to all orgs using standard external profiles:

- BronzePartner ExternalAppsPlusLogin
- CSPLitePortal
- CustomerCommunity
- CustomerCommunityLogin
- CustomerCommunityPlus
- CustomerCommunityPlusLogin
- CustomerPortalManager
- CustomerPortalManagerCustom
- CustomerPortalManagerStandard
- ExternalAppsLogin
- ExternalAppsMember
- ExternalAppsPlusMember GoldPartner
- HighVolumeCustomerPortal
- HighVolumePortal
- IdeasOnlyPortal
- LimitedCustomerPortalMgrCustom
- LimitedCustomerPortalMgrStandard
- OverageAuthenticatedWebsite
- OverageCustomerPortalMgrCustom
- OverageCustomerPortalMgrStandard

- OverageHighVolumeCustomerPortal
- Partner
- PartnerCommunity
- PartnerCommunityLogin
- PlatformPortal
- SilverPartner AuthenticatedWebsite

Why: This update prevents using standard external profiles for self-registration and user creation. For self-registration, we recommend that you assign users to a cloned community profile, rather than a standard community profile. We also recommend that you use cloned community profiles for new users.

How: To allow self-registration and user creation using standard external profiles, go to **Setup** > **Communities Settings** and enable the new **Allow standard external profiles for self-registration and assignment to users** preference.

Note: Allowing self-registration and community user setup with standard external profiles is not a Salesforce best practice. Review the object permissions and field-level security settings for all standard external profiles before turning the preference on.

Tip: This update is both a critical and a security update, and appears in both the Critical Update Console and the Security Updates page in Setup. To ensure a smooth transition, follow the step-by-step recommendations on the Security Updates page.

Set Up Email Address Confirmations for Lightning Communities

When Lightning Communities external users changed their email address, the email address is updated immediately. For better security, you can now make sure that the user owns the new email address before the update takes effect. Salesforce recommends that you enable email confirmations from the Identity Verification Setup page. For new orgs, email confirmations occur automatically.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Require Verification When Community Users' Change Their Email Address

Customize How External Users Register Their Identity Verification Methods

Customize your external users' experience when they register their email address or phone number for identity verification. You can change the default Verify page that Salesforce displays to capture a user's verification code.

Where: This feature is available in Lightning communities accessed through Lightning Experience and Salesforce Classic and is available in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Create Your Own Page to Register a User's Verification Methods

Tighten up Your Community User Permissions

To make communities more secure, some user permissions were removed from the community license, and others are turned off by default.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

When: This change only impacts new orgs created after Winter '20.

Who: These changes apply to Partner Community, Customer Community, Customer Community Plus, External Apps, and External Apps Plus license users.

How: The following user permissions are turned off by default. If you need them, you can turn them back on individually:

- Access Activities

  Note: Turn this permission back on to enable external users to send emails on a case.

- Add People to Direct Messages
- Read D&B Company records (available with Partner Community and External Apps Plus communities only)
- Knowledge One
- Apex REST Services (available with Customer Community Plus licenses only)
- Assign Topics
- Create and Own New Chatter Groups
- Access Content Workspaces (available with Partner Community, Customer Community Plus, and External Apps Plus licenses only)
- Create Topics
- Edit Opportunity Product Sales Price (available with Partner Community and External Apps Plus licenses only)
- Edit Tasks (available with Partner Community, Customer Community Plus, and External Apps Plus licenses only)
- Edit Topics (available with Partner Community, Customer Community Plus, and External Apps Plus licenses only)
- Manage Email Templates
- Show App Launcher in Communities
- Field Service Standard
- Access Insurance Objects
- Manage Health Cloud Utilization Management (available with Partner Community, Customer Community, Customer Community Plus, and External Apps Plus licenses only)
- Manage Health Cloud (available with Partner Community, Customer Community, and Customer Community Plus licenses only)
- Manage Health Cloud Financial Data
- Remove People from Direct Messages
- Run Flows (available with Partner Community, Customer Community, Customer Community Plus, and External Apps Plus licenses only)
- Run Reports (available with Partner Community and External Apps Plus licenses only)
- Show Company Name as Community Role
- Allow Access to Customized Actions
- Enable Work.com

The following user permission is turned off by default and you can't turn it back on:

- Email Administration

The following user permissions were already turned off by default, and you no longer can turn them back on:

- Modify Data Classification
- Share internal Knowledge articles externally
- Enable UI Tier Architecture

Set External Access Levels for More Standard Objects (Generally Available)

You can set external access levels for more standard objects. The objects available vary depending on your org's licenses and other settings.

Where: This change applies to communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Safeguard Your Data by Setting External Access Levels for More Standard Objects (Generally Available)

Salesforce Help: External Organization-Wide Defaults Overview (can be outdated or unavailable during release preview)

Community Nicknames (Security Alert)

Starting in Winter '20, community nicknames are enabled by default for new communities and no longer based on user names.

Where:

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

Why: Community nicknames allow more privacy by protecting member identities. This protection is especially helpful in public communities where unregistered visitors can see member profiles. Randomly generated nicknames offer even more protection as they don't use any part of the user's name. Members can change their generated nickname if they wish.

Other Changes in Communities

Learn about smaller changes that improve your experience with communities.

IN THIS SECTION:

Name Change for Workspaces and My Communities in Builder

We changed some of the label names, but their functionality and features remain the same.

Use Attributes in Lightning Web Components with Confidence

In Lightning Web Components, default values for Boolean and integer attributes are now coerced correctly and retain their original type.

Improve Community User Privacy by Using Nicknames in Private Messages

The nicknames feature is now available in your Salesforce Tabs + Visualforce community's private messages. Previously, you could either turn off messages or use an informal name to prevent full names from displaying. Preventing full name visibility helps protect community member privacy. When you enable the nicknames feature, it's automatically used for private messages. Simplify naming and protect user privacy by using nicknames across your communities.

Manage Delivery Settings for Chatter

Use Notification Builder to choose desktop and mobile delivery channels, including supported Salesforce apps, for standard notification types. Previously, Salesforce defined the delivery channels for standard notifications. Now you have more control over community notifications, including group manager announcements, group mentions on a post, individual mentions on a post, new comments on a post, new messages, posts to a group, posts to a profile, and posts to a stream.

Set Visibility of Feed Items in a Case Feed

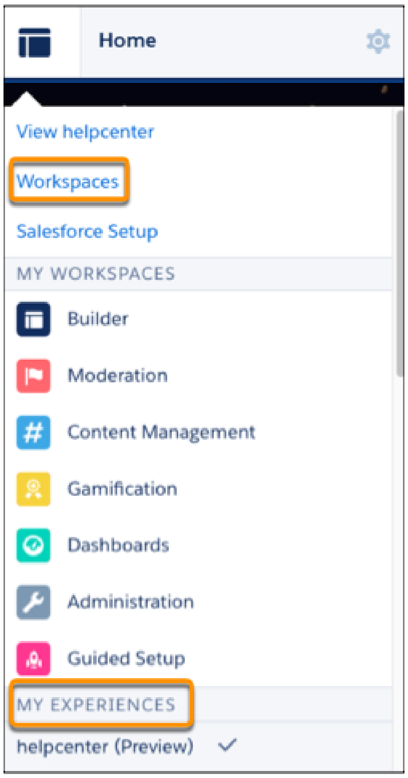
In Lightning communities and Lightning Service Console, agents can control whether a feed item is private or public. Public feed items are visible to both internal and external users. Private feed items are visible only to internal users.

Name Change for Workspaces and My Communities in Builder

We changed some of the label names, but their functionality and features remain the same.

Where: This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

Why: Community Workspaces is now simply Workspaces. My Communities is now My Experiences.



Use Attributes in Lightning Web Components with Confidence

In Lightning Web Components, default values for Boolean and integer attributes are now coerced correctly and retain their original type.

Where: This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

Why: Before the Winter '20 release, default values for Booleans and integers defined on design properties for Lightning Web Components *didn't* correctly coerce to the property type specified. Instead, the default values were treated as strings.

For example, let's say you define a property in the .js file of a Lightning Web Component:

```
@api myBooleanAttribute;
@api myIntegerAttribute;
```

In the .js-meta.xml file of that component, you define a corresponding design property that declares the type of that attribute to be an integer or Boolean and has a default value:

```
<property name="myBooleanAttribute" type="Boolean" default="true" />
<property name="myIntegerAttribute" type="Integer" default="314" />
```

Before this release, the component properties received the default values as strings "`true`" and "`314`", instead of Boolean and integer values. Attributes now coerce to their proper types.

If your Lightning Web Components components contained custom parsing logic for Boolean or integer values as a workaround for this issue, you should remove this logic.

Improve Community User Privacy by Using Nicknames in Private Messages

The nicknames feature is now available in your Salesforce Tabs + Visualforce community's private messages. Previously, you could either turn off messages or use an informal name to prevent full names from displaying. Preventing full name visibility helps protect community member privacy. When you enable the nicknames feature, it's automatically used for private messages. Simplify naming and protect user privacy by using nicknames across your communities.

Where: This change applies to Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Note: This feature is called Chatter Messages in Salesforce Setup, but referred to as private messages in your community's Administration workspace. This change doesn't apply to template-based Lightning communities, which use Direct Messages instead.

Manage Delivery Settings for Chatter

Use Notification Builder to choose desktop and mobile delivery channels, including supported Salesforce apps, for standard notification types. Previously, Salesforce defined the delivery channels for standard notifications. Now you have more control over community notifications, including group manager announcements, group mentions on a post, individual mentions on a post, new comments on a post, new messages, posts to a group, posts to a profile, and posts to a stream.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: To learn more, see Manage Delivery Settings for Standard Notifications with Notification Builder.

Set Visibility of Feed Items in a Case Feed

In Lightning communities and Lightning Service Console, agents can control whether a feed item is private or public. Public feed items are visible to both internal and external users. Private feed items are visible only to internal users.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

SEE ALSO:

Set Public and Private Visibility of Feed Items in Case Feed in Lightning Experience

Chatter: Question Character Limit, Case Feed Item Visibility, and Mobile Record Navigation

Experience clearer character limits on questions. Set case feed item visibility to public or private. Opt to view more record feed information or skip it in the new Salesforce mobile app.

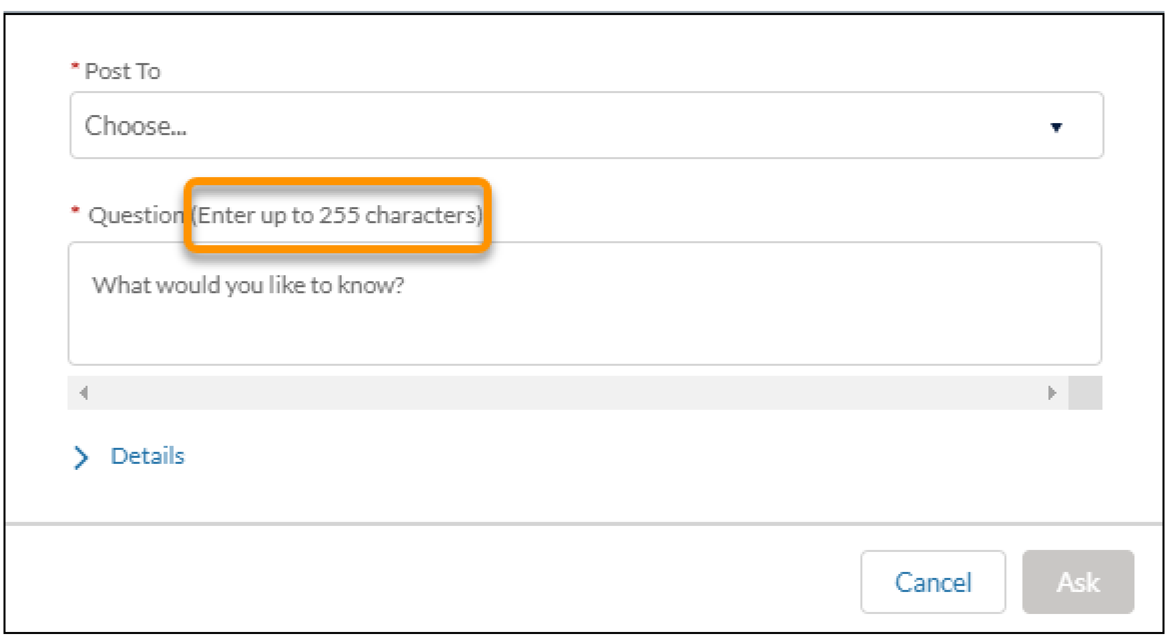
IN THIS SECTION:

Get Clearer Character Limits on Questions

Chatter has had an unspoken limit of 255 characters on a Question field. When a question exceeded that limit, you found out only after you clicked Ask. Now the limit is clearly noted on the Question field, and we're enforcing it by stopping you when you reach 255 characters.

Where: This change applies to Lightning Experience and Lightning communities in Essentials, Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

Why: Here's how the limit prompt looks in a community:



Set Visibility of Feed Items in a Case Feed

In Lightning Experience and Lightning Service Console, agents can control whether a feed item is private or public. Public feed items are visible to both internal and external users. Private feed items are visible only to internal users.

Where: This change applies to Lightning Experience in the Essentials, Professional, Developer, Performance, and Unlimited editions.

SEE ALSO:

Set Public and Private Visibility of Feed Items in Case Feed in Lightning Experience

See More Record Details When You Want (and Not When You Don't)

A new View More button appears after the first set of Chatter posts, record detail fields, and related list items on a record. If you want to see more of these items, you have the convenience of the View More button. If you don't need all that information, the button makes it possible to scroll past these items to the useful record information that lies beyond.

Where: This change applies to the new Salesforce mobile app in all editions.

SEE ALSO:

See More Record Details When You Want (and Not When You Don't)

Manage Delivery Settings for Chatter

Use Notification Builder to choose desktop and mobile delivery channels, including supported Salesforce apps, for standard notification types. Previously, Salesforce defined the delivery channels for standard notifications. Now you have more control over Chatter notifications, including group manager announcements, group mentions on a post, individual mentions on a post, new comments on a post, new messages, posts to a group, posts to a profile, and posts to a stream.

Where: This change applies to Lightning Experience in all editions, except Database.com. You can send notifications to users in Lightning Experience and Salesforce Classic in all editions, to users in the current Salesforce mobile app in all editions, except Database.com, and to users in the new Salesforce mobile app in all editions, except Essentials and Database.com. You can send notifications to users in Mobile Publisher apps for an extra cost.

How: To learn more, see Manage Delivery Settings for Standard Notifications with Notification Builder.

Files: File Sharing Improvements and File Removal Without Deletion

We enhanced the way files on records are handled. Files can inherit the sharing settings of the records that they're associated with. You can remove a file from a record without deleting it from Salesforce. Orgs with communities can let customers see files on records.

IN THIS SECTION:

Set File Sharing to Inherit Record Settings

When attaching files to records, you can have the files inherit the sharing settings of those records. For instance, when a user can edit a record, you want them to be able to edit the files on that record, too. Now you can set the default sharing permissions on files that are attached to records. The preference lets files follow the sharing settings of the record.

Remove a File from a Record Without Deleting It Everywhere

Want to remove a file from a record but not delete it from your Salesforce org? Now you can! Previously, a file owner could delete a file from Files home or a record using row-level actions. But this method also removed the file from all records and posts where it was attached. Now you can easily remove the file from a record without also removing it from other records, posts, or Files home.

Make Files on Records Visible to Customers in Communities

Now you can decide which files customers can see on records that you share with customers in your communities. By default, files on records aren't visible to customers in communities. The new Customer Access switch on a file's sharing detail page lets you decide when customers can see the file.

Improve Org Security With Correct File Extensions and MIME Types

We've increased security for viewing files in a browser. When uploading files and attachments in your org, set the correct file extension and MIME type so the browser can display your file.

Set File Sharing to Inherit Record Settings

When attaching files to records, you can have the files inherit the sharing settings of those records. For instance, when a user can edit a record, you want them to be able to edit the files on that record, too. Now you can set the default sharing permissions on files that are attached to records. The preference lets files follow the sharing settings of the record.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Why: Previously, when you added a file to a record, the sharing setting was set to Viewer by default. To update file sharing to Set by Record, you had to change the setting on each file. Now you can update the default setting so users' access to a file that is attached to a record automatically follows their level of record access.

When the preference is enabled, a user with read/write access to the record gets collaborator access to an attached file. A user with read-only record access gets viewer access to the file.

Note: When the preference is disabled, all files attached to records default to viewer access.

This setting applies to files that are attached to records through the Files related list and files attached in the record's Chatter feed.

How: For new orgs, this preference is auto-enabled, and files on records are set to Set by Record by default. For existing orgs, go to Setup and enter *Files* in the Quick Find box. Under Salesforce Files, choose **General Settings**. Enable the preference **Set file access to Set by Record for files attached to records**.

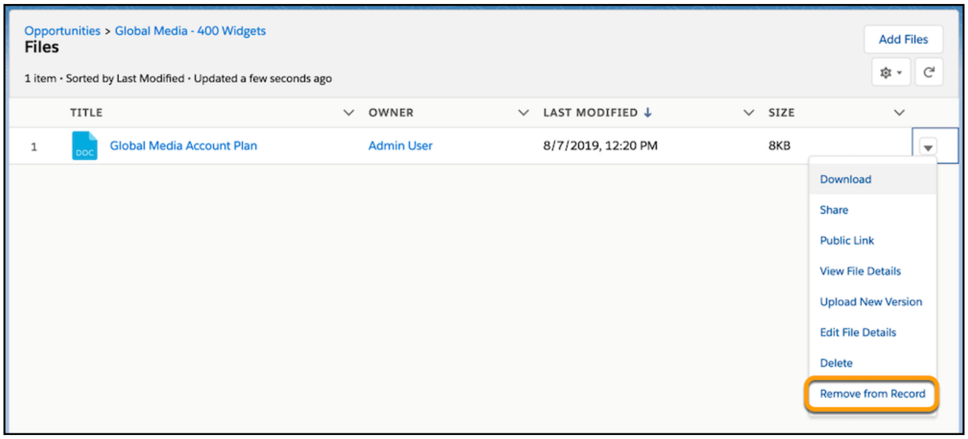
Remove a File from a Record Without Deleting It Everywhere

Want to remove a file from a record but not delete it from your Salesforce org? Now you can! Previously, a file owner could delete a file from Files home or a record using row-level actions. But this method also removed the file from all records and posts where it was attached. Now you can easily remove the file from a record without also removing it from other records, posts, or Files home.

Where: This change applies to Lightning Experience in Professional, Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Who: To remove a file from a record, you must have at least collaborator access to the file.

How: On the record's Files related list, choose **Remove from Record** from the row-level action menu. Enabled by default in all orgs.

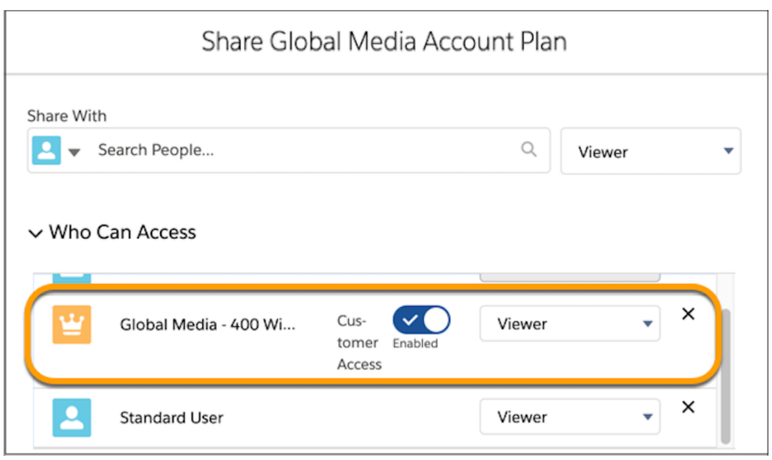


Make Files on Records Visible to Customers in Communities

Now you can decide which files customers can see on records that you share with customers in your communities. By default, files on records aren't visible to customers in communities. The new Customer Access switch on a file's sharing detail page lets you decide when customers can see the file.

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Professional, Performance, Unlimited, and Developer editions.

How: On Files home in Salesforce, from the row-level action list or file preview, click **Share**. To see where the file is shared, in the sharing detail window, expand the **Who Can Access** section. The customer access option is visible in the sharing detail of any file shared with a record.



Note: The Customer Access option is only relevant if your org has communities enabled.

SEE ALSO:

Make Files on Records Visible to Customers

Improve Org Security With Correct File Extensions and MIME Types

We've increased security for viewing files in a browser. When uploading files and attachments in your org, set the correct file extension and MIME type so the browser can display your file.

Where: This change applies to Lightning Experience in Professional, Enterprise, Essentials, Performance, Unlimited, and Developer editions.

Why: If a file extension type isn't provided when a file is uploaded, the file may not display in the browser. File extensions determine the correct MIME type, which allows web servers and browsers to easily transfer your files and keep them secure during downloads.

How: When you upload an attachment, document, or Salesforce file, specify the correct file extension type.

When you insert a document or attachment through the API, make sure the `ContentType` field is set to the appropriate MIME type. A MIME has two parts: a type and a subtype, separated by a slash (/). You can review industry standard MIME types for your specific attached file.

Salesforce Sustainability Cloud: Trusted Platform to Achieve Carbon Neutrality

Gain critical insights about your carbon footprint. Using global emission factors to calculate greenhouse gas emissions, Sustainability Cloud helps you collect, categorize, and analyze energy usage and greenhouse gas emissions data throughout your organization's business activities. And because it's built on top of the Salesforce Lightning Platform, you have access to tools that facilitate collaboration, project management, and reporting.

IN THIS SECTION:

Report and Reduce Your Carbon Footprint

Sustainability Cloud streamlines carbon footprint data capture and audit. It solves many of the issues with traditional carbon accounting: incomplete or missing records, manual data tracking in multiple spreadsheets, and unstructured data. Data collection and auditing activities that once took months can be reduced to weeks.

Where: This change applies to Lightning Experience and the Salesforce mobile app in Enterprise, Performance, and Unlimited editions.

When: Sustainability Cloud releases on December 17, 2019.

Who: Sustainability Cloud is available to users with a Sustainability Cloud license. To install and configure the app, you must have the Customize Application and Modify All Data user permissions.

Why: Because your data is in one place, you can quickly measure your environmental impact and gain actionable insights. You can use these insights to report the findings to your key stakeholders and determine your climate action strategy. Sustainability Cloud generally aligns with widely used and accepted standards of greenhouse gas reporting, such as the Greenhouse Gas Protocol from the World Resources Institute. It can be a key tool in reporting your carbon footprint to various reporting bodies. Use it as a key tool to disclose your carbon footprint to various reporting bodies.

The app is preloaded with reference data from the:

- US Environmental Protection Agency (EPA)
- US Energy Information Administration (EIA)
- UK Department for Business, Energy & Strategy (BEIS)
- Intergovernmental Panel on Climate Change (IPCC)

The carbon inventory calculations are automated and accurate. You no longer have to check calculation accuracy in spreadsheet-driven inventories.

Sustainability Cloud is designed around a logical workflow process that is optimized for carbon footprinting. Sustainability Cloud guides you through the process from start to finish: from identifying assets to be included in the carbon inventory, to reporting out data after an external audit.

How: To obtain Sustainability Cloud, contact your account executive. Once your system administrator installs, configures the app and provides login credentials, select **App Launcher**, and then **Sustainability Cloud**.

SEE ALSO:

Salesforce Help: Reduce and Report Your Carbon Footprint

Sustainability Cloud Trailblazer Community

Sustainability Cloud Partner Community

Industries: Introducing Manufacturing Cloud and Consumer Goods Cloud

Our stable of industry-specific Salesforce solutions now includes Manufacturing Cloud, which helps you track production and sales processes, and Consumer Goods Cloud, which helps you get out in front of inventory management in your stores. Meanwhile, Financial Services Cloud adds new ways to care for your mortgage customers, while Health Cloud gives you better connections with care providers and patients.

IN THIS SECTION:

Manufacturing Cloud: Business Made Simpler with Sales Agreements and Account Forecasting (Generally Available)

Unify your business experience with sales agreements, orders, contracts, and opportunities. Use our account-based forecasting capabilities to get insight into your quantity and revenue projections. Keep track of your planned and actual quantities and revenues for products across multiple schedules using standard and custom metrics. Collaborate with partners on leads, opportunities, and sales agreements through our Manufacturing community portal.

Consumer Goods Cloud: Create Closer Connections Across the Consumer Goods Value Chain (Generally Available)

Empower field reps to make every store the perfect store, delivering shelves stocked with product at the right price, with the right promotion. Allow field reps to spend less time on operational activities and more time building relationships to drive sales and store satisfaction. The Retail Execution mobile app works with the new consumer goods data model to help field reps track inventories, place orders, and capture visit details. Use Salesforce Surveys to get insights about your business from channel partners, and identify products and shelf placement automatically with Einstein Object Detection.

Financial Services Cloud: Faster Mortgage Approvals, Portal for Independent Insurance Agents, Multi-Resource Scheduling, and More

Streamline the mortgage application process with template flows for loan officers and borrowers. Borrowers can upload documents directly into Financial Services Cloud, simplifying the approval process. Independent insurance agents get access to key insurance features and Lightning components through a Salesforce Communities portal. In Lightning Scheduler, connect customers to a group of professionals with multi-resource scheduling, and book multiple customer appointments during the same time slot.

Health Cloud: More Ways to Engage Patients and Providers

Health Cloud makes it easier to connect with your users, patients, and plan members. You can enroll participants in care programs such as a nutrition class or an employer-sponsored wellness program. The new provider card puts comprehensive information about associated care providers at your fingertips. You can help patients and plan members search for the right care provider and make their own appointments. And if you're selling medical devices, you can simplify your sales operations with features from our new Manufacturing Cloud.

Manufacturing Cloud: Business Made Simpler with Sales Agreements and Account Forecasting (Generally Available)

Unify your business experience with sales agreements, orders, contracts, and opportunities. Use our account-based forecasting capabilities to get insight into your quantity and revenue projections. Keep track of your planned and actual quantities and revenues for products across multiple schedules using standard and custom metrics. Collaborate with partners on leads, opportunities, and sales agreements through our Manufacturing community portal.

IN THIS SECTION:

SEE ALSO:

Simplify Medical Device Sales with Sales Agreements and Account Forecasting (Generally Available)

Sales Agreements: Your One-Stop Shop for Business Negotiations

Make your business transactions, profits, and revenue margins more predictable with sales agreements. Use sales agreements to negotiate long-term purchases and sales of products over time. Negotiate better with sales agreements by keeping close track of your customers' compliance based on planned and actual revenue and quantity metrics. Integrate sales agreements with orders and contracts to automatically derive actual product quantities. Interact with your partners through community portals, and collaborate on leads, opportunities, agreement terms, orders, and more.

IN THIS SECTION:

Use Your Own Metrics to Track Varied Requirements

Each organization has its own set of unique requirements. Along with prices, discounts, quantity and revenue indicators, you may be interested in tracking performance indicators such as inventory, territory-based revenue, and others. Create custom metrics for sales agreement products and schedules and map them to each other. The summary product metric shows the rolled-up value across all schedules. You can create custom metrics for both quantity and revenue indicators.

Choose Metrics for Agreement Terms

Decide which quantity and revenue metrics to display in the agreement terms for your account managers. The standard metrics available for your selection are Forecasted Quantity, Forecasted Amount, Planned Amount, Planned Quantity, Actual Quantity, Actual Amount, Sales Price, and Discount Percentage. You can also select custom metrics if available.

Automate Actual Quantity Updates Through Orders and Contracts

When a sales agreement is active, the actual product quantities require regular updates based on the number of orders fulfilled during that period. Now you don't need to manually update your sales agreements when associated orders are fulfilled. For all active sales agreements, the actual quantities of products can be automatically derived from the associated orders and contracts. The actual quantities are automatically recalculated and all sales agreements are refreshed daily.

Recalculate Actuals for Sales Agreements with a Single Click

With one click, your account managers can recalculate the actuals of active sales agreements at any time to get real-time updates. A sales agreement can have multiple orders associated with it, each being fulfilled on different schedules and for different quantities. The account manager may need to recalculate actuals at any point to ensure quantities reflect the latest changes. This is especially useful when expecting a large number of orders to be fulfilled and they can't wait for the daily automatic recalculation process to update the latest values.

Manage a Single Active Version of a Sales Agreement Through Multiple Revisions

Get a comparative view of current and proposed changes. When the changes are approved, Salesforce incorporates the edits to maintain a single version of truth at any given point of time. You can change an active sales agreement without navigating through multiple statuses. When the sales agreement is under revision, you and the approvers can switch between a comprehensive view and a filtered view with a single click.

Plan Ahead and Renew Your Sales Agreements

Build long-term business relationships by renewing your sales agreements. All attributes of the sales agreement, along with the initial planned quantities of all products, are copied to the renewed sales agreement. The new agreement is created in a draft status and you can edit it. You can also view the renewal history of a sales agreement.

Improve Partner Collaboration with the Manufacturing Partner Community Template

Create a responsive portal where your partners can access knowledge articles, collaborate on sales agreements, and manage leads to improve sales. With the Manufacturing Partner Lightning community template, collaborate with them to negotiate prices, track quantity changes, and manage orders. Help your partners follow up on leads and contribute to improved sales.

Get Timely and Personalized Notifications with Suggested Actions

Get notified whenever automatic or manual processes complete, along with details and suggested next actions. For failures of daily automated processes affecting multiple sales agreements, we send an email with the status of the daily process along with instructions on what to do next. For manual processes triggered by your account managers, we notify them personally with details specific to their actions and sales agreements.

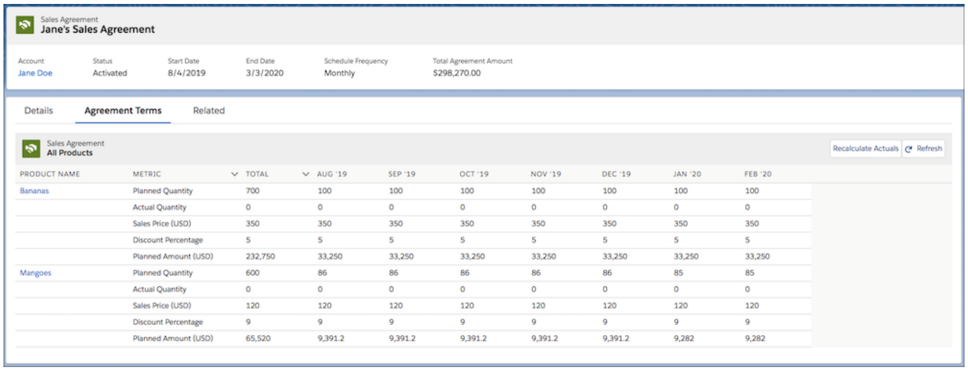
Integrate Your Sales Experience with Sales Agreements

Get a consolidated view of all products in your sales agreement along with their quantity and revenue metrics across past, current, and future schedules. The agreement terms are automatically refreshed and updated based on changes derived from orders and contracts and manual edits.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

Why: Keep track of planned, actual, and forecasted quantities and amounts. Get a comparative view of sales prices and discounts for all products across all schedules. For new and continuous businesses, you can check compliance of how sale targets are being fulfilled. The Agreement Terms tab on a sales agreement record provides you complete visibility into all products across all schedules.



Use Your Own Metrics to Track Varied Requirements

Each organization has its own set of unique requirements. Along with prices, discounts, quantity and revenue indicators, you may be interested in tracking performance indicators such as inventory, territory-based revenue, and others. Create custom metrics for sales agreement products and schedules and map them to each other. The summary product metric shows the rolled-up value across all schedules. You can create custom metrics for both quantity and revenue indicators.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

How: Create custom metrics for schedules and products for sales agreements in Object Manager. In Setup, search for `Sales Agreements` in the Quick Find box. On the Sales Agreements page in the Metrics Mapping section, map a sales agreement product schedule metric such as Inventory Count to a sales agreement product metric such as Total Inventory.

SEE ALSO:

Salesforce Help: Create Custom Metrics for Sales Agreement Products and Schedules (can be outdated or unavailable during release preview)

Salesforce Help: Map Custom Metrics for Sales Agreement Products and Schedules (can be outdated or unavailable during release preview)

Choose Metrics for Agreement Terms

Decide which quantity and revenue metrics to display in the agreement terms for your account managers. The standard metrics available for your selection are Forecasted Quantity, Forecasted Amount, Planned Amount, Planned Quantity, Actual Quantity, Actual Amount, Sales Price, and Discount Percentage. You can also select custom metrics if available.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

How: In Setup, search for `Sales Agreements` in the Quick Find box. On the Sales Agreements page, use the dual picklist for **Agreement Terms Metrics** to add metrics from the Available Metrics list to the Selected Metrics list. You can also change the order in which the metrics are displayed on the **Agreement Terms** tab of a sales agreement.

SEE ALSO:

Salesforce Help: Select Metrics to Display in Agreement Terms (can be outdated or unavailable during release preview)

Automate Actual Quantity Updates Through Orders and Contracts

When a sales agreement is active, the actual product quantities require regular updates based on the number of orders fulfilled during that period. Now you don't need to manually update your sales agreements when associated orders are fulfilled. For all active sales agreements, the actual quantities of products can be automatically derived from the associated orders and contracts. The actual quantities are automatically recalculated and all sales agreements are refreshed daily.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set. Users require the Activate Orders and Activate Contracts permissions.

How: In Setup, search for `Sales Agreements` in the Quick Find box. On the Sales Agreements page, select one of the following for **Actuals Calculation Mode**:

- **Automatically from direct orders**: if you don't have orders tracked through contracts.
- **Automatically from orders through contracts**: if you create contracts and track orders through the contracts.

SEE ALSO:

Salesforce Help: Create Direct Orders for Actuals Calculation (can be outdated or unavailable during release preview)

Salesforce Help: Create Orders Through Contracts for Actuals Calculation (can be outdated or unavailable during release preview)

Recalculate Actuals for Sales Agreements with a Single Click

With one click, your account managers can recalculate the actuals of active sales agreements at any time to get real-time updates. A sales agreement can have multiple orders associated with it, each being fulfilled on different schedules and for different quantities. The account manager may need to recalculate actuals at any point to ensure quantities reflect the latest changes. This is especially useful when expecting a large number of orders to be fulfilled and they can't wait for the daily automatic recalculation process to update the latest values.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

How: On the Agreement Terms tab of a sales agreement, click **Recalculate Actuals**. You can recalculate actuals for only the current schedule or for all past and current schedules. The account manager receives an in-app notification when the process is complete.

SEE ALSO:

Salesforce Help: Recalculate Actuals from Agreement Terms (can be outdated or unavailable during release preview)

Manage a Single Active Version of a Sales Agreement Through Multiple Revisions

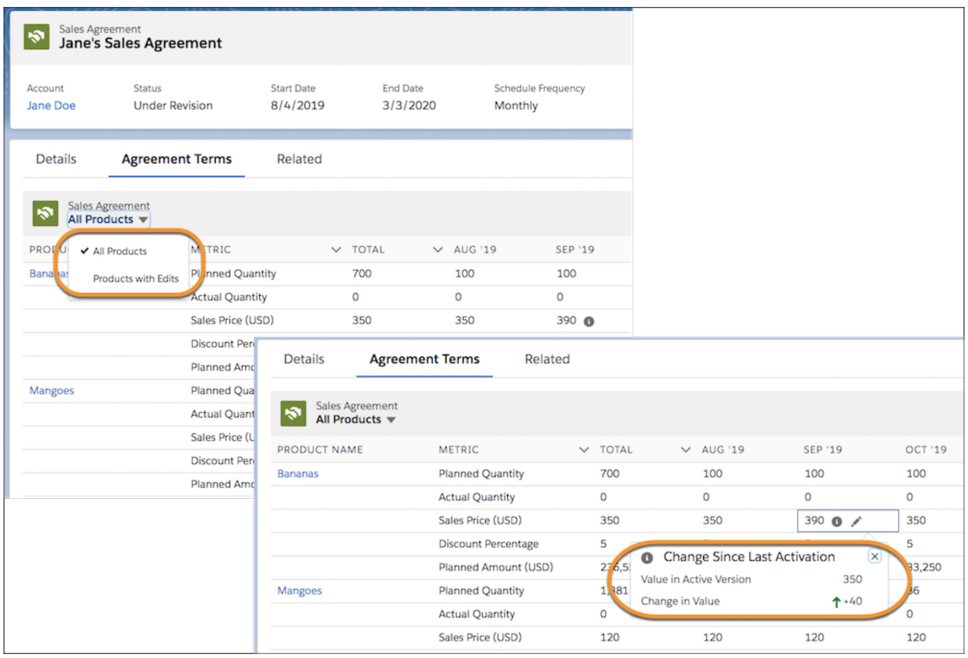
Get a comparative view of current and proposed changes. When the changes are approved, Salesforce incorporates the edits to maintain a single version of truth at any given point of time. You can change an active sales agreement without navigating through multiple statuses. When the sales agreement is under revision, you and the approvers can switch between a comprehensive view and a filtered view with a single click.

Where: This change applies to Lightning Experience in Enterprise, Unlimited and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

Why: Your business needs the flexibility to adapt to external and internal factors such as production issues, economic growth, or modified customer negotiations which translate into unplanned changes.

How: When a sales agreement is active, change the planned quantities and revenues, sales prices, or discounts for products. When you apply your changes, the status of the sales agreement automatically changes from Active to Under Revision. If your edits are accepted and approved, the sales agreement is reactivated with the changes incorporated.



SEE ALSO:

Salesforce Help: Make Revisions to an Active Sales Agreement (can be outdated or unavailable during release preview)

Plan Ahead and Renew Your Sales Agreements

Build long-term business relationships by renewing your sales agreements. All attributes of the sales agreement, along with the initial planned quantities of all products, are copied to the renewed sales agreement. The new agreement is created in a draft status and you can edit it. You can also view the renewal history of a sales agreement.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

How: You can choose to renew a sales agreement that is active or under revision starting 60 days before its expiration. You can still renew the agreement after it has expired. The start date of the agreement can be any date after the expiration of the current sales agreement.

SEE ALSO:

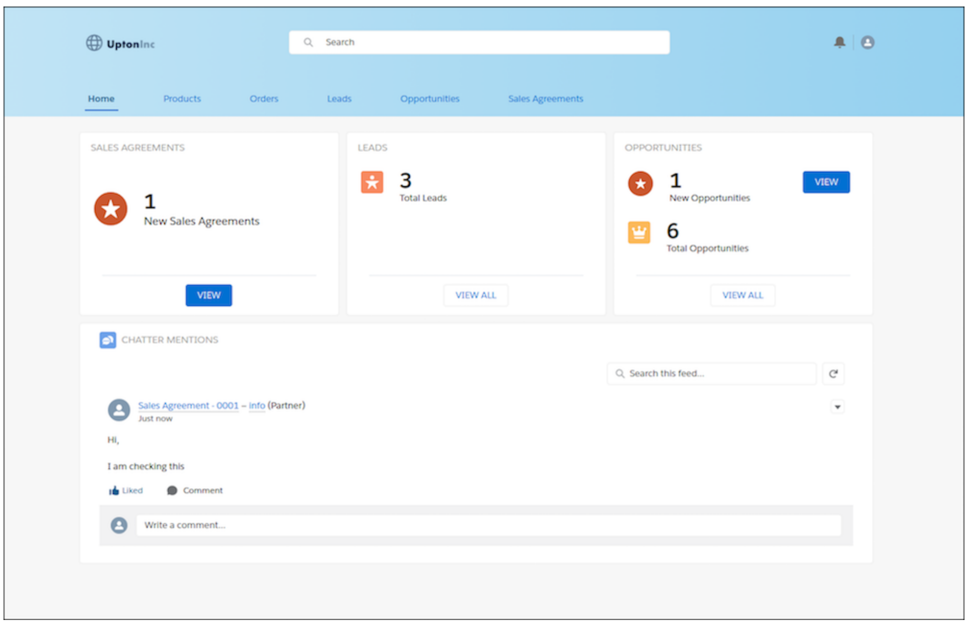
Salesforce Help: Renew a Sales Agreement (can be outdated or unavailable during release preview)

Improve Partner Collaboration with the Manufacturing Partner Community Template

Create a responsive portal where your partners can access knowledge articles, collaborate on sales agreements, and manage leads to improve sales. With the Manufacturing Partner Lightning community template, collaborate with them to negotiate prices, track quantity changes, and manage orders. Help your partners follow up on leads and contribute to improved sales.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.



Get Timely and Personalized Notifications with Suggested Actions

Get notified whenever automatic or manual processes complete, along with details and suggested next actions. For failures of daily automated processes affecting multiple sales agreements, we send an email with the status of the daily process along with instructions on what to do next. For manual processes triggered by your account managers, we notify them personally with details specific to their actions and sales agreements.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

How: In Setup, search for `Sales Agreements` in the Quick Find box. On the Sales Agreements page , use the Email Notifications section to select primary and secondary contacts to notify for failure of automatic processes. For manual processes, email is sent to the individual user who triggers the recalculation process. Notifications are sent for auto-activation of agreements, auto-expiration of agreements, and daily recalculation of actuals.

Account Forecasting: Get Ahead of the Curve with Accurate and Holistic Forecasts

Plan your sales and operations better with account forecasting. You can generate forecasts for new and run-rate businesses based on orders, opportunities, sales agreements, contracts, and more. Prepare forecasts to capture the growth of each account. Define the adjustment period when forecasts can be modified and recalculated, and lock your forecasts beyond that period. Build your own formulas to define the forecast calculation logic. Now with auto-generated forecasts, you don't need to add products to your forecasts manually.

IN THIS SECTION:

Generate and Display Rolling Forecasts Automatically

Go beyond traditional forecasting capabilities and allow for continuous planning with rolling forecasts. If your forecast period lasts 12 months, another month is automatically added to the display as each month ends, so that you're always forecasting 12 months into the future. Forecast is recalculated at the start of each rolling period for each account.

Plan for Manual Adjustments to Forecasts in Alignment with Your Company's Planning Period

Help your account managers change forecast values when they anticipate differences between the current forecast and actual future results. At the start of the recurring adjustment period, forecasts for existing products and those added since the last adjustment period are recalculated. This helps you align your forecast adjustments with your company's fiscal planning period.

Use the Formula Builder to Create Multiple Formulas for Forecasts

Forecast calculations are typically complex and sophisticated. Our new formula builder helps you bring predictability into your sales quantities and revenues. You can create separate sets of formulas for quantity and revenue calculations. You can even use different formulas for different periods of the entire forecast display duration. For example, for a 24-month forecast, you can create between 1 and 24 formulas that apply to different periods.

Choose Metrics for Account Forecasts

Show your account managers just the quantity and revenue metrics they need. You can choose from Past Orders Quantity, Current Orders Quantity, Opportunity Quantity. Sales Agreement Planned Quantity, Past Orders Revenue, Current Orders Revenue, Opportunity Revenue, and Sales Agreement Planned Revenue.

Provide Growth Metrics For Each Account to Get Personalized Forecasts

Each account grows at a different pace, and forecasts should reflect that. Account managers can now provide account growth and market growth values specific to their accounts. These metrics are used to generate the initial forecast and to recalculate the forecast during every adjustment period.

Track Manual Adjustments to Forecast Values by Multiple Users

Users across roles and hierarchies can make manual adjustments on account forecast records. For each changed cell value in the Forecast grid, we maintain a change history of the last three edits. When multiple users are modifying the forecast quantity or revenue values, you can view the changes by hovering over the cell.

Recalculate Forecasts During the Adjustment Period with a Single Click

Your account managers can recalculate the account forecasts at any time during an ongoing adjustment period. During your company's planning and adjustment period, multiple users can make changes to the same account forecast. With one click, account managers can trigger the recalculation process at any point and get real-time updates.

Get Timely and Personalized Notifications with Suggested Actions

Get notified whenever automatic or manual processes complete along with details and suggested next actions. For failures of automated processes affecting, we send an email and in-app notification with the status of the daily process along with instructions on what to do next. For manual processes triggered by your account managers, we notify them with details specific to their own actions and account forecasts.

Generate and Display Rolling Forecasts Automatically

Go beyond traditional forecasting capabilities and allow for continuous planning with rolling forecasts. If your forecast period lasts 12 months, another month is automatically added to the display as each month ends, so that you're always forecasting 12 months into the future. Forecast is recalculated at the start of each rolling period for each account.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

Why: Unlike static forecasts for a fixed time frame, a rolling forecast is regularly updated to reflect changes as time goes on. You can project future performance based on the most recent numbers and time frame, which offers an advantage when operating in a fluid and ever-changing business environment.

How: In Setup, search for `Account Forecasting` in the Quick Find box. On the Account Forecasting page, configure the Forecast Display.

SEE ALSO:

Salesforce Help: Configure Forecast Generation and Display Settings (can be outdated or unavailable during release preview)

Plan for Manual Adjustments to Forecasts in Alignment with Your Company's Planning Period

Help your account managers change forecast values when they anticipate differences between the current forecast and actual future results. At the start of the recurring adjustment period, forecasts for existing products and those added since the last adjustment period are recalculated. This helps you align your forecast adjustments with your company's fiscal planning period.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

How: In Setup, search for `Account Forecasting` in the Quick Find box. On the Account Forecasting page in Setup, configure the Forecast Adjustment Settings. Select the frequency for a recurring adjustment period and the number of days for which manual adjustments can be made to forecasts. For example, if you define the adjustment period as the first 15 days of each quarter, you can plan for the sales and revenue of the upcoming quarter and make manual adjustments accordingly.

SEE ALSO:

Salesforce Help: Configure Forecast Adjustment Settings (can be outdated or unavailable during release preview)

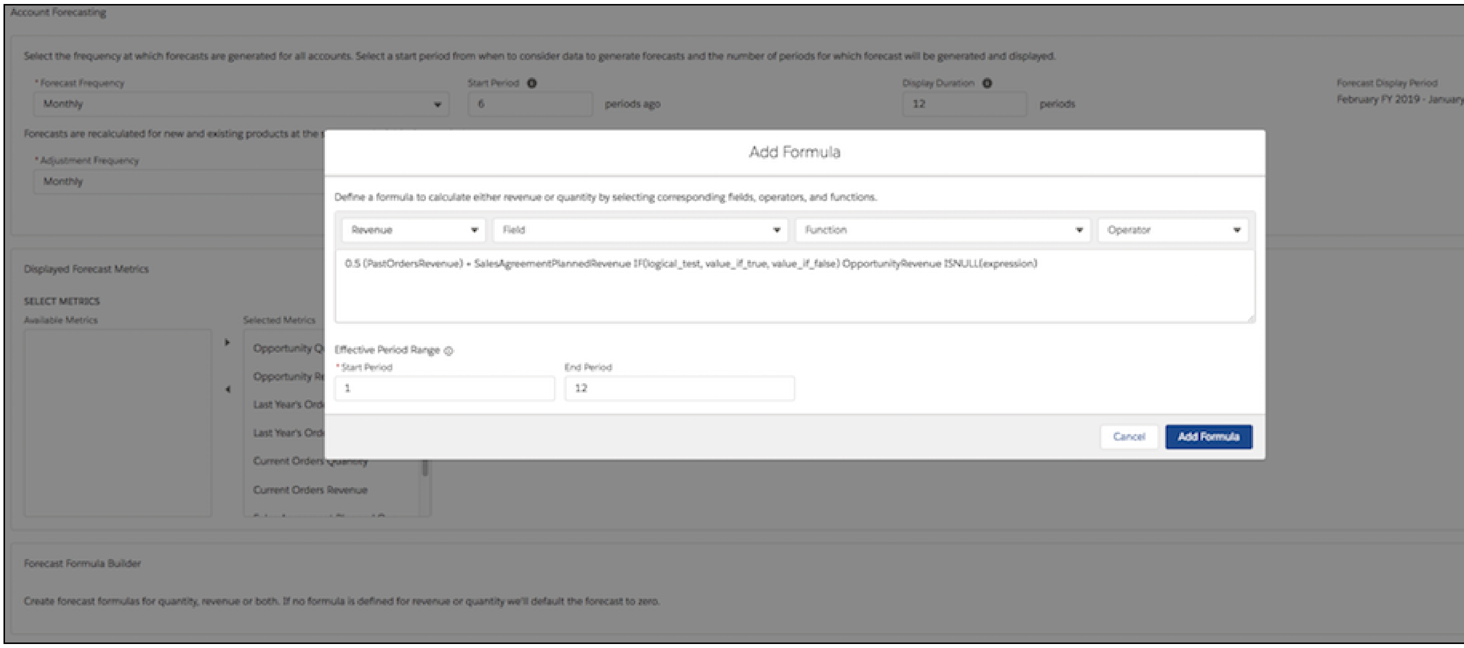
Use the Formula Builder to Create Multiple Formulas for Forecasts

Forecast calculations are typically complex and sophisticated. Our new formula builder helps you bring predictability into your sales quantities and revenues. You can create separate sets of formulas for quantity and revenue calculations. You can even use different formulas for different periods of the entire forecast display duration. For example, for a 24-month forecast, you can create between 1 and 24 formulas that apply to different periods.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

How: In Setup, search for `Account Forecasting` in the Quick Find box. On the Account Forecasting page in the Forecast Formula Builder, select fields, functions, and operations to create advanced formulas for quantity and revenue. Make use of metrics from opportunities, orders, sales agreements, account, and market growth to create unique formulas for each period.



SEE ALSO:

Salesforce Help: Build Formulas to Calculate Forecast (can be outdated or unavailable during release preview)

Choose Metrics for Account Forecasts

Show your account managers just the quantity and revenue metrics they need. You can choose from Past Orders Quantity, Current Orders Quantity, Opportunity Quantity. Sales Agreement Planned Quantity, Past Orders Revenue, Current Orders Revenue, Opportunity Revenue, and Sales Agreement Planned Revenue.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

How: In Setup, search for `Account Forecasting` in the Quick Find box. On the Account Forecasting page, use the dual picklist for Displayed Forecast Metrics to add metrics from the Available Metrics list to the Selected Metrics list. You can also change the order in which the metrics are displayed on the Forecast tab of an account. Forecasted Quantity and Forecasted Revenue are displayed by default as summary fields to your account managers. Account managers can also switch views between all metrics and forecast metrics in a single click.

SEE ALSO:

Salesforce Help: Select Metrics to Display in Forecast (can be outdated or unavailable during release preview)

Provide Growth Metrics For Each Account to Get Personalized Forecasts

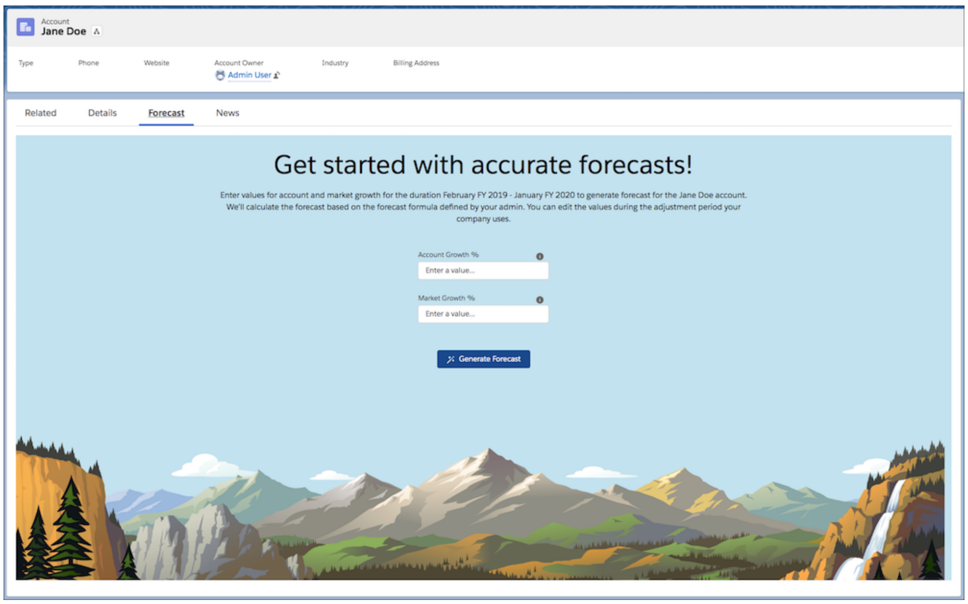
Each account grows at a different pace, and forecasts should reflect that. Account managers can now provide account growth and market growth values specific to their accounts. These metrics are used to generate the initial forecast and to recalculate the forecast during every adjustment period.

Where: This feature applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

Why: It's critical to project future revenue based on the varying performance metrics for each period. At the start of each adjustment period, individual account owners can provide values for account and market growth for the upcoming month or quarter to generate personalized forecasts. We apply the values and recalculate the forecast for current and future periods.

How: In Setup, select **Account Forecasting**. Use the Forecast Formula Builder to create formulas that include Account Growth and Market Growth as two of the fields.



SEE ALSO:

Salesforce Help: Generate Forecasts for the First Time (can be outdated or unavailable during release preview)

Track Manual Adjustments to Forecast Values by Multiple Users

Users across roles and hierarchies can make manual adjustments on account forecast records. For each changed cell value in the Forecast grid, we maintain a change history of the last three edits. When multiple users are modifying the forecast quantity or revenue values, you can view the changes by hovering over the cell.

Where: This feature applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

SEE ALSO:

Salesforce Help: Track Adjustments to Forecasts (can be outdated or unavailable during release preview)

Recalculate Forecasts During the Adjustment Period with a Single Click

Your account managers can recalculate the account forecasts at any time during an ongoing adjustment period. During your company's planning and adjustment period, multiple users can make changes to the same account forecast. With one click, account managers can trigger the recalculation process at any point and get real-time updates.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

Why: The account manager may need to recalculate forecasts to ensure all quantities are updated to reflect the latest changes. This is especially useful when the modifications to the forecast values are significant.

How: On the Account Forecast tab of a sales agreement, click **Recalculate**. Forecasts are also automatically recalculated when account and market growth metric values are edited during the adjustment period. We send in-app notifications to account managers when the process is complete.

Get Timely and Personalized Notifications with Suggested Actions

Get notified whenever automatic or manual processes complete along with details and suggested next actions. For failures of automated processes affecting, we send an email and in-app notification with the status of the daily process along with instructions on what to do next. For manual processes triggered by your account managers, we notify them with details specific to their own actions and account forecasts.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Who: This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecasting permission set.

How: For mails on automated process failures, select primary and secondary contacts in the **Account Forecasting** page in Setup. For manual processes, email is sent to the individual account owner who triggers the forecast recalculation process. The automatic processes for which email and in-app notifications are sent are regeneration of forecasts, change in forecast formulas, recalculation of forecasts, and rolling over of the forecast period.

Grow Your Business and Simplify Sales Operations with Einstein Analytics for Manufacturing

The Analytics for Manufacturing app lets account managers visualize all aspects of their business. Insights based on data from the manufacturing cloud keep you on top of your sales agreements, orders, and contracts. Visualizations help you grow the business by identifying customers to call on for new or expanded deals. You can also quickly spot products that sell the most and the least and analyze the impact of volume on pricing and revenue.

Who: To create an app from the Einstein Analytics for Manufacturing template, you must also have the Manufacturing Analytics Plus add-on license.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Manufacturing Cloud is enabled. Analytics for Manufacturing is only for Salesforce Manufacturing Cloud users.

How: Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Manufacturing**, and follow the instructions in the wizard to create your app.

SEE ALSO:

Analytics Prebuilt Apps: Einstein Discovery Predictions in the Sales Analytics App, Analytics for Insurance and Health Care, Einstein Accuracy Analytics

Manufacturing Cloud Has New Objects

Manufacturing Cloud has new objects for Sales Agreements and Account Forecasting.

Where: This feature applies to the Manufacturing app in Developer, Enterprise, and Unlimited editions.

Generate and display rolling forecasts to project quantity and revenue for accounts

Use the new `Account Forecast` object.

Record multiple formulas to calculate quantity and revenue for all forecast display periods

Use the new `Account Forecast Formula` object.

Capture account growth and market growth metrics specific to an account for different periods

Use the new `Account Forecast Period Metrics` object.

Record cumulative values for a specific product derived from sales agreements, opportunities, and orders across periods in a rolling forecast

Use the new `Account Product Forecast` object.

Record cumulative values for a specific product derived from sales agreements, opportunities, and orders for a single period in a rolling forecast

Use the new `Account Product Period Forecast` object.

Track planned and actual quantities and revenues for products across schedules using multiple metrics

Use the new `Sales Agreement` object.

Track pricing and quantity information of a specific product across all periods in a sales agreement

Use the new `Sales Agreement Product` object.

Track pricing and quantity information of a specific product for a single period in a sales agreement

Use the new `Sales Agreement Product Schedule` object.

Consumer Goods Cloud: Create Closer Connections Across the Consumer Goods Value Chain (Generally Available)

Empower field reps to make every store the perfect store, delivering shelves stocked with product at the right price, with the right promotion. Allow field reps to spend less time on operational activities and more time building relationships to drive sales and store satisfaction. The Retail Execution mobile app works with the new consumer goods data model to help field reps track inventories, place orders, and capture visit details. Use Salesforce Surveys to get insights about your business from channel partners, and identify products and shelf placement automatically with Einstein Object Detection.

IN THIS SECTION:

Streamline Your Business Processes by Grouping Similar Stores, In-Store Locations, and Products

Simplify the way you track stores, in-store locations, and the products sold in these stores by grouping. Managing large numbers of individual stores, in-store locations, and products can be time consuming and confusing. It's hard to track which products are sold in which stores and where products are placed in each store. Grouping creates smaller numbers of store groups, in-store location categories, and assortments, making it easy to manage.

Plan Effective Store Visits

Provide field reps with visit details, like store name, priority, location, hours, estimated visit time, and previous visit history. Field reps can visit a store, perform their tasks, and record the details of the visit on their mobile device. Save time by adding all the common tasks in a template and then use the template to create visits across stores. Mark the must-do activities as mandatory.

Improve Your Sales with Inventory Audits

Maintain a product's inventory level and its placement across stores by creating an inventory audit task and associating it to a visit. Define the targets for inventory level in store shelves or for expected back stock. While on a visit, a field rep can conduct inventory audits to make sure that your top-selling products are well stocked and well placed.

Maximize In-Store Sales with Mobile Order Capture

Make capturing in-store ordering and collecting important data, such as product, quantity, and pricing, easier with our mobile solution. Save your field reps' time and effort by marking your products that need to be restocked as favorites and defining their default quantity to order. Create a task to create an order and associate it to a template. Field reps can place orders for a single product, an entire assortment, or all the products sold at the store with minimal clicks.

Evaluate the Effectiveness of Promotion Campaigns

Check whether your ongoing promotions are running to their specs and helping improve your sales figures by gathering key information about the promotions. Create a task to check promotions and define their methods, objectives, and targets. Field reps can record real-time information about promotions on their mobile devices. You can also use the information to improvise your upcoming promotions and devise better promotions in the future.

Capture Unique Business Data with Custom Tasks

Track and monitor activities and functions that are specific to your business using custom tasks. Improved execution and insights into business processes means better relationships with stores and increased sales of your products.

Gather Insights of Your Business with Surveys

Use Salesforce Surveys to create and distribute surveys to field reps so they can record feedback from store personnel and consumers. Conduct surveys to gather information on your products, promotions, and overall customer experience.

Increase Audit Accuracy and Productivity with Einstein Object Detection

Accelerate inventory, planogram, and other merchandising activities and eliminate human error inherent in manual checks with Einstein Object Detection. Help field reps spend less time on auditing activities and more time building relationships with store managers and customers.

Manage Sales Territories and Optimize Routes with SFMap

Map your business's activity and locations with SFMap. Increase productivity by assigning visits based on geography, account priority, field reps' availability, and optimized route plans. Drive accountability of your field reps by using the geo-fencing capabilities of SFMap.

Retail Execution Has New Objects

Retail Execution has new objects.

Detect Objects in Images using REST APIs

Use the Einstein Object Detection REST APIs to build a model and use the model to detect objects in images. The model can also be updated to increase its accuracy, or to add objects.

Streamline Your Business Processes by Grouping Similar Stores, In-Store Locations, and Products

Simplify the way you track stores, in-store locations, and the products sold in these stores by grouping. Managing large numbers of individual stores, in-store locations, and products can be time consuming and confusing. It's hard to track which products are sold in which stores and where products are placed in each store. Grouping creates smaller numbers of store groups, in-store location categories, and assortments, making it easy to manage.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions.

Who: Only users who are assigned a Retail Execution license can group similar stores, in-store locations, and products that have Consumer Goods Cloud enabled.

How: Group your stores based on criteria such as the type of products they sell or their geographical location. Classify products into assortments based on the products' selling eligibility across stores and store groups. Categorize similar in-store locations, such as aisles, shelves, and checkout counters.

Plan Effective Store Visits

Provide field reps with visit details, like store name, priority, location, hours, estimated visit time, and previous visit history. Field reps can visit a store, perform their tasks, and record the details of the visit on their mobile device. Save time by adding all the common tasks in a template and then use the template to create visits across stores. Mark the must-do activities as mandatory.

Where: This feature applies to the Retail Execution app in Developer, Enterprise, Performance, and Professional editions that have Consumer Goods Cloud enabled.

Who: Only users who are assigned a Retail Execution license can create visits.

Improve Your Sales with Inventory Audits

Maintain a product's inventory level and its placement across stores by creating an inventory audit task and associating it to a visit. Define the targets for inventory level in store shelves or for expected back stock. While on a visit, a field rep can conduct inventory audits to make sure that your top-selling products are well stocked and well placed.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

Who: Only users who are assigned a Retail Execution license can create and perform inventory audit tasks.

Maximize In-Store Sales with Mobile Order Capture

Make capturing in-store ordering and collecting important data, such as product, quantity, and pricing, easier with our mobile solution. Save your field reps' time and effort by marking your products that need to be restocked as favorites and defining their default quantity to order. Create a task to create an order and associate it to a template. Field reps can place orders for a single product, an entire assortment, or all the products sold at the store with minimal clicks.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

Who: Only users who are assigned a Retail Execution license can create a task to place an order.

Evaluate the Effectiveness of Promotion Campaigns

Check whether your ongoing promotions are running to their specs and helping improve your sales figures by gathering key information about the promotions. Create a task to check promotions and define their methods, objectives, and targets. Field reps can record real-time information about promotions on their mobile devices. You can also use the information to improvise your upcoming promotions and devise better promotions in the future.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

Who: Only users who are assigned a Retail Execution license can create a task to check promotional activities.

Capture Unique Business Data with Custom Tasks

Track and monitor activities and functions that are specific to your business using custom tasks. Improved execution and insights into business processes means better relationships with stores and increased sales of your products.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

Who: Only users who are assigned a Retail Execution license can use custom tasks to capture business-specific data.

Gather Insights of Your Business with Surveys

Use Salesforce Surveys to create and distribute surveys to field reps so they can record feedback from store personnel and consumers. Conduct surveys to gather information on your products, promotions, and overall customer experience.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

Increase Audit Accuracy and Productivity with Einstein Object Detection

Accelerate inventory, planogram, and other merchandising activities and eliminate human error inherent in manual checks with Einstein Object Detection. Help field reps spend less time on auditing activities and more time building relationships with store managers and customers.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

How: From Setup, in the Quick Find box, enter *`Einstein Object Detection`*, then select **Einstein Object Detection**. Create a task to check the products and its placement on store shelves. Associate the task with a template. Upload the reference image of an ideal store shelf when you define the store planogram. Field reps can click and upload an image of a shelf and Einstein return the results.

Manage Sales Territories and Optimize Routes with SFMap

Map your business's activity and locations with SFMap. Increase productivity by assigning visits based on geography, account priority, field reps' availability, and optimized route plans. Drive accountability of your field reps by using the geo-fencing capabilities of SFMap.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

How: SFMap must be installed in your org.

Retail Execution Has New Objects

Retail Execution has new objects.

Add products eligible for sale in a store to a list
Use the new `Assortment` object.

Define parameters that act as markers of compliance for retail tasks to compare target and actual values
Use the new `AssessmentIndicatorDefinition` object.

Create promotional activities that are either part of a campaign or isolated targeted promotions to run at retail stores
Use the new `Promotion` object.

Associate content documents to visits, tasks, promotions, or planograms
Use the new `AssessmentTaskContentDocument` object.

Group retail stores based on shared features, such as size, location, part of a retail chain
Use the new `RetailLocationGroup` object.

Create records for physical retail stores associated to business accounts
Use the new `RetailStore` object.

Create locations within a retail store's layout such as aisles, shelves, or backrooms
Use the new `InStoreLocation` object.

Map store groups to assessment indicator definition, products, and in-store location categories and define targets
Use the new `RetailStoreKpi` object.

Perform activities in stores to capture information
Use the new `AssessmentTask` object.

Associate product assortments to stores, store groups, or accounts
Use the new `StoreAssortment` object.

Associate products to specific in-store locations and retail stores
Use the new `StoreProduct` object.

Track information related to a sales rep's visit to a retail store where they perform retail activities
Use the new `Visit` object.

New Objects for Einstein Object Detection

Build a machine-learning model to detect objects in images
Use the new `AiDataset` object.

Review the details of an object detected in an image
Use the new `AiImageDetectedObject` object.

Add objects to update a model
Use the new `AiImageTrainingObject` object.

Review the details of the model that detects objects in an image
Use the new `AiVisionModel` object.

Review the quality of the model
Use the new `AiVisionModelMetric` object.

Check how accurately the model is detecting an object
Use the new `AiVisionModelObjectMetric` object.

Review the details of an image
Use the new `Image` object.

Detect Objects in Images using REST APIs

Use the Einstein Object Detection REST APIs to build a model and use the model to detect objects in images. The model can also be updated to increase its accuracy, or to add objects.

Where: This change applies to Lightning Experience in Unlimited and Enterprise editions that have Consumer Goods Cloud enabled.

Build a model to detect objects in images
Make a `POST` request to `/services/data/vXX.X/connect/object-detection/datasets/`***`datasetId`***`/train`.

Detect objects in an image
Make a `POST` request to `/services/data/vXX.X/connect/object-detection/images`.

View the objects that are detected in an image
Make a `GET` request to `/services/data/vXX.X/connect/object-detection/images/`***`imageId`***.

Detect products and facings in an in-store location
Make a `POST` request to `/services/data/vXX.X/connect/object-detection/images/stats`.

View the products and facings detected in an image
Make a `GET` request to `/services/data/vXX.X/connect/object-detection/images/`***`imageId`***`/stats`.

Add example images used to update a model
Make a `POST` request to `/services/data/vXX.X/connect/object-detection/images/`***`imageId`***`/feedback`.

View an example image

Make a `GET` request to `/services/data/vXX.X/connect/object-detection/images/`***`imageId`***`/feedback`.

Update a model

Make a `POST` request to `/services/data/vXX.X/connect/object-detection/models/`***`modelId`***`/retrain`. The model is updated using the example objects associated with the model.

Financial Services Cloud: Faster Mortgage Approvals, Portal for Independent Insurance Agents, Multi-Resource Scheduling, and More

Streamline the mortgage application process with template flows for loan officers and borrowers. Borrowers can upload documents directly into Financial Services Cloud, simplifying the approval process. Independent insurance agents get access to key insurance features and Lightning components through a Salesforce Communities portal. In Lightning Scheduler, connect customers to a group of professionals with multi-resource scheduling, and book multiple customer appointments during the same time slot.

IN THIS SECTION:

Mortgage for Financial Services Cloud is now generally available. Capture important borrower information with data model enhancements for mortgage, so that data can be shared easily across lines of business. Provide guided mortgage application flows for borrowers and loan officers using new mortgage standard flow templates and screen components.

Boost customer engagement by tracking documents and approvals for use cases, such as mortgage applications. Let your customers upload files directly into Financial Services Cloud and monitor the status of each document.

Manage business insurance policies, protect policyholders' sensitive information, and manage life events and business milestones better with an enhanced data model, improved Lightning components, and support for Shield Platform Encryption. The tailored community portal gives independent insurance agents access to the insurance features and components to manage and grow their books of business. Add the new Insurance Agent Action Items component to the Insurance Agent Console home page to bring the most urgent activities to agents' attention.

Quickly schedule customer appointments with a group of professionals—like a financial advisor, CPA, and attorney—with multi-resource scheduling in Lightning Scheduler. Concurrent scheduling lets you book multiple customer appointments during the same time slot, maximizing calendar availability.

Create business and personal account relationship hierarchies using the enhanced Account-Account Relationship entity. Directly associate businesses and legal entities, such as trusts, to households and groups. It's easy to view a parent company and its subsidiaries, as well as family relationships, in the enhanced Relationship Map.

Choose the data to add to app dashboards with customization features included in the Analytics for Wealth Management app, previously named Einstein Analytics for Financial Services. A configuration wizard guides your through the process. You can choose data security settings and add external fees, commissions, and quotas data to dashboards. Also make it easier to spot trends by including trending capability, and choose record types so you can sort wealth management data according to different types of accounts you offer.

Fine-Tune Customer Insights with New Release of Analytics for Retail Banking

Customize your analytics experience with the template's configuration wizard and get easy access to dashboard visualizations right from account pages. And retail bankers can quickly gain insight into their key performance metrics from mobile devices.

Financial Services Cloud Has New Objects

Do more with new Financial Services Cloud objects.

New and Changed Financial Services Cloud Object Fields

New fields and updated field picklist values are available on Financial Services Cloud objects.

Mortgage for Financial Services Cloud: Data Model Enhancements, Standard Flows, and Screen Components (Generally Available)

Mortgage for Financial Services Cloud is now generally available. Capture important borrower information with data model enhancements for mortgage, so that data can be shared easily across lines of business. Provide guided mortgage application flows for borrowers and loan officers using new mortgage standard flow templates and screen components.

IN THIS SECTION:

Capture Borrower Information with Financial Services Cloud Data Model Enhancements

Mortgage applications gather lots of data about borrowers and the property they're purchasing, refinancing, or building. Use data model enhancements to collect this information and share it across lines of business.

Create Guided Mortgage Application Flows with Mortgage Flow Templates

Financial Services Cloud Mortgage comes with standard flows based on the U.S. Uniform Residential Loan Application released in February 2019. These standard flows are also templates that you can clone and customize to create your own guided UI flows for borrowers and loan officers.

Extend Your Flows with Flow Screen Components

Five new flow screen components add power and flexibility to your screen flow interactions with users.

MuleSoft: Blend and Roostify Connectors

Use the Blend and Roostify connectors to visually define complex integrations between Financial Services Cloud and these services for a comprehensive mortgage lending experience.

SEE ALSO:

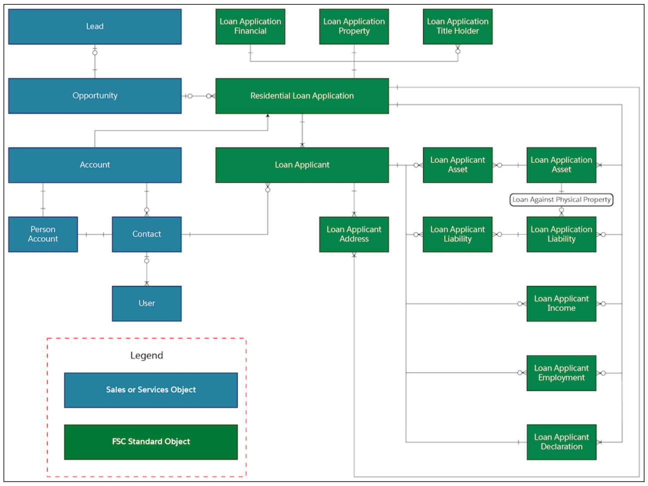
Financial Services Cloud Upgrade Guide: Enable Mortgage for Financial Services Cloud (can be outdated or unavailable during release preview)

Capture Borrower Information with Financial Services Cloud Data Model Enhancements

Mortgage applications gather lots of data about borrowers and the property they're purchasing, refinancing, or building. Use data model enhancements to collect this information and share it across lines of business.

Where: This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions that have Financial Services Cloud enabled.

Why: Based on the U.S. Uniform Residential Loan Application released in February 2019, the Financial Services Cloud Mortgage data model offers 13 new objects.

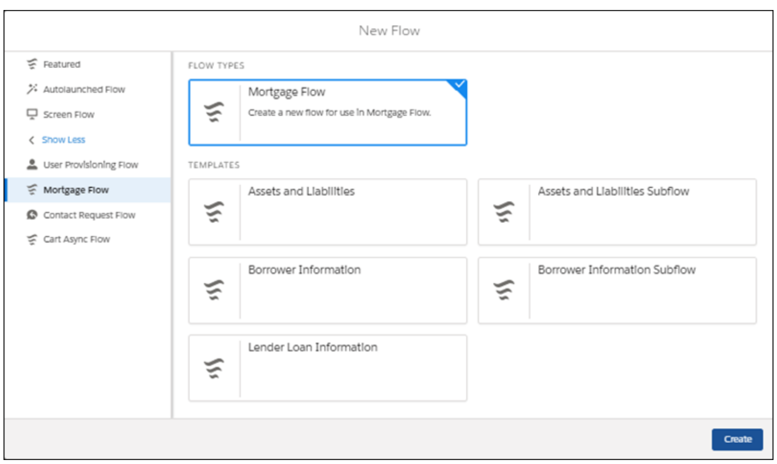


Create Guided Mortgage Application Flows with Mortgage Flow Templates

Financial Services Cloud Mortgage comes with standard flows based on the U.S. Uniform Residential Loan Application released in February 2019. These standard flows are also templates that you can clone and customize to create your own guided UI flows for borrowers and loan officers.

Where: This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions that have Financial Services Cloud enabled.

How: To create a custom Mortgage flow, clone an existing standard flow. You can also select the Mortgage flow type and then select a standard flow as the template.



Build, test, and activate your custom Mortgage flow, and then distribute it to loan officers by making it a quick action on residential loan application pages. To make a custom borrower or assets and liabilities flow available to customers, configure it in Community Builder.

SEE ALSO:

New and Changed Objects

Extend Your Flows with Flow Screen Components

Five new flow screen components add power and flexibility to your screen flow interactions with users.

Where: This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions that have Financial Services Cloud enabled.

Why: Create flow screens that display data in the most effective way to reach your loan officer users and mortgage customers.

- **Button Picklist from Collection** displays labels from a collection variable in a series of buttons rather than in radio buttons, checkboxes, or a dropdown list.
- **Button Picklist from Field** displays an object field's picklist values in a series of buttons.
- **Checkbox Group from Collection** displays labels from a collection variable in checkboxes and allows multiple selections. You can also select multiple checkboxes by default.
- **Footer with Customizable Buttons** displays a custom button in the footer. You can also customize text for the Next button.
- **Screen Button** displays a button within the body of a screen rather than in the footer.

How: Add a screen element to your custom flow. Select a flow screen component in the New Screen modal, and enter values for its screen properties.

MuleSoft: Blend and Roostify Connectors

Use the Blend and Roostify connectors to visually define complex integrations between Financial Services Cloud and these services for a comprehensive mortgage lending experience.

Where: You can use the MuleSoft connectors via Anypoint Exchange.

How: Install the latest version of Anypoint Studio in MuleSoft to take advantage of the Blend and Roostify connectors.

IN THIS SECTION:

Connect with Blend APIs
Use the Mulesoft Blend connector to access Blend's APIs and support workflows for loan applications.

Connect with Roostify APIs
Use the Mulesoft Roostify connector to access Roostify's APIs and support workflows for loan applications.

SEE ALSO:

External Link: Assets provided by MuleSoft

Connect with Blend APIs

Use the Mulesoft Blend connector to access Blend's APIs and support workflows for loan applications.

Where: You can use the MuleSoft Blend connector via Anypoint Exchange.

How: Install the latest version of Anypoint Studio in MuleSoft to use the Blend connector.

SEE ALSO:

External Link: Blend Connector Release Notes - Mule 4
External Link: Blend Connector - Mule 4

Connect with Roostify APIs

Use the Mulesoft Roostify connector to access Roostify's APIs and support workflows for loan applications.

Where: You can use the MuleSoft Roostify connector via Anypoint Exchange.

How: Install the latest version of Anypoint Studio in MuleSoft. Access Roostify's webhooks or 46 RESTful web APIs using the Mulesoft Roostify connector. Webhooks are call backs that let you react to activities in Roostify. The RESTful APIs for loan applications, tasks, documents, or accounts allow you to work with the data stored in Roostify.

SEE ALSO:

External Link: Roostify Connector Release Notes - Mule 4

External Link: Roostify Connector - Mule 4

Document Tracking and Approvals (Generally Available)

Boost customer engagement by tracking documents and approvals for use cases, such as mortgage applications. Let your customers upload files directly into Financial Services Cloud and monitor the status of each document.

Where: This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions that have Financial Services Cloud enabled.

Why: For businesses like mortgage, customers fill out applications that require supporting documentation, such as pay stubs, tax returns, passports, and drivers licenses. Collecting and transmitting viable copies of those supporting documents is time-consuming and complicated. Now loan officers associate document checklist items with a mortgage application so that customers know what documentation to provide. Customers upload the relevant file for each document checklist item through communities. Loan officers review the uploaded files and reject those documents that are unreadable or have the wrong information. Customers upload new versions of rejected files. Underwriters review the uploaded files and approve documents that meet underwriting requirements. They also add new document checklist items based on individual application needs. During the entire mortgage process, customers are able to view the status of their document checklist items.

SEE ALSO:

Financial Services Cloud Upgrade Guide: Enable Document Tracking and Approvals (can be outdated or unavailable during release preview)

Insurance for Financial Services Cloud: Business Policy Management, Portal for Independent Agents, Enhanced Components, and More

Manage business insurance policies, protect policyholders' sensitive information, and manage life events and business milestones better with an enhanced data model, improved Lightning components, and support for Shield Platform Encryption. The tailored community portal gives independent insurance agents access to the insurance features and components to manage and grow their books of business. Add the new Insurance Agent Action Items component to the Insurance Agent Console home page to bring the most urgent activities to agents' attention.

IN THIS SECTION:

Protect Your Policyholders' Sensitive Information

When individual policyholders or businesses rely on you for insurance coverage, they share some of their most personal and sensitive information with you. Add another layer of security to protect that data with Shield Platform Encryption. You can encrypt information about a range of life events, business milestones, insurance policies, claims, and related details with either probabilistic or deterministic encryption schemes.

Automate Repetitive Tasks for Insurance Agents with Action Plans

Increase consistency and compliance in insurance agents' client engagements with Action Plans task templates. Capture repeatable tasks and automatically assign task owners and deadlines. Action Plans task templates now support Person Life Event, Business Milestone, Insurance Policy, Insurance Policy Coverage, and Claim objects.

Alert Agents About Policies and Claims

Give agents timely alerts on a client's policies and claims from your core policy management system. Alerts appear when an agent views a client's policies or claims on the account page. Agents can dismiss or snooze alerts.

Give Independent Agents a Productivity Boost with a Feature-Rich Portal

Create a feature-rich portal for your independent insurance agents with the Insurance Agent Portal Lightning template. With a comprehensive view of clients' policies, claims, life events, business milestones, and other related details, agents can stay organized, deepen client relationships, and better address client needs. Agents can use built-in Community Cloud and knowledge management features to share knowledge articles with other agents and insurance carriers.

Plan and Prioritize Better with Insurance Agent Action Items

Help insurance agents stay on top of their schedules by bringing the most urgent activities to their attention.

Give Agents and Managers a Complete Customer Intelligence Solution With Einstein Analytics for Insurance

The Analytics for Insurance app powers agents with practical insights on their sales performance and enables them to be more efficient in sales execution.

Person Life Event Component: Business Milestones, Contextual Actions, Filters, and More

We renamed the Person Life Event Lightning component to Life Events or Business Milestones and made it versatile to manage business milestones in addition to life events. Now you can hide sensitive life events and expire obsolete events. Agents can filter events based on a specific time period. With contextual actions, agents can quickly create a record and associate it with a life event or business milestone.

Organize Policies by Type

The Policy component is easier to read with insurance policies grouped by policy types. Expand or collapse individual policy types or all policy types. View only policies owned by the client and exclude those in which the client is just a participant. You can change the default icons that represent the policy types.

Protect Your Policyholders' Sensitive Information

When individual policyholders or businesses rely on you for insurance coverage, they share some of their most personal and sensitive information with you. Add another layer of security to protect that data with Shield Platform Encryption. You can encrypt information about a range of life events, business milestones, insurance policies, claims, and related details with either probabilistic or deterministic encryption schemes.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have both Financial Services Cloud and Shield Platform Encryption enabled.

SEE ALSO:

Encrypt Your Customers' Insurance Information

Which Standard Fields Can I Encrypt?

Automate Repetitive Tasks for Insurance Agents with Action Plans

Increase consistency and compliance in insurance agents' client engagements with Action Plans task templates. Capture repeatable tasks and automatically assign task owners and deadlines. Action Plans task templates now support Person Life Event, Business Milestone, Insurance Policy, Insurance Policy Coverage, and Claim objects.

Where: This change applies to Lightning Experience in Enterprise and Unlimited editions that have Financial Services Cloud enabled.

SEE ALSO:

Enable Action Plans

Alert Agents About Policies and Claims

Give agents timely alerts on a client's policies and claims from your core policy management system. Alerts appear when an agent views a client's policies or claims on the account page. Agents can dismiss or snooze alerts.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

SEE ALSO:

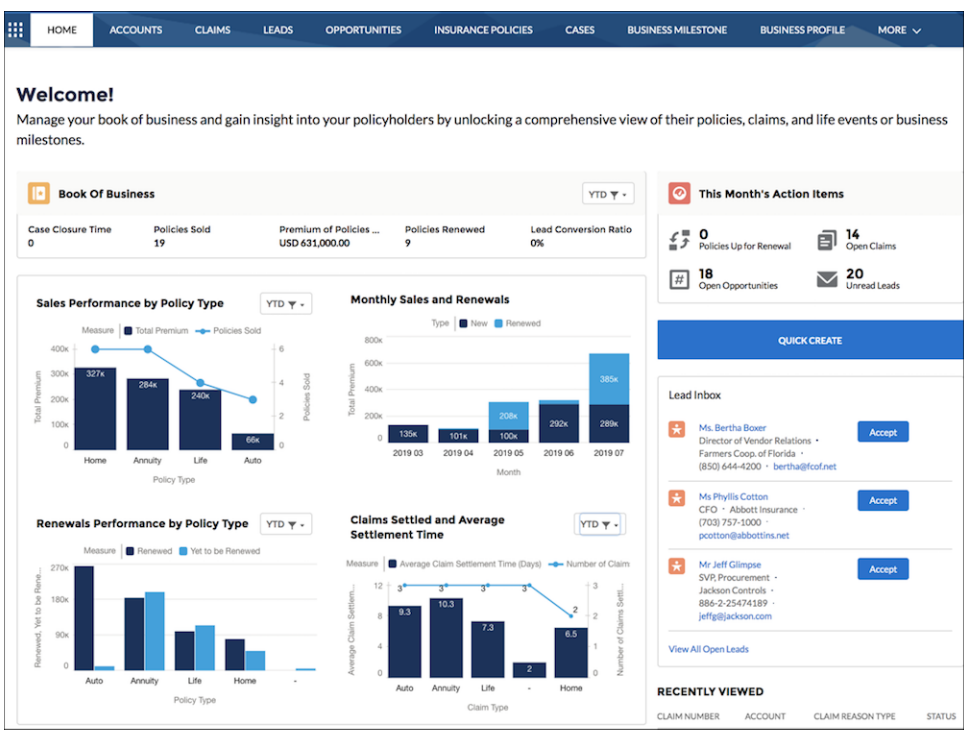
Salesforce Help: Financial Services Cloud Alerts (can be outdated or unavailable during release preview)

Give Independent Agents a Productivity Boost with a Feature-Rich Portal

Create a feature-rich portal for your independent insurance agents with the Insurance Agent Portal Lightning template. With a comprehensive view of clients' policies, claims, life events, business milestones, and other related details, agents can stay organized, deepen client relationships, and better address client needs. Agents can use built-in Community Cloud and knowledge management features to share knowledge articles with other agents and insurance carriers.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

Why: A dashboard with performance metrics, report charts, and action items helps agents monitor their goals and accomplishments, meet deadlines, and improve sales and service.



How: Key Insurance features and all Insurance Lightning components are available and fully functional in the portal. From Setup, in the Quick Find box, enter `All Communities`, and then select **All Communities**. Click **New Community** and select the Insurance Agent Portal template. To grant users access to the Insurance objects and components, assign the Insurance Community User permission set.

SEE ALSO:

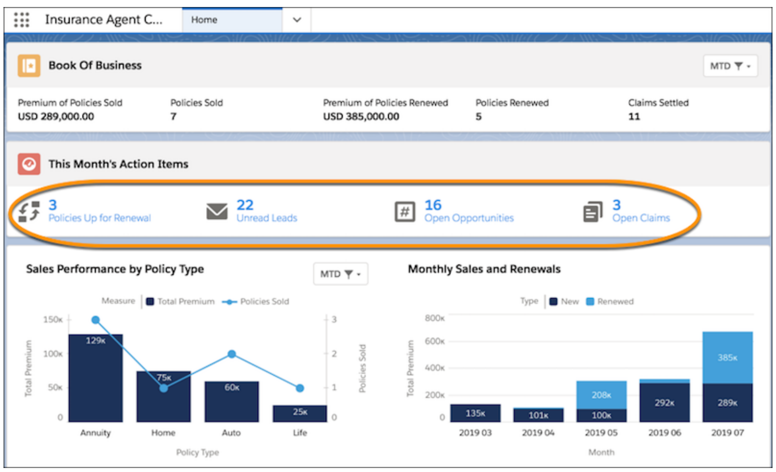
Salesforce Help: Set Up a Portal for Independent Insurance Agents (can be outdated or unavailable during release preview)

Plan and Prioritize Better with Insurance Agent Action Items

Help insurance agents stay on top of their schedules by bringing the most urgent activities to their attention.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

Why: With an at-a-glance view of payment-due policies, policies up for renewal, open claims and cases, unread leads, and open opportunities, agents can better plan and prioritize their action items.



How: Edit the Insurance Agent Console home page, and then add the Insurance Agent Action Items component to the page. Choose from the prepackaged metrics to show policies, claims, cases, leads, or opportunities that require agents' attention. You can filter the policy-related metrics by day, week, month, or quarter.

SEE ALSO:

Salesforce Help: Add Insurance Agent Action Items to Console Home Page (can be outdated or unavailable during release preview)

Give Agents and Managers a Complete Customer Intelligence Solution With Einstein Analytics for Insurance

The Analytics for Insurance app powers agents with practical insights on their sales performance and enables them to be more efficient in sales execution.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Financial Services Cloud for Insurance is enabled. Analytics for Insurance is only for Financial Services Cloud for Insurance users.

Why: The ability to segment the customer base and get insights on upsell/cross-sell opportunities equips agents to grow their written premiums. Managers are empowered with insights on their team's performance and what makes the top performers different, which enables them to coach their team members.

Who: To create an app from the Analytics for Insurance template, you must also have the FSC Analytics Plus add-on license.

How: Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Insurance**, and follow the instructions in the wizard to create your app.

SEE ALSO:

Analytics Prebuilt Apps: Einstein Discovery Predictions in the Sales Analytics App, Analytics for Insurance and Health Care, Einstein Accuracy Analytics

Person Life Event Component: Business Milestones, Contextual Actions, Filters, and More

We renamed the Person Life Event Lightning component to Life Events or Business Milestones and made it versatile to manage business milestones in addition to life events. Now you can hide sensitive life events and expire obsolete events. Agents can filter events based on a specific time period. With contextual actions, agents can quickly create a record and associate it with a life event or business milestone.

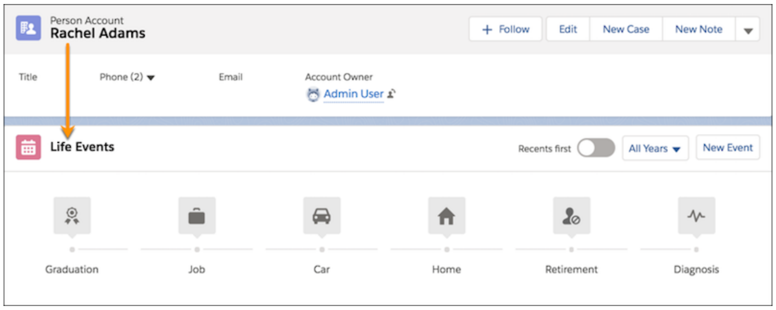
IN THIS SECTION:

Manage Life Events and Business Milestones with a Single, Versatile Component

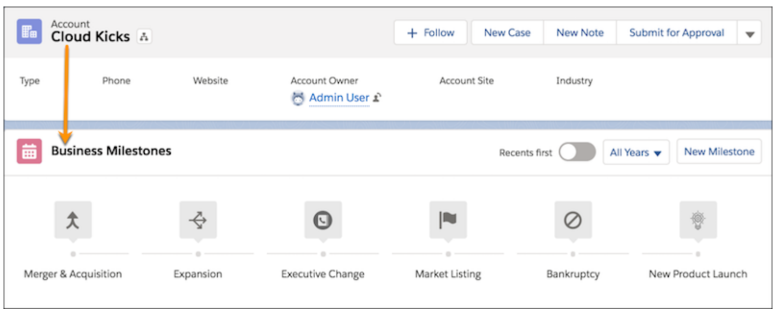
The Life Events or Business Milestones Lightning component is context-sensitive: It shows life events for a person account record page and business milestones for a business account record page.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

How: Add the component to a Person Account record page to show life events.



Add the component to an Account record page to show business milestones.



SEE ALSO:

Salesforce Help: Life Events and Business Milestones (can be outdated or unavailable during release preview)

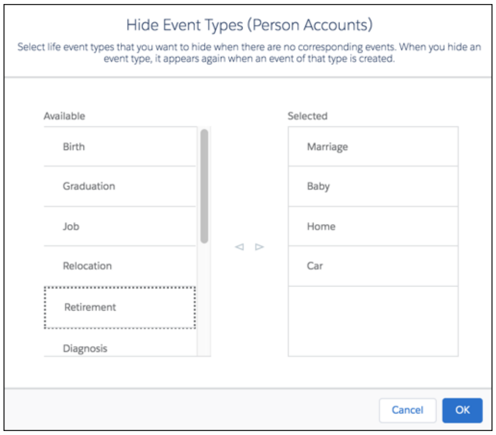
Hide Sensitive Life Event Types or Business Milestone Types

When you hide a life event or business milestone type, it doesn't appear on the component until you add an event or milestone of that type.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

Why: Some life event types or business milestone types can cause customer resentment if the customer hasn't yet achieved or isn't likely to ever achieve an event or milestone of that type.

How: Edit the account record page, and select the Life Events or Business Milestones component. In the properties pane, click **Select**, and then select the life event types or business milestone types that you want to hide.



SEE ALSO:

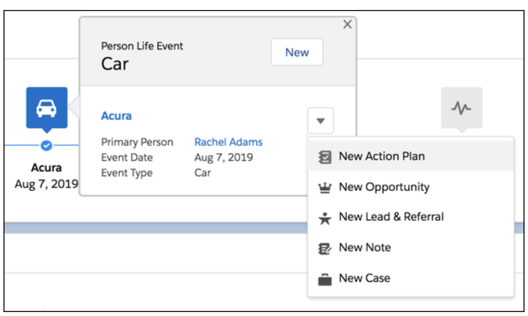
Salesforce Help: Hide Sensitive Life Event Types and Business Milestone Types (can be outdated or unavailable during release preview)

Breathe Life into Life Events with Contextual Actions

Agents can quickly create a record and associate it with a life event or business milestone without leaving the page they're on. For example, when viewing a car purchase event, the agent can quickly create an opportunity for selling an auto insurance policy. The Opportunity record is automatically associated with the life event.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

Why: Agents don't have to navigate to multiple screens to create a record and then associate it with a life event or business milestone.



How: Create actions and add them to the Salesforce Mobile and Lightning Experience Actions section on the appropriate page layout.

SEE ALSO:

Salesforce Help: Create and Configure Contextual Actions for Life Events and Business Milestones (can be outdated or unavailable during release preview)

Filter Life Events or Business Milestones

Stay focused on the most relevant life events or business milestones by filtering out old events or milestones.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

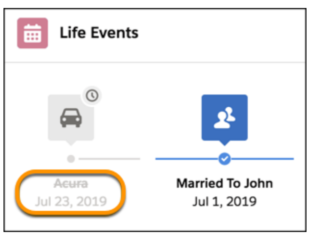
How: Select a time period from the dropdown list to view events or milestones only for that time period.

Expire Obsolete Life Events or Business Milestones

Expire life events or business milestones that are no longer valid. For example, expire a car purchase event after the client has sold the car.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

How: Edit the life event or business milestone record, and select **Expired**. An expired event or milestone appears crossed out.



SEE ALSO:

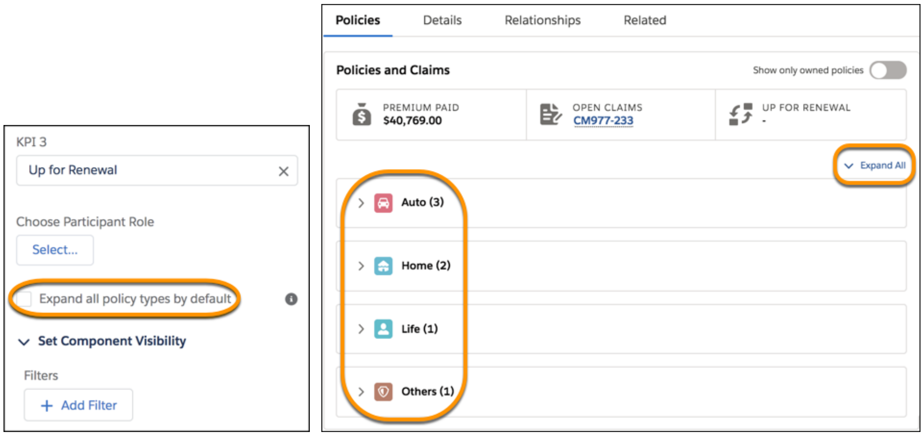
Salesforce Help: Expire Obsolete Life Events or Business Milestones (can be outdated or unavailable during release preview)

Organize Policies by Type

The Policy component is easier to read with insurance policies grouped by policy types. Expand or collapse individual policy types or all policy types. View only policies owned by the client and exclude those in which the client is just a participant. You can change the default icons that represent the policy types.

Where: This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions that have Financial Services Cloud enabled.

How: In the properties pane, choose whether the policy types are expanded or collapsed by default. Edit the account record page, and select the Policy component. In the properties pane, select **Expand all policy types by default**.



SEE ALSO:

Salesforce Help: Expand or Collapse Policy Types by Default (can be outdated or unavailable during release preview)

Lightning Scheduler: Optimize Customer Appointment Scheduling

Quickly schedule customer appointments with a group of professionals—like a financial advisor, CPA, and attorney—with multi-resource scheduling in Lightning Scheduler. Concurrent scheduling lets you book multiple customer appointments during the same time slot, maximizing calendar availability.

Where: This change applies to Lightning Scheduler in Enterprise, Performance, and Unlimited editions.

SEE ALSO:

Lightning Scheduler: Multi-Resource and Concurrent Scheduling

Deepen Customer Relationships with Expanded Account Relationship Structures

Create business and personal account relationship hierarchies using the enhanced Account-Account Relationship entity. Directly associate businesses and legal entities, such as trusts, to households and groups. It's easy to view a parent company and its subsidiaries, as well as family relationships, in the enhanced Relationship Map.

Where: This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions.

How: Go to Feature Flag Setting in Custom Metadata Types and turn on the Enable Relationship Group Hierarchy custom metadata setting.

SEE ALSO:

Financial Services Cloud Upgrade Guide: Create Expanded Account Relatioinships in Group Builder (can be outdated or unavailable during release preview)

Focus on the Financial Services Data that Matters Most With Analytics for Wealth Management

Choose the data to add to app dashboards with customization features included in the Analytics for Wealth Management app, previously named Einstein Analytics for Financial Services. A configuration wizard guides your through the process. You can choose data security settings and add external fees, commissions, and quotas data to dashboards. Also make it easier to spot trends by including trending capability, and choose record types so you can sort wealth management data according to different types of accounts you offer.

Where: This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions.

Who: Analytics for Wealth Management is only for Salesforce Financial Services Cloud users. To create an app from the Analytics for Wealth Management template, you must also have the FSC Analytics Plus add-on license.

How: Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Wealth Management**, and follow the instructions in the wizard to create your app.

SEE ALSO:

Analytics Prebuilt Apps: Einstein Discovery Predictions in the Sales Analytics App, Analytics for Insurance and Health Care, Einstein Accuracy Analytics

Fine-Tune Customer Insights with New Release of Analytics for Retail Banking

Customize your analytics experience with the template's configuration wizard and get easy access to dashboard visualizations right from account pages. And retail bankers can quickly gain insight into their key performance metrics from mobile devices.

Where: This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions.

Who: Analytics for Retail Banking is only for Salesforce Financial Services Cloud users. To create an app from the Analytics for Retail Banking template, you must also have the FSC Analytics Plus add-on license.

Why: Retail bankers can focus on the data they need to build their business by selecting data to add to app dashboards. Optionally include specific record types to calculate balance amounts for different types of accounts or add external charges and fees data, or including. You can also spot trends by snapshotting datasets. And get analytics insights from wherever you usually work in Salesforce with a home dashboard that can be embedded on any page.

How: Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Retail Banking**, and follow the instructions in the wizard to create your app.

SEE ALSO:

Analytics Prebuilt Apps: Einstein Discovery Predictions in the Sales Analytics App, Analytics for Insurance and Health Care, Einstein Accuracy Analytics

Financial Services Cloud Has New Objects

Do more with new Financial Services Cloud objects.

Document Tracking and Approvals

Store a checklist item for a file documentation upload (requires Document Tracking and Approvals add-on)

Use the new DocumentChecklistItem object.

Store the type of file being uploaded or attached to a DocumentChecklistItem (requires Document Tracking and Approvals add-on)

Use the new DocumentType object.

Insurance

Store the milestones of a business

Use the new BusinessMilestone object.

Store the insurance-related attributes for the insured business

Use the new BusinessProfile object.

Store the items that a claim includes

Use the new ClaimItem object.

Store the producers who are working on the same policy

Use the new ProducerPolicyAssignment object.

Store the securities associated with an insurance policy

Use the new SecuritiesHolding object.

Store the compensation class that a worker belongs to

Use the new WorkerCompCoverageClass object.

Store the premium payment method for an insurance policy

Use the new PolicyPaymentMethod__c object.

Mortgage

Store details about borrowers for loan applications

Use the new LoanApplicant object.

Store addresses for borrowers

Use the new LoanApplicantAddress object.

Associate borrowers with loan application assets

Use the new LoanApplicantAsset object.

Store application declarations for borrowers

Use the new LoanApplicantDeclaration object.

Store employment details for borrowers

Use the new LoanApplicantEmployment object.

Store non-employment income details for borrowers

Use the new LoanApplicantIncome object.

Associate borrowers with loan application liabilities

Use the new LoanApplicantLiability object.

Store asset details for loan applications

Use the new LoanApplicationAsset object.

Store transaction details for loan applications

Use the new LoanApplicationFinancial object.

Store liability and expense details for loan applications

Use the new LoanApplicationLiability object.

Store application property details for loan applications

Use the new LoanApplicationProperty object.

Store names of future and current property title holders for loan applications

Use the new LoanApplicationTitleHolder object.

Store details about loan applications

Use the new ResidentialLoanApplication object.

New and Changed Financial Services Cloud Object Fields

New fields and updated field picklist values are available on Financial Services Cloud objects.

New Fields on Account

View the total number of claims for active policies that a policyholder's primary household owns

Use the new ClaimsOnHouseholdPolicies__c field.

View the total number of active policies that a policyholder's primary household owns

Use the new HouseholdPolicies__c field.

View when an individual or business became an insurance customer

Use the new InsuranceCustomerSince__c field.

View the total amount paid for all claims for the active policies for a policyholder's primary household

Use the new TotalClaimAmountPaid__c field.

View the total premiums for all active policies for a policyholder's primary household

Use the new TotalHouseholdPremiums__c field.

New Fields on Claim

View how a loss was reported

Use the new FnolChannel field.

View an insured owner's primary household

Use the new Household__c field.

View how the policy associated with a claim was renewed

Use the new RenewalChannel field.

New Fields on CustomerProperty

Store a vehicle's weight

Use the new GrossVehicleWeight field.

Store a vehicle's load-carrying capacity

Use the new LoadCapacity field.

New Fields on InsurancePolicy

View the cash surrender value of an insurance policy
Use the new CashSurrenderValue field.

View how a loss was reported
Use the new FnolChannel field.

Check whether an insurance policy has an Any Auto coverage, which extends the coverage to hired and other non-owned vehicles
Use the new HasAnyAutoCoverage field.

View an insured owner's primary household
Use the new Household__c field.

Check whether a loan can be requested against an insurance policy
Use the new IsLoanEligibile field.

View how a policy was renewed
Use the new RenewalChannel field.

View the taxes and surcharges levied on the premium for an insurance policy
Use the new TaxesSurcharges field.

New Fields on InsuranceProfile

Check whether an insured member's driver's license was ever suspended
Use the new IsLicenseSuspended field.

View the number of accidents an insured member was involved in
Use the new NumberOfAccidents field.

New Fields on PersonLifeEvent

View the date when a life event expired
Use the new ExpirationDate field.

See why a life event expired
Use the new ExpirationDescription field.

Check whether a life event has expired
Use the new IsExpired field.

New Field on BillingStatement__c

View the insurance policy associated with a billing statement
Use the new Insurance field.

New Fields on FinancialAccountTransaction__c

View the claim associated with a financial account transaction
Use the new Claim field.

View the insurance policy associated with a financial account transaction
Use the new InsurancePolicy field.

These fields have new picklist values.

Claim
The ClaimType and LossType fields have new picklist values.

CoverageType
The CategoryGroup and CategoryGroupType fields have new picklist values.

InsurancePolicy
The PolicyType field has new picklist values.

InsuracePolicyCoverage
The CategoryGroup and CategoryGroupType fields have new picklist values.

Health Cloud: More Ways to Engage Patients and Providers

Health Cloud makes it easier to connect with your users, patients, and plan members. You can enroll participants in care programs such as a nutrition class or an employer-sponsored wellness program. The new provider card puts comprehensive information about associated care providers at your fingertips. You can help patients and plan members search for the right care provider and make their own appointments. And if you're selling medical devices, you can simplify your sales operations with features from our new Manufacturing Cloud.

IN THIS SECTION:

Turn Metrics from Your Medical Device Business Into Actionable Insights with Manufacturing Analytics

The Einstein Analytics for Manufacturing app is now available as part of Analytics for Healthcare.

Security Upgrade for Utilization Management

For security reasons, we've added two permissions that you must assign to the community user profile to make utilization management available to community users.

Edit Field Level Security for Health Cloud Objects

Field-level security is now under your control. Visibility for all Health Cloud fields has been set to True by default until now, and could not be turned off. It is still set to True, but now you can turn it off if needed.

Health Cloud Has New and Changed Objects

Access more data through these new and changed Health Cloud objects

Enroll Patients in Programs and Capture Their Consent

Use the power of Salesforce Flow to enroll participants in care programs, like a diet and nutrition class or an employer-sponsored wellness program. With Flow Designer, you can configure the Program Enrollment flow template and take advantage of the rich program management data model. Define programs, manage relationships and activities, and create a guided program enrollment process for your users.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled.

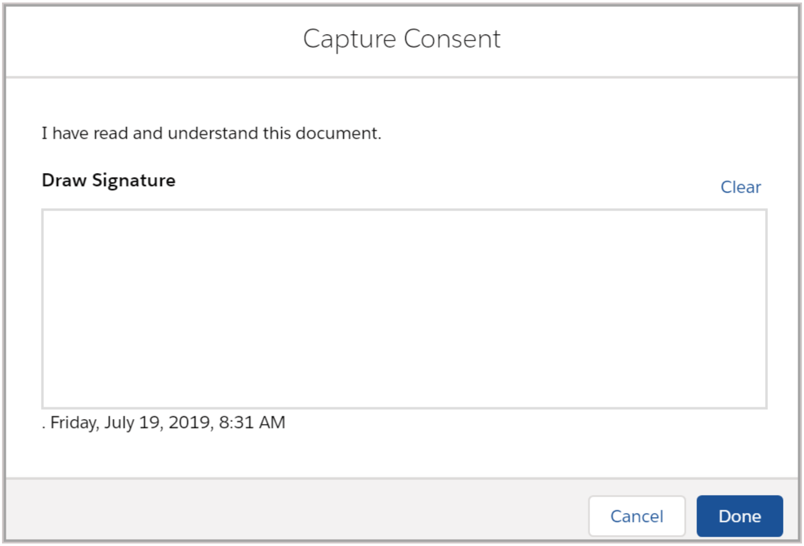
Who: To access the template, you must have the Health Cloud license provisioned in your org. Users need the Health Cloud and the Health Cloud Platform permission set licenses, as well. Care program participants must have Customer Community Plus licenses to use the community to review and consent to forms.

When: The Care Program Enrollment flow template is made available through the new Health Cloud Foundation permission set license. This permission set license is provisioned to all Health Cloud customers, based on their contracts, after the Winter '20 production release upgrade. After the features are available in production orgs, you can replicate a new sandbox org and have access to the functionality.

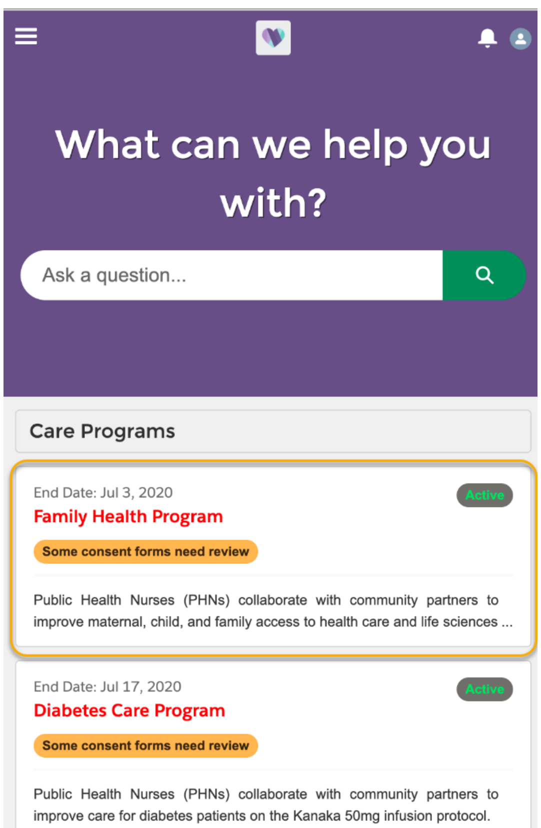
Why: Give call center agents a streamlined, guided enrollment process. When a patient calls in, a patient support agent can enroll the person into a support program.

Save valuable time by creating a program enrollment flow that meets most use cases and then clone and customize it for different types of enrollment programs. Upload authorization forms and consent documents for your care programs and associate them with a care program. Then, add the Enroll in Program quick action to a Patient Detail record page or to a related list and you're done!

Stay compliant by capturing electronic signatures and tracking consent for each care program enrollment. Consent can take place with the participant providing consent in person, using a tablet or mobile device.



Patients and members who aren't physically present can log in to their community, and view and provide consent to the forms associated with the program.



Keep Close Track of Provider Relationships

You can never know too much about the health care providers who are delivering services to your patients or insurance plan members. Now you can track your relationship with each provider in your own verified provider directory.

Who: To use the provider data model, you must have the Health Cloud license provisioned in your org. Users need the Health Cloud and the Health Cloud Platform permission set licenses.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled.

Why: Provider relationship management is important across the health industry.

- In an insurance organization, you want to engage physicians to improve outcomes and reduce the cost of care.
- In a provider organization, you want to connect to partner providers to make sure your patients are getting all the care they need, and to drive referrals to your own services.
- In a Life Sciences organization, you need to work closely with physicians to identify and deliver the devices, medications, and services they need.

How: Import provider data using the comprehensive provider data model, and create an informational card for each provider to centralize your provider interactions.

Quickly Connect Patients With the Right Health Care Provider

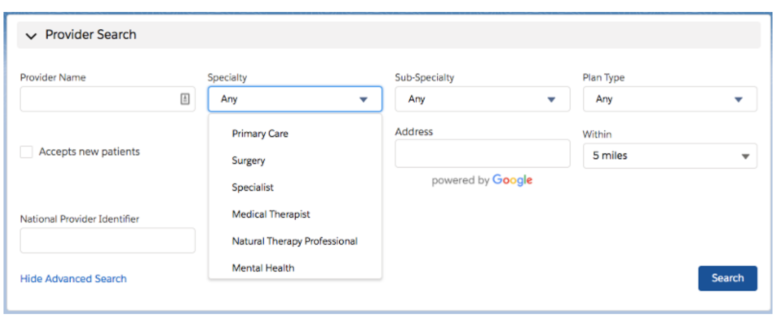
Help patients and insurance plan members simplify the task of finding the right care provider with our new provider search Lightning component. Patients and members can search for providers by all the most critical parameters, such as location, availability, specialty, and whether they are taking new patients.

Who: To use the provider data model, you must have the Health Cloud license provisioned in your org. Users need the Health Cloud and the Health Cloud Platform permission set licenses. Community users must have the Customer Community Plus license.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled.

Why: If you're a care organization, you need to get your patients to the best available care location and person with a minimum of fuss. If you're a payer, you'll want to steer patients to the right provider based on cost, effectiveness, and matching with their insurance plan.

How: Your contact center can add the new Provider Search component to their Health Cloud Console to easily help patients and members calling in to find the right provider. When you add the component to your patient community, you can enable patients to quickly and easily locate a care provider for themselves.



Use Lightning Scheduler to Book Care Provider Visits

Health Cloud users can use Lightning Scheduler to set up appointments with physicians and healthcare facilities.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled.

How: This feature uses the Health Care Provider data model and the Lightning Scheduler data model.

- A physician is represented as a Contact, a CRM or Community user, and a Service Resource.

- A facility is represented as an account, a location, and a service territory.

Each provider has a work type so users can search based on availability.

SEE ALSO:

Lightning Scheduler: Optimize Customer Appointment Scheduling

Simplify Medical Device Sales with Sales Agreements and Account Forecasting (Generally Available)

Health Cloud now includes features you can use to support medical device manufacturing. Your sales teams can now manage sales agreements, orders, contracts, and opportunities right in the Health Cloud console.

Why: Use our account-based forecasting capabilities to get insight into your quantity and revenue projections. Keep track of your planned and actual quantities and revenues for products across multiple schedules using standard and custom metrics. Collaborate with partners on leads, opportunities, and sales agreements through our Manufacturing community portal.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled.

SEE ALSO:

Manufacturing Cloud: Business Made Simpler with Sales Agreements and Account Forecasting (Generally Available)

Life Events: Deepen and Improve Patient Relationships

Give care team members an at-a-glance view of their patient's life events to help them identify a care plan tailored to the patient's condition and life events.

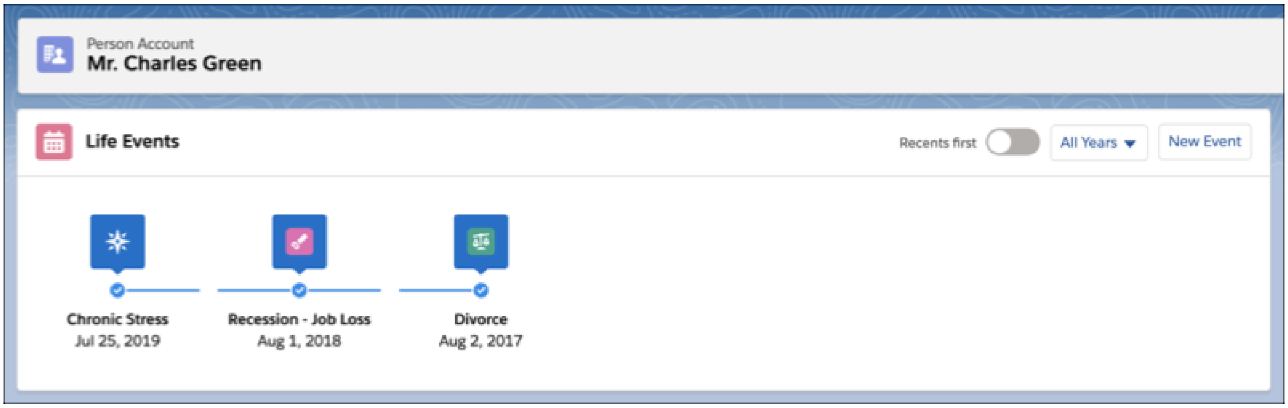
IN THIS SECTION:

Get Insights into a Patient's Life Events

Allow care members to recommend focused care plans and assist patients on their journey to better health by getting insights into a patient's significant life events, such as bereavement, job loss, substance abuse, or divorce.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

How: Add the picklist values for the Event Type field in the Person Life Event object, clone an account record page or create one, and then add the Person Life Event component to the page.

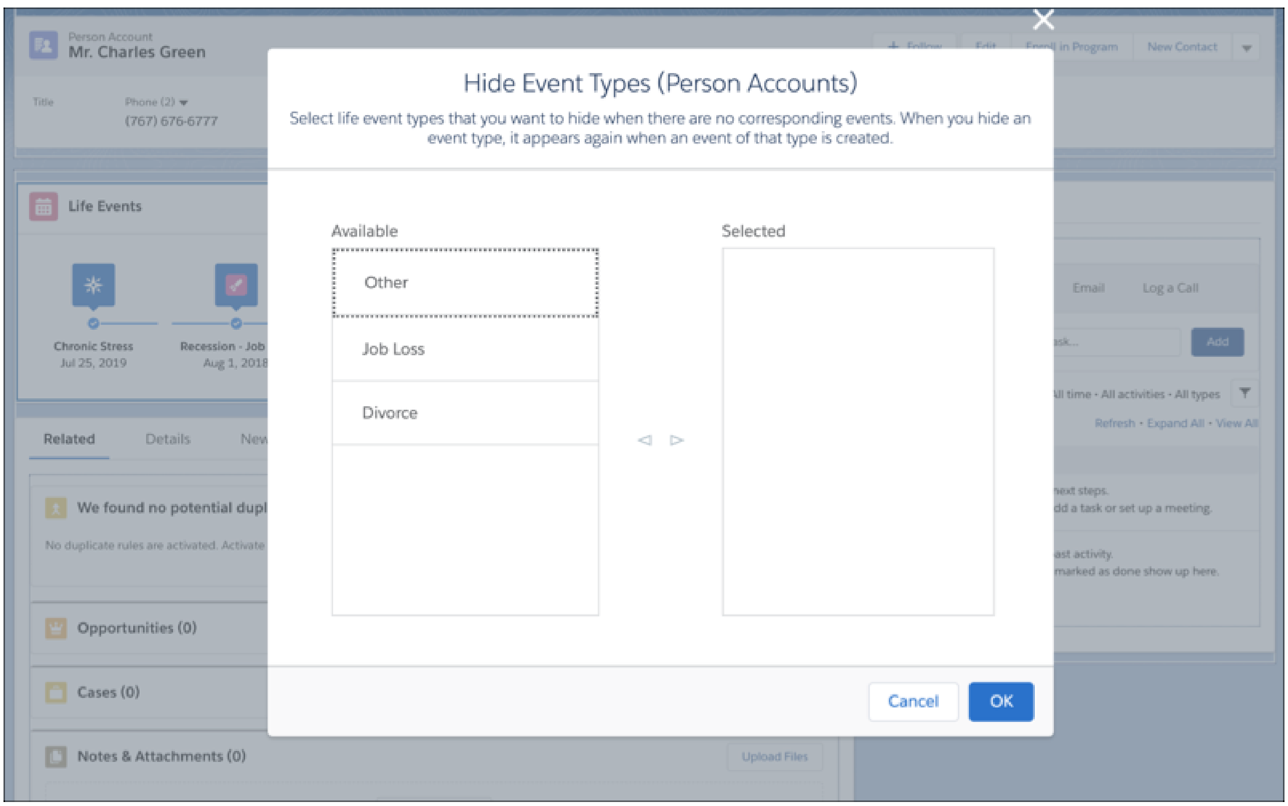


Hide Sensitive Life Event Types

At times, mentioning a life event is inappropriate because the patient hasn't yet experienced or isn't likely to experience that life event. When you hide a life event type, it doesn't appear on the component until you add a life event of that type for the patient.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

How: Edit the account record page, and select the Life Events component. In the properties pane, click **Select**, and then select the life event types that you want to hide.

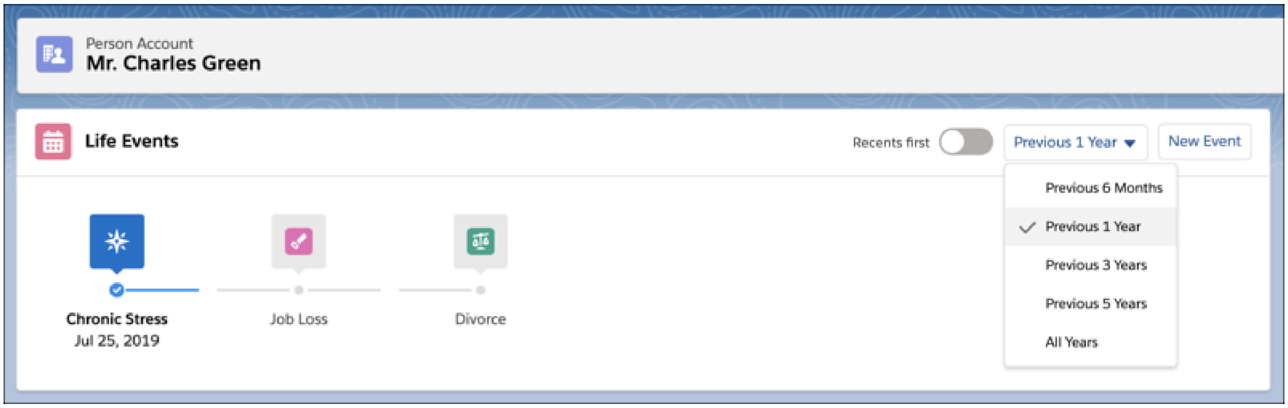


Filter Life Events

Stay focused on the most relevant life events by filtering out events based on a specific time period.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

How: Select a time period from the dropdown list to view life events that happened in that time period.



Improve Health Outcomes and Increase Patient Engagement with Einstein Analytics

Einstein Analytics for Healthcare lets care coordinators, utilization managers, and referral managers gain critical insights and visualize key metrics about their patient populations. Payers and providers can use actionable insights from the app's dashboards to drive intelligent engagement and improve care effectiveness and efficiency.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled. Analytics for Healthcare is only for Salesforce Health Cloud users.

Who: To create an app from the Einstein Analytics for Healthcare template, you must also have the Healthcare Analytics Plus add-on license.

Why: With Einstein Analytics for Healthcare, care coordinators can quickly identify patients/members who are falling behind in adhering to their care plans and take steps to prevent avoidable admissions. Insights into care requests process helps utilization managers at Payers decrease cycle time, increase approvals and NPS. Patient referral management insights help referral coordinators understand referral sources, identify underperforming sources, and increase patient conversions.

How: Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Health**, and follow the instructions in the wizard to create your app.

SEE ALSO:

Analytics Prebuilt Apps: Einstein Discovery Predictions in the Sales Analytics App, Analytics for Insurance and Health Care, Einstein Accuracy Analytics

Turn Metrics from Your Medical Device Business Into Actionable Insights with Manufacturing Analytics

The Einstein Analytics for Manufacturing app is now available as part of Analytics for Healthcare.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled. Analytics for Healthcare is only for Salesforce Health Cloud users.

Who: To create an app from the Einstein Analytics for Manufacturing template, you must also have the Healthcare Analytics Plus add-on license.

Why: The Analytics for Manufacturing app lets demand planners and account managers at medical device companies visualize all aspects of their business. Insights based on your manufacturing data help you grow the business and simplify sales operations. Use its dashboard visualizations to stay on top of your sales agreements, orders, and contracts. And identify products that sell the most and the least and analyze the impact of volume on pricing and revenue.

How: Go to Analytics Studio, click **Create**, choose **App**, and click **Start from Template**. Select **Analytics for Manufacturing**, and follow the instructions in the wizard to create your app.

Security Upgrade for Utilization Management

For security reasons, we've added two permissions that you must assign to the community user profile to make utilization management available to community users.

The community user profile must have Read and Create permissions on these objects:

- Case
- Care Request
- Care Request Item
- Care Drug Request
- Care Diagnosis
- UM Record Types provided in the unmanaged package

Edit Field Level Security for Health Cloud Objects

Field-level security is now under your control. Visibility for all Health Cloud fields has been set to True by default until now, and could not be turned off. It is still set to True, but now you can turn it off if needed.

To keep Health Cloud fields visible in Sandbox and pre-release orgs, you may need to go to **Setup** > **Permission Sets** and specify the accessibility of each field in your Health Cloud objects. You don't need to do anything in your production org.

SEE ALSO:

Salesforce Help: Field-Level Security

Health Cloud Has New and Changed Objects

Access more data through these new and changed Health Cloud objects

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Health Cloud is enabled.

Life Sciences Program Management

Associate a care program product with a care program provider
Use the CareProgramProductId field on the CareProgramProduct object.

Designate that a care program eligibility rule is required
Use the IsRequired field on the CareProgramEligibilityRule object.

Provider Relationship Management

Track negative information about a provider
Use the new CareProviderAdverseAction object in the Provider data model.

Customization: Einstein Prediction Builder, Lightning App Builder Improvements, and Lightning Flow Improvements

Use filters for predictions and comparisons in Einstein Prediction Builder. Configure pages for the new Salesforce Mobile App with Lightning App Builder. Build better processes and flows with more building blocks.

IN THIS SECTION:

AppExchange: Usage Data for AppExchange Packages, ISV Hammer Testing Opt-Out, and AppExchange Checkout Enhancements

See how your company is using installed AppExchange packages. Prevent AppExchange partners from using a copy of your org's metadata to test their new package versions. Enjoy enhanced security for AppExchange Checkout payments in the European Economic Area with strong customer authentication.

General Setup: Support for More Form Factors with your Lightning Apps, Improved Connections with Enhanced External Services, and Monitoring Custom Object and Settings Counts

Create Lightning apps that support desktop, phone, or both. Create better connections to outside services with Enhanced External Services. Compare how many custom objects and settings you've created against the total in your org.

Einstein Prediction Builder: Filter by Comparison

Keep your segments and example datasets relevant and current with comparison filters.

IN THIS SECTION:

Filter by Comparison in Einstein Prediction Builder

Instead of filtering only on absolute field values, you can now filter on the value of one field compared to the value of another field or on a point in time. Make your filter logic more meaningful and relevant to your prediction question.

Filter by Comparison in Einstein Prediction Builder

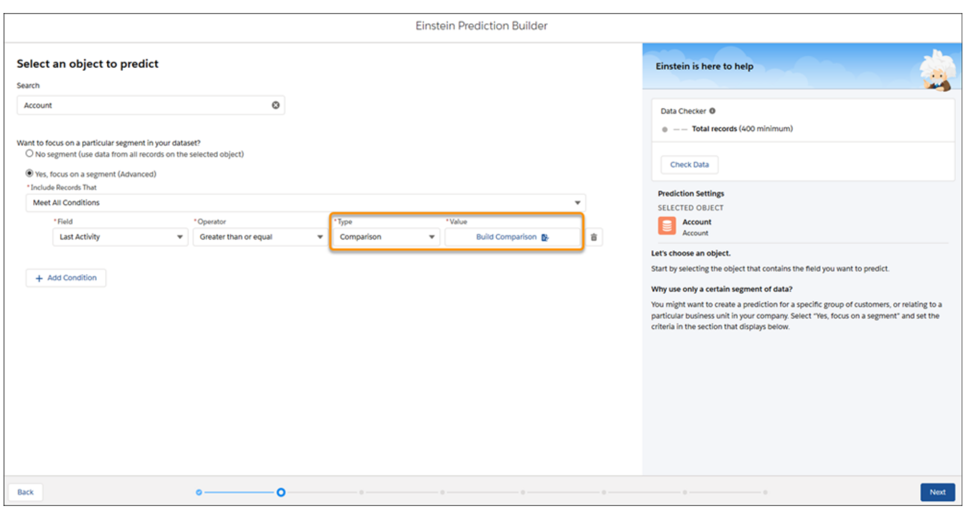
Instead of filtering only on absolute field values, you can now filter on the value of one field compared to the value of another field or on a point in time. Make your filter logic more meaningful and relevant to your prediction question.

Where: This change applies to Lightning Experience in Enterprise and Developer editions.

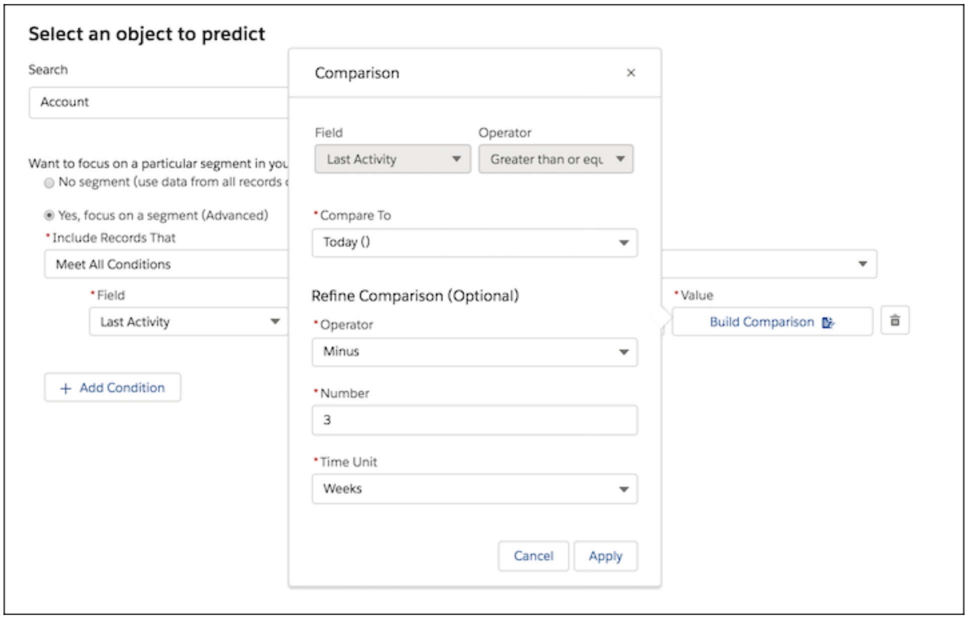
Who: This feature is available to admins with the Einstein Analytics Plus or Einstein Predictions license.

Why: Comparison filters work on date, currency, and number fields on records that have a field available for comparison. For instance, you want to look only at accounts with activity during the past three weeks. Previously, you had to use an absolute date to define which "past three weeks" or create a formula field outside of Einstein Prediction Builder. Now you can set a comparison filter that includes accounts with a last activity date that's greater than or equal to today minus three weeks. And your filter stays fresh and isn't dated!

How: You know that a comparison filter is available when the Type dropdown menu contains **Comparison** as an option. When you select **Comparison**, a Build Comparison button appears in the Value field.



To build your comparison, choose the field (or point in time, if your comparison is on a date field) that you want the filter to use. To get accounts that were active during the past three weeks, you can fine-tune your comparison with specific conditions like "minus 3 weeks."



Lightning App Builder: Phone Form Factor for Record Pages, Page Templates, and Component Visibility Rules, Plus New Components for Home Pages

If you've opted in to the new Salesforce mobile app, you can configure record pages, page templates, and component visibility rules for use on a phone. And on desktop, enhance your Home pages with the Tabs and Accordion components.

IN THIS SECTION:

Customize Lightning Record Pages for the Phone Form Factor

Lightning record pages are no longer limited to Lightning Experience on desktop! If your org has opted in to the new Salesforce mobile app, you can see the same record pages on desktop and the mobile app. Or, go one step further and address the needs of different users by assigning one custom record page for desktop users and another for mobile app users. Not sure which of your pages are assigned to which form factor? You can find that information on the Lightning Record Pages screen in the Object Manager.

Add List and Related List Components to the New Salesforce Mobile App

We updated the List View, Related List - Single, Related Lists, and Related List Quick Links components to support mobile navigation and the new Salesforce mobile app. When you place the List View component on a record page, a View More button loads more records in batches, so you can easily get more records or scroll to the information you want. The Related Lists component groups all your related lists in one section and no longer includes News and Twitter. The Related Lists component also uses a View More button for efficient navigation.

Select a Lightning Page Template Based on Form Factor

We updated the way that page templates appear in the Lightning page creation wizard. Standard and custom templates now have an icon and description text that indicate whether the template supports desktop, phone, or both. We also updated the images and overall descriptions for standard record page templates.

View Supported Form Factors in the Component Palette

Each component in the Lightning App Builder component palette now has an icon that represents the form factors that it supports. Before adding a component to a Lightning page, you can see right away whether the component will appear when the page is rendered on a specific form factor. You can also use the new settings menu to refresh the component list and show or hide the form factor icons.

View App Default Form Factor Assignments from the Pages Menu

When editing a Lightning app in the Lightning App Builder, you can now check the Pages menu to see which record pages are assigned as the app default for each form factor.

Set Record Page Component Visibility Rules Based on Device

For components on record pages, you can now show or hide a standard or custom component on a record page based on the device it's viewed on.

Add Tabs and Accordion Components to Your Home Pages

You can now use the Tabs and Accordion components on Home pages in Lightning Experience. You can create, update, and delete tabs, then change their order. Or, use the Accordion component to organize your components into collapsible sections. For both Tabs and Accordion, you can configure the tabs or sections that your users see, name them whatever you like, and add components.

See Survey Results Faster with the Customer Experience Score Component (Pilot)

Display survey question scores for accounts, cases, contacts, users, and custom objects with the Customer Experience Score component.

Add Topics to Surveys

Easily organize surveys, questions, answer choices, and responses by theme using Topics. Add the Topics Lightning component to your Survey, Survey Question, Survey Question Choice, and Survey Question Response record pages.

Set Component Visibility Rules by Form Factor More Easily with Updated Labels

Setting component visibility rules by form factor or device in the Lightning App Builder wasn't always straightforward. Assigning by form factor was nested under the Client context, which isn't where most people would look for it. To make things clearer, we updated the labels and now you start the process by selecting Device.

Placeholder Components Have Improved Design and Messaging

To make troubleshooting component problems on the Lightning App Builder canvas easier, we updated the design of our placeholder components. A placeholder component appears when a component on the canvas can't be rendered for reasons such as permissions issues, unavailable data, or an unsupported form factor.

Pinned Region Page Template Labels Have Changed

We removed the "Console:" prefix from the pinned region page templates in the Lightning App Builder template picker screen. Although pinned region templates are designed for console pages, you can also use them as standard Lightning pages.

Tour Lightning App Builder Record Pages More Easily

No more tripping over extra steps or wording in the Lightning App Builder. We smoothed out the record page walkthrough with fewer steps and clearer and more concise text.

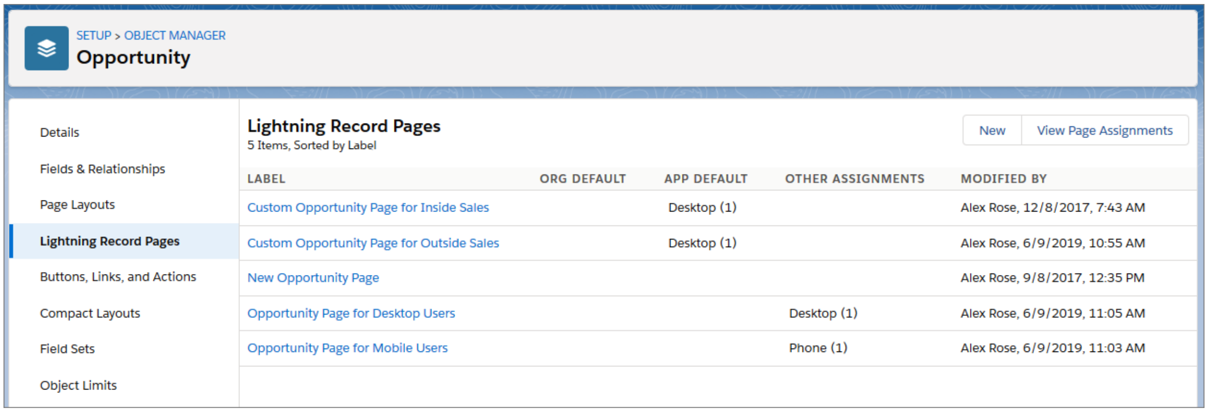
Customize Lightning Record Pages for the Phone Form Factor

Lightning record pages are no longer limited to Lightning Experience on desktop! If your org has opted in to the new Salesforce mobile app, you can see the same record pages on desktop and the mobile app. Or, go one step further and address the needs of different users by assigning one custom record page for desktop users and another for mobile app users. Not sure which of your pages are assigned to which form factor? You can find that information on the Lightning Record Pages screen in the Object Manager.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available for orgs that have opted in to the new Salesforce mobile app.

How: When you create a record page in the Lightning App Builder, you can select a page template that matches the form factor that you're designing the page for. Preview what the page looks like on different devices using the form factor switcher. When you activate your page, you can choose which form factors to make the record page available on: phone, desktop, or both, depending on which form factors its template supports.

On the main Lightning Record Pages screen, you can see which page is assigned to which form factor for each type of assignment.



Click **View Page Assignments** to see which pages are assigned to which form factor for each assignment type.

Pages that you already have in your org support both form factors by default. With a few exceptions, the custom and standard components on those pages work seamlessly across desktop and mobile.

SEE ALSO:

Unlock Mobile Configuration Options in the Lightning App Builder

Add List and Related List Components to the New Salesforce Mobile App

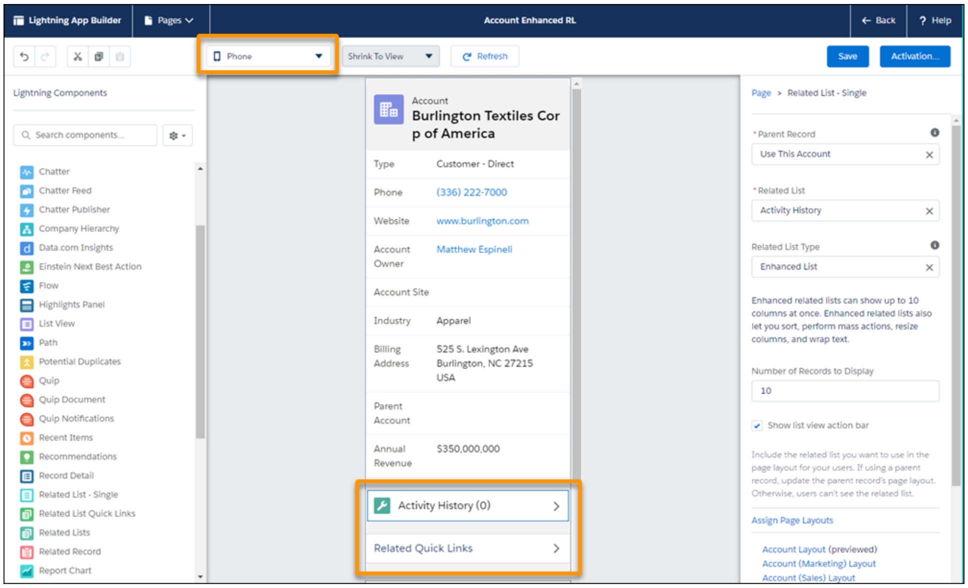
We updated the List View, Related List - Single, Related Lists, and Related List Quick Links components to support mobile navigation and the new Salesforce mobile app. When you place the List View component on a record page, a View More button loads more records in batches, so you can easily get more records or scroll to the information you want. The Related Lists component groups all your related lists in one section and no longer includes News and Twitter. The Related Lists component also uses a View More button for efficient navigation.

Where: This change applies to the new Salesforce mobile app in all editions, except Essentials and Database.com.

When: You can give this feature a try in Lightning App Builder right away, but your changes won't be visible to users until the new Salesforce mobile app is released the week of October 14, 2019.

Who: Available to users with the New Salesforce Mobile App user permission.

How: To add the Related List - Single and Related List Quick Links components to the new Salesforce mobile app, add the components to a Lightning page in the Lightning App Builder while in the mobile view.



If you want to add News and Twitter back to your page, use the individual components.

SEE ALSO:

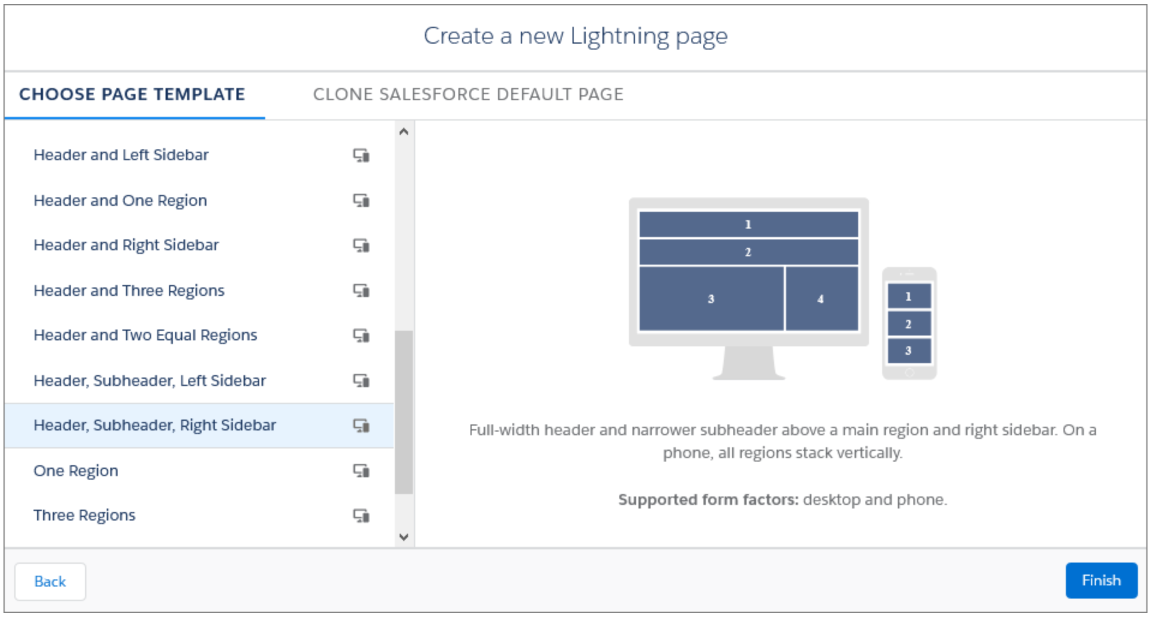
List and Related List Components Are Optimized for the New Salesforce Mobile App

Select a Lightning Page Template Based on Form Factor

We updated the way that page templates appear in the Lightning page creation wizard. Standard and custom templates now have an icon and description text that indicate whether the template supports desktop, phone, or both. We also updated the images and overall descriptions for standard record page templates.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Template form factor icons are available for orgs that have opted in to the new Salesforce mobile app.

Why: When creating a Lightning page, you can choose a template that supports the form factor that you want to design the page for.



Tip: If your page's template supports more than one form factor, you can preview it in different formats using the form factor switcher in the Lightning App Builder toolbar.

SEE ALSO:

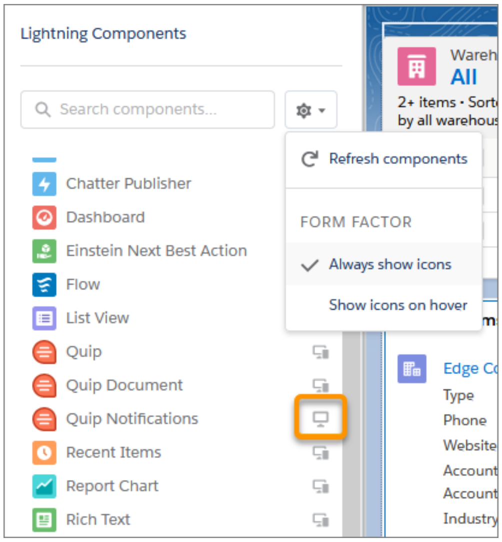
Unlock Mobile Configuration Options in the Lightning App Builder

View Supported Form Factors in the Component Palette

Each component in the Lightning App Builder component palette now has an icon that represents the form factors that it supports. Before adding a component to a Lightning page, you can see right away whether the component will appear when the page is rendered on a specific form factor. You can also use the new settings menu to refresh the component list and show or hide the form factor icons.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

Why: Let's say that your Lightning page supports both desktop and phone, and you're thinking about adding the Quip Notifications component to it. The Quip Notifications component is supported only for desktop, as its icon in the palette shows. So before you add the component, you know that only users viewing the page on desktop can see it.



SEE ALSO:

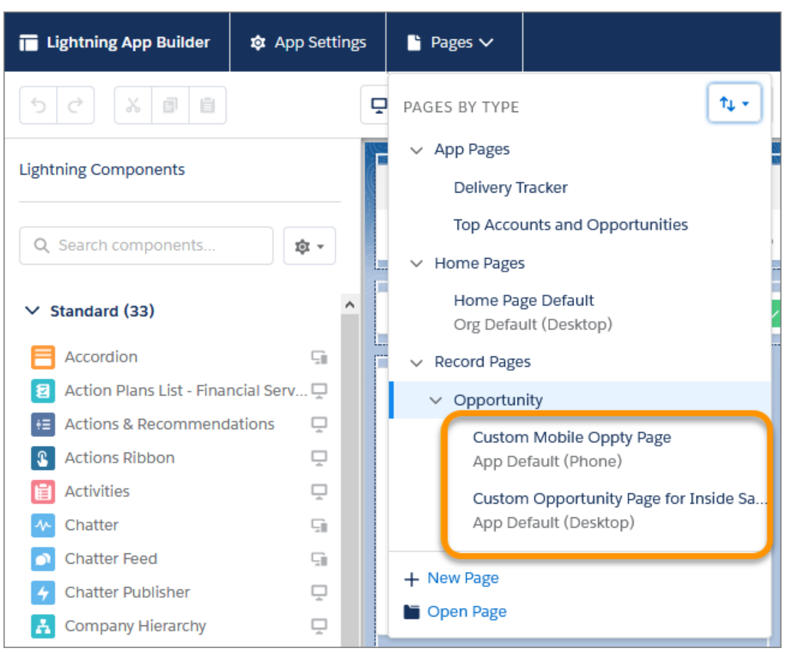
Unlock Mobile Configuration Options in the Lightning App Builder

View App Default Form Factor Assignments from the Pages Menu

When editing a Lightning app in the Lightning App Builder, you can now check the Pages menu to see which record pages are assigned as the app default for each form factor.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

How: From the App Manager in Setup, click **Edit** for one of your Lightning apps, then click **Pages**.

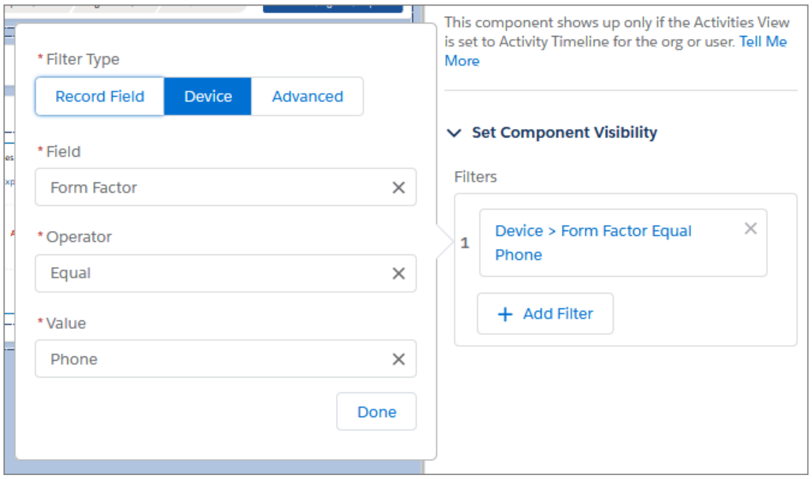


Set Record Page Component Visibility Rules Based on Device

For components on record pages, you can now show or hide a standard or custom component on a record page based on the device it's viewed on.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

How: From the component's properties pane, click **Add Filter**, then click **Device**.



SEE ALSO:

Unlock Mobile Configuration Options in the Lightning App Builder

Add Tabs and Accordion Components to Your Home Pages

You can now use the Tabs and Accordion components on Home pages in Lightning Experience. You can create, update, and delete tabs, then change their order. Or, use the Accordion component to organize your components into collapsible sections. For both Tabs and Accordion, you can configure the tabs or sections that your users see, name them whatever you like, and add components.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Add and Customize Tabs on Lightning Pages Using the Lightning App Builder

See Survey Results Faster with the Customer Experience Score Component (Pilot)

Display survey question scores for accounts, cases, contacts, users, and custom objects with the Customer Experience Score component.

Where: This change applies to Lightning Experience on desktop in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

Note: We provide Customer Experience Score component to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Customer Experience Score component isn't generally available unless or until

Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

SEE ALSO:

Display Customer-Provided Scores for a Particular Record (Pilot)

Add Topics to Surveys

Easily organize surveys, questions, answer choices, and responses by theme using Topics. Add the Topics Lightning component to your Survey, Survey Question, Survey Question Choice, and Survey Question Response record pages.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

SEE ALSO:

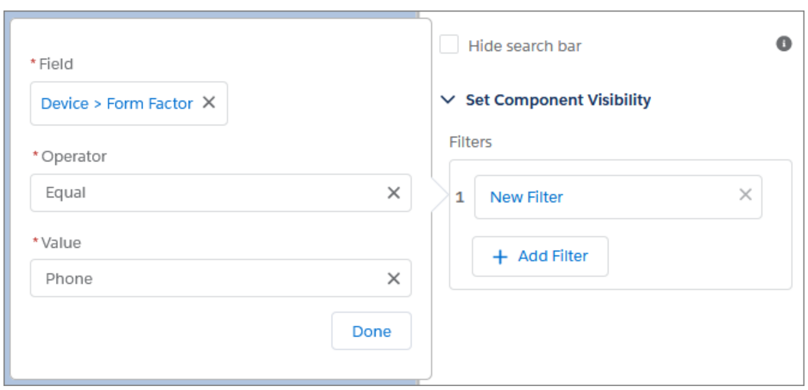
Assign Topics to Surveys

Set Component Visibility Rules by Form Factor More Easily with Updated Labels

Setting component visibility rules by form factor or device in the Lightning App Builder wasn't always straightforward. Assigning by form factor was nested under the Client context, which isn't where most people would look for it. To make things clearer, we updated the labels and now you start the process by selecting Device.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: To see the changes, click **Add Filter** from a component's properties pane.



Placeholder Components Have Improved Design and Messaging

To make troubleshooting component problems on the Lightning App Builder canvas easier, we updated the design of our placeholder components. A placeholder component appears when a component on the canvas can't be rendered for reasons such as permissions issues, unavailable data, or an unsupported form factor.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Pinned Region Page Template Labels Have Changed

We removed the "Console:" prefix from the pinned region page templates in the Lightning App Builder template picker screen. Although pinned region templates are designed for console pages, you can also use them as standard Lightning pages.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Tour Lightning App Builder Record Pages More Easily

No more tripping over extra steps or wording in the Lightning App Builder. We smoothed out the record page walkthrough with fewer steps and clearer and more concise text.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Approvals: Increased Limits and More Control over Approval Request Notifications

Accommodate more approval processes per org and per object. Use Notification Builder to choose desktop and mobile delivery channels for approval requests.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

IN THIS SECTION:

Increased Limits for Approval Processes

Some of you have requested more approval processes per object, and we've noticed a steady increase in their usage over time. So we raised the limits for approval processes to give you room to grow. Your org can now have up to 1,000 *active* and 2,000 *total* approval processes. Each object can have up to 300 *active* and 500 *total* approval processes.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Salesforce Help: Approval Limits (can be outdated or unavailable during release preview)

Manage Delivery Settings for Approval Requests

Use Notification Builder to choose desktop and mobile delivery channels, including supported Salesforce apps, for standard notification types. Previously, Salesforce defined the delivery channels for standard notifications. Now you have more control over approval request notifications.

Where: This change applies to Lightning Experience in all editions, except Database.com. You can send notifications to users in Lightning Experience and Salesforce Classic in all editions, to users in the current Salesforce mobile app in all editions, except Database.com, and to users in the new Salesforce mobile app in all editions, except Essentials and Database.com. You can send notifications to users in Mobile Publisher apps for an extra cost.

How: To learn more, see Manage Delivery Settings for Standard Notifications with Notification Builder.

Einstein Next Best Action: Autolaunched Flows, Strategy Templates and Intellectual Property, Undo/Redo, and Streamlined Expressions

Call an autolaunched flow to update records or send an email via a recommendation. Make strategy templates for subscribers to customize and protect strategies as your intellectual property (IP). Easily undo mistakes when you create strategies. Create expressions more quickly and accurately when using a Branch Selector element.

IN THIS SECTION:

Help your service agents take action quickly. Call an autolaunched flow to update records or send an email behind the scenes via a recommendation.

Create strategy templates that your subscribers can customize and build on. Share them in managed packages that you publish on AppExchange. A managed package can contain both strategy templates and strategies protected as your intellectual property (IP). Subscribers can open a template in Strategy Builder and clone it to customize for their own use. Strategies not marked as templates are IP protected and can't be edited or cloned. You can upgrade strategy templates and IP-protected strategies as part of a package upgrade. When you push upgrades to strategy templates, you don't affect subscribers' copies.

Accidents can happen when you create strategies. Now you can easily undo and redo changes, like mistakenly deleting a parent element or moving an element from one branch to another.

Create expressions more quickly and accurately when using a Branch Selector element to branch recommendations. No more manually entering picklist values. Now you can select the values, and Next Best Action populates the expression for you.

We added titles to the list of attributes that you can show for a recommendation in the Next Best Action Lightning component in Lightning App Builder or Communities. Add a title to a recommendation so that your agent or user can easily identify it.

Add the Next Best Action Lightning component to an app's Home page to display an aggregated set of recommendations. For example, show an agent a list of key accounts to follow up with after a specific number of days has passed since the previous contact.

Call Autolaunched Flows from Your Next Best Action Recommendations

Help your service agents take action quickly. Call an autolaunched flow to update records or send an email behind the scenes via a recommendation.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: An autolaunched flow can perform several actions, like updating an external system or adding a note to a Quip doc. For example, on a case, display a recommendation to the service agent to upsell a premium service to the customer. When the agent accepts the recommendation, the autolaunched flow takes care of updating the case and the customer's order history and sends a receipt via email.

Or say that you have an autolaunched flow that sends a templated marketing campaign email to a customer. Your service agents have to determine whether your customers are eligible for this campaign. Doing so involves several clicks and complex calculations. Now you can use Next Best Action to immediately determine the customer's eligibility, and prompt the agent to accept the recommendation and launch the flow.

How: Create an autolaunched flow. Be sure to activate it because Next Best Action can't call an inactive flow from a recommendation.

From the App Launcher, click **Recommendations**, and select and edit the recommendation to add the autolaunched flow. From the Action dropdown, select the autolaunched flow. When the user accepts the recommendation, your autolaunched flow is executed.

Create Strategy Templates and Protect Strategies as Your Intellectual Property

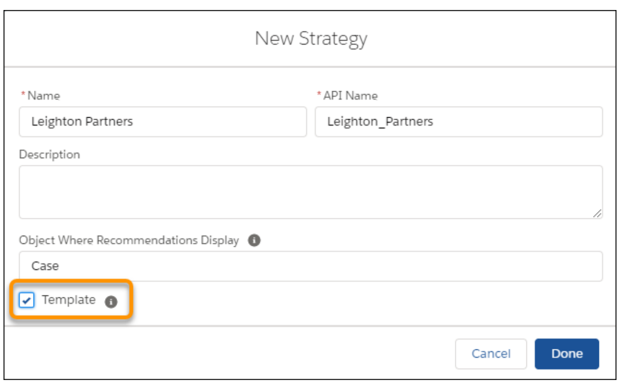
Create strategy templates that your subscribers can customize and build on. Share them in managed packages that you publish on AppExchange. A managed package can contain both strategy templates and strategies protected as your intellectual property (IP). Subscribers can open a template in Strategy Builder and clone it to customize for their own use. Strategies not marked as templates are IP protected and can't be edited or cloned. You can upgrade strategy templates and IP-protected strategies as part of a package upgrade. When you push upgrades to strategy templates, you don't affect subscribers' copies.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Suppose you build and package strategies for insurance companies. Because insurance laws and regulations can vary by location, your subscribers want the ability to modify your strategies when needed. They can do this using strategy templates that you create.

Or say that you create a strategy that contains proprietary trade secrets that you don't want to expose to competitors or customers. With IP protection, your strategy is safe. If you publish it on AppExchange, subscribers can use the strategy, but they can't edit or clone it. Strategies that were installed from AppExchange before the Winter '19 release automatically become IP-protected in subscriber orgs.

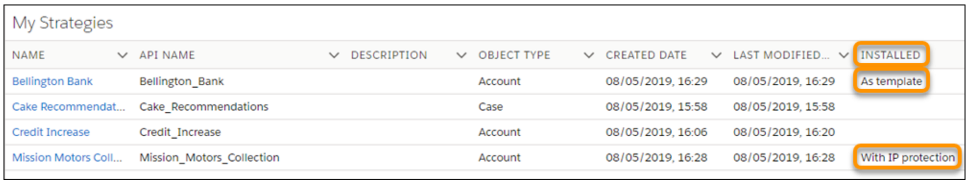
How: To make a strategy a template, open its properties in Strategy Builder, and select **Template**.



A strategy that you distribute in a managed package is given IP protection as long as it's not a template. You can create a managed package only in Developer Edition orgs.

The Strategy Builder canvas now includes labels that identify strategies that are templates and strategies that have IP protection. In subscriber orgs, these labels are shown for installed strategies. In developer orgs, they're shown for released strategies.

The strategy list page features a new Installed column that identifies strategy templates and strategies that have IP protection.


My Strategies

NAME	API NAME	DESCRIPTION	OBJECT TYPE	CREATED DATE	LAST MODIFIED...	INSTALLED
Bellington Bank	Bellington_Bank		Account	08/05/2019, 16:29	08/05/2019, 16:29	As template
Cake Recommendat...	Cake_Recommendations		Case	08/05/2019, 15:58	08/05/2019, 15:58	
Credit Increase	Credit_Increase		Account	08/05/2019, 16:06	08/05/2019, 16:20	
Mission Motors Coll...	Mission_Motors_Collection		Account	08/05/2019, 16:28	08/05/2019, 16:28	With IP protection

SEE ALSO:

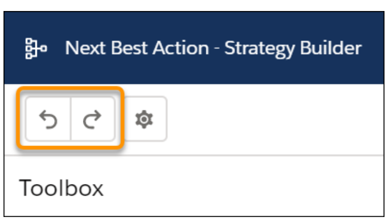
- API
- Tooling API

Undo and Redo Your Work When Creating Strategies

Accidents can happen when you create strategies. Now you can easily undo and redo changes, like mistakenly deleting a parent element or moving an element from one branch to another.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Find Undo and Redo buttons in the top-left of Strategy Builder.



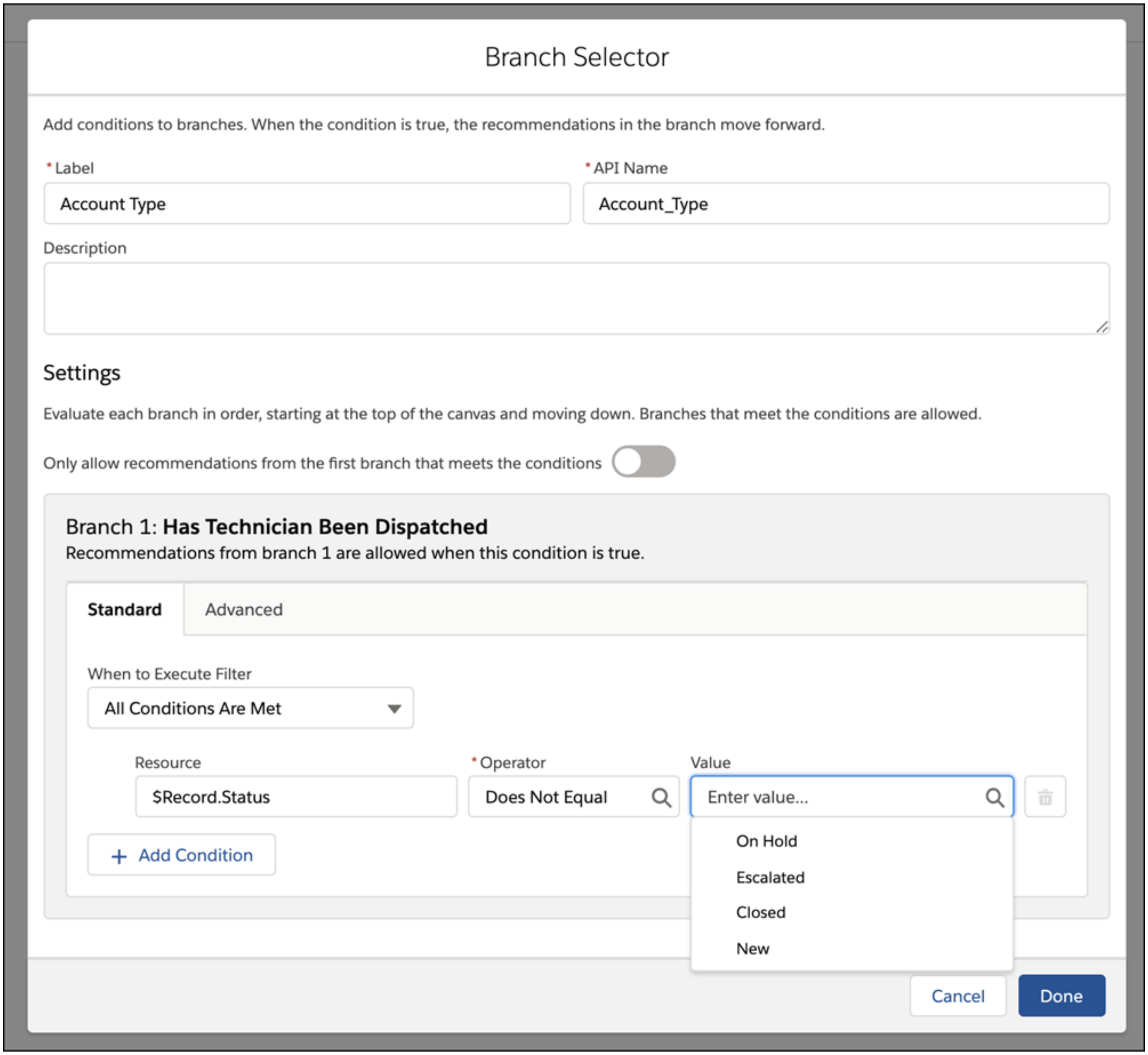
Create Expressions for Branches More Easily in Next Best Action Strategy Builder

Create expressions more quickly and accurately when using a Branch Selector element to branch recommendations. No more manually entering picklist values. Now you can select the values, and Next Best Action populates the expression for you.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Expressions contain resources, operators, and values, and you can use two different modes to build them, depending on the complexity. With Standard mode, you select or search to build your formula. To build a more complex expression, use Advanced mode and follow the on-screen formatting and syntax guidelines.

For multi-select picklist fields, enter values like `Includes ($Record.CarType__c, 'Audi,''BMW')`.

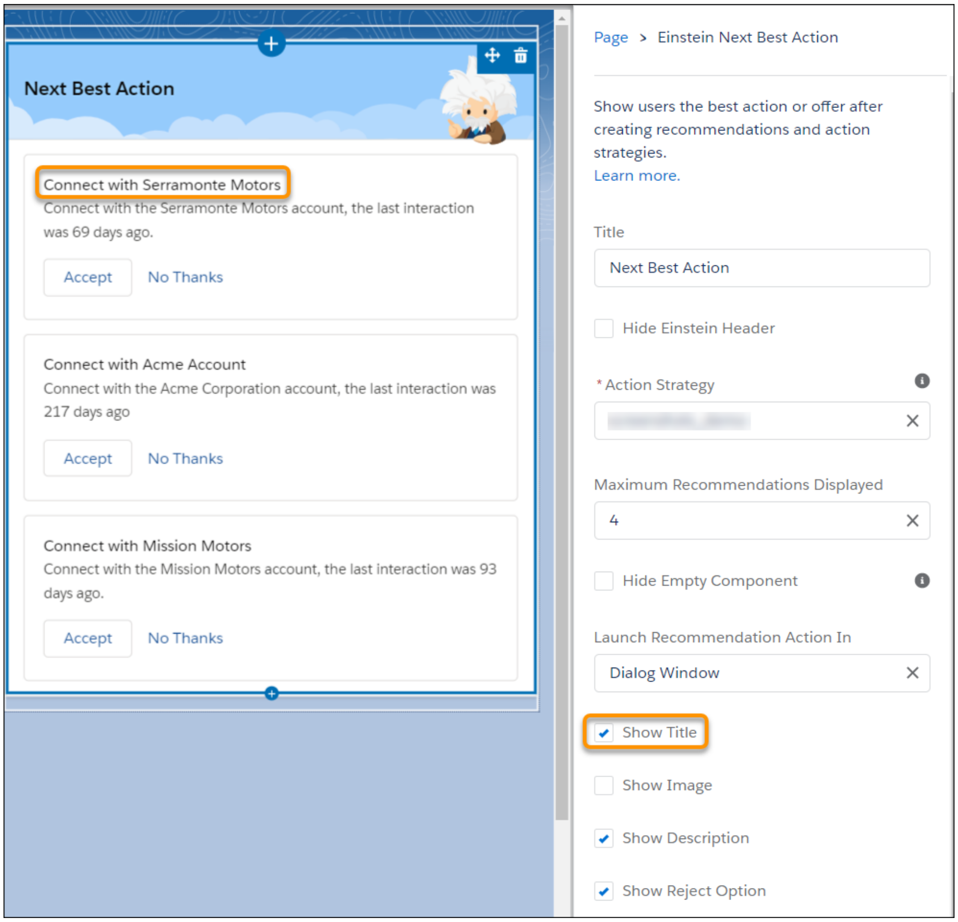


Title Your Recommendations for Easy Identification

We added titles to the list of attributes that you can show for a recommendation in the Next Best Action Lightning component in Lightning App Builder or Communities. Add a title to a recommendation so that your agent or user can easily identify it.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Use the name attribute to set a title for your recommendation. Navigate to a record, like a case. Click and select **Edit Page**. In Lightning App Builder, select the Next Best Action Lightning component, and click **Show Title**.



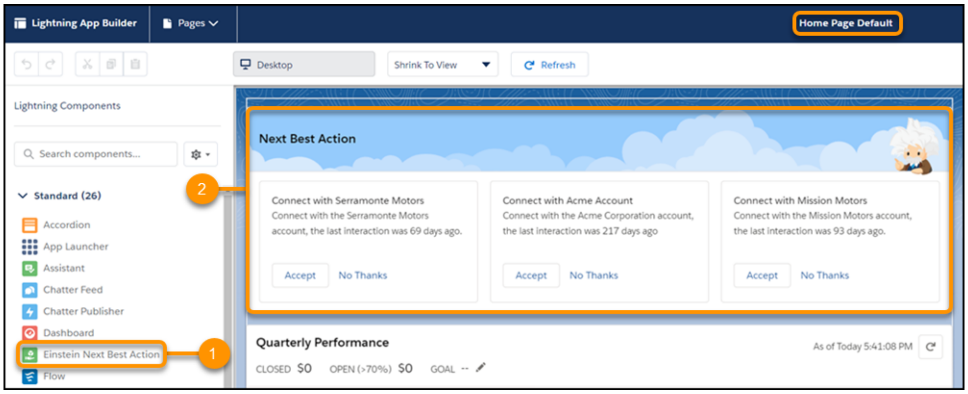
Display Recommendations on Your App's Home Page

Add the Next Best Action Lightning component to an app's Home page to display an aggregated set of recommendations. For example, show an agent a list of key accounts to follow up with after a specific number of days has passed since the previous contact.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Create a strategy for the Next Best Action component. For instance, your strategy can use a Generate element with an Apex invocable action to dynamically generate recommendations. Because the home page isn't a record page and isn't associated with objects, like Case, Account, or Product, you need to use global variables (for example, `$User.Id`) when you create the strategy.

When you finish creating your strategy, navigate to your org's Home page. Click and select **Edit Page**. From the list of Lightning components on the left (1), drag the Einstein Next Best Action component to the Home page (2).



SEE ALSO:

Salesforce Help: Global Variables

UnofficialSF: Integration Guide for Next Best Action

Lightning Flow: Screen Component Enhancements, Flow Scheduler, and More Actions

Build richer processes and flows with more building blocks. Control which users can run specific flows. Show flow users the right fields at the right time. Start a flow at a scheduled time for a filtered set of records. Configure screen components and Get Records elements without creating variables.

IN THIS SECTION:

Flow Builder: Powerful Screen Enhancements, Scheduled Flows, and Simplified Configuration for Get Records and Screen Elements

Build richer flows with more supported component types. Show the right screen components at the right time to the right users. Set up flows to start at a scheduled time for a set of records. Let us create and assign variables for you when you add screen components and Get Record elements to your flow.

IN THIS SECTION:

Find the Flow Type in Advanced Settings

Changing a flow's type can be tricky because each type of flow supports a different set of building blocks and functionality. To prevent you from accidentally changing the type when you save a flow as a new flow, we moved the Type field into the advanced settings.

Goodbye, Desktop Flow Designer

We've come to the end of the road for flows designed with the Desktop Flow Designer. Flows built with the Desktop Flow Designer—also known as the Swing Flow UI—no longer run, and you receive an error when you try to open them.

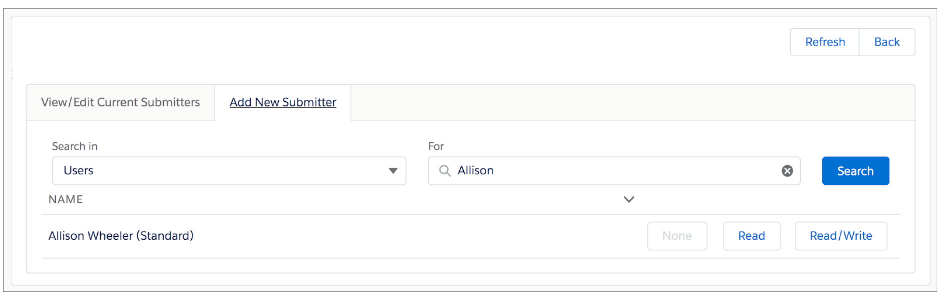
Add Powerful and Performant Lightning Web Components to Your Flow Screens

The powerful features and performance benefits of Lightning web components have come to flow screens. You can now integrate components that your developers have built or find them on AppExchange for use in your flow screens.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Components in flow screens are supported only in Lightning flow runtime.

How: This component lets the user manually add and manage sharing settings on a record. To make a Lightning web component available to a flow screen as a screen component, `lightning__FlowScreen` must be a target in the component's `targets` tag, and the `isExposed` tag must be set to true. The component can use events in the new `lightning/flowSupport` module.

Note: To use Lightning web components, enable My Domain in your org.



SEE ALSO:

Lightning Web Components Dev Guide: Set Up Your Development Environment

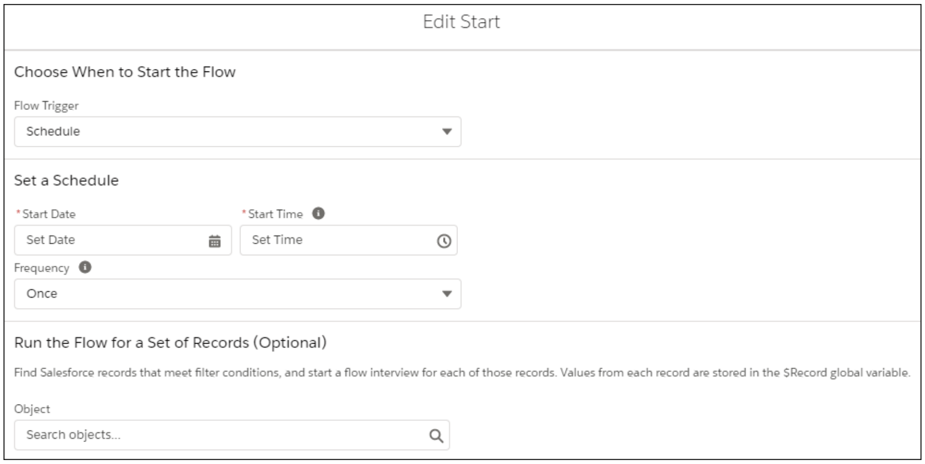
UnofficialSF: Adding Web Components to Flow Screens

Start a Flow on a Schedule

Do you have flows that are launched from Process Builder every time a record is saved, even though you need them to run only once a week? Do you wish you could schedule flows to run with the same ease as setting up a meeting? Now you can schedule an autolaunched flow to start on a particular date and time and set the frequency to once, daily, or weekly. If you want that scheduled flow to run only for a set of records, you can specify an object and filter.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

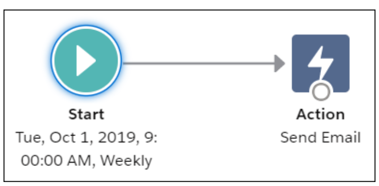
How: To start a flow for a set of records, select the filter conditions in the Start element. When your flow starts, a flow interview runs for each record that matches your filter—no looping required. The matching record is stored in the `$Record` global variable, so you can reference the variable or its fields throughout your flow.



Important: There's a per-org 24-hour limit for the number of scheduled flow executions at the scheduled start time. The org limit is whichever is greater: 250,000 records or the combined total of 200 records per user license. When a flow is scheduled to start, make sure that its schedule and conditions don’t cause your org to go over the limit.

To check whether a scheduled flow exceeds the org limit, check the debug logs to see the number of records that the flow runs on. The number of records equals the number of scheduled flow executions, because a flow runs for each record. Track the number of records with the new FLOW_START_SCHEDULED_RECORDS debug log line. If the flow exceeds the org limit, Salesforce sends an error email to either the admin who last modified the associated flow or the Apex exception email recipients.

On the Flow Builder canvas, a flow shows its scheduled start time.



To monitor flows that are scheduled to start, from Setup, enter `Scheduled` in the Quick Find box, then select **Scheduled Jobs**.

SEE ALSO:

Metadata API: Flow

Tooling API: Flow

Salesforce Help: Flow Element: Start (can be outdated or unavailable during release preview)

IdeaExchange: Ability to declaratively schedule flows or processes

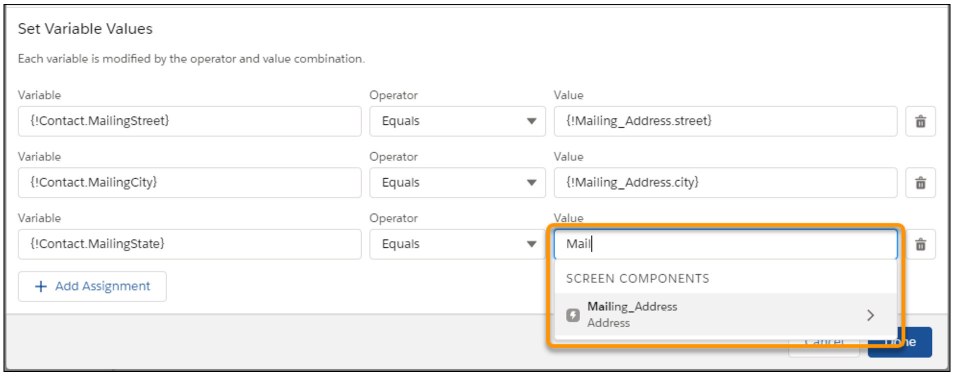
Configure Screens and Get Records Elements Without Creating Variables

When you add a screen component or a Get Records element to a flow, we automatically create variables to store the output values. You no longer have to create and assign variables, but you can still opt to do so. Get Records elements and screen components that were created before Winter ’20 aren’t affected by this change.

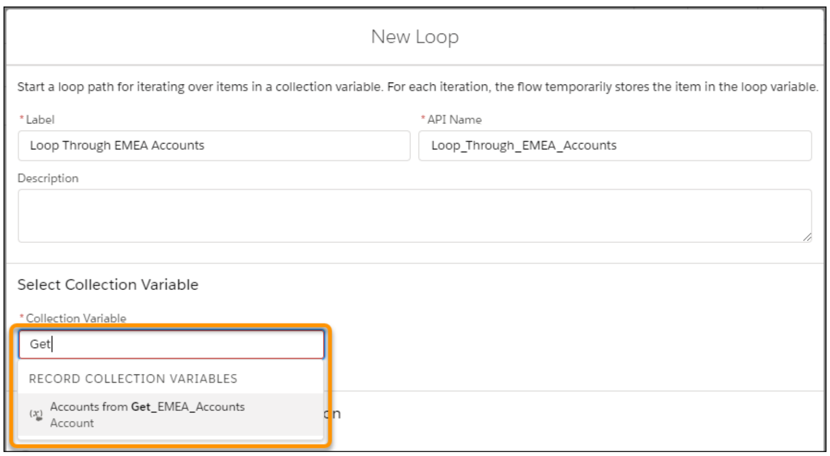
Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: When you’re setting a field that supports variables, automatically created variables show up as available options just like other variables in your flow.

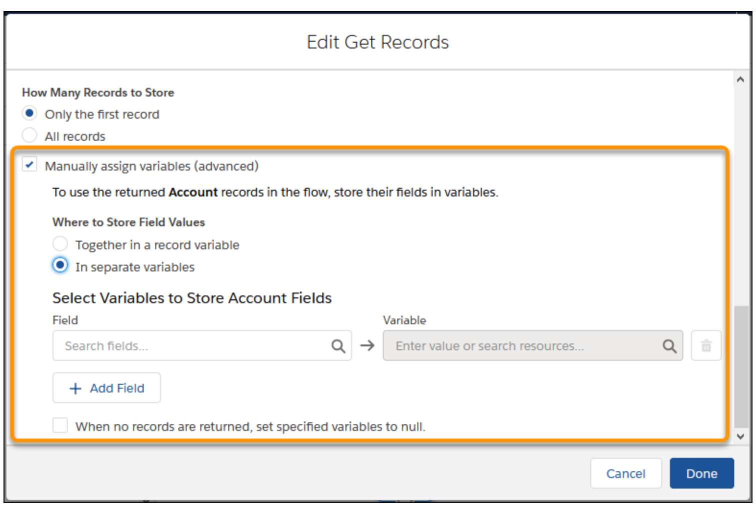
To use values from a screen component later in the flow, start typing the API name of the screen component.



To use values from a Get Records element later in the flow, start typing the API name of the element.



If you don't want to use automatically created variables, select **Manually assign variables (advanced)**.



SEE ALSO:

Salesforce Help: Flow Element: Get Records (can be outdated or unavailable during release preview)

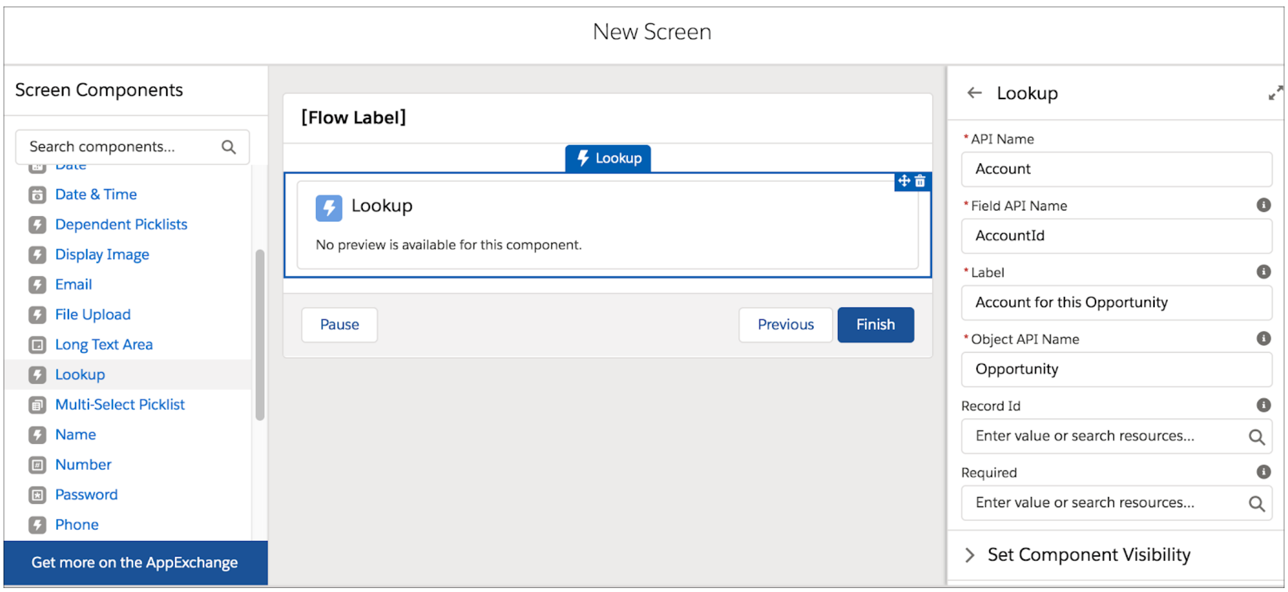
Salesforce Help: Flow Element: Screen (can be outdated or unavailable during release preview)

Help Your Users Search for Records in Flows

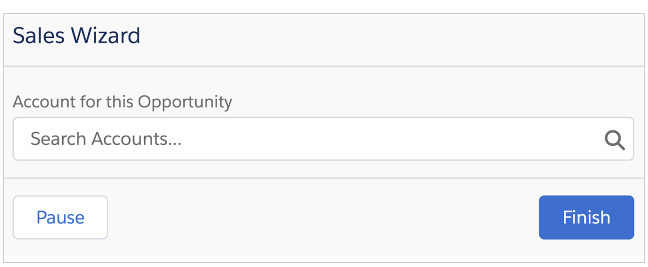
Let users search for a record the same way they do everywhere else in Salesforce by adding a Lookup screen component.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Lookup screen components are supported only in the Lightning flow runtime.

How: In Flow Builder, drag the **Lookup** component onto your flow screen. When you specify the object and field API names, enter an exact match.



At run time, your flow shows a lookup field.



SEE ALSO:

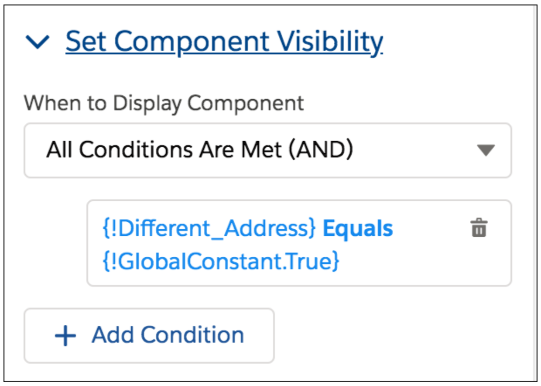
IdeaExchange: Lookup field in Visual Workflow

Make Your Flow Screens Dynamic with Conditional Visibility

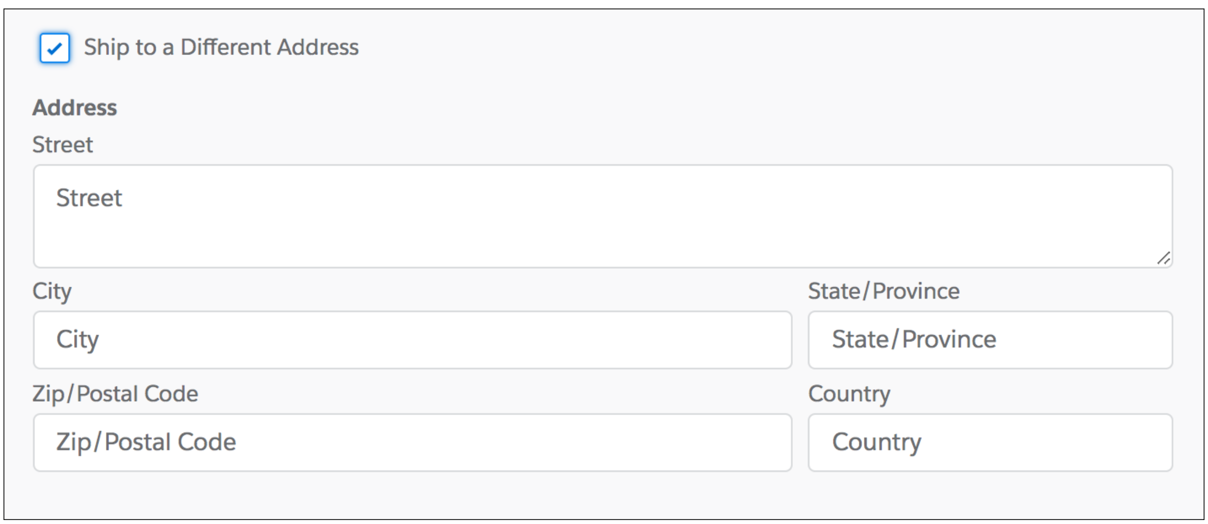
Save your users time by showing them only the fields they need when they need them. Add filter conditions and logic to a flow screen component's properties to show or hide that component based on what a user enters or selects for flow resources like picklists or checkboxes.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Conditional visibility is supported only in the Lightning flow runtime.

How: You can use conditional visibility filters with standard screen components, custom screen components, and screen components from AppExchange. If you don't define a filter for a screen component, it appears on the flow screen as usual. When you define one or more conditions and set the filter logic for a screen component, the component is hidden until criteria and logic are met.



For example, display an Address screen component only when your users select "Bill to a Different Address" checkbox screen component.



SEE ALSO:

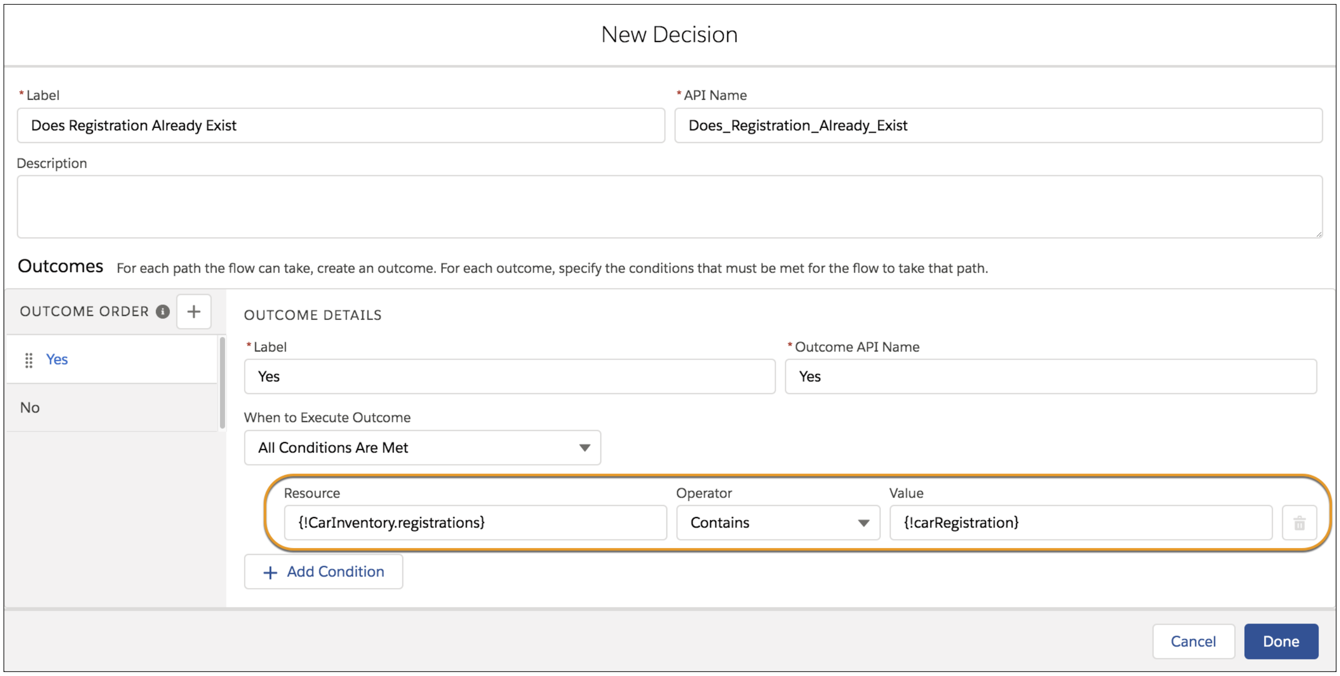
IdeaExchange: Dynamic Values/Variables/Choices in the same Flow screen

Use Apex-Defined Data Type Collection Variables with Operators in Assignment and Decision Elements

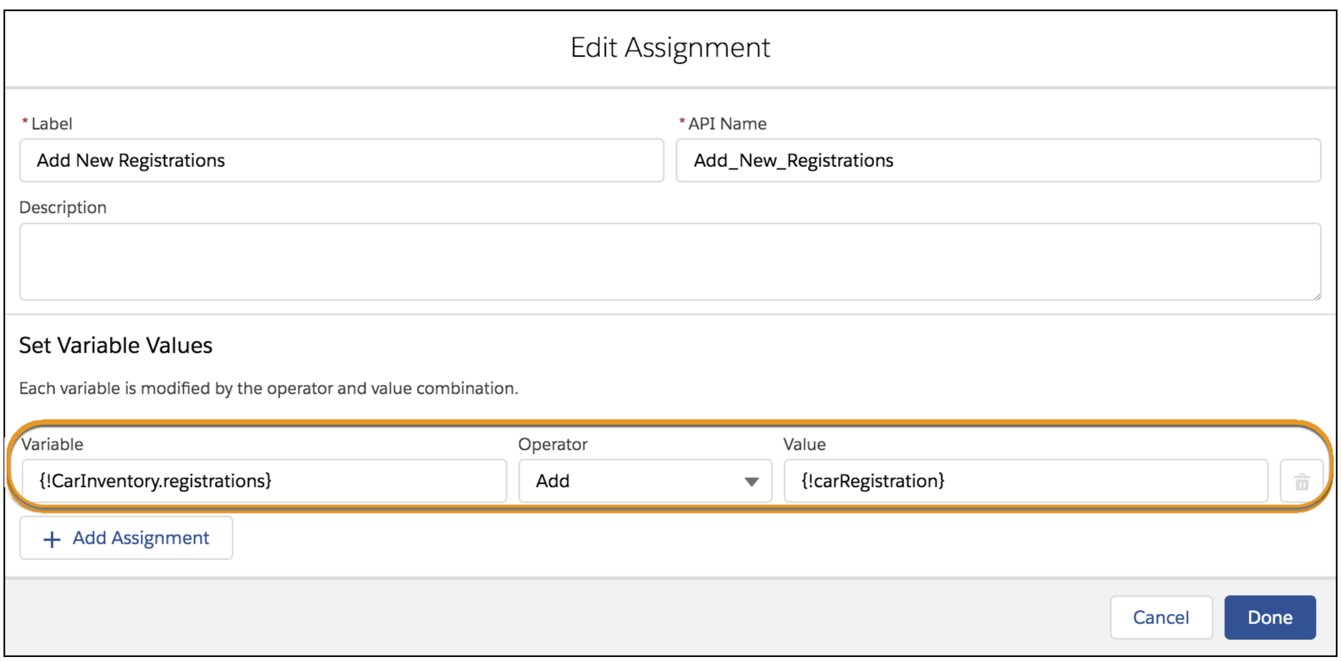
Apex-defined data types let flows work with complex data objects, which are commonly required by web services. Assignment and Decision elements can now manipulate Apex-defined collection variables with the full set of operators. Previously, Apex-defined collection variables supported only the Equals operator, and non-collection Apex-defined variables supported all operators.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Why: For example, a flow uses an Apex-defined collection variable to store a list of car registrations from a system outside of Salesforce. Now you can use a Decision element to check whether a car registration already exists in the list of registrations from the external system.



If the registration isn't already in the list of registrations, you can add it to the list using an Assignment element.



Use Flow Builder to Send Custom Notifications

Send customized notifications when important events occur. Previously, custom notification actions were fully supported only in Process Builder. Now the Notification Type IDs that you create in Notification Builder are available directly in the Flow Builder UI.

Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. You can send notifications to desktop users in Lightning Experience and Salesforce Classic in all editions and to mobile users in the current Salesforce mobile app in all editions, except Database.com, and the new Salesforce mobile app in all editions, except Essentials and Database.com. You can also send notifications to users in Mobile Publisher apps for an extra cost.

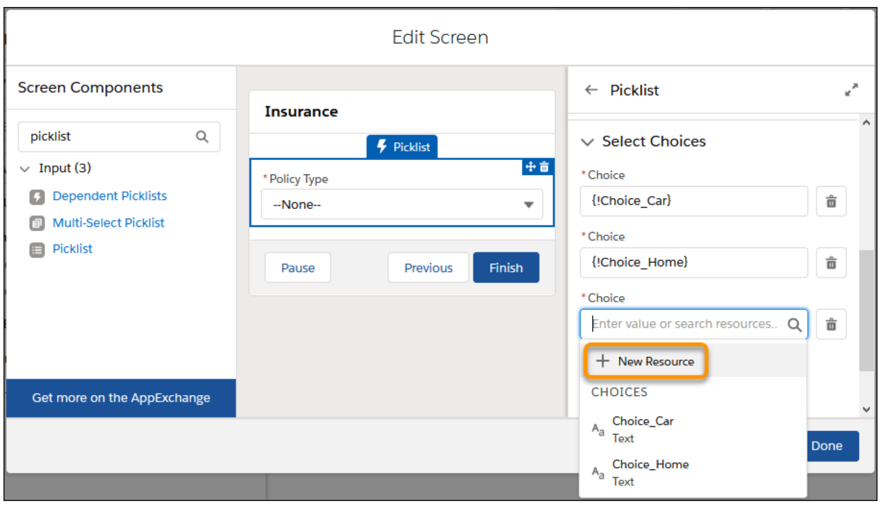
How: To learn more, see Send Custom Notifications with Flow Builder.

Create Resources More Easily in Flow Builder

When you set a field on an element by selecting New Resource, a window opens for you to define the new resource. When you finish creating the resource, the element field now specifies the resource as you would expect. Previously, the element field remained blank, and you had to manually enter the new resource.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Even for a simple flow, the ability to quickly create *and select* resources while setting element fields can spare you many clicks.



SEE ALSO:

IdeaExchange: New Cloud Flow - Associating Variable

Use Rich Text in Text Templates

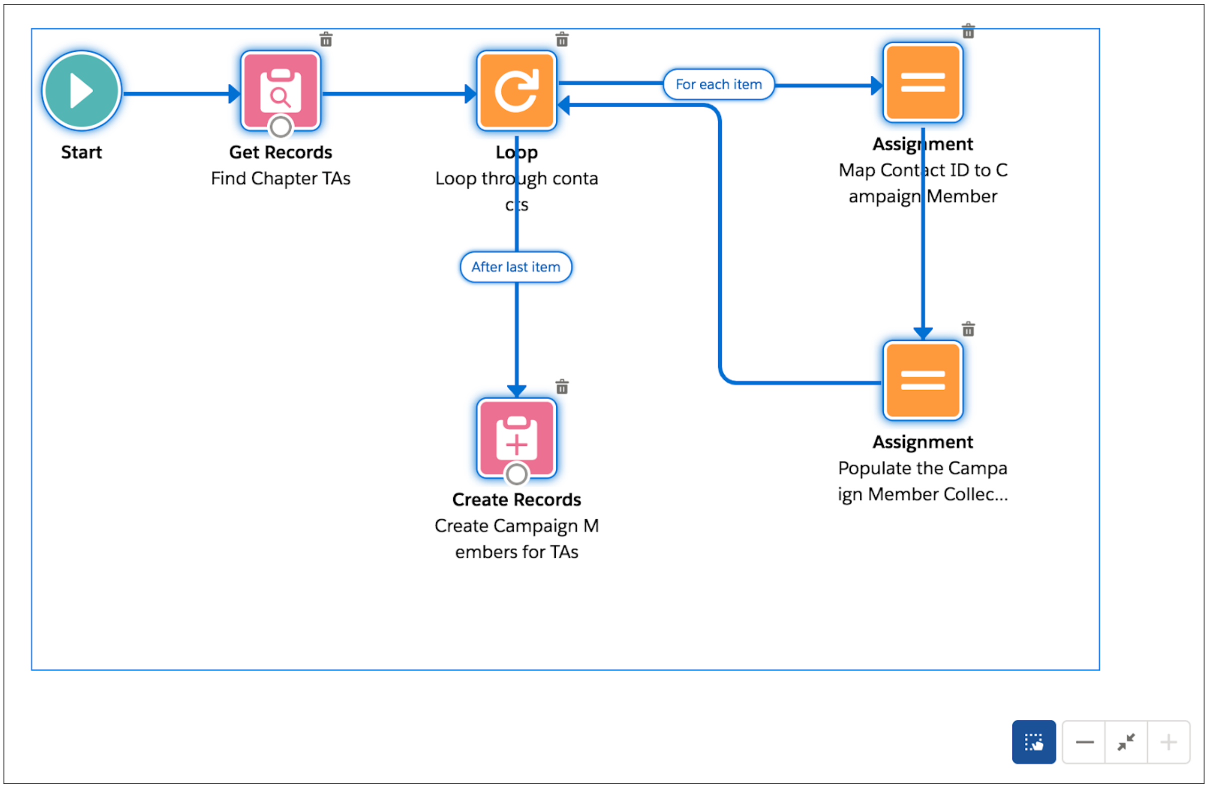
Rich text has come to text templates in Flow Builder. You can always toggle back to plain text when using a text template in a Send Email action or in a custom action that expects plain text.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Get Longer Element Labels, Improved Panning, and Drag Selection in Flow Builder

We doubled the space for element labels on the Flow Builder canvas so that you can more easily identify what you build. You no longer have to click a button or hold down the space bar for panning: simply click and drag your way across the canvas. Save time when selecting multiple elements with the Drag Selection button. Click and drag a box around a group of elements to move or delete all the elements at once.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.



SEE ALSO:

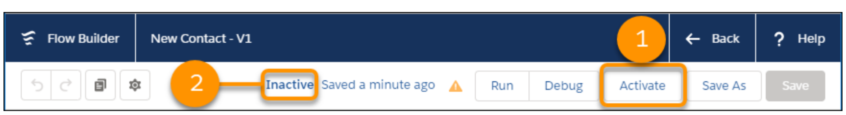
IdeaExchange: Show longer element descriptions in Flow Builder

Activate Your Flow Without Leaving Flow Builder

Activate your flow right in Flow Builder as soon as you're done building and testing. You can also still activate and deactivate a flow version from the Flow Detail page.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Click the new **Activate** button (1) in the button bar. Also, the open flow's activation status has a new location (2).



SEE ALSO:

Salesforce Help: Activate or Deactivate a Flow

Salesforce Help: Test a Flow

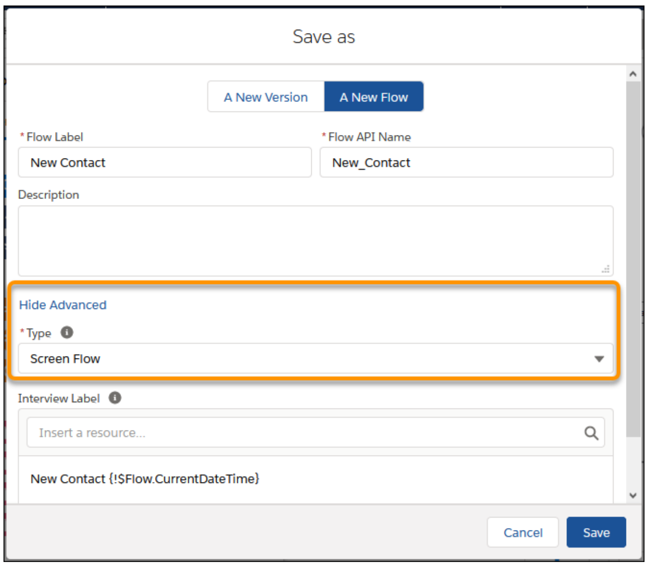
IdeaExchange: Activate Flow within Flow Builder

Find the Flow Type in Advanced Settings

Changing a flow's type can be tricky because each type of flow supports a different set of building blocks and functionality. To prevent you from accidentally changing the type when you save a flow as a new flow, we moved the Type field into the advanced settings.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: You can show and hide the advanced settings when you save a flow or view a flow version's properties. Before you change the flow type, make sure that the flow contains only elements, resources, and functionality that are supported in the new flow type. Some, but not all, compatibility issues can be fixed in the new flow.



SEE ALSO:

Salesforce Help: Flow Version Properties

Goodbye, Desktop Flow Designer

We've come to the end of the road for flows designed with the Desktop Flow Designer. Flows built with the Desktop Flow Designer—also known as the Swing Flow UI—no longer run, and you receive an error when you try to open them.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Lightning Flow Management: Enhanced Flows List View, Flow Error Platform Event, and Flow Access Control

The enhanced Flows list view now includes standard flows built by Salesforce and custom flows built by you and other partners. Use permissions to control which users can run individual flows. If a process or flow fails, you can capture the error as a platform event and alert the right people to respond to the error. When you deploy processes and flows as active, you can change the minimum test coverage percentage from the default of 75 percent.

IN THIS SECTION:

Manage Your Flows with the Enhanced Flows List View

The new enhanced Flows list view in Lightning Experience includes standard flows and custom flows on a single page. Standard flows are built by Salesforce, and custom flows are built by users or partners. The new list view also offers clear menu options that help you find flow versions and edit flow details more easily. Quickly access permissions to run a flow with a new menu option. Paused flow interviews now appear on a separate page.

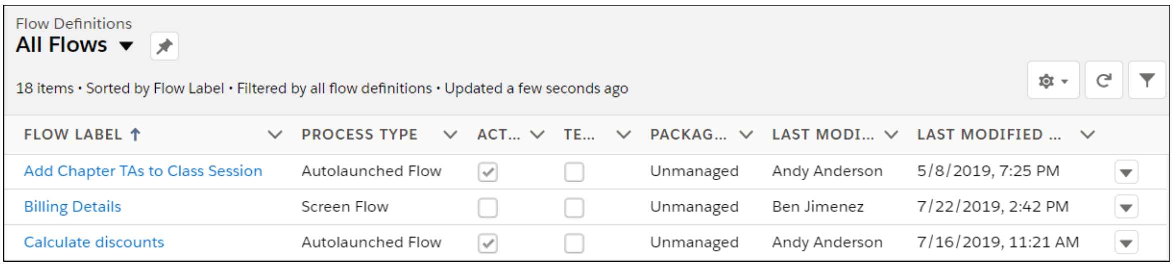
Where: This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Previously, the Flows list view in Salesforce Classic included paused flow interviews on the same page, and it didn't show standard flows.

How: To switch to the Salesforce Classic Flows list view from Setup, enter `Process Automation` in the Quick Find box, then select **Process Automation Settings**. Deselect **In Lightning Experience, use the enhanced Flows page and separate Paused and Scheduled Automations page**.

Important: If you have custom list views for flows, you need to either recreate them in the enhanced list view or switch back to the Salesforce Classic list view to use them. In the Salesforce Classic list view, clicking **Open** opens the flow in Flow Builder.

To open a flow from the enhanced list view, click the flow's label.



SEE ALSO:

Settings Exposed in Metadata API

Alert the Right People When a Flow Error Event Occurs

To save time troubleshooting screen flows that fail, subscribe to the new Flow Execution Error Event (FlowExecutionErrorEvent) platform event. Process Builder can subscribe to the event and then perform actions such as posting to Chatter or sending custom notifications. Previously, when a screen flow failed, you received only a flow error email.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: From Process Builder, create a process that starts when a platform event message is received. Subscribe to the Flow Execution Error Event platform event.

SEE ALSO:

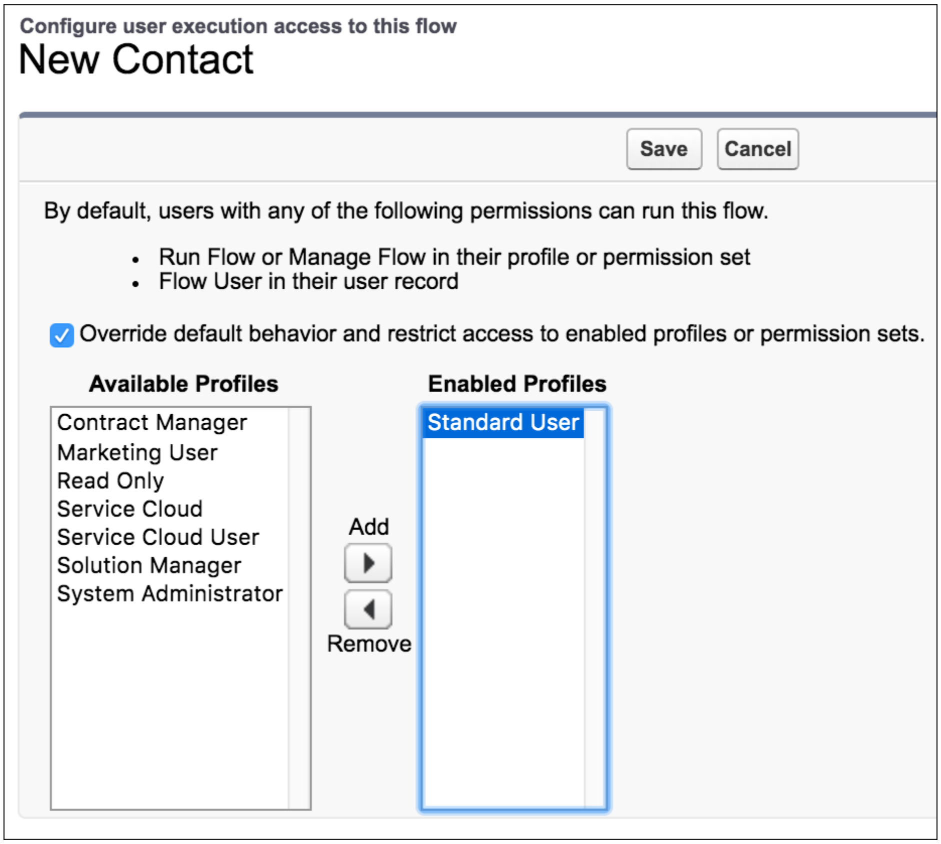
New and Changed Standard Platform Events

Control Users' Ability to Run Individual Flows Using Profiles and Permission Sets

Previously, users with the Run Flows, Manage Flows, or Flow User permission could run *all* flows. Now you can control which flows users can run by restricting access to enabled profiles or permission sets.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: Don't worry, nothing changes unless you enable it. From the Flows node in setup, click the  next to your flow, then click the new **Edit Access** link to select the profiles for each flow.



You can also enable access to multiple flows for a single profile or create and assign permission sets.

Enable Partial Save for Invocable Actions (Critical Update)

This critical update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: Without this critical update, if one invocable action fails, other invocable actions in the same transaction are rolled back. With this critical update, Salesforce tries three times to execute the invocable actions that run successfully and rolls back only the invocable actions that fail to execute. This functionality is called "partial save."

Most invocable action types that are invoked via REST API are enabled with the partial save functionality. However, even with this critical update, the following action types don't support partial save functionality:

- Cancel Fulfillment Order
- Cancellation Orders
- Capture Funds
- Content Workspaces
- Create Fulfillment Order

- Create Invoice from Fulfillment Order
- Create Service Report
- External Services
- Generate Work Orders
- Invocable Apex
- Skills-based Routing
- Submit Digital Form Response

Partial save can cause an external callout to occur multiple times, and external callouts can't be rolled back. Repeated external callouts can occur only when a flow is launched from a process or invoked from REST API, and that flow makes multiple attempts to execute the action that's making the external callouts.

Because partial save can make multiple attempts to execute an action, the transaction can take longer than expected. This can cause your org to reach some limits sooner than expected.

When: This critical update begins auto-activating on April 9, 2020. Before that date, or before you activate this critical update in your production org, we recommend that you test it in a sandbox or Developer Edition org to make sure that your invocable actions work correctly. If you must work in your production org, do so during off-peak hours.

How: From Setup, enter *`Critical Updates`* in the Quick Find box, and select **Critical Updates**. For Enable Partial Save for Invocable Actions, click **Activate**.

Review any API integrations that use invocable actions to ensure they properly accommodate partial-save behavior.

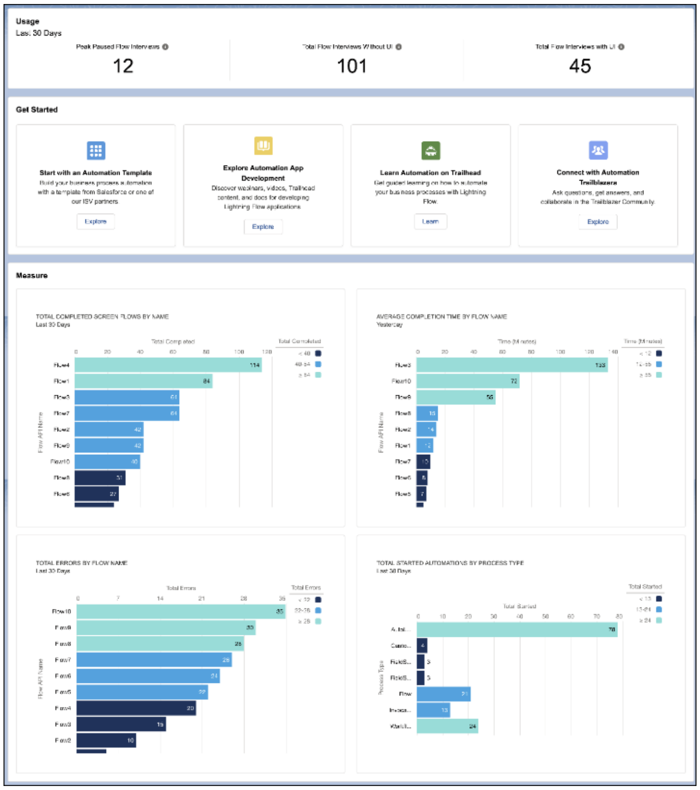
Control Access to Flow Activity Charts in Automation Home (Beta)

By default, users with the View Setup and Configuration permission can now view all charts in Automation Home. Previously, users needed both the View All Data and View Setup and Configuration permissions. Use the new process automation setting to require that users have the Manage Flow permission to view all charts in Automation Home. When the setting is enabled, users with View Setup and Configuration can view only the Total Started Automations by Process Type chart.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, Automation Home is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Automation Home in the Trailblazer Community.

How: To control user access to the flow activity charts, use the Require the Manage Flow permission to view all Automation Home charts setting on the Process Automation Settings page in Setup.



Set Your Own Flow Test Coverage Requirements

The flow testing coverage requirement is now independent from the 75 percent code coverage requirement for Apex. Set your own minimum test coverage percentage for flows in a new process automation setting.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. This setting doesn't appear in non-production orgs, such as scratch, sandbox, and developer orgs, because you can always deploy a new active version.

Note: Flow testing requirements apply only when deploying processes and flows as active.

How: Navigate to the Process Automation Settings node in setup. Select **Deploy processes and flows as active**. Now you can set the flow test coverage percentage.

Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas (Critical Update, Postponed)

This critical update, released in Spring '19, was scheduled for auto-activation in Summer '19, but has been postponed to Spring '20. The critical update was previously called "Return Null Values in Process and Flow Formulas."

SEE ALSO:

Spring '19 Release Notes: Return Null Values in Process and Flow Formulas (Critical Update)

Critical Updates and Security Alerts

Require User Access to Apex Classes Invoked by Flow (Critical Update, Postponed)

This critical update, released in Summer '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '21. The critical update was previously called "Improve Security by Requiring User Access to Apex Classes Invoked by Flow."

SEE ALSO:

Summer '19 Release Notes: Improve Security by Requiring User Access to Apex Classes Invoked by Flow (Critical Update)

Critical Updates and Security Alerts

Process Builder: Account Team Members, Survey Action, and Merge Fields from Platform Events

Automate account team creation and survey invitations. Add merge fields from platform events.

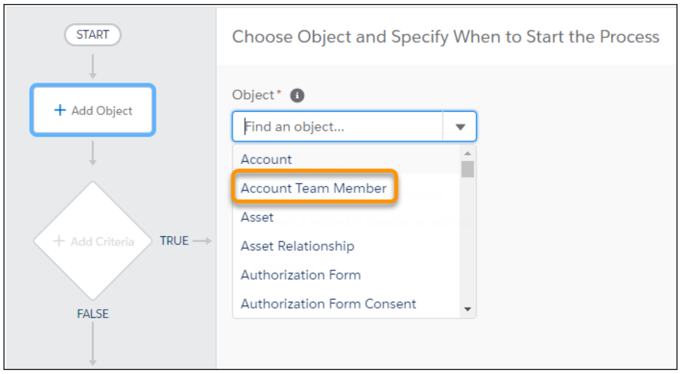
IN THIS SECTION:

Automate Account Team Creation with Process Builder

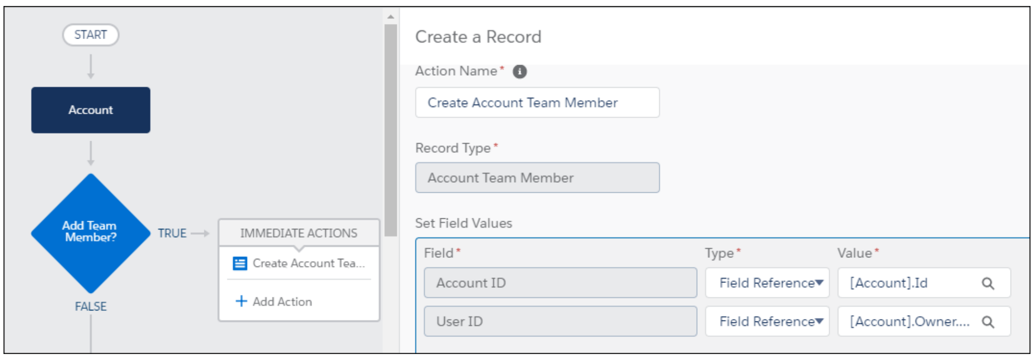
Configure a process action to add team members to an account. You can also configure a process to run when an account team member record is created or edited.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

How: If account teams are enabled in your org, the Account Team Member object is available when you set up the process trigger.



The Account Team Member object is also available in the Create a Record and Update Records actions.



SEE ALSO:

[Accounts: Customize Account Teams to Better Support Team Selling]

IdeaExchange: Allow Creation of AccountTeamMember with Process Builder

Salesforce Help: Enable Account Teams

Automate Sending Survey Invitations by Email

Use the Send Survey Invitation action to quickly email survey invitations to leads, contacts, and users.

Where: This change applies to Lightning Experience in Performance, Partner Developer, Enterprise, Developer, and Unlimited editions.

SEE ALSO:

Salesforce Help: Send a Survey Invitation from a Process

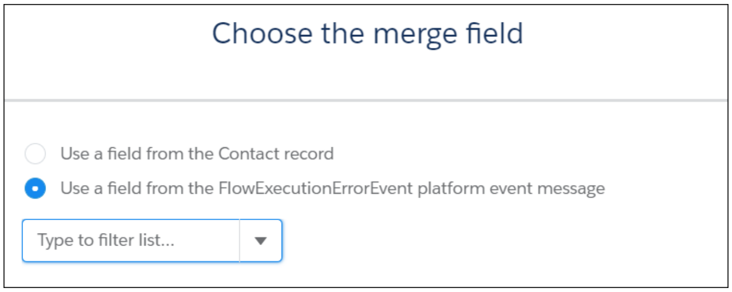
Salesforce Help: Salesforce Surveys

Add Merge Fields from Platform Events in Process Builder

A Process Builder action can now use data from a platform event message. You can add a merge field from the platform event message that triggered your process. Previously, you added fields from the object that the process could access.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: For example, choose a merge field from the platform event message or the object record in the Post to Chatter or Send Custom Notification actions.



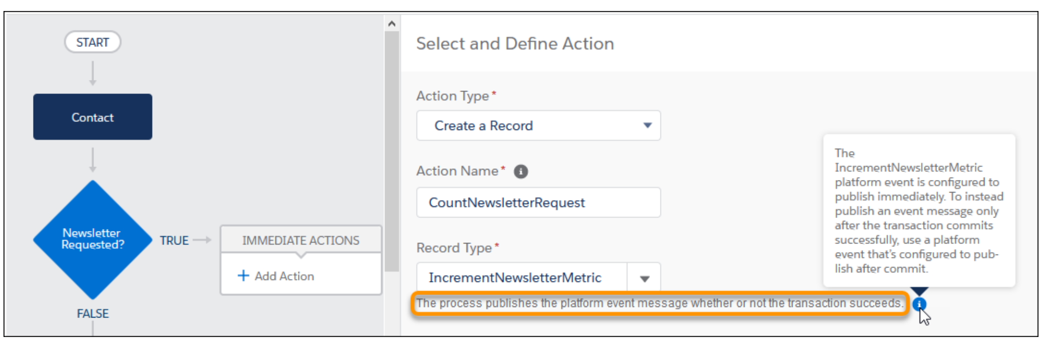
Know Whether a Process Publishes Event Messages Even When Transactions Fail

Process Builder now displays an informational message when you select a platform event that is configured to publish immediately, regardless of transaction success. Now you can avoid setting up processes to publish event messages when transactions fail, except when that's what you want.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Why: If you select a platform event that is configured to publish immediately, the process publishes each event message outside of the database transaction. If the transaction fails and is rolled back, the event message is still published and can't be rolled back. So if you see an informational message under the selected platform event, consider whether you want the process to publish an event message only after the transaction commits successfully.

Suppose that you want to publish an event message every time your process executes successfully. You wouldn't want to select a platform event that publishes immediately, because the process would publish an event message even when the process fails. If you see an informational message under the platform event, you know to change the platform event's publish behavior or to select a platform event that is configured to publish after commit.



SEE ALSO:

Platform Events Developer Guide: Decoupled Publishing and Subscription

Platform Events Developer Guide: Platform Event Fields

Evaluate Criteria Based on Original Record Values in Process Builder (Critical Update, Postponed)

This critical update, released in Summer '19, was scheduled for auto-activation in Winter '20, but has been postponed to Summer '20.

SEE ALSO:

Summer '19 Release Notes: Evaluate Criteria Based on Original Record Values in Process Builder (Critical Update)

Critical Updates and Security Alerts

Data Protection and Privacy: Data Classification Improvements and Change Event Support for Consent Objects

Record which compliance acts, definitions, or regulations are related to a field's data. Create reports to see which fields have associated data classification metadata. You can also receive change event notifications for the AuthorizationFormConsent, ContentPointTypeConsent, and Individual objects.

IN THIS SECTION:

Record a Compliance Categorization Related to a Field's Data

Use the compliance categorization metadata field to record whether a field's data is related to a compliance act, definition, or regulation. Reviewing your fields and applying compliance categorization values can help you uphold data privacy requirements. For example, monitor fields that have data applicable to the General Data Protection Regulation or categorized as personally identifiable information to ensure compliance. You can also customize these values to meet your org's needs.

Create Reports for Your Data Classification Metadata

Get a snapshot of the data classification metadata that your org is using by creating a custom report. See which fields have an associated data owner, data sensitivity level, or compliance categorization, and use this information to help enforce data management policies.

Receive Notifications for Consent Record Changes

Get notified when consent-related records are created, updated, deleted, or undeleted. With Change Data Capture, you can receive near-real-time changes for the AuthorizationFormConsent, ContactPointTypeConsent, and Individual objects. You can then make sure that the way you contact your customers and handle their data matches their current preferences.

Record a Compliance Categorization Related to a Field's Data

Use the compliance categorization metadata field to record whether a field's data is related to a compliance act, definition, or regulation. Reviewing your fields and applying compliance categorization values can help you uphold data privacy requirements. For example, monitor fields that have data applicable to the General Data Protection Regulation or categorized as personally identifiable information to ensure compliance. You can also customize these values to meet your org's needs.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

Who: To edit or view data classification fields, you need either the Customize Application or Modify Data Classification permission.

How: In the Object Manager, find the object that you want to edit, and select **Fields & Relationships** from the sidebar. Select the field that you want to apply compliance categorization values to, and click **Edit**. For Compliance Categorization, add or remove the available values, and click **Save**.

To edit compliance categorization values, from Setup, enter `Data Classification Settings` in the Quick Find box, then select **Data Classification Settings**. Select **Edit Compliance Categorization Picklist Values**, and add, delete, rename, or reorder the picklist values.

SEE ALSO:

Salesforce Help: Set Up Data Classification Metadata (can be outdated or unavailable during release preview)

Salesforce Help: Data Classification Metadata Fields (can be outdated or unavailable during release preview)

Create Reports for Your Data Classification Metadata

Get a snapshot of the data classification metadata that your org is using by creating a custom report. See which fields have an associated data owner, data sensitivity level, or compliance categorization, and use this information to help enforce data management policies.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

Who: To edit or view data classification fields, you need either the Customize Application or Modify Data Classification permission.

How: Create a custom report type with Entity Definition as the primary object. Select **Field Definition** as a child object. You can include the Data Owner, Data Sensitivity Level, Compliance Categorization, and Field Usage metadata fields in your report.

SEE ALSO:

Salesforce Help: Create Reports from Data Classification Metadata (can be outdated or unavailable during release preview)

Salesforce Help: Set Up a Custom Report Type (can be outdated or unavailable during release preview)

Receive Notifications for Consent Record Changes

Get notified when consent-related records are created, updated, deleted, or undeleted. With Change Data Capture, you can receive near-real-time changes for the AuthorizationFormConsent, ContactPointTypeConsent, and Individual objects. You can then make sure that the way you contact your customers and handle their data matches their current preferences.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: From Setup, enter `Change Data Capture` in the Quick Find box, then select **Change Data Capture**. Under Available Entities, select the objects that you want to get notifications for, and click **Save**.

SEE ALSO:

Receive Change Event Notifications for More Objects

Change Data Capture Developer Guide: Select Objects for Change Notifications (can be outdated or unavailable during release preview)

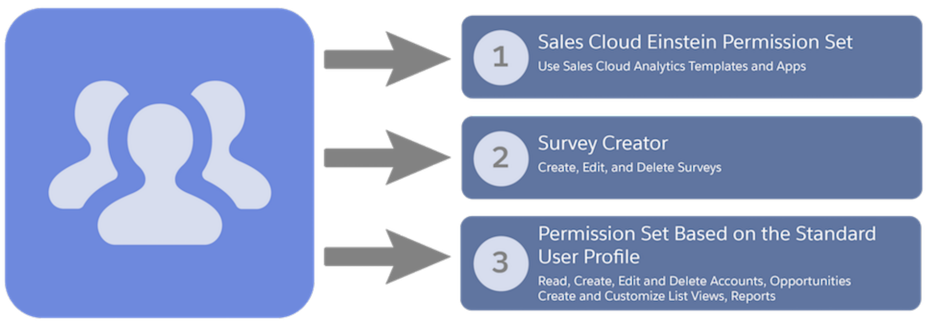
Permission Set Groups: Group Permission Sets Based on User Roles for Easier Assignment (Beta)

Assign users a single permission set group instead of multiple permission sets. Permission set groups combine selected permission sets to provide all the permissions that users need for their roles. Remove individual permissions from a group with the muting permission set feature to ensure that permissions do not exceed user roles. Permission set groups were introduced as a pilot feature in the Salesforce Spring '19 release. This beta release includes a new user interface for creating and managing permission set groups.

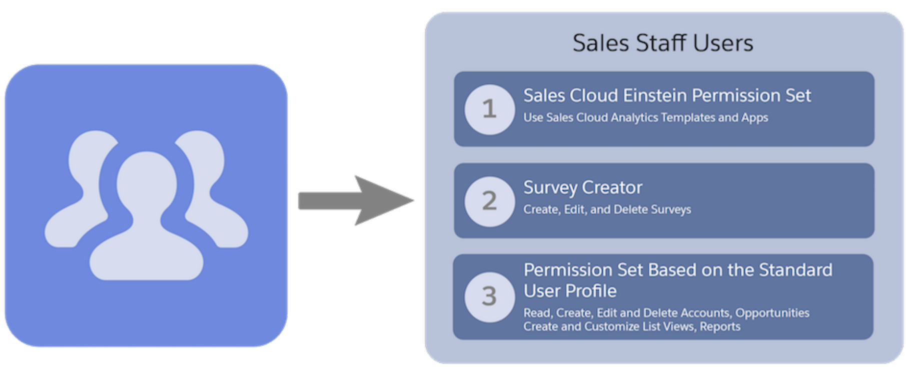
Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, permission set groups are a preview and aren't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

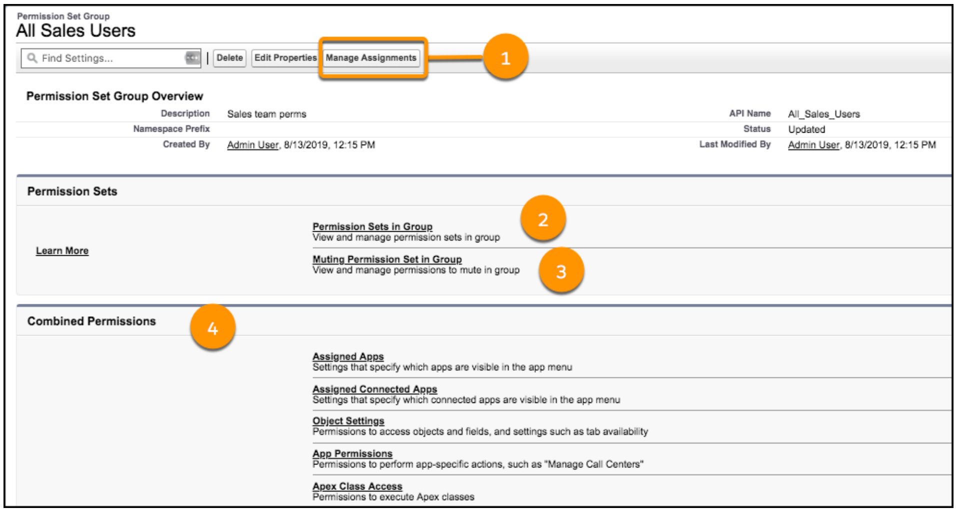
Why: Suppose that you have employees in your sales department who work with Sales Cloud Analytics templates and apps. They also create, edit, and delete surveys and read, create, edit, and delete accounts. You have three permission sets that contain the permissions needed: Sales Cloud Einstein, Survey Creator, and a permission set based on the Standard User Profile. You assign each permission set separately to your users.



But with a permission set group, you can combine the permission sets and assign the group to the sales employees. The new Sales Staff Users permission set group contains the combined permissions of all the permission sets that you include.



How: From Setup, choose **Permission Set Groups** to view your permission set groups and create groups.



On the Permission Set Group detail page, assign the permission set group to users (1). Select the permission sets to include in the permission set group (2), and choose which permissions to mute (3). View the combined permissions in a group (4).

Objects and Fields: More Installed Objects and a Field's References

We raised the limit on installed custom objects and added the ability to see where a field is used in your org, including reports, Apex classes and more.

IN THIS SECTION:

SEE ALSO:

Monitor Your Custom Object and Settings Count in System Overview

Install Even More Custom Objects in Your Org

We did it again: We raised the total hard limit for custom objects in an org to 3,000 (up from 2,500 in the previous release) so that you can install more custom objects from packages.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

Why: Why not? You can do more with more objects. Each Salesforce edition has a limit on the number of custom objects that you can create in your org. Beyond the edition limit, a hard limit governs how many custom objects you can install from managed packages, such as apps publicly posted on AppExchange. The new 3,000 total limit includes the maximum number of custom objects created and installed in your org. For example, in Unlimited Edition, you can create up to 2,000 custom objects in your org. On top of that limit, you can also install up to 1,000 custom objects from managed packages. If your org is approaching the 3,000 total limit, we recommend that you hard delete or erase custom objects that you no longer need.

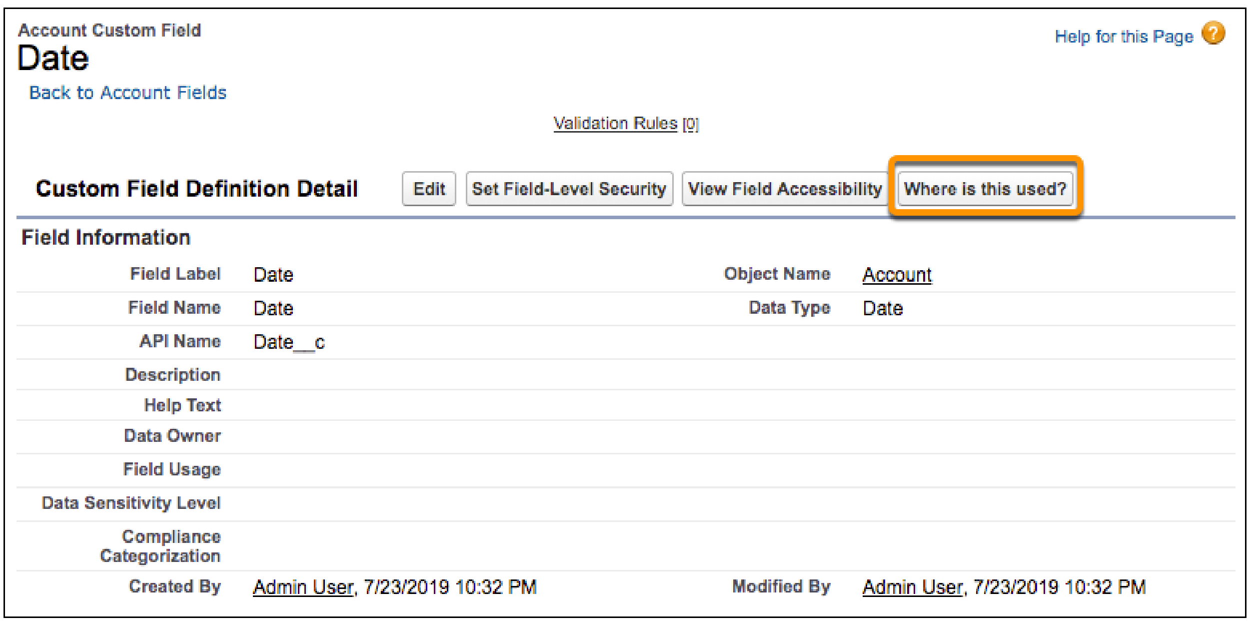
SEE ALSO:
Monitor Your Custom Object and Settings Count in System Overview

Check a Field's References and Find Reports Using It (Generally Available)

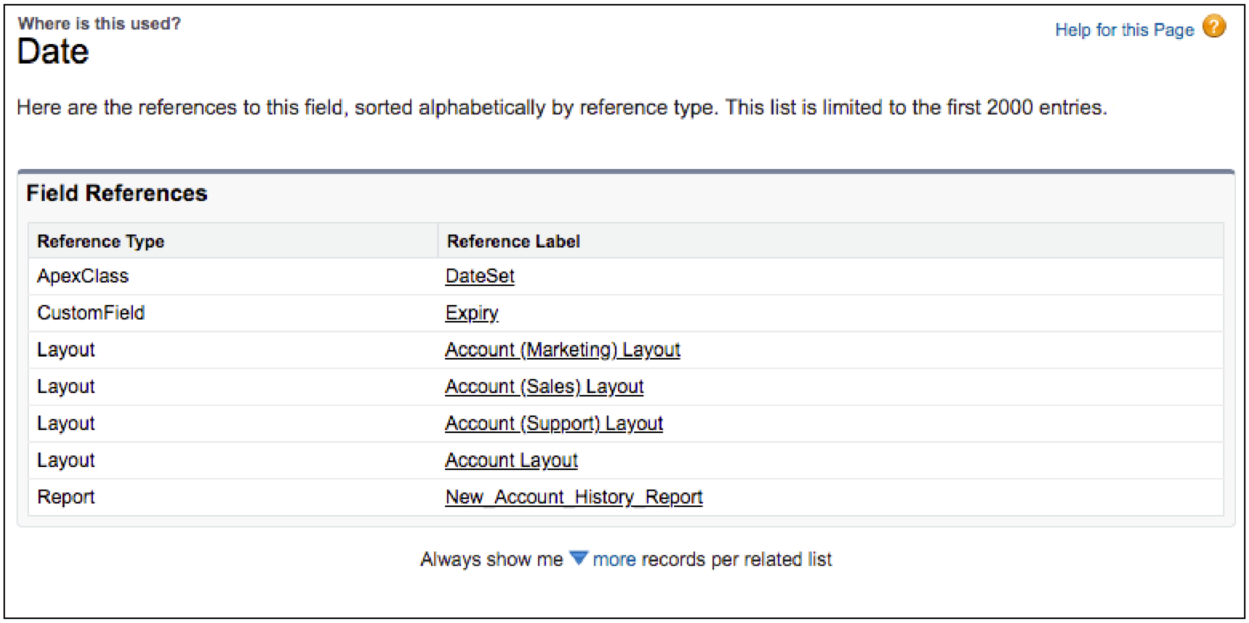
With the click of a button, view the references to a custom field before you edit it, such as references in a formula, layout, or Apex class. On a custom field's detail page, click **Where is this used?** to see where a field is used and where changes to the field appear. Use this information to communicate changes to others who use the field in a formula or other context. In this release, we added support for reports.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions.

Who: Admins with the View Setup permission can check where a custom field is used.



Click **Where is this used?** to see the field reference details.



The list can include these references.

- Validation rule
- Layout
- Formula field
- Visualforce page
- Apex class
- Apex trigger
- Email template (Salesforce Classic, text based)
- Field set
- Flow (query)
- Lightning component markup (attr)
- Process Builder (criteria)
- URL button (formula)
- Lightning page (related list single)
- Lookup filter (lookup and master detail)
- Reports (column)

> Note: For a report to show up in the list, the field must be used as a column in the report. References to a report filter, grouping, or custom summary formula do not appear.

Click a reference label to view the settings for the layout, formula, or other reference. Reference labels link to more information only if there is a known settings page for the reference. For example, a report name links to the report settings. But, a criteria formula created within a flow does not link to the flow settings.

Within a subscriber org, references in a managed package aren't included in the list of results. For example, you have a number field referenced in a formula. If you add the field to a package and install the package in a subscriber org, the subscriber org's field reference detail page doesn't show that this number field is referenced in a formula field.

However, new references created after installing the managed package in the subscriber org do appear. For example, after you install the managed package and you add the number field to another formula in the subscriber org, the new reference appears.

Sharing: Changes to Guest User Access and More Objects Supported for External Org-Wide Defaults

To better secure your communities, we added a new setting that restricts the default access that guest users have to your org's data. You can also set external org-wide defaults for more standard objects.

IN THIS SECTION:

Secure Guest Users' Sharing Settings

When you enable the **Secure guest user record access** setting, you set guest users' org-wide defaults to Private for all objects. This setting also restricts the way you can share records with guest users and lets you create new guest user sharing rules.

Where: This change applies to all communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Guest User: Restricted Access, Private Org-Wide Default for Guest Users, and New Sharing Rules

Safeguard Your Data by Setting External Access Levels for More Standard Objects (Generally Available)

You can now set external access levels for many more standard objects. Select more restrictive access for external users without changing the default access level for internal users. The objects available for external org-wide defaults vary depending on your org's licenses and other settings.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: To set external org-wide defaults, from Setup, enter `Sharing Settings` in the Quick Find box, then select **Sharing Settings**. Under Organization-Wide Defaults, edit the default external access.

SEE ALSO:

Salesforce Help: External Organization-Wide Defaults Overview (can be outdated or unavailable during release preview)

Set an External Access Level for Leads (Beta)

You can now assign different internal and external access levels for leads. Use external org-wide defaults to set a more restrictive access level for external users without changing the access that internal users have.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, External Org-Wide Defaults for Leads is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for External Org-Wide Defaults for Leads in the group in the Trailblazer Community. For information on enabling this feature in your org, contact Salesforce.

How: To set the external access level, from Setup, enter `Sharing Settings` in the Quick Find box, then select **Sharing Settings**. Under Organization-Wide Defaults, edit the default external access for Lead.

SEE ALSO:

Salesforce Help: External Organization-Wide Defaults Overview (can be outdated or unavailable during release preview)

Keep Sharing Records When Migrating to Enterprise Territory Management

If you're migrating to Enterprise Territory Management, you can keep your original territory sharing records so that your sales team can continue working. After the migration is complete, use the SharingSettings Metadata API type to delete these records.

Where: This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

SEE ALSO:

Reduce Disruption During the Migration to Enterprise Territory Management

Globalization: New Locale Formats and Longer Translations

Enable new and improved formats for international dates and times via a critical update. Read right to left in reports and dashboards, and write longer translations for individual components through the Translation Workbench.

IN THIS SECTION:

Enable ICU Locale Formats (Critical Update)

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. These new formats replace Oracle's Java 8 Development Kit (JDK8) formats. ICU sets the international standard for these formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions, except Database.com.

When: You can activate this update in Winter '20. We'll auto-activate this update on January 31, 2022. Orgs created in Winter '20 or later have ICU locale formats enabled by default.

How: Before activating this update in production, check with your package providers to make sure that all your installed packages are compatible with the ICU formats. Then evaluate the new locales' impact to your organization. Use this SOQL query to find the locales in use in your org and a user count for each locale:

```
SELECT toLabel(LocaleSidKey) LocaleName, LocaleSidKey, Count(id) UserCount FROM User where
 IsActive=true GROUP BY LocaleSidKey
```

See the documentation for recommended areas of testing and details on the changes for each locale.

Note: If your organization has fewer than 100,000 users, we display the query's results in the Update Details page of the critical update.

To activate this update, from Setup, enter `Critical Updates` in the Quick Find box, then select **Critical Updates**. For Enable ICU Locale Formats, click **Review**. Click **Activate**.

The English (Canada) locale (en_CA) requires separate activation. Enter `User Interface` in the Quick Find box, then select **User Interface**. Select **Enable ICU formats for en_CA locale** and click **Save**.

Note: Activating the critical update displays the new locale formats in the UI. The ICU formats are available in API version 45.0 and later.

SEE ALSO:

Salesforce Help: Go Global with New International Locale Formats (can be outdated or unavailable during release preview)

Critical Updates and Security Alerts

Write Longer Translations for Individual Components

In Translation Workbench, you can now edit translations for individual components that use more than 40 characters. We expanded the field length limits on the Translate page to match the item's master component length. As always, you can also update translations through the Import feature.

Where: This change applies to Lightning Experience and Salesforce Classic in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions.

How: From Setup, enter `Translate` in the Quick Find box. Select **Translate** to access the Translation Workbench.

SEE ALSO:

Salesforce Help: Translate Terms (can be outdated or unavailable during release preview)

Read Right to Left in Reports and Dashboards (Beta)

We've realigned Reports and Dashboards for right-to-left languages, like Hebrew and Arabic.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Right-to-Left Language Support for Reports and Dashboards (Beta)

Telangana Added to State Picklist for India

We added Telangana to India's state picklist. It is included when you first enable the state and country/territory picklists in an org, or you can add it to your enabled state picklist for India in a few easy steps.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

How: For orgs created in Winter '20 or later, Telangana is included when enabling the State and County/Territory Picklists.

For existing orgs that have enabled the State and Country/Territory Picklists, you must add Telangana to your list.

1. From Setup, enter `State and Country/Territory Picklists` in the Quick Find box, then select **State and Country/Territory Picklists**.
2. On the State and Country Picklists setup page, click **Configure states and countries**.
3. For India, click **Edit**.
4. Click on **New State**
5. For State Name, enter `Telangana`. For State Code, enter `TG`. For Integration Value, enter `Telangana`. Select **Active** and **Visible**. Click **Add**.

6. Click **Save**.

SEE ALSO:

Salesforce Help: Enable and Disable State and Country Picklists

Salesforce Help: Configure State and Country Picklists

AppExchange: Usage Data for AppExchange Packages, ISV Hammer Testing Opt-Out, and AppExchange Checkout Enhancements

See how your company is using installed AppExchange packages. Prevent AppExchange partners from using a copy of your org's metadata to test their new package versions. Enjoy enhanced security for AppExchange Checkout payments in the European Economic Area with strong customer authentication.

IN THIS SECTION:

Gain Insight into Your Company's Installed AppExchange Packages

As of August 2019, App Analytics is available. Discover how your company is taking advantage of the AppExchange packages you've installed by reviewing usage summaries. Usage summaries are available for managed packages that have passed security review.

Where: This change applies to Lightning Experience and Salesforce Classic in Essential, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Who: Any user with create access to App Analytics Query Request can request a usage summary.

How: From Setup, enter `Package Usage` in the Quick Find box, and then select **Package Usage**. To request a .csv file of your managed package usage data, click **Request Summary**.

The link to download a requested usage summary expires after 15 minutes.

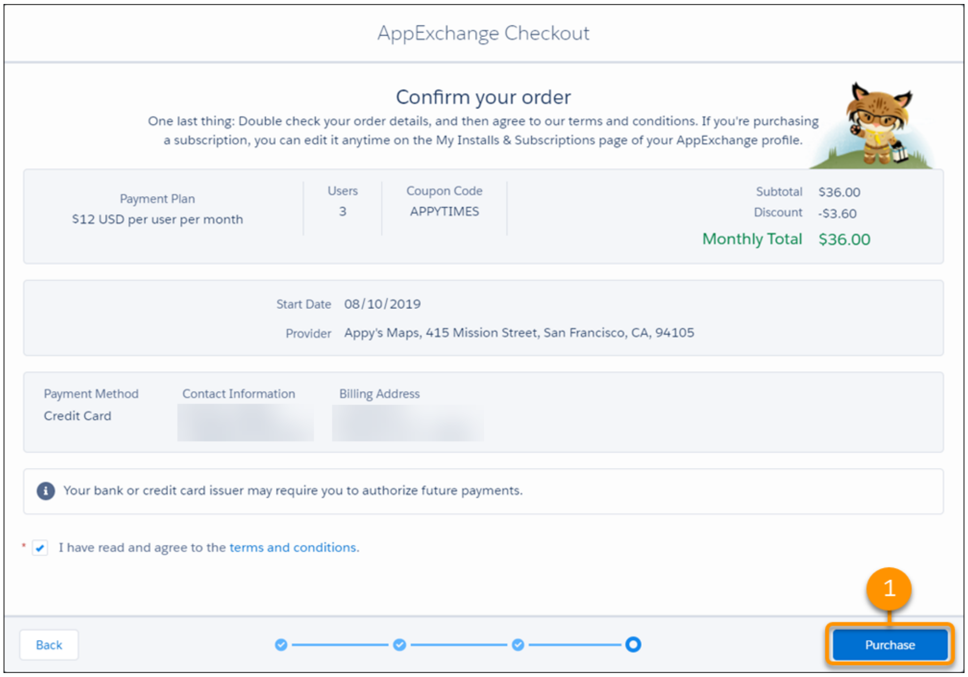
Strong Customer Authentication Is Supported for AppExchange Checkout

AppExchange's payments platform, Checkout, now supports strong customer authentication (SCA) for payments in the European Economic Area. SCA enhances the security of your payment with an identity verification step.

Where: This change applies to the AppExchange marketplace.

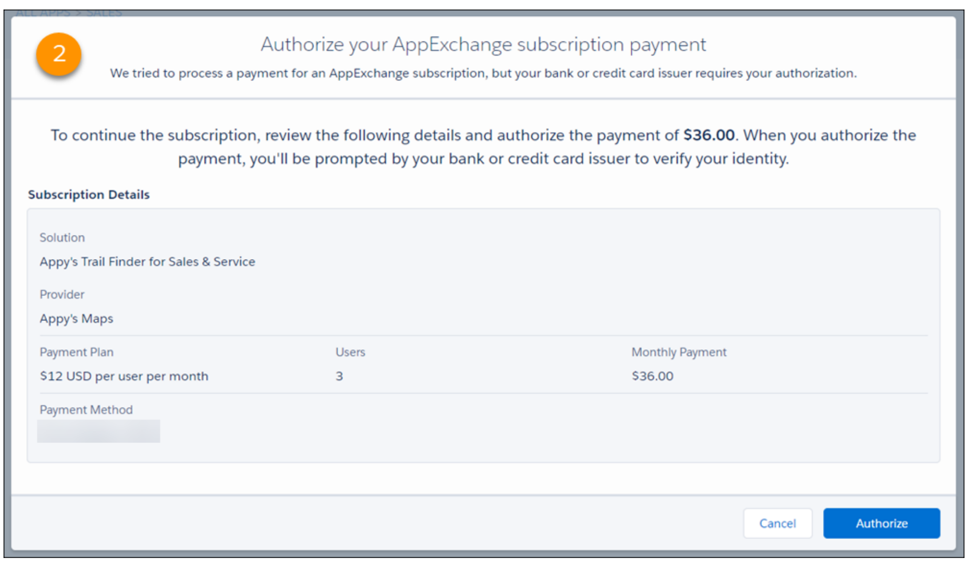
Why: Starting on September 14, 2019, SCA is required as part of the Second Payment Services Directive (PSD2), a European Union directive. The goal of PSD2 is to improve the payment experience for online merchants and customers.

How: If you're based in a region that requires strong customer authentication, Checkout automatically integrates SCA into the payment experience.



After you click **Purchase** (1) on the last step of the Checkout payment wizard, we may prompt you to verify your identity. For example, we may ask you to enter a verification code that's sent to the mobile device associated with your payment method.

If you purchase a subscription, your bank or credit card issuer may periodically require you to authorize future payments. If your authorization is required, we prompt you when log in to AppExchange (2).



General Setup: Support for More Form Factors with your Lightning Apps, Improved Connections with Enhanced External Services, and Monitoring Custom Object and Settings Counts

Create Lightning apps that support desktop, phone, or both. Create better connections to outside services with Enhanced External Services. Compare how many custom objects and settings you've created against the total in your org.

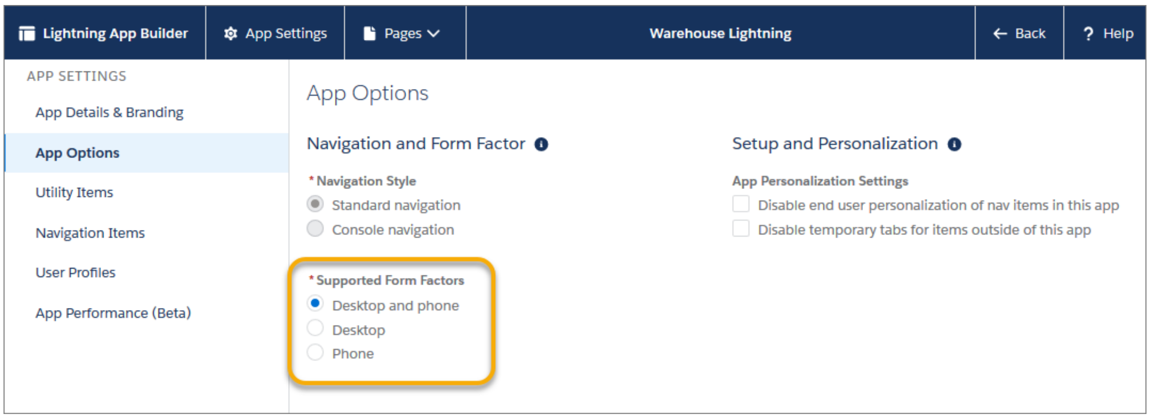
IN THIS SECTION:

Set a Lightning App to Support Desktop, Phone, or Both

When you create or edit a Lightning app, you can configure which form factors it supports and can be viewed on. Creating an app just for your mobile app users? Designate that Lightning app for a phone.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Available on desktop for orgs that have opted in to the new Salesforce mobile app.

How: Go to the App Manager in Setup, select **Edit** on the app's row, and click **App Options**.



Tip: If you restrict an app to one type of device, only users viewing the app on that device can access the app. For example, if you select **Phone**, your desktop users don't see the app in the App Launcher. Only your Salesforce mobile app users can see it.

Enhanced External Services: Get Better Connections for a Better Tomorrow (Beta)

External Services which was released as a pilot feature in Spring '19, is now beta. As part of the beta program, this feature is activated in all sandbox orgs. Use External Services to create and use connections to outside services. New registrations can use more-complex swagger2 schema, disregard Apex word and character limitations, and receive ongoing benefits as they become available. If editing or registering new connections to an outside service, use Enhanced External Services now to get the upgraded benefits and save yourself time later.

Where: This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

Note: We provide this feature to customers through a Beta program that activates the feature in all sandbox orgs. To activate the feature on trial or demo orgs, contact your Success Manager or log a case in https://help.salesforce.com/home. Because Beta programs are subject to change, we can't guarantee acceptance. This Beta feature isn't generally available, as referenced in this document or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available features.

How: After turning on Enhanced External Services, register new external services the same way you did before. Actions generated by your schema are created as External Service Actions in Flow Builder.

To recreate existing registrations to get the Enhanced External Services benefits, copy the name, schema, and other characteristics into a new registration. Update the flows that use the old Apex Action to the new External Service Action. Finally, delete the old registration, and say hello to the future.

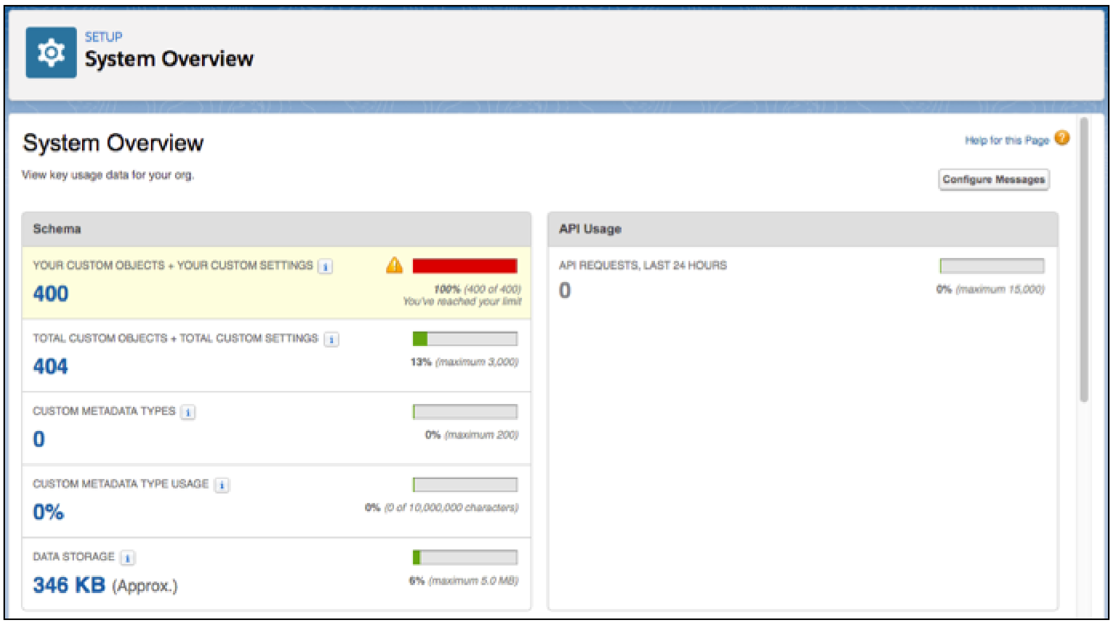
Monitor Your Custom Object and Settings Count in System Overview

Compare the number of custom objects and settings that you've created against the total number in your org, including the ones installed from packages. Know when you're approaching or have reached your limit. System Overview now shows both the number of objects that you created and how many total you have in your org. These values help you understand how many custom objects you can still create or install before you reach the limit.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

Why: Each Salesforce edition has a limit on the number of custom objects that you can create in your org. Beyond the edition limit, a hard limit governs how many custom objects you can install from managed packages, such as apps publicly posted on AppExchange.

How: From Setup, in the Quick Find box, enter `System Overview`, and then select **System Overview**.



Your Custom Objects + Your Custom Settings shows the number of active custom objects and settings created by you and users in your org.

Total Custom Objects + Total Custom Settings shows the number of active and inactive objects in your org, including the objects created by you, created by users in your org, or installed from packages. This number includes soft-deleted custom objects that are still waiting to be hard deleted. For more information about the hard-deletion process, see Delete Custom Objects.

SEE ALSO:

Install Even More Custom Objects in Your Org

Show or Hide Lightning-Only Tabs

Tabs exclusive to Lightning Experience, like Calendar and Email Templates, now appear in the Tab Settings section of profiles. You may now set them to Default Off or Tab Hidden for profiles who don't need to see them.

Where: This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

Layout Changes for Records Are Delayed After Save

When you make layout changes to record pages on custom objects, the layout changes don't appear immediately. The record page displays the updated layout about 15 minutes later when you reload the page. This change is a tradeoff to improve performance of record pages.

Where: This change impacts record pages for custom objects in Lightning Experience and Lightning communities. It does not impact record pages accessed on a Lightning console app.

Why: Record pages for custom objects now use durable caching for persistent storage. When you open a new page, the cache updates itself and the page loads faster because the data is readily available. To invalidate the durable cache, log out of Salesforce and log back in. Durable caching is available in orgs with secure browser caching enabled, which is a setting that's enabled by default.

Note: Disabling secure and persistent browser caching is not recommended. We recommend disabling it only if you're working in a sandbox or a Developer edition org.

How: To see your layout changes immediately, log out and log back in. Other users don't see the change until up to 1 hour later when they reload the page. Similarly, they can also see layout changes immediately when they log out and log back in.

This change also applies to record layouts updated through the page layout editor, compact layouts, and Lightning pages. For example, the layout is changed when you add a custom field to a custom object and add that field to the page layout.

For layout changes to a Lightning page, such as via the Lightning App Builder, you continue to see their changes immediately after a page reload. However, other users and other browsers don't see the change up to 1 hour later when they reload the page. To see the layout changes immediately, users can log out and log back in.

SEE ALSO:

Salesforce Help: Page Layouts (can be outdated or unavailable during release preview)

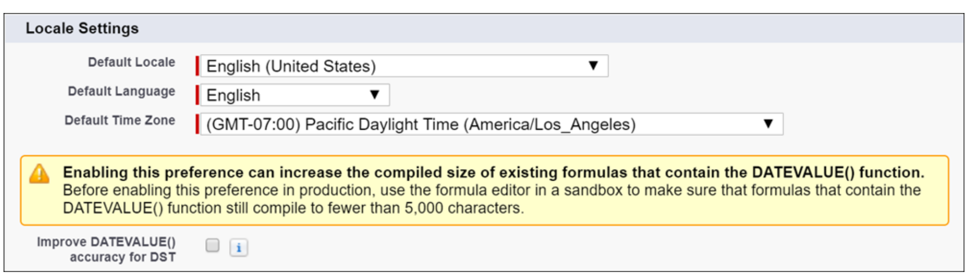
Lightning Aura Components Developer Guide: Enable Secure Browser Caching

Get Accurate Daylight Savings Time Values with DATEVALUE()

The DATEVALUE() formula option provides more accurate daylight savings time values without workarounds. The option avoids an existing one-hour discrepancy when processing times between 11:00 PM and 1:00 AM.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

How: From Setup, in the Quick Find box, enter `Company Information`. Under Locale Settings, select **Improve DATEVALUE() accuracy for DST**.



Important: If your org's custom formulas include workarounds that adjust date values between 11:00 PM and 1:00 AM, remove them before enabling this setting. If you do not remove the workarounds, your data could be inaccurate. Enabling the preference can also increase the compiled size of existing formulas with the DATEVALUE() function.

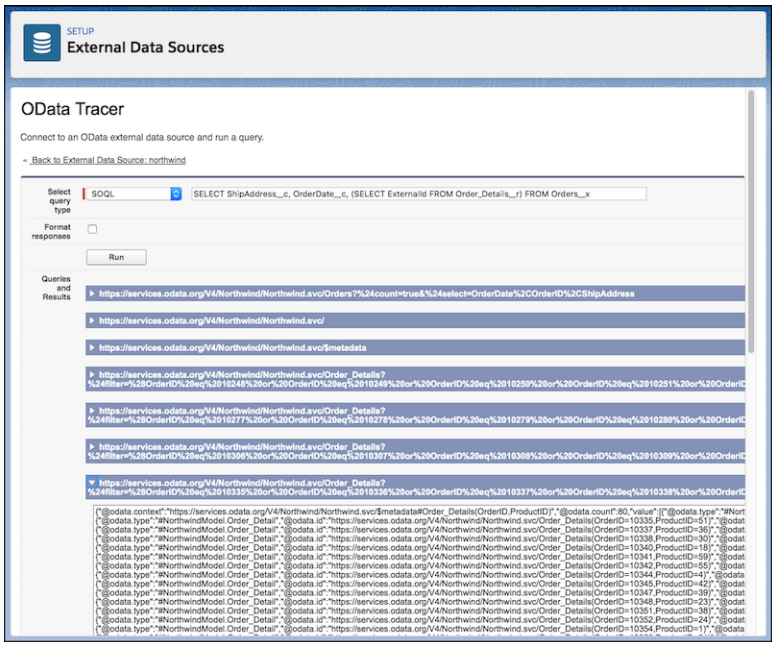
Troubleshoot OData Connections with OData Tracer

When you connect to an external data service, you control how to view and direct the flow of external data within Salesforce. But sometimes external data sources change without your knowledge. Use the new OData Tracer tool to validate endpoints and test queries that depend on data drawn from external data services. The tool displays full raw responses, giving you complete information for debugging and maintaining your connections.

Where: This change applies to Lightning Experience and Salesforce Classic as part of Salesforce Connect. Salesforce Connect is free for Developer Edition and available for an extra cost in Enterprise, Performance, and Unlimited editions.

How: The OData Tracer is available for Salesforce Connect: OData 2.0 and Salesforce Connect: OData 4.0 external data sources.

From the External Data Sources page in Setup, select an external data source, and click **Open OData Tracer**. Select a query type from the picklist, enter your query, and click **Run**. Review the results in the Queries and Results area. All queries display in the order run.



Allow Access to Customized Actions Perm Is No Longer Required

The Allow Access to Customized Actions permission is no longer required to access customized actions.

Where: This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, Contact Manager, and Developer editions.

Custom Settings: More Protection and Finer Access Control

Protect custom settings and control access to them through profiles and permission sets.

IN THIS SECTION:

Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Postponed)

This critical update will be enforced starting January 3, 2020, as part of the Spring '20 release (originally planned for September 6, 2019, then postponed).

Grant Access to Custom Settings After Restricting Org-Wide Access (Critical Update)

Users without the Customize Application permission can read custom settings using APIs that are provided by Salesforce. This access will be revoked as part of a critical update that is scheduled to be rolled out with the Spring '20 release on January 3, 2020. For the Winter '20 release, new permissions allow read access to custom settings.

Control Who Gets Read Access to Custom Settings

You can now control the visibility of custom settings at a granular level. Admins can grant direct read access to specific custom settings through profiles and permission sets for users without Customize Application permission.

Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Postponed)

This critical update will be enforced starting January 3, 2020, as part of the Spring '20 release (originally planned for September 6, 2019, then postponed).

Where: This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

Why: This critical update revokes API read access to custom settings from users without the Customize Application permission and will be enforced on January 3, 2020 as part of the Spring '20 release.

How: You can activate the critical update in the Summer '19 release or later. For the Winter '20 release, new permissions allow direct read access to custom settings through profiles or permission sets for users without Customize Application permission.

Note: This change doesn't affect the accessibility of custom settings from system mode. Custom settings retrieved using system mode, such as with Apex code, will continue to work after this update.

SEE ALSO:

Grant Access to Custom Settings on Profiles and Permission Sets After Restricting Org-Wide Access (Critical Update)

Control Who Gets Read Access to Custom Settings

Grant Access to Custom Settings After Restricting Org-Wide Access (Critical Update)

Users without the Customize Application permission can read custom settings using APIs that are provided by Salesforce. This access will be revoked as part of a critical update that is scheduled to be rolled out with the Spring '20 release on January 3, 2020. For the Winter '20 release, new permissions allow read access to custom settings.

Where: This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

When: The critical update to revoke read access to custom settings using APIs from users without the Customize Application permission is enforced on January 3, 2020 in the Spring '20 release. You can activate the critical update in the Summer '19 release or later.

After the critical update, users without the Customize Application permission no longer can access custom settings. To minimize the impact on your users, admins with the Customize Application permission can grant read access to custom settings through profiles and permission sets. You can prepare the necessary changes to permission sets and profiles before enabling the critical update.

How: We recommend that you test this update in a sandbox before enabling it in your production org.

To test this update before the enforcement date:

1. From Setup, enter `Critical Updates` in the Quick Find box, then select **Critical Updates**.
2. Click **Activate** for the update: `Require Customize Application permission for direct read access to custom settings`.

You can also enable or disable read access to custom settings using the `Restrict access to custom settings` permission available from Schema Settings. This permission corresponds to the critical update org-wide permission.

3. Grant read access through profiles or permission sets.

   To grant a specific profile or permission set read access to custom settings:

   a. Search for Profiles or Permission Sets from Setup, then click the name of the profile or permission set.
   b. Click the **Custom Setting Definitions** permission.
   c. Click **Edit**, add the custom setting to the Enabled Custom Setting Definitions list, then click **Save**.

   To grant profiles or permission sets read access to all custom settings:

   a. Search for Profiles or Permission Sets from Setup, then click the name of the profile or permission set and click **Edit**.
   b. In the Administrative Permissions section, check **View All Custom Settings**.
   c. Click **Save**.

4. Test this critical update. With the Restrict access to custom settings permission enabled, permissions are enforced as follows:
   - Customize Application permission—Read and write access to all custom settings.
   - Custom Setting Definitions—Read access to specific custom settings outside of System context. Users must be granted access through profiles and permission sets.
   - View All Custom Settings permission—Read access to all custom settings outside of System context.
   - View Setup and Configuration permission—Read access to custom settings in Setup. Users must be granted access to specific custom settings through profiles and permission sets, or be granted the View All Custom Settings permission.

Apex generally runs in system mode so the current user's permissions and field-level security aren't considered during code execution. The critical update doesn't affect the accessibility of custom settings from system mode. Calling Apex methods such as `isAccessible` indicate whether the running user has access outside of system mode. After activating this critical update, if the user isn't granted access to an object, calling `isAccessible` returns `false`. For example, if a user isn't granted access through a profile to Contact, `isAccessible` returns `false`.

SEE ALSO:

Control Who Gets Read Access to Custom Settings

Control Who Gets Read Access to Custom Settings

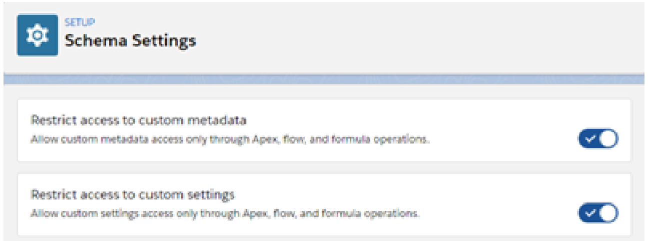
You can now control the visibility of custom settings at a granular level. Admins can grant direct read access to specific custom settings through profiles and permission sets for users without Customize Application permission.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions.

Who: Admins with the Customize Application permission can grant read access to specific custom settings through profiles and permission sets.

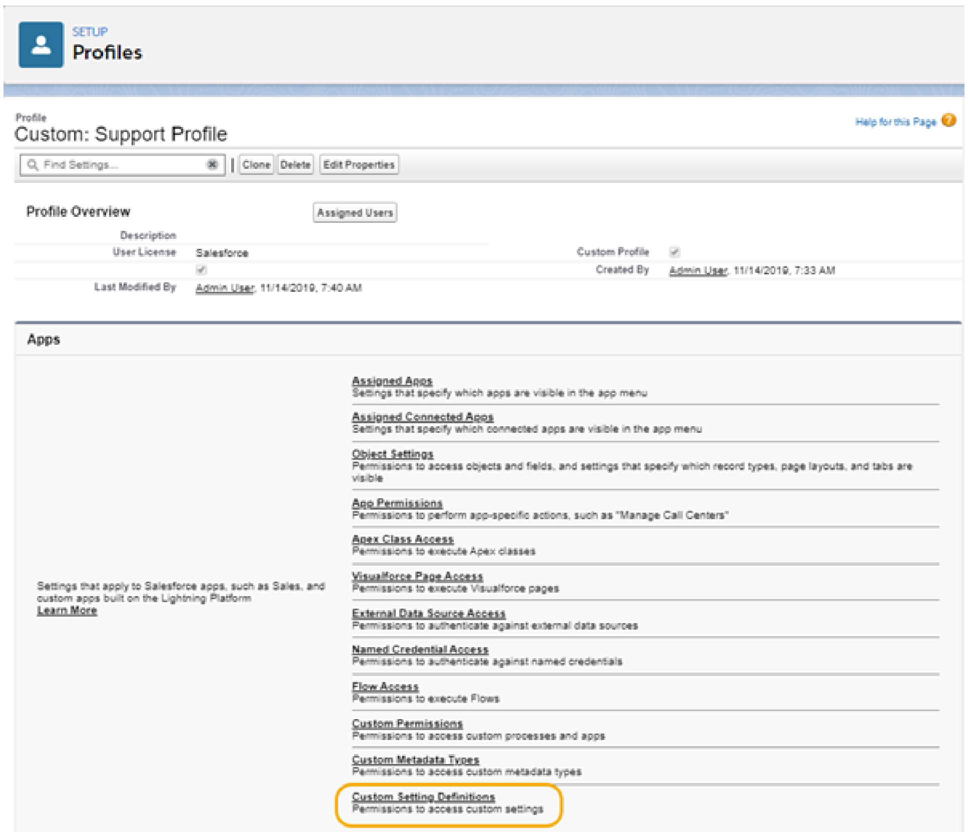
How: To grant a profile or permission set read access to specific custom settings, enable the Restrict access to custom settings org permission. Then enable access to specific custom settings.

1. From Setup, search for Schema Settings and make sure that the `Restrict access to custom settings org` permission is enabled.

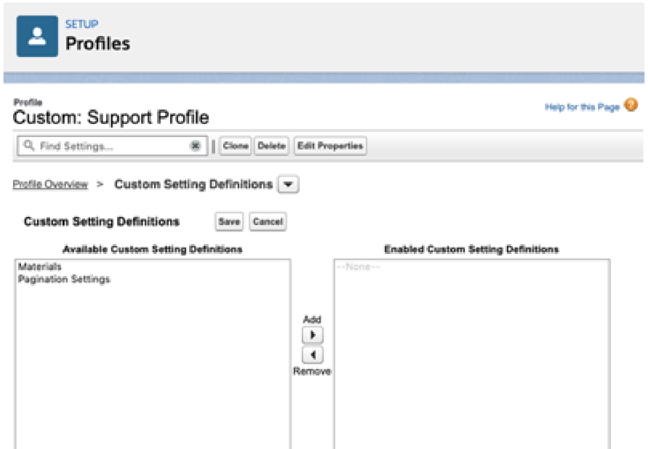


This permission can also be enabled through the critical update: `Require Customize Application permission for direct read access to custom settings`.

2. From Setup, search for Profiles or Permission Sets and click **Custom Setting Definitions**.



3. Add the custom setting to the Enabled Custom Setting Definitions list.



With Restrict access to custom settings enabled, permissions are enforced as follows:

- Customize Application permission—Read and write access to all custom settings.
- Custom Setting Definitions—Read access to specific custom settings outside of System context. Users must be granted access through profiles and permission sets.
- View All Custom Settings permission—Read access to all custom settings outside of System context.
- View Setup and Configuration permission—Read access to custom settings in Setup. Users must be granted access to specific custom settings through profiles and permission sets, or be granted the View All Custom Settings permission.

SEE ALSO:

Grant Access to Custom Settings After Restricting Org-Wide Access (Critical Update)

Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Postponed)

Security and Identity: Identity Connect 3.0, Improved Verification, Edge Services for Domains, and Real-Time Event Monitoring and Enhanced Transaction Security Generally Available

Upgrade to Identity Connect 3.0 for faster syncs with Microsoft Active Directory and easier user management. Create your own identity verification page to register a user's verification methods. Use Salesforce Edge to service Salesforce and Community domains, gaining better connectivity and performance. Manage connected apps with the Setup Audit Trail and custom labels, and view more HTTPS details on the Domains Setup page. Real-Time Event Monitoring and Enhanced Transaction Security are generally available.

IN THIS SECTION:

Authentication and Identity: Identity Connect 3.0, Connected Apps, and Identity Verification

We're upgrading to Identity Connect 3.0 soon. This version makes it easier and faster to sync user data between Microsoft Active Directory and Salesforce. For connected apps, you can now track changes to policies and settings, and you can reuse custom scope descriptions. You can also learn how to build a connected app with a new Trailhead project. For identity verification, you can create your own Verify page for registering verification methods, and you can require users to verify their identity when they change their email address. Also, an IdentityVerificationEvent is now available to store event data.

Salesforce Shield: Real-Time Event Monitoring with Enhanced Transaction Security Generally Available, and More Encryption Options

Get real-time event streaming and storage and enhanced transaction security policies for several new event objects. Create security policies without touching or writing a single line of Apex with the new Condition Builder. Shield Platform Encryption offers skinny table support for case-insensitive deterministic encryption (generally available), encryption for insurance fields, and sync support for more encrypted data.

Other Security Changes: Salesforce Edge, Setup Enhancements, TLS 1.2 Enforcement, and Instanceless Sandboxes

We're moving customers with My Domains and Custom Domains to Salesforce Edge. The Domains Setup page now shows more details, and new session-security-level policies control access to certain Setup pages and objects. TLS 1.2 is required for all HTTPS connections, and instance names are scheduled to be removed from My Domain sandbox URLs.

Authentication and Identity: Identity Connect 3.0, Connected Apps, and Identity Verification

We're upgrading to Identity Connect 3.0 soon. This version makes it easier and faster to sync user data between Microsoft Active Directory and Salesforce. For connected apps, you can now track changes to policies and settings, and you can reuse custom scope descriptions. You can also learn how to build a connected app with a new Trailhead project. For identity verification, you can create your own Verify page for registering verification methods, and you can require users to verify their identity when they change their email address. Also, an IdentityVerificationEvent is now available to store event data.

IN THIS SECTION:

Create Your Own Page to Register a User's Verification Methods

When external users register a verification method, either a phone number or email address, Salesforce displays a Verify page for users to enter their verification code. You can replace the default Verify page with your own, for example, to reflect your brand or meet your corporate guidelines. You create your Verify page with a Visualforce page and a pair of Apex methods. In addition to creating this Verify page for registering verification methods, you can create your own Verify pages for signing up new users (self-registration) and logging in external users (passwordless login).

Require Verification When Community Users' Change Their Email Address

Improve security by requiring external users to confirm their community email address changes. When a community user changes an email address, you can have an email sent to the new address for confirmation. After the user clicks the confirmation link in the message, the address change takes effect. Salesforce recommends that you enable email confirmations to improve security. Sending email confirmations occurs automatically for new communities and new and existing internal users.

Associate Custom Labels with Custom Scopes

Instead of creating a unique description for each custom scope, you can associate a custom label with multiple custom scopes. An advantage of a custom label is that you can maintain reusable text in a single location and translate the text into multiple languages. In contrast, a custom scope's description must be maintained separately with the custom scope it applies to. Custom scope descriptions and custom labels display on the authentication page when a user authenticates the associated connected app.

Track Setup Changes Made to Connected App Policies and Settings

The Setup Audit Trail now tracks some connected app policy and setting updates. For example, if your org has multiple admins, you can see who updated a connected app's callback URL or access permissions.

Efficiently Synchronize Your On-Premises Active Directory Users to Salesforce with Identity Connect Enhancements

Through an improved architecture and user experience, Identity Connect 3.0 provides fast and easy user synchronization at scale between Microsoft Active Directory and Salesforce. With live sync performance at scale, Identity Connect 3.0 improves permission set updates. It more efficiently assigns profiles to users to reduce network traffic and increase performance. Identity Connect 3.0 also provides a new and improved runtime, which leads to better CPU utilization during sync.

Learn to Build a Connected App for API Integration

As part of the new Build Integrations Using Connected Apps trail, learn how to build a connected app for API integration in the Build a Connected App for API Integration project. Start by building your own connected app. Then learn how to implement the OAuth 2.0 web server authentication flow. You then can define which users can access the connected app and where they can access it from using OAuth policies.

Exclude Authentication Provider Consumer Secrets in API Responses

By default, authentication provider encrypted consumer secrets appear in Metadata API and SOAP API responses. For security, you can exclude consumer secrets from responses. This change applies to retrieving and deploying a configuration. It doesn't apply to authentication.

Track User Identity Verification Events

You can now capture information about events related to identity verification with IdentityVerificationEvent. For example, you can determine the activity that prompted identity verification, such as logging in to Salesforce, connecting to a connected app, or connecting to Salesforce Authenticator. You can determine where the user's IP address is physically located and the security policy required for user identity verification. You can also determine the status of the event, such as whether the verification process started, whether the verification was successful, and if not, why it failed. IdentityVerificationEvent is used in Real-time Event Monitoring to store event data.

Benefit from Improved Security for Customizable Authorization Errors

Customizable authorization errors, such as Apex errors from a registration handler or errors reported from a third-party, no longer display on the Problem Logging In page. To ensure greater security, these errors display only in the URL of the Problem Logging In page.

Updated the Login Url Field in Metadata API to Support Encryption-Enabled SAML SSO Configs

We added a parameter to the `salesforceLoginUrl` field of the SamlSsoConfig metadata type to improve support for encryption. `salesforceLoginUrl` represents the URL associated with login for the SAML Web SSO single sign-on flow. The new parameter, `sc=`***`samlSsoConfigId`***, represents its ID. The change doesn't affect existing SAML SSO behavior.

Create Your Own Page to Register a User's Verification Methods

When external users register a verification method, either a phone number or email address, Salesforce displays a Verify page for users to enter their verification code. You can replace the default Verify page with your own, for example, to reflect your brand or meet your corporate guidelines. You create your Verify page with a Visualforce page and a pair of Apex methods. In addition to creating this Verify page for registering verification methods, you can create your own Verify pages for signing up new users (self-registration) and logging in external users (passwordless login).

Where: This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic. Communities are available in Enterprise, Performance, Unlimited, and Developer editions.

Why: This custom Verify page uses different fonts and text colors than the default Verify page. It also prompts users to enter their verification code on the login page instead of on a separate page.

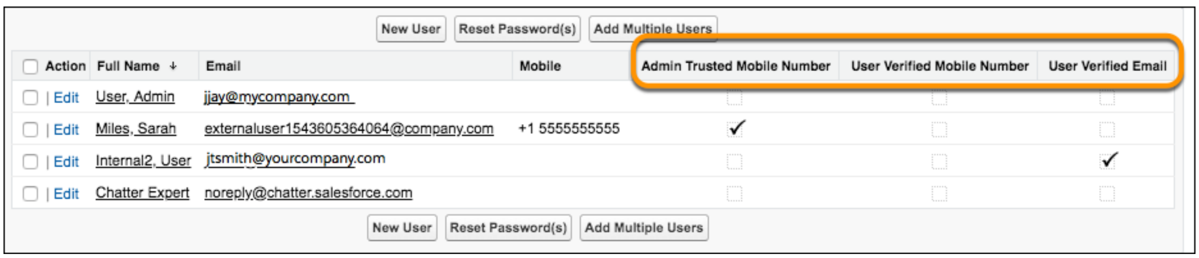
How: You implement verification-method registration with two Apex methods. The `initRegisterVerificationMethod` method performs the basic validation and sends a verification code to the user via the user's registered identity verification method (email address or SMS). Then the `verifyRegisterVerificationMethod` method checks whether the user entered the correct verification code. If the verification code is correct, `verifyRegisterVerificationMethod`:

- Logs the activity on the Identity Verification History page
- Updates the user's record indicating which verification method the user registered (also called setting the user's verification bit)

If the code is incorrect, an error message is returned.

You can check whether a user has registered an email address or phone number on the Users Setup page. Create a list view, and include these verification methods.

- User Verified Email
- User Verified Mobile Number
- Admin Trusted Mobile Number



Note: Use `initRegisterVerificationMethod` and `verifyRegisterVerificationMethod` to register a user's email address or phone number. If you're only changing the email address of a user who's already registered, don't use these methods. Users are verified automatically when you enable **Require email confirmations for email address changes (applies to external users in Lightning Communities)** on the Identity Verification Setup page.

SEE ALSO:

Require Verification When Community Users' Change Their Email Address

Salesforce Help: Methods for Verifying Your Identity (can be outdated or unavailable during release preview)

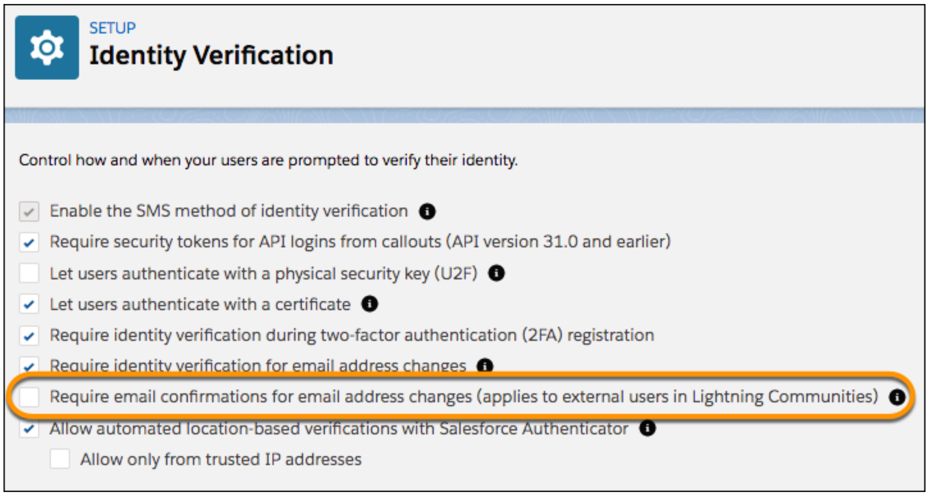
Salesforce Help: Identity Verification History (can be outdated or unavailable during release preview)

Require Verification When Community Users' Change Their Email Address

Improve security by requiring external users to confirm their community email address changes. When a community user changes an email address, you can have an email sent to the new address for confirmation. After the user clicks the confirmation link in the message, the address change takes effect. Salesforce recommends that you enable email confirmations to improve security. Sending email confirmations occurs automatically for new communities and new and existing internal users.

Where: This change applies to external users in Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

How: To enable email confirmations, from the Identity Verification Setup page, select **Require email confirmations for email address changes (applies to external users in Lightning Communities)**.



SEE ALSO:

Salesforce Help: Configure When Users Are Prompted to Verify Identity (can be outdated or unavailable during release preview)

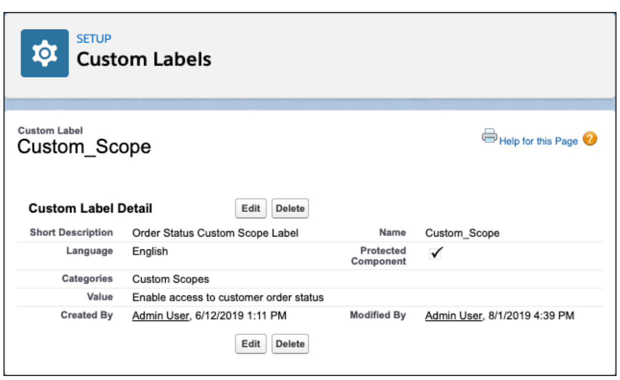
Create Your Own Page to Register a User's Verification Methods

Associate Custom Labels with Custom Scopes

Instead of creating a unique description for each custom scope, you can associate a custom label with multiple custom scopes. An advantage of a custom label is that you can maintain reusable text in a single location and translate the text into multiple languages. In contrast, a custom scope's description must be maintained separately with the custom scope it applies to. Custom scope descriptions and custom labels display on the authentication page when a user authenticates the associated connected app.

Where: This change applies to Lightning Experience and Salesforce Classic in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Create a custom label for custom scopes on the Custom Labels Setup page.



SEE ALSO:

Salesforce Help: Create an OAuth Custom Scope (can be outdated or unavailable during release preview)

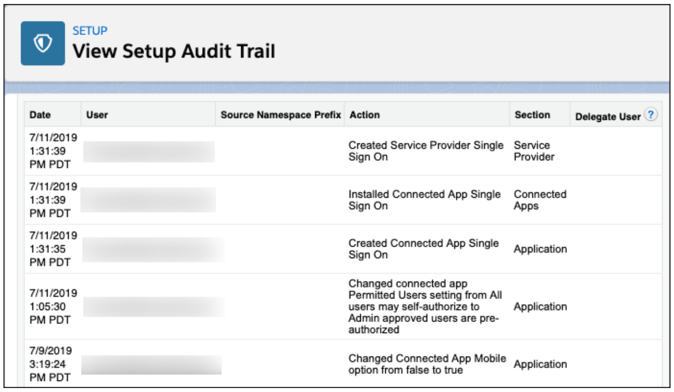
Salesforce Help: Custom Labels (can be outdated or unavailable during release preview)

Track Setup Changes Made to Connected App Policies and Settings

The Setup Audit Trail now tracks some connected app policy and setting updates. For example, if your org has multiple admins, you can see who updated a connected app's callback URL or access permissions.

Where: This change applies to Lightning Experience and Salesforce Classic in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: View available connected app updates on the View Setup Audit Trail page.



SEE ALSO:

Salesforce Help: Monitor Setup Changes (can be outdated or unavailable during release preview)

Efficiently Synchronize Your On-Premises Active Directory Users to Salesforce with Identity Connect Enhancements

Through an improved architecture and user experience, Identity Connect 3.0 provides fast and easy user synchronization at scale between Microsoft Active Directory and Salesforce. With live sync performance at scale, Identity Connect 3.0 improves permission set updates. It more efficiently assigns profiles to users to reduce network traffic and increase performance. Identity Connect 3.0 also provides a new and improved runtime, which leads to better CPU utilization during sync.

Where: This change applies to Lightning Experience and Salesforce Classic and is available for an additional cost in Enterprise, Performance, and Unlimited editions. Developer edition includes 10 Identity Connect permission set licenses.

When: Identity Connect 3.0 will be released soon. Contact Salesforce Customer Support to purchase licenses.

Why: Identity Connect 3.0 runs with an embedded PostgreSQL repository by default, which replaces the Orient DB repository provided in previous releases. You can also set up Identity Connect to use an external PostgreSQL repository. Running Identity Connect with a MySQL repository is no longer supported. Identity Connect 3.0 also introduces a diagnostic-centric experience with actionable and intuitive logs and a new diagnostics page in the Admin UI.

SEE ALSO:

Salesforce Help: Identity Connect (can be outdated or unavailable during release preview)

Learn to Build a Connected App for API Integration

As part of the new Build Integrations Using Connected Apps trail, learn how to build a connected app for API integration in the Build a Connected App for API Integration project. Start by building your own connected app. Then learn how to implement the OAuth 2.0 web server authentication flow. You then can define which users can access the connected app and where they can access it from using OAuth policies.

Where: This Trailhead project and trail applies to Lightning Experience and Salesforce Classic in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Trailhead Project: Build a Connected App for API Integration (can be outdated or unavailable during release preview)

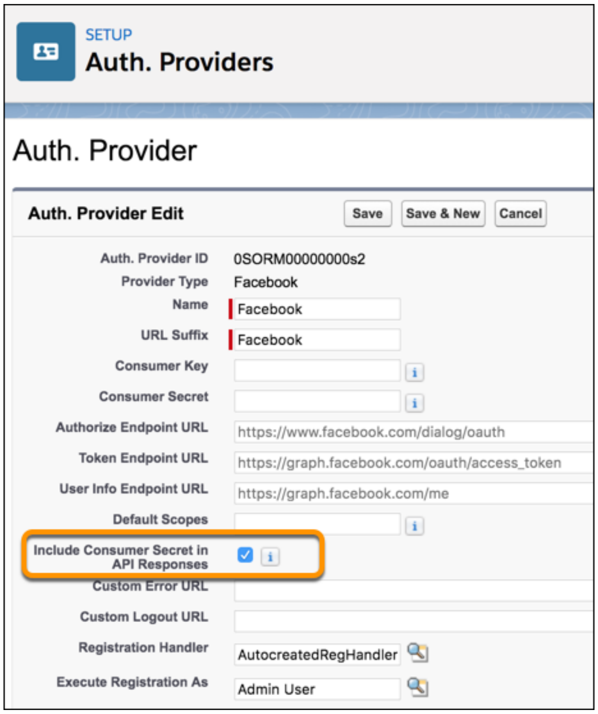
Trailhead Trail: Build Integrations Using Connected Apps (can be outdated or unavailable during release preview)

Exclude Authentication Provider Consumer Secrets in API Responses

By default, authentication provider encrypted consumer secrets appear in Metadata API and SOAP API responses. For security, you can exclude consumer secrets from responses. This change applies to retrieving and deploying a configuration. It doesn't apply to authentication.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

How: From the Auth. Providers Setup page, click **Edit** next to your authentication provider. Deselect **Include Consumer Secret in API Responses**.



Note: If you used your own consumer key and consumer secret instead of using the default secret that Salesforce supplies, consider not disabling this option. Excluding the secret can break change sets and other authentication provider metadata deploys because a consumer key expects a consumer secret. You can fix this problem by inserting the key manually during the deploy.

SEE ALSO:

Salesforce Help: External Authentication Providers (can be outdated or unavailable during release preview)

Track User Identity Verification Events

You can now capture information about events related to identity verification with IdentityVerificationEvent. For example, you can determine the activity that prompted identity verification, such as logging in to Salesforce, connecting to a connected app, or connecting to Salesforce Authenticator. You can determine where the user's IP address is physically located and the security policy required for user identity verification. You can also determine the status of the event, such as whether the verification process started, whether the verification was successful, and if not, why it failed. IdentityVerificationEvent is used in Real-time Event Monitoring to store event data.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions. To view or manage events, enable the View Data Leakage Detection Events user permission.

How: To view and manage events with Event Manager, from Setup, in the Quick Find box, enter *`Event Manager`*, and select **Event Manager**.

SEE ALSO:

Salesforce Platform Events Developer Guide: Reference (can be outdated or unavailable during release preview)

Benefit from Improved Security for Customizable Authorization Errors

Customizable authorization errors, such as Apex errors from a registration handler or errors reported from a third-party, no longer display on the Problem Logging In page. To ensure greater security, these errors display only in the URL of the Problem Logging In page.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions.

How: View customizable authorization errors in the URL of the Problem Logging In page. In this example URL, the customized authorization error begins with `AuthorizationError`.

```
https://myorg.my.salesforce.com/_nc_external/identity/sso/ui/AuthorizationError?ErrorCode=No_Oauth_Token&ErrorDescription=This+is+a+custom+error
```

Updated the Login Url Field in Metadata API to Support Encryption-Enabled SAML SSO Configs

We added a parameter to the `salesforceLoginUrl` field of the SamlSsoConfig metadata type to improve support for encryption. `salesforceLoginUrl` represents the URL associated with login for the SAML Web SSO single sign-on flow. The new parameter, `sc=`***`samlSsoConfigId`***, represents its ID. The change doesn't affect existing SAML SSO behavior.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

Why: This parameter is used to deploy encryption-enabled SAML SSO configurations via the Metadata API. We changed the SAML SSO login URL in the metadata API to be the same as in the UI. For backward compatibility, Salesforce accepts deploys with or without the parameter. This behavior applies to API version 47.0 and later.

How: Here's a SAML SSO login URL with the added `sc=`***`samlSsoConfigId`*** parameter, `https://mycompany.my.salesforce.com?sc=0LEB0000000CCC`.

SEE ALSO:

Metadata API Developer Guide: SamlSsoConfig

Salesforce Shield: Real-Time Event Monitoring with Enhanced Transaction Security Generally Available, and More Encryption Options

Get real-time event streaming and storage and enhanced transaction security policies for several new event objects. Create security policies without touching or writing a single line of Apex with the new Condition Builder. Shield Platform Encryption offers skinny table support for case-insensitive deterministic encryption (generally available), encryption for insurance fields, and sync support for more encrypted data.

IN THIS SECTION:

Platform Encryption: Insurance Fields, Settings via Metadata API, and Skinny Tables for Deterministic Encryption (Generally Available)

Not only can you encrypt more data with Shield Platform Encryption, but you can manage your encrypted data and settings more efficiently. Encrypt insurance fields and sync data to all fields and files using the background encryption service. Enable Shield Platform Encryption settings in your scratch orgs right from Metadata API. Get better filtering results on encrypted data with skinny table support for deterministic encryption (generally available).

Event Monitoring: General Availability of Real-Time Event Monitoring and Enhanced Transaction Security, Legacy Transaction Security Retiring

Keeping a close eye on what's happening in your org is easier with the new Real-Time Event Monitoring feature, which is now generally available. Want to store the event data so that you can examine it in more detail later? You now have six months to do it. With Enhanced Transaction Security, you can create actions that trigger for any standard or custom object. We recommend that you start creating these enhanced policies right away because we are retiring the legacy transaction security framework in the future. Use the new Apex interface for asynchronous coding in your policies.

Platform Encryption: Insurance Fields, Settings via Metadata API, and Skinny Tables for Deterministic Encryption (Generally Available)

Not only can you encrypt more data with Shield Platform Encryption, but you can manage your encrypted data and settings more efficiently. Encrypt insurance fields and sync data to all fields and files using the background encryption service. Enable Shield Platform Encryption settings in your scratch orgs right from Metadata API. Get better filtering results on encrypted data with skinny table support for deterministic encryption (generally available).

IN THIS SECTION:

Encrypt Your Customers' Insurance Information

When customers rely on you for insurance coverage, they share some of their most personal and sensitive information with you. Add another layer of security to that sensitive data with Shield Platform Encryption. You can encrypt information about a range of life events, insurance policies, claims, and related details with either probabilistic or deterministic encryption schemes.

Sync Data in More Fields with Self-Service Background Encryption

Shield Platform Encryption is here to help you scratch one more call to Salesforce Customer Support off your list. The self-service background encryption process now applies your active key material to description and long and rich text area fields. You can also see statistics about Attachment–Content Body fields and sync active key material with attachment data. Keeping your encryption policy up to date just got easier.

Turn On Platform Encryption Settings Programmatically Through Metadata API

When you set up your orgs programmatically, quickly enable Shield Platform Encryption settings with new Metadata API Boolean fields. No more switching between the Advanced Settings page in Setup and your developer environment.

Enhance Filtering on Encrypted Data with Skinny Tables (Generally Available)

Filter-preserving deterministic encryption support for skinny tables is now generally available, giving you even better filtering on data encrypted at rest.

Enable Encryption for Chat Transcripts on Your Own

Say goodbye to an extra step when you enable Shield Platform Encryption for transcribed chats between agents and customers. Now you don't have to contact Salesforce Customer Support. Shield Platform Encryption is available for the Body and Chat Supervisor Transcript Body fields.

Encrypt Your Customers' Insurance Information

When customers rely on you for insurance coverage, they share some of their most personal and sensitive information with you. Add another layer of security to that sensitive data with Shield Platform Encryption. You can encrypt information about a range of life events, insurance policies, claims, and related details with either probabilistic or deterministic encryption schemes.

Where: This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions that have both Financial Services Cloud and Shield Platform Encryption enabled.

Why: When you encrypt insurance data with Shield Platform Encryption, you add strong encryption at rest to customer information in these fields.

Business Milestone

- Milestone Name

Claim

- Claim Number
- Incident Site
- Report Number

Customer Property

- Address
- Lien Holder Name

Insurance Policy

- Policy Number
- Servicing Office
- Universal Policy Number

Person Life Event

- Event Name

Securities Holding

- Name

How: On the Encryption Policy page in Setup, click **Encrypt Fields**. Then click **Edit** and select a field. You can apply either the probabilistic or deterministic encryption scheme to the field.

SEE ALSO:

Protect Your Policyholders' Sensitive Information

Financial Services Cloud Upgrade Guide: Enable Insurance for Financial Services Cloud (can be outdated or unavailable during release preview)

Sync Data in More Fields with Self-Service Background Encryption

Shield Platform Encryption is here to help you scratch one more call to Salesforce Customer Support off your list. The self-service background encryption process now applies your active key material to description and long and rich text area fields. You can also see statistics about Attachment–Content Body fields and sync active key material with attachment data. Keeping your encryption policy up to date just got easier.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: On the Encryption Statistics and Data Sync page in Setup, select an object type or custom object in the left pane. Then click **Sync**.

SEE ALSO:

Salesforce Help Synchronize Your Data Encryption with the Background Encryption Service (can be outdated or unavailable during release preview)

Turn On Platform Encryption Settings Programmatically Through Metadata API

When you set up your orgs programmatically, quickly enable Shield Platform Encryption settings with new Metadata API Boolean fields. No more switching between the Advanced Settings page in Setup and your developer environment.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: Use the new Boolean fields on the new EncryptionKeySettings and PlatformEncryptionSettings to:

- Enable the Cache-Only Key Service
- Opt out of key derivation processes on customer-supplied keys
- Enable replay detection on cache-only key callouts
- Enable encryption on custom fields in installed managed packages
- Require a second form of authentication for key management tasks
- Require the Manage Encryption Keys permission for encryption policy tasks
- Enable the deterministic encryption scheme
- Enable the background encryption process for field history and feed tracking values
- Enable Shield Platform Encryption for Change Data Capture events

For more information about these settings and what happens when they're set to `true`, read about the PlatformEncryptionSettings and EncryptionKeySettings metadata types in the Salesforce Metadata API Developer Guide.

SEE ALSO:

Settings Exposed in Metadata API

Metadata API Developer Guide: EncryptionKeySettings (can be outdated or unavailable during release preview)

Metadata API Developer Guide: PlatformEncryptionSettings (can be outdated or unavailable during release preview)

Enhance Filtering on Encrypted Data with Skinny Tables (Generally Available)

Filter-preserving deterministic encryption support for skinny tables is now generally available, giving you even better filtering on data encrypted at rest.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: In Setup, on the Advanced Settings page, turn on **Deterministic Encryption** and apply deterministic encryption to a standard or custom field. When enabled, skinny tables are created and used automatically where appropriate.

SEE ALSO:

Salesforce Help Filter Encrypted Data with Deterministic Encryption (can be outdated or unavailable during release preview)

Enable Encryption for Chat Transcripts on Your Own

Say goodbye to an extra step when you enable Shield Platform Encryption for transcribed chats between agents and customers. Now you don't have to contact Salesforce Customer Support. Shield Platform Encryption is available for the Body and Chat Supervisor Transcript Body fields.

Where: This change applies to Salesforce Classic and Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

Who: Access to the Conversation Entry objects requires the Digital Engagement license.

How: Before you can apply encryption to Chat fields, add the Supervisor Transcript Body field to the LiveChatTranscript record home layout. Then go to the Encryption Policy page in Setup. Click **Encrypt Fields**, then click **Edit**, and apply encryption to Chat fields.

Event Monitoring: General Availability of Real-Time Event Monitoring and Enhanced Transaction Security, Legacy Transaction Security Retiring

Keeping a close eye on what's happening in your org is easier with the new Real-Time Event Monitoring feature, which is now generally available. Want to store the event data so that you can examine it in more detail later? You now have six months to do it. With Enhanced Transaction Security, you can create actions that trigger for any standard or custom object. We recommend that you start creating these enhanced policies right away because we are retiring the legacy transaction security framework in the future. Use the new Apex interface for asynchronous coding in your policies.

IN THIS SECTION:

LoginEventStream Object Captures Invalid Login Attempts

In previous releases, the LoginEventStream object captured only valid login attempts. Because the LoginEventStream object now captures invalid login attempts too, you see more LoginEventStream entries. This behavior also applies to the LoginEvent object and is now consistent with Login History.

Get Information About Apex REST Events in the EventLogFile

The new Apex REST API event type in the EventLogFile object captures information about every Apex REST API request.

Get Improved Granularity of Apex Execution Event Data in the EventLogFile

Apex limits in Lightning components are now applied per action. Previously, the Apex limits applied across all actions batched together in a request. This change affects the event data in the Apex Execution event type, which is now generated for each component action rather than for each request batch.

Configure Event and Streaming API Settings with Metadata API

Use the new EventSettings Metadata API type to configure Event Monitoring, such as allowing the deletion of event data (`enableDeleteMonitoringData`). You can also configure settings related to platform events and Streaming API.

Stream and Store Event Data in Near Real Time (Generally Available)

With the new Real-Time Event Monitoring feature, you can stream and store event data and create transaction security policies for several new events in Salesforce, all in real time. When you enable Real-Time Event Monitoring, you automatically get Enhanced Transaction Security—Salesforce's latest and greatest feature for creating transaction security policies. Use Event Manager to view and monitor events in your org.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased a Salesforce Shield or Salesforce Event Monitoring add-on subscription. To view or manage events, enable the View Data Leakage Detection Events user permission.

Why: With Real-Time Event Monitoring, you can subscribe to these streaming events in Salesforce.

- ApiEventStream
- LightningUriEventStream
- ListViewEventStream
- LoginAsEventStream
- LoginEventStream
- LogoutEventStream
- ReportEventStream
- UriEventStream
- MobileEmailEvent (new in this release)
- MobileEnforcedPolicyEvent (new in this release)
- MobileScreenshotEvent (new in this release)
- MobileTelephonyEvent (new in this release)

You can also store this event data for up to six months. The following big objects store event data for their respective EventStream objects.

- ApiEvent
- IdentityVerificationEvent (new in this release)
- LightningUriEvent

- ListViewEvent
- LoginAsEvent
- LoginEvent
- LogoutEvent
- ReportEvent
- UriEvent

Use Enhanced Transaction Security to create transaction security policies for a subset of these new event objects.

We've changed how we stream events between beta and GA. As a result, you must unsubscribe from event channels while Salesforce upgrades your org to the Winter '20 release. Then resubscribe when the upgrade is complete.

The Real-Time Event Monitoring architecture is different from the architecture of the EventLogFile object. Therefore, the new Real-Time Event Monitoring feature doesn't affect EventLogFile functionality, which continues to work as before. Similarly, the Event Monitoring Analytics App, which visualizes EventLogFile data, isn't affected by the new Real-Time Event Monitoring feature.

Since beta, we've changed the minimum API version in which the Real-Time Event Monitoring objects are available. The new minimum API versions are:

- LoginEvent 36.0
- LogoutEventStream 41.0
- All other objects: 46.0

How: To view and manage events with Event Manager, from Setup, in the Quick Find box, enter `Event Manager`, and select **Event Manager**.

SEE ALSO:

Salesforce Help: Real-Time Event Monitoring (can be outdated or unavailable during release preview)

IdeaExchange: Event Monitoring - Reduce the 24h Delay

IdeaExchange: Event Monitoring log files needs to export the report name and folder

IdeaExchange: Event log file data to be available for at least 6 months not 30 days

IdeaExchange: Event Monitoring Details For Running/Exporting Unsaved Reports

Create Transaction Security Policies to Protect Objects (Generally Available)

Use Enhanced Transaction Security, the latest incarnation of Salesforce's transaction security feature, to create transaction security policies that execute actions on any standard or custom object. In the legacy transaction security framework, you can create policies that execute actions on only a few standard objects.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions. To create and manage transaction security policies, enable the Customize Application user permission.

Why: With Enhanced Transaction Security, you can create transaction security policies that trigger for these events:

- ApiEvent
- ListViewEvent
- LoginEvent
- ReportEvent

You can also create a policy with Condition Builder, a new point-and-click UI tool that requires no coding. Or are you an Apex whiz and love to program? Then you're going to enjoy the new Apex `TxnSecurity.EventCondition` interface, which makes it easy to program all the great features in Enhanced Transaction Security.

How: From Setup, in the Quick Find box, enter *Transaction Security*, and select **Transaction Security Policies**.

To create a transaction security policy, click **New**. To create a policy declaratively, select **Condition Builder**. To create a policy with Apex, select **Apex** > **Enhanced Transaction Security**.

Warning: Security policies created in the legacy transaction security framework aren't designed to work in the new enhanced framework. Using the old policies can at times adversely affect the new event capture. For example, if a legacy policy whose event type is Data Export or Resource Access fails, any real-time ReportEvent capture on the same report operation also fails. For this reason, the legacy transaction security framework is being retired, and you must migrate your legacy policies to the new framework.

SEE ALSO:

Salesforce Help: Enhanced Transaction Security Policy Enforcement (can be outdated or unavailable during release preview)

Salesforce Help: Migrate Legacy Policies to the Enhanced Transaction Security Framework (can be outdated or unavailable during release preview)

IdeaExchange: Transaction Security Policies should work for custom report types

AdminSetupEventStream and AdminSetupEvent Event Objects Are No Longer Available

The AdminSetupEventStream and AdminSetupEvent event objects were previously beta in Summer '19. We've removed all documentation about these objects.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Migrate Legacy Policies to the Enhanced Transaction Security Framework (Critical Update)

With Salesforce's new enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework in generally available, we are retiring the legacy framework in the Summer '20 release. To prepare for this retirement and take advantage of the new features, migrate your legacy transaction security policies to the new framework as soon as possible.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

When: The legacy transaction security policy framework is scheduled to be retired in all Salesforce orgs in the Summer '20 release. When the legacy framework is retired, the legacy policies will be permanently disabled, and you won't be able to update them. Your legacy policies continue to work correctly until the Summer '20 release.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions. To create and manage transaction security policies, enable the Customize Application and View All Data user permissions.

How: To determine if your security policies are using the legacy framework, check their associated Apex classes. Legacy policies implement the `TxnSecurity.PolicyCondition` interface.

To migrate a legacy policy, create one in the new enhanced framework that mimics the old behavior. Although a legacy policy can't run in the new framework, it's still visible, so you can examine its logic to reproduce it in the new policy.

If you like using a point-and-click tool, Condition Builder provides most of the functionality to create a policy in the new framework. If you prefer to code or require more functionality than Condition Builder provides, implement the Apex class with the new `TxnSecurity.EventCondition` interface.

We welcome feedback about the migration and any issues that you encounter so that we can improve the transition for all Event Monitoring customers. You can provide feedback and suggestions for this feature in the Salesforce Official: Shield group in the Trailblazer Community.

SEE ALSO:

Critical Updates and Security Alerts

Salesforce Help: Migrate Legacy Policies to the Enhanced Transaction Security Framework (can be outdated or unavailable during release preview)

Salesforce Help: Enhanced Transaction Security Policy Enforcement (can be outdated or unavailable during release preview)

Code Asynchronous Apex in Transaction Security Policies

Use the new `TxnSecurity.AsyncCondition` Apex interface to code asynchronous Apex in your enhanced transaction security policies. Apex callouts aren't supported in the enhanced transaction security framework.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions and use the new enhanced transaction security framework. To create and manage transaction security policies, enable the Customize Application permission.

How: The `TxnSecurity.AsyncCondition` interface has no methods. You use it in addition to `TxnSecurity.EventCondition` to alert Salesforce that the implementing code uses asynchronous Apex.

SEE ALSO:

Apex Developer Guide: TxnSecurity Namespace

Trailhead: Asynchronous Apex

Review Condition Builder Enhancements Between Beta and GA

We changed the conditions for creating transaction security policies in Condition Builder. As a result, the available fields are more relevant for policy creation. Beta policies that reference the removed conditions can't execute in the GA version, resulting in fail-close behavior and blocked access. To ensure a smooth upgrade, delete these types of beta policies.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions. To create and manage transaction security policies, enable the Customize Application permission.

How: This table lists all condition changes.

Event Type	Condition Changes Between Beta and GA
ApiEvent	Removed: Browser
LoginEvent	• Added: Country • Removed: Login Geo Data ID

Event Type	Condition Changes Between Beta and GA
ReportEvent	Removed: Login History ID

SEE ALSO:

Salesforce Help: Build a Transaction Security Policy with Condition Builder (can be outdated or unavailable during release preview)

Include Transaction Security Policies in Packages Regardless of Add-On Subscriptions

All three flavors of transaction security policies are now fully supported in managed and unlocked packages: implementations of `TxnSecurity.EventCondition` (enhanced framework), `TxnSecurity.PolicyCondition` (legacy framework), and policies created with Condition Builder. ISV partners can include transaction security policies in their managed packages regardless of the add-on subscriptions installed in the subscriber org.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions.

Why: Previously, you could reference a class that implemented the `TxnSecurity.PolicyCondition` interface only in orgs that had either the Salesforce Shield or Salesforce Event Monitoring add-on. As a result, ISV partners couldn't include the class in a managed package if it was installed in a subscriber org that didn't have these add-ons.

Legacy Transaction Security Policies No Longer Fail for Inactive Users

Previously, legacy transaction security policies (implemented with `TxnSecurity.PolicyCondition`) failed-close if the execution user was inactive. Now the automated process user always executes policies. This behavior is more appropriate and ensures that the policy doesn't fail even when the execution user is inactive.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Important: The legacy transaction security policy framework is scheduled to be retired in all Salesforce orgs in the Summer '20 release. When the legacy framework is retired, the legacy policies will be permanently disabled. Therefore, migrate your legacy transaction security policies to the new framework as soon as possible.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions. To create and manage transaction security policies, enable the Customize Application permission.

LoginEventStream Object Captures Invalid Login Attempts

In previous releases, the LoginEventStream object captured only valid login attempts. Because the LoginEventStream object now captures invalid login attempts too, you see more LoginEventStream entries. This behavior also applies to the LoginEvent object and is now consistent with Login History.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions. To view or manage events, enable the View Data Leakage Detection Events permission.

SEE ALSO:

Platform Events Developer Guide: LoginEventStream

Platform Events Developer Guide: LoginEvent

Get Information About Apex REST Events in the EventLogFile

The new Apex REST API event type in the EventLogFile object captures information about every Apex REST API request.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions. This event is available in the API but not in the Event Monitoring Analytics app.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions and use the EventLogFile to monitor events.

SEE ALSO:

Object Reference for Salesforce and Lightning Platform: Apex REST API Event Type

IdeaExchange: Event Monitoring for Apex REST

Get Improved Granularity of Apex Execution Event Data in the EventLogFile

Apex limits in Lightning components are now applied per action. Previously, the Apex limits applied across all actions batched together in a request. This change affects the event data in the Apex Execution event type, which is now generated for each component action rather than for each request batch.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions where Event Monitoring is enabled.

Who: Available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions and use the EventLogFile to monitor events.

SEE ALSO:

Hitting Apex Limits in Server-Side Actions Is More Predictable

Object Reference for Salesforce and Lightning Platform: Apex Execution Event Type

Configure Event and Streaming API Settings with Metadata API

Use the new EventSettings Metadata API type to configure Event Monitoring, such as allowing the deletion of event data (`enableDeleteMonitoringData`). You can also configure settings related to platform events and Streaming API.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Who: Event Monitoring settings are available to customers who purchased Salesforce Shield or Salesforce Event Monitoring add-on subscriptions.

SEE ALSO:

Metadata API Developer Guide: Settings

Other Security Changes: Salesforce Edge, Setup Enhancements, TLS 1.2 Enforcement, and Instanceless Sandboxes

We're moving customers with My Domains and Custom Domains to Salesforce Edge. The Domains Setup page now shows more details, and new session-security-level policies control access to certain Setup pages and objects. TLS 1.2 is required for all HTTPS connections, and instance names are scheduled to be removed from My Domain sandbox URLs.

IN THIS SECTION:

Route My Domains Through Salesforce Edge (Critical Update)

We're accelerating domain requests for My Domains. With this update, you keep the same My Domain address, but requests go through Salesforce Edge. Salesforce Edge uses machine-learning technology to improve connectivity and performance. You can acknowledge this update to let Salesforce move your org's My Domain to the new service before the July 2020 auto-activation date.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Database.com editions.

When: You can acknowledge this update in Winter '20. Otherwise, we'll auto-activate it on July 13, 2020.

Who: Only customers with a My Domain or Custom Domain can be moved to Salesforce Edge. Salesforce Government Cloud orgs are currently excluded from the move to Salesforce Edge.

How: To acknowledge this critical update, from Setup, enter `Critical Updates` in the Quick Find box, and select **Critical Updates**. Next to Route My Domains Through Salesforce Edge, click **Acknowledge**.

SEE ALSO:

Knowledge Article: What is Salesforce Edge?

Salesforce Help: Set Up a My Domain Subdomain (can be outdated or unavailable during release preview)

Critical Updates and Security Alerts

Speed Up Custom Domain Requests Through Salesforce Edge

Behind the scenes, we're accelerating requests for Custom Domains by moving them to Salesforce Edge. This move improves performance through machine learning. You don't need to do anything for this move. Keep using the same Custom Domain addresses for your Sites and Communities, and we'll do the rest.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Database.com editions.

Who: All Custom Domains will be moved to Salesforce Edge, except Custom Domains for Salesforce Government Cloud orgs.

SEE ALSO:

Knowledge Article: What is Salesforce Edge?

Salesforce Help: Configure a Custom Domain for Your Community (can be outdated or unavailable during release preview)

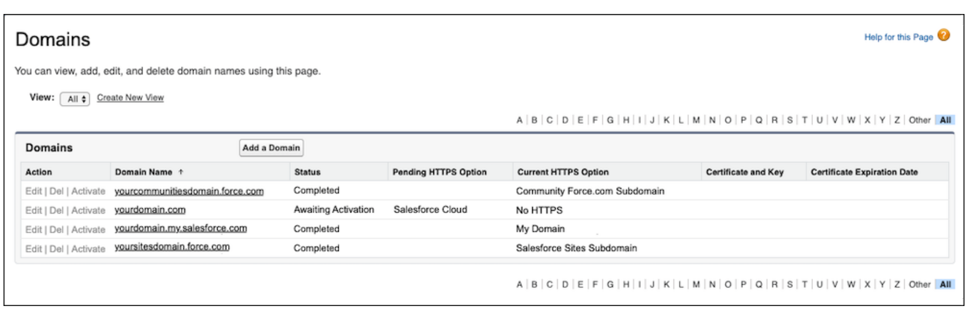
Salesforce Help: Registering a Custom Salesforce Sites Domain (can be outdated or unavailable during release preview)

Get More Details About Your Domains

We updated the Domains Setup page with more specific HTTPS options and information on pending changes to HTTPS options. Customers with Custom Domains or a My Domain use this page to manage them.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Why: The Current HTTPS Option column now describes the option for each domain, such as My Domain or Salesforce Sites Subdomain. The new Pending HTTPS Option column shows upcoming changes, such as a custom domain moving to Salesforce Cloud.



How: From Setup, enter `Sites and Domains` in the Quick Find box, then select **Domains**.

SEE ALSO:

Salesforce Help: Set Up a My Domain Subdomain (can be outdated or unavailable during release preview)

Salesforce Help: Configure a Custom Domain for Your Community (can be outdated or unavailable during release preview)

Salesforce Help: Registering a Custom Salesforce Sites Domain (can be outdated or unavailable during release preview)

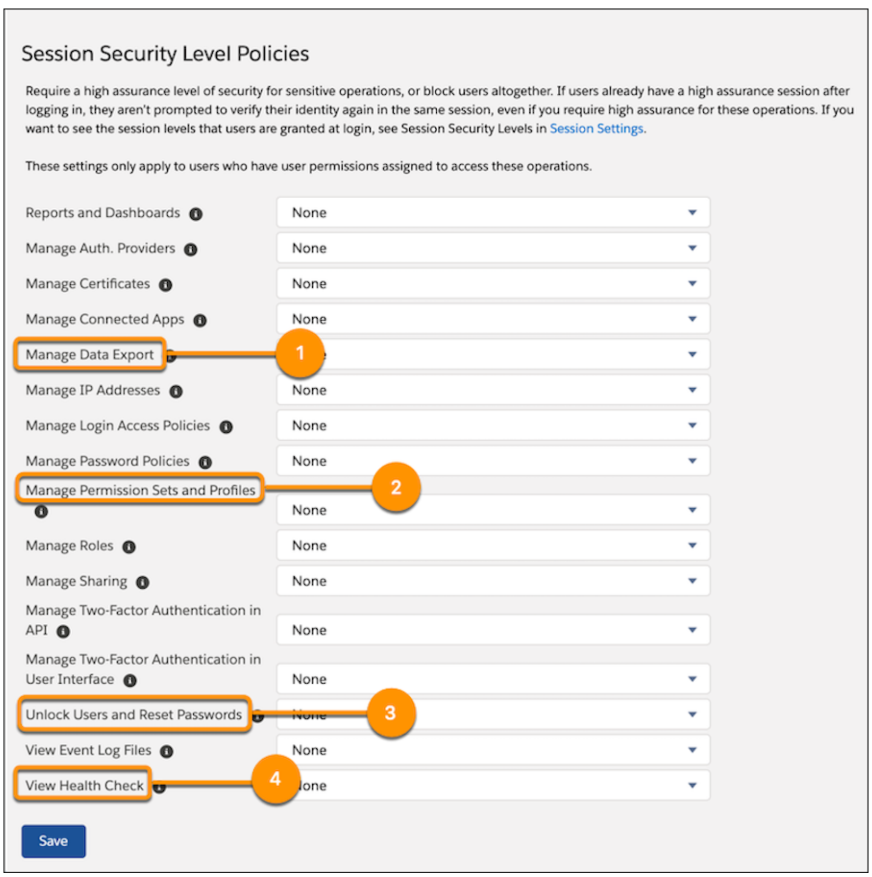
Manage Access to Permission Sets, Profiles, and Password Resets with Session-Security-Level Policies

Require that users have a high-assurance session level before accessing certain Setup pages or objects. You can even completely block users for some sensitive operations. Manage access to permission sets, profiles, password resets, data export, and Health Check by modifying session-security-level policies.

Where: This change applies to Salesforce Classic and Lightning Experience in all editions.

Why: These session-security-level policies are new.

- Manage Data Export (1)—Controls access to the Data Export Setup page.
- Manage Permission Sets and Profiles (2)—Controls access to the Permission Sets and Profile Setup pages and related objects.
- Unlock Users and Reset Passwords (3)—Controls permission to reset passwords and unlock users on the Users Setup page.
- View Health Check (4)—Controls access to the Health Check Setup page.



How: From Setup, enter `Identity Verification` in the Quick Find box, then select **Identity Verification**. In the Session Security Level Policies section, update the settings.

SEE ALSO:

Salesforce Help: Require High-Assurance Session Security for Sensitive Operations (can be outdated or unavailable during release preview)

Require TLS 1.2 for HTTPS Connections (Critical Update, Enforced)

Require TLS 1.2 for HTTPS Connections was a critical update in Summer '19 and is enforced on October 25, 2019. To maintain the highest security standards and promote the safety of your data, Salesforce is disabling the older Transport Layer Security (TLS) 1.1 encryption protocol. All inbound connections to or outbound connections from your Salesforce org must use TLS 1.2. Verify that your browser access, API integrations, and other Salesforce features are compliant with TLS 1.2.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

When: This critical update is enforced for production orgs on October 25, 2019. Orgs created after this date require TLS 1.2 by default. For other implementation dates, see the knowledge article, Salesforce Disabling TLS 1.1.

How: We recommend that you test this update in a sandbox or Developer Edition org to verify end-to-end compatibility before enabling it in your production org.

To activate this critical update before October 25, 2019, from Setup, enter `Critical Updates` in the Quick Find box, then select **Critical Updates**. For Require TLS 1.2 for HTTPS Connections, click **Activate**.

SEE ALSO:

Knowledge Article: Salesforce Disabling TLS 1.1

Summer '19 Release Notes: Require TLS 1.2 for HTTPS Connections (Critical Update)

Require TLS 1.2 for HTTPS Connections in Communities and Sites (Critical Update, Enforced)

Critical Updates and Security Alerts

Stabilize the Hostname for My Domain URLs in Sandboxes (Previously Released Critical Update)

We're removing instance names from MyDomain URLs for sandboxes. The instance name identifies where your Salesforce sandbox org is hosted. Removing the instance name makes the URL cleaner and easier for users to remember, for example, `MyDomain--SandboxName.my.salesforce.com` replaces `MyDomain--SandboxName.cs5.my.salesforce.com`. This critical update was first made available in Summer '18.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Database.com editions.

When: This critical update is activated automatically on July 11, 2020.

How: If you have existing sandbox orgs, activate the critical update in those sandbox orgs. To have this update activated in subsequently created or refreshed sandbox orgs, activate this critical update in your production org. Activating this critical update on a production org applies the update to new and refreshed sandbox orgs.

To activate this critical update, from Setup, enter `Critical Updates` in the Quick Find Box, and select **Critical Updates**. For Stabilize the Hostname for My Domain URLs in Sandboxes, click **Activate**.

SEE ALSO:

Summer '18 Release Notes: Stabilize the Hostname for My Domain URLs in Sandboxes (Critical Update) (can be outdated or unavailable during release preview)

Critical Updates and Security Alerts

Secure Your Guest User Profiles

We've improved guest user access to adhere with the Salesforce principle of least access. Check out all the changes in store for guest user data access and visibility.

Where: This change applies to Lightning and Salesforce Tabs + Visualforce communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Guest User: Restricted Access, Private Org-Wide Default for Guest Users, and New Sharing Rules

Deployment: New Change Set Components

New components are available for change sets. The components available for a change set vary by edition.

CMS Custom Content Types
Represents the definition of custom content types for use with Salesforce CMS. Custom content types are displayed as forms with defined fields.

Platform Event Channel Member
Represents an entity selected for Change Data Capture notifications on a standard or custom channel.

Development: Building Your Own Salesforce App

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

IN THIS SECTION:

Einstein Platform: Prediction Insight Details

Want to expand the way you use Einstein AI features, like Einstein Prediction Builder, in your org? Einstein Platform is the Salesforce layer that Einstein Prediction Builder and many other Einstein features use to run powerful AI jobs. Use new Einstein Platform APIs to access prediction insights and apply the power of Einstein features in your own AI solutions.

Visualforce: Introducing Lightning Message Channel (Developer Preview), Changes to URLs

Communicate across Visualforce, Aura, and Lightning Web Components with Lightning Message Channel. We deprecated old HTTP-only URLs for Sites and Communities sandboxes, and you can remove instance names from Visualforce, Community Builder, Site.com Studio, and content file URLs.

Apex

The `Security.stripInaccessible` security feature for field-level data protection has moved from pilot to beta, supports subqueries, and can be used in production orgs. Callout processing time is excluded when calculating the concurrent long-running request limit. Apex introduces System methods to recalculate formula fields, and a Type method to detect type compatibility without class instantiation. The new ApexSettings metadata type augments Apex testing.

API

Use SOQL queries to get the relationships between the metadata components in your org. Metadata API automatically puts some of multiple concurrent retrieve jobs in a queue, if that becomes necessary for service protection. Bulk API 2.0 now supports bulk query jobs.

Custom Metadata Types: More Protection and Finer Access Control

Protect custom metadata types in packages and control access to them with profiles and permission sets.

Packaging: Second-Generation Managed Packaging Generally Available

Use second-generation managed packaging (2GP) to list and distribute your new 2GP packages on AppExchange. You can include more metadata types and create package patch versions and post install scripts.

Scratch Orgs: New Features

A scratch org is a dedicated and configurable Salesforce environment that you can quickly spin up for many different purposes. It can be your own personal development environment, or you can create a headless scratch org for automated tests. You can create scratch orgs if you turned on Dev Hub in your production org or a Developer Edition org, or have a Dev Hub trial org. We continually add support for new features.

Sandboxes: Data Mask

Secure your sandbox data with the new Salesforce Data Mask service.

AppExchange Partners: Analytics for Managed Packages and the AppExchange Marketplace, ISV Hammer (Beta), and Due Diligence and Compliance Certification Improvements

Discover how customers find and interact with your AppExchange listing in the Marketplace Analytics dashboard. Learn how subscribers use your managed packages by exploring App Analytics data. Use ISV Hammer to test the installation of your package upgrades in copies of subscribers' orgs. Test your package functionality with Apex tests written by a subscriber. Manage your due diligence and compliance information in the Partner Community.

Change Data Capture: Metadata and Tooling API Enhancements, Event Enrichment, and Changed Fields

Obtain granular control of channel members in Metadata API, and access channels and members in Tooling API. Enrich your event messages with fields, such as external ID fields, and easily discover which fields changed.

Platform Events: CometD Event Filters and Publishing Limits in REST API

Receive event messages that match specified event field values in a CometD client, and monitor your event publishing usage in REST API.

New and Changed Items for Developers

Here is where you can find new and changed objects, calls, classes, components, commands, and more that help you customize Salesforce features.

Lightning Components: Lightning Web Components Open Source, Lightning Web Components as Custom Tabs

The Lightning Web Components framework is now open source, empowering you to build enterprise-ready web components on any platform. On the Salesforce Platform, you can add a Lightning web component as a custom tab in a Lightning Experience app and in the Salesforce app. We have several critical updates too.

Note: Looking for new and changed Lightning web components, Aura components, and Aura component interfaces? We've consolidated the lists of new and changed items at the end of the Development section.

IN THIS SECTION:

Aura Components in the ui Namespace Are Being Retired

The `ui` components are scheduled for retirement in all Salesforce orgs in Summer '21. Use similar components in the `lightning` namespace instead. Retiring our legacy components enables us to focus on components that match the latest web standards in performance, accessibility, user experience, and internationalization.

Override Aura CSS Flipping for RTL Languages

When your Language setting in Salesforce is set to a right-to-left (RTL) language, the framework flips property names, such as `left` and `border-left` to `right` and `border-right`, respectively. If needed, you can override the automatic CSS flipping in your custom Aura components. However, most of the time, you want to use the default flipping and don't need to do anything.

Select the API Version for Lightning Locker

You can select the API version used by Lightning Locker. The default is the current API version, which includes the latest Locker security enhancements. Select an earlier API version when custom components only comply with Locker in an older version. When components become compliant with the current security enhancements, you can change the setting to the current API version.

Navigate Users Directly to an App

Develop Lightning web components and Aura components that navigate users to a specific page in an app.

Critical Updates: Default @AuraEnabled Apex Classes to with sharing, Profile-Based Access for @AuraEnabled Apex Classes, and More

We've added a few critical updates and made changes to several others.

SEE ALSO:

Lightning Web Components Developer Guide

Lightning Aura Components Developer Guide

Lightning Web Components: Open Source

The Lightning Web Components framework is now open source, empowering you to explore the source code, customize the framework to your needs, and build enterprise-ready web components on any platform, not just Salesforce.

Why: In the past, you had to use different frameworks to build different sides of an application. For example, you used Aura to build the employee-facing side of an application on Salesforce. You used React, Angular, or Vue to build the customer-facing side of the application, and you deployed it on Heroku or on another platform. Today, you can use Lightning web components to build both sides of the application.

The benefits are significant. You can now learn one framework instead of several. You can share code between apps. And you're using a cutting-edge framework built on web standards and based on the latest patterns and best practices.

How: To develop off-platform Lightning web components, see lwc.dev. To contribute to the open-source code, see the Lightning Web Components GitHub repository.

To develop on-platform Lightning web components, see the Salesforce Lightning Web Components Developer Guide.

Add Lightning Web Components as Custom Tabs

Make a Lightning web component available as a custom tab in a Lightning Experience app and in the Salesforce app.

Where: This change applies to Lightning web components in Lightning Experience and all versions of the Salesforce app.

How:

1. Add the `lightning__Tab` target to the component's configuration file. The `<component>.js-meta.xml` configuration file defines the metadata values for the component, including the setting to allow usage in a custom tab.

```
<?xml version="1.0" encoding="UTF-8"?>
<LightningComponentBundle xmlns="http://soap.sforce.com/2006/04/metadata">
    <targets>
        <target>lightning__Tab</target>
    </targets>
</LightningComponentBundle>
```

2. Create a custom tab for this component.
3. To display the component in a custom tab:
   - For a Lightning Experience app, add the component to the App Launcher.
   - For the Salesforce mobile app, add the component to the Salesforce app navigation menu.

SEE ALSO:

Salesforce Help: Add Lightning Components as Custom Tabs in a Lightning Experience App (can be outdated or unavailable during release preview)

Salesforce Help: Add Lightning Components as Custom Tabs in the Salesforce App (can be outdated or unavailable during release preview)

DOM API Changes

Shadow DOM is a standard that encapsulates the internal document object model (DOM) structure of a web component. The internal DOM structure is called the shadow tree. In Winter '20, code can't use `document` or `document.body` to access the shadow tree of a Lightning web component. For example, code in a test can't call `document.querySelector()` to select nodes in a Lightning web component's shadow tree.

Why: The DOM used by HTML and JavaScript has a fundamental flaw. Unlike programming languages used for the back end, the DOM lacks encapsulation.

The Shadow DOM web standard was introduced to provide encapsulation. Encapsulating the DOM gives developers the ability to share a component and protect the component from being manipulated by arbitrary HTML, CSS, and JavaScript.

Per the Shadow DOM specification, elements in a shadow tree aren't accessible via traditional DOM querying methods. To access its own shadow tree, a Lightning web component uses `this.template.querySelector()`.

How: In Winter '20, we updated `Document.prototype` and `HTMLBodyElement.prototype` to respect shadow DOM semantics. You must remove code that uses these DOM APIs to reach into a component's shadow tree.

- `Document.prototype.getElementById`
- `Document.prototype.querySelector`
- `Document.prototype.querySelectorAll`
- `Document.prototype.getElementsByClassName`
- `Document.prototype.getElementsByTagName`
- `Document.prototype.getElementsByTagNameNS`
- `Document.prototype.getElementsByName`
- `Document.body.querySelector`
- `Document.body.querySelectorAll`

- `Document.body.getElementsByClassName`
- `Document.body.getElementsByTagName`
- `Document.body.getElementsByTagNameNS`

Lightning Locker already prevents you from breaking shadow DOM encapsulation between Lightning web components. However, in Aura components version 39.0 and earlier, Lightning Locker is disabled at the component level, so an Aura component could have code that fails in Winter '20.

Check these cases for broken code.

- Aura components version 39.0 or earlier that use one of the DOM APIs to access the shadow tree of a Lightning web component.
- Tests that use one of the DOM APIs to reach into the shadow tree of a Lightning web component.
- Third-party JavaScript libraries that use one of the DOM APIs to, for example, change styles or attach event listeners in a Lightning web component.

Example

```
<!-- lightning:auraParent -->
<aura:component>
    <lightning:lwcParent aura:id="lwcParent"/>
</aura:component>
```

```
<!-- lightning-lwc-parent -->
<template>
    <div class="in-the-shadow"></div>
    <lightning-lwc-child></lightning-lwc-child>
</template>
```

```
<!-- lightning-lwc-child -->
<template>
    <span></span>
</template>
```

Inside `auraBar` Controller	**Without Locker and Before Winter '20**	**Winter '20**
`document.querySelector('.in-the-shadow')`	`<div>`	`null`
`document.querySelectorAll('.in-the-shadow')`	`[<div>] (NodeList)`	`[] (NodeList)`
`document.body.querySelector('.in-the-shadow')`	`<div>`	`null`

How to Fix Aura Components

Remove code that reaches into the shadow tree of a Lightning web component. A parent component must rely on the public API of child components. For example, if a parent component needs to know the state of a checkbox in a child component, the child component exposes a public API called `isChecked` and the parent reads that property.

How to Fix Aura Component Tests

A component can't reach into another component's shadow tree, because it breaks encapsulation. However, sometimes refactoring a component to respect encapsulation isn't possible or practical. In these test cases, we recommend using this technique.

To reach an element inside a Lightning web component's shadow tree, first query for the Lightning web component, and then query off of its `shadowRoot` property.

This code accesses the `<div>` in the shadow tree of the `<lightning-lwc-parent>` component in the Example section.

```
var el = cmp.find('lwcParent').getElement();
var div = el.shadowRoot.querySelector('.in-the-shadow');
```

How to Fix Jest Tests

In a Jest test context, code can use the `shadowRoot` property of the element under test to access the shadow tree. The `shadowRoot` property encapsulates an element's shadow tree.

This code accesses the `<div>` in the shadow tree of the `<lightning-lwc-parent>` component in the Example section.

```
const element = createElement('c-lightning-lwc-parent', { is: LightningLwcParent });
document.body.appendChild(element);
const div = element.shadowRoot.querySelector('.in-the-shadow');
```

How to Fix Selenium WebDriver Tests

Adapting your tests varies by tool, and strategies are rapidly evolving. Currently, this article is a good example of accessing shadow tree elements using Selenium WebDriver.

As the article discusses, global queries via `WebDriver.findElement()` fail. To look for an element inside a Lightning web component's shadow tree, execute JavaScript on the client to query off the component's `shadowRoot` property.

Note: The article has a screenshot that shows DOM elements in Chrome Developer Tools. The screenshot shows a `#shadow-root` document fragment, which is the top node of a component's shadow tree. If you look at a Lightning web component in Chrome Developer Tools, you don't see the `#shadow-root` because LWC uses a shadow DOM polyfill. Salesforce supports some browsers that don't implement the Shadow DOM web standard. The polyfill provides a shadow DOM in these browsers. To find Lightning web components on the page, look for element names that contain a hyphen. Select the element and run `$0.shadowRoot` in the Console. A Lightning web component returns `#document-fragment`.

JavaScript Libraries

If you're using a third-party JavaScript library that reaches into a component's shadow tree, work with the library author to file and fix issues.

SEE ALSO:

MDN: Web APIs

MDN: Shadow tree

MDN: ShadowRoot

Lightning Web Components Developer Guide: DOM Inspection Tests Are Subject to Change

Lightning Web Components Developer Guide: Write Jest Tests for Lightning Web Components

New Package Name for Testing with Jest

We renamed the package `lwc-jest` to `sfdx-lwc-jest` to standardize our names and emphasize the connection to developing components with Salesforce DX.

Why: You've been using the `lwc-jest` testing tool for all the great utilities and support it has when writing Jest tests for your Lightning web components. This tool is part of an overall development experience leveraging the power of Salesforce DX. To emphasize this connection with our development environment, we renamed the package and repo `lwc-jest` to `sfdx-lwc-jest`.

Note: Don't panic! Both `lwc-jest` and `sfdx-lwc-jest` will work through the Winter '20 release.

How: Use the new name in these ways.

- The Git repo is now https://github.com/salesforce/sfdx-lwc-jest.
- For a new installation, use `npm install @salesforce/sfdx-lwc-jest --save-dev`.
- When you import the module into a test, use `@salesforce/sfdx-lwc-jest`.

SEE ALSO:

Lightning Web Components Developer Guide: Test Lightning Web Components

Increase Productivity with Local Development for Lightning Web Components (Beta)

Lightning Web Components now offers local development so that you can build component modules and view your changes live without publishing your components to an org. Our new Salesforce CLI plugin `lwc-dev-server` configures and runs a Lightning Web Components-enabled server on your computer.

Where: This change applies to Lightning Experience and all versions of the Salesforce app in Enterprise, Performance, Unlimited, and Developer editions.

Note: Local Development is in beta and has been released early so we can collect your feedback. It may contain significant problems, undergo major changes, or be discontinued. If you encounter any problems, or want to request an enhancement, open a GitHub issue. The use of this feature is governed by the Salesforce.com Program Agreement.

How: To install the local development server, make sure that you have the Salesforce CLI installed, a Developer Hub-enabled org, and the most recent stable version of Chrome, Firefox, Safari, or Edge web browser.

1. Open a new terminal window and run the following command to install the local development server.

   ```
   sfdx plugins:install @salesforce/lwc-dev-server
   ```

2. Check for updates to the local development server.

   ```
   sfdx plugins:update
   ```

3. Navigate to your SFDX project, or clone one that has Lightning web components. In this example, we are using `lwc-recipes`.

   ```
   git clone git@github.com:trailheadapps/lwc-recipes.git
   ```

4. If you're not in the `lwc-recipes` root directory already, `cd` into it.

   ```
   cd lwc-recipes
   ```

5. Add the `.localdevserver` folder in your SFDX project to your `.gitignore` file. This folder contains the local development configuration. Don't modify files inside this folder.
6. Authorize a Developer Hub (Dev Hub) by following the steps in Enable Dev Hub In Your Org in the *Salesforce DX Developer Guide*. A Dev Hub is the main Salesforce org that you and your team use to create and manage your scratch orgs, which are temporary environments for developing on the Salesforce platform. You need a Dev Hub to create a scratch org in a later step.
7. Following the instructions in the *Salesforce DX Developer Guide*, log in using your Dev Hub credentials. Running the following command opens a login window in your browser.

   ```
   sfdx force:auth:web:login -d -a myhuborg
   ```

8. In local development, requests to Lightning Data Service and Apex go to scratch orgs, similar to how they go to your production org. To create a scratch org, run this command from the command line.

   ```
   sfdx force:org:create -s -f config/project-scratch-def.json -a "LWC"
   ```

`"LWC"` is an alias for the scratch org that you can use in other Salesforce CLI commands.

> **Note:** Don't connect to a production Salesforce org with the local development server. Local development uses data in real time. If you authenticate to a production org, then you will modify or overwrite data in production.

To create a scratch org, specify a scratch org definition file. This example uses the scratch org definition file, `project-scratch-def.json` that is included in `lwc-recipes`. For other projects, create your own. For more information, see the instructions for Create Scratch Orgs in the *Salesforce DX Developer Guide*.

9. Push your code to your scratch org.

```
sfdx force:source:push
```

10. Start the server.

```
sfdx force:lightning:lwc:start
```

11. View the server at http://localhost:3333/.

For more information on local development commands, view the local development documentation by running `sfdx force:lightning:lwc:`***`commandName`*** `--help`.

SEE ALSO:

Salesforce Extensions for Visual Studio Code: Local Development (Beta)

Communicate Across Salesforce UI Technologies with Lightning Message Service (Developer Preview)

Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components. Lightning Message Service also enables communication between a component in a main Lightning page with one in a pop-out utility bar. If you're switching from Salesforce Classic to Lightning Experience, you can now build Lightning web components that can communicate with existing Visualforce pages or Aura components.

A Lightning web component uses a Lightning Message Channel to access the Lightning Message Service API. Reference Lightning Message Channel with the scoped module `@salesforce/messageChannel`. In Visualforce, use the global variable `$MessageChannel`. In Aura, use `lightning:messageChannel` in your component.

Where: This change applies to available in Lightning Experience.

> **Note:** This feature is available as a developer preview for Developer Edition and scratch orgs. It isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements.

Why: In Lightning Experience, you often have multiple components on a page. Previously, if you wanted a Visualforce page to communicate with a Lightning web component in Lightning Experience, you needed to implement a custom publish-subscribe solution. Now, you can use the Lightning Message Service API to handle that communication.

How: Assuming you have created a message channel called `SampleMessageChannel__c` using the Metadata API, here's how to subscribe a Visualforce page to a message channel on which a Lightning web component publishes.

Create a Lightning web component called `publisherComponent` that publishes on `SampleMessageChannel__c`, which is the API name of the message channel. The component imports methods to publish on a message channel from the `lightning/messageService` module. This module accesses the Lightning Message Service API. Next, import the message channel from `@salesforce/messageChannel/SampleMessageChannel__c` and assign it to the identifier `SAMPLEMC`.

The `handleClick()` method holds the data to be published on the message channel. Here, the data is a `recordId` with the value "some string" and `recordData`, whose value is the key-value pair value: "some data". Publish the data by calling the `publish()` method imported from the `lightning/messageService` module.

```
// publisherComponent.js
import { LightningElement } from 'lwc';
import { publish,createMessageContext,releaseMessageContext } from
'lightning/messageService';
import SAMPLEMC from "@salesforce/messageChannel/SampleMessageChannel__c";

export default class PublisherComponent extends LightningElement {
    context = createMessageContext();
    subscription = null;
    @track receivedMessage = '';
    handleClick() {
        const message = {
            recordId: "some string",
            recordData: {
                value: "some data"
            }
        };
        publish(this.context, SAMPLEMC, message);
    }
    disconnectedCallback() {
        releaseMessageContext(this.context);
    }
}
```

In your component's HTML template file, include a **Publish** button that calls the `handleClick()` method. Clicking the button publishes the record data to `SampleMessageChannel__c`. The subscribing Visualforce page then receives that data.

```
<-- publisherComponent.html -->
<template>
    <lightning-card title="MyLwcPublisher" icon-name="custom:custom14">
        <div class="slds-m-around_medium">
            <p>MessageChannel: SampleMessageChannel</p>
            <br>
            <lightning-button label="Publish" onclick={handleClick}></lightning-button>
        </div>
    </lightning-card>
</template>
```

Here's how to subscribe and unsubscribe a Visualforce page from a message channel `SampleMessageChannel__c` on which a Lightning web component publishes.

```
<apex:page>
    <div>
        <p>Subscribe to SampleMessageChannel</p>
        <button onclick="subscribeMC()">Subscribe</button>
        <p>Unsubscribe from SampleMessageChannel</p>
        <button onclick="unsubscribeMC()">Unsubscribe</button>
        <br/>
        <br/>
        <p>Received message:</p>
        <textarea id="MCMessageTextArea" rows="10"
```

```
style="disabled:true;resize:none;width:100%;"/>
    </div>
    <script>
        // Load the MessageChannel token in a variable
        var SAMPLEMC = "{!$MessageChannel.SampleMessageChannel__c}";
        var subscriptionToMC;
        // Display message in the textarea field
        function onMCPublished(message) {
            var textArea = document.querySelector("#MCMessageTextArea");
          textArea.innerHTML = message ? JSON.stringify(message, null, '\t') : 'no message
 payload';
        }

        function subscribeMC() {
            if (!subscriptionToMC) {
                subscriptionToMC = sforce.one.subscribe(SAMPLEMC, onMCPublished);
            }
        }

        function unsubscribeMC() {
            if (subscriptionToMC) {
                sforce.one.unsubscribe(subscriptionToMC);
                subscriptionToMC = null;
            }
        }
    </script>

</apex:page>
```

SEE ALSO:

Lightning Web Components Developer Guide (can be outdated or unavailable during release preview)
Lightning Aura Components Developer Guide (can be outdated or unavailable during release preview)
Visualforce Developer Guide (can be outdated or unavailable during release preview)
Salesforce Help: Using Pop-Out Utilities

Hitting Apex Limits in Server-Side Actions Is More Predictable

Apex limits in Lightning components are now applied per action. Previously, the Apex limits applied across all the actions batched together (boxcar'ed) in a request (XHR).

Where: This change applies to Aura components and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

Why: Applying Apex limits per action makes it less likely that your components hit Apex limits. Apex limit issues for an action are more predictable because the limits are based on one action rather than the unpredictable set of actions that the framework batches together in a boxcar.

This change has a few more benefits.

- Limits that are applied when an action calls an `@AuraEnabled` Apex method using `cacheable=true` or `continuation=true` no longer affect other actions in the same boxcar.
- The granularity of event monitoring for Lightning components is improved. Event monitoring data for the Apex Execution event type is now for each component action rather than for each boxcar.

Note: Static Apex variable state is no longer shared between actions in the same boxcar'ed request. Because the framework never guaranteed which actions would go in each boxcar, sharing static variable state across actions was always an anti-pattern. Now it simply doesn't work. This change leads to more predictable component behavior.

SEE ALSO:

Get Improved Granularity of Apex Execution Event Data in the EventLogFile

Lightning Aura Components Developer Guide: Queueing of Server-Side Actions

SOAP API Developer Guide: Apex Execution Event Type

Lightning Components Can Access Public Apex Methods Only in the Same Package

A Lightning component installed from a package can't call a public Apex method from an Apex class in another package, even if both packages are in the same namespace. You can't use the `@NamespaceAccessible` Apex annotation in an Apex method referenced from a Lightning component. This change doesn't affect usage of other access modifiers, such as `global`, in an Apex class referenced from a Lightning component. This change only impacts unlocked and second-generation managed packaging, which allow multiple packages per namespace.

Where: This change applies to Aura components and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

How: This table shows the access differences for public `@AuraEnabled` Apex methods in a Lightning component in second-generation managed packages.

Annotation	Winter '20 Access	Summer '19 Access
`public` method (no `@NamespaceAccessible`)	Same package only	Same namespace
`public` method (with `@NamespaceAccessible`)	Error	Same namespace
`global` method	Any package	Any package

Note: An Aura or Lightning web component outside the package can access a public Apex method installed from a non-namespaced unlocked package. The component can be installed from another package or created in the org. For accessing Apex methods, a non-namespaced unlocked package is treated the same as an unmanaged package.

SEE ALSO:

Apex Developer Guide: NamespaceAccessible Annotation (can be outdated or unavailable during release preview)

Aura Components in the `ui` Namespace Are Being Retired

The `ui` components are scheduled for retirement in all Salesforce orgs in Summer '21. Use similar components in the `lightning` namespace instead. Retiring our legacy components enables us to focus on components that match the latest web standards in performance, accessibility, user experience, and internationalization.

Where: This change applies to orgs with Lightning components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

When: Salesforce plans to end support for Aura components in the `ui` namespace in Summer '21. You can continue to use these components beyond Summer '21, but we won't accept support cases after that release.

How: Replace the retired components with their counterparts in the `lightning` namespace. These components are faster, more efficient, and they implement Lightning Design System styling out of the box.

Note: Components in the `lightning` namespace are available in two versions—as Aura components and Lightning web components. We recommend using Lightning web components whenever possible. Lightning web components are custom HTML elements built using HTML and modern JavaScript. Lightning web components and Aura components can coexist and interoperate on a page. To admins and end users, they both appear as Lightning components. See the *Lightning Web Components Developer Guide* for more information.

Use these recommended alternatives for the retired Aura components.

`ui:actionMenuItem`
Replace with `lightning:menuItem` and `lightning:buttonMenu`.

`ui:button`
Replace with `lightning:button`, `lightning:buttonIcon`, or `lightning:buttonIconStateful`. For button groups, use `lightning:buttonGroup`.

`ui:checkboxMenuItem`
Replace with `lightning:menuItem` and `lightning:buttonMenu`.

`ui:inputCheckbox`
Replace with `lightning:input` using `checkbox`, `toggle`, or `checkbox-button` type. For checkbox groups, use `lightning:checkboxGroup`.

`ui:inputCurrency`
Replace with `lightning:input` using `number` type and `currency` formatter.

`ui:inputDate`
Replace with `lightning:input` using `date` type.

`ui:inputDateTime`
Replace with `lightning:input` using `datetime` type.

`ui:inputDefaultError`
Replace with `lightning:input` using built-in field validation.

`ui:inputEmail`
Replace with `lightning:input` using `email` type.

`ui:inputNumber`
Replace with `lightning:input` using `number` type.

`ui:inputPhone`
Replace with `lightning:input` using `phone` type.

`ui:inputRadio`
Replace with `lightning:input` using `radio` type. For radio groups, use `lightning:radioGroup`.

`ui:inputRichText`
Replace with `lightning:inputRichText`.

`ui:inputSecret`
Replace with `lightning:input` using `password` type.

`ui:inputSelect`
Replace with `lightning:select` or `lightning:combobox`.

`ui:inputSelectOption`
Replace with `lightning:select` or `lightning:combobox`.

`ui:inputText`
Replace with `lightning:input` using `text` type.

`ui:inputTextArea`
Replace with `lightning:textarea`.

`ui:inputURL`
Replace with `lightning:input` using `url` type.

`ui:menu`
Replace with `lightning:buttonMenu`.

`ui:menuItem`
Replace with `lightning:menuItem` and `lightning:buttonMenu`.

`ui:menuItemSeparator`
Replace with `lightning:menuDivider` and `lightning:buttonMenu`.

`ui:menuList`
Replace with `lightning:menuItem` and `lightning:buttonMenu`.

`ui:menuTrigger`
Replace with `lightning:menuItem` and `lightning:buttonMenu`.

`ui:menuTriggerLink`
Replace with `lightning:menuItem` and `lightning:buttonMenu`.

`ui:message`
Replace with `lightning:notificationsLibrary`.

`ui:outputCheckbox`
Replace with `lightning:input` using `checkbox` type and set `readonly` to `true`.

`ui:outputCurrency`
Replace with `lightning:formattedNumber` using `style` set to `currency`.

`ui:outputDate`
Replace with `lightning:formattedDateTime`.

`ui:outputDateTime`
Replace with `lightning:formattedDateTime` or `lightning:formattedTime`.

`ui:outputEmail`
Replace with `lightning:formattedEmail`.

`ui:outputNumber`
Replace with `lightning:formattedNumber`.

`ui:outputPhone`
Replace with `lightning:formattedPhone`.

`ui:outputRichText`
Replace with `lightning:formattedRichText`.

`ui:outputText`
Replace with `lightning:formattedText`.

`ui:outputTextArea`
Replace with `lightning:formattedText`.

`ui:outputURL`
Replace with `lightning:formattedUrl`.

`ui:radioMenuItem`
Replace with `lightning:menuItem` and `lightning:buttonMenu`.

The following events are deprecated.

`ui:menuFocusChange`
Replace with `lightning:buttonMenu`.

`ui:menuSelect`
Replace with `lightning:combobox`.

`ui:menuTriggerPress`
Replace with `lightning:buttonMenu`.

Override Aura CSS Flipping for RTL Languages

When your Language setting in Salesforce is set to a right-to-left (RTL) language, the framework flips property names, such as `left` and `border-left` to `right` and `border-right`, respectively. If needed, you can override the automatic CSS flipping in your custom Aura components. However, most of the time, you want to use the default flipping and don't need to do anything.

Where: This change applies to Aura components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

How: To override automatic flipping, add a `/*@noflip*/` annotation in a comment directly before the property. For example:

```
.THIS.mycontainer {
    /*@noflip*/ direction : rtl;
}
```

SEE ALSO:

Lightning Aura Components Developer Guide: CSS for RTL Languages (can be outdated or unavailable during release preview)

Select the API Version for Lightning Locker

You can select the API version used by Lightning Locker. The default is the current API version, which includes the latest Locker security enhancements. Select an earlier API version when custom components only comply with Locker in an older version. When components become compliant with the current security enhancements, you can change the setting to the current API version.

Where: This change applies to Lightning Experience, Lightning Communities, and all versions of the mobile app in all editions.

Why: We recommend updating your custom components to comply with the latest version, but we know that it can take some time. Your org could also depend on managed packages that third-party developers must update. Set Lightning Locker to use an older API version to give developers time to update their custom Lightning components and comply with Locker's latest security enhancements.

How: From Setup, enter *`Session`* in the `Quick Find` box, and then select **Session Settings**. Select the API version for **Use security enhancements in API version**. Click **Save**.

SEE ALSO:

Lightning Aura Components Developer Guide: Select the Locker API Version for an Org

Navigate Users Directly to an App

Develop Lightning web components and Aura components that navigate users to a specific page in an app.

Where: This change applies to Lightning Experience in all editions. This change doesn't apply to Lightning Out, Lightning communities, or the Salesforce mobile app.

How: Now you can create components that link directly to your app and to a specific page in your app.

Use the `lightning-navigation` Lightning web component or the `lightning:navigation` Aura component with the new `standard__app` page reference type.

- To navigate users to an app, pass either the `appId` or `appDeveloperName` URL parameters to the `appTarget`.
- To navigate users to a specific page in an app, include the `pageRef` attribute.

SEE ALSO:

Salesforce Release Notes: Navigate to an App

Critical Updates: Default `@AuraEnabled` Apex Classes to `with sharing`, Profile-Based Access for `@AuraEnabled` Apex Classes, and More

We've added a few critical updates and made changes to several others.

IN THIS SECTION:

Disable Access to Non-global Apex Controller Methods in Managed Packages (Critical Update, Postponed)

This critical update, released in Summer '17, was scheduled for auto-activation in Winter '20, but has been postponed to Summer '20. The critical update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

API Only Users Can Access Only Salesforce APIs (Critical Update, Postponed)

This critical update, released in Spring '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '20. If a user has the API Only User permission, they can access Salesforce only via APIs, regardless of their other permissions. This restriction already applied to other Salesforce features but this critical update enforces the restriction in Lightning Out.

Restrict Access to `@AuraEnabled` Apex Methods for Guest and Portal Users Based on User Profile (Critical Update)

This critical update gives you more control over which guest, portal, or community users can access Apex classes containing `@AuraEnabled` methods.

Where: This change applies to Aura and Lightning web components in Lightning communities, portals, and Salesforce Sites.

When: Salesforce will automatically activate this critical update on the auto-activation date listed on the **Critical Updates** page in **Setup**.

Why: When this critical update is activated, a guest, portal, or community user can access an `@AuraEnabled` Apex method only when the user's profile allows access to the Apex class. This critical update enforces user profile restrictions for Apex classes used by Aura and Lightning web components.

How: To test this critical update, we recommend working in a sandbox.

1. From Setup, enter *`Critical Updates`* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Restrict Access to `@AuraEnabled` Apex Methods for Guest and Portal Users Based on User Profile" critical update.
4. Click **Activate**.
5. Test that custom Aura or Lightning web components that you've developed are working correctly for guest, portal, and community users.

SEE ALSO:

Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Critical Update)

Apex Developer Guide: Class Security

Critical Updates and Security Alerts

Restrict Access to `@AuraEnabled` Apex Methods for Authenticated Users Based on User Profile (Critical Update)

This critical update gives you more control over which authenticated users can access Apex classes containing `@AuraEnabled` methods.

Where: This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

When: Salesforce will automatically activate this critical update on the auto-activation date listed on the **Critical Updates** page in **Setup**.

Why: When this critical update is activated, an authenticated user can access an `@AuraEnabled` Apex method only when the user's profile allows access to the Apex class. This critical update enforces user profile restrictions for Apex classes used by Aura and Lightning web components.

How: To test this critical update, we recommend working in a sandbox.

1. From Setup, enter *`Critical Updates`* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Restrict Access to `@AuraEnabled` Apex Methods for Authenticated Users Based on User Profile" critical update.
4. Click **Activate**.
5. Test that custom Aura or Lightning web components that you've developed are working correctly for authenticated users.

SEE ALSO:

Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update)

Apex Developer Guide: Class Security

Critical Updates and Security Alerts

Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Critical Update)

This critical update makes Lightning components consistent with the usage of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter.

Where: This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

When: Salesforce will automatically activate this critical update on the auto-activation date listed on the Critical Updates page in Setup.

Why: Let's look at an example for an Apex class with a private getter for a `counter` class property.

```
public class EnforcePrivateGetter {
    @AuraEnabled

    public Integer counter { private get; set; }

    @AuraEnabled
    public static EnforcePrivateGetter GetRepro2()
    {
        EnforcePrivateGetter result = new EnforcePrivateGetter();
        result.counter = 2;
        return result;
    }
}
```

With the critical update enabled, this Aura component can't access the `private` getter with the `{!v.apexObject.counter}` expression. The same restriction applies for a Lightning web component.

```
<aura:component controller="EnforcePrivateGetter" access="global">
    <aura:handler name="init" value="{!this}" action="{!c.doInit}"/>
```

```
    <aura:attribute type="EnforcePrivateGetter" name="apexObject" />

    counter = {!v.apexObject.counter} <br></br>
</aura:component>
```

Here's the JavaScript controller.

```
({
    doInit : function(cmp, ev) {
        var action = cmp.get("c.GetRepro2");

        action.setCallback(this, function(response) {
          var state = response.getState();
          if (state === "SUCCESS") {
            cmp.set('v.apexObject', response.getReturnValue());
          }
          else if (state === "ERROR") {
            console.log('Error : ' + JSON.stringify(errors));
          }
        });
        $A.enqueueAction(action);
    }
})
```

With the critical update enabled, the fix is to remove the `private` access modifier on the getter and change the class variable definition to:

```
public Integer counter { get; set; }
```

To make an Apex property readable outside the Apex class, the property can't have a `private` or `protected` access modifier.

How: To test this critical update, we recommend working in a sandbox.

1. From Setup, enter *Critical Updates* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Enforce Access Modifiers on Apex Properties in Lightning Component Markup" critical update.
4. Click **Activate**.
5. Test the behavior of components that use Apex classes with `private` or `protected` access modifiers on getters.

SEE ALSO:

Critical Updates and Security Alerts

Use `without sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing (Critical Update, Retired)

This critical update, released in Spring '18, was scheduled for auto-activation in Winter '20, but has been retired. The critical update is replaced by the "Use `with sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing" critical update that has the opposite effect and sets the default to `with sharing`.

Where: This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

When: This critical update has been retired and no longer appears in the Critical Update Console after your org has been upgraded to Winter '20. Ignore the auto-activation date that appears in the Setup UI for Summer '19 because the critical update won't be automatically activated for any org.

Why: The purpose of the retired "Use `without sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing" critical update was to make Apex controllers for Aura components default to `without sharing`. This behavior made Apex controllers consistent in Aura components and Visualforce pages.

After further consideration, we decided to ensure that Lightning components are secure by default, so we created a replacement critical update that defaults to `with sharing` for `@AuraEnabled` Apex classes used by Aura components or Lightning web components.

SEE ALSO:

Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update)

Spring '18 Release Notes: Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update)

Critical Updates and Security Alerts

Use `with sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing (Critical Update)

This critical update changes the behavior of `@AuraEnabled` Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`. This critical update applies only to orgs created after Spring '18 or orgs that activated the retired "Use `without sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing" critical update that had the opposite effect and set the default to `without sharing`.

Where: This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

When: Salesforce will automatically activate this critical update on the auto-activation date listed on the Critical Updates page in Setup.

Why: An `@AuraEnabled` Apex class that doesn't explicitly set `with sharing` or `without sharing` uses a default or implicit value of `with sharing`. The purpose of the retired "Use `without sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing" critical update was to make Apex controllers for Aura components default to `without sharing`. This behavior made Apex controllers consistent in Aura components and Visualforce pages.

After further consideration, we decided to ensure that Lightning components are secure by default. So we created this new critical update that defaults to `with sharing` for `@AuraEnabled` Apex classes used by Aura components or Lightning web components.

Apex classes generally run in system mode. Consequently, the current user's credentials aren't used to execute Apex logic, and the user's permissions and field-level security aren't automatically applied.

You can choose whether an Apex class enforces sharing rules by using the `with sharing` or `without sharing` keywords. Enforcing sharing rules by using the `with sharing` keyword doesn't enforce the user's permissions and field-level security. You must manually enforce CRUD permissions and field-level security separately in your Apex classes.

How: The best way to prepare for this critical update is to ensure that all your `@AuraEnabled` Apex code explicitly controls sharing behavior using the `with sharing` or `without sharing` keywords. If all your `@AuraEnabled` code explicitly sets sharing behavior, this critical update has no effect.

To test this critical update, we recommend working in a sandbox.

1. From Setup, enter *`Critical Updates`* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Use `with sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing" critical update.
4. Click **Activate**.

5. Test the behavior of components that use Apex classes that don't include the `with sharing` or `without sharing` keywords.

SEE ALSO:

Apex Developer Guide: Enforcing Sharing Rules

Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Retired)

Critical Updates and Security Alerts

Prevent Creation of Function Expressions in Dynamically Created Aura Components (Previously Released Critical Update)

To improve security and stability, this critical update prevents attribute values passed to `$A.createComponent()` or `$A.createComponents()` from being interpreted as Aura function expressions. This critical update was first made available in Summer '19.

Where: This change applies to orgs with Lightning components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

When: Salesforce will automatically activate this critical update on the auto-activation date listed on the Critical Updates page in Setup.

Why: When the critical update is activated, using the key-value pair `{"exprType": "FUNCTION"}` in an object passed as an attribute value to `$A.createComponent()` or `$A.createComponents()` throws an error instead of triggering unpredictable behavior.

How: To test this critical update, we recommend working in a sandbox.

1. From Setup, enter *`Critical Updates`* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Prevent Creation of Function Expressions When Using `$A.createComponent()` or `$A.createComponents()` in Aura Components" critical update.
4. Click **Activate**.
5. Test that custom Aura components that you've developed are working correctly.

SEE ALSO:

Lightning Aura Components Developer Guide: Dynamically Creating Components

Critical Updates and Security Alerts

Disable Access to Non-`global` Apex Controller Methods in Managed Packages (Critical Update, Postponed)

This critical update, released in Summer '17, was scheduled for auto-activation in Winter '20, but has been postponed to Summer '20. The critical update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

Where: This change applies to orgs with Aura components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

When: Salesforce will automatically activate this critical update on the auto-activation date listed on the **Critical Updates** page in **Setup**.

Why: When added to a managed package, only Apex controller methods marked `global` are accessible by Aura components outside of that managed package's namespace. Methods marked `public` in their Apex definitions are accessible only to Aura components included in the package's namespace. When this critical update is enabled, these rules are enforced.

Prior to this update, Aura components outside of the package namespace could access non-`global` methods (Apex controller methods not marked with the `global` access modifier).

When this update is enabled, if you've written code that incorrectly depends on non-`global` Apex methods in a managed package, server actions that call those methods fail. Update your code to use only the supported API methods provided by the package as `global` methods.

Note: An Aura component outside the package can access a public Apex method installed from a non-namespaced unlocked package. The Aura component can be installed from another package or created in the org. For accessing Apex methods, a non-namespaced unlocked package is treated the same as an unmanaged package.

How: To test this critical update, we recommend working in a sandbox.

1. From Setup, enter *`Critical Updates`* in the Quick Find box.
2. Select **Critical Updates**.
3. Review the details for the "Disable Access to Non-`global` Controller Methods in Managed Packages" critical update.
4. Click **Activate**.
5. Test that your custom Aura components are working correctly.

SEE ALSO:

Critical Updates and Security Alerts

API Only Users Can Access Only Salesforce APIs (Critical Update, Postponed)

This critical update, released in Spring '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '20. If a user has the API Only User permission, they can access Salesforce only via APIs, regardless of their other permissions. This restriction already applied to other Salesforce features but this critical update enforces the restriction in Lightning Out.

Where: This change applies only to Lightning Out.

When: This critical update will be automatically activated when your sandbox or production org is upgraded to Spring '20. Since auto-activation doesn't happen on one specific date for all orgs, you can ignore the Auto-Activation Date listed on the **Critical Updates** page in Setup.

Who: This change affects users with the API Only User permission.

SEE ALSO:

Critical Updates and Security Alerts

Lightning Aura Components Developer Guide: Add Aura Components to Any App with Lightning Out (Beta)

Einstein Platform Services: Image Recognition and Natural Language Processing

Not a data scientist or machine-learning expert but still want to integrate AI into your apps? Use the Einstein Platform Services APIs to easily AI-enable your apps with image recognition and natural language processing. Using the Einstein Vision APIs, you can leverage pre-trained classifiers or train custom classifiers to solve a vast array of image recognition use cases. With the Einstein Language APIs, you can harness the power of natural language processing to analyze text and infer the sentiment or intent behind the text. Make your apps smarter and look like a genius at the same time.

IN THIS SECTION:

Einstein Vision: New `language` and `algorithm` Fields

The response for Einstein Vision API calls that return model information now contains the `language` and `algorithm` fields.

IN THIS SECTION:

SEE ALSO:

Einstein Platform Services Developer Guide: Introduction to Salesforce Einstein Vision

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

API Response JSON Contains a New `language` Field

The response JSON for an Einstein Vision API call that returns model information now contains the `language` field. When you train a dataset, the resulting model inherits the language of the dataset. For Einstein Vision datasets and models, the return value is `N/A`.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

How: The `language` field appears in the response for these calls.

- Train a dataset—POST `/v2/vision/train`
- Retrain a dataset—POST `/v2/vision/retrain`

- Get training status—GET `/v2/vision/train/<MODEL_ID>`
- Get model metrics—GET `/v2/vision/models/<MODEL_ID>`
- Get all models for a dataset—GET `/v2/vision/datasets/<DATASET_ID>/models`

The call to return the model metrics looks similar to this JSON.


```
{
    "id": "ZWUH3K5NVLQNWPWWSKDLBCXQXU",
    "metricsData": {
        "f1": [
            0.8333333333333333,
            0.8333333333333333
        ],
        "labels": [
            "Mountains",
            "Beaches"
        ],
        "testAccuracy": 0.8333,
        "trainingLoss": 0.0521,
        "confusionMatrix": [
            [
                5,
                0
            ],
            [
                2,
                5
            ]
        ],
        "trainingAccuracy": 0.981
    },
    "createdAt": "2019-06-05T18:09:37.000+0000",
    "language": "N/A",
    "object": "metrics"
}
```


SEE ALSO:

Einstein Platform Services Developer Guide: Train a Dataset

Einstein Platform Services Developer Guide: Retrain a Dataset

Einstein Platform Services Developer Guide: Get Training Status

Einstein Platform Services Developer Guide: Get Image Model Metrics

Einstein Platform Services Developer Guide: Get All Models

Object Detection API Response JSON Contains a New **`algorithm`** Field

The response JSON for an Einstein Vision API call that returns object detection model information now contains the `algorithm` field. The default return value is `object-detection`.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

How: The `algorithm` field appears in the response for these calls when the dataset type or model type is `image-detection`.

- Train a dataset—POST `/v2/vision/train`
- Retrain a dataset—POST `/v2/vision/retrain`
- Get training status—POST `/v2/vision/train/<MODEL_ID>`
- Get model metrics—GET `/v2/vision/models/<MODEL_ID>`
- Get all models for a dataset—GET `/v2/vision/datasets/<DATASET_ID>/models`

The call to return the training status looks similar to this JSON. The training stats data is removed for brevity.

```
{
  "datasetId": 1003553,
  "datasetVersionId": 14834,
  "name": "Detection Model",
  "status": "SUCCEEDED",
  "progress": 1,
  "createdAt": "2019-06-27T22:04:21.000+0000",
  "updatedAt": "2019-06-27T22:10:34.000+0000",
  "modelId": "WMIFOQTKQYOMNZY5IY673CIWZY",
  "learningRate": 0.001,
  "epochs": 20,
  "modelType": "image-detection",
  "algorithm": "object-detection",
  "language": "N/A",
  "object": "training",
  "trainParams": null,
  "trainStats": {}
}
```

SEE ALSO:

Einstein Platform Services Developer Guide: Train a Dataset

Einstein Platform Services Developer Guide: Retrain a Dataset

Einstein Platform Services Developer Guide: Get Training Status

Einstein Platform Services Developer Guide: Get Image Model Metrics

Einstein Platform Services Developer Guide: Get All Models

Object Detection Maximum Image Size Increased to 5 MB

Get the bigger picture. We increased the maximum size of an image you can add to an object detection dataset from 1 MB to 5 MB.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

How: The new maximum image size applies to these calls when the dataset type is `image-detection`.

- Create a dataset from a .zip file asynchronously—POST `/v2/vision/datasets/upload`
- Create a dataset from a .zip file synchronously—POST `/v2/vision/datasets/upload/sync`
- Create examples from a .zip file—PUT `/v2/vision/datasets/<DATASET_ID>/upload`
- Create an example—POST `/v2/vision/datasets/<DATASET_ID>/examples`
- Create a feedback example—POST `/v2/vision/feedback`

- Create feedback examples from a .zip file—PUT `/v2/vision/bulkfeedback`

SEE ALSO:

Einstein Platform Services Developer Guide: Create a Dataset From a Zip File Asynchronously

Einstein Platform Services Developer Guide: Create a Dataset From a Zip File Synchronously

Einstein Platform Services Developer Guide: Create Examples From a Zip File

Einstein Platform Services Developer Guide: Create an Example

Einstein Platform Services Developer Guide: Create a Feedback Example

Einstein Platform Services Developer Guide: Create Feedback Examples From a Zip File

Einstein Language: New `language` and `algorithm` Fields

The response for Einstein Language API calls that return model information now contains the `language` and `algorithm` fields.

IN THIS SECTION:

API Response JSON Contains a New language Field

The response JSON for an Einstein Language API call that returns model information now contains the `language` field. When you train a dataset, the resulting model inherits the language of the dataset. For Einstein Language datasets and models, the return value is `en_US`.

Intent API Response JSON Contains a New algorithm Field

The response JSON for an Einstein Language API call that returns intent model information now contains the `algorithm` field. The default return value is `intent`.

Text Datasets Can Contain Up to 3 Million Words

The maximum number of words in a text dataset is now 3 million. A text dataset is a dataset that has a type of `text-intent` or `text-sentiment`.

SEE ALSO:

Einstein Platform Services Developer Guide: Introduction to Salesforce Einstein Language

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

API Response JSON Contains a New `language` Field

The response JSON for an Einstein Language API call that returns model information now contains the `language` field. When you train a dataset, the resulting model inherits the language of the dataset. For Einstein Language datasets and models, the return value is `en_US`.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

How: The `language` field appears in the response for these calls.

- Train a dataset—POST `/v2/language/train`
- Retrain a dataset—POST `/v2/language/retrain`
- Get training status—GET `/v2/language/train/<MODEL_ID>`
- Get model metrics—GET `/v2/language/models/<MODEL_ID>`
- Get all models for a dataset—GET `/v2/language/datasets/<DATASET_ID>/models`

The call to return the model metrics looks similar to this JSON. The precision recall curve data is removed for brevity.


```
{
  "id": "FNYJFZAHRCA7QPYHWCYAAOR264",
  "metricsData": {
    "f1": [
      0.8,
      0.8,
      0.6666666666666666
    ],
    "labels": [
      "hourly-forecast",
      "current-weather",
      "five-day-forecast"
    ],
    "threshold": {
      "current-weather": 0.97089,
      "hourly-forecast": 0.91275,
      "five-day-forecast": 0.16648
    },
    "testAccuracy": 0.7692307829856873,
    "trainingLoss": 0.03367021307349205,
    "confusionMatrix": [
      [
        6,
        0,
        0
      ],
      [
        1,
        2,
        0
      ],
      [
        2,
        0,
        2
      ]
    ],
    "trainingAccuracy": 1,
    "precisionRecallCurve": {}
  },
  "createdAt": "2019-05-07T22:40:50.000+0000",
  "language": "en_US",
  "algorithm": "intent",
```

```
  "object": "metrics"
}
```

SEE ALSO:

Einstein Platform Services Developer Guide: Train a Dataset

Einstein Platform Services Developer Guide: Retrain a Dataset

Einstein Platform Services Developer Guide: Get Training Status

Einstein Platform Services Developer Guide: Get Model Metrics

Einstein Platform Services Developer Guide: Get All Models

Intent API Response JSON Contains a New `algorithm` Field

The response JSON for an Einstein Language API call that returns intent model information now contains the `algorithm` field. The default return value is `intent`.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

How: The `algorithm` field appears in the response for these calls when the dataset type or model type is `text-intent`.

- Train a dataset—POST `/v2/language/train`
- Retrain a dataset—POST `/v2/language/retrain`
- Get training status—GET `/v2/language/train/<MODEL_ID>`
- Get model metrics—GET `/v2/language/models/<MODEL_ID>`
- Get all models for a dataset—GET `/v2/language/datasets/<DATASET_ID>/models`

The call to return the training status looks similar to this JSON. The training stats data is removed for brevity.

```
{
    "datasetId": 1019434,
    "datasetVersionId": 15516,
    "name": "Case Routing Model",
    "status": "SUCCEEDED",
    "progress": 1,
    "createdAt": "2019-07-15T19:10:15.000+0000",
    "updatedAt": "2019-07-15T19:14:38.000+0000",
    "modelId": "X2VPSESX4NX64TEH5IIZ5NOWBI",
    "learningRate": 0.0,
    "epochs": 1000,
    "modelType": "text-intent",
    "algorithm": "intent",
    "language": "en_US",
    "object": "training",
    "trainParams": null,
```

```
    "trainStats": {}
}
```


SEE ALSO:

Einstein Platform Services Developer Guide: Train a Dataset

Einstein Platform Services Developer Guide: Retrain a Dataset

Einstein Platform Services Developer Guide: Get Training Status

Einstein Platform Services Developer Guide: Get Image Model Metrics

Einstein Platform Services Developer Guide: Get All Models

Text Datasets Can Contain Up to 3 Million Words

The maximum number of words in a text dataset is now 3 million. A text dataset is a dataset that has a type of `text-intent` or `text-sentiment`.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

How: You receive an error from the following calls when you train a text dataset that has more than 3 million words:

- Train a dataset—POST `/v2/language/train`
- Retrain a dataset—POST `/v2/language/retrain`

To avoid this error, be sure that when you create a dataset or add examples to a dataset, that it contains less than 3 million words across all examples. For best results, we recommend that each example is around 100 words.

SEE ALSO:

Einstein Platform Services Developer Guide: Train a Dataset

Einstein Platform Services Developer Guide: Retrain a Dataset

Einstein Platform: Prediction Insight Details

Want to expand the way you use Einstein AI features, like Einstein Prediction Builder, in your org? Einstein Platform is the Salesforce layer that Einstein Prediction Builder and many other Einstein features use to run powerful AI jobs. Use new Einstein Platform APIs to access prediction insights and apply the power of Einstein features in your own AI solutions.

IN THIS SECTION:

Build Better Predictions with Insights

Get details on the logic behind Einstein predictions via insight objects. When an Einstein feature, such as Einstein Prediction Builder, makes a prediction and saves the results, an AIRecordInsight record and several associated child records are created. Use these records to understand how Einstein predictions are made and apply custom logic after the predictions are saved to improve and customize predictions.

Build Better Predictions with Insights

Get details on the logic behind Einstein predictions via insight objects. When an Einstein feature, such as Einstein Prediction Builder, makes a prediction and saves the results, an AIRecordInsight record and several associated child records are created. Use these records to understand how Einstein predictions are made and apply custom logic after the predictions are saved to improve and customize predictions.

Where: This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions where Einstein features, such as Prediction Builder or Case Classification, are enabled.

Why: For example, use a report that measures actual versus predicted values to assess how well changes to predictions improve prediction results. You can also build a report that measures prediction user feedback, such as measuring the user acceptance rate of Case Classification recommendations.

Einstein insight objects are also valuable when adding custom logic after a prediction is made. When Einstein writes prediction results back to AI prediction fields, custom logic, such as Apex triggers, workflow rules, and assignment rules, aren't run. To add custom logic based on Einstein prediction results, use a platform event subscriber, such as Process Builder, to get notifications for AIPredictionEvents, which contain references to AI insight objects. For example, you could create a Process Builder process for leads triggered by an AIPredictionEvent that inspects the referenced AIRecordInsight and uses the insight information to decide whether to reassign the lead.

You can also use Einstein insight objects to build a better user experience. For user tasks that require making decisions in the Salesforce UI, you can create custom components that leverage insights to present recommended decision choices to the user.

SEE ALSO:

Object Reference for Salesforce and Lightning Platform

Platform Events Developer Guide

Salesforce Einstein: Quarterly Forecasting, Case Routing, and Code-Free Predictions on Records

Visualforce: Introducing Lightning Message Channel (Developer Preview), Changes to URLs

Communicate across Visualforce, Aura, and Lightning Web Components with Lightning Message Channel. We deprecated old HTTP-only URLs for Sites and Communities sandboxes, and you can remove instance names from Visualforce, Community Builder, Site.com Studio, and content file URLs.

For more information on these feature changes, refer to the *Visualforce Developer Guide*.

IN THIS SECTION:

Review Bookmarks for Old HTTP-Only Salesforce Sites and Communities Sandbox Domains

In the Summer '13 release, we changed the format for Salesforce Sites and Communities domains in sandbox orgs to support HTTPS. Starting in Winter '20, the old URL format from before the Summer '13 release no longer works. Chances are you're already using the new URL format, but we recommend that you review your bookmarks to Salesforce Sites or Communities sandboxes created before Summer '13 and update them as needed.

Remove Instance Names from URLs for Visualforce, Community Builder, Site.com Studio, and Content Files (Previously Released Critical Update)

We're removing the instance names from Visualforce, Community Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Instanceless domains are cleaner and easier for users to remember. This critical update applies to orgs that have a deployed My Domain. After this update, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This critical update was first made available in Spring '18.

Communicate Across Salesforce UI Technologies with Lightning Message Channel (Developer Preview)

Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components. If you're switching from Salesforce Classic to Lightning Experience, you can now build Lightning web components that can communicate with existing Visualforce pages or Aura components. For more information, see the Lightning Web Components release notes.

Hide the Default Label for Visualforce Pages in Lightning App Builder

Previously, Visualforce pages included in Lightning pages built with Lightning App Builder showed a label above the component. If the component's label was blank, the default label for the Visualforce page was used. Now, Lightning App Builder has a Show Label option so that you can choose to hide the default label.

Where: This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

How: Launch Lightning App Builder, and add the Visualforce component to a page. To hide the Visualforce page label, deselect Show Label. This option is selected by default.

Review Bookmarks for Old HTTP-Only Salesforce Sites and Communities Sandbox Domains

In the Summer '13 release, we changed the format for Salesforce Sites and Communities domains in sandbox orgs to support HTTPS. Starting in Winter '20, the old URL format from before the Summer '13 release no longer works. Chances are you're already using the new URL format, but we recommend that you review your bookmarks to Salesforce Sites or Communities sandboxes created before Summer '13 and update them as needed.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: To identify a URL in the old format, check whether it starts with the subdomain instead of the sandbox name.

The current Sites and Communities sandbox domain format starts with the sandbox name:
`<sandboxName>-<siteOrCommunitySubdomain>.<Instance>.force.com`.

The HTTP-only format used before Summer '13 starts with the subdomain name:
`<siteOrCommunitySubdomain>.<sandboxName>.<instance>.force.com`.

For example, an old Salesforce Sites sandbox URL from Spring '13 or earlier looks like `http://examplesite.uat.cs1.force.com`. The new URL since Summer '13 is `https://uat-examplesite.cs1.force.com`. Make sure that your bookmarks use the new URL format that begins with `<sandboxName>-<siteOrCommunitySubdomain>`.

SEE ALSO:

Critical Updates and Security Alerts

Remove Instance Names from URLs for Visualforce, Community Builder, Site.com Studio, and Content Files (Previously Released Critical Update)

We're removing the instance names from Visualforce, Community Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Instanceless domains are cleaner and easier for users to remember. This critical update applies to orgs that have a deployed My Domain. After this update, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This critical update was first made available in Spring '18.

Where: This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

When: The critical update is activated automatically on July 11, 2020. This update can log out users who are accessing Visualforce, Community Builder, Site.com Studio, and content file URLs. To minimize disruption, consider activating this critical update during off-peak hours.

Why: When we remove the instance name from your URLs, your hostnames change. For example:

- `mydomain--c.na1.content.force.com` becomes `mydomain--c.documentforce.com`
- `mydomain--c.na1.visual.force.com` becomes `mydomain--c.visualforce.com`

All *.content.force.com URLs are replaced with *.documentforce.com.

How: We recommend that you test this update in a sandbox to ensure that the new URLs work with firewalls and proxy servers in the network path between your users and Salesforce. Firewalls and proxy servers that filter by hostname must also trust the following:

- *.visualforce.com
- *.documentforce.com
- *.salesforce-communities.com

To activate this critical update, from Setup, enter *`Critical Updates`* in the Quick Find Box and select **Critical Updates**. For Remove Instance Names from URLs for Visualforce, Community Builder, Site.com Studio, and Content Files, click **Activate**.

SEE ALSO:

Spring '18 Release Notes:: Remove Instance Names from URLs for Visualforce, Community Builder, Site.com Studio, and Content Files (Critical Update) (can be outdated or unavailable during release preview)

Critical Updates and Security Alerts

Apex

The `Security.stripInaccessible` security feature for field-level data protection has moved from pilot to beta, supports subqueries, and can be used in production orgs. Callout processing time is excluded when calculating the concurrent long-running request limit. Apex introduces System methods to recalculate formula fields, and a Type method to detect type compatibility without class instantiation. The new ApexSettings metadata type augments Apex testing.

For more information on these enhancements, see the *Apex Developer Guide*.

IN THIS SECTION:

SEE ALSO:

Apex: New and Changed Items

Enforce Field-Level Security in Apex (Beta)

The `stripInaccessible()` security feature for field-level data protection has moved from pilot to beta and is available in production orgs. In Winter '20, we extended the feature for subqueries and added the enum value UPSERTABLE to `System.AccessType`. Use this new enum with the `stripInaccessible` method to enforce field- and object-level checks for both insert and update.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Note: As a beta feature, `stripInaccessible` method is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for this feature in the Security.stripInaccessible group in the IdeaExchange.

Why: You can use the `stripInaccessible` method to strip the fields that the current user can't access from query and subquery results. You can use it to remove inaccessible fields from sObjects before a DML operation to avoid exceptions. You can also use the method to sanitize sObjects that have been deserialized from an untrusted source.

How: The `stripInaccesible` method checks the source records for subquery fields that don't meet the field-level security check for the current user. The method returns a list of sObjects that contain only the fields that are accessible to the current user. If the user doesn't have access to the relationship field from child to parent, the return list of sObjects doesn't include the child relationship.

If the user doesn't have permission to read the `Phone` field of a Contacts object, this example code removes the subquery field before reading the records. The DML operation completes without throwing an exception.

```
List<Account> accountsWithContacts =
 [SELECT Id, Name, Phone,
     (SELECT Id, LastName, Phone FROM Account.Contacts)
 FROM Account];

// Strip fields that are not readable
   SObjectAccessDecision decision = Security.stripInaccessible(
                                    AccessType.READABLE,
                                    accountsWithContacts);

// Print stripped records
   for (Integer i = 0; i < accountsWithContacts.size(); i++)
  {
      System.debug('Insecure record access: '+accountsWithContacts[i]);
      System.debug('Secure record access: '+decision.getRecords()[i]);
   }

// Print modified indexes
   System.debug('Records modified by stripInaccessible: '+decision.getModifiedIndexes());


// Print removed fields
   System.debug('Fields removed by stripInaccessible: '+decision.getRemovedFields());
```

Callouts Are Excluded from Long-Running Request Limit

Every org has a limit on the number of concurrent long-running Apex requests. This limit counts all requests that run for more than 5 seconds (total execution time). However, HTTP callout processing time is no longer included when calculating the 5-second limit. We pause the timer for the callout and resume it when the callout completes.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

This change applies to callouts made directly from Apex, including SOAP callouts generated by WSDL2Apex. It also applies to callouts from other platform features, such as External Services and External Objects.

Expand Apex Testing with the ApexSettings Metadata Type

Use the new ApexSettings metadata type to augment Apex testing with aggregate total tracking, serial execution, and prevention of auto-number gaps. You can also use ApexSettings to suppress debug log details in unhandled exception emails.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: You can use the ApexSettings metadata type in many ways.

- To enable tracking of aggregate, instead of detailed, totals for Apex test coverage data, use the new `enableAggregateCodeCoverageOnly` field.
- To enable serial execution of Apex tests, use the new `enableDisableParallelApexTesting` field.
- To suppress Apex debug log details in unhandled exception emails, use the new `enableDoNotEmailDebugLog` field.
- To prevent Apex test executions from incrementing auto-number fields for non-test records and creating gaps, use the new `enableGaplessTestAutoNum` field.

Note: We removed the `ApexApprovalLockUnlock` value from the `preferences` field on the deprecated OrgPreferenceSettings metadata type. Instead, use the new `enableApexApprovalLockUnlock` field on the ApexSettings metadata type.

Enable Improved Caching of Org Schema (Critical Update, Postponed)

This critical update was scheduled for auto-activation in Summer '19 but has been postponed to Spring '20. This critical update enables improved caching of org schema details and resolves known issues with version-specific object and field handling.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

Why: This critical update fixes known bugs by improving internal systems that define and cache org schema, including standard objects, custom objects, and their fields. The documented behavior of your org's schema remains unchanged. The update fixes bugs where the documentation doesn't match the known behavior. This update also resolves rare, intermittent cases where undocumented object types are visible in Apex describe result methods or version-specific schema details are improperly reused.

API

Use SOQL queries to get the relationships between the metadata components in your org. Metadata API automatically puts some of multiple concurrent retrieve jobs in a queue, if that becomes necessary for service protection. Bulk API 2.0 now supports bulk query jobs.

IN THIS SECTION:

Untangle Your Dependencies with MetadataComponentDependency Queries (Beta)

Many orgs are cluttered with custom objects and fields that are no longer in use. Use the Tooling API MetadataComponentDependency object to view the dependency relationships between metadata components in your org. This information helps you determine whether components are safe to delete. Finding dependencies among components also helps you break up your metadata into packages. Working with a set of packages rather than with one monolithic org makes it easier to manage change, use a version control system, or use a continuous integration system.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions, sandboxes only.

Note: As a beta feature, MetadataComponentDependency is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for MetadataComponentDependency in the Dependency API Pilot group in the Trailblazer Community.

How: Use SOQL queries to get the relationships between the metadata components in your org. The query results include one row for each relationship. You can get up to 2,000 records per query. Keep your queries specific enough to return accurate results within this record count.

```
{
  "size" : 132,
  "totalSize" : 132,
  "done" : true,
  "queryLocator" : null,
  "entityTypeName" : "MetadataComponentDependency",
  "records" : [ {
    "attributes" : {
      "type" : "MetadataComponentDependency",
      "url" :
"/services/data/v47.0/tooling/sobjects/MetadataComponentDependency/000000000000000AAA"
    },
    "RefMetadataComponentId" : "00NXXXXXXXXXXXXXXX",
    "RefMetadataComponentName" : "acctTime",
    "MetadataComponentName" : "acctTimeReport",
    "MetadataComponentType" : "Report"
  },  {
    "attributes" : {
      "type" : "MetadataComponentDependency",
      "url" :
"/services/data/v47.0/tooling/sobjects/MetadataComponentDependency/000000000000000AAA"
    },
    "RefMetadataComponentId" : "00XXXXXXXXXXXXXXXX",
    "RefMetadataComponentName" : "acctTime",
    "MetadataComponentName" : "formulaTime",
    "MetadataComponentType" : "CustomField"
  },...
```

The following queries are not supported.

- SOQL `ORDER BY` clause
- SOQL `SELECT` clause—`count()` function
- SOQL `queryMore()`
- SOQL `WHERE` clause—Any type of filter with MetadataComponentName
- SOQL `WHERE` clause—Any type of filter with RefMetadataComponentName
- SOQL `WHERE` clause—Contains operators *other* than `=`, `!=`, `AND`, or `OR`
- SOQL `WHERE` clause—Filter by (`RefMetadataComponentType = 'StandardEntity'`)
- SOQL `WHERE` clause—Use of the `LIKE` operator with either the MetadataComponentType field or RefMetadataComponentType field

- SOQL `OFFSET` clause

For more information, see MetadataComponentDependency.

Query in Bulk API 2.0

Bulk API 2.0 now supports *bulk query jobs*. These jobs enable asynchronous processing of SOQL queries and are designed to handle queries that return large amounts of data (10,000 records or more).

Why: Bulk queries are also available in Bulk API (that is, the `/services/async/` endpoint introduced in version 16 of the Lightning Platform API). But the Bulk API 2.0 implementation has several advantages:

- It does not require you to handle batches. All results are returned in one set.
- Limits have been simplified and are available to clients via a `/limits` endpoint.
- This implementation is better integrated with other Salesforce REST APIs:
  - It does not require a special X-SFDC-Session header.
  - It supports all the regular OAuth workflows.
  - Its design is more consistent with the other Salesforce APIs.

Eliminate the Guesswork for How Many Retrieve Jobs Is Too Many

If you initiate several concurrent retrieve operations for a single org, Metadata API automatically puts some of those jobs in a queue, if that becomes necessary for service protection. If a retrieve job has a status of `Pending`, it's in the queue. When one of the active retrieve jobs completes, Metadata API takes a pending job from the queue and activates it. If a retrieve job has a status of `InProgress`, it's active. The process repeats until the job queue is cleared.

For more information about metadata limits, see the *Salesforce Developer Limits and Allocations Quick Reference*.

Custom Metadata Types: More Protection and Finer Access Control

Protect custom metadata types in packages and control access to them with profiles and permission sets.

IN THIS SECTION:

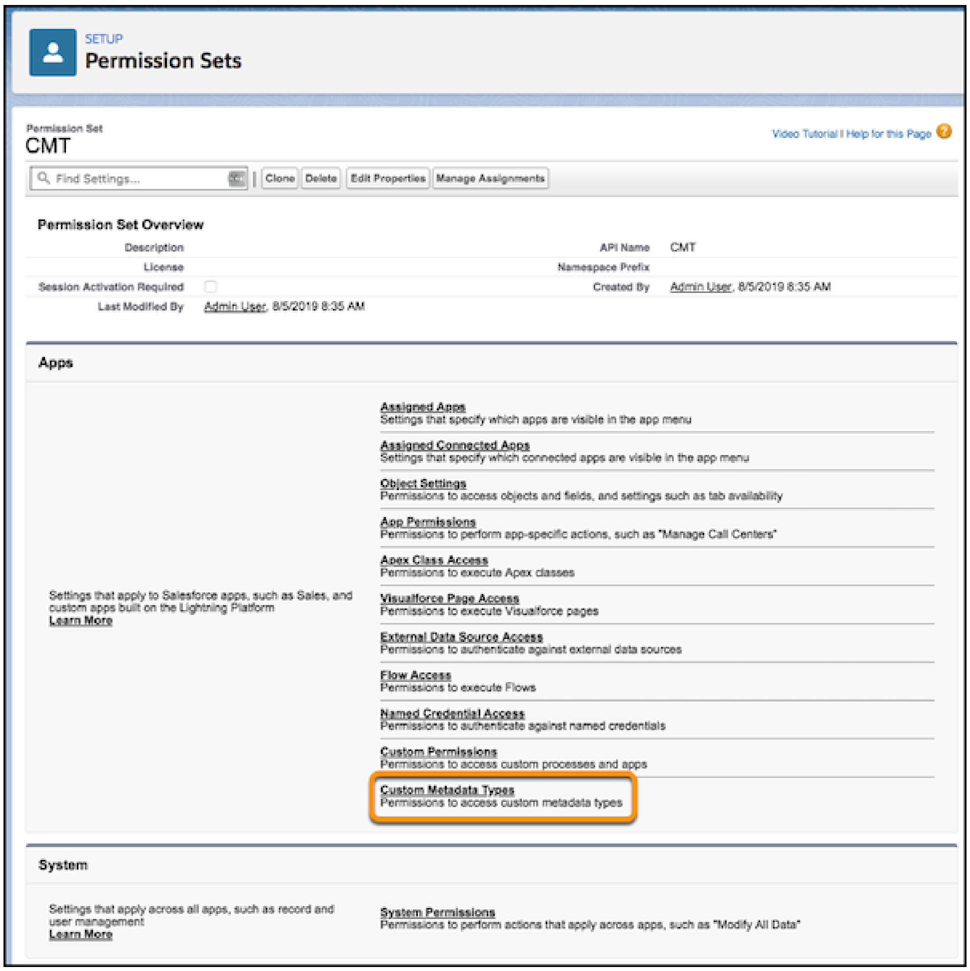
Control Who Gets Read Access to Custom Metadata Types

Use profiles and permission sets to assign read access to users for custom metadata types. As of Spring '19, you can block all API read access to custom metadata types for users who don't have Customize Application permission. Now you can grant API read access to specific metadata types for users and user profiles, even if they don't have the Customize Application permission.

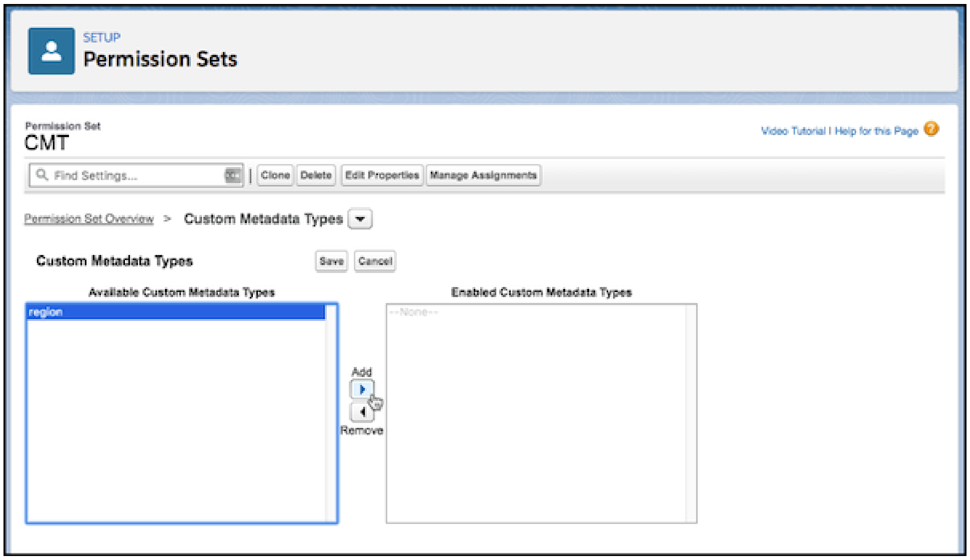
Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions.

Who: Admins with the Customize Application permission can modify permission sets and profiles to grant direct read API access to a specific custom metadata type.

How: To grant a specific profile or permission set read access to a custom metadata type, go to the Custom Metadata Types permissions.



Edit the profile or permission set to add the desired custom metadata type to the list of enabled custom metadata types.



Protect Your Custom Metadata Types in Second-Generation Packages

With the introduction of second-generation packaging (2GP), you can have multiple packages within the same namespace. Custom metadata types provide namespace-level protection to secured secrets, such as API access keys and tokens, in managed packages. Now you can specify an individual package within a namespace for fine-tuned security in the 2GP world. You have more control and more options to ensure that the secrets that you store in a package are accessible only with the custom Apex code in the package.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions only for Metadata API.

Who: Admins with Customize Application permission.

How: For a custom object's metadata, set the `visibility` field to `PackageProtected`.

SEE ALSO:

Metadata API Developer Guide: CustomObject

Require Customize Application Permission for Direct Read Access to Custom Metadata Types (Critical Update)

Users without the Customize Application permission can read unprotected custom metadata types using different APIs that are provided by Salesforce. Following the "secure by default" approach, read access for users who don't have the Customize Application permission is revoked with this update. This change affects Visualforce pages and Lightning components that directly reference custom metadata types. For custom metadata types, an admin can explicitly grant access to a specific profile or permission set.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, Developer, and Database.com editions. Professional Edition orgs can create, edit, and delete custom metadata records only from types in installed packages.

When: This critical update is enforced in the Spring '20 release.

How: To grant a profile or permission set read access to a custom metadata type:

1. Go to the profile or permission set that you want to grant access to.

2. Under Enabled Custom Metadata Type Access, click **Edit**.
3. Add the custom metadata type to the list of enabled custom metadata types.

To re-enable read access to custom metadata outside of Apex code or system mode contexts:

1. In Setup, navigate to Schema Settings.
2. Deselect **Restrict access to custom metadata**.

To test this critical update, we recommend working in a sandbox. If you experience issues, contact Salesforce Customer Support.

Note: This change doesn't affect accessibility of custom metadata types from Apex or system mode contexts. Custom metadata types retrieved using your custom Apex code continue to work after this update.

SEE ALSO:

Control Who Gets Read Access to Custom Metadata Types

Packaging: Second-Generation Managed Packaging Generally Available

Use second-generation managed packaging (2GP) to list and distribute your new 2GP packages on AppExchange. You can include more metadata types and create package patch versions and post install scripts.

IN THIS SECTION:

Develop Apps with Ease Using Second-Generation Managed Packages (Generally Available)

Second-generation managed packaging (2GP) ushers in a new way for AppExchange partners to develop, distribute, and manage their apps and metadata. You can use 2GP to organize your source, integrate with your version control system, and better utilize your custom Apex code. With version control being the source of truth, there are no packaging orgs, and you can execute all packaging operations via Salesforce CLI, enabling end-to-end automation. You can submit second-generation managed packages for security review and list them on AppExchange.

Compute Code Coverage for Unlocked Packages

Computing code coverage helps ensure that you've tested your Apex code. A code coverage minimum isn't enforced when you create unlocked packages, but you can use the `CalculateCodeCoverage` field in the Package2VersionCreateRequest object or the `codecoverage` CLI parameter when you create a package version.

Develop Apps with Ease Using Second-Generation Managed Packages (Generally Available)

Second-generation managed packaging (2GP) ushers in a new way for AppExchange partners to develop, distribute, and manage their apps and metadata. You can use 2GP to organize your source, integrate with your version control system, and better utilize your custom Apex code. With version control being the source of truth, there are no packaging orgs, and you can execute all packaging operations via Salesforce CLI, enabling end-to-end automation. You can submit second-generation managed packages for security review and list them on AppExchange.

Where: This change applies to Lightning Experience and Salesforce Classic in all editions.

When: Second-generation managed packaging is generally available on October 12, 2019.

Who: Users need either the System Administrator profile or the Create and Update Second-Generation Packages permission.

Why: New in Winter '20

- Distribute second-generation managed packages on AppExchange

- Create package patch versions
- Create post install scripts
- Get expanded metadata coverage

Note: Use 2GP to create new managed packages. You can't currently convert a first-generation package to a second-generation package.

How: To enable second-generation managed packages, first enable Dev Hub. From Setup, enter `Dev Hub` in the Quick Find box, and select **Dev Hub**. Then select **Enable Dev Hub**, and select **Enable Unlocked Packages and Second-Generation Managed Packages**.

Compute Code Coverage for Unlocked Packages

Computing code coverage helps ensure that you've tested your Apex code. A code coverage minimum isn't enforced when you create unlocked packages, but you can use the `CalculateCodeCoverage` field in the Package2VersionCreateRequest object or the `codecoverage` CLI parameter when you create a package version.

Where: This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. Dev Hub is available in Developer, Enterprise, Performance, and Unlimited editions.

When: These changes are generally available on October 12, 2019.

How: To enable unlocked packages, first enable Dev Hub. From Setup, enter `Dev Hub` in the Quick Find box, and select **Dev Hub**. Then select **Enable Dev Hub**, and select **Enable Unlocked Packages and Second-Generation Managed Packages**.

Scratch Orgs: New Features

A scratch org is a dedicated and configurable Salesforce environment that you can quickly spin up for many different purposes. It can be your own personal development environment, or you can create a headless scratch org for automated tests. You can create scratch orgs if you turned on Dev Hub in your production org or a Developer Edition org, or have a Dev Hub trial org. We continually add support for new features.

For more information, see Scratch Orgs in the Salesforce DX Developer Guide.

IN THIS SECTION:

Create Scratch Orgs with More Features
We're providing more configurable features for scratch orgs.

Make the Move to Scratch Org Settings
Now's the time to convert existing org preferences to scratch org settings in your scratch org definition file. We're replacing org preferences with scratch org settings. Org preferences won't be supported when Winter '20 is generally available on October 12, 2019.

Create Scratch Orgs with More Features

We're providing more configurable features for scratch orgs.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Developer, Enterprise, Group, and Professional editions.

How: Add the features to your scratch org definition file.

- CaseClassification
- DecisionStudio

- Division
- DocumentChecklist
- ExternalAccountHierachy
- FinancialServicesUser
- HighVelocitySales
- LightningScheduler
- Macros
- ObjectLinking
- SalesforceContentUser
- SocialCustomerService
- WorkflowFlowActionFeature

Renamed Scratch Org Features

This scratch org feature was renamed in Winter '20. If your scratch org definition file specifies this feature, update the file with the new feature name. Scratch org creation fails if the definition file includes the old feature name.

- ActionPlans is now IndustriesActionPlan

Deprecated Scratch Org Features

This scratch org feature was deprecated in Winter '20. If your scratch org definition file specifies this feature, delete the feature from the file. Scratch org creation fails if the definition file specifies a deprecated feature.

- ChatterAnswers
- Pardot

Make the Move to Scratch Org Settings

Now's the time to convert existing org preferences to scratch org settings in your scratch org definition file. We're replacing org preferences with scratch org settings. Org preferences won't be supported when Winter '20 is generally available on October 12, 2019.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Developer, Enterprise, Group, and Professional editions.

When: During the preview period, you see a warning. Once Winter '20 is generally available, scratch org creation fails until you convert org preferences to settings.

Why: Because you can use all Metadata API settings, they are the most comprehensive way to configure a scratch org. If a setting is supported in Metadata API, it's supported in scratch orgs. Settings provide you with fine-grained control because you can define values for all fields for a setting, rather than just enabling or disabling it.

How: Replace org preferences with settings in your scratch definition file. When you create a scratch org with org preferences, the warning message shows you exactly how to replace your org preferences with the equivalent settings. For details, see Scratch Org Settings in the *Salesforce DX Developer Guide*. Here's an example warning message:

```
WARNING: We're deprecating orgPreferences in Summer '19. You can continue to use them
until they are replaced by settings in Winter '20. But why wait? Here's exactly what you
need
to update in the scratch org definition file.
```

```
Replace the orgPreferences section:
{
    "orgPreferences" : {
        "enabled": [
          "S1DesktopEnabled"
        ],
        "disabled": [
          "IsActivitiesRemindersEnabled"
        ]
    }
}
With settings:
{
    "settings": {
        "orgPreferenceSettings": {
            "s1DesktopEnabled": true
        },
        "activitySettings": {
            "enableActivitiesReminder": false
        }
    }
}
```

Sandboxes: Data Mask

Secure your sandbox data with the new Salesforce Data Mask service.

IN THIS SECTION:

Secure Your Sandbox Data with Salesforce Data Mask

Salesforce Data Mask is a powerful new data security service for Salesforce admins and developers. Instead of manually securing data and access for sandbox orgs, admins can use Data Mask to automatically mask the data in a sandbox.

Where:

This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

Why:

Data Mask uses platform-native obfuscation technology to mask sensitive data in any full or partial sandboxes. The masking process lets you mask some or all sensitive data with different levels of masking, depending on the sensitivity of the data. Once the data is masked, you can't unmask it. This irreversible process ensures that the data is not replicated in a readable or recognizable way into another environment.

How:

Data Mask is a managed package that you install in a production org. You then run the masking process from any sandbox created from the production org.

SEE ALSO:

Salesforce Help: Secure Your Sandbox Data with Salesforce Data Mask

AppExchange Partners: Analytics for Managed Packages and the AppExchange Marketplace, ISV Hammer (Beta), and Due Diligence and Compliance Certification Improvements

Discover how customers find and interact with your AppExchange listing in the Marketplace Analytics dashboard. Learn how subscribers use your managed packages by exploring App Analytics data. Use ISV Hammer to test the installation of your package upgrades in copies of subscribers' orgs. Test your package functionality with Apex tests written by a subscriber. Manage your due diligence and compliance information in the Partner Community.

IN THIS SECTION:

See the Health of Your AppExchange Listing with Marketplace Analytics

The Marketplace Analytics dashboard shows how customers find and interact with your AppExchange listing. Perform a quick checkup on the health of your listing with the dashboard activity summary. Dive deeper into the relationships between traffic sources, search terms, and activity on your listing with dashboard visualizations.

Analyze Managed Package API Event Usage

AppExchange App Analytics provides data about how subscribers use your first-generation managed packages. Use App Analytics to identify attrition risks and inform feature development. Usage logs and summaries now contain data about API-based CRUD events on your custom objects. Use the AppAnalyticsQueryRequest object in SOAP API to request log files and monthly usage summaries.

Test Your Package Versions with ISV Hammer (Beta)

Before each major release, Salesforce runs customers' Apex tests against the old and new versions of our app. We call this process hammer testing, and it helps us avoid breaking things when we roll out the new version. Now we're sharing the joy of hammers with you. Use ISV Hammer to test the installation of your package upgrades in copies of subscribers' orgs before you roll out new versions of your package. (These metatdata-only org copies contain no customer data, are not human-accessible, and are deleted at the end of each ISV Hammer run.) ISV Hammer testing is now available for beta testing. For information on enabling this feature, contact Salesforce.

Share Due Diligence and Compliance Information More Easily

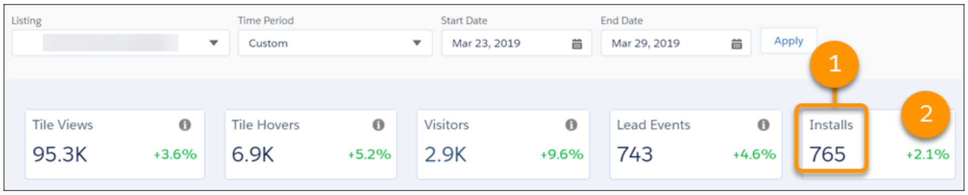
If you're starting a Salesforce consulting practice, you can now complete the Due Diligence and Compliance Certification in the Salesforce Partner Community. This change makes it easier to manage your company's due diligence and compliance details and gives you better visibility into the review process.

See the Health of Your AppExchange Listing with Marketplace Analytics

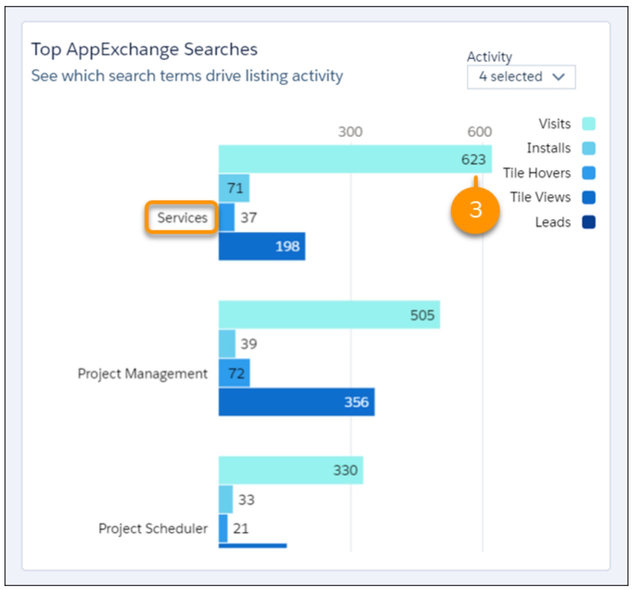
The Marketplace Analytics dashboard shows how customers find and interact with your AppExchange listing. Perform a quick checkup on the health of your listing with the dashboard activity summary. Dive deeper into the relationships between traffic sources, search terms, and activity on your listing with dashboard visualizations.

Who: To use Marketplace Analytics, you need the Manage Listings permission in the Salesforce Partner Community.

Why: More effectively apply your company's development and marketing resources to increase visits, installs, and purchases.

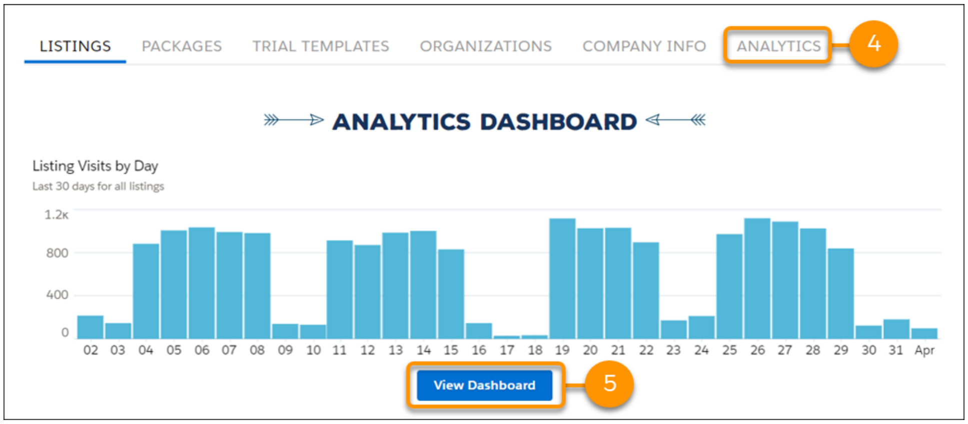


The activity summary puts your listing's key performance metrics, such as installs, in one place (1). Trend indicators show how metrics changed compared to the previous reporting period, so it's clear what's growing and where there are opportunities (2).



Visualizations show relationships between traffic sources, AppExchange search terms, and listing activities. This format makes it easy to spot patterns in your data, which you can use to answer questions and solve business problems. For example, you want to build awareness about new features in your solution. To boost traffic to your listing, check the dashboard to see which search terms result in the most visits, and then optimize your listing text accordingly (3).

How: From the Salesforce Partner Community, open the Publishing Console.



From the Publishing Console, click **Analytics** (4) or **View Dashboard** (5).

Analyze Managed Package API Event Usage

AppExchange App Analytics provides data about how subscribers use your first-generation managed packages. Use App Analytics to identify attrition risks and inform feature development. Usage logs and summaries now contain data about API-based CRUD events on your custom objects. Use the AppAnalyticsQueryRequest object in SOAP API to request log files and monthly usage summaries.

Where: This change applies to Lightning Experience and Salesforce Classic in Developer Edition.

How: To activate App Analytics, log a case in the Salesforce Partner Community. App Analytics is available only for managed packages that have passed security review.

Test Your Package Versions with ISV Hammer (Beta)

Before each major release, Salesforce runs customers' Apex tests against the old and new versions of our app. We call this process hammer testing, and it helps us avoid breaking things when we roll out the new version. Now we're sharing the joy of hammers with you. Use ISV Hammer to test the installation of your package upgrades in copies of subscribers' orgs before you roll out new versions of your package. (These metatdata-only org copies contain no customer data, are not human-accessible, and are deleted at the end of each ISV Hammer run.) ISV Hammer testing is now available for beta testing. For information on enabling this feature, contact Salesforce.

IN THIS SECTION:

Run ISV Hammer on Package Versions and Subscriber Orgs

Test your package versions using ISV Hammer by executing a CLI command on specified package versions and subscriber orgs.

Execute Apex Tests Written by a Subscriber to Test Your Package Functionality

In Winter '20, you can test your package functionality with Apex tests written by a subscriber. This testing further helps to make sure that your package works after an upgrade.

Opt Out of ISV Hammer Tests

If you do not wish to participate in ISV Hammer tests, you can ensure that ISV partners respect your decision. Simply opt out using the ISV Hammer Opt Out page in Setup.

Run ISV Hammer on Package Versions and Subscriber Orgs

Test your package versions using ISV Hammer by executing a CLI command on specified package versions and subscriber orgs.

Note: As a beta feature, ISV Hammer is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for this feature in the ISV Hammer group in the Trailblazer Community.

Where: This change applies to Lightning Experience, and Enterprise and Unlimited editions. In addition, ISV Hammer can only be enabled in the orgs with Developer Hub enabled. And for all the packages that are intended to be tested, namespaces for those packages need to be added to the Namespace Registry. See Link a Namespace to a Dev Hub Org.

How:

To start ISV Hammer tests, run the Salesforce CLI command `sfdx force:package:hammertest:run`.

Use this command to run ISV Hammer for the specified package versions and subscriber orgs.

If Salesforce has enabled Multiple Managed Packages for your org, you can test more than one package version. Supply the IDs of the package versions you want to test in the desired order of execution.

The command creates a copy of each of the supplied subscriber orgs and tests the package upgrade in each of them.

If a scheduled date/time is supplied, validation and setup start immediately but the package upgrade test does not start until after the supplied date/time. Format the `--scheduledrundatetime` value as YYYY-MM-DD HH:mm:ss in the GMT timezone. This date cannot be more than 25 days from today.

To test against the Salesforce preview release version, during the sandbox preview window, include `--preview` and a `--scheduledrundatetime` value that's immediately after a staggered release, based on the Salesforce release calendar.

To run the package version's Apex tests in each subscriber org after successfully testing the package upgrade, include `--apextests`.

The command returns a request ID. (This ID always starts with `0TW`). Use this ID to query for the test status by running `sfdx force:package:hammertest:report -i 0TW...`.

Examples:

```
sfdx force:package:hammertest:run --targetusername you@yourpackagingorg.com \
--packageversionids 04t...a,04t...b \
--subscriberorgs 00D...a,00Dx...b
```

```
sfdx force:package:hammertest:run -u you@yourpackagingorg.com -i 04txxxxxx \
--subscriberfile subscriberOrgs.txt
```

For details about the status of an in-progress ISV Hammer run, or to see the results of a completed run, run `sfdx force:package:hammertest:report`.

Example:

```
sfdx force:package:hammertest:report --targetusername you@yourpackagingorg.com \
--requestid 0TWxxxxxxxx
```

To list your ISV Hammer runs, run `sfdx force:package:hammertest:list`.

Examples:

```
sfdx force:package:hammertest:list --targetusername you@yourpackagingorg.com \
--packageversionid 04txxxxxxxxx
```

```
sfdx force:package:hammertest:list -u you@yourpackagingorg.com
```

Execute Apex Tests Written by a Subscriber to Test Your Package Functionality

In Winter '20, you can test your package functionality with Apex tests written by a subscriber. This testing further helps to make sure that your package works after an upgrade.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions.

Who: Users with the Author Apex permission can write Apex tests in the subscriber org.

Why: Each subscriber is different, and subscribers know best how to test their customizations. Therefore, we encourage you to work with subscribers to get org-specific Apex test coverage for your package. We now provide a way to execute those tests as part of an ISV Hammer run.

How: Include a global Apex interface for the subscriber to implement in their Apex tests for your package. While executing an ISV Hammer test, use this command to specify which tests to execute in the subscriber org.

```
force:package:hammertest:run --apextestinterface | -n fully_qualified_interface_name
```

Opt Out of ISV Hammer Tests

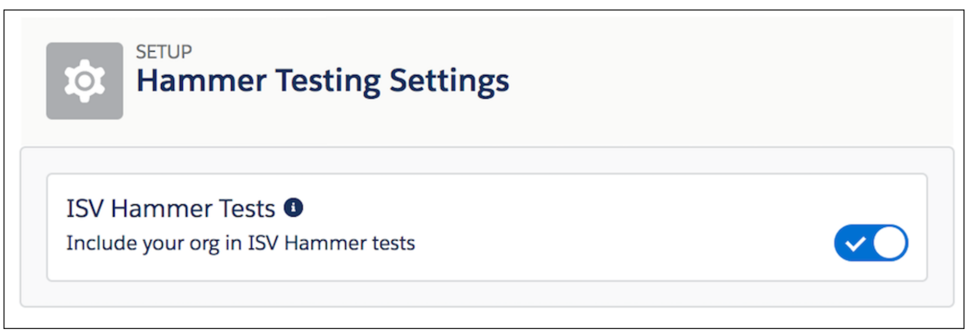
If you do not wish to participate in ISV Hammer tests, you can ensure that ISV partners respect your decision. Simply opt out using the ISV Hammer Opt Out page in Setup.

Where: This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions.

Who: Admins with Customize Application permission can choose to opt out of ISV Hammer testing.

Why: While we encourage you to help ISV partners ensure the quality of their releases before pushing an upgrade to your org, we understand that you may have reasons not to participate.

How: Use the Quick Find menu to select ISV Hammer Opt Out and turn off the ISV Hammer Tests setting.



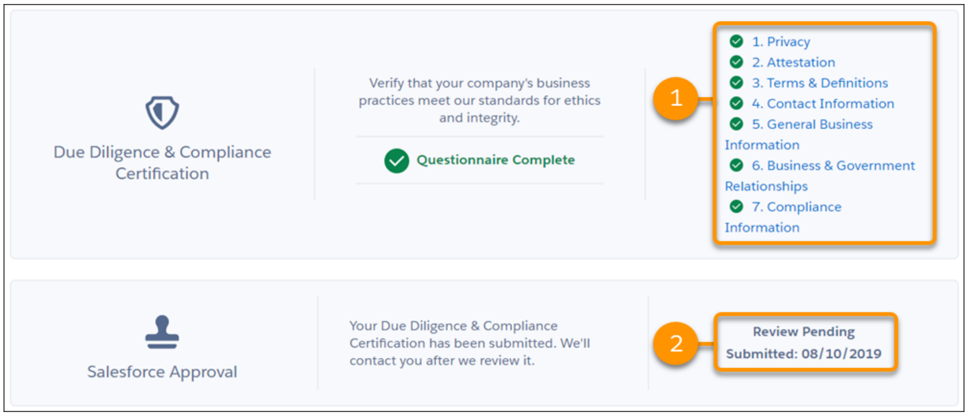
Share Due Diligence and Compliance Information More Easily

If you're starting a Salesforce consulting practice, you can now complete the Due Diligence and Compliance Certification in the Salesforce Partner Community. This change makes it easier to manage your company's due diligence and compliance details and gives you better visibility into the review process.

Where: This change applies to the Partner Community.

Who: Available to users with the Manage Partnership permission.

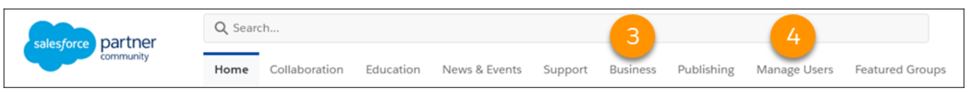
Why: The Partner Community is where you manage the rest of your consulting practice. That makes it the perfect home for the redesigned Due Diligence and Compliance Certification.



With the certification in the Partner Community, team members can provide input directly to the questionnaire sections (1) that are most relevant to their roles. After you submit the certification for review, you can check back anytime to see the status (2). Or, just wait until you hear from us. We now notify you by email when the status changes.

We also simplified how we share feedback about your submission. If we have any questions or comments about the details that you provided, we let you know in the Salesforce Approval section.

How: To view and edit the Due Diligence and Compliance Certification, log in the Partner Community and go to the Business tab (3). To allow another team member to view and edit the certification, go to the Manage Users tab (4) and assign the Manage Partnership permission.



Change Data Capture: Metadata and Tooling API Enhancements, Event Enrichment, and Changed Fields

Obtain granular control of channel members in Metadata API, and access channels and members in Tooling API. Enrich your event messages with fields, such as external ID fields, and easily discover which fields changed.

IN THIS SECTION:

Migrate Change Data Capture Channels and Members with Metadata API and Tooling API

You now define channel member components separately from channels in Metadata API. Use the new PlatformEventChannelMember Metadata API type for granular access to event channel members. In Tooling API, you can now access channels and their members through the new PlatformEventChannel and PlatformEventChannelMember objects. Also, packaging is now supported for standard channel members, in addition to custom channels and members.

Enrich Change Event Messages with Fields That Are Always Included (Pilot)

Change event messages include values for new and changed fields, but sometimes unchanged field values are needed for processing or replicating data. For example, a replication app needs an external ID field to match the record in an external system. You can now select which fields to always include in change event messages in CometD clients when those fields are non-empty.

Determine Which Fields Changed with the New changedFields Header Field

The `changedFields` header field contains the names of all fields that were modified in an update operation. This header field makes it easier to determine the changed fields, especially in Apex triggers, where fields are statically defined, and in enriched events (pilot) that include unchanged fields.

Receive Change Event Notifications for More Objects

With Change Data Capture, you can now receive notifications of record changes for the AuthorizationFormConsent, ContentPointTypeConsent, and Individual objects.

Migrate Change Data Capture Channels and Members with Metadata API and Tooling API

You now define channel member components separately from channels in Metadata API. Use the new PlatformEventChannelMember Metadata API type for granular access to event channel members. In Tooling API, you can now access channels and their members through the new PlatformEventChannel and PlatformEventChannelMember objects. Also, packaging is now supported for standard channel members, in addition to custom channels and members.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions.

How: As part of this change, we removed the `channelMembers` field of PlatformEventChannel. If you upgrade your metadata PlatformEventChannel components from API version 46.0 or 45.0, remove the `channelMembers` fields in your components. Then replace each field with a PlatformEventChannelMember component.

Enrich Change Event Messages with Fields That Are Always Included (Pilot)

Change event messages include values for new and changed fields, but sometimes unchanged field values are needed for processing or replicating data. For example, a replication app needs an external ID field to match the record in an external system. You can now select which fields to always include in change event messages in CometD clients when those fields are non-empty.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions.

Note: We provide Change Data Capture Enrichment to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Change Data Capture Enrichment isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for Change Data Capture Enrichment in the Trailblazer Community.

How: To select fields for change event enrichment, use the PlatformEventChannelMember object in Tooling API or Metadata API.

Determine Which Fields Changed with the New `changedFields` Header Field

The `changedFields` header field contains the names of all fields that were modified in an update operation. This header field makes it easier to determine the changed fields, especially in Apex triggers, where fields are statically defined, and in enriched events (pilot) that include unchanged fields.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions.

How: This example shows the `changedFields` field in the change event header for the `Phone` field change on an account. The `changedFields` field also includes the `LastModifiedDate` field because it was updated by the system.

```
{
    "LastModifiedDate": "2019-07-22T23:01:50.000Z",
    "Phone": "(415) 555-1212",
```

```
    "ChangeEventHeader": {
      . . .
      "entityName": "Account",
      "changeType": "UPDATE",
      "changedFields": [
        "Phone",
        "LastModifiedDate"
      ],
      . . .
    }
  },
  "event": {
    "replayId": 12
  }
}
```

Receive Change Event Notifications for More Objects

With Change Data Capture, you can now receive notifications of record changes for the AuthorizationFormConsent, ContentPointTypeConsent, and Individual objects.

Where: This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

How: Change Data Capture is available for all custom objects defined in your Salesforce org and a subset of standard objects. Select the objects that you want to get notifications for on the Change Data Capture page in Setup.

SEE ALSO:

Change Data Capture Developer Guide: Change Event Object Support

Platform Events: CometD Event Filters and Publishing Limits in REST API

Receive event messages that match specified event field values in a CometD client, and monitor your event publishing usage in REST API.

IN THIS SECTION:

Receive Relevant Event Messages Using Event Filters with a CometD Subscription (Pilot)

Use an event filter to receive event messages that match event field values with a CometD subscription. When using an event filter with platform events and Change Data Capture events, Salesforce delivers event messages that match the criteria and doesn't deliver the remaining messages. The smaller set of delivered messages makes clients run more efficiently and reduces your event delivery allocation usage.

Monitor Platform Event Publishing Usage in REST API

The hourly event publishing usage for standard-volume and high-volume platform events is now available in REST API. Use the `limits` REST resource in your app to monitor your event publishing usage against the two allocations.

Configure Streaming API Settings with Metadata API

Use the new EventSettings Metadata API type to configure Streaming API settings, such as enabling Streaming API and dynamic generic event channel creation. Also, you can configure settings related to Event Monitoring and Platform Events.

Disabled /event/AsyncOperationEvent Channel (Beta)

The platform event beta channel, `/event/AsyncOperationEvent`, is no longer available to new subscriber Salesforce orgs as of October 12, 2019. Some Salesforce orgs that subscribed to the channel between September 13, 2019 and October 12, 2019 will continue to have access to it.

Receive Relevant Event Messages Using Event Filters with a CometD Subscription (Pilot)

Use an event filter to receive event messages that match event field values with a CometD subscription. When using an event filter with platform events and Change Data Capture events, Salesforce delivers event messages that match the criteria and doesn't deliver the remaining messages. The smaller set of delivered messages makes clients run more efficiently and reduces your event delivery allocation usage.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions.

Note: We provide Platform Event Filters to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Platform Event Filters isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for Platform Event Filters in the Trailblazer Community.

Why: Suppose you're interested in receiving account change events only for accounts whose billing state is California. Previously, your CometD clients received all account change events for all 50 states, which is not efficient when a high volume of events is delivered. Now you can indicate in your CometD subscription filter which subset of event messages that you're interested in receiving.

How: To add a filter in a CometD subscription for a platform event, append the filter expression to the subscription channel.

```
/event/PlatformEventName__e?<filter_expression>
```

For Change Data Capture, only entity-specific channels are supported in the filter. Append the filter to the channel.

```
/data/EntityChangeEvent?<filter_expression>
```

The filter expression includes one or more field-value pairs (***`field=value`***). To combine filter conditions, use the logical `&&` (AND condition) and `||` (OR condition) operators. The supported field types for filtering are Text and Number.

Example: Use this filter to receive platform event messages containing both field values: the model number and the ink percentage values.

```
/event/Low_Ink__e?Model_Number__c='XZO-5'&&Ink_Percentage__c=0.2
```

Use this filter to receive only account change event messages that contain the status custom field value Silver.

```
/data/AccountChangeEvent?Status__c='Silver'
```

Monitor Platform Event Publishing Usage in REST API

The hourly event publishing usage for standard-volume and high-volume platform events is now available in REST API. Use the `limits` REST resource in your app to monitor your event publishing usage against the two allocations.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions.

How: The `limits` resource contains these new values.

- `HourlyPublishedPlatformEvents`—High-volume platform event notifications published per hour

- `HourlyPublishedStandardVolumePlatformEvents`—Standard-volume platform event notifications published per hour

Configure Streaming API Settings with Metadata API

Use the new EventSettings Metadata API type to configure Streaming API settings, such as enabling Streaming API and dynamic generic event channel creation. Also, you can configure settings related to Event Monitoring and Platform Events.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

Configure Event and Streaming API Settings with Metadata API

Disabled `/event/AsyncOperationEvent` Channel (Beta)

The platform event beta channel, `/event/AsyncOperationEvent`, is no longer available to new subscriber Salesforce orgs as of October 12, 2019. Some Salesforce orgs that subscribed to the channel between September 13, 2019 and October 12, 2019 will continue to have access to it.

Where: This change applies to Enterprise, Performance, Unlimited, and Developer editions.

The `/event/AsyncOperationEvent` beta feature was introduced in Summer '19. For more information, see Get Notified of Asynchronous Platform Event Publish Errors (Beta).

New and Changed Items for Developers

Here is where you can find new and changed objects, calls, classes, components, commands, and more that help you customize Salesforce features.

IN THIS SECTION:

Lightning Components: New and Changed Items

Build a UI easily with these new and changed resources.

IN THIS SECTION:

Changed Lightning Web Components

These components have changes.

`lightning-button`

The `click()` method has been added.

The `variant` attribute supports new values.

- `brand-outline`—Similar to the `brand` variant, this variant draws attention to the primary action on a page. The blue color is used only for the label and border, and the button color is white. Use this variant when the `brand` variant is too distracting to the experience.
- `destructive-text`—Similar to the `destructive` variant, this variant indicates a destructive action to the user, like permanently deleting data. The red color is used only for the label and border, and the button color is white. Use this variant when the `destructive` variant is too distracting to the experience.

`lightning-button-icon`

The `click()` method has been added.

`lightning-button-menu`

The `click()` method has been added.

`lightning-carousel`

Swiping carousel images is now supported on mobile devices.

`lightning-combobox`

The following attributes are new.

- `aria-labelledby`—A space-separated list of element IDs that provide labels for the combobox.
- `aria-describedby`—A space-separated list of element IDs that provide descriptive labels for the combobox.

`lightning-datatable`

The following property for the `columns` attribute has changed.

- `label`—The text is now bold and no longer transformed to all caps.

The `url` type has changed the default behavior for the following attributes.

- `target`—Links now open in the same frame by default (or the same browser tab if a frame is not used), which corresponds to the `_self` target value. To open links in a new tab, use this column definition.

```
var columns = [
    {
        label: 'Company Website', fieldName: 'website', type: 'url',
            typeAttributes: { target: _blank }
```

```
    },
// other column data
]
```

- `tooltip`—The URL field no longer displays a tooltip if a tooltip value isn't provided. To display a tooltip with the URL value, use this column definition.

```
var columns = [
    {
        label: 'Company Website', fieldName: 'website', type: 'url',
            typeAttributes: {
                tooltip: { fieldName: 'website' }
            }
    },
// other column data
]
```

lightning-formatted-number

Arabic, Hindi, and Persian numbers are now supported.

lightning-formatted-rich-text

The `mark` HTML tag is now supported.

lightning-formatted-url

The `click()` method has been added.

lightning-record-edit-form

This component clears validation rule errors when an `onchange` event is fired on the overall form and when you update a field with a validation rule error. This change also applies to `lightning-record-form`.

lightning-input-field

The following attribute is new.

- `required`—To make an input field required only on the client, include the `required` attribute. Use this attribute to require a value in a field before the form can be submitted, and the field isn't marked required in Setup. If the field doesn't have a value, the component's client-side validation catches the error before the form data is submitted to the server.

lightning-tab

The following attributes are new.

- `end-icon-name`—The name of a utility icon to display after the tab's label.
- `end-icon-alternative-text`—Alternative text for the end icon.

lightning-tree

The following attribute has changed.

- `header`—The text is now bold and no longer transformed to all caps.

The following attribute is new.

- `selected-item`—Selects and highlights the specified tree item. Tree item names are case-sensitive. If the tree item is nested, selecting this item also expands the parent branches.

SEE ALSO:

Component Library

New and Changed Modules for Lightning Web Components

Do more with Lightning web components with these new or changed modules, such as adjust to the form factor of the client.

New Modules

These modules are now available.

lightning/flowSupport

Provides access to flow events. Use the events to control flow navigation and notify the flow runtime of changes in attribute values. To use the module a Lightning web component must specify the Lightning page target `lightning__FlowScreen`. Events include:

- `FlowAttributeChangeEvent`—Informs the flow runtime that a component property has changed.
- `FlowNavigationBackEvent`—Requests navigation to the previous screen.
- `FlowNavigationNextEvent`—Requests navigation to the next screen.
- `FlowNavigationPauseEvent`—Requests the flow runtime to pause the flow.
- `FlowNavigationFinishEvent`—Requests the flow runtime to finish the flow.

```
// Syntax
import {LightningElement, api} from 'lwc';
import {FlowAttributeChangeEvent, FlowNavigationNextEvent} from 'lightning/flowSupport';
export default class MyFlowComponent extends LightningElement {
  @api
  numberOfClicks = 0;
  handleClick() {
    // Notify flow that the number of clicks has increased.
    let newNumClicks = this.numberOfClicks + 1;
    const attributeChangeEvent = new FlowAttributeChangeEvent('numberOfClicks',
newNumClicks);
    this.dispatchEvent(attributeChangeEvent);
  }
  handleGoNext() {
       // Navigate next when user clicks next button.
       const nextNavigationEvent = new FlowNavigationNextEvent();
       this.dispatchEvent(nextNavigationEvent);
  }
}
```

For more information, see Add Powerful and Performant Lightning Web Components to Your Flow Screens.

@salesforce/client/formFactor

A string indicating the form factor of the hardware on which the browser is running. Possible values are:

- `Large`—Desktop client
- `Medium`—Tablet client
- `Small`—Phone client

Pass this value to the `getRecordCreateDefaults` wire adapter to get the default layout information and object information for creating a record.

`@salesforce/messageChannel` (Developer Preview)

A string indicating the name of the Lightning message channel. A Lightning web component uses a Lightning message channel to access the Lightning Message Service API. Use the Lightning Message Service API to communicate across the DOM, between Aura components, Visualforce pages, and Lightning web components.

```
// Syntax
import channelName from '@salesforce/messageChannel/channelReference';
```

```
// Syntax for resources in a managed package
import channelName from '@salesforce/messageChannel/namespace__channelReference';
```

```
// Example
import SAMPLEMC from '@salesforce/messageChannel/SampleMessageChannel__c';
```

- ***`channelName`***—An imported symbol that identifies the message channel.
- ***`channelReference`***—The API name of the message channel.
- ***`namespace`***—If the message channel is in a managed package, this value is the namespace of the managed package. If the message channel is not in a managed package, omit the namespace.

For more information, see Communicate Across Salesforce UI Technologies with Lightning Message Service (Developer Preview).

Changed Modules

The following modules have changed.

`@salesforce/lwc-jest`

The package name `lwc-jest` is changing to `sfdx-lwc-jest`. Start using `@salesforce/sfdx-lwc-jest` instead.

For more information, see New Package Name for Testing with Jest.

`lightning/uiRecordApi`

Non-array strings are now supported for the following parameters in the `getRecord` wire adapter.

- `fields`
- `layoutTypes`
- `modes`
- `optionalFields`

Non-array strings are now supported for the following parameter in the `getRecordUi` wire adapter.

- `optionalFields`

New and Changed Aura Components

These components are new or have changes.

New Aura Components

The following components are new and require API version 47.0 and later.

`force:cardPayment`

Provides a payment page to collect card payment information, make a payment, or perform both actions. Salesforce stores and processes the customer card information under PCI-compliant standards. You can use the payment page in Lightning Experience or a community. For more information, see Salesforce Billing: Save Credit Cards and Accept Payments in Communities and Lightning Pages.

`lightning:messageChannel` (Developer Preview)

Provides access to the Lightning Message Service API. Use Lightning Message Service to publish and subscribe to messages across the DOM and between Aura components, Visualforce pages, and Lightning web components. For more information, see Communicate Across Salesforce UI Technologies with Lightning Message Service (Developer Preview).

Changed Aura Components

The following components have changed.

`lightning:button`

The `variant` attribute supports new values.

- `brand-outline`—Similar to the `brand` variant, this variant draws attention to the primary action on a page. The blue color is used only for the label and border, and the button color is white. Use this variant when the `brand` variant is too distracting to the experience.
- `destructive-text`—Similar to the `destructive` variant, this variant indicates a destructive action to the user, like permanently deleting data. The red color is used only for the label and border, and the button color is white. Use this variant when the `destructive` variant is too distracting to the experience.

`lightning:buttonIcon`

The `click()` method has been added.

`lightning:buttonMenu`

The `click()` method has been added.

`lightning:carousel`

Swiping carousel images is now supported on mobile devices.

`lightning:combobox`

The following attributes are new.

- `ariaLabelledBy`—A space-separated list of element IDs that provide labels for the combobox.
- `ariaDescribedBy`—A space-separated list of element IDs that provide descriptive labels for the combobox.

`lightning:formattedNumber`

Arabic, Hindi, and Persian numbers are now supported.

`lightning:formattedRichText`

The `mark` HTML tag is now supported.

`lightning:formattedUrl`

The `click()` method has been added.

`lightning:datatable`

The following property for the `columns` attribute has changed.

- `label`—The text is now bold and now longer transformed to all caps.

The `url` type has changed the default behavior for the following attributes.

- `target`—Links now open in the same frame by default (or the same browser tab if a frame is not used), which corresponds to the `_self` target value. To open links in a new tab, use this column definition.

```
var columns = [
    {
        label: 'Company Website', fieldName: 'website', type: 'url',
            typeAttributes: { target: _blank }
    },
```

```
// other column data
]
```

- `tooltip`—The URL field no longer displays a tooltip if a tooltip value isn't provided. To display a tooltip with the URL value, use this column definition.

```
var columns = [
    {
        label: 'Company Website', fieldName: 'website', type: 'url',
            typeAttributes: {
                tooltip: { fieldName: 'website' }
            }
    },
// other column data
]
```

lightning:inputField

The following attribute is new.

- `required`—To make an input field required only on the client, set `required` to true. Use this attribute to require a value in a field before the form can be submitted, and the field isn't marked required in Setup. If the field doesn't have a value, the component's client-side validation catches the error before the form data is submitted to the server.

lightning:listView

The Task object is now supported.

lightning:recordEditForm

This component clears validation rule errors when an `onchange` event is fired on the overall form and when you update a field with a validation rule error. This change also applies to `lightning:recordForm`.

lightning:tab

The following attributes are new.

- `endIconName`—The name of a utility icon to display after the tab's label.
- `endIconAlternativeText`—Alternative text for the end icon.

lightning:tree

The following attribute has changed.

- `header`—The text is now bold and now longer transformed to all caps.

The following attribute is new.

- `selectedItem`—Selects and highlights the specified tree item. Tree item names are case-sensitive. If the tree item is nested, selecting this item also expands the parent branches.

SEE ALSO:

Component Library

New Aura Component Events

Facilitate communication and increase interactivity between components with new Aura component events.

The following event is new.

forceCommunity:analyticsInteractionGtag

Tracks events triggered by Lightning components, and sends the data to Google Analytics using the global site tag (gtag) standard. Supported only in template-based communities. To use the gtag standard, enable Google Analytics in Community Builder and publish your community. For more information, see Improve Tracking with the New Google Analytics™ Standard.

SEE ALSO:

Salesforce Help: Enable and Map Engagement Insights for Community Managers (can be outdated or unavailable during release preview)

Apex: New and Changed Items

These classes, enums, and interfaces are new or have changes.

For more information, see the *Apex Developer Guide*.

IN THIS SECTION:

Apex: New and Changed Classes and Interfaces

These classes and interfaces are new or have changed.

ConnectApi (Chatter in Apex): New and Changed Classes and Enums

Create custom experiences in Salesforce using Chatter in Apex. Get managed content versions for a community.

SEE ALSO:

Apex: New Features

Apex: New and Changed Classes and Interfaces

These classes and interfaces are new or have changed.

IN THIS SECTION:

New Apex Classes

These classes were introduced in this release.

Changed Apex Classes

These existing classes have new or changed methods or constants.

New Apex Exception

This exception was introduced in this release.

New Apex Interfaces

These interfaces were introduced in this release.

New Apex Classes

These classes were introduced in this release.

`Formula` Class in the `System` Namespace

The new `System.Formula` class contains the `recalculateFormulas` method that updates (recalculates) all formula fields on the input sObjects.

`FormulaRecalcFieldError` Class in the `System` Namespace

The new `System.FormulaRecalcFieldError` class is the return type of the `FormulaRecalcResult.getErrors method`. It contains methods that retrieve the name of the error field and a message describing why the formula calculation failed.

`FormulaRecalcResult` Class in the `System` Namespace

The new `System.FormulaRecalcResult` class is the return type of the `Formula.recalculateFormulas` method. It contains methods that return the sObject with formulas recalculated and errors encountered while recalculating formulas on the sObject.

`Packaging` Class in the `System` Namespace

The new `System.Packaging` class contains the `getCurrentPackageId` method that retrieves the packageID when the method is called in the context of an installed package.

Changed Apex Classes

These existing classes have new or changed methods or constants.

`Auth.SessionManagement` Class

New Methods

verifyDeviceFlow(userCode, startUrl)

Verifies the user code entered during the device authentication flow and redirects users to the OAuth approval page. If users aren't logged in, they must log in. After successful login, users are prompted to allow the device to access Salesforce data.

`EventBus.ChangeEventHeader` Class

New Property

`changedfields`

A list of the fields that were changed in an update operation, including the `LastModifiedDate` system field. This field is empty for other operations, including record creation.

`System.Type` Class

New Methods

isAssignableFrom(sourceType)

Checks whether an object of one type can be assigned from an object of another type without instantiating either object. Returns `true` if the two types are compatible.

`System.UserManagement` Class

New Methods

initRegisterVerificationMethod(method)

Invokes a verification challenge for registering identity verification methods with a custom (Visualforce) page. Users can register either their email address or phone number.

verifyRegisterVerificationMethod(code, method)

Completes registering a user's email address or phone number as a verification method when customizing the identity verification process.

`System.UserInfo` Class

New Methods

isCurrentUserLicensedForPackage(packageID)

Returns `true` if the context user has a license to the managed package. Otherwise, returns `false`

New Apex Exception

This exception was introduced in this release.

`System` Namespace

`IllegalArgumentException`
Throws this exception if an illegal argument is provided to a method call.

New Apex Interfaces

These interfaces were introduced in this release.

`TxnSecurity.EventCondition` Interface
Allows an implementing class to specify whether to take action when certain events occur based on a transaction security policy. This interface is part of Real-Time Event Monitoring and was beta in Summer '19.

`TxnSecurity.AsyncCondition` Interface
Allows an implementing class to make asynchronous Apex calls. This interface is part of Real-Time Event Monitoring.

ConnectApi (Chatter in Apex): New and Changed Classes and Enums

Create custom experiences in Salesforce using Chatter in Apex. Get managed content versions for a community.

Many Chatter REST API resource actions are exposed as static methods on Apex classes in the `ConnectApi` namespace. These methods use other `ConnectApi` classes to input and return information. The `ConnectApi` namespace is referred to as *Chatter in Apex*.

In Apex, you can access some Chatter data using SOQL queries and objects. However, it's simpler to expose Chatter data in `ConnectApi` classes, and data is localized and structured for display. For example, instead of making several calls to access and assemble a feed, you can do it with a single call.

Note: To integrate mobile apps, intranet sites, and third-party web applications with Chatter and Communities, use Chatter REST API.

IN THIS SECTION:

New Chatter in Apex Classes

These classes are new.

Managed Content

These new methods are in the `ConnectApi.ManagedContent` class.

Get all managed content versions for a community

- `getAllManagedContent(communityId, pageParam, pageSize, language, managedContentType)`

Get managed content versions by IDs

- `getManagedContentByIds(communityId, managedContentIds, pageParam, pageSize, language, managedContentType)`

Get managed content versions by topic names

- `getManagedContentByTopics(communityId, topics, pageParam, pageSize, language, managedContentType)`

Get managed content versions by IDs and topic names

- `getManagedContentByTopicsAndIds(communityId, managedContentIds, topics, pageParam, pageSize, language, managedContentType)`

New and Changed Chatter in Apex Output Classes

These output classes are new or have changes.

Chatter Feeds

`ConnectApi.EmailMessageCapability`

This output class has these new properties.

- `htmlExpandEmailThread`—Start location of previous email thread.
- `status`—Status of an email message on a case. Values are:
  - `DraftStatus`
  - `ForwardedStatus`
  - `NewStatus`
  - `ReadStatus`
  - `RepliedStatus`
  - `SentStatus`

Communities

`ConnectApi.Community`

This output class has this new property.

- `guestMemberVisibilityEnabled`—Specifies whether guest members can see other members of the community (`true`) or not (`false`).

Managed Content

`ConnectApi.ManagedContentAssociations`

This new output class has this property.

- `topics`—A collection of topics associated with the managed content.

`ConnectApi.ManagedContentMediaNodeValue`

This new output class is a subclass of `ConnectApi.ManagedContentNodeValue` and has these properties.

- `altText`—Alternative text for the managed content node.
- `altUrl`—Alternative URL for the managed content node.

- `mediaType`—Type of managed content media. Value is `Image`.
- `mimeType`—MIME type of the managed content node.
- `title`—Title of the managed content node.
- `url`—URL for the managed content node.

ConnectApi.ManagedContentNodeType

This new output class has these properties.

- `label`—Label of the managed content node type.
- `name`—Developer name of the managed content node type.
- `nodeType`—Type of managed content node. Values are:
  - `Media`
  - `MultilineText`
  - `NameField`
  - `RichText`
  - `Text`

ConnectApi.ManagedContentNodeValue

This new output class is a superclass of `ConnectApi.ManagedContentMediaNodeValue` and `ConnectApi.ManagedContentTextNodeValue`. It has this property.

- `nodeType`—Type of managed content node. Values are:
  - `Media`
  - `MultilineText`
  - `NameField`
  - `RichText`
  - `Text`

ConnectApi.ManagedContentTextNodeValue

This new output class is a subclass of `ConnectApi.ManagedContentNodeValue` and has this property.

- `value`—Text value of the managed content node.

ConnectApi.ManagedContentType

This new output class has these properties.

- `label`—Label of the managed content type.
- `name`—Developer name of the managed content type.
- `nodeTypes`—Type of managed content node. Values are:
  - `Media`
  - `MultilineText`
  - `NameField`
  - `RichText`
  - `Text`

ConnectApi.ManagedContentVersion

This new output class has these properties.

- `associations`—Content topics associated with the managed content.

- `contentNodes`—Map of content nodes.
- `managedContentId`—ID of the managed content.
- `publishedDate`—Date when the managed content version was last published.
- `title`—Title of the managed content version.
- `type`—Type of managed content version.
- `typeLabel`—Type label of the managed content type.

`ConnectApi.ManagedContentVersionCollection`

This new output class has these properties.

- `currentPageUrl`—Chatter REST API URL identifying the current page.
- `items`—List of managed content versions.
- `managedContentTypes`—Map of managed content types.
- `nextPageUrl`—Chatter REST API URL identifying the next page, or `null` if there isn't a next page.
- `total`—Total number of managed content versions.
- `totalTypes`—Total number of managed content types.

`ConnectApi.TopicSummary`

This new output class has these properties.

- `id`—ID of the topic.
- `name`—Name of the topic.

Next Best Actions

`ConnectApi.NBAFlowAction`

This output class has these new properties.

- `flowLabel`—Label of the recommended flow.
- `flowType`—Type of recommended flow. Values are:
  - `AutoLaunchedFlow`—Autolaunched flow that runs in the background.
  - `Flow`—Screen flow that accepts user inputs.

New Chatter in Apex Enums

These enums are new.

For information about these enums, see ConnectApi Enums in the *Apex Developer Guide*.

`ConnectApi.ManagedContentMediaType`

This new enum has this value.

- `Image`

`ConnectApi.ManagedContentNodeType`

This new enum has these values.

- `Media`
- `MultilineText`
- `NameField`
- `RichText`

- `Text`

API: New and Changed Items

Access more metadata types, data objects, and standard platform events in API version 47.0. Many org preferences are available in Metadata API.

IN THIS SECTION:

New and Changed Objects

Access more data through these new and changed standard objects.

New and Changed Standard Platform Events

Receive real-time notifications from Salesforce by subscribing to the channels of these new and changed standard platform events.

REST API

REST API includes changed resources.

SOAP API

We added a call introduced in a previous release to the *SOAP API Developer Guide*.

Chatter REST API

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. Get navigation menu items and managed content versions for a community. Manage notification settings. Join the personalization pilot to work with audiences and targets in a community.

Reports and Dashboards REST API

Reports and Dashboards REST API enhancements include new properties that describe field-to-field filters and unique counts.

User Interface API

Work with new objects, add records to the MRU list view, and identify new app types.

Bulk API 2.0: Avoid overflow errors in the reported results

Bulk API 2.0 has one changed call. In the response body for `/services/data/vXX.X/jobs/ingest/jobID`, the type of the `numberRecordsFailed` and `numberRecordsProcessed` fields has changed from int to long.

Tooling API

Tooling API includes new and changed objects.

Metadata API

Metadata API includes new and changed types and fields.

Settings Exposed in Metadata API

We exposed some settings in Metadata API as Boolean fields on metadata types. Some of these settings have been available in Metadata API by using the OrgPreferenceSettings type. OrgPreferenceSettings is deprecated in API version 47.0 and will be removed in API version 48.0.

Lightning Console JavaScript API

The Lightning Console JavaScript API includes updated methods to customize the color of utility icons.

New and Changed Objects

Access more data through these new and changed standard objects.

Action Plans

Associate an action plan template with a business milestone, a claim, an insurance policy, insurance policy coverage, a person life event, or a visit

Use the new `BusinessMilestone`, `Claim`, `InsurancePolicy`, `InsurancePolicyCoverage`, `PersonLifeEvent`. or `Visit` picklist options for the `TargetEntityType` of the ActionPlanTemplate object.

Agent Productivity

Get information about macro usage

Use the new `MacroUsage` object.

Get information about quick text usage

Use the new `QuickTextUsage` object.

Channel-Object Linking (Beta)

Note: As a beta feature, Channel-Object Linking is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. For information on enabling this feature in your org, contact Salesforce.

Manage the rules that link channel interactions with objects (such as Contacts)

Use the new `ChannelObjectLinkingRule` object. This feature is beta for Messaging.

Collaborative Forecasts

Get a unique developer name for each role-based product family forecast type by product or schedule date

Formerly reserved for future use, you can now use these values in the `DeveloperName` field on the ForecastingType object.

- `LineItemQuantityProductDate`: Product Family Quantity by Product Date
- `LineItemQuantityScheduleDate`: Product Family Quantity by Schedule Date
- `LineItemRevenueProductDate`: Product Family Revenue by Product Date
- `LineItemRevenueScheduleDate`: Product Family Revenue by Schedule Date

DEPRECATED: The *`Territory_Model_NameN`*`_ProductFamily` value for the `DeveloperName` field on the ForecastingType object was deprecated

In the `DeveloperName` field on the ForecastingType object, we deprecated the ***`Territory_Model_NameN`***`_ProductFamily` value. ***`Territory_Model_NameN`*** now represents all territory forecast types, where *`Territory_Model_Name`* is the name of your active territory model in the API and can be followed by *`N`*. *`N`* is an auto-generated number that distinguishes between territory forecast types.

Contacts

Customize Opportunity Contact Roles to match your sales and reporting processes

The `OpportunityContactRole` object now supports customization, including custom fields, buttons, and page layouts. You can also use Apex triggers and validation rules to build automation and checks into your workflows.

Data Protection and Privacy

Get info on rules for sharing an AuthorizationFormConsent object with users other than the owner

Use the new AuthorizationFormConsentOwnerSharingRule object.

Get info on the list of access levels to an AuthorizationFormConsent object

Use the new AuthorizationFormConsentShare object.

Get info on rules for sharing a ContactPointTypeConsent object with users other than the owner

Use the ContactPointTypeConsentOwnerSharingRule object.

Indicate whether an authorization form requires a signature

Use the new `IsSignatureRequired` field on the AuthorizationForm object.

Specify the owner of the account associated with the customer consenting to the authorization form

Use the new `OwnerId` field on the AuthorizationFormConsent object.

Indicate whether an authorization form is seen or signed

Use the new `Status` field on the AuthorizationFormConsent object.

Reference the person consenting to the authorization form

Use the new `ConsentGiverId` field on the AuthorizationFormConsent object.

REMOVED: The PartyId field was removed from the AuthorizationFormConsent object

Use the `ConsentGiverId` field instead.

Reference the DocumentVersion object for which consent is given

Use the new `DocumentVersionId` field on the AuthorizationFormConsent object.

Specify the locale for an authorization form's text

Use the new `LocaleSelection` field on the AuthorizationFormText object.

Reference the DocumentVersion object that provides an authorization form's text

Use the new `ContentDocumentId` field on the AuthorizationFormText object.

See when you last viewed a ContactPointTypeConsent record or a record related to that record

Use the new `LastViewedDate` and `LastReferencedDate` fields on the ContactPointTypeConsent object.

See when you last viewed a DataUseLegalBasis record or a record related to that record

Use the new `LastViewedDate` and `LastReferencedDate` fields on the DataUseLegalBasis object.

See when you last viewed a DataUsePurpose record or a record related to that record

Use the new `LastViewedDate` and `LastReferencedDate` fields on the DataUsePurpose object.

Domain Management

Get more detail on domains

Query the new the `OptionsHstsHeaders` field in the Domain object to determine whether the HTTP Strict Transport Security (HSTS) response header is included in requests. We also deprecated the `OptionsExternalHttps` field. Query the new `HttpsOption` field for the current HTTPS option instead.

Einstein Analytics

Use EPT instead of UI_RENDER_TIME in Einstein Analytics.

Updated the Wave Performance Event Type documentation to clarify that `UI_RENDER_TIME` was removed in API version 46.0.

Einstein Platform

Understand how Einstein features like Prediction Builder make predictions

Use the new Einstein insight objects: `AIRecordInsight`, `AIInsightValue`, `AIInsightAction`, `AIInsightReason`, and `AIInsightFeedback`.

The CaseArticle object supports primary key (PK) chunking for bulk query jobs

PK chunking helps you efficiently process a large volume of records. For more information, see PK Chunking Header and Walk Through a Bulk Query Sample Using PK Chunking.

Sales Cloud Einstein

Understand the model factors that Sales Cloud Einstein uses to build a scoring model

Use the new SalesAIScoreCycle and SalesAIScoreModelFactor objects.

Contact fields have changed when used with the describe call for OpportunityContactRoleSuggestionInsight list views

The way contact fields are represented has changed. For example, the `ContactEmail` field is now `Contact.Email`.

Email

User

The field `LocaleSidKey` has a new picklist value: `sh_ME_USD`, for Montenegrin (Montenegro).

The field `UserPreferencesNativeEmailClient` was added to the object.

EmailMessage

Status

The `Status` field is mostly read-only instead of read-only. You can change the status only from *New* to *Read*.

Entitlements

The WorkOrder and WorkOrderLineItem objects support primary key (PK) chunking for bulk query jobs

PK chunking helps you efficiently process a large volume of records. For more information, see PK Chunking Header and Walk Through a Bulk Query Sample Using PK Chunking.

BEHAVIOR CHANGE: Update pricebook entries on Contract Line Items

You can now update the `PricebookEntryId` field on the ContractLineItem object.

Event Monitoring

Capture information in the EventLogFile about the particular Wave tab in the user interface

Use the `TAB_ID` field of the Wave Change and Wave Interaction event types.

Capture information in the EventLogFile about every Apex REST API request

Use the new Apex REST API event type.

Capture information in the EventLogfile about the context in which a report executed, such as from a UI, an API, or a dashboard

Use the new `ORIGIN` field of the Report and Asynchronous Report Run event types.

Field Service Lightning

Let users access time sheets on their mobile devices.

Use the new `IsTimeSheetEnabled` field on the FieldServiceMobileSettings object. This feature is beta for Field Service Lightning.

Get info on rules for sharing a job profile object with users other than the owner

Use the new JobProfileOwnerSharingRule object.

Get info on the list of access levels to a job profile

Use the new JobProfileShare object.

Get info on the changes to values in the fields of a job profile record

Use the new JobProfileHistory object.

Schedule service appointments using shifts.

Use the new `JobProfile`, `ServiceResourceId`, and `ServiceTerritoryId` fields on the Shift object.

Flow

BEHAVIOR CHANGE: SOQL queries no longer gives errors when specifying unsupported process types

If an SOQL query specifies an unsupported process type in the `ProcessType` field on the FlowDefinitonView, FlowVersionView, and FlowVariableView objects, it now returns no records. Previously, it returned an error message.

Get details about more process types

Use the new `SalesEntryExperienceFlow` and `FSCLending` values in the existing `ProcessType` field on the FlowDefinitionView and FlowVersionView objects.

Get more details about flows

Use the new `TriggerType`, `LastModifiedBy`, `LastModifiedDate`, `IsActive`, `IsOutOfDate`, `IsTemplate`, `Builder`, `ManageableState`, and `InstalledPackageName` fields on the existing FlowDefinitionView object.

Create a notification type

Use the new `CustomNotificationType` object to create a desktop or mobile notification type for building a custom notification and sending from a flow.

Formulas

Search for available functions in formulas

Use the new `FormulaFunction` object to query the functions used to build a formula.

Search for available function categories in formulas

Use the new `FormulaFunctionCategory` object to query the categories of functions used to build a formula.

Search for the formula rules that control the visibility of a Lightning component

Use the new `UiFormulaRule` object to query the formula filters that control the display of a Lightning component.

Search for the filters that define the formula that controls the visibility of a Lightning component

Use the new `UiFormulaCriterion` object to query the filters in a formula that controls the display of a Lightning component.

Globalization

BEHAVIOR CHANGE: Get a user's displayed languages and locales

We changed the `PicklistEntry active` value results for the existing `LanguageLocaleKey` field on the User object to differentiate between the user's displayed and available languages.

High Velocity Sales

Track the result of a phone call

Use the new `CallDisposition` object to assign result values when logging a phone call.

Use the result of a phone call in reports and sales cadence branching criteria

Use the new `CallDispositionCategory` object to relate call result values to categories. These categories are used in reports and as branching criteria for sales cadences.

Customize work queues with third-party scoring

Use the new SalesWorkQueueSettings object.

Knowledge

Filter SOQL queries for articles with multiple languages or publication statuses

Use multiple values for the `language` and `publishing_status` fields in the `KnowledgeArticleVersion` object. Queries for `archived` articles return the most recent version of archived articles, but they don't return archived versions of currently published articles. Queries without a filter on publication status return draft, archived, and published articles. In API version 46.0 and earlier, results are limited to published articles by default.

Use the Lightning Knowledge API

Starting with API 39.0, you can use Lightning Knowledge in addition to Knowledge in Salesforce Classic. This includes updates to KnowledgeArticle and KnowledgeArticleVersion. You can also use the following new objects: Knowledge__Feed, Knowledge__ka, Knowledge__kav, Knowledge__DataCategorySelection.

Lightning Communities

Let delegated portal user admins assign permission sets to users in their community

The new `PortalDelegablePermissionSet` object gives delegated portal user admins the ability to assign permission sets to other portal users and perform more community management.

Lightning Dialer

Use a custom caller ID

The `CustomCallerId` picklist value is available for the `CallerIdType` field in the `VoiceCall` and `VoiceUserPreferences` objects. Additionally, the `IsCustomCallerIdNumber`, `VendorVerifiedCallerIdKey`, and `VoiceVendorInfoId` fields are available for the `VoiceUserLine` object. These changes help indicate that a user is displaying a custom number when making outgoing calls.

Lightning Scheduler

Store the maximum number of appointments available for a concurrent scheduling time slot.

Use the new `MaxAppointments` field on the `TimeSlot` object.

Store the work type group assigned to a concurrent scheduling time slot.

Use the new `WorkTypeGroupId` field on the `TimeSlot` object.

Salesforce Overall

Get feedback from users why they switched back to Salesforce Classic

Use the `LightningOnboardingConfig` object to access the content from the Switch to Salesforce Classic Feedback Form.

Create In-App Guidance for feature discovery and adoption

Now generally available. Use the `Prompt`, `PromptAction`, `PromptActionShare`, `PromptActionOwnerSharingRule`, and `PromptVersion` objects. The prompt now retains the publish status upon installation in orgs. For example, if the prompts are active in the package, they are active after installation. Plus, longer character limits for the URL of the action button.

Higher maximum character limit for URLs in the custom Help Menu section
The `LinkUrl` field in the `CustomHelpMenuItem` object changed to increase the maximum character limit to 1,000 and to remove the Group property.

Clone an entity and all related child entities (reserved for future use)
Use the `deepCloneable` object.

Sales Processes

Track and display the history of price book entries
Use the new `PricebookEntry` picklist value on the `FieldHistoryType` field, in the `FieldHistoryArchive` object. Now you can track and audit the previous prices of a price book entry.

Specify sort order of products with OpportunityLineItem and QuoteLineItem
You can now create and update the `SortOrder` field on the `OpportunityLineItem` and `QuoteLineItem` objects. Use them to specify the order in which products appear on an opportunity or on a quote, respectively. If an opportunity and a quote are linked and the sort order of either record is changed, the sort order is updated during syncing.

Create custom currency fields for account teams
Use the new `CurrencyIsoCode` field on the `AccountTeamMember` object.

Celebrate success by displaying confetti on a path when reps reach important milestones
Use the new `animationRule` field on the `DescribePathAssistant` object.

Salesforce Surveys

Associate a user's record with invitations or responses
Use the new `User` picklist option for the `SubjectEntityType` field of the SurveySubject object.

BEHAVIOR CHANGE: Get details about invitations and responses associated with records of supported objects
The `SurveyInvitationID` and `SurveyResponseId` fields have been added to the SurveySubject object.

BEHAVIOR CHANGE: Scores calculated for all question types apart from text
The `CumulativeScore`, `DateResponse`, and `QuestionDeveloperName` fields have been added to the SurveyQuestionScore object. SurveyQuestionScore now stores the scores for the following additional question types: date, multiple choice, picklist, and slider.

Pardot

Create and manage reusable content for Pardot emails
Use the new objects: Snippet, SnippetAssignment, and SnippetFeed.

Job Scheduling

Query scheduled flows through CronJobDetail
The `JobType` picklist now includes scheduled flows.

SEE ALSO:

Create Guided Mortgage Application Flows with Mortgage Flow Templates

New and Changed Standard Platform Events

Receive real-time notifications from Salesforce by subscribing to the channels of these new and changed standard platform events.

Salesforce Einstein

Be notified about Einstein prediction results

AIPredictionEvent references new Einstein prediction result objects. The `InsightId` field now references an AIRecordInsight. The `PredictionEntityId` field now references an AIInsightValue. Use information in the referenced objects to understand how the prediction results were generated.

Be notified when Einstein Case Routing changes a case

AIUpdateRecordEvent notifies subscribers when Einstein Case Classification has written prediction results back to a target object and AI prediction fields.

Mobile

Track users' mobile in-app activity

Use MobileEmailEvent, MobileScreenshotEvent, and MobileTelephonyEvent to track in-app email activity, screen shots, phone calls, and text messages. Also, use MobileEnforcedPolicyEvent to track Enhanced Mobile Security policy events. The new mobile events are part of Real-Time Event Monitoring.

Customization

Be notified about errors that occur during the execution of a screen flow

Subscribe to FlowExecutionErrorEvent to receive notifications related to screen flow errors.

Security and Identity

Monitor user activity in real time

Use the Real-Time Event Monitoring objects to stream and store event data. Real-Time Event Monitoring was beta in Summer '19 and is now generally available.

Get geolocation information from login events

Use the new fields of the LoginEvent and LoginEventStream event objects to get geolocation information about user logins. The new fields are: `City`, `Country`, `LoginLatitude`, `LoginLongitude`, `Subdivision`, and `PostalCode`. The LoginEvent and LoginEventStream event objects are part of Real-Time Event Monitoring.

Get event data in JSON format

Use the new `Records` field of the ApiEvent, ApiEventStream, ListViewEvent, ListViewEventStream, ReportEvent, and ReportEventStream event objects. This new field contains the same information as the old `RecordsData` field of ApiEvent and ApiEventStream, `ListViewData` field of ListViewEvent and ListViewEventStream, and `ReportData` field of ReportEvent and ReportEventStream. These objects are part of Real-Time Event Monitoring.

Correlate multiple chunks of list view records in a single list view execution

Use the new `ExecutionIdentifier` and `Sequence` fields of the ListViewEvent and ListViewEventStream event objects to correlate multiple records. These event objects are part of Real-Time Event Monitoring.

BEHAVIOR CHANGE: Get more relevant effective page times in LightningUriEventStream and LightningUriEvent event objects

If Salesforce detects a value for the `EffectivePageTime` field that is greater than 60 seconds, the field value is now set to 0. Filtering out these outlier values increases the usefulness and readability of the Lightning URI event data. The LightningUriEventStream and LightningUriEvent event objects are part of Real-Time Event Monitoring.

REMOVED: The AdminSetupEvent and AdminSetupEventStream event objects are no longer available

The AdminSetupEvent and AdminSetupEventStream event objects were part of Real-Time Event Monitoring and were beta in Summer '19.

REMOVED: The `Browser` field of the ApiEvent and ApiEventStream event objects was removed

The ApiEvent and ApiEventStream event objects are part of Real-Time Event Monitoring and were beta in Summer '19.

REMOVED: The `ListViewData` field of the ListViewEvent and ListViewEventStream event objects was removed

Use the new `Records` field which contains the same data. The ListViewEvent and ListViewEventStream event objects are part of Real-Time Event Monitoring and were beta in Summer '19.

REMOVED: The `Namespace` field of the UriEvent and UriEventStream event objects was removed

The UriEvent and UriEventStream event objects are part of Real-Time Event Monitoring and were beta in Summer '19.

REMOVED: The `RecordData` field of the ApiEvent and ApiEventStream event objects was removed

Use the new `Records` field, which contains the same data. The ApiEvent and ApiEventStream event objects are part of Real-Time Event Monitoring and were beta in Summer '19.

REMOVED: The `ReportData` field of the ReportEvent and ReportEventStream event objects was removed

Use the new `Records` field which, contains the same data. The ReportEvent and ReportEventStream event objects are part of Real-Time Event Monitoring and were beta in Summer '19.

SUPPORT CHANGE: The `SessionLevel` field of the LightningUriEvent and LightningUriEventStream event objects is reserved for future use

The LightningUriEvent and LightningUriEventStream event objects are part of Real-Time Event Monitoring and were beta in Summer '19.

SEE ALSO:

Protect Your Salesforce App with Enhanced Mobile Security

Stream and Store Event Data in Near Real Time (Generally Available)

REST API

REST API includes changed resources.

Development

BEHAVIOR CHANGE: Get hourly platform event publishing allocations

The `limits` resource now returns two new allocations. Make a GET request to `/services/data/v47.0/limits` to obtain these values.

- `HourlyPublishedPlatformEvents`—High-volume platform event notifications published per hour
- `HourlyPublishedStandardVolumePlatformEvents`—Standard-volume platform event notifications published per hour

Get information about query job limits for Bulk API 2.0

Use the new `DailyBulkV2QueryFileStorageMB` and `DailyBulkV2QueryJobs` values in the response of the `limits` resource. Make a GET request to `/services/data/v47.0/limits` to obtain these values.

Lightning Scheduler

BEHAVIOR CHANGE: Get appointment time slots for concurrent scheduling and multi-resource scheduling

Make a GET request to `/services/data/v47.0/scheduling/getAppointmentSlots` to obtain these values.

BEHAVIOR CHANGE: Get appointment candidates for concurrent scheduling

Make a GET request to `/services/data/v47.0/scheduling/getAppointmentCandidates` to obtain these values.

SOAP API

We added a call introduced in a previous release to the *SOAP API Developer Guide*.

New, Changed, and Deprecated Calls

New Calls

`describePathAssistants()`
Introduced in API version 35.0, this method describes all the metadata for the `PathAssistant` object. For example, you can use it to retrieve the fields, URLs, and child relationships for `PathAssistant`.

Chatter REST API

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. Get navigation menu items and managed content versions for a community. Manage notification settings. Join the personalization pilot to work with audiences and targets in a community.

Note: To create custom Chatter and communities experiences in Salesforce, use ConnectApi (Chatter in Apex): New and Changed Classes and Enums.

IN THIS SECTION:

New Chatter REST API Resources
These resources are new.

New Chatter REST API Request Bodies
These request bodies are new.

New and Changed Chatter REST API Response Bodies
These response bodies are new or have changes.

New Chatter REST API Resources

These resources are new.

Communities

Get navigation menu items for a community
Make a GET request to the new `/connect/communities/`***`communityId`***`/navigation-menu/navigation-menu-items` resource.

Managed Content

Get published managed content versions for a community
Make a GET request to the new `/connect/communities/`***`communityId`***`/managed-content/delivery` resource. Set the required `managedContentType` parameter to the developer name of the content version.

Notification Settings

Get notification settings for the org
Make a GET request to the new `/connect/notifications/settings/organization` resource.

Get a notification setting

Make a GET request to the new `/connect/notifications/settings/organization/`***`notificationTypeOrId`*** resource.

Set a notification setting

Make a POST request to the new `/connect/notifications/settings/organization/`***`notificationTypeOrId`*** resource with the new Notification Setting Input request body.

Reset a notification setting to its default

Make a DELETE request to the new `/connect/notifications/settings/organization/`***`notificationTypeOrId`*** resource.

Get notification app settings for the org

Make a GET request to the new `/connect/notifications/app-settings/organization` resource.

Get a notification app setting

Make a GET request to the new `/connect/notifications/app-settings/organization/`***`notificationTypeOrId`*** resource.

Set a notification app setting

Make a POST request to the new `/connect/notifications/app-settings/organization/`***`notificationTypeOrId`*** resource with the new Notification App Setting Input request body.

Reset a notification app setting to its default

Make a DELETE request to the new `/connect/notifications/app-settings/organization/`***`notificationTypeOrId`*** resource.

Personalization (Pilot)

Note: We provide Personalization to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Personalization isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

If you have Developer Edition, contact Salesforce to use the Personalization features without participating in the pilot. Regardless of edition, Personalization isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. All commands, parameters, and other features are subject to change or deprecation at any time, with or without notice.

Get a list of audiences that include the context user

Make a GET request to the new `/connect/communities/`***`communityId`***`/personalization/audiences` resource.

Create an audience

Make a POST request to the new `/connect/communities/`***`communityId`***`/personalization/audiences` resource with the new Audience Input request body.

Get an audience

Make a GET request to the new `/connect/communities/`***`communityId`***`/personalization/audiences/`***`audienceId`*** resource.

Update an audience

Make a PATCH request to the new `/connect/communities/`***`communityId`***`/personalization/audiences/`***`audienceId`*** resource with the new Audience Input request body.

Delete an audience

Make a DELETE request to the new `/connect/communities/`***`communityId`***`/personalization/audiences/`***`audienceId`*** resource.

Get a list of targets that match the context user, based on audiences that include the user

Make a GET request to the new `/connect/communities/`***`communityId`***`/personalization/targets` resource.

Create targets

Make a POST request to the new `/connect/communities/`***`communityId`***`/personalization/targets` resource with the new Target Collection Input request body.

Update targets

Make a PATCH request to the new `/connect/communities/`***`communityId`***`/personalization/targets` resource with the new Target Collection Update Input request body.

Get target information for a comma-separated list of target IDs

Make a GET request to the new `/connect/communities/`***`communityId`***`/personalization/targets/batch/`***`targetIds`*** resource.

Get a target

Make a GET request to the new `/connect/communities/`***`communityId`***`/personalization/targets/`***`targetId`*** resource.

Delete a target

Make a DELETE request to the new `/connect/communities/`***`communityId`***`/personalization/targets/`***`targetId`*** resource.

New Chatter REST API Request Bodies

These request bodies are new.

Notification Settings

Notification App Setting Input

This new request body has these properties.

- `applicationId`—ID of the connected app. If not specified and called from a connected app, defaults to the app information from the session.
- `enabled`—Specifies whether to enable delivery of the notification type for the connected app (`true`) or not (`false`).

Notification Setting Input

This new request body has these properties.

- `desktopEnabled`—Specifies whether to enable desktop delivery for the notification type (`true`) or not (`false`). If not specified, the setting doesn't change.
- `emailEnabled`—Specifies whether to enable email delivery for the notification type (`true`) or not (`false`). If not specified, the setting doesn't change.
- `mobileEnabled`—Specifies whether to enable mobile delivery for the notification type (`true`) or not (`false`). If not specified, the setting doesn't change.

Personalization

Audience Input

This new request body has these properties.

- `criteria`—List of audience criteria to update or add.
- `customFormula`—Custom formula for the audience criteria. For example, (1 AND 2) OR 3.
- `formulaFilterType`—Formula filter type for the audience. Values are:
  - `AllCriteriaMatch`—All audience criteria are true (AND operation).
  - `AnyCriterionMatches`—Any audience criterion is true (OR operation).
  - `CustomLogicMatches`—Audience criteria match the custom formula (for example, (1 AND 2) OR 3).
- `name`—Name of the audience.

Audience Criterion Input

This new request body has these properties.

- `criterion`—List of mappings of audience criteria fields and values.
- `criterionNumber`—Number associated with the audience criterion in a formula. For example, (1 AND 2) OR 3. If unspecified, criteria are assigned numbers in the order that they're added.
- `criterionOperator`—Operator used in the audience criterion. Values are:
  - `Contains`
  - `Equal`
  - `GreaterThan`
  - `GreaterThanOrEqual`
  - `Includes`
  - `LessThan`
  - `LessThanOrEqual`
  - `NotEqual`
  - `NotIncludes`
  - `StartsWith`
- `criterionType`—Type of audience criterion. Values are:
  - `Default`—Audience has no criteria.
  - `Domain`—Audience criterion is based on domain.
  - `FieldBased`—Audience criterion is based on object fields.
  - `GeoLocation`—Audience criterion is based on location.
  - `Permission`—Audience criterion is based on standard or custom permissions.
  - `Profile`—Audience criterion is based on profile.

Target Collection Input

This new request body has this property.

- `targets`—List of targets to create.

Target Collection Update Input

This new request body has this property.

- `targets`—List of targets to update.

Target Input

This new request body has these properties.

- `audienceId`—ID of the audience to assign to the target.

- groupName—Group name of the target. Groups bundle related target and audience pairs.
- priority—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- publishStatus—Publish status of the target. Values are:
  - Draft
  - Live
- targetType—Type of target, indicating the nature of the data being targeted. In API version 47.0 and later, supported values include ExperienceVariation and custom object API names, such as ***CustomObjectName***__c.
- targetValue—Value of the target. If targetType is ExperienceVariation, targetValue is the developer name of the experience variation. If targetType is ***CustomObjectName***__c, targetValue is the ID of the custom object.

Target Update Input

This new request body has these properties.

- audienceId—ID of the audience to assign to the target.
- priority—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- targetId—ID of the target to update.

New and Changed Chatter REST API Response Bodies

These response bodies are new or have changes.

Chatter Feeds

Email Message Capability

This response body has these new properties.

- htmlExpandEmailThread—Start location of previous email thread.
- status—Status of an email message on a case. Values are:
  - DraftStatus
  - ForwardedStatus
  - NewStatus
  - ReadStatus
  - RepliedStatus
  - SentStatus

Communities

Community

This response body has this new property.

- guestMemberVisibilityEnabled—Specifies whether guest members can see other members of the community (true) or not (false).

Navigation Menu Item

This new response body has these properties.

- `imageUrl`—URL for the image of the navigation menu item.
- `label`—Label for the navigation menu item.
- `subMenu`—Submenu for the navigation menu item.
- `target`—Target for the navigation menu item. Values are:
  - `CurrentWindow`—Navigation menu item opens in the current window.
  - `NewWindow`—Navigation menu item opens in a new window.
- `url`—URL for the navigation menu item.
- `urlType`—Type of URL for the navigation menu item. Values are:
  - `ExternalLink`—URL outside of your community.
  - `InternalLink`—Relative URL inside your community.

Navigation Menu Item Collection

This new response body has this property.

- `menuItems`—List of navigation menu Items.

Managed Content

Managed Content Associations

This new response body has this property.

- `topics`—A collection of topics associated with the managed content.

Managed Content Media Node Value

This new response body has these properties.

- `altText`—Alternative text for the managed content node.
- `altUrl`—Alternative URL for the managed content node.
- `mediaType`—Type of managed content media. Value is `Image`.
- `mimeType`—MIME type of the managed content node.
- `nodeType`—Type of managed content node. Value is `Media`.
- `title`—Title of the managed content node.
- `url`—URL for the managed content node.

ManagedContent Node Type

This new response body has these properties.

- `label`—Label of the managed content node type.
- `name`—Developer name of the managed content node type.
- `nodeType`—Type of managed content node. Values are:
  - `Media`
  - `MultilineText`
  - `NameField`
  - `RichText`
  - `Text`

Managed Content Text Node Value

This new response body has these properties.

- `nodeType`—Type of managed content node. Values are:
  - `MultilineText`
  - `NameField`
  - `RichText`
  - `Text`
- `value`—Text value of the managed content node.

Managed Content Type

This new response body has these properties.

- `label`—Label of the managed content type.
- `name`—Developer name of the managed content type.
- `nodeTypes`—Type of managed content node. Values are:
  - `Media`
  - `MultilineText`
  - `NameField`
  - `RichText`
  - `Text`

Managed Content Version

This new response body has these properties.

- `associations`—Content topics associated with the managed content.
- `contentNodes`—Map of content nodes.
- `managedContentId`—ID of the managed content.
- `publishedDate`—Date when the managed content version was last published.
- `title`—Title of the managed content version.
- `type`—Type of managed content version.
- `typeLabel`—Type label of the managed content type.

Managed Content Version Collection

This new response body has these properties.

- `currentPageUrl`—Chatter REST API URL identifying the current page.
- `items`—List of managed content versions.
- `managedContentTypes`—Map of managed content types.
- `nextPageUrl`—Chatter REST API URL identifying the next page, or `null` if there isn't a next page.
- `total`—Total number of managed content versions.
- `totalTypes`—Total number of managed content types.

Topic Summary

This new response body has these properties.

- `id`—ID of the topic.
- `name`—Name of the topic.

Next Best Actions

Next Best Action Flow Action

This response body has these new properties.

- `flowLabel`—Label of the recommended flow.
- `flowType`—Type of recommended flow. Values are:
  - `AutoLaunchedFlow`—Autolaunched flow that runs in the background.
  - `Flow`—Screen flow that accepts user inputs.

Notification Settings

Notification App Setting

This new response body has these properties.

- `applicationDevName`—Developer name of the connected app.
- `applicationId`—ID of the connected app.
- `applicationName`—Name of the connected app.
- `applicationNamespace`—Namespace of the connected app if it's installed with a managed package.
- `enabled`—Specifies whether the notification type is enabled for the connected app (`true`) or not (`false`).
- `notificationLabel`—Display label of the notification.
- `notificationTypeName`—API name of the custom notification type.
- `notificationTypeNamespace`—Namespace of the custom notification type if it's installed with a managed package.
- `notificationTypeOrId`—Notification type or ID of the custom notification type.
- `pushEnabled`—Specifies whether push is enabled for the notification type in the connected app (`true`) or not (`false`).

Notification App Settings Collection

This new response body has this property.

- `notificationAppSettings`—Collection of notification app settings.

Notification Setting

This new response body has these properties.

- `desktopEnabled`—Specifies whether desktop delivery is enabled for the notification type (`true`) or not (`false`).
- `emailEnabled`—Specifies whether email delivery is enabled for the notification type (`true`) or not (`false`).
- `mobileEnabled`—Specifies whether mobile delivery is enabled for the notification type (`true`) or not (`false`).
- `notificationLabel`—Display label of the notification.
- `notificationTypeName`—API name of the custom notification type.
- `notificationTypeNamespace`—Namespace of the custom notification type if it's installed with a managed package.
- `notificationTypeOrId`—Notification type or ID of the custom notification type.

Notification Settings Collection

This new response body has this property.

- `notificationSettings`—Collection of notification settings.

Personalization

Audience

This new response body has these properties.

- `criteria`—Criteria details for the audience.
- `customFormula`—Custom formula for the audience criteria. For example, (1 AND 2) OR 3.
- `formulaFilterType`—Formula filter type for the audience. Values are:
  - `AllCriteriaMatch`—All audience criteria are true (AND operation).
  - `AnyCriterionMatches`—Any audience criterion is true (OR operation).
  - `CustomLogicMatches`—Audience criteria match the custom formula (for example, (1 AND 2) OR 3).
- `id`—ID of the audience.
- `name`—Name of the audience.
- `targets`—Target assignments for the audience.
- `url`—URL to this audience.

Audience Collection

This new response body has this property.

- `audiences`—Collection of audiences.

Audience Criteria Details

This new response body has these properties.

- `criterion`—List of mappings of audience criteria fields and values.
- `criterionNumber`—Number associated with the audience criterion in a formula. For example, (1 AND 2) OR 3. If unspecified, criteria are assigned numbers in the order that they're added.
- `crierionOperator`—Operator used in the audience criterion. Values are:
  - `Contains`
  - `Equal`
  - `GreaterThan`
  - `GreaterThanOrEqual`
  - `Includes`
  - `LessThan`
  - `LessThanOrEqual`
  - `NotEqual`
  - `NotIncludes`
  - `StartsWith`
- `criterionType`—Type of audience criterion. Values are:
  - `Default`—Audience has no criteria.
  - `Domain`—Audience criterion is based on domain.
  - `FieldBased`—Audience criterion is based on object fields.
  - `GeoLocation`—Audience criterion is based on location.
  - `Permission`—Audience criterion is based on standard or custom permissions.
  - `Profile`—Audience criterion is based on profile.

Audience Target

This new response body has these properties.

- `audienceName`—Name of the audience assigned to the target.
- `id`—ID of the audience assigned to the target.
- `url`—URL to the audience assigned to the target.

Audience Target Assignment

This new response body has these properties.

- `groupName`—Group name of the target. Groups bundle related target and audience pairs.
- `isMatch`—Specifies whether the target matches the current context (`true`) or doesn't (`false`).
- `targetType`—Type of target, indicating the nature of the data being targeted.
- `targetValue`—Value of the target.

Scope

This new response body has these properties.

- `name`—Name of the scope for the target.
- `value`—Value of the scope for the target.

Target

This new response body has these properties.

- `audience`—Audience assigned to the target.
- `groupName`—Group name of the target. Groups bundle related target and audience pairs.
- `id`—ID of the target.
- `priority`—Priority of the target. Within a group, priority determines which target is returned if the user matches more than one audience.
- `publishStatus`—Publish status of the target. Values are:
  - `Draft`
  - `Live`
- `scope`—List of scopes for the target.
- `targetType`—Type of target, indicating the nature of the data being targeted.
- `targetValue`—Value of the target.
- `url`—URL to the target.

Target Collection

This new response body has this property.

- `targets`—List of personalization targets.

Reports and Dashboards REST API

Reports and Dashboards REST API enhancements include new properties that describe field-to-field filters and unique counts.

Changed Resources

The `reports/{report_id}/` and `reports/{report_id}/describe/` resources have new and changed properties that describe row-level formulas, field-to-field filters, and unique counts.

Reports (`/services/data/v47.0/analytics/reports/`*`{report_id}`*`/` and `/services/data/v47.0/analytics/reports/`*`{report_id}`*`/describe/`)

The `reportMetadata` object has a new property, `filterType`, and a changed property, `aggregates`.

<table>
<tr><th>Property</th><th>Type</th><th>Description</th></tr>
<tr><td><code>filterType</code></td><td>String</td><td>Describes the type of value used to filter report data. Valid values are:

<code>fieldToField</code>—Filters report data by comparing values of one field with the values of a second field.
<code>fieldValue</code>—Filters report data by comparing values of a field with a defined value.
<code>null</code>—If null, the <code>filterType</code> defaults to <code>fieldValue</code>.

In this example, the first filter is a field-to-field filter that compares the Amount field with Projected Amount field. The second filter is a field filter that returns records for which a row-level formula returns more than 0.
<pre>
"reportFilters" : [{
      "column" : "AMOUNT",
      "filterType" : "fieldToField",
      "isRunPageEditable" : true,
      "operator" : "notEqual",
      "value" : "PROJECTED_AMOUNT"
    }, {
      "column" : "CDF1",
      "filterType" : "fieldValue",
      "isRunPageEditable" : true,
      "operator" : "greaterThan",
      "value" : "0"
}]
</pre></td></tr>
<tr><td><code>aggregates</code></td><td>Array of Strings</td><td>The <code>aggregates</code> property supports a new aggregate type: <code>u!{column_name}</code>.

<code>u!{column_name}</code> represents a unique count of values for the specified <code>{column_name}</code>. For example, <code>u!AccountName</code> returns the number of unique account name values in the <code>AccountName</code> field.</td></tr>
</table>

The `reportTypeMetadata` object has two new properties.

Property	Type	Description
`fieldToFieldFilterable`	Boolean	Specifies whether a field can be referenced in a field-to-field filter (`true`) or not (`false`).

Property	Type	Description
`uniqueCountable`	Boolean	Specifies whether a field supports unique count (`true`) or not (`false`)

SEE ALSO:

Reports and Dashboards REST API Developer Guide (can be outdated or unavailable during release preview)

User Interface API

Work with new objects, add records to the MRU list view, and identify new app types.

Add Records to the Most Recently Used (MRU) List View

To add records to the MRU list view, set the new `updateMru` parameter to `true` on these resources.

- `/ui-api/records/batch/{recordIds}`
- `/ui-api/records/{recordId}`
- `/ui-api/record-ui/{recordIds}`

Identify New App Types

The new `appType` property in the App response identifies the four different types of apps: Classic, Community, Connected, and Lightning.

In addition, `uiType` property is deprecated. Use `appType` instead.

To see a list of resources that return the App response, see Manage Apps in the User Interface API Developer Guide.

Support for Connected Apps on a Phone

Connected apps are now supported for the `Small` form factor. As a result, the Apps response includes connected apps in requests where `formFactor=Small`, and the `formFactors` property in the App response includes the `Small` value for connected apps.

Object Info Properties

The Object Info Directory Entry response has two new properties:

- `keyPrefix`—The key prefix of the object.
- `nameFields`—A list of the API names of the name fields of the object. Most objects have one name field. For example, the Order object has one name field, `OrderNumber`. However, objects that use a first and last name have multiple name fields. For example, the Contact object has these name fields: `FirstName`, `LastName`, and `Name`.

Reorder Global Navigation Items

To update the order of global navigation items in your app or to add a navigation item, request the new resource, `PUT /ui-api/apps/{appId}/user-nav-items`. The updated order persists across desktop and mobile environments.

Supported Objects

User Interface API now supports these objects:

- BusinessMilestone
- BusinessProfile
- CareProgram
- CareProgramEnrollee
- Claim
- ClaimCase

- ClaimItem
- ClaimParticipant
- CoverageType
- CustomerProperty
- DataStreamDefinition
- ElectronicMediaGroup
- InsuranceClaimAsset
- InsurancePolicy
- InsurancePolicyAsset
- InsurancePolicyCoverage
- InsurancePolicyMemberAsset
- InsurancePolicyParticipant
- InsuranceProfile
- LoanApplicant
- LoanApplicationLiability
- OrderItemSummaryChange
- OrgMetric
- OrgMetricScanResult
- OrgMetricScanSummary
- PersonLifeEvent
- PriceAdjustmentSchedule
- Producer
- ProducerPolicyAssignment
- ProductCoverage
- ProductMedia
- RetailVisitWorkTaskOrder
- SecuritiesHolding
- WebStoreSearchProdSettings
- WorkerCompCoverageClass

The list view resources and the MRU resources support a subset of the supported objects, including these new objects:

- BusinessMilestone
- BusinessProfile
- Claim
- ClaimCase
- ClaimItem
- ClaimParticipant
- CoverageType
- CustomerProperty
- DataStreamDefinition
- InsuranceClaimAsset

- InsurancePolicy
- InsurancePolicyAsset
- InsurancePolicyCoverage
- InsurancePolicyMemberAsset
- InsurancePolicyParticipant
- InsuranceProfile
- LoanApplicant
- LoanApplicationLiability
- PersonLifeEvent
- Producer
- ProducerPolicyAssignment
- ProductCoverage
- RetailVisitWorkTaskOrder
- SecuritiesHolding
- WorkerCompCoverageClass

Bulk API 2.0: Avoid overflow errors in the reported results

Bulk API 2.0 has one changed call. In the response body for `/services/data/vXX.X/jobs/ingest/jobID`, the type of the `numberRecordsFailed` and `numberRecordsProcessed` fields has changed from int to long.

Why: This change avoids overflow errors in the reported results when there are large numbers of items.

Tooling API

Tooling API includes new and changed objects.

The Tooling API Reference and Developer Guide contains all Tooling API information.

IN THIS SECTION:

Tooling API
Tooling API includes new and changed objects.

Tooling API

Tooling API includes new and changed objects.

Field Service

Expose time sheet template metadata using the REST interface
The TimeSheetTemplate object represents a template for creating time sheets in Field Service Lightning.

Case Management

Create a strategy template that subscribers can clone and customize
Use the `IsTemplate` field on the RecommendationStrategy object, which was introduced in API version 44.0 and is now documented in the *Tooling API Reference and Developer Guide*.

Communities

Query and manage Salesforce CMS content types (custom content types are displayed as forms with defined fields in the Salesforce CMS Lightning app)

Use the new ManagedContentType and ManagedContentNodeType objects.

Development

Create, manage, and query Change Data Capture channels and their members

Use the new PlatformEventChannel and PlatformEventChannelMember objects to manage Change Data Capture channels and their members. You can create, delete, and query custom channels. You can also create, delete, and query members of standard and custom channels.

Determine whether metadata components have dependencies or are safe to delete

Use the new MetadataComponentDependency object. For details, see Untangle Your Dependencies with MetadataComponentDependency Queries (Beta).

Identify the user who caused the change that generated a new source member row

Use the new `ChangedBy` field on the SourceMember object.

DEPRECATED: The `RevisionNum` field on the SourceMember object has been deprecated

Use the new `RevisionCounter` field on SourceMember instead. `RevisionCounter` doesn't reset the count when source is pushed to a scratch org.

Data Protection and Privacy

Indicate the compliance acts, definitions, or regulations related to a field's data

Use the new `ComplianceGroup` field on the existing FieldDefinition object.

Globalization

Create, manage, and query custom labels

The ExternalString object, available in API version 38.0 and later, represents a custom label for a translatable UI component.

Packaging

Calculate code coverage on a second-generation managed package or unlocked package

Use the new `CalculateCodeCoverage` field on the Package2VersionCreateRequest object.

Review code coverage calculation on a second-generation managed package or unlocked package

Use the `HasPassedCodeCoverageCheck` and `CodeCoverage` fields on the Package2Version object.

Identify whether a component is from an unlocked package

Use the new `installedEditable` and `deprecatedEditable` enums on the `ManageableState` field.

Salesforce Overall

BEHAVIOR CHANGE: You can use Tooling API to query for User object fields in guest user mode in API version 44.0 and earlier. In API version 45.0 and later, use SOAP API to get this data in guest user mode.

User fields are exposed in SOAP API version 45.0 and later. User is still exposed in Tooling API to User Profiles with the View Setup permission.

Metadata API

Metadata API includes new and changed types and fields.

We also exposed some settings in as Boolean fields on new and existing metadata types. For details, see Settings Exposed in Metadata API.

Salesforce Overall

Create in-app guidance prompts for feature discovery and adoption

Now generally available. Use the `Prompt` metadata type with a new `customApplication` field and longer character limits for the URL of the action button. The prompt now retains the publish status upon installation in orgs. For example, if the prompts are active in the package, they are active after installation.

Collaborative Forecasts

Get a unique developer name for each role-based product family forecast type by product or schedule date

Formerly reserved for future use, you can now use these values in the `Name` field on the ForecastingSettings type.

- `LineItemQuantityProductDate`: Product Family Quantity by Product Date
- `LineItemQuantityScheduleDate`: Product Family Quantity by Schedule Date
- `LineItemRevenueProductDate`: Product Family Revenue by Product Date
- `LineItemRevenueScheduleDate`: Product Family Revenue by Schedule Date

DEPRECATED: The *`Territory_Model_NameN`* `_ProductFamily` value for the Name field on the ForecastingSettings type was deprecated

In the `Name` field on the ForecastingSettings type, we deprecated the ***`Territory_Model_NameN`*** `_ProductFamily` value. ***`Territory_Model_NameN`*** now represents all territory forecast types, where *`Territory_Model_Name`* is the name of your active territory model in the API and can be followed by *`N`*. *`N`* is an auto-generated number that distinguishes between territory forecast types.

REMOVED: The `displayCurrency` field on the ForecastingSettings type was removed

We removed the `displayCurrency` field on the ForecastingSettings type. Instead, use `defaultsToPersonalCurrency`. `defaultsToPersonalCurrency` is easier to implement in a scratch org because it's a Boolean field.

Communities

Programmatically add whitelisted sites to your communities (Pilot)

Use the new `ScriptSrcTrustedSite` and `Personalization Activity` files in the `ExperienceBundle` type.

Create your own custom content structures for Salesforce CMS content

Use the new `ManagedContentType` metadata type.

DEPRECATED: The NavigationLinkSet subtype on Network is replaced with the new NavigationMenu type

In API version 47.0 and later, use NavigationMenu instead.

Customization

Set component visibility rules on record pages by form factor

The `leftValue` field on the UiFormulaCriterion subtype of the FlexiPage type now supports the `{!$Client.FormFactor}` expression for components on record pages.

Lightning apps are now supported on mobile

The `formFactors` field on the CustomApplication type now supports the `Small` enum value for Lightning apps.

Custom Tabs

Add a Lightning web component to a custom tab

Use the new `lwcComponent` field on the existing CustomTab type.

Development

Add and remove Change Data Capture channel members

Use the new PlatformEventChannelMember type for granular access to event channel members. Previously, channel members were part of the PlatformEventChannel definition.

REMOVED: The `channelMembers` field on PlatformEventChannel was removed

The `channelMembers` field of PlatformEventChannel has been removed starting with API version 47.0. Instead, use the new PlatformEventChannelMember type.

Secure custom metadata values by ensuring that only the Apex code within a package has access to custom metadata types

Use the new `PackageProtected` value for the `visibility` field on the CustomObject type.

Grant access to specific custom metadata types using permission sets

Use the new `customMetadataTypeAccesses` field on the PermissionSet type.

Grant access to specific custom metadata types using profiles

Use the new `customMetadataTypeAccesses` field on the Profile type.

DEPRECATED: The OrgPreferenceSettings type is deprecated in API version 47.0 and will be removed in API version 48.0

Instead, use the appropriate Settings type for the functionality you want to enable or disable. We exposed many settings in Metadata API as Boolean fields on new and existing metadata types. For details, see Settings Exposed in Metadata API.

REMOVED: The GlobalPicklistValue metadata type has been removed

Instead, use the PicklistValue metadata type. The PicklistValue fields that were previously inherited from GlobalPicklistValue have been moved to PicklistValue.

Define a value used in a picklist

Use the new `color`, `default`, `description`, and `isActive` fields on the PicklistValue type.

Data Protection and Privacy

Indicate the compliance acts, definitions, or regulations related to a field's data

Use the new `ComplianceGroup` field on the existing CustomField type.

REMOVED: The `dataStewardGroup` field has been removed from the CustomObject type

The `dataStewardGroup` field is no longer in use.

REMOVED: The `dataStewardUser` field has been removed from the CustomObject type

The `dataStewardUser` field is no longer in use.

Einstein Next Best Action

Make a strategy a template

Use the `isTemplate` field on the RecommendationStrategy metadata type.

Flow

Indicate that access to the flow is restricted to enabled profiles or permission sets

Use the new `isAdditionalPermissionRequiredToRun` field on the Flow metadata type.

List, describe, retrieve, and insert conditional visibility rules for flow screen fields

Use the new `visibilityRule` field on the FlowScreenField subtype of Flow.

Indicate that variables and outputs are being handled automatically

Use the new `storeOutputAutomatically` field on the FlowRecordLookup and FlowScreenField subtypes of Flow.

Indicate that only the first record is returned and stored in a Get Records element

Use the new `getFirstRecordOnly` field on FlowRecordLookup, a subtype of Flow.

Schedule when a flow starts

Use the new `start` field on the Flow metadata type.

Mobile Connected Apps

Manage the packaging attributes for a mobile connected app

Use the new MobileApplicationDetail type.

Networks

Grant unauthenticated guest users visibility into a community

Use the new `enableGuestMemberVisibility` field on the Network type.

Packaging

Identify that a component is from an unlocked package

Use the new `installedEditable` and `deprecatedEditable` enums on the `manageableState` field on the RetrieveResult type.

Personalization

Add, update, and remove audience criteria

Use the new `criteria` field on the Audience metadata type.

REMOVED: The `criterion` field on the Audience metadata type

Use the new `criteria` field on the Audience metadata type instead.

Add, update, and remove targets for audiences (pilot)

Use the new `targets` field on the Audience metadata type.

Salesforce Surveys

Enable or disable surveys and allow the owner of a survey to manage its responses

Use the new `SurveySettings` metadata type.

Security and Identity

Include consumer secret in API responses

Use the new `sendSecretInApis` field on the AuthProvider metadata type.

Reports and Dashboards

Apply row-level formulas to reports

Use the `ReportCustomDetailFormula` field on the Report metadata type.

Service

Create and manage appointments for field service technicians
Use the new EmbeddedServiceAppointmentSettings type in the metadata API.

Retired EmbeddedServiceFieldService type
Use the new EmbeddedServiceAppointmentSettings type in the metadata API instead of EmbeddedServiceFieldService type.

Enable more channel types to share Knowledge articles
Use the new `Chat`, `Messaging`, and `Social` values in the `enabledChannels` field for a ChannelLayout. These additional values are available when Lightning Knowledge is enabled.

Specify Field Service Lightning Mobile Extension information for a Content Security Policy (CSP) Trusted Site
Use the new `mobileExtension` field and the `FieldServiceMobileExtension` enumeration with the CspTrustedSite type.

Sharing

Create guest user sharing rules to open up record access to unauthenticated users
Use the new SharingGuestRule type.

Share records with guest users
Use the new `guestUser` field on the SharedTo type. This field can be used only with the SharingGuestRule type.

Settings Exposed in Metadata API

We exposed some settings in Metadata API as Boolean fields on metadata types. Some of these settings have been available in Metadata API by using the OrgPreferenceSettings type. OrgPreferenceSettings is deprecated in API version 47.0 and will be removed in API version 48.0.

Sales

Enable or disable history tracking on accounts
Use the new `enableAccountHistoryTracking` field on the AccountSettings metadata type.

Allow or disallow users to relate a contact to more than one account
Use the new `enableContactToMultipleAccounts` field on the AccountSettings metadata type.

Use a custom fiscal period in forecasts
Use the new `enableCustomFiscalYear` field on the CompanySettings metadata type.

Use each forecast owner's personal currency in forecasts
Use the new `defaultToPersonalCurrency` field on the ForecastingSettings metadata type.

Enable or disable Enterprise Territory Management
Use the new `enableTerritoryManagement2` field on the Territory2Settings metadata type.

Configure email deliverability, security compliance, relay configurations, and system notifications
Use the new EmailAdministrationSettings metadata type.

Configure Engage for Outlook, the Outlook integration, the Gmail integration, and Salesforce Inbox
Use the new EmailIntegrationSettings metadata type.

Enforce standard validation and triggers for Opportunity Products and Opportunity Product Schedules
Use the new `doesEnforceStandardOpportunitySaveLogic` field on the OpportunitySettings metadata type.

Enable or disable History Tracking for an opportunity field
Use the new `enableOpportunityFieldHistoryTracking` field on the OpportunitySettings metadata type.

Configure whether members are automatically added to opportunity teams when a user edits the opportunity splits

Use the new `doesAutoAddSplitOwnerAsOpportunityTeamMember` field on the OpportunitySettings metadata type.

Configure whether a user's path stays expanded until they collapse it

Use the new `canOverrideAutoPathCollapseWithUserPref` field on the PathAssistantSettings metadata type.

Configure voicemail and voice call features

Use the new VoiceSettings metadata type.

Enable enhanced notes and configure whether users can create tasks from notes

Use the new EnhancedNotesSettings metadata type.

Configure whether users can create and manage folders for email templates

Use the new EmailTemplateSettings metadata type.

Configure how leads are converted to opportunities, including which fields are preserved and which features are enabled

Use the new LeadConfigSettings metadata type.

Configure whether users can see Einstein Account Insights on their mobile device

Use the new `enableAccountInsightsInMobile` field on the AccountSettings metadata type.

Configure which types of social media are available in social CRM

Use the new SocialProfileSettings metadata type.

Allow users to create quotes without an associated opportunity

Use the new `enableQuotesWithoutOppEnabled` field on the QuoteSettings metadata type.

Configure High Velocity Sales to support your inside sales team and boost their productivity

Use the new `HighVelocitySalesSettings` metadata type.

Allow users to create and view user list view calendars in Lightning Experience

Use the new `enableUserListViewCalendars` field in the ActivitiesSettings metadata type.

Configure marketing automation with Pardot

Use the new PardotSettings metadata type.

Roll up a contact's activities and display them on the contact's primary account

Use the new `enableRollUpActivToContactsAcct` metadata type.

Commerce

Enable Lightning Order Management (closed pilot)

Use the new OrderManagementSettings metadata type.

Service

Enable auto-complete for keywords in Knowledge searches

Use the new `enableKnowledgeKeywordAutoComplete` field on the KnowledgeSettings metadata type.

Enable auto-complete for article titles in Knowledge searches

Use the new `enableKnowledgeTitleAutoComplete` field on the KnowledgeSettings metadata type.

Configure search results for Knowledge articles to show text highlights

Use the new `enableKnowledgeArticleTextHighlights` field on the KnowledgeSettings metadata type.

Configure whether rich text field editors automatically load when a user edits a Knowledge article

Use the new `enableLightningKbAutoLoadRichTextField` field on the KnowledgeSettings metadata type.

Enable work orders

Use the new `enableWorkOrders` field on the FieldServiceSettings metadata type.

Enable location tracking for field service agents

Use the new `isLocationHistoryEnabled` field on the FieldServiceSettings metadata type.

Enable service resource and inventory location syncing

Use the new `isGeoCodeSyncEnabled` field on the FieldServiceSettings metadata type.

Enable sharing on assets

Use the new SharingSettings metadata type.

Enable social post approvals in Social Customer Service

Use the new `enableSocialApprovals` field on the SocialCustomerServiceSettings metadata type.

Enable case assignment rules in Social Customer Service

Use the new `enableSocialCaseAssignmentRules` field on the SocialCustomerServiceSettings metadata type.

Enable Social Customer Service

Use the new `enableSocialCustomerService` field on the SocialCustomerServiceSettings metadata type.

Enable social persona history tracking in Social Customer Service

Use the new `enableSocialPersonaHistoryTracking` field on the SocialCustomerServiceSettings metadata type.

Enable social post history tracking in Social Customer Service

Use the new `enableSocialPostHistoryTracking` field on the SocialCustomerServiceSettings metadata type.

Add the original social post as a parent record in Social Customer Service

Use the new `enableSocialReceiveParentPost` field on the SocialCustomerServiceSettings metadata type.

Enable Einstein Case Classification

Use the new CaseClassificationsSettings metadata type.

Enable Omni-Channel Secondary Routing Priority

Use the new `enableOmniSecondaryRoutingPriority` field on the OmniChannelSettings metadata type.

Display a login confirmation upon loading a console with Omni-Channel

Use the new `enableOmniAutoLoginPrompt` field on the OmniChannelSettings metadata type.

Enable Channel-Object Linking for Messages (Beta)

Use the new `enableObjectLinking` field on the ObjectLinkingSettings metadata type.

Analytics

Enable more Einstein Analytics, including dashboard annotations and saved views, templates, Einstein Discovery, and Lightning Reports Experience features.

We added many new fields to the `AnalyticsSettings` metadata type.

Communities

Configure the ability to moderate features, such as flags and rules, on all feed posts by internal and external users, including those visible in communities

Use the new CommunitiesSettings metadata type.

Chatter

Configure Chatter, including automatic saving of draft posts, conversion of text characters to emoticons, and whether qualified users can edit feed posts and comments

Use the new ChatterSettings metadata type.

Configure Chatter email, including sending digests via the API, allowing badge notifications and collaboration emails, posting to a Chatter feed via email, and more

Use the new ChatterEmailMDSettings metadata type.

Mobile

Opt in to the new Salesforce mobile app

Use the new `enableLightningOnMobile` field on the MobileSettings metadata type.

Let users access records offline in Salesforce for Android and iOS

Use the new `enableS1OfflinePref` field on the MobileSettings metadata type.

Let users create, edit, and delete records while offline in Salesforce for Android and iOS

Use the new `enableOfflineDraftsEnabled` field on the MobileSettings metadata type.

Enable secure and persistent browser caching in the Salesforce mobile web to improve performance

Use the new `enableS1EncryptedStoragePref2` field on the MobileSettings metadata type.

Show the user's name on the Today page in the Salesforce mobile app

Use the new `enablePopulateNameManuallyInToday` field on the MobileSettings metadata type.

Customization

Lightning Experience can be enabled using the API, but not disabled

Use the OrgPreferenceSettings metadata type.

Configure currency settings, including supporting multiple currencies and currency effective dates

Use the new CurrencySettings metadata type.

Configure end-user language selection, locale formats, and translation options

Use the new LanguageSettings metadata type.

Enable or disable Einstein Prediction Builder, and indicate whether to show the predictions list view

Use the new PredictionBuilderSettings metadata type.

Customize record view and activity view on record pages

Use the new RecordPageSettings metadata type.

Enable or disable asynchronous loading of related lists in Salesforce Classic

Use the new `enableAsyncRelatedLists` field on the UserInterfaceSettings metadata type.

Configure options around the Individual object and consent enablement

Use the new PartyDataModelSettings metadata type.

REMOVED: The `ConsentManagementEnabled` value has been removed from the `preferences` field on the deprecated OrgPreferenceSettings metadata type

Use the `enableConsentManagementEnabled` field on the `PartyDataModelSettings` metadata type instead.

Manage org actions settings for default quick actions, multidimensional publisher, and third-party quick actions

Use the new ActionsSettings metadata type.

Configure flow settings, including whether Lightning runtime for flows is enabled

Use the new FlowSettings metadata type.

Configure invocable action settings, including whether partial save is allowed

Use the new InvocableActionSettings metadata type.

Configure Lightning Experience user engagement visibility, user interface access, and mobile settings

Use the new LightningExperienceSettings metadata type.

Delete an object's records permanently, but preserve the empty object and its metadata
Use the new `enableCustomObjectTruncate` field on the UserInterfaceSettings type.

Manage picklist settings, such as preventing changes to a picklist's API name
Use the new PicklistSettings type.

Configure data privacy and consent management settings
Use the new PrivacySettings metadata type.

Configure sharing, visibility, and data access settings
Use the new SharingSettings metadata type.

Manage feature settings around Lightning Experience transition and adoption, user engagement and adoption assistance, and adoption apps
Use the new UserEngagementSettings metadata type.

Display users' personal settings in My Settings instead of Setup; make a reorganized Setup pane accessible in the header
Use the ProductSettings metadata type.

Enhance the Search box in the Setup sidebar so it returns custom fields, custom objects, and other supported setup items
Use the SearchSettings metadata type.

Security and Identity

Configure event monitoring, platform events, and Streaming API
Use the new EventSettings metadata type.

Configure app experience settings
Use the new AppExperienceSettings metadata type.

Configure connected apps
Use the new ConnectedAppSettings metadata type.

Enable Admins to log in as any user
Use the new `enableAdminLoginAsAnyUser` field on the SecuritySettings metadata type.

Enable setPassword() API for self-resets
Use the new `enableSetPasswordInApi` field on the SecuritySettings metadata type.

Require a minimum 1-day password lifetime
Use the new `minimumPasswordlLifetime` field on the SecuritySettings metadata type.

Let users authenticate with a certificate
Use the new `allowUserAuthenticationByCertificate` field on the SecuritySettings metadata type.

Require email confirmations for email address changes (applies to external users in Lightning Communities)
Use the new `canConfirmEmailChangeInLightningCommunities` field on the SecuritySettings metadata type.

Allow Lightning Login
Use the new `enableLightningLogin` field on the SecuritySettings metadata type.

Allow Lightning Login only for users with the Lightning Login User permission
Use the new `enableLightningLoginOnlyWithUserPerm` field on the SecuritySettings metadata type.

Enable the SMS method of identity verification
Use the new `enableSMSIdentity` field on the SecuritySettings metadata type.

Let users authenticate with a physical security key (U2F)
Use the new `enableU2F` field on the SecuritySettings metadata type.

Remember me until logout
Use the new `hasRetainedLoginHints` field on the SecuritySettings metadata type.

Enable user switching
Use the new `hasUserSwtiching` field on the SecuritySettings metadata type.

Enable force delegated authentication callout
Use the new `enableForceDelegatedCallout` field on the SecuritySettings metadata type.

Enable multiple SSO configurations
Use the new `enableMultipleSamlConfigs` field on the SecuritySettings metadata type.

Enable just-in-time provisioning with SAML
Use the new `enableSamlJitProvisioning` field on the SecuritySettings metadata type.

Enable SAML SSO
Use the new `enableSamlLogin` field on the SecuritySettings metadata type.

Require that all connections to or from your Salesforce org use TLS 1.2
Use the new `isTLSv12Required` field on the SecuritySettings metadata type.

Require that all connections to or from your Salesforce communities, sites, and portals use TLS 1.2
Use the new `isTLSv12RequiredCommunities` field on the SecuritySettings metadata type.

DEPRECATED: The `enableRequireHttpsConnection` field on the SecuritySettings type was deprecated
The `enableRequireHttpsConnection` field will be removed in a future release.

Enable or disable field history deletion
Use the new `enableDeleteFieldHistory` field on the UserInterfaceSettings type.

Create contactless External Identity users from User Management settings
Use the new `enableContactlessExternalIdentityUsers` field on the UserManagementSettings metadata type.

Scramble specific users' data
Use the new `enableScrambleUserData` field on the UserManagementSettings metadata type.

Enable or disable field history deletion
Use the new `enableDeleteFieldHistory` field on the UserInterfaceSettings type.

Configure URL options and user interaction with My Domain subdomains
Use the new MyDomainSettings metadata type.

Allow users to grant login access to Support
Use the new `CanUsersGrantLoginAccess` field on the SecuritySettings type.

Specify key material settings, such as customer-supplied key options and key derivation settings
Use the new EncryptionKeysSettings metadata type.

Configure encryption policy settings, such as scheme options, access, and which fields can be encrypted
Use the new PlatformEncryptionSettings metadata type.

Enable audit fields and updating the owner of records that are owned by inactive users
Use the new `enableAuditFieldsInactiveOwner` field on the SecuritySettings type.

Configure security for Salesforce Sites
Use the new SiteSettings metadata type.

Development

Enable or disable the creation of function expressions in dynamically created Aura components
Use the new `enableAuraSecureEvalPref` field on the SecuritySettings metadata type.

Enable aggregate total tracking and serial execution, prevent auto-number gaps in Apex tests, suppress debug log details in emails for Apex, and other Apex settings for Lightning components

Use the new ApexSettings metadata type.

REMOVED: The `ApexApprovalLockUnlock` value has been removed from the `preferences` field on the deprecated OrgPreferenceSettings metadata type

Use the new `enableApexApprovalLockUnlock` field on the new ApexSettings metadata type instead.

Manage the availability of custom metadata and custom settings

Use the new SchemaSettings metadata type.

Enable or disable deployment behaviors for your org

Use the new DeploymentSettings metadata type.

myTrailhead

Enable access and permissions management for myTrailhead

Use the new TrailheadSettings metadata type.

SEE ALSO:

Turn On Platform Encryption Settings Programmatically Through Metadata API

Lightning Console JavaScript API

The Lightning Console JavaScript API includes updated methods to customize the color of utility icons.

Where: These changes apply to Lightning Experience only.

In the utility bar, change a utility's icon color to indicate success, warning, or error when using the `setUtilityIcon()` method

Use the new `iconVariant` value with the `options` argument.

In a utility's panel header, change the utility's icon color to indicate success, warning, or error when using the `setPanelHeaderIcon()` method

Use the new `iconVariant` value with the `options` argument.

Return the SLDS icon color variant of a utility's icon and its panel icon when using the `getUtilityInfo()` method

Use the new `utilityIconVariant` and `panelHeaderIconVariant` fields, respectively, on the `utilityInfo` object.

Return the SLDS icon color variants of all utility icons and utility panel icons when using the `getAllUtilityInfo()` method

Use the new `utilityIconVariant` and `panelHeaderIconVariant` fields, respectively, on each `utilityInfo` object.

Salesforce CLI: New and Changed Commands

Use Salesforce CLI to easily create environments for development and testing, synchronize source code, run tests, and control your application lifecycle. Note that new and changed commands are available with `salesforcedx` v47.

IN THIS SECTION:

Discover New and Changed CLI Commands

We release changes to Salesforce CLI regularly. Read the weekly release notes to learn about recent updates for v47 of the core CLI plug-ins.

SEE ALSO:

Salesforce Release Notes: Increase Productivity with Local Development for Lightning Web Components (Beta)

Uninstall the Pre-Release Version of Salesforce CLI

If you installed the pre-release version to use new commands and parameters available in `salesforcedx` v47, uninstall it.

Where: This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

How:

1. Uninstall the pre-release version.

```
sfdx plugins:uninstall salesforcedx
sfdx update
```

2. To check your version information, run:

```
sfdx plugins --core
```

3. In the output, look for the `salesforcedx` plug-in version. The version number begins with `47.1.x`.

Discover New and Changed CLI Commands

We release changes to Salesforce CLI regularly. Read the weekly release notes to learn about recent updates for v47 of the core CLI plug-ins.

ISV Hammer Commands Now in Beta

`force:package:hammertest:list`

Lists the statuses of running and completed ISV Hammer tests.

`force:package:hammertest:report`

Returns the status of a running ISV Hammer test or the results of a completed hammer test.

`force:package:hammertest:run`

Runs ISV Hammer for the specified package version and subscriber orgs.

Note: As a beta feature, ISV Hammer is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for this feature in the ISV Hammer group in the Trailblazer Community.

New Commands

This new command was added in a weekly release of `salesforcedx` v47.

`force:auth:device:login` (beta)

Authorizes an org using a device code. This means that you can use Salesforce CLI to authenticate in a Docker container or any headless environment without setting up JWT. For more information, see OAuth 2.0 Device Authentication Flow in Salesforce Help or Remote Development in the *Salesforce Extensions for Visual Studio Code User Guide*.

Note: The `force:auth:device:login` command is in beta and has been released early so we can collect your feedback. It may contain significant problems, undergo major changes, or be discontinued. If you encounter any problems, or want to request an enhancement, open a GitHub issue. The use of this feature is governed by the Salesforce.com Program Agreement.

Changed Commands

The functionality for these commands changed in weekly releases of `salesforcedx` v46 or in the pre-release of v47.

`force:org:delete -u MyDevSandbox`

Deleting a sandbox created by the CLI is now supported.

`force:package:install --securitytype | -s`

We changed the default value from AllUsers to AdminsOnly.

`force:source:status, force:source:push, force:source:pull`

Source tracking is supported for Einstein Bots metadata in scratch orgs.

New Parameters

These parameters are new in `salesforcedx` v47.

`force:package:hammertest:run --apextestinterface | -n` (beta)

After upgrade validation, runs the Apex tests in the subscriber org that implement this interface.

`force:package:version:create`

We added several parameters to this command.

Parameter	Description
`--codecoverage | -c`	Calculates and stores the code coverage percentage by running the Apex tests included in the package version. To promote a new managed package version to the released state, the code coverage minimum must be met.
`--postinstallscript`	For managed packages only, specifies an Apex script to run automatically in the subscriber org after the managed package is installed or upgraded.
`--postinstallurl`	Specifies a URL to post-install instructions for subscribers.
`--releasenotesurl`	Specifies a URL to release notes.
`--uninstallscript`	For managed packages only, specifies an Apex script to run automatically in the subscriber org before the managed package is uninstalled.

Quip: Simplified Setup, Quip Documents on Mobile, New Live App, Einstein Analytics Dashboards, and More

Read your Quip documents on the go. Open Einstein Analytics dashboards in Quip. Embed Salesforce data in Quip, such as Salesforce List Views and Salesforce Reports. Use new Quip actions in Process Builder and Flow Builder to automate your business and save your team time.

IN THIS SECTION:

Update Quip Slides and Spreadsheets Automatically with Processes and Flows

Standardize presentations, automate repetitive slide deck generation, and keep data up-to-date with new Quip actions in Process Builder and Flow Builder. Create a process or flow to automatically update your spreadsheets, add content to your slide decks, and save your team time.

Connect Quip to Salesforce Faster

We've cut down the number of steps to connect Quip to Salesforce—gone are the days of setting up your own OAuth Provider, external data source, and permission sets. Now users can log in to Quip with their Salesforce credentials—no need to remember two different logins and passwords.

Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: Available in orgs with a Quip for Salesforce plan or free trial.

How: In Setup, enter *Quip* in the Quick Find box, and follow the new, simpler steps.

Add Quip Documents and Spreadsheets to Salesforce Records (Generally Available)

Bring Quip documents, spreadsheets, and chat rooms directly into your Lightning apps with the Quip Document component. Your users get familiar Quip features like rich text editing, live updates, comments, and @mentions without leaving Salesforce. Create Quip templates to streamline your team's workflows.

Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: Available in orgs with a Quip for Salesforce plan or free trial.

Why: Users can collaborate on documents right where they work without switching apps. All documents created from the Quip Document component are attached as files to the Salesforce record.

Update documents right on a record, or expand them into a larger view for a richer editing experience. See a document's edit history, contribute to the conversation, and share the document with new collaborators without leaving your browser tab. Comments, @mentions, Live Apps, and other interactive features of Quip work exactly as they do in the Quip web and desktop apps.

To accelerate and streamline your workflows even more, create templates. You can set up any Quip document as a template, which your team can use to quickly create documents on Salesforce records. You can even automatically fill new documents with standard and custom fields from the record using mail merge syntax. Imagine the possibilities: standardize information-gathering, track sales activities, or create team checklists.

How: Connect your Salesforce org to your Quip site on the guided Quip Setup page. In Setup, enter *Quip* in the Quick Find box, and follow the steps. Open Lightning App Builder, and drag the Quip Document component onto a record page layout. Then complete the component setup in Lightning App Builder.

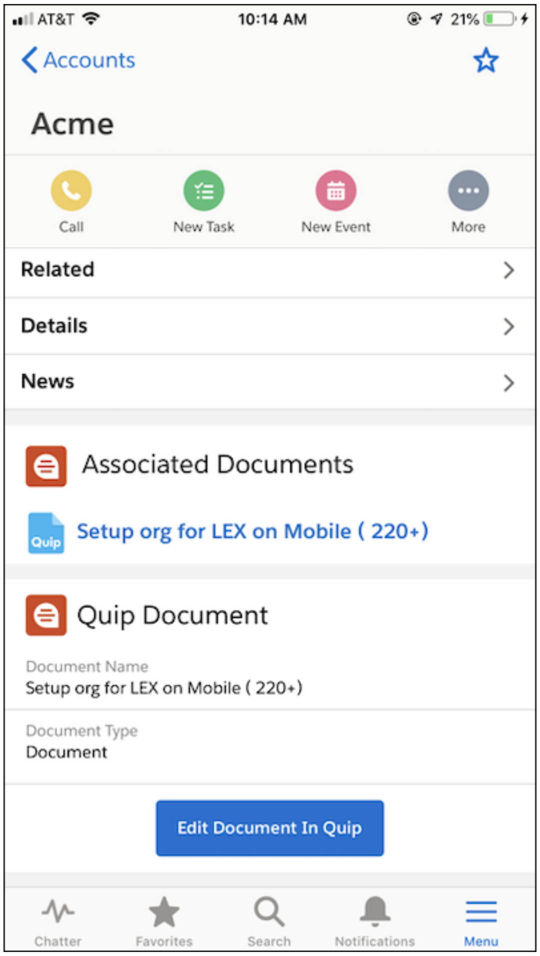
Stay Up-to-Date with Quip Documents on Mobile

Keep your users productive and in the know no matter where they go with the Quip Document component. Add the component to page layouts in the Lightning App Builder to let users see Quip documents and spreadsheets attached to a record, all within the Salesforce mobile app.

Where: This change applies to the Salesforce Lightning Experience mobile app for iOS.

Who: Available in orgs with a Quip for Salesforce plan or free trial.

How: To start viewing Quip documents on mobile, launch the Lightning App Builder and add the Quip Document component to a record page.



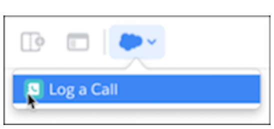
Log Calls from Quip Documents

Team members can collaborate and log calls in Salesforce all within Quip. Now they can keep the conversation going in Quip while reporting their progress back to Salesforce.

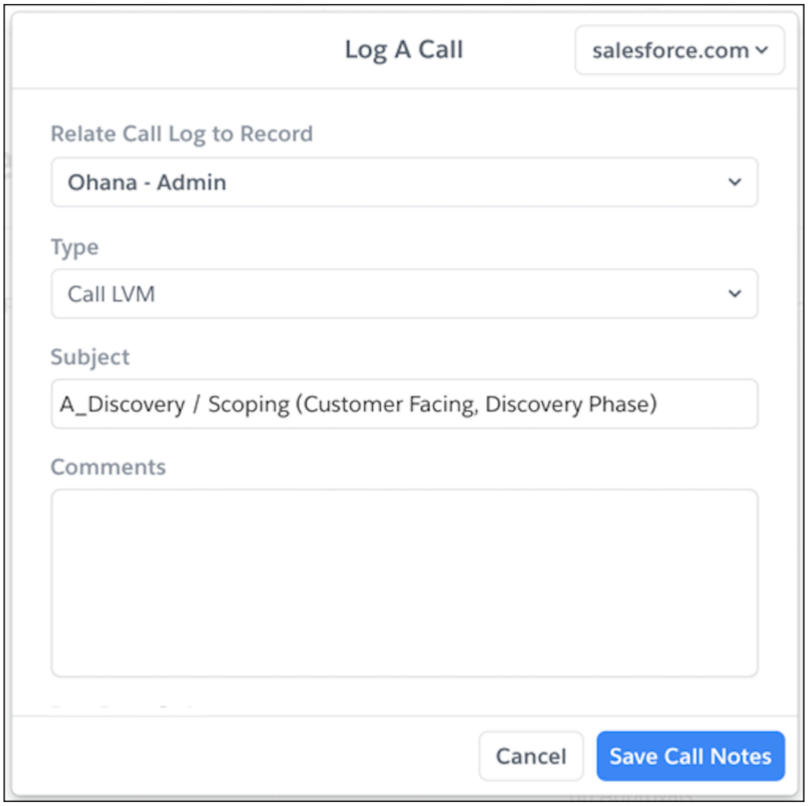
Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: Available in orgs with a Quip for Salesforce plan or free trial.

Why: Log a call and write your call notes in the same place. No more switching back and forth between your Quip documents and Salesforce. Click the Salesforce cloud in Quip to start logging calls.



Link your call to a specific Salesforce record, specify the call type, and add your call notes, all without leaving Quip.



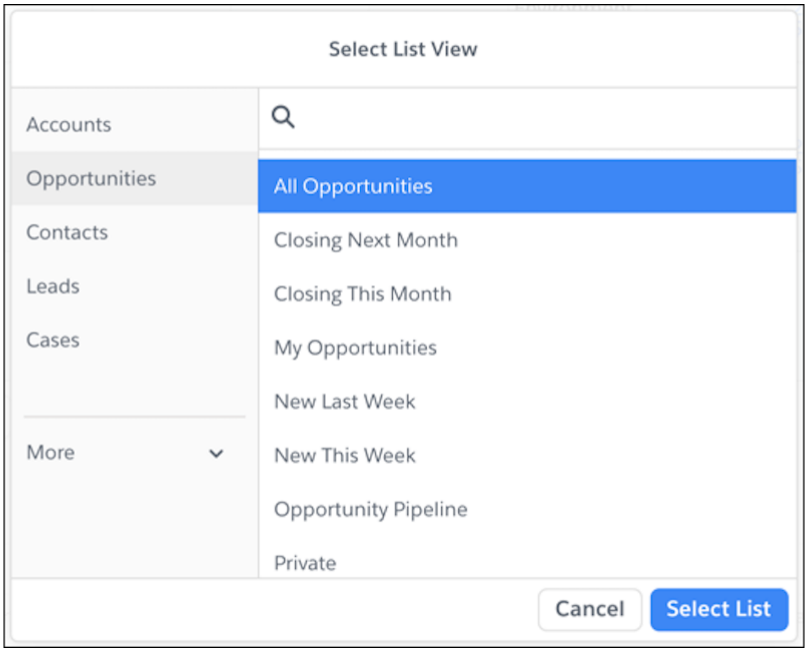
Update Your Salesforce List Views from Quip

Seamlessly add list views from Salesforce to a Quip document with the Salesforce List View live app. Keep lists current, share next steps, and add notes to the list or an individual item so your team is always up-to-date and ready to collaborate.

Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: Available in orgs with a Quip for Salesforce plan or free trial.

Why: Bulk update your Account plans, edit a line item, and strategize with coworkers to close deals. Best of all you can sync your updates back to Salesforce so you can stop switching back and forth between apps.

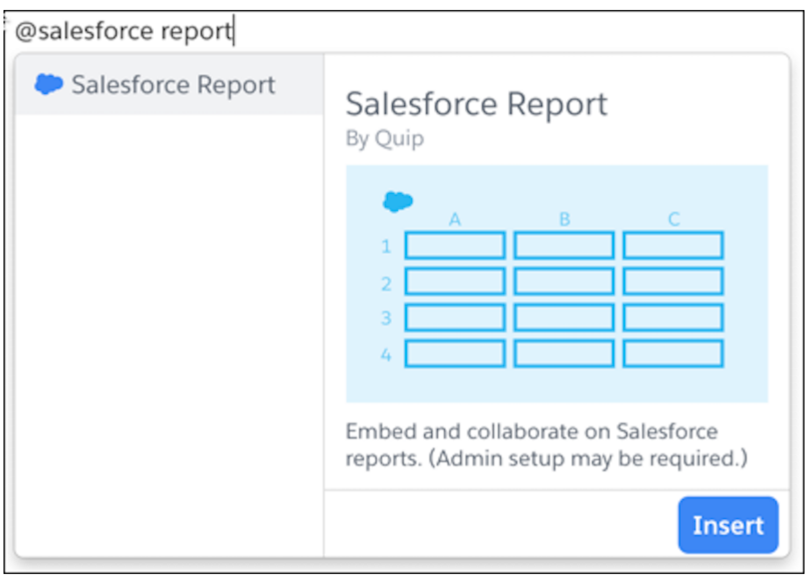


Add Salesforce Reports to Quip Documents

Insert live Salesforce reports into Quip documents with a simple @mention. Your reports embed within a Quip spreadsheet and auto-refresh with the latest report data so you can stop worrying about formulas and stay focused on business.

Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: Available in orgs with a Quip for Salesforce plan or free trial.



Share Quip Documents Embedded on a Record Automatically with Synced Permissions (Granular Permissions)

Simplify document sharing within a Salesforce record with synced Salesforce record sharing permissions. Set permissions for your documents, such as View Only, Can Comment, or Can Comment and Edit, at the org level. Users that can access a record can now easily open any embedded Quip documents at the level set—no more worrying about manually granting access to each document.

Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: Available in orgs with a Quip for Salesforce plan or free trial.

SEE ALSO:

Manage Access to Embedded Quip Documents

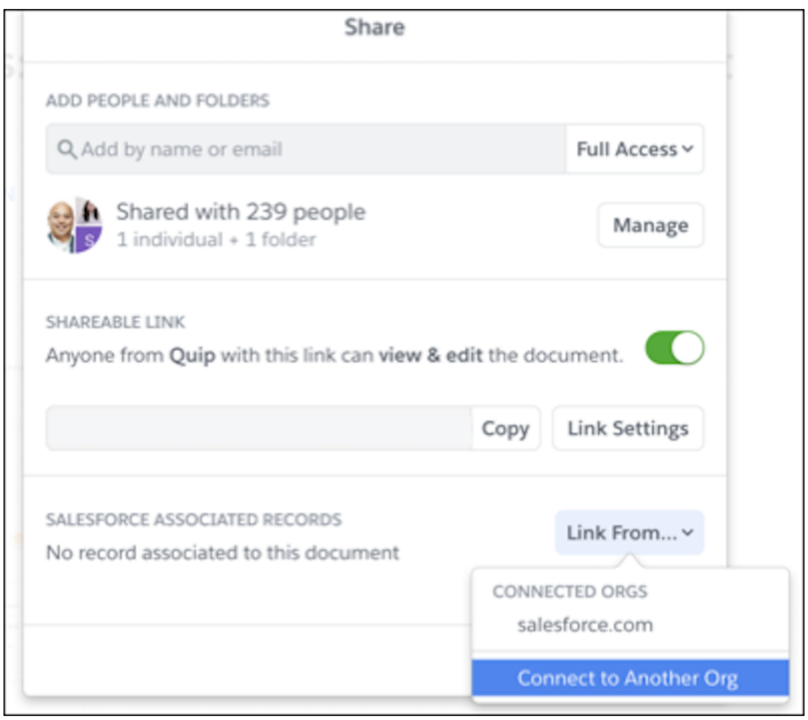
See Linked Salesforce Records from a Quip Document

Navigate effortlessly between a Quip document and its related record in Salesforce. Users can quickly jump to a record in Salesforce from its associated document in Quip so they can keep on top of their deals and notes at the same time.

Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: Available in orgs with a Quip for Salesforce plan or free trial.

Why: In Quip, see when a document is linked to a Salesforce record so you always know where you've shared your Quip documents. Update a document in Quip and easily switch back to the associated record details. Now you can choose your own workflow—Quip to Salesforce or Salesforce to Quip. It's up to you!



Publish Einstein Analytics Dashboards and Lenses to Quip Slides

Collaborate in Quip with exported images of Einstein Analytics lenses, widgets, and entire dashboards. The Analytics Share dialog now has an Export to Quip tab and a Connect to Quip button. Quip publishes each snapshot image to a new Quip slide deck. After publishing an Analytics snapshot, Quip users with document access can view the data in the image.

Where: This change applies to Einstein Analytics tabs and embedded Einstein Analytics dashboards in Lightning Experience and Salesforce Classic. The feature isn't available in the Analytics Studio. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

SEE ALSO:

Publish Dashboards and Lenses to Quip Slides

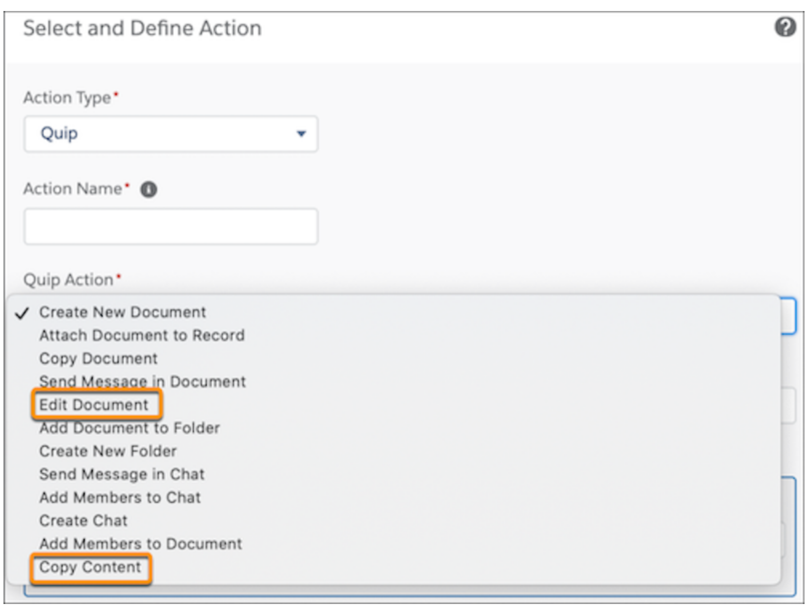
Update Quip Slides and Spreadsheets Automatically with Processes and Flows

Standardize presentations, automate repetitive slide deck generation, and keep data up-to-date with new Quip actions in Process Builder and Flow Builder. Create a process or flow to automatically update your spreadsheets, add content to your slide decks, and save your team time.

Where: This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

Who: This change is available in orgs with a Quip for Salesforce plan or free trial.

Why: With new Quip actions in Process Builder and Flow Builder, make Quip documents dynamic. For example, add slides to a deck when you update the status of a deal in Salesforce. Build a process to seamlessly copy content from a Quip document to a slide so your slides are always current and presentation-ready. Use the "Edit Document" Quip action to update your Quip spreadsheets with the latest Salesforce data.



SEE ALSO:

Work with Quip Documents from a Process

Marketing: Audience Studio Identity and Personal Social Manager

Marketing Cloud is the premier platform for delighting customers with 1:1 customer journeys. It enables you to build a single view of your customer, leveraging data from any source. Plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time. Measure the impact of each interaction on your business so that you can optimize your approach in real time and deliver better results.

Learn about our latest features and enhancements in Marketing Cloud Release Notes.

- October 2019 Release
- August 2019 Release
- June 2019 Release
- April 2019 Release
- January 2019 Release

SEE ALSO:

Marketing Cloud Overview

Marketing Cloud: Earlier Release Notes

Salesforce Marketing Cloud Facebook Page

Critical Updates and Security Alerts

This release includes new critical updates for locale formatting, `@AuraEnabled` Apex methods, actions, and other changes. Also check out alerts on the Security Alerts page, and previously released and newly enforced critical updates.

To ensure a smooth transition, each critical update has an opt-in period, which ends on the auto-activation date that's displayed on the Critical Updates page in Setup. During this period, you can manually activate and deactivate each update as often as you need to evaluate the impact on your org and modify affected customizations. After the opt-in period has passed, the update is permanently activated by Salesforce. For more details, see Respond to Critical Updates.

The Security Alerts node in Setup gives a list of security enhancements that affect your org. Each alert comes with step-by-step recommendations for actions to take in your org.

New Critical Updates

These critical updates are new in Winter '20.

Enable ICU Locale Formats (Critical Update)

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. These new formats replace Oracle's Java 8 Development Kit (JDK8) formats. ICU sets the international standard for these formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe.

Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Critical Update)

This critical update gives you more control over which guest, portal, or community users can access Apex classes containing `@AuraEnabled` methods.

Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Critical Update)

This critical update gives you more control over which authenticated users can access Apex classes containing `@AuraEnabled` methods.

Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update)

This critical update changes the behavior of `@AuraEnabled` Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`.

Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Critical Update)

This critical update makes Lightning components consistent with the usage of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter.

Route My Domains Through Salesforce Edge (Critical Update)

We're accelerating domain requests for My Domains. With this update, you keep the same My Domain address, but requests go through Salesforce Edge. Salesforce Edge uses machine-learning technology to improve connectivity and performance. You can acknowledge this update to let Salesforce move your org's My Domain to the new service before the July 2020 auto-activation date.

Migrate Legacy Policies to the Enhanced Transaction Security Framework (Critical Update)

With Salesforce's new enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework in generally available, we are retiring the legacy framework in the Summer '20 release. To prepare for this retirement and take advantage of the new features, migrate your legacy transaction security policies to the new framework as soon as possible.

Enable Partial Save for Invocable Actions (Critical Update)

This critical update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

Require a Deployment and Show the Right Actions (Critical Update)

This update requires that you select a deployment for the Actions & Recommendations component. When you configure Lightning Flow for Service, a deployment lets you control the actions that agents can start when they need an action that doesn't appear in the component's to-do list.

Require Customize Application Permission for Direct Read Access to Custom Metadata Types (Critical Update)

Users without the Customize Application permission can read unprotected custom metadata types using different APIs that are provided by Salesforce. Following the "secure by default" approach, read access for users who don't have the Customize Application permission is revoked with this update. This change affects Visualforce pages and Lightning components that directly reference custom metadata types. For custom metadata types, an admin can explicitly grant access to a specific profile or permission set.

Grant Access to Custom Settings After Restricting Org-Wide Access (Critical Update)

Users without the Customize Application permission can read custom settings using APIs that are provided by Salesforce. This access will be revoked as part of a critical update that is scheduled to be rolled out with the Spring '20 release on January 3, 2020. For the Winter '20 release, new permissions allow read access to custom settings.

Keep Working with Tab-Focused Dialogs (Critical Update)

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This critical update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it.

Previously Released Critical Updates

These critical updates were announced in a previous release and are still available.

Enable Manual Account Sharing in Enterprise Territory Management (Previously Released Critical Update)

This update changes the `TerritoryManual` reason code in AccountShare records to `Territory2AssociationManual` and is required to let users share accounts manually with territory groups. This critical update was first made available in Spring '19.

Prevent Creation of Function Expressions in Dynamically Created Aura Components (Previously Released Critical Update)

To improve security and stability, this critical update prevents attribute values passed to `$A.createComponent()` or `$A.createComponents()` from being interpreted as Aura function expressions. This critical update was first made available in Summer '19.

Stabilize the Hostname for My Domain URLs in Sandboxes (Previously Released Critical Update)

We're removing instance names from MyDomain URLs for sandboxes. The instance name identifies where your Salesforce sandbox org is hosted. Removing the instance name makes the URL cleaner and easier for users to remember, for example, `MyDomain--SandboxName.my.salesforce.com` replaces `MyDomain--SandboxName.cs5.my.salesforce.com`. This critical update was first made available in Summer '18.

Remove Instance Names from URLs for Visualforce, Community Builder, Site.com Studio, and Content Files (Previously Released Critical Update)

We're removing the instance names from Visualforce, Community Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Instanceless domains are cleaner and easier for users to remember. This critical update applies to orgs that have a deployed My Domain. After this update, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This critical update was first made available in Spring '18.

Enforced Critical Updates

These critical updates were announced in a previous release and are now enforced.

Turn On Lightning Experience Critical Update Now Activates Starting January 7, 2020

Salesforce is turning on Lightning Experience for all orgs that don't already have it enabled. Previously, we announced that this critical update would activate with Winter '20. However, the auto-activation date has changed to January 7, 2020 and all orgs will have the update within 72 hours. After Lightning Experience is turned on, users will still have access to Salesforce Classic. But Lightning Experience is where you want to be for driving business growth and improving productivity. To get ready, verify your org's existing features and customizations in the new interface, and prepare your users with change management best practices.

Restrict Use of Salesforce Classic HTML-Based Email Templates to Secure Browsers (Critical Update, Enforced)

Restrict Use of Salesforce Classic HTML-Based Email Templates was a critical update in Summer '18 and is enforced in Winter '20. This critical update prevents using HTML-based email templates, such as custom, Visualforce, or standard HTML templates, when accessing Salesforce from Microsoft Internet Explorer. Internet Explorer doesn't support the Salesforce Content Security Policy (CSP), so it can't provide the required browser protection. We recommend a browser with CSP support, such as Microsoft Edge, Google Chrome, or Mozilla Firefox.

Improve Email Security with Redesigned DKIM Keys (Critical Update, Enforced)

Improve Email Security with Redesigned DKIM Keys was a critical update in Winter '19 and is enforced in Winter '20. To address potential security vulnerabilities with DomainKeys Identified Mail (DKIM) keys, we improved the way they're created. You no longer have to work with public and private keys. Instead, Salesforce publishes the TXT record containing your public key to DNS. We also added automatic key rotation to reduce the risk of your keys becoming compromised by a third party. Keys generated via the old method continue to work, but in Winter '20, when you generate new keys, you must use the more secure method. And, because sharing keys can introduce security vulnerabilities, we removed the ability to import DKIM keys.

Require TLS 1.2 for HTTPS Connections (Critical Update, Enforced)

Require TLS 1.2 for HTTPS Connections was a critical update in Summer '19 and is enforced on October 25, 2019. To maintain the highest security standards and promote the safety of your data, Salesforce is disabling the older Transport Layer Security (TLS) 1.1 encryption protocol. All inbound connections to or outbound connections from your Salesforce org must use TLS 1.2. Verify that your browser access, API integrations, and other Salesforce features are compliant with TLS 1.2.

Require TLS 1.2 for HTTPS Connections in Communities and Sites (Critical Update, Enforced)

Require TLS 1.2 for HTTPS Connections in Communities and Sites was a critical update in Summer '19 and is enforced on October 25, 2019. To maintain the highest security standards and promote the safety of your data, Salesforce is disabling the older Transport

Layer Security (TLS) 1.1 encryption protocol. All inbound connections to or outbound connections from your Salesforce communities, sites, and portals must use TLS 1.2. Verify that your browser access, API integrations, and other Salesforce features are compliant with TLS 1.2.

Block Certain Fields in the User Record for Orgs with Communities and Portals (Security Alert and Critical Update, Enforced)

Salesforce is giving customers the option to enable a user setting that allows the hiding of certain personal information fields on the user records in orgs with communities or portals. The fields are hidden from view when external users are accessing user records. External users can still see their own user records. This change doesn't apply to queries running in System Mode.

Prevent Using Standard External Profiles for Self-Registration and User Creation (Security Alert and Critical Update, Enforced)

This update restricts the use of standard external profiles for self-registration and assignment to users.

Postponed Critical Updates

These critical updates were announced in a previous release and the auto-activation date is postponed.

Disable Access to Non-global Apex Controller Methods in Managed Packages (Critical Update, Postponed)

This critical update, released in Summer '17, was scheduled for auto-activation in Winter '20, but has been postponed to Summer '20. The critical update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

API Only Users Can Access Only Salesforce APIs (Critical Update, Postponed)

This critical update, released in Spring '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '20. If a user has the API Only User permission, they can access Salesforce only via APIs, regardless of their other permissions. This restriction already applied to other Salesforce features but this critical update enforces the restriction in Lightning Out.

Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas (Critical Update, Postponed)

This critical update, released in Spring '19, was scheduled for auto-activation in Summer '19, but has been postponed to Spring '20. The critical update was previously called "Return Null Values in Process and Flow Formulas."

Enable Improved Caching of Org Schema (Critical Update, Postponed)

This critical update was scheduled for auto-activation in Summer '19 but has been postponed to Spring '20. This critical update enables improved caching of org schema details and resolves known issues with version-specific object and field handling.

Require User Access to Apex Classes Invoked by Flow (Critical Update, Postponed)

This critical update, released in Summer '19, was scheduled for auto-activation in Winter '20, but has been postponed to Spring '21. The critical update was previously called "Improve Security by Requiring User Access to Apex Classes Invoked by Flow."

Require Customize Application Permission for Direct Read Access to Custom Settings (Critical Update, Postponed)

This critical update will be enforced starting January 3, 2020, as part of the Spring '20 release (originally planned for September 6, 2019, then postponed).

Evaluate Criteria Based on Original Record Values in Process Builder (Critical Update, Postponed)

This critical update, released in Summer '19, was scheduled for auto-activation in Winter '20, but has been postponed to Summer '20.

Retired Critical Updates

These critical updates were announced in a previous release but have been retired. They have been removed from the Critical Update Console and won't be activated.

Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Critical Update, Retired)

This critical update, released in Spring '18, was scheduled for auto-activation in Winter '20, but has been retired.

New Security Alerts

These security Alerts are new in Winter '20.

Automatically Assign Records Created by Guest Users to a Default Owner (Security Alert) **on page 349**

To increase the security of your Salesforce data, set up your org so that guest users are no longer automatically the owner of records they create. Instead, when a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

View All Users and Other Permissions Disabled in Guest User Profiles (Security Alert) **on page 349**

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles. If you have an org created before Winter '20, we recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles. To enhance security, we also removed these permissions from the guest user profile: Can Approve Feed Post and Comments, Enable UI Tier Architecture, Remove People from Direct Messages, View Topics, and Send Non-Commercial Email.

Secure Guest Users' Org-Wide Defaults and Sharing Model (Security Alert)

To increase the security of your Salesforce data, we're enforcing private org-wide defaults for guest users. We're also restricting the sharing mechanisms that you can use to grant record access to guest users. If you have an org created before Winter '20, we recommend that you review the external org-wide defaults, public groups, queues, and manual sharing that you use to grant access to guest users. Then replace the access previously granted by these sharing mechanisms with guest user sharing rules before the security alert is enforced.

Community Nicknames (Security Alert)

Starting in Winter '20, community nicknames are enabled by default for new communities and no longer based on user names.

Spotlight on Content

We added Trailhead modules, trails, and projects, and we created and updated instructional videos. We introduced new guides for the Manufacturing and Consumer Goods Clouds. We also updated our Trust and Compliance documentation.

IN THIS SECTION:

Explore Features with Trailhead

Get familiar with Salesforce or discover a new feature with Trailhead, a fun, guided, and interactive tool. You can follow guided learning paths for admins or developers, or choose your own adventure with self-paced modules.

Watch Videos (English Only)

We created and updated instructional videos to help your users learn about new and improved Salesforce features.

Introducing New Guides for Consumer Goods Cloud

We are introducing two new guides for Consumer Goods Cloud. The Set Up and Maintain Retail Execution guide helps admins configure Retail Execution. The Retail Execution at Your Fingertips guide helps individual field reps key manage their visit activities efficiently. The major features you can look forward to is using one mobile device to complete all their visit activities including order creation.

Introducing New Guides for Manufacturing Cloud

We are introducing two new guides for Manufacturing Cloud. The Set Up and Maintain Manufacturing guide helps admins configure Manufacturing Cloud. The Enhance Your Manufacturing Sales Experience guide helps individual key account managers manage their day-to-day manufacturing activities efficiently. The major features you can look forward to are sales agreement, community template, and account-based forecasting.

Review Trust and Compliance Documentation
We made seasonal updates to the Salesforce Trust and Compliance Documents.

Explore Features with Trailhead

Get familiar with Salesforce or discover a new feature with Trailhead, a fun, guided, and interactive tool. You can follow guided learning paths for admins or developers, or choose your own adventure with self-paced modules.

Check out Trailhead at https://trailhead.salesforce.com, and find the right trail for you. Here are the latest modules, trails, and projects.

Modules

Client Management with Financial Services Cloud
Understand households, manage accounts, and track interactions with your customers.

Trails

Build Integrations Using Connected Apps
Create, manage, and use connected apps that allow external services to integrate with your org.

Create New Learning Experiences with myTrailhead
Foster a culture of learning at your company by building and publishing custom, gamified modules and trails.

Projects

Build a Connected App for API Integration
Create and manage a connected app that gives users secure API access to your org.

Watch Videos (English Only)

We created and updated instructional videos to help your users learn about new and improved Salesforce features.

- The new Einstein Opportunity Scoring video shows you how scores help your team focus on the right deals.
- In the new video, Create a Story from a Dataset, you see how to use an Analytics Dataset to create an Einstein Discovery Story.
- The new Explore Einstein Discovery Insights video shows how to explore insights about your data in an Einstein Discovery story.
- In the new video, Work with Multiple Datasets in Explorer, learn how to analyze data that resides in different Einstein Analytics datasets to find answers to your business questions.
- In the new video, Customize Dimension Values, you learn how to customize the labels for dimension values on Einstein Analytics charts and tables so that they are more meaningful to you.
- The new video, Manage Einstein Analytics Notifications, shows you how to keep track of the notifications that you've defined for business metrics in your Einstein Analytics dashboards.
- In the new video, Share Analytics Apps, Dashboards, and Lenses, you learn about options to share your Einstein Analytics apps, dashboards, and lenses.
- The new video, Provide Your Own Onboarding Videos Within Dashboards, teaches how to help users get the most out of your Analytics apps by providing customized, right-on-time instruction for each dashboard and its charts.

Introducing New Guides for Consumer Goods Cloud

We are introducing two new guides for Consumer Goods Cloud. The Set Up and Maintain Retail Execution guide helps admins configure Retail Execution. The Retail Execution at Your Fingertips guide helps individual field reps key manage their visit activities efficiently. The major features you can look forward to is using one mobile device to complete all their visit activities including order creation.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Introducing New Guides for Manufacturing Cloud

We are introducing two new guides for Manufacturing Cloud. The Set Up and Maintain Manufacturing guide helps admins configure Manufacturing Cloud. The Enhance Your Manufacturing Sales Experience guide helps individual key account managers manage their day-to-day manufacturing activities efficiently. The major features you can look forward to are sales agreement, community template, and account-based forecasting.

Where: This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

Review Trust and Compliance Documentation

We made seasonal updates to the Salesforce Trust and Compliance Documents.

Infrastructure and Sub-Processors

These changes have been made in the **Infrastructure and Sub-Processors Documentation**.

Audience Studio

- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain

Sales Cloud, Service Cloud, Community Cloud, Chatter, Lightning Platform (including Force.com), IoT Explorer (including IoT Plus), Site.com, Database.com, Einstein Analytics (including Einstein Discovery), Work.com, Messaging, Financial Services Cloud, Health Cloud, Salesforce CPQ and Salesforce Billing, Salesforce Maps, Salesforce Advisor Link, and foundationConnect

- **Services Covered:** Added Salesforce Maps, Salesforce Advisor Link, and foundationConnect
  - **Sub-Processors - Customer Data Processing:** Changed the name of the Salesforce affiliate in the UK from salesforce.com EMEA Ltd to salesforce UK Ltd further to change of corporate name of the affiliate. Added Salesforce affiliates located in Italy and Spain

B2B Commerce

- **Sub-Processors - Customer Data Processing:** Changed the name of the Salesforce affiliate in the UK from salesforce.com EMEA Ltd to salesforce UK Ltd further to change of corporate name of the affiliate

B2C Commerce/Commerce Cloud

- Updated to reflect branding changes

Data.com

- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain

Einstein Platform

- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain
- **Sub-Processors - Customer Data Hosting:** Added AWS hosting for Einstein Activity Capture, Saesforce Inbox, and High Velocity Sales in Paris for some EU Customers; added AWS hosting for new EU Customer for Einstein Agent and Einstein Prediction Builder

Heroku

- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain

Desk.com, Einstein Discovery, LiveMessage, Quip, myTrailhead, and SalesforceIQ CRM Services

- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain

IoT Cloud

- **Scope:** Clarified that IoT Plus is also out of scope for this document.
- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain

Marketing Cloud

- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain
- **Predictive Intelligence:** added "Einstein Content Selection" to list of Covered Services.

MuleSoft

- **Scope:** Clarified that API Community Manager is subject to Community Cloud documentation.
- **Sub-Processors - Customer Data Storage:** Clarified that API Community Manager is hosted in Salesforce data centers.
- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain and updated MuleSoft Argentina S.R.L to Salesforce Argentina S.R.L.

Pardot

- **Sub-Processors - Customer Data Processing:** Added Salesforce affiliates located in Italy and Spain

Security, Privacy, and Architecture

These changes have been made in the **Security, Privacy, and Architecture Documentation**.

Sales Cloud, Service Cloud, Community Cloud, Chatter, Lightning Platform (including Force.com), IoT Explorer (including IoT Plus), Site.com, Database.com, Einstein Analytics (including Einstein Discovery), Work.com, Messaging, Financial Services Cloud, Health Cloud, Salesforce CPQ and Salesforce Billing, Salesforce Maps, Salesforce Advisor Link, and foundationConnect

- **Services Covered** Added Salesforce Maps, Salesforce Advisor Link, and foundationConnect
- **Architecture and Data Segregation** added architectural details specific to Salesforce Maps
- **Audits and Certifications** included information about the scope of this section in connection with Salesforce Maps, Salesforce Advisor Link, and foundationConnect. Added information about Cloud Computing Compliance Controls Catalogue Certification. Moved certification information about Japan CS Gold from footnote to this section.
- **Security Controls** Added security information about Salesforce Maps.
- **Intrusion Detection** Removed specific examples.
- **Reliability and Backup** clarified that backup information may be deleted if managed packages are uninstalled for certain services.
- **Return of Customer Data** clarifies that Customer Data may not be available for return if it had been previously deleted by the Customer by uninstalling a managed package.
- **Deletion of Customer Data** added language in connection with Salesforce Maps.
- **Sensitive Data** added Salesforce Maps, Advisor Link, and foundationConnect to the list of Covered Services that are not permitted to receive certain types of sensitive data.

B2B Commerce

- Updated Version and Release numbers.
- Added the following clause to end of Return of Customer Data section: "The foregoing return of Customer Data for B2B Commerce Services may not be available if the package was removed prior to contract termination." This language related to managed packages

aligns with similar language applicable to managed packages in the Security, Privacy and Architecture Documentation for the Salesforce Services.

B2C Commerce/Commerce Cloud

- Updated to reflect branding changes

Desk.com, Einstein Discovery, LiveMessage, Quip, myTrailhead, and SalesforceIQ CRM Services

- Clarified certification coverage for Quip
- Clarified that certain sensitive data may not be submitted to the Covered Services except in limited circumstances where this has been expressly agreed to.

IoT Cloud

- **Services Covered:** Clarified that IoT Plus is also out of scope for this document.

Marketing Cloud

- Updated certain commitments on Disaster Recovery to include Interaction Studio
- **Social Studio:** Updated Reliability and Backup section
- **ExactTarget:** Removed 'provisioning' from description of mobile aggregator services. The aggregator does not provision the mobile number. Added 'may' to clarify that aggregators and carriers may access, store and transmit message content and related information because this is not always the case.
- **Predictive Intelligence:** added "Einstein Content Selection" to list of Covered Services.

MuleSoft

- **Services Covered:** Clarified that API Community Manager is subject to Community Cloud documentation.
- **Audits and Certifications:** Added ISO 27017 and 27018 certifications and clarified that this section is not applicable MuleSoft's Government Cloud Deployment.
- **Sensitive Data:** Added restriction that Customer may not submit health data into name fields.

Notices and Licenses

These changes have been made in the **Notices and Licenses Documentation**.

Audience Studio

- **Restricted Uses of Information and Compliance with Self-Regulatory Programs:** Added restriction on using services to onboard data for further sale.

Salesforce

- **Services Covered** Added Salesforce Maps, Salesforce Advisor Link, and foundationConnect
- Added language about Salesforce.org open source licenses
- Removed reference to Embedly in Chatter Third Party Integrations section
- Added notices and license information for Salesforce Maps

B2B Commerce

- Updated Version and Release numbers
- Added reference to the Google Analytics Terms of Service in the Third Party Notices section, which shall apply if Customer uses the integration with Google Analytics

B2C Commerce/Commerce Cloud

- Updated to reflect branding changes

IoT Cloud

- **Services Covered:** Clarified that IoT Plus is also out of scope for this document.

Marketing Cloud

- **Social Studio:** updated Third Party Notices to include Google My Business
- **Exact Target:** updated CTIA short Code Monitoring Handbook and CTIA Messaging Principles and Best Practices to live links.
- **Predictive Intelligence:** added "Einstein Content Selection" to list of Covered Services.

MuleSoft

- **Services Covered:** Clarified that API Community Manager is subject to Community Cloud documentation.
- **Third Party Notices:** Removed reference to Amazon Web Services Customer Agreement.

Other Salesforce Products and Services

Heroku

Heroku is a cloud-based application platform for building and deploying web apps.

For information on new features, go to the Heroku Changelog.

Success Cloud

The certified experts, consultants, and innovative tools of Salesforce Success Cloud are here to help with professional services, prescriptive advice, and expertise at every stage of your journey.