Salesforce Winter ’17 Release Notes

Salesforce, Winter ’17

Lightning strikes again
# CONTENTS

**SALESFORCE WINTER '17 RELEASE NOTES** .................................................. 1

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to Use the Release Notes</td>
<td>3</td>
</tr>
<tr>
<td>How and When Do Features Become Available?</td>
<td>13</td>
</tr>
<tr>
<td>Supported Browsers</td>
<td>47</td>
</tr>
<tr>
<td>Salesforce Overall</td>
<td>51</td>
</tr>
<tr>
<td>Lightning Experience</td>
<td>68</td>
</tr>
<tr>
<td>Sales</td>
<td>82</td>
</tr>
<tr>
<td>Data.com</td>
<td>132</td>
</tr>
<tr>
<td>Analytics</td>
<td>134</td>
</tr>
<tr>
<td>Service</td>
<td>187</td>
</tr>
<tr>
<td>Communities</td>
<td>237</td>
</tr>
<tr>
<td>Chatter</td>
<td>290</td>
</tr>
<tr>
<td>Files</td>
<td>306</td>
</tr>
<tr>
<td>Mobile</td>
<td>311</td>
</tr>
<tr>
<td>Financial Services Cloud</td>
<td>355</td>
</tr>
<tr>
<td>Health Cloud</td>
<td>358</td>
</tr>
<tr>
<td>Customization</td>
<td>362</td>
</tr>
<tr>
<td>Security and Identity</td>
<td>401</td>
</tr>
<tr>
<td>Deployment</td>
<td>420</td>
</tr>
<tr>
<td>Development</td>
<td>421</td>
</tr>
<tr>
<td>Marketing</td>
<td>492</td>
</tr>
<tr>
<td>Critical Updates</td>
<td>492</td>
</tr>
<tr>
<td>Doc Content</td>
<td>493</td>
</tr>
<tr>
<td>Other Salesforce Products</td>
<td>499</td>
</tr>
</tbody>
</table>
In the Winter ’17 release, many of your favorite features are easier to use than ever before. Lightning Experience has a brand new navigation bar and lots of critical sales, service, and analytics capabilities. You’ve got more options for managing customer and partner communities, running your business from your phone, and keeping your data and your users secure. Not to mention plentiful new customization and app development features, including custom Lightning apps.

IN THIS SECTION:

How to Use the Release Notes
The release notes offer brief, high-level descriptions of enhancements and new Salesforce features. They also include setup information, implementation 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 ’17 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
Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

Salesforce Overall: Custom Apps, Efficient Navigation, and Field-Level Help
Winter ’17 gives you more reasons to love Lightning Experience. Create custom apps, navigate with greater efficiency, and guide your users with field-level help.

Lightning Experience: A Modern and Intelligent User Experience
Lightning Experience is a completely reimagined interface. Even better, it’s built on our UI platform, so the experience can grow and evolve with your needs. Check out the new features and considerations in this release.

Sales: Sell Smarter and Faster in Lightning Experience
Lightning Experience keeps getting better. Now you can help marketing and sales teams drive more business to your company with new and improved productivity features like Voice and Enhanced Email. See news articles on more records so reps stay informed. Improve data quality with a data assessment. Plus, we’ve added Lightning support for some old favorites like contracts, quotes, and Campaign Influence.

Data.com: Clean Rule Setup and Company Information for Accounts
More key Data.com features are now available in Lightning Experience: Clean rule setup and, for Data.com Clean customers, a rule that adds valuable company information to your account data.

Analytics: Lightning Enhancements, Trending in Wave, Wave Dashboard Designer, and More
Drive decisions with insights from reports and dashboards and Wave Analytics. Lightning Experience reports and dashboards offer improved access, more filtering options, and chart enhancements. Wave Analytics takes it to the next level with trending in Wave, prebuilt apps, Wave dashboard designer, a data manager tool, notifications, and an Android app.

Service: Big Changes to CTI, More Features for Field Service
If you use CTI (computer-telephony integration), listen up! We’re retiring Desktop CTI in Spring ’17, so you’ve got only one more release to migrate to Open CTI. (On the bright side, Open CTI now works in Lightning Experience.) Expertly manage your field service operations with a host of new Field Service Lightning features. And Instagram joins Twitter and Facebook in the lively land of Social Customer Service.
Communities: Field Service in Communities, Lightning Bolt, Comment Moderation, and More
Look out world—here comes an upgraded Communities experience that’s more robust, flexible, and extensible than ever. Field service in Communities lets customers easily schedule appointments from within a community. With Lightning Bolt, consulting partners and ISVs can quickly export custom templates and pages to distribute to their customers. And moderation on comments provides community managers with control over the entire feed. We’ve got many more time-saving features to tell you about, so dig in!

Chatter: New Group Wizard, Custom Group Reports, Videos in Place
Group feeds auto-refresh, rich content in feeds support inline images and code markup, and videos now play in context. Plus, custom reports for groups and several look-and-feel improvements make your Chatter experience richer!

Files: Attach Multiple Files to Posts, Work Smarter with Files Connect, Upload Asset Files for Custom Apps
Attach up to 10 files to Chatter feed posts in Lightning Experience. Make your life easier with simpler setup and more relevant content in Files Connect. Use Salesforce Files as icons when packaging custom Lightning apps.

Mobile: Do More on the Go
Mobile keeps us connected from just about everywhere, meaning we can get our stuff done from anywhere. So we’ve been hard at work adding new ways to be productive outside of the office. The Salesforce1 mobile app is pumped up with more intelligence, more actions, and more options for sharing info with colleagues. And Salesforce Authenticator makes it even easier to stay safe and secure with notifications about automated activities and a new option to back up (and restore) connected accounts.

Financial Services Cloud: Lightning Pages and Customization
Who said Lightning strikes only once? Well, Financial Services Cloud strikes again with a new Lightning Page for customizing clients and households. Don’t forget your surfboard, because the all new Advisor Wave will make a big splash with new Wave Dashboards, embedded in Financial Services Cloud.

Health Cloud: Care Plan Templates and More
We’ve been hard at work making it easier for care coordinators to get more done and increase patient engagement.

Customization: Improved Setup for Lightning Experience, More Flexible Lightning Pages, and Reports for External Objects
This release is full of goodies for the point-and-click admin. Find things in Lightning Experience Setup by using global search. Enjoy more granular control over your Lightning pages and picklist values. And if your company uses external objects, run reports across all your data, regardless of where it’s stored.

Security and Identity: Quicker Logins, Policy-Based Responses, Bring Your Own Encryption Key
Protect your org and your users with an even more secure and convenient login experience, U2F security keys for two-factor authentication, and more secure login handling. In Lightning Experience, get to Salesforce apps, custom apps, and connected apps from one App Launcher view. Transaction Security policies let you respond quickly to specified security situations. You can generate your own encryption keys, and you can store larger OAuth tokens and password fields.

Deployment: More Flexible Quick Deployments, More Deployable Items
You now have new ways to deploy changes to your org. Take advantage of the larger time window for quick deployments, add picklist values to change sets, and deploy suites of Apex tests.

Development: Create Your Own Salesforce App
Force.com helps you develop new applications and integrations for your organization or for resale to other organizations.

Marketing: Tools to Engage Your Customers Like Never Before
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, and plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time, and measure the impact of each interaction on your business so you can optimize your approach in real time and deliver better results.
Critical Updates: LockerService Changes, More Clickjack Protection for Visualforce Pages
The LockerService critical update from last release has been postponed. Also, this release includes a critical update that extends legacy browser-compatible clickjack protection for Visualforce pages that hide the page header.

Help and Training
We added walkthroughs and Trailhead modules and added instructional videos. We also updated the Salesforce Trust and Compliance documents.

Other Salesforce Products

How to Use the Release Notes
The release notes offer brief, high-level descriptions of enhancements and new Salesforce features. They also include setup information, implementation tips to help you get started, and best practices to ensure your continued success.

- You can choose from PDF and HTML versions.
- By default, your browser’s settings determine the language used in the HTML release notes. To change the language, scroll to the bottom of the page, click Change Language, and select a language.
- These release notes are about new and modified features, not known issues. For information about known issues, check out the Salesforce Known Issues site.

Note: Until the new Salesforce release is available in your production org, links from release notes to the Salesforce Help, implementation guides, developer guides, and other documentation don’t work or point to materials for the previous Salesforce release. Some of our documentation has preview versions available several weeks before the Salesforce release. To access the preview versions on Salesforce Developers, select Preview from the Documentation Version drop-down 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.

Know What’s in Salesforce Lightning Experience and What’s in Salesforce Classic
Everybody’s excited about Salesforce Lightning Experience and everything it offers. But we also understand that lots of organizations will continue to use Salesforce Classic—either exclusively for a few releases or in tandem with Lightning Experience as it evolves.

You Asked for It!
We delivered the features you asked for on IdeaExchange.

Other Resources
In addition to these release notes, we provide other resources to get you up to speed quickly.

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

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.

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, Mobile, and Salesforce Classic.
Edition

Which feature enhancements are available to you depends on your edition. Filter the release notes to show only 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 enabled for your users automatically.

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 of the screen.

![Filter options](image)

After you select filters, you can share your list of release notes with anyone. Copy the URL after you select filters, and then distribute that URL however you want.

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

Everybody’s excited about Salesforce Lightning Experience and everything it offers. But we also understand that lots of organizations will continue to use Salesforce Classic—either exclusively for a few releases or in tandem with Lightning Experience as it evolves.

One key to success during this time of transition is understanding what’s available in one, both, or all the Salesforce experiences. To guide you, we’ve added experience information to these release notes at the highest level where that information applies: for entire clouds or for individual features within clouds. Let’s look at three examples.

- **Communities and all its features** are currently available in Salesforce Classic only, so we tell you that in the Communities “Editions” table. It says “Available in: Salesforce Classic.”
• Case Feed, a Service Cloud feature, is available in both desktop experiences, so its description says “This feature is available in both Lightning Experience and Salesforce Classic.”

• Opportunity Workspace, a new Sales Cloud feature, is available in Lightning Experience only, so its description says “This feature is available in Lightning Experience only.”

If a key feature is also available in Salesforce1, our mobile app, we mention that in the feature description. But you can also check the Mobile section for a complete list of what’s new in Salesforce1.

You Asked for It!
We delivered the features you asked for on IdeaExchange.

<table>
<thead>
<tr>
<th>IdeaExchange</th>
<th>Idea delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Enhancements</td>
<td></td>
</tr>
<tr>
<td>Help Text on Hover Inside Lightning Experience</td>
<td>Get Field-Level Help in Lightning Experience</td>
</tr>
<tr>
<td>Save &amp; New Standard Button in Lightning Experience</td>
<td>Create Multiple Records More Quickly in Lightning Experience</td>
</tr>
<tr>
<td>Sales</td>
<td></td>
</tr>
<tr>
<td>Assets, Contracts and Quotes Should Be Available in the Lightning Experience</td>
<td>Contracts: Manage Your Terms for Doing Business in Lightning Experience</td>
</tr>
<tr>
<td>Create Quotes in the Lightning Experience</td>
<td>Add Quotes to Opportunities in Lightning Experience</td>
</tr>
<tr>
<td>Ability to Forward and Resend Emails within Salesforce</td>
<td>Reply to and Forward Emails Right from Salesforce</td>
</tr>
<tr>
<td>Enable Kanban View for Custom Objects</td>
<td>Kanban: Track and Manage Leads, Contracts, and Campaigns Visually <em>(partially delivered)</em></td>
</tr>
<tr>
<td>Additional Colors for Calendar</td>
<td>Personalize Calendars with Different Colors <em>(partially delivered)</em></td>
</tr>
<tr>
<td>Analytics</td>
<td></td>
</tr>
<tr>
<td>Run Reports Directly Against External Objects</td>
<td>Broaden Your Horizons—Include External Data in Reports</td>
</tr>
<tr>
<td>Service</td>
<td></td>
</tr>
<tr>
<td>Allow User to Turn Off Responsive List Hovers</td>
<td>Control List View Hovers in the Console</td>
</tr>
<tr>
<td>Ability to Change Case Owner While Using Macros</td>
<td>Change the Case Owner Using a Quick Action or a Macro</td>
</tr>
<tr>
<td>Default Email Template</td>
<td>Ensure Consistency by Using Default Email Templates in Lightning Experience and Salesforce1</td>
</tr>
<tr>
<td>Default Email Address and Template</td>
<td></td>
</tr>
<tr>
<td>Setting a Default “From” Address When Sending an Email from Cases</td>
<td>Standardize From Addresses in Emails That Agents Send from Cases <em>(partially delivered)</em></td>
</tr>
<tr>
<td><strong>IdeaExchange</strong></td>
<td><strong>Idea delivered</strong></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Default Email Address and Template</td>
<td></td>
</tr>
<tr>
<td>Communities</td>
<td></td>
</tr>
<tr>
<td>Mature the Topics Feature</td>
<td>Send Topic Email Notifications to Keep Your MVPs Informed (partially delivered)</td>
</tr>
<tr>
<td>Email Daily Digest for Chatter Answers in Community</td>
<td></td>
</tr>
<tr>
<td>Partners Have Access to Dashboards PRM Users &amp; Dashboards—‘Refresh’ Button Available on the Dashboard Page</td>
<td>Add Reports and Dashboards to Community Pages</td>
</tr>
<tr>
<td>Files</td>
<td></td>
</tr>
<tr>
<td>Ability to attach multiple files to a Chatter item</td>
<td>Load Up Your Feed Posts with Ten Files in Lightning Experience</td>
</tr>
<tr>
<td>Mobile</td>
<td></td>
</tr>
<tr>
<td>Edit/Add Products to your Opportunity with Salesforce 1</td>
<td>Add Products to Opportunities in Salesforce 1</td>
</tr>
<tr>
<td>Allow Products / Pricebooks to be displayed in Salesforce 1 app</td>
<td>Add Products to Opportunities in Salesforce 1</td>
</tr>
<tr>
<td>Cannot add Price book and Products on Salesforce 1</td>
<td>Add Products to Opportunities in Salesforce 1</td>
</tr>
<tr>
<td>Customization</td>
<td></td>
</tr>
<tr>
<td>Run Reports Directly Against External Objects</td>
<td>External Object Reports—Get a Seamless View of Data Across System Boundaries</td>
</tr>
<tr>
<td>Automate Permission Set License Assignment Based on Profiles and Licenses</td>
<td>Easily Associate Permission Sets with Permission Set Licenses</td>
</tr>
<tr>
<td>Launch another Process from within Process Builder</td>
<td>Build Reusable Processes</td>
</tr>
<tr>
<td>Decision Tree for True</td>
<td></td>
</tr>
<tr>
<td>Introduction of decision boxes in the Process Builder</td>
<td></td>
</tr>
<tr>
<td>Have an Initial Filter for getting into a process</td>
<td></td>
</tr>
<tr>
<td>Nested Criterias (If Statements)</td>
<td></td>
</tr>
<tr>
<td>Create Hierarchy for Process Builder</td>
<td></td>
</tr>
<tr>
<td>Access to Owner Fields</td>
<td>Access Owner Fields from Process Builder</td>
</tr>
<tr>
<td>Screen layout in Visual Workflow / Flow should not suck (partially delivered)</td>
<td>Run Flows with a Lightning Skin (Beta)</td>
</tr>
</tbody>
</table>
Other Resources

In addition to these release notes, we provide other resources to get you up to speed quickly.

- **Release Readiness & Feature Adoption community.** Join a community of Salesforce experts.
- **Release demos.** Get quick video overviews of what’s coming this release.
- **Release Overview.** Create internal training for your users, review setup screens, and learn how to use features.
- **Release Readiness & Feature Focus Event Calendar.** Register for expert hours and other events.
- **Release Readiness Live.** Register and make the most of the new features.
- **Winter ’17 Release.** Check out the new features.
- **Winter ’17 Release module.** Get the Winter ’17 Trailhead badge.

Release Notes Changes

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

**January 4, 2017**

**Get More External Object Search Results**

Corrected the release notes to state that we removed the 25-row limit for external object search results in Lightning Experience only.

The change doesn’t apply to Salesforce Classic.

**Import Data from Object Home Pages**

A link to import data now appears on object home pages, such as the Accounts home page.

**“Trust Percent Values in Flow sObject Variables Again” Critical Update Postponed**

Announcing that this critical update’s auto-activate date has been postponed by one release.

**Pardot Updates**

Additional updates to the Pardot release notes including Engagement Program versioning, variable tags, multiple prospects with the same email address, public list membership and email opens criteria automations, Wave for B2B Marketing, and Engagement History Lightning component.

**December 12, 2016**

**Create a New User on the Go**

Learn about the latest release of SalesforceA for iOS.

**November 30, 2016**

**New Sales and Service Wave Configuration Wizards Take Guesswork Out of App Creation**

Announcing enhancements to Wave for Sales and Wave for Service configuration wizards that streamline app creation.

**View Obfuscated Code in Subscriber Orgs with Login As**

Noted that LMO users now need the “Author Apex” permission to view obfuscated code in subscriber orgs.

**Use Filters to Zero In on the News that Matters Most**

Announcing new Lightning Experience, Mobile, and Salesforce Classic filters for the HTML release notes.

**“Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process” Critical Update Postponed**

Announcing that this critical update’s auto-activate date has been postponed by one year.
Create Partner Communities with the Lightning Partner Management Solution
Announcing the general availability of the new Lightning Partner Management solution to create partner communities.

Custom Application Metadata Object Changes
Added the uiType field.

Note: If you’re working with a WSDL that was generated before this change, regenerate your WSDL to ensure that your code will continue to work.

Removed Pardot content related to a prior release, and added several topics about new Pardot features.

Create Custom Apps in Lightning Experience and Navigate More Efficiently
Added a note about tab types that aren’t highlighted when selected on the navigation bar.

List Views No Longer Available for People and Reports
Added content about a bug fix removing support for list views on People and Reports.

New ISV Partner Video Is Available
Added a link for a new video that shows you how to set up the Checkout Management App.

What’s New in the Latest Salesforce1 Downloadable Apps
Announcing the general availability of version 11.0 of the Salesforce1 downloadable app for Android. The new app is coming to Google Play the week of October 31, 2016. Learn all about the new enhancements for your Android users.

New Data Loader Version Includes Updated Operating System Support
Added a note that Data Loader is signed for Windows.

Identify and Merge Duplicate Leads in Lightning Experience
Clarified this topic to specify that sales reps can find and merge duplicates in Lightning Experience when a duplicate rule is active in your org. Also specified that this feature was previously available in Classic and is new in Lightning Experience.

New Data.com Videos Are Available
Added links to two new videos that show you how to use Data.com in Lightning Experience.

Introducing Base Lightning Components
Added information about a change to the lightning:card component.

Encrypt Your Search Index (Generally Available)
Clarified when users see encrypted and unencrypted search results.

Introducing the Utility Bar Implementation Guide
Added a link to the Utility Bar Implementation Guide, which provides information on setting up utility bars in Lightning apps.

New, Changed, and Deprecated Calls in SOAP API
Added the new object UserAppInfo.

Enable or Disable A/B Testing When Editing and Copying Emails
Added content about A/B testing in Pardot.
Add Reports and Dashboards to Community Pages
   Added a note about the unavailability of report list views in Customer Service (Napili)-based communities.

Contact Mailing Field Labels Changed in Lightning Experience to Match Salesforce Classic
   Added a note about the changes to the mailing address fields on contact records in Lightning Experience.

"View Encrypted Data" Permission Not Needed with Shield Platform Encryption Beginning Spring '17
   Added a note about the Spring '17 decoupling of the "View Encrypted Data" permission from Shield Platform Encryption. As of Spring '17, you can no longer use the "View Encrypted Data" permission to control who sees unmasked encrypted field values.

Salesforce Classic Mobile App to Retire in December 2017
   Announcing the upcoming retirement of the Salesforce Classic Mobile app.

Set a Browser Cookie to Enable Debug Logging for Guest Users
   Added information on how to set browser cookies in Java code or in Google Chrome™. Clarified that you can't collect debug logs for public users' asynchronous activity.

Changes to How You Access the Console
   Removed the release note announcing this change. You can access your console apps from the app menu in Salesforce Classic and the App Launcher in Lightning Experience.

Metadata API
   Added a new optional field to Report, isUnlocked, which specifies whether a report filter is unlocked or locked.

October 19, 2016

PageReference getContent() and getContentAsPDF() Methods Now Behave as Callouts (Critical Update)
   As of October 18, Visualforce PageReference getContent() and getContentAsPDF() methods behave as callouts, and are counted against the limits of the calling transaction.

View Version History for a Process in One Place
   Added a note about changes to how you manage process versions.

Use Any Character Delimiter to Separate Data in Your Import File
   In Data Loader, you can now specify a delimiter character for your CSV file. Previously, only commas and tabs were supported.

Removed References to $A.util.format() Method
   We removed references in the documentation to the unsupported JavaScript method, $A.util.format().

View Obfuscated Code in Subscriber Orgs with Login As
   Added a note about a change that was made to enable the upcoming ISV Debugging pilot program. This change is generally available.

What's New in the Latest Salesforce1 Downloadable Apps
   Announcing the general availability of version 11.0 of the Salesforce1 downloadable app for iOS. The new app is coming to the App Store the week of October 24, 2016. Learn all about the new enhancements for your iOS users. (Version 11.0 of the Salesforce1 downloadable app for Android is coming soon.)

Chatter and Communities: Lightning Experience Considerations
   We've corrected the release notes to include information about a Question publisher limitation in Lightning Experience.

October 12, 2016

Debug Lightning Components Faster and Easier with Salesforce Lightning Inspector
   A new version of Salesforce Lightning Inspector is available with more component information, performance data, call stacks, and localization.
View Version History for a Process in One Place
   Added a note about changes to how you manage process versions.

Legacy Data Import Tools Retired in New Orgs
   Added a note about the unavailability of legacy data import tools in new orgs and the retirement of the import tools in Spring ’17 for existing orgs.

List Item Actions in Salesforce1 Related Lists Match Those in Lightning Experience
   Added a note about actions on related list items in orgs that don’t have Lightning Experience enabled.

Updated Salesforce1 Requirements
   Removed iPad Air from the Winter ’17 list of devices used for Salesforce1 testing.

Send Text Messages from Salesforce1
   Clarified that the Send Text action is available if a record includes a valid phone number in any phone number field, not just the standard Phone field.

Enhanced Charts to Replace Legacy Charts in Salesforce1 as Part of a Phased Retirement (Full Retirement in Summer ’17)
   Revised the time-frame and plan for Legacy Charts retirement in Salesforce1. Legacy Charts retirement in Salesforce1 is now planned for the Summer ’17 release instead of Spring ’17. Enhanced Charts aren’t automatically enabled (except in new orgs created in or after the Summer ’16 release).

Say Goodbye to Passwords with Salesforce Authenticator and Lightning Login
   Instead of remembering, maintaining, and entering passwords, you can now use Salesforce Authenticator with Lightning Login.

Reorder Your Accounts in Salesforce Authenticator
   Salesforce Authenticator now allows you to reorder your accounts in the app. Simply tap and hold an account, then drag it up or down.

October 5, 2016

Create Custom Apps in Lightning Experience and Navigate More Efficiently
   Added a note to specify which items support actions and accessing recent records and lists directly on the Lightning Experience navigation bar.

Help and Training
   Added Help and Training section.

Introducing Base Lightning Components
   Added information about a change to the lightning:card component.

Metadata API
   Added information about a new field, license, in the PermissionSet object. This field replaces userLicense, which is deprecated.

LockerService Critical Update Postponed
   This critical update was scheduled for auto-activation in Winter ’17. The auto-activation date has been postponed until Summer ’17.

All Orgs Can Toggle the LockerService Critical Update
   All orgs can now deactivate the critical update. Also, there is a new setting on the Lightning Components setup page to let you control whether LockerService is enforced for components installed from a managed package.

Make Your Calls in Lightning Experience with Open CTI
   Added a link to the Open CTI demo adapter for Lightning Experience.

New Data Loader Version Includes Updated Operating System Support
   Clarified that TLS 1.1 and 1.2 encryption protocols are supported.
Wave for Financial Services Cloud
   Added information about a new app for Financial Services Cloud.

September 28, 2016

Log In Password-Free with Lightning Login on page 402
   Updated the default security level of Lightning Login to Standard from High Assurance.

CustomApplication Metadata Object Changes
   More information about how formFactors behaves for a CustomApplication installed from a package.

Run a Custom Mass Action on Multiple Records
   Select multiple records with a single button click in a Lightning Experience list view.

Control Sandbox Size by Reducing Version History
   You can reduce a sandbox's size by specifying how much version history to include with the sandbox.

Clarified Enforcement Date Window for Access Check Errors for Lightning Components
   The critical update will be enforced for all orgs sometime between October 15 and October 19, 2016.

Introducing Base Lightning Components
   Added information about new and changed attributes for base Lightning components.

Base Lightning Components Considerations
   Added guidelines on using the base Lightning components.

Set a Browser Cookie to Enable Debug Logging for Guest Users
   Debug logs are now collected for public users only when those users have a browser cookie with the name debug_logs.

September 21, 2016

CustomApplication Metadata Object Changes
   Clarified how the formFactors field is used for the Lightning Experience desktop with Salesforce Classic packages created before the Winter ’17 release, and restored these fields:
   - footerColor
   - headerColor
   - logo

Improvements for Functions
   The new function ISCLONE checks whether an item is a clone of another item. We also improved the documentation for the DATEVALUE and ROUND functions.

Events from Dynamically Created Components Propagate Properly
   We fixed event propagation behavior so that components created programmatically in code behave the same way as components created declaratively in markup.

Critical Upgrade Required for Salesforce for Outlook Users
   Clarified that upgrading is urgent for some users. Also clarified how Salesforce for Outlook responds to the Critical Update Console (CRUC) setting that lets you test your readiness for TLS 1.0 disablement.

Verify Your Security Protocol to Avoid Service Interruptions
   Clarified how Salesforce for Outlook responds to the Critical Update Console (CRUC) setting that lets you test your readiness for TLS 1.0 disablement.

New and Changed Lightning Components
   Added information about changed components in the lightning namespace.
Introducing Lightning Data Service (Developer Preview)
A new way to access and modify data in your Lightning components is available in developer preview.

Added Enforcement Date for Access Check Errors for Lightning Components
The critical update will be enforced on October 15 for all orgs.

Streamlined Work Order Pricing
Learn about updates to pricing fields on work orders and work order line items.

New Lightning Events
Added the lightning:openFiles Lightning event.

Introducing Base Lightning Components
Added information about the availability of new components in the lightning namespace.

New and Changed Lightning Components
Added information about new and changed components in the force, lightning, and ui namespaces.

Play Videos Directly in the Feed
Updated to reflect that playing videos inline in feeds is available in Lightning Experience and communities based on the Customer Service (Napili) template only. This feature isn’t available in feeds in the Salesforce1 mobile app.

Let Users Verify Their Identity with U2F Security Keys
Added information about enabling the feature if My Domain isn’t already deployed in your org.

Deliver Customizable Events with Platform Events (Beta)
Updated the Platform Events (Beta) guide that the release note entry links to. Updates include correcting information and the Apex example for EventBus.RetryableException.

Access Check Violations Are Now Enforced in Communities
Added enforcement date for access check errors. The critical update is being enforced for all orgs on October 15, 2016.

Visualforce Pages Can Be Used in Service Console with Clickjack Protection Enabled
Removed the release note announcing this feature. This enhancement has been delayed.

Experience the Latest Wave for iOS
Updated to include features in version 2.4.

September 7, 2016

New, Changed, and Deprecated Calls in SOAP API
Added LOGIN_KEY and SESSION_KEY to 24 event types, and ENTITY_NAME to the REST API event type.

Create Custom Apps in Lightning Experience and Navigate More Efficiently
Added the limits for new Lightning apps by edition.

Get Field-Level Help in Communities
Added a section about the availability of field-level help in communities.

New Objects
Added UserCustomBadge and UserCustomBadgeLocalization objects.

Subscribe to Reports in Lightning Experience
Removed the release note announcing this feature. Lightning report subscriptions is a closed pilot feature.

Use Skype for Business® Chat, Video Calling, and Audio Calling in Salesforce (Beta)
Clarified steps and required permissions for setting up Skype for Salesforce.
August 31, 2016

**You Asked for It!**
Added Ideas that we delivered.

**New Location for View Case Link**
Added information about the new location of the View Case link that appears on a community question when the question is escalated.

**Changed Objects**
Added information about changes to FeedItem and FeedComment API objects.

Updated the list of default values for the Status and StatusCategory fields on the WorkOrder and WorkOrderLineItem objects.

**Schedule Work with Service Appointments**
Clarified that the Status field is editable, not calculated based on other fields.

**New Status Options on Work Orders**
Updated the list of default values for the Status and Status Category fields on work orders and work order line items.

**Do More with the Custom Metadata Loader**
Added the actual GitHub link to the updated custom metadata loader now that the link is live.

**Default Certificate No Longer Available in New Orgs**
Starting in Winter ’17, new orgs don’t have the Default Certificate option, and you must use a self-managed certificate.

**Actions API**
Added section describing updates to Actions API.

---

**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.

- **Feedback forms:** As you’re working with our documentation—whether it’s in the Salesforce Help, release notes, or developer guides at Salesforce Developers—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 ’17 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**

Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.
### Salesforce Overall

Winter ’17 gives you more reasons to love Lightning Experience. Create custom apps, navigate with greater efficiency, and guide your users with field-level help.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get Spell Correction for Custom Objects</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Search Results for More Objects</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find the Right Record with Person Account Search Enhancements</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encrypt Your Search Index (Generally Available)</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Find the Right Knowledge Article with Snippets</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get a Better View with Global Instant Results</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Go Straight to Top Results Anytime You Search</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Look to the Left to Narrow Search Results</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Custom Apps in Lightning Experience and Navigate More Efficiently</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ready, Set, Relaunch: A New Look for the App Launcher</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Get Field-Level Help in Lightning Experience</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Multiple Records More Quickly in Lightning Experience</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Lightning Experience**

Lightning Experience is a completely reimagined interface. Even better, it's built on our UI platform, so the experience can grow and evolve with your needs. Check out the new features and considerations in this release.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record Details Tab Never Forgets in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearer, More Actionable Popup Messages for Records</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Troubleshoot Record Errors Quickly and Easily in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See More Specific Dialog Titles When Creating Records</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Sandbox Size by Reducing Version History</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sales**

Lightning Experience keeps getting better. Now you can help marketing and sales teams drive more business to your company with new and improved productivity features like Voice and Enhanced Email. See news articles on more records so reps stay informed. Improve data quality with a data assessment. Plus, we've added Lightning support for some old favorites like contracts, quotes, and Campaign Influence.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts Get an Automatic Upgrade (available within 24 hours after the release)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**How and When Do Features Become Available?**
## How and When Do Features Become Available?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get the Complete Picture with Account Logos (Generally Available)</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get the Scoop on a Company’s Top Leaders</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relating a Contact to Multiple Accounts Gets Even Better</td>
<td></td>
<td></td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>News Has Arrived for Contacts</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stay-in-Touch Requests Is Retiring in Summer ’17</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leads</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and Merge Duplicate Leads in Lightning Experience</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead the Way to Closed Deals with News for Leads</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campaigns</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assign Credit for Opportunities to Multiple Campaigns with Customizable Campaign Influence (Generally Available)</td>
<td></td>
<td></td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Set Up Customizable Campaign Influence</td>
<td></td>
<td></td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Contracts</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Products with Schedules in Lightning Experience</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales Path Activation Just Got Easier</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Quotes to Opportunities in Lightning Experience</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>News</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account Insights Is Now Called News</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start Spreading the News on Chatter</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give Feedback on News Items With Fewer Clicks</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>Request an Account Data Assessment in Lightning Experience</td>
<td></td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When Your Data Assessment Is Complete, You Get an Email</td>
<td></td>
<td>✅</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Productivity Features**

**Home**

- Take Action in the Assistant
- Dismiss Unhelpful Recommendations

**Lightning Voice**

- Access Voice from the Utility Bar
- Make Calls with Your Keyboard or the Virtual Dial Pad
- Easily Access Call History
- Handle Missed Calls with Notifications and Call Forwarding

**Email**

- Reply to and Forward Emails Right from Salesforce
- Daily Org Limits for Sending Emails with the API Have Increased

**Activities**

- Filter the Activity Timeline
- Personalize Calendars with Different Colors
- See a Monthly View of Your Calendar Events
- Cloud Scheduler is Being Retired

**List Views**

- Optimize Clicks and Time by Editing Inline (Beta)
- Quickly Add Multiple Members to a Campaign
- Take Ownership of Multiple Leads at Once
## How and When Do Features Become Available?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run a Custom Mass Action on Multiple Records</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List Views No Longer Available for People and Reports</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Kanban</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Prompted to Update Required Fields from the Kanban View</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modify Records from the Kanban View</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Google Integration (Beta)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sync Appointments from Google Calendar™ to Salesforce (Beta)</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Microsoft® Integration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightning for Outlook</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightning for Outlook and Shield Platform Encryption Play Well Together</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Put Your Own Spin on Lightning for Outlook (Beta)</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lightning Sync</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Edition: Getting Sync-y with It</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightning Sync and Shield Platform Encryption Play Well Together</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connect Microsoft® Exchange to Salesforce Securely and Easily</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatically Relate Sales Reps' Calendar Events to the Most Relevant Salesforce Contacts or Leads</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salesforce for Outlook</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Upgrade Required for Salesforce for Outlook Users</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Say Hello to Recurring Events in the Salesforce Side Panel</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retiring Support for Microsoft® Outlook 2007 and Microsoft Exchange 2007</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skype for Salesforce (Beta)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Enabled for administrators/developers</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Use Skype for Business® Chat, Video Calling, and Audio Calling in Salesforce (Beta)</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td><strong>Other Changes in Microsoft® Integration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verify Your Security Protocol to Avoid Service Interruptions</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Connect for Office Microsoft® Excel Add-On: No Longer Supported Starting in March 2017</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Connect for Office Microsoft® Word Add-On and Standard Mail Merge: No Longer Supported Starting in March 2017</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td><strong>Pardot</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Inactive Automation Processes with a New Monthly Report</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Enable or Disable A/B Testing When Editing and Copying Emails</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Customize and Export Prospect List Data</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Personalize Emails with New Assigned User Variable Tags</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Prevent Cross-Site Scripting Attacks with Variable Tag Modifiers</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Allow Multiple Prospects with the Same Email Address</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Create Automations Based on Public List Membership and Email Opens</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Dive Deeper into the Data That Matters Most with Wave for B2B Marketing</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td><strong>Salesforce Engage: Prospect List Customization, Editable Template Regions, Person Account Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edit Template Regions in Engage Emails</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Use Custom Date Ranges in Engage Reports</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Use Person Accounts with Salesforce Engage</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>View Prospect Engagement History in Lightning Experience</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td><strong>Engagement Studio: Wait Time Option, Locking Programs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### How and When Do Features Become Available?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold All Prospects on a Trigger with a Wait Time Option</td>
<td></td>
<td></td>
<td>![Checkmark]</td>
<td></td>
</tr>
<tr>
<td>Save Your Changes with Locking Programs</td>
<td></td>
<td></td>
<td>![Checkmark]</td>
<td></td>
</tr>
<tr>
<td>Track and Report on Engagement Program Versions</td>
<td></td>
<td></td>
<td>![Checkmark]</td>
<td></td>
</tr>
</tbody>
</table>

### Other Changes in the Sales Cloud

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Console Changes</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import My Accounts and Contacts Wizard Is Retired</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account Autofill Supports More Companies</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name Fields in Rows Visible in Custom Report Types</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities: Probability Field Editable in Lightning Experience</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Mailing Field Labels Changed in Lightning Experience to Match Salesforce Classic</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recurring Events Start and End Field Labels Have Changed</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Data.com

More key Data.com features are now available in Lightning Experience: Clean rule setup and, for Data.com Clean customers, a rule that adds valuable company information to your account data.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Up Clean Rules in Lightning Experience</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Key Information to Account Records Automatically</td>
<td>![Checkmark]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Analytics

Drive decisions with insights from reports and dashboards and Wave Analytics. Lightning Experience reports and dashboards offer improved access, more filtering options, and chart enhancements. Wave Analytics takes it to the next level with trending in Wave, prebuilt apps, Wave dashboard designer, a data manager tool, notifications, and an Android app.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reports and Dashboards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design Your Dashboard with Keyboard Shortcuts, Use a Screen Reader</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Reports by Role Hierarchy in Lightning Experience</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter Reports by Relative Dates in Lightning Experience</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preserve Filters When Drilling in to a Report from a Dashboard in Lightning Experience</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chart Improvements in Lightning Experience: Table, Gauge, Bar, Scatter, Line, and Combo Charts</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broaden Your Horizons—Include External Data in Reports</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wave Analytics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track Your Business Over Time with Trending Wave Dashboards</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Accelerate Analytics with Prebuilt Wave Apps</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Sales and Service Wave Configuration Wizards Take Guesswork Out of App Creation</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streamline Sales Cloud Analytics with the Refreshed Version of Sales Wave</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Wave Gives You the Right Data at the Right Time to Make Smart Service Decisions</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Smart Insights into Your Org’s Activities Fast with Event Monitoring Wave</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take the Guesswork Out of Upgrading Prebuilt Wave Apps to a New Version</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
</tbody>
</table>
### Salesforce Winter '17 Release Notes

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wave: Explore, Visualize, and Easily Design</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beyond Compare Table</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Charts for Your Viewing Pleasure</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wave Dashboard Designer (Generally Available): Build Dashboards More Easily</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the Changes Coming to Bindings</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get More Support with Enhanced Dashboard User Assistance and Documentation</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wave: Extend Analytics to Every Business Process</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set Smart Notifications to Keep Up to Date on Your Most Important Business Metrics</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embed Wave in Any Lightning Page</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embed Wave in Any Mobile Page</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annotate and Collaborate on Wave Dashboards More Easily</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Download Dashboard Widget Data in the Wave Dashboard Designer</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Choose Your Session Security HttpOnly Attribute Setting</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wave: Go Places with Wave Mobile Apps</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience the Latest Wave for iOS</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ride the Wave You’ve Been Waiting For: Wave Analytics for Android</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Wave: Integrate Your Data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepare, Replicate, and Monitor in the New Data Manager</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimize Your Dataflows with Replication (Generally Available)</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Datasets with Data Prep (Beta)</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove Fields from Your Datasets with the sliceDataset Transformation</td>
<td>✔️</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Service

If you use CTI (computer-telephony integration), listen up! We’re retiring Desktop CTI in Spring ’17, so you’ve got only one more release to migrate to Open CTI. (On the bright side, Open CTI now works in Lightning Experience.) Expertly manage your field service operations with a host of new Field Service Lightning features. And Instagram joins Twitter and Facebook in the lively land of Social Customer Service.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CTI</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make Your Calls in Lightning Experience with Open CTI</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>The End is Near for Desktop CTI</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td><strong>Field Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage Your Workforce with Service Resources</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Schedule Work with Service Appointments</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Define Your Field Service Footprint with Service Territories</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Track Your Workforce’s Expertise with Skills</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Manage Daily Schedules with Operating Hours</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Report on Field Service Lightning</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Get Geocoding Data in Field Service Lightning</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Do More with Work Orders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standardize Your Work Orders with Work Types</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Enabled for administrators/developers</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------------------------------------</td>
<td>------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Work Orders Supported in Professional Edition</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Duration and Required Skills to Work Orders</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>View Suggested Articles on Work Orders</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes to Work Order Enablement</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Criteria-Based Sharing Rules for Work Orders (Beta)</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Get Notified About Work Order Updates</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Updated Limits on Work Order Hierarchies</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Status Options on Work Orders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streamlined Work Order Pricing</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social Customer Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instagram Generally Available</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sync Your Social Accounts Faster</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Post and Persona Home Pages Available in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Case Feed Social Actions Available in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Favorite Me Is to Like Me</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reply in Facebook Without the Original Post</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The End Is Here for the LinkedIn Pilot</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Your Data Categories and Articles with REST API</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welcome to Knowledge, Professional Edition</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salesforce Console</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control List View Hovers in the Console</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Omni-Channel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omni-Channel Supervisor: Give Supervisors Real-Time Insight (Beta)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Enabled for administrators/developers</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>---------</td>
<td>------------------</td>
<td>---------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Drill Down for Agent, Work, and Queue Details</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View a Timeline of Agents’ Work</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find What You Need with Sorting and Filtering</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Live Agent**

**Omni-Channel Routing for Live Agent Chats: Use Omni-Channel Queues to Route Chats with Other Work (Beta)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pick Me! Prioritize Chats Alongside Other Omni-Channel Work</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consolidate Agents’ Notifications on Omni-Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give Supervisors Real-Time Data from Omni-Channel-Routed Chats with Omni-Channel Supervisor (Beta)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Chat Settings Moved to Omni-Channel Setup</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limitations for Omni-Channel Routing for Live Agent Chats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Live Chat Transcript: Your Transcripts Get a Major Upgrade**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Page Layouts for Live Chat Transcripts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bye, Bye, Paper Clip! Attach Records to the Chat Transcript with a Sidebar Lookup Component</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access More Data for Chats Routed with Omni-Channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customize Chat Time-Outs and Alert Agents to Unresponsive Customers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Case Feed**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change the Case Owner Using a Quick Action or a Macro</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View All Contact Fields on Case Pages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Case Feed: Updates to Lightning Experience Email</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure Consistency by Using Default Email Templates in Lightning Experience and Salesforce1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How and When Do Features Become Available?

Salesforce Winter ’17 Release Notes
### Declutter Your Screen with Collapsible CC and BCC Fields for Case Emails in Lightning Experience

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declutter Your Screen with Collapsible CC and BCC Fields for Case Emails in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Standardize From Addresses in Emails That Agents Send from Cases

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardize From Addresses in Emails That Agents Send from Cases</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Send Email Attachments from Cases in Lightning Experience

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send Email Attachments from Cases in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### View Email Attachments in Your Email Feed Items in Lightning Experience

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Email Attachments in Your Email Feed Items in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Chatter Answers: Help Customers Get Answers Fast

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chatter Answers Retires in Winter ’18</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Entitlement Management

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entitlement Process Update Rules Just Got... Well, Updated</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Updated Limits on Service Contract Hierarchies

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updated Limits on Service Contract Hierarchies</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Assets

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updated Limits on Asset Hierarchies</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Snap-Ins: Bring the Power of Service Cloud Components to Your Website

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support Your Customers from Your Website with Snap-In Chat (Beta)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Cloud Lightning Snap-ins SDK: Now Generally Available for iOS</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Communities

Look out world—here comes an upgraded Communities experience that’s more robust, flexible, and extensible than ever. Field service in Communities lets customers easily schedule appointments from within a community. With Lightning Bolt, consulting partners and ISVs can quickly export custom templates and pages to distribute to their customers. And moderation on comments provides community managers with control over the entire feed. We’ve got many more time-saving features to tell you about, so dig in!

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Check Violations Are Now Enforced in Communities</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### How and When Do Features Become Available?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LockerService for Communities Critical Update Postponed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Partner Communities with the Lightning Partner Management Solution</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Builder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightning Bolt Solutions: Build Once, Then Distribute and Reuse</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rebrand Really Quickly with Custom Theme Layouts</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expand Your Workspace Horizons with the Streamlined Community Builder</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Lightning Components from the AppExchange in Community Builder</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track, Learn, and Fine-Tune with Google Analytics</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Public Access for Each Page in Your Community</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEO Enhancements Improve Search-Engine Ranking</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page Layouts Are Now Called Content Layouts</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop and Customize with Global Lightning Components, Interfaces, and Events</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community Templates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Napili Is Now Called Customer Service (Napili)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Communities with the Jazzed Up Wizard</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Customer Service (Napili) Template Supports Even More Objects</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Field-Level Help in Communities</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expose Content from External Data Sources in Your Template-Driven Community</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Add Reports and Dashboards to Community Pages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send Rich-Text Emails Directly from Cases, Leads, and Other Records</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help Partners Follow Your Company’s Sales Processes with Sales Path</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Topics: Get Email Notifications, Find Topics to Feature, and More</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send Topic Email Notifications to Keep Your MVPs Informed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easily Find Topics You Want to Feature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Getting Lost with These Breadcrumbs, Hansel and Gretel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quickly Add Topics Across All Translated Languages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>And Topics Have Even More Improvements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Expand Your Community to Include Field Service Data</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See View Counts for Related Articles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Interaction Counts for Related Questions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edit Inline and Add Videos More Easily with the Enriched Rich Content Editor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Your Row Level Actions in List Views</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A List with a View</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Birth of a New List View Layout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changing Templates Is No Longer Supported for Koa, Kokua, and Customer Service (Napili)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chatter and Files in Community Templates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions Come to More Chatter Feeds in Communities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rich Content and Code Snippets Come to Comments and Answers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Enabled for administrators/developers</td>
<td>Requires administrator setup</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------------------</td>
<td>---------------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Make Your Comments and Answers Pop with Inline Images</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Ways to Mute a Feed Item</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>We Optimized Publishers in Your Mobile View of Communities</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort Topic Feeds by Top Questions</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find Out Who Likes Your Comment or Answer</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play Videos Directly in the Feed</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Location for View Case Link</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Files List Component—Now Playing on Mobile</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Files List Component Welcomes Your Content Libraries</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Community Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderation Has a Whole New Look</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allow External Users to Moderate Community Content</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Premoderation: Review Posts and Comments from Your Community Members (Generally Available)</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premoderation on Comments—the Spam Stops Here</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Use Premoderation in Salesforce Tabs + Visualforce Communities</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate Record Feeds</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mark as Spam and Leave a Note</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flagged Comments Insights Report</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Notified When a Post or Comment Is Pending Review</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Your Own Community Dashboards and Use Labels of Your Choice</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### How and When Do Features Become Available?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone’s Been Clicking My Recommendations</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>User Profile Photos Go Big and Circular</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify Your Members with Custom Community Roles and Company Names</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Smart Add for Group Members</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customize the Group Engagement Tab</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups’ Creation Wizard</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email on Announcement (Generally Available)</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customizable Groups Arrives (Beta)</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
</tr>
<tr>
<td>Custom Group Report Charts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Members Gets Its Own Component</td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve Your Community’s Search Quality with Search Dashboards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Changes in Communities**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Default Group Icon</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Link Between Visualforce Pages in Salesforce1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Default Page Variation No Longer Required</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can’t Add Unpublished Pages to Navigation Menu</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page Visibility Setting No Longer Publishes Automatically</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chatter**

Group feeds auto-refresh, rich content in feeds support inline images and code markup, and videos now play in context. Plus, custom reports for groups and several look-and-feel improvements make your Chatter experience richer!
<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>See the Wonderful Wizard of Groups</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Group Members the Smart Way</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIY Custom Report Charts Give You What You Want</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Feeds Are Now Live! (available within 24 hours after the release)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email on Announcement Graduates to Generally Available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have It Your Way with Customizable Groups (Beta)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Icon Gets a New Look</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Feeds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>You Called Me “Feed,” Now Call Me “Chatter”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question Publisher Available in More Places</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments Are Now Live! (available within 24 hours after the release)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mute a Feed Item from Its Detail View</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play Videos Directly in the Feed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find Out Who Likes Your Comment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edit Feed Posts and Comments in More Places, Get View Counts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rich Content and Inline Images in More Places</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posts and Comments Have an Updated Look and Feel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hover Over a Name and See a Mini-Profile</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share News on Chatter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Files

Attach up to 10 files to Chatter feed posts in Lightning Experience. Make your life easier with simpler setup and more relevant content in Files Connect. Use Salesforce Files as icons when packaging custom Lightning apps.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load Up Your Feed Posts with Ten Files in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add and Remove Files When Editing Posts in Lightning Experience</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Use Salesforce Files as Icons in Custom Lightning Apps</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Simplify Setup of Files Connect for Office 365 with Azure</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>SharePoint System Folders Filtered Out of Files Connect</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Mobile

Mobile keeps us connected from just about everywhere, meaning we can get our stuff done from anywhere. So we’ve been hard at work adding new ways to be productive outside of the office. The Salesforce1 mobile app is pumped up with more intelligence, more actions, and more options for sharing info with colleagues. And Salesforce Authenticator makes it even easier to stay safe and secure with notifications about automated activities and a new option to back up (and restore) connected accounts.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesforce1 Enhancements in This Release</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Updated Salesforce1 Requirements</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>End of Support for the Salesforce1 Mobile Browser App on BlackBerry Devices</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance Notice that Salesforce1 Will Require iOS 10 in Spring ’17</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send Text Messages from Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Record Types in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List Item Actions in Salesforce1 Related Lists Match Those in Lightning Experience</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Enabled for administrators/developers</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Quickly Access Contacts, Profiles, Objects, and Apps (Oh My!) with iOS Spotlight Search</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See More Relevant Instant Results in Lookup Searches in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account Insights Now Called News And Available in More Places in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share News Items in Chatter from Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give Feedback on News Items More Easily in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Company Logos on Accounts in Salesforce1 (Generally Available)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edit the Opportunity Probability Field in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Products to Opportunities in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Products with Schedules in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Quotes to Opportunities in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Multiple Influential Campaigns to Opportunities in Salesforce1 (Generally Available)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do More with Contracts in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Forecast Data in Salesforce1 for iOS</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See the Forest and the Trees on Task Lists in the Downloadable Apps (Tablets Only)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List Item Actions Replace the Action Bar on Task Lists (Tablet Only)</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Contact Fields on Cases in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do More With Case Emails in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access More Field Service Information in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keep Up on Social Personas and Posts in Salesforce1</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Enabled for administrators/developers</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------------------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Enhanced Charts to Replace Legacy Charts in Salesforce1 as Part of a Phased Retirement (Full Retirement in Summer '17)</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Scatter Charts (and Better Table and Gauge Charts) in Salesforce1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read More Dashboard Metrics at Once in Salesforce1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post Snapshots of Enhanced Charts to Chatter</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Access Content Libraries with Salesforce1 for iOS</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed Item in Salesforce1 Navigation Menu Now Called Chatter</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn Down the Noise in Chatter Feeds from Salesforce1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grow Group Membership in Salesforce1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Group Photos with the Salesforce1 Downloadable Apps</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>See Profile and Group Banners in Salesforce1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run Flows in Salesforce1 from App Home Lightning Pages (Beta)</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Salesforce1 Offline Cache Enhancements</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log In Faster to Salesforce1 for iOS with Password Manager Apps</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easier Reauthentication Process for Salesforce1 for iOS</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Enhanced Security for Salesforce1 Downloadable Apps with New Connected Apps Settings</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set MDM Configurations for Salesforce1 for iOS with a Property List</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Field-Level Help in Salesforce1</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Salesforce Authenticator**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get Notifications About Automated Activities in Salesforce Authenticator</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Back Up and Restore Your Connected Accounts in Salesforce Authenticator</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copy Codes and View Timer with Ease in Salesforce Authenticator</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Say Goodbye to Passwords with Salesforce Authenticator and Lightning Login</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Reorder Your Accounts in Salesforce Authenticator</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salesforce Classic Mobile</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SalesforceA: More User Management Options with Version 3.3 for iOS

Create a New User on the Go

Financial Services Cloud

Who said Lightning strikes only once? Well, Financial Services Cloud strikes again with a new Lightning Page for customizing clients and households. Don’t forget your surfboard, because the all new Advisor Wave will make a big splash with new Wave Dashboards, embedded in Financial Services Cloud.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customize Client and Household Record Pages</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Create Custom Individual and Household Record Types</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wave for Financial Services Cloud

Health Cloud

We’ve been hard at work making it easier for care coordinators to get more done and increase patient engagement.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Plan Templates Simplify Patient Onboarding</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
### Customization

This release is full of goodies for the point-and-click admin. Find things in Lightning Experience Setup by using global search. Enjoy more granular control over your Lightning pages and picklist values. And if your company uses external objects, run reports across all your data, regardless of where it’s stored.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide Easier Access to Patient Account Records</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Configure Custom Record Types for Individuals or Groups</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Cloud Has New Custom Objects</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Lightning Experience Setup

- Search Lightning Experience Setup with Global Search
- Be the Boss of Your Apps with the App Manager
- Manage Global Picklists in Lightning Experience Setup

#### Lightning App Builder

- Assign a Custom Record Page to Lightning Apps, or Make It the Default for All
- See Newly Installed Components in the Lightning App Builder with Component List Refresh
- Create a New Style of App Page with the New App Page Template in the Lightning App Builder
- Feed Component Renamed Introduces Two New Chatter Components
- Power Up Your Lightning Pages with the Flow Component (Beta)
<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>View and Activate Read-Only Lightning Pages from Managed Packages in the Lightning App Builder</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report Chart Components Are No Longer One Size (Doesn’t) Fits All</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add Components from the AppExchange in Lightning App Builder</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streamline Your Record Highlights to See More Data</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salesforce Connect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External Object Reports—Get a Seamless View of Data Across System Boundaries</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expose External Object Data in Communities Built with the Customer Service (Napili) Template</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Feed-Based Page Layouts for External Objects</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get More External Object Search Results</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Visual Workflow</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run Flows with a Lightning Skin (Beta)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Embed Your Flows in Lightning Pages (Beta)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display Flow Screens in Two Columns (Beta)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customize the Look and Feel of Flow Interviews with the REST API (Pilot)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Encrypted Data in Your Flows (Pilot)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Trust Percent Values in Flow sObject Variables Again” Critical Update Postponed</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Process Builder</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build Reusable Processes</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Your Process Types in One Place</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Access Owner Fields from Process Builder</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Encrypted Data in Process Builder (Pilot)</td>
<td></td>
<td>🟢</td>
<td></td>
</tr>
<tr>
<td>View Version History for a Process in One Place</td>
<td></td>
<td></td>
<td>🟢</td>
</tr>
</tbody>
</table>

**Picklist Administration**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streamline Picklist Maintenance with Global Picklists (Generally Available)</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create and Manage Global Picklists in Lightning Experience</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Global Value Sets in Picklist Dependencies</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Replace Values from Global Picklists</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convert a Shared Picklist’s Field Type from the User Interface</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage Inactive Values in Unrestricted Custom Picklists</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make an Existing Custom Picklist Required</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Updated User Interface Labels for Picklists</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streamlined Metadata API for Picklists</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Limits for Standard Picklists</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Data Import**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add and Update Campaign Members Using the Data Import Wizard</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import Data from Object Home Pages</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Data Loader Version Includes Updated Operating System Support</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use Any Character Delimiter to Separate Data in Your Import File</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legacy Data Import Tools Retired in New Orgs</td>
<td>🟢</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### How and When Do Features Become Available?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sharing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Update Sharing Rules with Object-Specific Share Locks (Generally Available) (available within 24 hours after the release)</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Update Org-Wide Defaults with Asynchronous Parallel Recalculation (Pilot)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Administration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Launch a Lightning Component from an Action</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create More Spanning Relationships Per Object in Formulas</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easily Associate Permission Sets with Permission Set Licenses</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>See License Types in Your Permission Set List View</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Salesforce1 Actions Category in the Page Layout Editor Has a New Name</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salesforce Newsletter Options Removed</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profile Field-Level Security Has Improved UI Labeling</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Streamlined Feedback in the Cloud Flow Designer</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improvements for Functions</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process” Critical Update Postponed</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Security and Identity

Protect your org and your users with an even more secure and convenient login experience, U2F security keys for two-factor authentication, and more secure login handling. In Lightning Experience, get to Salesforce apps, custom apps, and connected apps from one App Launcher view. Transaction Security policies let you respond quickly to specified security situations. You can generate your own encryption keys, and you can store larger OAuth tokens and password fields.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authentication and Identity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log In Password-Free with Lightning Login (not immediately available)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Update Existing Connected App Descriptions</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Make the App Launcher Your Landing Page</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>External Identity App Launcher Has a New Look</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Let Users Verify Their Identity with U2F Security Keys</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Restrict Location-Based Automated Verifications with Salesforce Authenticator</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Let Users Connect Multiple Authentication Apps</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More ID Token Options for Authenticating Connected Apps</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Successfully Reauthorize Your Users When Provisioning Connected Apps</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td><strong>Salesforce Shield</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;View Encrypted Data&quot; Permission Not Needed with Shield Platform Encryption Beginning Spring ’17</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Introducing the Bring Your Own Key Service (Generally Available)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Encrypt Your Search Index (Generally Available)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Shield Platform Encryption in Trailhead</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved Mass Encryption Experience</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Shield Platform Encryption is FedRAMP-Approved</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Encrypted Files and Attachments Are PCI-DSS-Compliant</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
### How and When Do Features Become Available?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shield Platform Encryption Supports the Pardot Connect Tool</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Shield Platform Encryption Supports Syncing</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Shared Activities Lookup Works with Encrypted Fields</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Access Encrypted Data with Custom Formula Fields, Flows, and Process Builder (Pilot)</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td><strong>Transaction Security</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Usage Improved for All Policies</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>More Efficient Login Policies</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Monitor Usage with Transaction Security Log Events</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>More Complete Apex Examples</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td><strong>Other Changes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logging In to Salesforce Server Instances Requires HTTPS</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote Site Settings Require &quot;View Setup and Configuration&quot; Permission</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instantly Fix Your Security Risks Using Health Check</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit Your Certificate and Key Management Settings in Health Check</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to Security Health Check Limited by User Permissions</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Default Certificate No Longer Available in New Orgs</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Deployment

You now have new ways to deploy changes to your org. Take advantage of the larger time window for quick deployments, add picklist values to change sets, and deploy suites of Apex tests.
### Development

Force.com helps you develop new applications and integrations for your organization or for resale to other organizations.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Debugging</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set a Browser Cookie to Enable Debug Logging for Guest Users</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Developer Console</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rename and Edit Test Suites More Easily</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>AppExchange</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AppExchange and Your Salesforce Org—Together at Last</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Custom Metadata Types</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metadata Relationship Fields Now Fully Supported (Generally Available)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metadata Relationship Fields to EntityDefinition Show Up as Links in List View Results</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do More with the Custom Metadata Loader</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easily Manage a Custom Metadata Record When Deleting Its Referenced Object</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Filtering on Metadata Relationship Fields Has Changed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Is Not Lost—Restore Deleted Metadata Relationship Fields</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Apex Code

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limitations When Querying Custom Metadata Types with SOQL</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build a Mocking Framework with the Apex Stub API (Pilot)</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Monitor Platform Cache with Diagnostic Methods</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Escape Special Characters in Merge Fields for Apex Callouts That Use Named Credentials</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>View More Information About Apex Test Runs</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
</tbody>
</table>

## New and Changed Apex Classes, Exceptions, and Interfaces

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Apex Classes</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changed Apex Classes</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Apex Exception</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Apex Interface</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## ConnectApi (Chatter in Apex)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>New and Changed Chatter in Apex Classes</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New and Changed Chatter in Apex Input Classes</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New and Changed Chatter in Apex Output Classes</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New and Changed Chatter in Apex Enums</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Lightning Components

### Introducing Base Lightning Components

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Lightning Components Considerations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introducing Lightning Data Service (Developer Preview)</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Enable Lightning Components for Custom Actions</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Access Check Violations Are Now Enforced</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>LockerService Critical Update Postponed</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Orgs Can Toggle the LockerService Critical Update</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capture Events Before They Bubble Up and Away</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handle Bubbled Events in Container Components</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Events from Dynamically Created Components Propagate Properly</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use the Lightning Design System in Lightning Apps</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create a Consistent Look with the Lightning Design System in Lightning Out and Lightning Components for Visualforce</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restrict Your Custom Lightning Components to Specific Objects</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Navigate from a Lightning Component to Another (Beta)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debug Lightning Components Faster and Easier with Salesforce Lightning Inspector</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lightning Components: Other Changes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$Label References Are Improved</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get More Information from Lightning Component Error Messages</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Removed References to $A.util.format() Method</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New and Changed Lightning Components</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Lightning Events</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visualforce</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clickjack Protection Improvements for Visualforce Pages Without Page Header</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
<td>Requires administrator setup</td>
<td>Contact Salesforce to enable</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------</td>
<td>------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Clickjack Protection for Legacy Browsers for Visualforce Pages Without Page Header (Critical Update)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PageReference getContent() and getContentAsPDF() Methods Now Behave as Callouts (Critical Update)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lightning Design System**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Lightning Design System Component Classes</td>
<td>✓</td>
</tr>
<tr>
<td>Changes and Additions to Classes and Variants</td>
<td>✓</td>
</tr>
<tr>
<td>New Lightning Design System Utility Classes</td>
<td>✓</td>
</tr>
<tr>
<td>Deprecated Lightning Design System Component Classes</td>
<td>✓</td>
</tr>
<tr>
<td>Lightning Design System Extends to Lightning Out, Lightning Apps, and Lightning Components for Visualforce</td>
<td>✓</td>
</tr>
</tbody>
</table>

**API**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make More API Calls and Get Fewer Headaches When Calculating API Limits</td>
<td>✓</td>
</tr>
</tbody>
</table>

**New and Changed Objects**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Objects</td>
<td>✓</td>
</tr>
<tr>
<td>Changed Objects</td>
<td>✓</td>
</tr>
</tbody>
</table>

**SOQL**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Names on Foreign Keys</td>
<td>✓</td>
</tr>
</tbody>
</table>

**SOSL**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanded Support for WITH SNIPPET</td>
<td>✓</td>
</tr>
</tbody>
</table>

**REST API**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access Data Categories and Articles with REST API</td>
<td>✓</td>
</tr>
<tr>
<td>Make Several Requests at Once with the Composite Resource (Pilot)</td>
<td>✓</td>
</tr>
<tr>
<td>Feature</td>
<td>Enabled for users</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>New Resources: Flows and Flow Interviews (Pilot)</td>
<td></td>
</tr>
<tr>
<td>Changed Resource: Parameterized Search</td>
<td>✓</td>
</tr>
<tr>
<td>Changed Resource: Search Suggested Records</td>
<td>✓</td>
</tr>
<tr>
<td>Changed Resource: SObject Suggested Articles</td>
<td>✓</td>
</tr>
<tr>
<td><strong>SOAP API</strong></td>
<td></td>
</tr>
<tr>
<td>New, Changed, and Deprecated Calls</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Chatter REST API</strong></td>
<td></td>
</tr>
<tr>
<td>New and Changed Chatter REST API Resources</td>
<td>✓</td>
</tr>
<tr>
<td>New and Changed Chatter REST API Request Bodies</td>
<td>✓</td>
</tr>
<tr>
<td>New and Changed Chatter REST API Response Bodies</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Reports and Dashboards REST API</strong></td>
<td></td>
</tr>
<tr>
<td>New Resources: Analytics Notifications, Analytics Notifications List, Analytics Notifications Limits</td>
<td>✓</td>
</tr>
<tr>
<td>Changed Resources: reportMetadata and Dashboard Results</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Bulk API</strong></td>
<td></td>
</tr>
<tr>
<td>Process Twice as Many Records with Bulk API</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Messaging</strong></td>
<td></td>
</tr>
<tr>
<td>Deliver Customizable Events with Platform Events (Beta)</td>
<td></td>
</tr>
<tr>
<td><strong>Tooling API</strong></td>
<td></td>
</tr>
<tr>
<td>Tooling API New and Changed Objects</td>
<td>✓</td>
</tr>
<tr>
<td>Tooling API Changed Calls and Resources</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Actions API</strong></td>
<td></td>
</tr>
<tr>
<td>Invoke Active Processes</td>
<td>✓</td>
</tr>
</tbody>
</table>
### Supported Browsers

Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

**IN THIS SECTION:**

**Supported Browsers for Lightning Experience**

Lightning Experience is supported with Apple® Safari® version 8.x and 9.x on Mac OS X and Microsoft® Edge for Windows® 10. The most recent stable versions of Mozilla® Firefox® and Google Chrome™ are also supported. Microsoft® Internet Explorer® version 11 is retiring beginning in Summer '16. If you’re using Microsoft® Internet Explorer® versions 9–10, you’re redirected to Salesforce Classic. There are some limitations.

**Supported Browsers for Salesforce Classic**

Salesforce Classic is supported with Microsoft® Internet Explorer® versions 9, 10, and 11, Apple® Safari® version 8.x on Mac OS X, and Microsoft® Edge for Windows® 10. The most recent stable versions of Mozilla® Firefox® and Google Chrome™ are also supported. There are some limitations.

---

**Note:** You can’t access Lightning Experience in a mobile browser. Instead, we recommend using the Salesforce1 app when you’re working on a mobile device. To see the mobile browsers that are supported for Salesforce1, check out Requirements for the Salesforce1 Mobile App.

### Supported Browsers

<table>
<thead>
<tr>
<th>Feature</th>
<th>Enabled for users</th>
<th>Enabled for administrators/developers</th>
<th>Requires administrator setup</th>
<th>Contact Salesforce to enable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata API</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open CTI API</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ISVforce</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track Subscriber Package Errors Through Email Notifications</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Automate Managed Package Push Upgrades with the API</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upload Managed and Unmanaged Packages with the Tooling API</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Obfuscated Code in Subscriber Orgs with Login As</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EDITIONS**

Lightning Experience available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions
Microsoft Edge
Salesforce supports Microsoft Edge on Windows 10 for Lightning Experience. Note these restrictions.

- The HTML solution editor in Microsoft Edge isn’t supported in Salesforce Knowledge.
- Microsoft Edge isn’t supported for the Developer Console.
- Microsoft Edge isn’t supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.

Microsoft Internet Explorer version 11

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

- Users of existing orgs can continue to use IE11 to access Lightning Experience until December 16, 2017.
- Users of new orgs created after Summer ’16 can’t use IE11 to access Lightning Experience. Instead, IE11 users are automatically redirected to Salesforce Classic.

For more details about this change, see Retirement of Support for Accessing Lightning Experience and Salesforce1 Using Internet Explorer 11.

If you use Internet Explorer, we recommend using the latest version that Salesforce supports. Apply all Microsoft software updates. Note these restrictions.

- The full Salesforce site is supported in Internet Explorer 11 on Windows 8 and 8.1 for touch-enabled laptops with standard keyboard and mouse inputs only. There is no support for mobile devices or tablets where touch is the primary means of interaction. Use the Salesforce1 mobile browser app instead.
- The HTML solution editor in Internet Explorer 11 is not supported in Salesforce Knowledge.
- The Compatibility View feature in Internet Explorer isn’t supported.
- Changing the compatibility parsing mode of the browser, for example, by using the X-UA-Compatibility header, isn’t supported.
- Internet Explorer 11 isn’t supported for the Developer Console.
- Internet Explorer 11 isn’t supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.
- Drag and drop of files into feed comments isn’t supported in Internet Explorer.

For configuration recommendations, see Configuring Internet Explorer.

Mozilla® Firefox®, most recent stable version
Salesforce makes every effort to test and support the most recent version of Firefox. For configuration recommendations, see Configuring Firefox.

Google Chrome™, most recent stable version
Chrome applies updates automatically. Salesforce makes every effort to test and support the most recent version. There are no configuration recommendations for Chrome.

**Note:** The latest stable version of Google Chromium™ is supported.

Apple® Safari® version 8.x and 9.x on Mac OS X
There are no configuration recommendations for Safari.

Safari isn’t supported for:

- Salesforce CRM Call Center built with CTI Toolkit versions earlier than 4.0
- Salesforce Wave Analytics
Wave Analytics Supported Browsers

Browser support is available for Microsoft Internet Explorer version 11 and the most recent stable versions of Mozilla Firefox and Google Chrome.

Recommendations and Requirements for All Browsers

- For all browsers, enable JavaScript, cookies, and TLS 1.2. If TLS 1.2 isn’t available, enable TLS 1.1. Browsers that don’t support TLS 1.1 or TLS 1.2 won’t be able to access Salesforce after we deactivate TLS 1.0. Deactivation has already occurred in sandbox orgs and concludes with production orgs on March 4, 2017.

- The minimum screen resolution required to support all Salesforce features is 1024 x 768. Lower screen resolutions don’t always properly display Salesforce features such as Report Builder and Page Layout Editor.

- For Mac OS users on Apple Safari or Google Chrome, make sure that the system setting Show scroll bars is set to Always.

- Some third-party Web browser plug-ins and extensions can interfere with the functionality of Chatter. If you experience malfunctions or inconsistent behavior with Chatter, disable the Web browser’s plug-ins and extensions and try again.

Supported Browsers for Salesforce Classic

Salesforce Classic is supported with Microsoft® Internet Explorer® versions 9, 10, and 11, Apple® Safari® version 8.x on Mac OS X, and Microsoft® Edge for Windows® 10. The most recent stable versions of Mozilla® Firefox® and Google Chrome™ are also supported. There are some limitations.

Note: Using Salesforce Classic in a mobile browser isn’t supported. Instead, we recommend using the Salesforce1 app when you’re working on a mobile device. To see the mobile browsers that are supported for Salesforce1, check out Requirements for the Salesforce1 Mobile App.

Microsoft Edge

Salesforce supports Microsoft Edge on Windows 10 for Salesforce Classic. Note these restrictions.

- The HTML solution editor in Microsoft Edge isn’t supported in Salesforce Knowledge.
- Microsoft Edge isn’t supported for the Developer Console.
- Microsoft Edge isn’t supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.

Microsoft Internet Explorer versions 9, 10, and 11

If you use Internet Explorer, we recommend using the latest version that Salesforce supports. Apply all Microsoft software updates. Note these restrictions.

- The full Salesforce site is supported in Internet Explorer 9, 10, and 11 on Windows 8 and 8.1 for touch-enabled laptops with standard keyboard and mouse inputs only. There is no support for mobile devices or tablets where touch is the primary means of interaction. Use the Salesforce1 mobile browser app instead.
- The HTML solution editor in Internet Explorer 11 is not supported in Salesforce Knowledge.
- Both Compatibility Mode and the Compatibility View in Internet Explorer aren’t supported.
- The Metro version of Internet Explorer 10 isn’t supported.
- Internet Explorer 11 isn’t supported for the Developer Console.
- Internet Explorer 11 isn’t supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.
- Community Templates for Self-Service supports Internet Explorer 9 and above for desktop users and Internet Explorer 11 and above for mobile users.
- Internet Explorer 9 isn’t supported for Salesforce Wave Analytics.
• Internet Explorer 9 and 10 aren’t supported for the Lightning App Builder.
• Internet Explorer 9 users don’t have browser-based spell check.
• Drag and drop of files into feed comments isn’t supported in Internet Explorer.

For configuration recommendations, see Configuring Internet Explorer.

Note: Salesforce Classic support for Microsoft® Internet Explorer® versions 7 and 8 is discontinued as of Summer ’15.

Mozilla Firefox, most recent stable version

Salesforce makes every effort to test and support the most recent version of Firefox.
• Mozilla Firefox is supported for desktop users only for Community Templates for Self-Service.

For configuration recommendations, see Configuring Firefox.

Google Chrome, most recent stable version

Chrome applies updates automatically. Salesforce makes every effort to test and support the most recent version. There are no configuration recommendations for Chrome.

Chrome isn’t supported for:
• The Console tab (The Salesforce console is supported.)

Apple Safari versions 8.x and 9.x on Mac OS X

There are no configuration recommendations for Safari. Apple Safari on iOS isn’t supported for the full Salesforce site.

Safari isn’t supported for:
• The Salesforce console
• Salesforce CRM Call Center built with CTI Toolkit versions below 4.0
• Salesforce Wave Analytics

Wave Analytics Supported Browsers

Browser support is available for Microsoft Internet Explorer versions 10 and 11 and the most recent stable versions of Mozilla Firefox and Google Chrome.

Recommendations and Requirements for All Browsers

• For all browsers, enable JavaScript, cookies, and TLS 1.2. If TLS 1.2 isn’t available, enable TLS 1.1. Browsers that don’t support TLS 1.1 or TLS 1.2 won’t be able to access Salesforce after we deactivate TLS 1.0. Deactivation has already occurred in sandbox orgs and concludes with production orgs on March 4, 2017.

• The minimum screen resolution required to support all Salesforce features is 1024 x 768. Lower screen resolutions don’t always properly display Salesforce features such as Report Builder and Page Layout Editor.

• For Mac OS users on Apple Safari or Chrome, make sure the system setting Show scroll bars is set to Always.

• Some third-party Web browser plug-ins and extensions can interfere with the functionality of Chatter. If you experience malfunctions or inconsistent behavior with Chatter, disable the Web browser’s plug-ins and extensions and try again.

Some features in Salesforce—and some desktop clients, toolkits, and adapters—have their own browser requirements. For example:

• Internet Explorer is the only supported browser for:
  – Standard mail merge
  – Installing Salesforce Classic Mobile on a Windows Mobile device
Salesforce Winter ’17 Release Notes

Salesforce Overall: Custom Apps, Efficient Navigation, and Field-Level Help

Winter ’17 gives you more reasons to love Lightning Experience. Create custom apps, navigate with greater efficiency, and guide your users with field-level help.

IN THIS SECTION:

Search: Find Information Faster
Search continues to get smarter and more intuitive. Improvements start in the Lightning Experience global search box, where suggested records include multiple objects, no matter where users are in the app. All searches go to Top Results for a high-level overview of best matches. The results page features a new layout, but the same fluid functionality. Plus, Salesforce Knowledge article search results have snippets, search indexes can be encrypted, more objects are searchable, and spell correction has expanded to custom objects.

Create Custom Apps in Lightning Experience and Navigate More Efficiently
We’ve reimagined Lightning Experience navigation to make your users more efficient and allow them to switch between apps that you can brand and customize. If you know Salesforce Classic, the updated navigation model will feel like a familiar friend, only better. This feature is available in Lightning Experience only.

Ready, Set, Relaunch: A New Look for the App Launcher
The App Launcher makes it more convenient for your users to access everything they need to do their job—and in fewer clicks. The App Launcher provides access to applications from Salesforce and other service providers in one convenient location. Also, with one click, your authorized users can go directly to the AppExchange to check out the latest apps. This feature is available in Lightning Experience only.

Get Field-Level Help in Lightning Experience
Salesforce Classic users have always appreciated the field-level help you create for your custom fields. Now your Lightning Experience users can love it, too! This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Create Multiple Records More Quickly in Lightning Experience
After your users create, edit, or clone a record in Lightning Experience, they can create another record using the Save & New button. The Save & New button lets users create records repeatedly without leaving their spot in the app. This feature is available in Lightning Experience only.

Record Details Tab Never Forgets in Lightning Experience
When your users expand or collapse a section in record details in Lightning Experience, the section stays that way even after visiting other areas in Salesforce. This change helps users scroll through a record faster, showing only the information they care about. This feature is available in Lightning Experience only.

Clearer, More Actionable Popup Messages for Records
Confirmation messages that appear after your users create, edit, delete, or clone a record successfully from a related list in Lightning Experience and Salesforce1 have changed. The messages include the record name for more context. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.
Troubleshoot Record Errors Quickly and Easily in Lightning Experience
When your users edit records inline and errors occur, the fields containing errors appear in a popup at the bottom for easy scanning. Fields are linked in the popup so that your users can navigate to them quickly to fix. This feature is available in Lightning Experience only.

See More Specific Dialog Titles When Creating Records
When your users create a record in Lightning Experience, the Create dialog title includes the record type if it exists. For example, you have two record types, Large and Small, assigned to the Account object to indicate account size. When your users create an account with the Large record type, “Large” appears in the title of the Create dialog to provide more context. This feature is available in Lightning Experience only.

Control Sandbox Size by Reducing Version History
Minimizing the amount of version history you include from your production org speeds up your sandbox copy. You can configure the new Content Version History option when you create or refresh a Full sandbox. You can copy from 0 to 180 days of history, in 30-day increments. The default is 0 days.

Search: Find Information Faster
Search continues to get smarter and more intuitive. Improvements start in the Lightning Experience global search box, where suggested records include multiple objects, no matter where users are in the app. All searches go to Top Results for a high-level overview of best matches. The results page features a new layout, but the same fluid functionality. Plus, Salesforce Knowledge article search results have snippets, search indexes can be encrypted, more objects are searchable, and spell correction has expanded to custom objects.

IN THIS SECTION:

Get Spell Correction for Custom Objects
When users search for a term that doesn’t initially yield results because of incorrect spelling, they instead see results that match a corrected spelling of the term. Spell correction expands to custom objects for English only. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Get Search Results for More Objects
See more objects in your search results. This feature is available in Lightning Experience, Salesforce Classic, and the Salesforce1 mobile browser app.

Find the Right Record with Person Account Search Enhancements
Person Account searches that contain terms spanning both business account and contact fields now return person account search results. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Encrypt Your Search Index (Generally Available)
When you enable Shield Platform Encryption, you gain added security with Search Index Encryption. Search index files are encrypted using an org-specific AES-256 bit encryption key. This feature is available in both Lightning Experience and Salesforce Classic.

Find the Right Knowledge Article with Snippets
With article search results, context is king. On the Articles search result page after performing a full global search, excerpts below article titles show the matching search terms highlighted within the context of surrounding text. Snippets make it super easy for users to see which articles are most relevant. This feature is available in Lightning Experience, Salesforce Classic, and the Salesforce1 mobile browser app.
Get a Better View with Global Instant Results

Search suggests recent and matching records from multiple objects—not just the object the user is on. These instant results let users quickly access a record before performing a full search. With this wider view of suggestions, users find what they’re looking for faster no matter where they are in the app. This feature is available in Lightning Experience only.

Go Straight to Top Results Anytime You Search

When you’re searching for a record, it’s helpful to start with a wide-angle view before zooming in. That’s why every search takes users to the Top Results page, no matter where they are in the app. Users get a high-level overview of relevant matches across all their most frequently used objects. This feature is available in Lightning Experience only.

Look to the Left to Narrow Search Results

To make way for the new navigation bar, we gave the search results page a makeover without losing any functionality. In this fresh new layout, users can narrow results by clicking object names on the left side of the page under Search Results. You’re taken to a search results page that lists only records for that object. This feature is available in Lightning Experience only.

Get Spell Correction for Custom Objects

When users search for a term that doesn’t initially yield results because of incorrect spelling, they instead see results that match a corrected spelling of the term. Spell correction expands to custom objects for English only. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

SEE ALSO:
Salesforce Help: What Search Term Variations Will I See in the Search Results?
Lightning Experience Features in This Release

Get Search Results for More Objects

See more objects in your search results. This feature is available in Lightning Experience, Salesforce Classic, and the Salesforce1 mobile browser app.

<table>
<thead>
<tr>
<th>Object</th>
<th>Newly Searchable in Lightning Experience</th>
<th>Newly Searchable in Salesforce Classic</th>
<th>Newly Searchable in the Salesforce1 Mobile Browser App</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Article</td>
<td>✅</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Hours</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Resource Absence</td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Service Appointment</td>
<td>✅</td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Service Resource</td>
<td>✅</td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>Service Resource Skill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Territory</td>
<td>✅</td>
<td>✅</td>
<td></td>
</tr>
</tbody>
</table>
Newly Searchable in the Salesforce1 Mobile Browser
Newly Searchable in Salesforce Classic
Newly Searchable in Lightning Experience

Object | Newly Searchable in Lightning Experience | Newly Searchable in Salesforce Classic | Newly Searchable in the Salesforce1 Mobile Browser App
--- | --- | --- | ---
Service Territory Member | ✔ | | 

SEE ALSO:

* Salesforce Help: Searchable Objects and Fields
* Lightning Experience Features in This Release

### Find the Right Record with Person Account Search Enhancements

Person Account searches that contain terms spanning both business account and contact fields now return person account search results. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

The Person Account object contains fields that originate from both the Business Account and Contact objects. Previously, if a user’s search term contained information from both the Business Account object and the Contact object, such as name and title or name and address, the matching person account wouldn’t always be returned in the search results. Now, search terms that include both types of information return the right person account records.

For example, suppose that you want to find the person account record for Agatha Parker, an account executive in San Francisco. If you search for *Agatha San Francisco*, search results include the Agatha Parker person account record. In this case, *Agatha* is from the Business Account object and *San Francisco* is from the Contact object.

SEE ALSO:

* Lightning Experience Features in This Release

### Encrypt Your Search Index (Generally Available)

When you enable Shield Platform Encryption, you gain added security with Search Index Encryption. Search index files are encrypted using an org-specific AES-256 bit encryption key. This feature is available in both Lightning Experience and Salesforce Classic.

The index files, which are small bits of record content mapped to the original records in the database, can now be encrypted. There’s no change to the user interface.

To enable:

- **Customers without Shield Platform Encryption** — Contact your Salesforce account executive to enable Shield Platform Encryption and request Search Index Encryption.
- **Customers with Shield Platform Encryption** — Contact your Salesforce account executive or open a support ticket to enable Search Index Encryption.
- **Customers who took part in the Search Index Encryption Pilot** — No further action is required; Search Index Encryption remains enabled.

SEE ALSO:

* Salesforce Help: Behind the Scenes: The Search Index Encryption Process
* Lightning Experience Features in This Release
Find the Right Knowledge Article with Snippets

With article search results, context is king. On the Articles search result page after performing a full global search, excerpts below article titles show the matching search terms highlighted within the context of surrounding text. Snippets make it super easy for users to see which articles are most relevant. This feature is available in Lightning Experience, Salesforce Classic, and the Salesforce1 mobile browser app.

There are some important limitations for this feature.

- As Knowledge Articles aren’t supported in Lightning Experience, if you click an article in search results, you’re taken to the article in Salesforce Classic.
- Snippets are not shown when Knowledge articles appear in Top Results.
- You can’t customize which columns appear in Top Results. The default columns are article number, publication status (if enabled by the admin), and last modified date.
- Sorting is not available for Knowledge articles.

SEE ALSO:

Lightning Experience Features in This Release

Get a Better View with Global Instant Results

Search suggests recent and matching records from multiple objects—not just the object the user is on. These instant results let users quickly access a record before performing a full search. With this wider view of suggestions, users find what they’re looking for faster no matter where they are in the app. This feature is available in Lightning Experience only.

As users type in the search box, the list of suggested records spans multiple objects. Previously, users searching from a record or object home page would see instant results for only that object.

As you type, instant results also show each record’s object type in the secondary field, so you can easily identify the record type.

If users don’t see their record in instant results, they can perform a full search to see more matching records.
Go Straight to Top Results Anytime You Search

When you’re searching for a record, it’s helpful to start with a wide-angle view before zooming in. That’s why every search takes users to the Top Results page, no matter where they are in the app. Users get a high-level overview of relevant matches across all their most frequently used objects. This feature is available in Lightning Experience only.

To perform a search on a specific object, select the second option in instant results, if available. For example, if you search for Acme from the Accounts home page, select the “Acme” in Accounts search option in the instant results drop-down. You’re taken right to the search results page for Accounts.
Look to the Left to Narrow Search Results

To make way for the new navigation bar, we gave the search results page a makeover without losing any functionality. In this fresh new layout, users can narrow results by clicking object names on the left side of the page under Search Results. You’re taken to a search results page that lists only records for that object. This feature is available in Lightning Experience only.

Searchable objects are listed under Search Results in the same order they appear in the navigation bar. If you don’t see an object, select Show More to see all objects available to you, listed in alphabetical order.
Create Custom Apps in Lightning Experience and Navigate More Efficiently

We’ve reimagined Lightning Experience navigation to make your users more efficient and allow them to switch between apps that you can brand and customize. If you know Salesforce Classic, the updated navigation model will feel like a familiar friend, only better. This feature is available in Lightning Experience only.

Navigate at the Speed of Lightning!

In the improved navigation model, the navigation menu that previously displayed on the side of Lightning Experience becomes a horizontal navigation bar at the top of the page, letting your users:

- Find what they need using item names instead of icons for easy recognition
- Complete actions and access recent records and lists with a single click
- Use a consistent and familiar navigation experience

Think of the navigation bar as a container for a set of items and functionality. It’s always there, but the items within it change to represent the app you’re using.
• The app name displays on the left side of the navigation bar (1), and custom colors and branding (2) make each app unique and easy to identify.

• Your users can access other items and apps by clicking the App Launcher icon (3) or the app name.

• Your users can create records and access recent records and lists directly from the navigation bar (4) for certain items like Opportunities.

• If your org uses utility features, you can enable a utility bar in your app that allows instant access to productivity tools, like integrated voice, in the Lightning Experience footer.

**Note:**
- You can create records and access recent records and lists for certain items directly from the navigation bar. Items with [✔️] next to their name support this feature, with a few exceptions. Tasks and Notes allow you to create a record but you can’t access recent records or lists. Reports and Dashboards allow you to see recent records but you can’t see recent lists or create a record.
- Some tabs, such as web tabs and Visualforce tabs, aren’t highlighted when you select them on the navigation bar. For example, when you select **Contacts**, the tab is highlighted (1). However, when you select a web tab, the page displays but the tab isn’t highlighted (2).

**Find Items and Apps in the App Launcher**

We’ve redesigned the App Launcher to make it easy for your users to switch between apps and access their available items and features. The App Launcher is so central to navigating Lightning Experience, we’ve moved it so that it’s always within easy reach on the left side of the navigation bar.

**It’s All About Apps**

Similar to Salesforce Classic, apps in Lightning Experience (what we call Lightning apps) give your users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar. However, Lightning apps take things to a level beyond apps in
Salesforce Classic (let’s call those Classic apps). Lightning apps let you brand your apps with a custom color and logo. You can even include a utility bar and Lightning page tabs in your Lightning app.

The number of Lightning Apps you can create in an org varies by edition.

<table>
<thead>
<tr>
<th>Edition</th>
<th>Lightning Apps Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Edition</td>
<td>10</td>
</tr>
<tr>
<td>Enterprise Edition</td>
<td>25</td>
</tr>
<tr>
<td>Unlimited Edition</td>
<td>Unlimited</td>
</tr>
</tbody>
</table>

**Meet the Lightning Experience App Manager**

This is your go-to place for managing apps for Lightning Experience. It shows all your connected apps and Salesforce apps, both Classic and Lightning.

Use the Lightning Experience App Manager to:

- Create Lightning apps or connected apps (5)
- See if your Classic apps are accessible to your users in Lightning Experience (6)
- Edit, delete, or upgrade Classic apps to take advantage of all the benefits of apps in Lightning Experience (7)
Creating and editing a Lightning app is a cinch. Give your app a name, set its primary color, upload a logo, specify which items appear in the app's navigation bar, and assign the app to user profiles. If your org includes utilities like Lightning Voice or Open CTI Softphone, you see options to add them to your app's utility bar, which displays in the Lightning Experience footer.

**What Happens to Existing Customizations?**

If you’ve already created navigation menus for Lightning Experience, these menus are converted to Lightning apps when your org is upgraded to Winter ’17.

⚠️ Tip: Edit your apps to ensure that they have the proper name, description, logo, navigation bar color, and other key settings. Check out this handy FAQ for more details.

Classic apps work in Lightning Experience without any modifications, and you can upgrade them to take advantage of custom branding and the enhanced navigation features available in Lightning Experience.

When you upgrade a Classic app for Lightning Experience, your Classic app is copied, so you see two versions: a Classic app and a Lightning app. The two versions are now managed separately. Changes you make to the Classic app aren’t reflected in the Lightning version, and vice versa. Lightning apps aren’t available in Salesforce Classic.

SEE ALSO:

- Lightning Experience: A Modern and Intelligent User Experience

---

**Ready, Set, Relaunch: A New Look for the App Launcher**

The App Launcher makes it more convenient for your users to access everything they need to do their job—and in fewer clicks. The App Launcher provides access to applications from Salesforce and other service providers in one convenient location. Also, with one click, your authorized users can go directly to the AppExchange to check out the latest apps. This feature is available in Lightning Experience only.

Each app appears in a separate tile with its name, description, and logo. Salesforce standard apps appear in the App Launcher by default. You can add other apps to the App Launcher and control which users see which apps by using profiles and permission sets.
All Apps shows your custom, standard, Lightning Experience, and connected apps in one place. You choose which third-party apps to connect with Salesforce, such Gmail, Google Drive, and Windows 365. (1)

All Items shows the home page, the feed, tasks, events, objects, custom tab types, and more. These items are independent of the app that shows up on the navigation bar. (2)

Users can search for apps, objects, and other resources by name in the Find an app or item box. (3)

Authorized users can go directly to the AppExchange in one click, without leaving Lightning Experience. (4)

Where's the App Launcher?

Access the App Launcher by clicking the App Launcher icon ( ) on the navigation bar.

Where's my app?

Use the Find an app or item box at the top of the App Launcher (5) to look for apps and items by name. For example, start typing the name of an app, such as “service,” and all apps and items that contain the string appear as you type.
Reorder the App Launcher

Users can drag and drop apps to reorder them. You can change the default order in which apps appear from the App Manager.

Get Field-Level Help in Lightning Experience

Salesforce Classic users have always appreciated the field-level help you create for your custom fields. Now your Lightning Experience users can love it, too! This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. Previously, the help showed up only in Salesforce Classic.

View help by hovering over the info icon next to a field. Field-level help in Lightning Experience is supported across all browsers. It shows up regardless of your screen size, the data type of the field, or the location of the field in your layout.
To set up help for fields on custom and standard objects, see Define Field-Level Help in the Salesforce Help.

SEE ALSO:

- Lightning Experience: A Modern and Intelligent User Experience
- Idea Exchange: Help Text on Hover Inside Lightning Experience

Create Multiple Records More Quickly in Lightning Experience

After your users create, edit, or clone a record in Lightning Experience, they can create another record using the Save & New button. The Save & New button lets users create records repeatedly without leaving their spot in the app. This feature is available in Lightning Experience only.

The button is available in the same locations as in Salesforce Classic, which include most Create, Edit, and Clone pages.
Record Details Tab Never Forgets in Lightning Experience

When your users expand or collapse a section in record details in Lightning Experience, the section stays that way even after visiting other areas in Salesforce. This change helps users scroll through a record faster, showing only the information they care about. This feature is available in Lightning Experience only.

For example, in Lead details, a user collapses the Address Information section and expands the Additional Information section. The next time the user views a lead’s details with the same layout, those sections remain collapsed and expanded, respectively.

As in Salesforce Classic, sections in Create, Edit, and Clone pages are always expanded.

Clearer, More Actionable Popup Messages for Records

Confirmation messages that appear after your users create, edit, delete, or clone a record successfully from a related list in Lightning Experience and Salesforce1 have changed. The messages include the record name for more context. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Also, after your users create a record from a related list in Lightning Experience (not Salesforce1), the popup message includes a link to the record for easy navigation. Here’s an example.
Troubleshoot Record Errors Quickly and Easily in Lightning Experience

When your users edit records inline and errors occur, the fields containing errors appear in a popup at the bottom for easy scanning. Fields are linked in the popup so that your users can navigate to them quickly to fix. This feature is available in Lightning Experience only.

As in previous releases, field error descriptions also display under the field.
When your users create a record in Lightning Experience, the Create dialog title includes the record type if it exists. For example, you have two record types, Large and Small, assigned to the Account object to indicate account size. When your users create an account with the Large record type, “Large” appears in the title of the Create dialog to provide more context. This feature is available in Lightning Experience only.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience

See More Specific Dialog Titles When Creating Records
Control Sandbox Size by Reducing Version History

Minimizing the amount of version history you include from your production org speeds up your sandbox copy. You can configure the new Content Version History option when you create or refresh a Full sandbox. You can copy from 0 to 180 days of history, in 30-day increments. The default is 0 days.

Lightning Experience: A Modern and Intelligent User Experience

Lightning Experience is a completely reimagined interface. Even better, it’s built on our UI platform, so the experience can grow and evolve with your needs. Check out the new features and considerations in this release.

IN THIS SECTION:

Lightning Experience Features in This Release
Here’s the list of the powerful features and enhancements that make Lightning Experience the go-to interface for selling smarter and faster. Use this list to quickly access the details about each feature. (Some Lightning Experience features, including enhancements to accounts and Chatter, are available within 24 hours after the Winter ’17 release. Otherwise there’s no wait.)

What’s Not Available in Winter ’17 Lightning Experience Features
For new Lightning Experience features and enhancements, see the limitations or gaps from what’s available in Salesforce Classic. Review these topics to see if any functionality that’s critical to your business is limited or unavailable in this release. While reviewing this list, remember that your users can always access features not yet supported in the new interface by temporarily switching to Salesforce Classic.

SEE ALSO:

Customize Client and Household Record Pages

Lightning Experience Features in This Release

Here’s the list of the powerful features and enhancements that make Lightning Experience the go-to interface for selling smarter and faster. Use this list to quickly access the details about each feature. (Some Lightning Experience features, including enhancements to accounts and Chatter, are available within 24 hours after the Winter ’17 release. Otherwise there’s no wait.)

General Enhancements

Create Custom Apps in Lightning Experience and Navigate More Efficiently
We’ve reimagined Lightning Experience navigation to make your users more efficient and allow them to switch between apps that you can brand and customize. If you know Salesforce Classic, the updated navigation model will feel like a familiar friend, only better.

Ready, Set, Relaunch: A New Look for the App Launcher
The App Launcher makes it more convenient for your users to access everything they need to do their job—and in fewer clicks. The App Launcher provides access to applications from Salesforce and other service providers in one convenient location. Also, with one click, your authorized users can go directly to the AppExchange to check out the latest apps.
Salesforce Winter '17 Release Notes

Use Salesforce Files as Icons in Custom Lightning Apps
When packaging custom apps in Lightning Experience, the app icon is now stored as a Salesforce File. Storing your custom app icons as Salesforce Files lets you take advantage of all the Files platform features such as versions, previews, and sharing rules. Salesforce Files used in this way are called asset files.

Get Field-Level Help in Lightning Experience
Salesforce Classic users have always appreciated the field-level help you create for your custom fields. Now your Lightning Experience users can love it, too!

Create Multiple Records More Quickly in Lightning Experience
After your users create, edit, or clone a record in Lightning Experience, they can create another record using the Save & New button. The Save & New button lets users create records repeatedly without leaving their spot in the app.

Record Details Tab Never Forgets in Lightning Experience
When your users expand or collapse a section in record details in Lightning Experience, the section stays that way even after visiting other areas in Salesforce. This change helps users scroll through a record faster, showing only the information they care about.

Clearer, More Actionable Popup Messages for Records
Confirmation messages that appear after your users create, edit, delete, or clone a record successfully from a related list in Lightning Experience and Salesforce1 have changed. The messages include the record name for more context.

Troubleshoot Record Errors Quickly and Easily in Lightning Experience
When your users edit records inline and errors occur, the fields containing errors appear in a popup at the bottom for easy scanning. Fields are linked in the popup so that your users can navigate to them quickly to fix.

See More Specific Dialog Titles When Creating Records
When your users create a record in Lightning Experience, the Create dialog title includes the record type if it exists. For example, you have two record types, Large and Small, assigned to the Account object to indicate account size. When your users create an account with the Large record type, “Large” appears in the title of the Create dialog to provide more context.

Launch a Lightning Component from an Action
Lightning component actions are custom actions that invoke a Lightning component. Because they support Apex and JavaScript, Lightning component actions provide a secure way to build client-side custom functionality.

The Salesforce1 Actions Category in the Page Layout Editor Has a New Name
With the introduction of Lightning component actions, the name of the Salesforce1 Actions category in the enhanced page layout editor doesn’t reflect all the actions that you can find there. You can use the actions in that category in both Salesforce1 and Lightning Experience. So we renamed it to Salesforce1 & Lightning Actions.

Core Sales

Accounts Get an Automatic Upgrade
You don’t have to lift a finger to enrich your org’s accounts. News, logos, and autofill now come ready-to-go for both new and existing orgs.

Get the Complete Picture with Account Logos (Generally Available)
Your accounts never looked so good! Now that logos are automatically added to account records, sales reps can visualize business like never before.

Easily Give Feedback on Account Logos
We’re confident you’ll be happy with the logos that appear on account records, but if you’re not, let us know and we’ll make it right.

Get the Scoop on a Company’s Top Leaders
It’s not enough to know who’s who at a company. You also need to know who’s been up to what. Account records now give sales reps easy access to the latest news about a company’s top executives.
News Has Arrived for Contacts
Have the most prepared sales reps in the world by giving them access to the latest, most timely news about the people they’re trying to sell to.

Relating a Contact to Multiple Accounts Gets Even Better
Contacts to Multiple Accounts, the highly celebrated feature that lets your sales reps easily manage the relationships between people and businesses, continues its climb toward the top. New functionality makes adopting this many-to-many data model the obvious choice.

Identify and Merge Duplicate Leads in Lightning Experience
Working duplicate leads wastes sales reps’ time and can damage relationships with customers. Sales reps using Lightning Experience can now find and merge duplicate leads. Previously, only users of Salesforce Classic could find and merge duplicate leads. This feature requires an active duplicate rule.

Lead the Way to Closed Deals with News for Leads
When your sales reps have access to the latest, most timely news about the people they’re trying to sell stuff to, they sell more stuff to those people.

Account Insights Is Now Called News
We’ve done it again. First it was Account News, then Account Insights, now it’s News. But we didn’t just improve the name, we also improved the News feature itself.

Start Spreading the News on Chatter
Your sales reps can keep everyone in the org up to date on the latest news by sharing news articles on Chatter.

Give Feedback on News Items With Fewer Clicks
We’ve simplified the news feedback options so that it’s easier to let us know when something is amiss.

Add Products with Schedules in Lightning Experience
Add products with revenue or quantity schedules to opportunities anywhere, any time.

Opportunities: Probability Field Editable in Lightning Experience
Opportunity owners can now manually edit the Probability field without switching to Salesforce Classic.

Sales Path Activation Just Got Easier
Activate or deactivate your Sales Paths from the main Sales Path settings page—no need to complete the setup wizard again.

Contracts: Manage Your Terms for Doing Business in Lightning Experience
Manage the lifecycle of contracts associated with your accounts and opportunities with more bells and whistles in Lightning Experience.

Add Quotes to Opportunities in Lightning Experience
Now you can take advantage of quotes in Lightning Experience to show customers the prices of the products and services that your company offers. Sales reps can create and edit quotes and quote line items, add quotes to opportunities, and save quotes as PDFs.

Import My Accounts and Contacts Wizard Is Retired
The Import My Accounts and Contacts wizard is now unavailable. Remind your users to upload their data using the Data Import Wizard instead. For more information, see “Import My Accounts and Contacts Retirement in Winter ’17.”

Request an Account Data Assessment in Lightning Experience
Start making informed decisions about the quality of your account data—use Lightning Experience to request a Data.com Clean data assessment. Previously, you could request a data assessment only by using Salesforce Classic. The assessment summarizes overall data quality for your accounts and provides an analysis of key account fields. It doesn’t change data in your org. Data assessments are available for orgs in the United States and Canada.

When Your Data Assessment Is Complete, You Get an Email
If you have more than 100 account records in your org, now we email you a notification when a data assessment you’ve requested is complete. Previously, notifications weren’t emailed. You still receive a notification in Lightning Experience.
Sales Productivity

**Home: Do More with the Assistant**
The Assistant features more relevant, actionable updates. Your sales reps can act directly on different recommendations, including sending an email or creating a task or event. Sales reps can also dismiss recommendations that aren’t relevant.

**Lightning Voice: More New Calling Features**
We’ve added a ton of new features to Voice, including new ways to make calls and call forwarding. Beginning with the Winter ’17 release, Lightning Voice is available only through the utility bar, so an additional task is required to continue using this feature.

**Optimize Clicks and Time by Editing Inline (Beta)**
Your reps breeze through record updates in Lightning Experience with Lightning Edit in list views. Reps can modify a record without opening it, right from the list view. Even better, they can save multiple records at once.

**Quickly Add Multiple Members to a Campaign**
A campaign without members is like a fan club without fans. Sad. So add campaign members in bulk from list views and watch your campaigns shine.

**Call Dibs on Leads**
If you use queues to prioritize and assign leads among team members, your reps can now take ownership of multiple leads from the queue at once.

**Kanban: Track and Manage Leads, Contracts, and Campaigns Visually**
Sales reps can more effectively monitor their progress with leads, contracts, and campaigns using the same Kanban-style visual layout they use for their opportunities.

**Modify Records from the Kanban View**
Everybody hates a detour. Great news: Now you reps can edit or delete records from the Kanban view.

**Get Prompted to Update Required Fields from the Kanban View**
Required fields aren’t blockers anymore. Now reps can fill in fields required to move a record to a different stage or status from within the Kanban view.

**Reply to and Forward Emails Right from Salesforce**
After reading an email, you often want to respond right away. Now you can. Just click **Reply**, **Reply All**, or **Forward** from the email detail page or activity timeline. It’s as easy as...sending an email. These options are only available to organizations using Enhanced Email, which is automatically enabled for most customers.

**Google Integration (Beta)**

**Sync Appointments from Google Calendar™ to Salesforce (Beta)**
When you set up your sales reps’ Google Calendar events to sync to Salesforce, you increase your reps’ productivity. That’s because reps aren’t required to maintain events in two different applications. You also increase Salesforce adoption, because reps can do more with events from Salesforce. For example, reps can track relevant events on Salesforce records and share those details with colleagues easily.

**Microsoft® Integration**

**Lightning for Outlook**

**Put Your Own Spin on Lightning for Outlook (Beta)**
Do your sales teams want to zero in on records other than accounts, contacts, opportunities, leads, or cases? Are they eager to work with functionality that your company customized? Make Lightning for Outlook more relevant for sales reps by selecting the kinds of Salesforce records reps see and work with when they’re in Microsoft® Outlook.”.
Lightning for Outlook and Shield Platform Encryption Play Well Together

Lightning for Outlook is available to customers using Shield Platform Encryption. Sales reps without the “View Encrypted Data” permission enabled don’t always see records with encrypted fields that are related to their emails and calendar events from Lightning for Outlook.

Lightning Sync

Professional Edition: Getting Sync-y with It

If you’re working from Salesforce Professional Edition, you can sync your users’ contacts and events between your company’s email server and Salesforce.

Lightning Sync and Shield Platform Encryption Play Well Together

Lightning Sync is now compatible with Shield Platform Encryption, for users with the “View Encrypted Data” permission. Previously, we prevented organizations using Platform Encryption from running Lightning Sync.

Connect Microsoft® Exchange to Salesforce Securely and Easily

In addition to the old service account stand-by, we’re introducing an OAuth 2.0 connection method option. OAuth 2.0 requires a Microsoft Office 365® account, but if you’ve got that, the rest is a breeze.

Automatically Relate Sales Reps’ Calendar Events to the Most Relevant Salesforce Contacts or Leads

Lightning Sync is now compatible with Shield Platform Encryption, for users with the “View Encrypted Data” permission. Previously, we prevented organizations using Platform Encryption from running Lightning Sync.

Salesforce for Outlook

Say Hello to Recurring Events in the Salesforce Side Panel

Sales reps can view recurring events and relate them to Salesforce records from the Salesforce side panel.

Retiring Support for Microsoft® Outlook® 2007 and Microsoft Exchange 2007

When Microsoft retires support for Outlook 2007 and Exchange 2007 (scheduled for April 2017), Salesforce is ending support as well.

Skype for Salesforce

Use Skype for Business® Chat, Video Calling, and Audio Calling in Salesforce (Beta)

Skype for Salesforce integrates Salesforce and Skype for Business®, allowing your users to chat with and make audio and video calls to other users without leaving Salesforce. Skype for Salesforce is available only if your business has a Skype for Business online license.

Other Changes in Microsoft Integration

Other Changes in Microsoft® Integration

Look out for these other changes happening in Microsoft integration. And if your business has a Skype for Business online license, explore our beta feature that lets you integrate Skype with Salesforce. That way, your users can start chats and make audio and video calls directly from Salesforce.

Reports and Dashboards

Design Your Dashboard with Keyboard Shortcuts, Use a Screen Reader

Thanks to support for keyboard shortcuts and screen readers, the Lightning Experience dashboard designer is easier to use than ever. This feature is available in Lightning Experience only.

Filter Reports by Role Hierarchy in Lightning Experience

Want to see all the opportunities managed by your team out west? Filtering your opportunity report by role hierarchy lets you view opportunities owned by reps who work for specific managers or in specific roles.

Filter Reports by Relative Dates in Lightning Experience

Want to see all the opportunities you’ve closed this year? Instead of filtering by calendar dates, such as Close Date greater than Jan 1, 2016, filter your report by a relative date: Close Date equals THIS YEAR. In addition to being easy to understand, you don’t have to remember to update your report filter once 2017 rolls around.
Preserve Filters When Drilling in to a Report from a Dashboard in Lightning Experience
Filter a dashboard, then view one of the component reports. Previously, the report opened unfiltered. Now the report opens filtered in the same way as the dashboard, so you can keep analyzing data without missing a beat!

Chart Improvements in Lightning Experience: Table, Gauge, Bar, Scatter, Line, and Combo Charts
If a picture is worth a thousand words, is a chart worth a thousand insights? With our latest round of Lightning Experience chart enhancements, your charts are worth more insights than ever!

Service

Make Your Calls in Lightning Experience with Open CTI
Open CTI and all its awesomeness is now available in Lightning Experience. Open CTI helps partners integrate Salesforce with computer-telephony integration (CTI) systems. All this magic happens without installing adapter programs on users’ machines!

Field Service: Meet Your Field Service Lightning Toolbox
Winter ’17 brings good tidings of a brand new set of features that you can use to manage your field service operations. Track work with service appointments, manage your workforce with service resources, standardize your work orders with work types, and more.

Social Post and Persona Home Pages Available in Lightning Experience
Access your social post and persona tabs without leaving Lightning Experience.

Case Feed Social Actions Available in Lightning Experience
You can like, unlike, view source, and delete social media from the case feed while in Lightning Experience. However, you must reply to posts in Salesforce Classic.

Change the Case Owner Using a Quick Action or a Macro
We’ve exposed the Case Owner field in Lightning Experience and Salesforce1 to make it easier to change the owner of a case. Previously, agents had to navigate to the Case Detail page to change the field.

View All Contact Fields on Case Pages
Lightning Experience and Salesforce1 users can see case contact information on case pages if the contact fields are included on the case page layout. The Contact Phone, Contact Email, Contact Fax, and Contact Mobile fields are now available in Lightning Experience and in all versions of the Salesforce1 mobile app.

Case Feed: Updates to Lightning Experience Email
We’ve made several improvements to the Send Email action for cases, so your agents can work more efficiently with email in Lightning Experience.

Updated Limits on Asset Hierarchies
Asset hierarchies can now have up to 10,000 records, and there are no longer any limits on hierarchy depth and width. Previously, an asset could have up to 2,000 child assets, and a hierarchy of assets could have up to 50 levels.

Support Your Customers from Your Website with Snap-In Chat (Beta)
Add the Snap-in Chat widget to your website so that customers can quickly get answers to their questions by chatting with an agent while browsing your site. Snap-In Chat uses Live Agent, but with a simpler setup.

Chatter

See the Wonderful Wizard of Groups
We’ve taken the process of group creation, streamlined it, and come up with a set of steps that make setting up a new group a snap. This feature is available in Lightning Experience only.

Add Group Members the Smart Way
We’ve found a way to make adding members to your groups even easier. A new, sharp, Add Member component and intelligent suggestions about which members are a likely good fit help get the right people in your group the first time. The smart search box
suggests members most likely to want to be a part of a group based on their interactions with other members and groups. The new search also includes such niceties as suggesting names as you type.

**DIY Custom Report Charts Give You What You Want**
While out-of-the-box reports are time savers, occasionally they don’t capture the nuances of what you’re looking for. Custom report charts for groups to the rescue. You can create reports based on records associated in your group, such as Leads or Accounts, adding new insight into your group.

**Group Feeds Are Now Live!**
Lightning Experience brings you real-time group feeds. No more page refreshes required to see what people are saying at the exact moment they say it. Each new post is briefly highlighted to call it to your attention.

**Email on Announcement Graduates to Generally Available**
Email on Announcement is no longer in beta and is now ready for action. When posting an announcement, group managers can send emails and notifications to all group members, regardless of their email preferences, making sure that everyone sees the info. Because of the ability to spam large amounts of people at once, we put this feature behind a permission. Group owners that want this mighty power need the Send announcement emails perm enabled by their admin.

**Group Icon Gets a New Look**
Did we mention we’re sprucing things up? In keeping with our spiffy new look, we updated the default group icon.

**You Called Me “Feed,” Now Call Me “Chatter”**
When you look for your feed in Lightning Experience, look instead for “Chatter.” In many places, the Feed and Collaborate labels have been changed to Chatter.

**Question Publisher Available in More Places**
Joining posts and polls, there’s a new publishing option in your Lightning and community feeds: questions. Use the question publisher to post questions to your groups and communities and crowd-source answers. Raise the visibility of your questions and call out the best solution. In communities, the question publisher is available in account, group, profile, and case feeds.

**Comments Are Now Live!**
Lightning Experience brings you real-time comments. No more page refreshes required to see what people are saying about a post at the exact moment they say it. Each new comment is briefly highlighted to call it to your attention. Comments refresh and stay live after you subscribe to them. Subscription is easy; just click in the comment field.

**Mute a Feed Item from Its Detail View**
Your Lightning Experience and community feeds now offer the option of muting a feed post from its detail view. When you navigate to detail view from a notification, you can mute the post right on the spot. In the feed, you can click a post’s date to navigate to its detail view.

**Play Videos Directly in the Feed**
Now the ability to play videos inline in feeds is available in Lightning Experience! When you attach a video to a post or comment, anyone can play it right where it’s posted.

**Find Out Who Likes Your Comment**
Comments in Lightning Experience now show a complete list of people who liked your post.

**Edit Feed Posts and Comments in More Places, Get View Counts**
You’ve been very patient, and now comes the reward: You can edit feed posts and comments in Lightning Experience. With a little admin setup, both feed posts and comments show the Edit option on their action menus. Enjoy!

**Rich Content and Inline Images in More Places**
When all-caps just isn’t enough, go **BOLD** or *italic* or *underscore*. Want to add visual richness? Include an inline image in your post or comment. The possibilities are endless, now that you have rich content capabilities just about everywhere. This feature is available in Lightning Experience only.

**Posts and Comments Have an Updated Look and Feel**
We’ve made posts and comments even more compatible with mobile display.
Hover Over a Name and See a Mini-Profile
Hover over any name and see a brief version of a person’s profile. Click the name and see the full profile page. The hover info, pulled from the compact user profile layout, also appears next to the person’s profile photo.

Files

Load Up Your Feed Posts with Ten Files in Lightning Experience
Less isn’t always more. Attach not just one but up to ten files to your feed posts.

Add and Remove Files When Editing Posts in Lightning Experience
Now that Lightning Experience supports editing your own Chatter posts, you can also add and remove files when doing so.

Simplify Setup of Files Connect for Office 365 with Azure
With a new setup process using Azure Management Console, setting up Files Connect for SharePoint Online or OneDrive for Business is even easier. Instead of logging in to two different locations to configure options, you can now register your app in one step using the Windows Azure Management Console. You no longer need to copy and paste snippets of XML, because everything can be configured with point and click.

SharePoint System Folders Filtered Out of Files Connect
Spring cleaning came early! The SharePoint system folders Style Library, Customized Reports, and Form Templates no longer appear in Files Connect, so it’s easier than ever to find the external files you need. This update is enabled by default and applies across Salesforce Classic, Lightning Experience, all APIs, and all versions of the Salesforce1 mobile app.

Search

Get Spell Correction for Custom Objects
When users search for a term that doesn’t initially yield results because of incorrect spelling, they instead see results that match a corrected spelling of the term. Spell correction expands to custom objects for English only.

Get Search Results for More Objects
See more objects in your search results.

Find the Right Record with Person Account Search Enhancements
Person Account searches that contain terms spanning both business account and contact fields now return person account search results.

Encrypt Your Search Index (Generally Available)
When you enable Shield Platform Encryption, you gain added security with Search Index Encryption. Search index files are encrypted using an org-specific AES-256 bit encryption key.

Find the Right Knowledge Article with Snippets
With article search results, context is king. On the Articles search result page after performing a full global search, excerpts below article titles show the matching search terms highlighted within the context of surrounding text. Snippets make it super easy for users to see which articles are most relevant.

Get a Better View with Global Instant Results
Search suggests recent and matching records from multiple objects—not just the object the user is on. These instant results let users quickly access a record before performing a full search. With this wider view of suggestions, users find what they’re looking for faster no matter where they are in the app.

Go Straight to Top Results Anytime You Search
When you’re searching for a record, it’s helpful to start with a wide-angle view before zooming in. That’s why every search takes users to the Top Results page, no matter where they are in the app. Users get a high-level overview of relevant matches across all their most frequently used objects.
Look to the Left to Narrow Search Results
To make way for the new navigation bar, we gave the search results page a makeover without losing any functionality. In this fresh new layout, users can narrow results by clicking object names on the left side of the page under Search Results. You’re taken to a search results page that lists only records for that object.

Data.com
Set Up Clean Rules in Lightning Experience
With Data.com Clean rules, you can get the right data to your sales reps at the right moment. Clean rules don’t merely keep your existing data current. You can also use them to augment accounts and leads with valuable information, such as geocodes, industry, revenue, number of employees, and D-U-N-S number. In Summer ’16, we introduced Clean rules in Salesforce Classic. Now Data.com Clean customers can also use Lightning Experience to activate Clean rules.

Add Key Information to Account Records Automatically
Activate the new Company Info for Accounts Clean rule so that your sales teams can segment accounts, plan territories, and understand their customers better. The rule provides access to over 100 fields of company, industry, and financial information from Dun & Bradstreet, the same fields as for Clean jobs.

Setup
Be the Boss of Your Apps with the App Manager
We’ve enhanced Setup in Lightning Experience with the Lightning Experience App Manager. Now you can create and manage your apps all in one place.

Manage Global Picklists in Lightning Experience Setup
Now you can create and manage your global picklist value sets from either user interface. No more switching back and forth to manage all of your picklists in Setup. This feature is available in both Lightning Experience and Salesforce Classic.

Search Lightning Experience Setup with Global Search
Now you can use global search instead of Quick Find to find specific setup records, such as the Lead Source picklist or the Sales Rep profile.

Data Import
Add and Update Campaign Members Using the Data Import Wizard
For any campaign, you can now easily add contacts, person accounts, and leads as new campaign members and update existing campaign members by Salesforce ID, all from one source file. The Salesforce ID can be a campaign member ID, contact ID, or lead ID.

New Data Loader Version Includes Updated Operating System Support
We’ve released a new version of Data Loader! It supports Microsoft® Windows® 7 or later and macOS El Capitan for orgs that have TLS 1.0 disabled and must use TLS 1.1 or 1.2. Earlier versions of macOS don’t fully support TLS 1.2.

Lightning App Builder
Assign a Custom Record Page to Lightning Apps, or Make It the Default for All
When you activate a custom record page in the Lightning App Builder, you now have two options. You can make the record page the default for all your users. Or you can assign the record page to one or more Lightning apps to give your users access to a page customized for the app that they’re working in.
Create a New Style of App Page with the New App Page Template in the Lightning App Builder

The new Header and Two Columns template in the Lightning App Builder lets you customize the layout of your app pages a different way.

Streamline Your Record Highlights to See More Data

Use new Lightning App Builder attributes to display the highlights panel in less space, show fewer buttons, and change the orientation from horizontal to vertical. These customizations reduce page scrolling and heading truncation, making it easier for your users to see key information at a glance.

View and Activate Read-Only Lightning Pages from Managed Packages in the Lightning App Builder

Previously, you couldn’t open managed pages in the Lightning App Builder. Now you can open Lightning Pages from a managed package in a read-only editor and review, activate, or de-activate them.

Report Chart Components Are No Longer One Size (Doesn’t) Fits All

Report chart components are now more dynamic and responsive to the size of the page they display on. Report chart components resize themselves horizontally to fill larger display regions, up to a maximum of 800 pixels wide. The height is limited to 300 pixels.

Embed Wave in Any Lightning Page

With Wave on Lightning, you can give users access to insights on any device. Integrate Wave into Lightning home pages, record pages, and app home pages. Create analytics apps for Lightning Experience and the Salesforce1 mobile app in just a few minutes.

Power Up Your Lightning Pages with the Flow Component (Beta)

Welcome a new component to the Lightning App Builder. Use the Flow component to embed active flows in your Lightning Pages.

Feed Component Renamed Introduces Two New Chatter Components

We’ve renamed the Feed component to Chatter in the Lightning App Builder. It combines the publisher and feed. We’ve also created two new components that break the feed into its parts with the new Chatter Publisher and Chatter Feed. Now you can place the publisher and the feed separately wherever you want them on the page.

Salesforce Connect

External Object Reports—Get a Seamless View of Data Across System Boundaries

We know you’ve waited a long time to include external objects in reports. There are still some limitations and considerations to keep in mind, but now you can run reports on all your data, regardless of where it’s stored.

Create Feed-Based Page Layouts for External Objects

Make it easier for your users to work with external object records by providing two separate views: one for the record’s feed, and one for its details and related lists. Users can switch between feed view and details view to focus on the information they need at any moment.

Get More External Object Search Results

External object search results are no longer limited to 25 rows.

Visual Workflow

Run Flows with a Lightning Skin (Beta)

Have you ever wanted your flows to look better? So have we. When you enable this beta, all of your URL-based flows render using the Lightning runtime instead of the Classic runtime.

Embed Your Flows in Lightning Pages (Beta)

We’re rolling out a flow component for the Lightning App Builder. You can now add flows to any Lightning Page—App pages, Record pages, and Home pages alike.
Display Flow Screens in Two Columns (Beta)
When you build flows that collect lots of information, their screens can render as a never-ending skinny column of fields. Break up the layout of those screens by rendering specific flows in two columns.

Security and Identity

Authentication and Identity: Quicker Logins, Connected Apps Enhancements, More Authentication Options
We’ve introduced password-free logins with Lightning Login, U2F security keys and more options for two-factor authentication, and enhanced OAuth features. We redesigned the App Launcher and connected app descriptions show up on App Launcher tiles. The App Launcher for External Identity customers takes on the new look too.

Update Existing Connected App Descriptions
The revamped App Launcher makes it easy for your users to discover your connected apps now that your app’s name and description appear on an App Launcher tile. The description comes from the text that you supply in the description field when you create the app. For the connected apps that you created before Winter ’17, those descriptions appear in the App Launcher as well. So make sure that the names and descriptions of your existing apps are appropriate for a public audience and mistake-free. You’ve got 256 characters for a description. Make it work for you.

Make the App Launcher Your Landing Page
Make it easy for your Salesforce Identity users to access what they need by presenting the redesigned App Launcher as the default landing page when they log in to Salesforce.

External Identity App Launcher Has a New Look
If you set up Salesforce Identity for your customers or partners (referred to as external identity), you probably used the Aloha communities template with the app launcher. When Winter ’17 releases, your app launcher takes on the fresh look of our redesigned App Launcher.

Successfully Reauthorize Your Users When Provisioning Connected Apps
For those customers using Salesforce provisioning for connected apps, we’ve improved how we handle users that you have reauthorized after unauthorizing them. Previously, reauthorizing a user would trigger a create event, which could cause an error since the user already existed. Salesforce now reactivates the existing user.

Platform Encryption: Bring Your Own Key, Government Cloud Support, Faster Mass Encryption
Bringing your own encryption key (BYOK) gives you even more control over your data security. You can also meet FedRAMP compliance standards, encrypt your search index, sync with Lightning for Outlook and Lightning Sync, and more.

Development

Restrict Your Custom Lightning Components to Specific Objects
If you have a custom Lightning component bundle designed for use on Lightning pages, add the new `<sfdc:object>` tag set to the .design file to restrict the component only to certain objects.

AppExchange and Your Salesforce Org—Together at Last
Some things just go together, like Trailhead and Astro or Dreamforce and epic keynote selfies. We’re introducing another perfect match: AppExchange and Salesforce. Now you can install apps, components, and other AppExchange offerings without ever leaving your org.

View More Information About Apex Test Runs
The Apex Test History page now shows the start date and time for test runs. In addition, the status column has been updated to show the number of failed and enqueued methods for the test run.
What’s Not Available in Winter ‘17 Lightning Experience Features

For new Lightning Experience features and enhancements, see the limitations or gaps from what’s available in Salesforce Classic. Review these topics to see if any functionality that’s critical to your business is limited or unavailable in this release. While reviewing this list, remember that your users can always access features not yet supported in the new interface by temporarily switching to Salesforce Classic.

Note: For the full list of feature gaps and limitations in Lightning Experience, see “What’s Not Available in Lightning Experience” in the Salesforce Help.

IN THIS SECTION:
- Data Access and Views: Lightning Experience Considerations
- Sales Features: Lightning Experience Considerations
- Customer Service Features: Lightning Experience Considerations
- Reports and Dashboards: Lightning Experience Considerations
- Chatter and Communities: Lightning Experience Considerations
- Navigation and Actions: Lightning Experience Considerations
- Search: Lightning Experience Considerations
- Data Import and Management: Lightning Experience Considerations
- Security: Lightning Experience Considerations

SEE ALSO:
- Saying Hello to Lightning Experience Doesn’t Mean Saying Goodbye to Salesforce Classic

Data Access and Views: Lightning Experience Considerations

Learn about the issues to expect when using List Views in Lightning Experience.

List Views
- You can select up to 200 items at once in a list view. If there are more than 200 items, the header row’s checkbox selects only the first 200.
- List views load 50 visible items at once without scrolling. To select more than 50 items (or rows), scroll to load the last item you want and then select the range of items.
- With inline edit, you can’t edit one field and apply the change to multiple records at once. But you can edit fields in multiple rows and then save the changes all at once.
- Multi-select in list views is available only in a list view whose object has a mass action.

Sales Features: Lightning Experience Considerations

Learn about the issues that your Sales team can encounter in Lightning Experience.

Account Hierarchy
- Account hierarchy is unavailable in Lightning Experience. However, we recommend using the free AppExchange package Lightning Account Hierarchy.
Account Teams
When organization wide default sharing for contacts is set to private, the contacts added to Account Teams don’t default to private.

Contacts to Multiple Accounts
If you use person accounts, switch back to Salesforce Classic to add the Related Accounts related list to the person account page layouts your reps use.

Opportunity Email Quotes
You can’t email a quote directly from the PDF preview, the quote detail page, or next to the PDF in the Quote PDFs related list. Instead, create and save a quote PDF from Salesforce, and then download the PDF and email it using your local email app.

Contracts
- The Contract History related list isn’t available.
- Status picklist values aren’t filtered based on a contract’s status, so all status values appear in the picklist. If you choose a status that’s invalid for a contract, an error message lists the values that are valid for the contract. For example, for new and cloned contracts, Draft is the only valid value.

Skype for Salesforce
Skype for Salesforce is available only in Lightning Experience.

Customer Service Features: Lightning Experience Considerations
Learn about the issues to expect if your org uses customer service tools. In general, Service Cloud data and features aren’t supported in this release of Lightning Experience. Cases are supported but don’t have full parity with what’s available in Salesforce Classic.

Social Post and Persona Home Pages
Access your social post and persona tabs without leaving Lightning Experience.

Case Feed Social Actions
You can like, unlike, view source, and delete social media from the case feed while in Lightning Experience. However, you must reply to posts in Salesforce Classic.

Open CTI and Call Centers
- The out-of-the-box Call Center app is a Salesforce Classic app. If you use softphones in the Call Center app, those softphones don’t work when the Call Center app is launched from Lightning Experience. Open CTI for Lightning Experience works only in Lightning apps, and Open CTI for Salesforce Classic works only in Classic apps.
  - To use Open CTI for Lightning Experience, create a Lightning Experience app.
- Open CTI for Lightning Experience doesn’t support screen pops that open in a new browser tab or window.

Reports and Dashboards: Lightning Experience Considerations
Learn about the issues to expect when using reports and dashboards in Lightning Experience.

Add Tables to Dashboards in Lightning Experience
Tables in Lightning Experience dashboards show conditional highlighting and Chatter photos, but to configure conditional highlighting and Chatter photos, switch to Salesforce Classic.

Gauge Charts Display Percentages
You can’t hide percentages on gauge Charts in Lightning Experience.
Chatter and Communities: Lightning Experience Considerations

Learn about the issues to expect when your users collaborate in Lightning Experience using Chatter or Salesforce Communities. Some collaboration features aren't supported. And some features don't have full parity with what's available in Salesforce Classic.

Chatter

When a user asks a question similar to one that's been asked, no auto-complete options are presented as they are in Salesforce Classic.

Navigation and Actions: Lightning Experience Considerations

Learn about the issues to expect when using actions in Lightning Experience.

Quick Actions

Quick actions on external objects aren't supported.

Search: Lightning Experience Considerations

Learn about the issues to expect when searching in Lightning Experience.

Searchable Objects

The following objects, which are searchable in Salesforce Classic, aren't searchable in Lightning Experience: Activities (Events and Tasks), Attachment, Coaching, Community, Contract Line Item, D&B Company, Document, Discussion, Entitlement, Goal, Idea, Live Chat Transcript, Macro, Metric, Order, Performance Cycle, Question, Quick Text, Quote, Resource Absence, Reward Fund, Reward Fund Type, Salesforce CRM Content, Self-Service User, Service Contract, Service Resource Skill, Service Territory Member, Skill, Solution, Topic, User, and Work Order Line Item.

Knowledge Articles Can't Be Sorted

In search results, sorting is not available for Knowledge articles.

No Snippets for Knowledge Articles in Top Results

Snippets aren't shown when Knowledge articles appear in Top Results search results. Snippets are shown when the search is scoped to Articles. In addition, you can't customize which columns appear in search results. The default columns are article number, publication status (if enabled by the admin), and last modified date.

Data Import and Management: Lightning Experience Considerations

- You can't enable or disable Data.com Clean.
- You can't configure Data.com Clean jobs or view Clean job metrics or analytics.
- If you're using a Clean job and don't have a Company Info rule enabled on the object, your users can't clean records manually. Even if the Clean button associated with Clean jobs is included in the object layout, the button isn't displayed in Lightning Experience.
- You can't modify fields on Clean Info objects (Account, Lead, and Contact).

Security: Lightning Experience Considerations

Learn about the issues to expect for Salesforce security features in Lightning Experience.

Platform Encryption with JSON Serialization

Encrypted data is not masked in Lightning Experience when using JSON serialization or Database.Query(). That data is rendered in plaintext, whether or not the user has the "View Encrypted Data" permission.
Sales: Sell Smarter and Faster in Lightning Experience

Lightning Experience keeps getting better. Now you can help marketing and sales teams drive more business to your company with new and improved productivity features like Voice and Enhanced Email. See news articles on more records so reps stay informed. Improve data quality with a data assessment. Plus, we’ve added Lightning support for some old favorites like contracts, quotes, and Campaign Influence.

IN THIS SECTION:

Core Sales Features: Help Reps Sell Using Lightning Experience
Give your sales reps access to better tools for selling.

Productivity Features: Help Sales Reps Do More with Lightning Experience
Get your reps to spend time wisely on the things that help them keep their deals moving. Create tasks and events from Assistant recommendations, use more Voice features, and take advantage of the Kanban-style visual layout to help reps stay focused on the important things for closing deals fast.

Google Integration: Sync Google Calendar™ Events to Salesforce Without Installing Software (Beta)
Do your sales reps wish there was an easy way to get their Google Calendar events into Salesforce without all that boring data entry? Look no further. Lightning Sync is compatible with Google Calendar, so you can set up sales reps to get important appointments into Salesforce effortlessly. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Microsoft® Integration: Sync and Work Between Microsoft Systems and Salesforce
Help your sales reps be their most productive by integrating the work they do between Microsoft systems and Salesforce. Let reps sync contacts, events, and tasks between their email application and Salesforce. Or set up reps to experience Salesforce directly from Outlook®. We’re also introducing Skype for Salesforce (Beta), which lets users work with Skype directly from Salesforce.

Get more out of Pardot with a monthly report about your automation assets, A/B toggling for your marketing campaigns, and the ability to set a wait time on your triggers in Engagement Studio. Prospect List reporting has also been improved, and there are more. This feature is available in Salesforce Classic only.

Other Changes in the Sales Cloud
Learn about other changes we’ve made to improve usability.

Core Sales Features: Help Reps Sell Using Lightning Experience
Give your sales reps access to better tools for selling.

IN THIS SECTION:

Accounts: Store Information About the People and Business You Work With
Accounts in Lightning Experience are putting on a show this release. Logos are enhanced and generally available, and executive news is front and center.

Contacts: Know What You Need to Know About Who You Need to Know
We’ve made big improvements to Contacts to Multiple Accounts and added news to your contacts.

Leads: Closing Deals Was Never So Much Fun
Leads in Lightning Experience keep getting better. Improve data quality by merging leads, and keep your sales reps in the know with news on leads.
Campaigns: Give Credit for Opportunities to Multiple Campaigns with Customizable Campaign Influence (Generally Available)
Decide how credit is assigned to each campaign that contributes to bringing in an opportunity. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Contracts: Manage Your Terms for Doing Business in Lightning Experience
Manage the lifecycle of contracts associated with your accounts and opportunities with more bells and whistles in Lightning Experience. Contracts are available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. Some contracts features are available in Lightning Experience only.

Opportunities: Track and Manage Your Deals
Add products with schedules, and more easily manage Sales Paths.

News: Read All About It
This just in! We renamed the Account Insights component to News and it’s available on contacts and leads. Plus, you can share news articles on Chatter and provide feedback with fewer clicks.

Data Assessment: Support for Requests via Lightning Experience and Email Notifications
You can now request data assessments in Lightning Experience, and Salesforce emails you when your assessment is ready.

Accounts: Store Information About the People and Business You Work With
Accounts in Lightning Experience are putting on a show this release. Logos are enhanced and generally available, and executive news is front and center.

IN THIS SECTION:

Accounts Get an Automatic Upgrade
You don’t have to lift a finger to enrich your org’s accounts. News, logos, and autofill now come ready-to-go for both new and existing orgs. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Get the Complete Picture with Account Logos (Generally Available)
Your accounts never looked so good! Now that logos are automatically added to account records, sales reps can visualize business like never before. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Get the Scoop on a Company’s Top Leaders
It’s not enough to know who’s who at a company. You also need to know who’s been up to what. Account records now give sales reps easy access to the latest news about a company’s top executives. This feature is available in Lightning Experience only.

Accounts Get an Automatic Upgrade
You don’t have to lift a finger to enrich your org’s accounts. News, logos, and autofill now come ready-to-go for both new and existing orgs. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

News
Provides users with a customized list of timely, relevant news from US sources. News is available on accounts, contacts, leads, opportunities, and the Home page. You might need to add the News component to your page layouts.

Account Logos
Displays company logos, when available, on US-based accounts. New logos might replace ones from social profiles. Logos also appear with account suggestions.
Account Autofill

Displays US-based companies in the Account Name field as users enter information. Users can select a suggested company from the list, making it easier to create business accounts. (This option isn’t available in Salesforce1.)

Of course, you can turn off each of these features on the Account Settings page, but why would you want to do that?

**Important:** These features are not auto-enabled for orgs that meet one of the following criteria.

- Based outside the United States
- Part of a regulated industry, including government, healthcare, financial industries, or nonprofit
- Opted-out by contacting Salesforce

However, these orgs can still enable and disable these features from the Account Settings page.

SEE ALSO:

- News: Read All About It
- Get the Complete Picture with Account Logos (Generally Available)
- Account Autofill Supports More Companies
- Lightning Experience: A Modern and Intelligent User Experience

Get the Complete Picture with Account Logos (Generally Available)

Your accounts never looked so good! Now that logos are automatically added to account records, sales reps can visualize business like never before. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

When available, logos automatically appear on US-based accounts. Logos also appear with the company suggestions that reps see when creating accounts. If you use Social Accounts, logos that reps added manually from social networks might be replaced with a fresher, more up-to-date logo.

Account logos are enabled for most new and existing orgs, but you can turn this feature on or off from the Account Settings page.

SEE ALSO:

- Easily Give Feedback on Account Logos
- Accounts Get an Automatic Upgrade
- Lightning Experience: A Modern and Intelligent User Experience
Easily Give Feedback on Account Logos

We’re confident you’ll be happy with the logos that appear on account records, but if you’re not, let us know and we’ll make it right. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Here are the feedback options.

**Remove Logo**

Use this option when a logo violates trademark rights. Only admins can remove a logo. The logo is removed from all users in the org. You can’t undo this action, so remove with care. But we all make mistakes, so if you have remover’s remorse, contact Salesforce support. The Remove Logo option is available within 24 hours after the release.

**Flag for Review**

Use this option when a logo is incorrect or the image quality is poor. Admins and end-users can flag a logo. When a user flags a logo, it’s removed from the user’s view. If another user in the same org flags the logo, it’s removed for all users in the org. If users from five different orgs also flag the logo, it’s removed from view from all orgs and gone for good.

But rest assured, we take great care to make sure that logos are looking good before they ever get to you.

SEE ALSO:

- Get the Complete Picture with Account Logos (Generally Available)
- Lightning Experience: A Modern and Intelligent User Experience

Get the Scoop on a Company’s Top Leaders

It’s not enough to know who’s who at a company. You also need to know who’s been up to what. Account records now give sales reps easy access to the latest news about a company’s top executives. This feature is available in Lightning Experience only.

If we have news articles about the company’s leaders, we include an executive card (1) on account records. The executives don’t have to be contacts within Salesforce to get an executive card. See key info about the person on the card, then give it a click (2) to see a list of relevant news items about that person. Not the right person or an error in the name or title? Simply let us know by flagging the executive for review (3).
SEE ALSO:

Account Insights Is Now Called News
Lightning Experience: A Modern and Intelligent User Experience

Contacts: Know What You Need to Know About Who You Need to Know

We’ve made big improvements to Contacts to Multiple Accounts and added news to your contacts.

IN THIS SECTION:

Relating a Contact to Multiple Accounts Gets Even Better
Contacts to Multiple Accounts, the highly celebrated feature that lets your sales reps easily manage the relationships between people and businesses, continues its climb toward the top. New functionality makes adopting this many-to-many data model the obvious choice. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

News Has Arrived for Contacts
Have the most prepared sales reps in the world by giving them access to the latest, most timely news about the people they’re trying to sell to. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Stay-in-Touch Requests Is Retiring in Summer ’17
Stay-in-Touch Requests, which allows users to send outbound Salesforce emails to request updated contact information for contacts and person accounts, is scheduled for retirement in Summer ’17. This feature is available in Salesforce Classic only.

Relating a Contact to Multiple Accounts Gets Even Better

Contacts to Multiple Accounts, the highly celebrated feature that lets your sales reps easily manage the relationships between people and businesses, continues its climb toward the top. New functionality makes adopting this many-to-many data model the obvious choice. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

How have we improved Contacts to Multiple Accounts? Let us count the ways.

• You can indirectly relate person accounts to business accounts. From Setup in Salesforce Classic, add the Related Accounts related list to the person account page layouts that your reps use.

• Triggers are now supported for the Account Contact Relationship object. For example, create a trigger so that when a relationship is marked as inactive, the end date is populated with the current date.
Validation rules are now supported for the Account Contact Relationship object. For example, create a validation rule so that when a relationship is saved, the Start Date changes to read-only.

Account-contact relationships can now be viewed, created, and edited from Community Builder-based templates.

The new View Relationship action (1) takes sales reps to a detail page of the account contact relationship. From there reps can edit or remove indirect relationships (2) or edit direct relationships. Of course, you can still remove indirect relationships from the related list on the account or contact record (3).

SEE ALSO:

Salesforce Help: Set Up Contacts to Multiple Accounts (can be outdated or unavailable during preview release)
Winter '17 Features That Are Different or Unavailable in Salesforce1
Lightning Experience: A Modern and Intelligent User Experience
Shared Activities Lookup Works with Encrypted Fields
News Has Arrived for Contacts

Have the most prepared sales reps in the world by giving them access to the latest, most timely news about the people they’re trying to sell to. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

The news on contact records works similar to other objects. News items are selected based on the contact’s related account, its executives, and its industry, and come from US-based sources.

News is enabled for both new and existing orgs, but you might need to add the News component to your contact page layouts. You can disable news for all objects on the Account Settings page in Setup.

SEE ALSO:
- Account Insights Is Now Called News
- Start Spreading the News on Chatter
- Lightning Experience: A Modern and Intelligent User Experience
- Salesforce Help: News (can be outdated or unavailable during preview release)

Stay-in-Touch Requests Is Retiring in Summer ’17

Stay-in-Touch Requests, which allows users to send outbound Salesforce emails to request updated contact information for contacts and person accounts, is scheduled for retirement in Summer ’17. This feature is available in Salesforce Classic only.

But we want you to stay in touch with its retirement plans, so be sure to check out all the details.
Leads: Closing Deals Was Never So Much Fun

Leads in Lightning Experience keep getting better. Improve data quality by merging leads, and keep your sales reps in the know with news on leads.

IN THIS SECTION:

Identify and Merge Duplicate Leads in Lightning Experience

Working duplicate leads wastes sales reps’ time and can damage relationships with customers. Sales reps using Lightning Experience can now find and merge duplicate leads. Previously, only users of Salesforce Classic could find and merge duplicate leads. This feature requires an active duplicate rule.

Lead the Way to Closed Deals with News for Leads

When your sales reps have access to the latest, most timely news about the people they’re trying to sell stuff to, they sell more stuff to those people. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Identify and Merge Duplicate Leads in Lightning Experience

Working duplicate leads wastes sales reps’ time and can damage relationships with customers. Sales reps using Lightning Experience can now find and merge duplicate leads. Previously, only users of Salesforce Classic could find and merge duplicate leads. This feature requires an active duplicate rule.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience
Lead the Way to Closed Deals with News for Leads

When your sales reps have access to the latest, most timely news about the people they’re trying to sell stuff to, they sell more stuff to those people. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

The news on lead records works similar to other objects. News items are selected based on the lead’s related account, its executives, and its industry, and come from US-based sources.

News is enabled for both new and existing orgs, but you might need to add the News component to your lead page layouts. You can disable news for all objects on the Account Settings page in Setup.

SEE ALSO:
- Account Insights Is Now Called News
- Start Spreading the News on Chatter
- Lightning Experience: A Modern and Intelligent User Experience
- Salesforce Help: The News Component (can be outdated or unavailable during preview release)

Campaigns: Give Credit for Opportunities to Multiple Campaigns with Customizable Campaign Influence (Generally Available)

Decide how credit is assigned to each campaign that contributes to bringing in an opportunity. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

IN THIS SECTION:
- Assign Credit for Opportunities to Multiple Campaigns with Customizable Campaign Influence (Generally Available)

Flexible revenue attribution across multiple campaigns offers 1) better business intelligence, 2) more marketing accountability, and 3) improved alignment between sales and marketing.
Set Up Customizable Campaign Influence

Let your marketing department attribute revenue across multiple campaigns.

Assign Credit for Opportunities to Multiple Campaigns with Customizable Campaign Influence (Generally Available)

Flexible revenue attribution across multiple campaigns offers 1) better business intelligence, 2) more marketing accountability, and 3) improved alignment between sales and marketing.

Customizable Campaign Influence lets you set up multiple ways of tracking the influence that campaigns have on opportunities. For each method you want to use, create a separate campaign influence attribution model. To give credit to a campaign for the opportunities it helps generate, your marketing and sales users can manually associate the campaign with their opportunities. Alternatively, you or your partners can create triggers and workflows to add records automatically. On campaign detail pages, your users can see the opportunities generated by a campaign, and the total revenue generated.

Determine how to attribute revenue to campaigns

Out of the box, the Salesforce influence model attributes 100% revenue credit to the primary campaign and 0% to any other campaigns users assign to an opportunity. Only the Salesforce influence model supports auto-association. Auto-association adds campaigns to opportunities automatically when the contact on an opportunity is also a member of a campaign.

To attribute revenue more flexibly to campaigns, you or your partners can create custom influence attribution models. For example, create a model that evenly distributes credit for an opportunity across all campaigns that touched it. Or create a model that gives 100% credit to the first or last campaign that touched an opportunity. With Customizable Campaign Influence, you can create a model for virtually any scenario that suits your business.

If you’d like to prevent your sales or marketing users from adding or editing campaign influence records, you can lock any of your attribution models. Records for locked models can only be updated via the API.

See which campaigns influenced an opportunity

Campaign influence records show which campaigns have influenced a specific opportunity. To let users see which campaigns contributed to their opportunities, add the Campaign Influence related list (1) to your Opportunity page layouts. The Campaign Influence related list only displays records for the attribution model you designate as the primary model in Setup. To let your users add and edit campaign influence records from their opportunity detail pages, keep the primary model unlocked. Your other attribution models can accrue campaign influence records, but only via triggers, workflows, and the API.

Depending on your business needs, you can add custom fields to your campaign influence records. For example, if you want to track the order in which campaigns contributed to an opportunity, you could add a number field for that purpose.
See how many opportunities a campaign generates
Your users can clearly see how many opportunities a campaign has generated when you add the Influenced Opportunities related list (1) to your Campaign page layouts.

The Campaign Statistics section (1) of Campaign detail pages shows the revenue generated by the campaign, based on the attribution percentage on the campaign’s influence records. The Campaign Statistics section also displays the current number of opportunities generated by the campaign and the total number won.

Set Up Customizable Campaign Influence
Let your marketing department attribute revenue across multiple campaigns.

1. Ensure that you have either the Sales Cloud or CRM permission set license assigned to your user profile.
   These permission sets allow you to enable and manage Customizable Campaign Influence.

2. Enable Customizable Campaign Influence in Setup.
   Out of the box, the Salesforce influence model is selected as the primary model. Only The Salesforce model supports auto-association. Auto-association adds campaigns to opportunities automatically when the contact on
an opportunity is also a member of a campaign. The Salesforce model is always locked. For a locked model, campaign influence records can only be added or edited via workflows and the API. Your users can’t add records manually in Salesforce.

3. If you use the original version of Campaign Influence, choose whether to migrate existing campaign influence records with 0% attribution to the new Salesforce model.

4. If you plan to implement your own methods of assigning credit for opportunities to campaigns, add your own custom attribution models.
   If you set up more than one influence model, designate one of them as the primary model. The primary model’s records appear in the Campaign Influence related list on opportunities and the Influenced Opportunities related list on Campaigns.

5. Assign the Campaign Influence permission to sales and marketing users who need it.

6. Add the Campaign Influence related list to Opportunity page layouts.
   This related list shows the campaigns that have touched the opportunity. Only campaign influence records from your primary influence model appear in the list.

7. Add the Influenced Opportunities related list to Campaign page layouts.
   This related list shows the opportunities influenced by the campaign. Only campaign influence records from your primary influence model appear in the list.

8. Add the Campaign Results section to Campaign page layouts.
   The Campaign Results section shows the total amount brought in by the campaign, based on your primary campaign influence model.

Contracts: Manage Your Terms for Doing Business in Lightning Experience

Manage the lifecycle of contracts associated with your accounts and opportunities with more bells and whistles in Lightning Experience. Contracts are available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. Some contracts features are available in Lightning Experience only.

EDITIONS
Available in: Performance and Developer Editions
Available in: Professional, Enterprise, and Unlimited Editions with the Sales Cloud
• Manage information about contact roles, notes, and more (1).
• Create, update, and delete contracts for accounts and opportunities (2).
• Manage email, events, logged calls, and tasks in the activity timeline (3). Unique to Lightning Experience.
• Use Chatter to collaborate during the contract management process. Share information, updates, and documents, and monitor status and key field changes on contract records (4).
• Manage your approval process (5).
• Get the big picture with the Kanban view. Unique to Lightning Experience.

If you’ve added a contracts related list to accounts and opportunities, you don’t have to do anything. The related lists are included in Lightning Experience.

To monitor contract fields via Chatter, enable feed tracking for the fields that you want to track.

SEE ALSO:
  Kanban: Track and Manage Leads, Contracts, and Campaigns Visually
  Sales Features: Lightning Experience Considerations
  Salesforce Help: Process Automation: What’s Not in Lightning Experience (can be outdated or unavailable during release preview)
  Lightning Experience: A Modern and Intelligent User Experience
  Idea Exchange: Assets, Contracts and Quotes Should Be Available in the Lightning Experience
Opportunities: Track and Manage Your Deals

Add products with schedules, and more easily manage Sales Paths.

IN THIS SECTION:

Add Products with Schedules in Lightning Experience
Add products with revenue or quantity schedules to opportunities anywhere, any time. When your reps add a product with an established revenue or quantity schedule, the established schedule is added to the opportunity line item. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Sales Path Activation Just Got Easier
Activate or deactivate your Sales Paths from the main Sales Path settings page—no need to complete the setup wizard again. Now you can find out in a glance which of your existing Sales Paths are available to your users and which you saved to activate later. When you’re ready to make a new Sales Path available, activate it with a single click. This feature is available in Lightning Experience only.

Add Quotes to Opportunities in Lightning Experience
Now you can take advantage of quotes in Lightning Experience to show customers the prices of the products and services that your company offers. Sales reps can create and edit quotes and quote line items, add quotes to opportunities, and save quotes as PDFs. This feature is available in both Lightning Experience and Salesforce Classic.

Add Products with Schedules in Lightning Experience
Add products with revenue or quantity schedules to opportunities anywhere, any time. When your reps add a product with an established revenue or quantity schedule, the established schedule is added to the opportunity line item. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Switch back to Salesforce Classic to enable product schedules, or to establish or modify schedules for products.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience
Sales Path Activation Just Got Easier

Activate or deactivate your Sales Paths from the main Sales Path settings page—no need to complete the setup wizard again. Now you can find out in a glance which of your existing Sales Paths are available to your users and which you saved to activate later. When you’re ready to make a new Sales Path available, activate it with a single click. This feature is available in Lightning Experience only.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience

Add Quotes to Opportunities in Lightning Experience

Now you can take advantage of quotes in Lightning Experience to show customers the prices of the products and services that your company offers. Sales reps can create and edit quotes and quote line items, add quotes to opportunities, and save quotes as PDFs. This feature is available in both Lightning Experience and Salesforce Classic.
SEE ALSO:

Sales Features: Lightning Experience Considerations
Add Quotes to Opportunities in Salesforce1
Salesforce Help: Enable Quotes (can be outdated or unavailable during release preview)
Idea Exchange: Create Quotes in the Lightning Experience

News: Read All About It

This just in! We renamed the Account Insights component to News and it’s available on contacts and leads. Plus, you can share news articles on Chatter and provide feedback with fewer clicks.

IN THIS SECTION:

Account Insights Is Now Called News
We’ve done it again. First it was Account News, then Account Insights, now it’s News. But we didn’t just improve the name, we also improved the News feature itself. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Start Spreading the News on Chatter
Your sales reps can keep everyone in the org up to date on the latest news by sharing news articles on Chatter. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.
Give Feedback on News Items With Fewer Clicks

We’ve simplified the news feedback options so that it’s easier to let us know when something is amiss. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Account Insights Is Now Called News

We’ve done it again. First it was Account News, then Account Insights, now it’s News. But we didn’t just improve the name, we also improved the News feature itself. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Your reps still get the timely, relevant news articles and Twitter posts that help them stay up to date with their accounts and opportunities, but now they also get news on contacts and lead records. Plus, reps can share individual news articles on Chatter.

SEE ALSO:

News Has Arrived for Contacts
Lead the Way to Closed Deals with News for Leads
Start Spreading the News on Chatter
Lightning Experience: A Modern and Intelligent User Experience

Start Spreading the News on Chatter

Your sales reps can keep everyone in the org up to date on the latest news by sharing news articles on Chatter. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

The News feature, which includes timely, relevant news from US sources, is available for accounts, contacts, leads, opportunities, and on the Home page. When reps come across an article that may be of interest to others, they can click the share icon ( ) to share it with other people or post it to the related record’s Chatter feed.
When a rep shares a news article from a record’s detail page, it’s posted to that record’s Chatter feed. The rep can also @mention individual users or groups.

When a rep shares a news article from Home or the News app, the article is posted to the rep’s own Chatter profile for all the rep’s followers to see.

SEE ALSO:
- Lead the Way to Closed Deals with News for Leads
- News Has Arrived for Contacts
- Lightning Experience: A Modern and Intelligent User Experience

Give Feedback on News Items With Fewer Clicks

We’ve simplified the news feedback options so that it’s easier to let us know when something is amiss. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

When sales reps want to report that a news article or Twitter post is irrelevant to the records it’s on or that an executive has incorrect information, they can click the flag icon (🚩). We’ll look into the item and make corrections as needed.

The More Like This and Fewer Like This options, which were used to improve the relevancy of the news items, are no longer available.
Data Assessment: Support for Requests via Lightning Experience and Email Notifications

You can now request data assessments in Lightning Experience, and Salesforce emails you when your assessment is ready.

IN THIS SECTION:

Request an Account Data Assessment in Lightning Experience

Start making informed decisions about the quality of your account data—use Lightning Experience to request a Data.com Clean data assessment. Previously, you could request a data assessment only by using Salesforce Classic. The assessment summarizes overall data quality for your accounts and provides an analysis of key account fields. It doesn’t change data in your org. Data assessments are available for orgs in the United States and Canada.

When Your Data Assessment Is Complete, You Get an Email

If you have more than 100 account records in your org, now we email you a notification when a data assessment you’ve requested is complete. Previously, notifications weren’t emailed. You still receive a notification in Lightning Experience.

Request an Account Data Assessment in Lightning Experience

Start making informed decisions about the quality of your account data—use Lightning Experience to request a Data.com Clean data assessment. Previously, you could request a data assessment only by using Salesforce Classic. The assessment summarizes overall data quality for your accounts and provides an analysis of key account fields. It doesn’t change data in your org. Data assessments are available for orgs in the United States and Canada.

Request your data assessment by activating a Data.com Clean rule.

Note: If you have a Data.com Clean license and you use Clean jobs, we recommend using the free AppExchange package Data.com Clean Reports instead of requesting a data assessment.

1. From Setup, enter Clean Rules in the Quick Find box, then select Clean Rules.
2. Activate the Company Info for Accounts rule.
   Activating the rule requires agreeing to the terms of the data assessment agreement.

Important: If your org has 100 or fewer accounts, no notification is sent when the assessment is ready.

If your org has more than 100 accounts, when your assessment is ready, Salesforce notifies you by email and in Lightning Experience.
The assessment can take 24 hours or more, depending on the size of your org. When it’s ready, view it at any time by going to the App Launcher in Lightning Experience and selecting the Data Assessment app.

To share the assessment with others in your org, give them the Data Assessment permission.

SEE ALSO:
- Lightning Experience Features in This Release

When Your Data Assessment Is Complete, You Get an Email

If you have more than 100 account records in your org, now we email you a notification when a data assessment you’ve requested is complete. Previously, notifications weren’t emailed. You still receive a notification in Lightning Experience.

SEE ALSO:
- How to Read Your Account Data Assessment
- Lightning Experience Features in This Release

Productivity Features: Help Sales Reps Do More with Lightning Experience

Get your reps to spend time wisely on the things that help them keep their deals moving. Create tasks and events from Assistant recommendations, use more Voice features, and take advantage of the Kanban-style visual layout to help reps stay focused on the important things for closing deals fast.

IN THIS SECTION:
- Home: Do More with the Assistant
  The Assistant features more relevant, actionable updates. Your sales reps can act directly on different recommendations, including sending an email or creating a task or event. Sales reps can also dismiss recommendations that aren’t relevant. This feature is available in Lightning Experience only.
- Lightning Voice: More New Calling Features
  We’ve added a ton of new features to Voice, including new ways to make calls and call forwarding. Beginning with the Winter ’17 release, Lightning Voice is available only through the utility bar, so an additional task is required to continue using this feature. This feature is available in Lightning Experience only.
- Email: Easily Respond to Emails in Lightning Experience
  For orgs that use Enhanced Email, we’ve made it even easier to be productive with email in Salesforce by letting you respond to emails when and where you need to. Plus, we increased the daily org limits for sending emails with the API.
- Activities: Review Just the Activities You Need in Lightning Experience
  It’s easier than ever before for your sales reps to find the activities most relevant to them with the ability to filter the activity timeline and find tasks and events in global search. Improvements to the calendar make it easier for reps to manage their time.
List Views: Get the Job Done Quicker with Inline Edit and Mass Actions in Lightning Experience
Reps can get more done with fewer clicks when working from list views. Edit fields inline, or select multiple records to do a mass action. Quickly add members to a campaign, accept leads from a queue, or even run a custom Visualforce action with the click of a button.

Kanban: Track and Manage Leads, Contracts, and Campaigns Visually
Sales reps can more effectively monitor their progress with leads, contracts, and campaigns using the same Kanban-style visual layout they use for their opportunities. This feature is available in Lightning Experience only.

Home: Do More with the Assistant
The Assistant features more relevant, actionable updates. Your sales reps can act directly on different recommendations, including sending an email or creating a task or event. Sales reps can also dismiss recommendations that aren’t relevant. This feature is available in Lightning Experience only.

IN THIS SECTION:

Take Action in the Assistant
To give your sales reps more bang for their buck, we’ve added relevant actions to recommendations. For example, if a sales rep receives an update that an opportunity doesn’t have any open activity, the rep can create a task or event directly from the recommendation. This feature is available in Lightning Experience only.

Dismiss Unhelpful Recommendations
Your sales reps can easily dismiss recommendations that aren’t relevant. This feature is available in Lightning Experience only.

Take Action in the Assistant
To give your sales reps more bang for their buck, we’ve added relevant actions to recommendations. For example, if a sales rep receives an update that an opportunity doesn’t have any open activity, the rep can create a task or event directly from the recommendation. This feature is available in Lightning Experience only.

The actions that appear depend on the type of recommendation. The available actions include:

- Create a task
- Create an event
- Edit an opportunity
- Send an email

After an action is completed, the related recommendation is removed from the Assistant.

Dismiss Unhelpful Recommendations
Your sales reps can easily dismiss recommendations that aren’t relevant. This feature is available in Lightning Experience only.
Click to dismiss a recommendation. After all the available cards are removed, the Assistant refreshes and checks for more available recommendations.

Lightning Voice: More New Calling Features

We’ve added a ton of new features to Voice, including new ways to make calls and call forwarding. Beginning with the Winter ’17 release, Lightning Voice is available only through the utility bar, so an additional task is required to continue using this feature. This feature is available in Lightning Experience only.

Note: For now, we support outgoing calls to the U.S. and Canada only.

IN THIS SECTION:

Access Voice from the Utility Bar
To continue using Lightning Voice, admins must use the App Manager to make the feature available from the utility bar at the bottom of the page. The utility bar gives your sales reps quick access to commonly used tools. This feature is available in Lightning Experience only.

Make Calls with Your Keyboard or the Virtual Dial Pad
Your sales reps no longer need to have a phone number associated with a record to place a Voice call. They can use the keyboard or the virtual dial pad to enter phone numbers or extensions. This feature is available in Lightning Experience only.

Easily Access Call History
It’s easier than ever for your sales reps to access the numbers that they interact with most. This feature is available in Lightning Experience only.

Handle Missed Calls with Notifications and Call Forwarding
No need to worry about missed calls! Sales reps are now notified about them. They can also forward calls to their mobile number to guarantee that they never miss that big sales call. This feature is available in Lightning Experience only.

Access Voice from the Utility Bar
To continue using Lightning Voice, admins must use the App Manager to make the feature available from the utility bar at the bottom of the page. The utility bar gives your sales reps quick access to commonly used tools. This feature is available in Lightning Experience only.
1. From Setup, enter **App Manager** in the **Quick Find** box, then select **App Manager**.

2. Edit an existing Lightning app or click **New Lightning App**. You can also upgrade a custom Classic app to a Lightning app. If available, the Lightning Sales app contains numerous options preconfigured for sales users.

3. On the App Options tab, select **Lightning Voice**.

4. On the Assign to User Profiles tab, make the app available to relevant user profiles.

5. Verify the other app details, including the app name, branding information, and available menu items.

6. Save your changes.

   To verify your changes, click the App Launcher and select the app that has Lightning Voice enabled.

   Notify your users about how to now access Lightning Voice. This notification is especially important if Voice isn’t available in their most commonly used app.

   For more information about the App Manager, see Meet the Lightning Experience App Manager.

**Make Calls with Your Keyboard or the Virtual Dial Pad**

Your sales reps no longer need to have a phone number associated with a record to place a Voice call. They can use the keyboard or the virtual dial pad to enter phone numbers or extensions. This feature is available in Lightning Experience only.
Your reps can click the dial pad box while on a call to toggle between the dial pad and call notes.

Easily Access Call History

It's easier than ever for your sales reps to access the numbers that they interact with most. This feature is available in Lightning Experience only.

Your reps can see their recent incoming and outgoing calls, and also see all their missed calls in one place. Click the name of a record to see the detail page, or click to place a call.
Handle Missed Calls with Notifications and Call Forwarding

No need to worry about missed calls! Sales reps are now notified about them. They can also forward calls to their mobile number to guarantee that they never miss that big sales call. This feature is available in Lightning Experience only.

Missed call alerts appear in the Notifications drop-down.

Your sales reps can also enter a forwarding number so they never miss calls. We recommend that they use their mobile numbers or main business lines. To provide a forwarding number, from Personal Settings, enter My Voice Settings in the Quick Find box, and select My Voice Settings.
When enabled, sales reps receive calls simultaneously in their browser and on their forwarding number.

Email: Easily Respond to Emails in Lightning Experience

For orgs that use Enhanced Email, we’ve made it even easier to be productive with email in Salesforce by letting you respond to emails when and where you need to. Plus, we increased the daily org limits for sending emails with the API.

IN THIS SECTION:

Reply to and Forward Emails Right from Salesforce

After reading an email, you often want to respond right away. Now you can. Just click Reply, Reply All, or Forward from the email detail page or activity timeline. It's as easy as...sending an email. These options are only available to organizations using Enhanced Email, which is automatically enabled for most customers. This feature is available in Lightning Experience only.

Daily Org Limits for Sending Emails with the API Have Increased

Using the Salesforce API or Apex, you can now send single emails to 5,000 external email addresses per day based on Greenwich Mean Time (GMT). You can also send mass email to 5,000 external email addresses per day per org. The maximum number of external email addresses is no longer based on your Salesforce edition. You can use your remaining daily balance of external email addresses in as many mass emails as you’d like, regardless of your edition. This feature is available in both Lightning Experience and Salesforce Classic.

Reply to and Forward Emails Right from Salesforce

After reading an email, you often want to respond right away. Now you can. Just click Reply, Reply All, or Forward from the email detail page or activity timeline. It's as easy as...sending an email. These options are only available to organizations using Enhanced Email, which is automatically enabled for most customers. This feature is available in Lightning Experience only.
Here’s a few things to know about how replying and forwarding works.

- You can’t forward email attachments sent in Salesforce Classic in Lightning Experience.
- When forwarding emails, the most recent version of the file is attached rather than the version sent in the original email.

### Daily Org Limits for Sending Emails with the API Have Increased

Using the Salesforce API or Apex, you can now send single emails to 5,000 external email addresses per day based on Greenwich Mean Time (GMT). You can also send mass email to 5,000 external email addresses per day per org. The maximum number of external email addresses is no longer based on your Salesforce edition. You can use your remaining daily balance of external email addresses in as many mass emails as you’d like, regardless of your edition. This feature is available in both Lightning Experience and Salesforce Classic.

Emails sent using the Salesforce email author or composer don’t count toward this limit. There’s no limit on sending individual emails to contacts, leads, person accounts, and users in your org directly from account, contact, lead, opportunity, case, campaign, or custom object pages.

### Activities: Review Just the Activities You Need in Lightning Experience

It’s easier than ever before for your sales reps to find the activities most relevant to them with the ability to filter the activity timeline and find tasks and events in global search. Improvements to the calendar make it easier for reps to manage their time.

**IN THIS SECTION:**

- **Filter the Activity Timeline**
  Your sales reps can now filter the activity timeline to show the content that’s most relevant to them. Want to quickly see all the emails that you’ve exchanged over the last 7 days? Use the filter settings to see only the activities you want in a snap. This feature is available in Lightning Experience only.

- **Personalize Calendars with Different Colors**
  Want to change the color of different calendars to suit a business practice or personal preference? Now you can! Choose a color, or create your own, and even add a texture to your calendars. This feature is available in Lightning Experience only.

- **See a Monthly View of Your Calendar Events**
  Your sales reps can see all their calendar events for the month in Lightning Experience. This feature is available in Lightning Experience only.

- **Cloud Scheduler is Being Retired**
  Cloud Scheduler is beginning phased retirement in Winter ’17. This feature is available in Salesforce Classic only.
Filter the Activity Timeline

Your sales reps can now filter the activity timeline to show the content that’s most relevant to them. Want to quickly see all the emails that you’ve exchanged over the last 7 days? Use the filter settings to see only the activities you want in a snap. This feature is available in Lightning Experience only.

Sales reps can filter by activity type and date range.

The default setting displays all activity types over all time.

Personalize Calendars with Different Colors

Want to change the color of different calendars to suit a business practice or personal preference? Now you can! Choose a color, or create your own, and even add a texture to your calendars. This feature is available in Lightning Experience only.
See a Monthly View of Your Calendar Events

Your sales reps can see all their calendar events for the month in Lightning Experience. This feature is available in Lightning Experience only.

Cloud Scheduler is Being Retired

Cloud Scheduler is beginning phased retirement in Winter ’17. This feature is available in Salesforce Classic only.

⚠️ Important: Cloud Scheduler is unavailable in Salesforce orgs created in Winter ’17 or later. If you enabled Cloud Scheduler before Winter ’17, it remains available in your org until Winter ’18. However, if you remove the New Meeting Request button, you can’t add it back.

For more information, see Cloud Scheduler to begin phased retirement with Winter ’17.

List Views: Get the Job Done Quicker with Inline Edit and Mass Actions in Lightning Experience

Reps can get more done with fewer clicks when working from list views. Edit fields inline, or select multiple records to do a mass action. Quickly add members to a campaign, accept leads from a queue, or even run a custom Visualforce action with the click of a button.
IN THIS SECTION:

**Optimize Clicks and Time by Editing Inline (Beta)**
Your reps breeze through record updates in Lightning Experience with Lightning Edit in list views. Reps can modify a record without opening it, right from the list view. Even better, they can save multiple records at once. This feature is available in both Lightning Experience and Salesforce Classic.

**Quickly Add Multiple Members to a Campaign**
A campaign without members is like a fan club without fans. Sad. So add campaign members in bulk from list views and watch your campaigns shine. This feature is available in both Lightning Experience and Salesforce Classic.

**Take Ownership of Multiple Leads at Once**
If you use queues to prioritize and assign leads among team members, your reps can now take ownership of multiple leads from the queue at once. This feature is available in both Lightning Experience and Salesforce Classic.

**Run a Custom Mass Action on Multiple Records**
Remember those brilliant custom buttons that you created in Salesforce Classic by using Visualforce? With the ability to select multiple records in a Lightning Experience list view, those buttons take on new life. Watch your reps’ productivity soar when they click a button to perform a custom mass action on several records at once. This feature is available in both Lightning Experience and Salesforce Classic.

**List Views No Longer Available for People and Reports**
We removed list view support for the People and Reports items in Lightning Experience and Salesforce1. It was available due to a bug, which has now been fixed.

---

**Optimize Clicks and Time by Editing Inline (Beta)**
Your reps breeze through record updates in Lightning Experience with Lightning Edit in list views. Reps can modify a record without opening it, right from the list view. Even better, they can save multiple records at once. This feature is available in both Lightning Experience and Salesforce Classic.

**Important:** This release contains a beta version of Lightning Edit that’s production-quality but has known limitations.

For example, a rep can update the lead status on a group of records in a Leads list view. Reps can edit only one field at a time in a list view, but they can save changes to fields on multiple records at once.

Most standard and custom fields are editable inline. For fields that aren’t editable, the lock (🔒) appears in the cell.

No special permissions are required for inline edit. But as always, reps can edit only the records that they have access to.

---

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>All Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPPORTUNITY NAME</strong></td>
<td><strong>ACCOUNT NAME</strong></td>
</tr>
<tr>
<td>1</td>
<td>Acme - 1,200 Widgets</td>
</tr>
<tr>
<td>2</td>
<td>Acme - 200 Widgets</td>
</tr>
<tr>
<td>3</td>
<td>Acme - 800 Widgets</td>
</tr>
<tr>
<td>4</td>
<td>Global Media - 400 Widgets</td>
</tr>
<tr>
<td>5</td>
<td>salesforce.com - 1,000 Widgets</td>
</tr>
</tbody>
</table>
Note: Editing inline is different from doing a "mass action." Both are done from list views, and both are efficient. But with inline editing, you're saving a change to fields on one or more records. A mass action is selecting records and then clicking a button to do something with those records—for example, add them to a campaign.

Limitations in This Beta Release

Reps can't edit inline in a list view if:

- The list view contains more than one record type.
- The list view uses filter logic that contains OR clauses.
- The list view contains lookup or dependent picklist fields.

Reps can edit inline in Recently Viewed or Team list views that are predefined to contain only one record type. They can also edit Tasks on the Tasks object home page, even though they're not in a list view.

Quickly Add Multiple Members to a Campaign

A campaign without members is like a fan club without fans. Sad. So add campaign members in bulk from list views and watch your campaigns shine. This feature is available in both Lightning Experience and Salesforce Classic.

From lead and contact list views, reps can use the Add to Campaign button to effortlessly add up to 200 members at a time. As with Salesforce Classic, reps must assign a status to new members and can choose whether to also give the status to existing members.

Take Ownership of Multiple Leads at Once

If you use queues to prioritize and assign leads among team members, your reps can now take ownership of multiple leads from the queue at once. This feature is available in both Lightning Experience and Salesforce Classic.

From the queue list view, your reps can select all the leads their hearts desire (up to 200). When they click Accept, they're committed and those leads become theirs. The Lead Owner field is changed to the user who accepted the lead. With fewer clicks to make, your reps can get cracking on those leads.
Run a Custom Mass Action on Multiple Records

Remember those brilliant custom buttons that you created in Salesforce Classic by using Visualforce? With the ability to select multiple records in a Lightning Experience list view, those buttons take on new life. Watch your reps’ productivity soar when they click a button to perform a custom mass action on several records at once. This feature is available in both Lightning Experience and Salesforce Classic.

List Views No Longer Available for People and Reports

We removed list view support for the People and Reports items in Lightning Experience and Salesforce1. It was available due to a bug, which has now been fixed.

REST API queries for list views on User and Report objects, such as /services/data/v38.0/objects/User/listviews/, are also not supported.

Kanban: Track and Manage Leads, Contracts, and Campaigns Visually

Sales reps can more effectively monitor their progress with leads, contracts, and campaigns using the same Kanban-style visual layout they use for their opportunities. This feature is available in Lightning Experience only.

To access the Kanban view, select Kanban from the Display menu. If the list view you’re viewing includes multiple record types, filter for a single record type to load your records in the Kanban view.
IN THIS SECTION:

Get Prompted to Update Required Fields from the Kanban View
Required fields aren’t blockers anymore. Now reps can fill in fields required to move a record to a different stage or status from within the Kanban view.

Modify Records from the Kanban View
Everybody hates a detour. Great news: Now you reps can edit or delete records from the Kanban view. This feature is available in Lightning Experience only.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Get Prompted to Update Required Fields from the Kanban View
Required fields aren’t blockers anymore. Now reps can fill in fields required to move a record to a different stage or status from within the Kanban view.

When reps try to move a card to a stage or status that requires different fields or more fields, they’re prompted to complete the fields that are empty.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience
Modify Records from the Kanban View

Everybody hates a detour. Great news: Now you reps can edit or delete records from the Kanban view. This feature is available in Lightning Experience only.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience

Google Integration: Sync Google Calendar™ Events to Salesforce Without Installing Software (Beta)

Do your sales reps wish there was an easy way to get their Google Calendar events into Salesforce without all that boring data entry? Look no further. Lightning Sync is compatible with Google Calendar, so you can set up sales reps to get important appointments into Salesforce effortlessly. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

Sync Appointments from Google Calendar™ to Salesforce (Beta)

When you set up your sales reps’ Google Calendar events to sync to Salesforce, you increase your reps’ productivity. That’s because reps aren’t required to maintain events in two different applications. You also increase Salesforce adoption, because reps can do more with events from Salesforce. For example, reps can track relevant events on Salesforce records and share those details with colleagues easily. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Sync Appointments from Google Calendar™ to Salesforce (Beta)

When you set up your sales reps’ Google Calendar events to sync to Salesforce, you increase your reps’ productivity. That’s because reps aren’t required to maintain events in two different applications. You also increase Salesforce adoption, because reps can do more with events from Salesforce. For example, reps can track relevant events on Salesforce records and share those details with colleagues easily. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Set up Lightning Sync for Google with some help from the Google administrator or IT pros at your company.
First, your Google administrator prepares your Google account to connect with Salesforce. Then you define your reps’ sync experience by selecting sync settings. For example, you can choose to sync events reps mark as private or to automatically remove events in Salesforce that your users delete from their calendars.

Keep in mind that for now, Lightning Sync for Google doesn’t:

- Sync contacts
- Sync events from Salesforce to Google Calendar
- Sync recurring events
- Sync details about event invitees
- Sync Available or Busy status on events
- Let you edit which Google event fields map to Salesforce events fields

Learn more about setting up Lightning Sync for Google from the Salesforce Help.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Microsoft® Integration: Sync and Work Between Microsoft Systems and Salesforce

Help your sales reps be their most productive by integrating the work they do between Microsoft systems and Salesforce. Let reps sync contacts, events, and tasks between their email application and Salesforce. Or set up reps to experience Salesforce directly from Outlook®.

We’re also introducing Skype for Salesforce (Beta), which lets users work with Skype directly from Salesforce.

IN THIS SECTION:

Lightning for Outlook: Customize What Your Sales Reps See and Leverage Salesforce Security Features
Help sales reps get more work done without switching between Outlook and Salesforce. Customize the Salesforce content that your reps see and work with by giving reps access to custom components from Lightning for Outlook. As always, don’t forget that because Lightning for Outlook doesn’t require customers to install software to maintain it, every release you have access to the latest features and bug fixes automatically. This feature is available to be managed from both Lightning Experience and Salesforce Classic.

Lightning Sync for Microsoft® Exchange: Introducing Compatibility for More Customers and Ways to Set Up Faster and Track Events Automatically
Help your sales reps sync contacts and events between their Microsoft Exchange-based email and Salesforce without requiring reps to install and maintain software. We’re adding more Salesforce compatibility so more reps can take advantage of Lightning Sync. In addition, you can set up faster, and your sales reps can relate their Microsoft events easily. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Salesforce for Outlook: Work with Your Recurring Event Series Directly from Microsoft® Outlook®
As always, we’re investing in new features and making continuous improvements to our most established Microsoft integration product. Example? Make your sales reps’ day by telling them that they can work with recurring events directly from the Salesforce Side Panel. Go on, test it out. You can manage Salesforce for Outlook from both Lightning Experience and Salesforce Classic.

Skype for Salesforce (Beta)
Help your sales reps stay in touch using Skype without switching between applications: Set up your reps to Skype colleagues directly from Salesforce. This feature requires a Skype for Business Online license. This feature is available in Lightning Experience only.
Other Changes in Microsoft® Integration

Look out for these other changes happening in Microsoft integration. And if your business has a Skype for Business online license, explore our beta feature that lets you integrate Skype with Salesforce. That way, your users can start chats and make audio and video calls directly from Salesforce.

Lightning for Outlook: Customize What Your Sales Reps See and Leverage Salesforce Security Features

Help sales reps get more work done without switching between Outlook and Salesforce. Customize the Salesforce content that your reps see and work with by giving reps access to custom components from Lightning for Outlook. As always, don’t forget that because Lightning for Outlook doesn’t require customers to install software to maintain it, every release you have access to the latest features and bug fixes automatically. This feature is available to be managed from both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

Lightning for Outlook and Shield Platform Encryption Play Well Together

Lightning for Outlook is available to customers using Shield Platform Encryption. Sales reps without the “View Encrypted Data” permission enabled don’t always see records with encrypted fields that are related to their emails and calendar events from Lightning for Outlook.

Put Your Own Spin on Lightning for Outlook (Beta)

Do your sales teams want to zero in on records other than accounts, contacts, opportunities, leads, or cases? Are they eager to work with functionality that your company customized? Make Lightning for Outlook more relevant for sales reps by selecting the kinds of Salesforce records reps see and work with when they’re in Microsoft® Outlook®.

Lightning for Outlook and Shield Platform Encryption Play Well Together

Lightning for Outlook is available to customers using Shield Platform Encryption. Sales reps without the “View Encrypted Data” permission enabled don’t always see records with encrypted fields that are related to their emails and calendar events from Lightning for Outlook.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience

Put Your Own Spin on Lightning for Outlook (Beta)

Do your sales teams want to zero in on records other than accounts, contacts, opportunities, leads, or cases? Are they eager to work with functionality that your company customized? Make Lightning for Outlook more relevant for sales reps by selecting the kinds of Salesforce records reps see and work with when they’re in Microsoft® Outlook®.

Note: This release contains a beta version of Email Application Panes, which means it’s a high-quality feature with known limitations. 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. You can provide feedback and suggestions for email application panes in the IdeaExchange or the Lightning for Outlook group in the Success Community.

Set up your reps with customized email application panes using App Builder. Add standard components that your reps use most, like accounts, contacts, or cases. Or work with your Salesforce developers to include custom components that reflect your company’s industry or brand. You can also leverage awesome components you find on AppExchange.
From App Builder, drag and drop the standard or custom components that you want users to work with, or change component properties. You can also rearrange components so reps can focus on the most important things first.

When you’re finished, roll out email application panes to reps by assigning them to the right user profiles. Create multiple panes and assign them to different user profiles to give team members in unique roles different experiences.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Lightning Sync for Microsoft® Exchange: Introducing Compatibility for More Customers and Ways to Set Up Faster and Track Events Automatically

Help your sales reps sync contacts and events between their Microsoft Exchange-based email and Salesforce without requiring reps to install and maintain software. We’re adding more Salesforce compatibility so more reps can take advantage of Lightning Sync. In addition, you can set up faster, and your sales reps can relate their Microsoft events easily. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

IN THIS SECTION:
Professional Edition: Getting Sync-y with It
If you’re working from Salesforce Professional Edition, you can sync your users’ contacts and events between your company’s email server and Salesforce. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Lightning Sync and Shield Platform Encryption Play Well Together
Lightning Sync is now compatible with Shield Platform Encryption, for users with the “View Encrypted Data” permission. Previously, we prevented organizations using Platform Encryption from running Lightning Sync. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Connect Microsoft® Exchange to Salesforce Securely and Easily
In addition to the old service account stand-by, we’re introducing an OAuth 2.0 connection method option. OAuth 2.0 requires a Microsoft Office 365® account, but if you’ve got that, the rest is a breeze. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Automatically Relate Sales Reps’ Calendar Events to the Most Relevant Salesforce Contacts or Leads
Help sales managers get a 360-degree view of their reps’ sales appointments, and maybe even help reps cut out of the office a little early: Set up Lightning Sync to review reps’ calendars and intelligently relate important events to the appropriate Salesforce contacts or leads—automatically. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

Professional Edition: Getting Sync-y with It
If you’re working from Salesforce Professional Edition, you can sync your users’ contacts and events between your company’s email server and Salesforce. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience
Lightning Sync and Shield Platform Encryption Play Well Together

Lightning Sync is now compatible with Shield Platform Encryption, for users with the “View Encrypted Data” permission. Previously, we prevented organizations using Platform Encryption from running Lightning Sync. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Connect Microsoft® Exchange to Salesforce Securely and Easily

In addition to the old service account stand-by, we’re introducing an OAuth 2.0 connection method option. OAuth 2.0 requires a Microsoft Office 365® account, but if you’ve got that, the rest is a breeze. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.

What’s so great about OAuth 2.0? Well for starters, we’ve heard that some companies prefer it, because it doesn’t require you to save Microsoft Exchange credentials in Salesforce. Second, setup is no big deal at all.

To get started, select OAuth 2.0 for Microsoft Exchange as your preferred connection method from Lightning Sync Setup.

As you step through the process, we direct your to Office 365, where your global administrator can help you log in to your company’s account. After you accept Lightning Sync access in Office 365, you’re directed back to Lightning Sync Setup, where your Microsoft Azure™ Active Directory® tenant ID is stored for you. Click enable and you’re good to go.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Automatically Relate Sales Reps’ Calendar Events to the Most Relevant Salesforce Contacts or Leads

Help sales managers get a 360-degree view of their reps’ sales appointments, and maybe even help reps cut out of the office a little early: Set up Lightning Sync to review reps’ calendars and intelligently relate important events to the appropriate Salesforce contacts or leads—automatically. You can manage Lightning Sync from both Lightning Experience and Salesforce Classic.
From your reps’ sync configurations in Salesforce, select **Automatically relate Exchange events to Salesforce records**.

After saving the sync configuration, Lightning Sync relates events from your reps’ calendars to relevant Salesforce contacts. If there are no relevant contacts, Lightning Sync relates events to one relevant lead.

If your reps are also Lightning for Outlook users, while we’re at it: Set up reps so that events they relate to Salesforce sync, too. That’s one more way to make sure that reps aren’t required to maintain events in both systems.

**SEE ALSO:**

- Lightning Experience: A Modern and Intelligent User Experience

### Salesforce for Outlook: Work with Your Recurring Event Series Directly from Microsoft® Outlook®

As always, we’re investing in new features and making continuous improvements to our most established Microsoft integration product. Example? Make your sales reps’ day by telling them that they can work with recurring events directly from the Salesforce Side Panel. Go on, test it out. You can manage Salesforce for Outlook from both Lightning Experience and Salesforce Classic.

To have access to this feature and our latest bug fixes, make sure your reps upgrade to our latest version, Salesforce for Outlook v3.2.0.

**IN THIS SECTION:**

- **Critical Upgrade Required for Salesforce for Outlook Users**
  - Prepare your computing systems to continue using Salesforce for Outlook after Salesforce disables TLS 1.0 encryption protocol.
  - Salesforce is disabling TLS 1.0 on a rolling schedule, ending in March 2017. In addition to the precautions required to prepare for Salesforce-wide disablement, customers using Salesforce for Outlook v2.9.3 and earlier must upgrade to the latest version to avoid service disruptions.
  - **Say Hello to Recurring Events in the Salesforce Side Panel**
    - Sales reps can view recurring events and relate them to Salesforce records from the Salesforce side panel.
  - **Retiring Support for Microsoft® Outlook® 2007 and Microsoft Exchange 2007**
    - When Microsoft retires support for Outlook 2007 and Exchange 2007 (scheduled for April 2017), Salesforce is ending support as well.

### Critical Upgrade Required for Salesforce for Outlook Users

Prepare your computing systems to continue using Salesforce for Outlook after Salesforce disables TLS 1.0 encryption protocol. Salesforce is disabling TLS 1.0 on a rolling schedule, ending in March 2017. In addition to the precautions required to prepare for Salesforce-wide disablement, customers using Salesforce for Outlook v2.9.3 and earlier must upgrade to the latest version to avoid service disruptions.

In addition to upgrading your users, follow the requirements described in the article “Prepare Your Org to Continue Using Salesforce for Outlook After TLS 1.0 Disablement” in the Salesforce Help to make sure you’ve covered your bases.
If you enable the Critical Update Console (CRUC) setting to test whether your computing systems are ready for TLS 1.0 disablement, Salesforce for Outlook doesn’t work for users on Salesforce for Outlook v2.9.3 and earlier. The product does work for users on Salesforce for Outlook v3.0.0 or later.

SEE ALSO:
- Knowledge Article: Prepare Your Org to Continue Using Salesforce for Outlook After TLS 1.0 Disablement
- Knowledge Article: TLS 1.0 Disablement Critical Update Console (CRUC) Setting
- Knowledge Article: Salesforce Disabling TLS 1.0
- Lightning Experience: A Modern and Intelligent User Experience

Say Hello to Recurring Events in the Salesforce Side Panel
Sales reps can view recurring events and relate them to Salesforce records from the Salesforce side panel.
When reps select a recurring event from their Outlook calendar, the side panel shows Salesforce records already related to the recurring event. Reps can also relate the Outlook recurring event to Salesforce records directly from the side panel.

SEE ALSO:
- Lightning Experience: A Modern and Intelligent User Experience

Retiring Support for Microsoft® Outlook® 2007 and Microsoft Exchange 2007
When Microsoft retires support for Outlook 2007 and Exchange 2007 (scheduled for April 2017), Salesforce is ending support as well. To continue using Salesforce for Outlook, start migrating your sales reps to supported versions of Outlook and Exchange.

SEE ALSO:
- Salesforce Help: Salesforce for Outlook System Requirements(can be outdated or unavailable during release preview)
- Lightning Experience: A Modern and Intelligent User Experience

Skype for Salesforce (Beta)
Help your sales reps stay in touch using Skype without switching between applications: Set up your reps to Skype colleagues directly from Salesforce. This feature requires a Skype for Business Online license. This feature is available in Lightning Experience only.

IN THIS SECTION:
- Use Skype for Business® Chat, Video Calling, and Audio Calling in Salesforce (Beta)
Use Skype for Business® Chat, Video Calling, and Audio Calling in Salesforce (Beta)

You can get your reps started with Skype for Salesforce by selecting Enable Skype Presence and Chat from the Skype for Salesforce page in Setup.

After you’ve enabled Skype for Salesforce, reps see a banner prompting them to log in to Skype for Business. After reps log in, they can see whether colleagues are available to talk by hovering over the Salesforce user’s name.

From there, reps can kick off a Skype chat, audio, or video call with the Salesforce user.

Note: Sales reps can chat using Skype for Salesforce on any supported browsers for Lightning Experience. Reps can make audio and video calls using Skype for Salesforce from Microsoft Edge or Apple Safari® only.

To learn more about setting up Skype for Salesforce, see “Enable Skype for Salesforce” in the Salesforce Help.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience
Enable Skype for Salesforce
Other Changes in Microsoft® Integration

Look out for these other changes happening in Microsoft integration. And if your business has a Skype for Business online license, explore our beta feature that lets you integrate Skype with Salesforce. That way, your users can start chats and make audio and video calls directly from Salesforce.

IN THIS SECTION:

Verify Your Security Protocol to Avoid Service Interruptions

Prepare your computing systems to continue using Lightning for Outlook, Lightning Sync, or Salesforce for Outlook after Salesforce disables TLS 1.0 encryption protocol. Salesforce is disabling TLS 1.0 on a rolling schedule, ending in March 2017. In addition to the precautions required to prepare for Salesforce-wide disablement, customers using Microsoft integration products must take additional precautions to avoid service disruptions.

Connect for Office Microsoft® Excel Add-On: No Longer Supported Starting in March 2017

After Salesforce disables TLS 1.0 in March 2017, Salesforce will discontinue support for the Connect for Office Microsoft Excel Add-On. The Excel Add-On is the installable feature that lets reps view and update Salesforce reports from Microsoft Excel.

Connect for Office Microsoft® Word Add-On and Standard Mail Merge: No Longer Supported Starting in March 2017

After Salesforce disables TLS 1.0 in March 2017, Salesforce will discontinue support for the Connect for Office Microsoft Word Add-On and standard mail merge. That includes the functionality that lets sales reps create mail merge templates directly from Microsoft Word.

Verify Your Security Protocol to Avoid Service Interruptions

Prepare your computing systems to continue using Lightning for Outlook, Lightning Sync, or Salesforce for Outlook after Salesforce disables TLS 1.0 encryption protocol. Salesforce is disabling TLS 1.0 on a rolling schedule, ending in March 2017. In addition to the precautions required to prepare for Salesforce-wide disablement, customers using Microsoft integration products must take additional precautions to avoid service disruptions.

To prepare your Microsoft integration features for TLS 1.0 disablement, review our product-specific articles and follow the requirements described there.

As of Winter ’17, you can use the Critical Update Console setting to test whether your system is ready to continue using Lightning for Outlook and Lightning Sync after TLS 1.0 disablement. We recommend that you test your TLS 1.0 disablement readiness for more than 24 hours—it can take 24 hours for Lightning for Outlook to respond to the setting.

For Salesforce for Outlook users, if you enable the Critical Update Console (CRUC) setting to test whether your computing systems are ready for TLS 1.0 disablement, Salesforce for Outlook doesn’t work for users on Salesforce for Outlook v2.9.3 and earlier. The product does work for users on Salesforce for Outlook v3.0.0 or later.

SEE ALSO:

Knowledge Article: TLS 1.0 Disablement Critical Update Console (CRUC) Setting
Knowledge Article: Prepare Your Org to Continue Using Lightning for Outlook and Lightning Sync After TLS 1.0 Disablement
Knowledge Article: Prepare Your Org to Continue Using Salesforce for Outlook After TLS 1.0 Disablement
Knowledge Article: Salesforce Disabling TLS 1.0
Lightning Experience: A Modern and Intelligent User Experience
Connect for Office Microsoft® Excel Add-On: No Longer Supported Starting in March 2017

After Salesforce disables TLS 1.0 in March 2017, Salesforce will discontinue support for the Connect for Office Microsoft Excel Add-On. The Excel Add-On is the installable feature that lets reps view and update Salesforce reports from Microsoft Excel.

You can set up your reps to continue working with Salesforce reports from Microsoft Excel by migrating to a comparable feature offered by Salesforce AppExchange. We recommend some alternatives in the “End of Support for Excel Add-In from Connect for Office in March 2017” article in the Salesforce Help.

Reps can remove Connect for Office from their computing systems by uninstalling the feature.

SEE ALSO:
- Knowledge Article: End of Support for Excel Add-In from Connect for Office in March 2017
- Knowledge Article: Salesforce Disabling TLS 1.0
- Lightning Experience: A Modern and Intelligent User Experience

Connect for Office Microsoft® Word Add-On and Standard Mail Merge: No Longer Supported Starting in March 2017

After Salesforce disables TLS 1.0 in March 2017, Salesforce will discontinue support for the Connect for Office Microsoft Word Add-On and standard mail merge. That includes the functionality that lets sales reps create mail merge templates directly from Microsoft Word.

As a replacement, we encourage reps to transition to Extended Mail Merge. Extended mail merge is compatible with versions of TLS that Salesforce continues to support, like TLS 1.1 and higher.

Extended mail merge doesn’t create mail merge templates automatically. However, reps can generate mail merges using templates created previously using standard mail merge or create templates manually from Microsoft Word.

To get started with extended mail merge, call Salesforce Customer Support to enable the feature.

For benefits on migrating, check out the “End of Support for Connect for Office’s Word Add-In and Standard Mail Merge in March 2017” article in the Salesforce Help.

Reps can remove Connect for Office from their computing systems by uninstalling the feature.

SEE ALSO:
- Salesforce Help: Create Mail Merge Templates
- Knowledge Article: End of Support for Word Add-In from Connect for Office and Standard Mail Merge in March 2017
- Knowledge Article: Salesforce Disabling TLS 1.0
- Lightning Experience: A Modern and Intelligent User Experience


Get more out of Pardot with a monthly report about your automation assets, A/B toggling for your marketing campaigns, and the ability to set a wait time on your triggers in Engagement Studio. Prospect List reporting has also been improved, and there are more. This feature is available in Salesforce Classic only.

IN THIS SECTION:
- See Inactive Automation Processes with a New Monthly Report
  A new report alerts you to stale automation rules, drip and engagement programs, and dynamic lists.
Enable or Disable A/B Testing When Editing and Copying Emails
Toggle A/B testing on or off through the Basic Info dialog when creating or editing an email, and copy one or both versions when copying an A/B email.

Customize and Export Prospect List Data
Sort and rearrange the data in the Prospect List, and export the customized report.

Personalize Emails with New Assigned User Variable Tags
Leverage new variable tags that populate a prospect’s assigned user’s contact information for a more personalized email.

Prevent Cross-Site Scripting Attacks with Variable Tag Modifiers
Pardot asset creators can add modifiers to variable tags that reference prospect default and custom fields in Pardot marketing assets to prevent cross-site scripting.

Allow Multiple Prospects with the Same Email Address
Multiple prospects can have the same email address now that email is no longer the unique identifier in Pardot.

Create Automations Based on Public List Membership and Email Opens
New criteria let you build automations based on a prospect’s public list membership and prospect email opens.

Dive Deeper into the Data That Matters Most with Wave for B2B Marketing
Wave for B2B Marketing, a new Salesforce Wave Analytics app, gives marketers new insights into campaign performance, and aligns marketing and sales teams with a complete view of the business.

Salesforce Engage: Prospect List Customization, Editable Template Regions, Person Account Support
Salesforce Engage enhancements make creating and reporting on Engage emails better, and add support for person accounts.

Engagement Studio: Wait Time Option, Locking Programs
Engagement Studio enhancements make editing Engagement Programs worry-free, and add a new “Wait” time options for triggers.

SEE ALSO:
Salesforce Pardot Help: August New Feature Roundup
Shield Platform Encryption Supports the Pardot Connect Tool

See Inactive Automation Processes with a New Monthly Report
A new report alerts you to stale automation rules, drip and engagement programs, and dynamic lists.

The Monthly Inactive Automations Report email provides visibility into automations that haven’t been active in the last 30 days, and lets you pause or delete automations that aren’t providing value any longer. The report lists five inactive Drip and Engagement Programs, Automation Rules, and Dynamic Lists, and links to new table view that displays the full list of inactive assets.

The Monthly Inactive Automations Report is sent to the automation creator and all admins by default, but users can unmark Send monthly inactive automations report email in their notification preferences to stop receiving this email.

SEE ALSO:
Salesforce Pardot Help: Inactive Automations Report
Salesforce Pardot Help: August New Feature Roundup
Enable or Disable A/B Testing When Editing and Copying Emails

Toggle A/B testing on or off through the Basic Info dialog when creating or editing an email, and copy one or both versions when copying an A/B email.

A/B toggling allows marketers and admins to enable or disable A/B testing through the Basic Info dialog. A thumbnail preview and the subject line are displayed when disabling A/B testing to ensure confidence in selecting the correct version to keep.

Marketers also have more control when copying an A/B test, with the option to copy either version or keep both.

SEE ALSO:
- Salesforce Pardot Help: Using A/B Testing
- Salesforce Pardot Help: August New Feature Roundup

Customize and Export Prospect List Data

Sort and rearrange the data in the Prospect List, and export the customized report.

The improved Prospect List allows marketers to hide, display, resize, move, and sort columns, and export the custom table data to CSV. The Prospects not in Salesforce filter allows marketers to see which prospects are not syncing with leads or contacts in Salesforce.

SEE ALSO:
- Salesforce Pardot Help: Prospect List Overview

Personalize Emails with New Assigned User Variable Tags

Leverage new variable tags that populate a prospect’s assigned user’s contact information for a more personalized email.

We’ve added new variable tags for assigned user data. These variable tags don’t rely on the email sender’s information, so when a marketing user sends an email, they can include the name and contact information for the prospect’s assigned sales rep.

SEE ALSO:
- Salesforce Pardot Help: Variable Tags Overview

Prevent Cross-Site Scripting Attacks with Variable Tag Modifiers

Pardot asset creators can add modifiers to variable tags that reference prospect default and custom fields in Pardot marketing assets to prevent cross-site scripting.

Because of the way data is transmitted, malicious parties can inject potentially dangerous code into Pardot forms. These new modifiers escape field output and keep injected code from executing.

SEE ALSO:
- Salesforce Pardot Help: Variable Tag Modifiers
Allow Multiple Prospects with the Same Email Address

Multiple prospects can have the same email address now that email is no longer the unique identifier in Pardot.

Before, a prospect’s email address was the unique identifier in Pardot, which meant you couldn’t have more than one prospect with a single email address. Now, with Allow Multiple Prospects with the Same Email Address (AMPSEA), prospect records no longer need a unique email address.

AMPSEA is great for customers who sell multiple products and want to maintain separate or duplicate records for each product a customer is interested in. Having separate Pardot prospect records tied to an individual allows more accurate tracking and better targeted marketing interactions.

Note: For customers who purchase Pardot after June 14, 2016, AMPSEA is enabled by default.

Create Automations Based on Public List Membership and Email Opens

New criteria let you build automations based on a prospect’s public list membership and prospect email opens.

We’ve added new criteria that can be used with automation rules, segmentation rules, and dynamic lists. The Prospect public list opt-in status criterion lets you base automations on whether a prospect opts in or out of a public list from an Email Preference Center page. The Prospect email opens criterion makes it easier to keep your lists clean by letting you automate based on whether a prospect has opened any email within a specified number of days.

Dive Deeper into the Data That Matters Most with Wave for B2B Marketing

Wave for B2B Marketing, a new Salesforce Wave Analytics app, gives marketers new insights into campaign performance, and aligns marketing and sales teams with a complete view of the business.

Wave for B2B Marketing provides marketers with a consolidated view of the data that matters most to them — including lead volume, lead to opportunity conversion rates, pipeline velocity, and campaign ROI. Wave for B2B Marketing includes pre-built dashboards, and lets you pull in third-party data for even richer campaign insights.
Salesforce Engage: Prospect List Customization, Editable Template Regions, Person Account Support

Salesforce Engage enhancements make creating and reporting on Engage emails better, and add support for person accounts.

IN THIS SECTION:

Edit Template Regions in Engage Emails
Make sure Engage emails stay on-brand and render beautifully. Editable template regions let marketers designate which regions can be edited by sales users in Engage email templates.

Use Custom Date Ranges in Engage Reports
Custom date ranges in Engage reports allow sales reps to view the performance of their Engage emails over a specified period of time, and they can minimize the graph by toggling the chart icon to the left of the picker. The UI also has an updated look and feel.

Use Person Accounts with Salesforce Engage
Salesforce Engage is officially supported for customers using person accounts.

View Prospect Engagement History in Lightning Experience
The Engagement History Lightning component is an updated way for Lightning Experience users to view Pardot and Engage prospect activities in Salesforce.

SEE ALSO:
Salesforce Pardot Help: Setting Up Engage for Salesforce1

Edit Template Regions in Engage Emails
Make sure Engage emails stay on-brand and render beautifully: Editable template regions let marketers designate which regions can be edited by sales users in Engage email templates.

SEE ALSO:
Salesforce Pardot Help: Sending Engage Emails
Salesforce Pardot Help: Using Email Editor Content Regions

Use Custom Date Ranges in Engage Reports
Custom date ranges in Engage reports allow sales reps to view the performance of their Engage emails over a specified period of time, and they can minimize the graph by toggling the chart icon to the left of the picker. The UI also has an updated look and feel.

SEE ALSO:
Salesforce Pardot Help: Engage Reporting Overview
Use Person Accounts with Salesforce Engage
Salesforce Engage is officially supported for customers using person accounts.

SEE ALSO:
Salesforce Pardot Help: Setting Up Person Accounts for Pardot

View Prospect Engagement History in Lightning Experience
The Engagement History Lightning component is an updated way for Lightning Experience users to view Pardot and Engage prospect activities in Salesforce.

We’ve added the Engagement History Lightning component to help your sales reps understand prospect interactions like never before, allowing them to have more relevant conversations. Because this component is supported on Lightning App Builder, a prospect’s engagement history can be surfaced in any apps that allow adding custom lightning components. We’ve also made updates to the naming and grouping of prospect activities to simplify the user experience.

This component replaces the Pardot Activities Visualforce page in Lightning Experience.

SEE ALSO:
Salesforce Pardot Help: Engagement History for Lightning Reference
View Prospect Engagement History in Lightning Experience

Engagement Studio: Wait Time Option, Locking Programs
Engagement Studio enhancements make editing Engagement Programs worry-free, and add a new "Wait" time options for triggers.

IN THIS SECTION:
Hold All Prospects on a Trigger with a Wait Time Option
We’ve added a "Wait" time option to Engagement Studio triggers. This option allows marketers to hold all prospects on a trigger for a specified period of time before moving to the next step in the program. For example, you may want to send prospects an email every three days leading up to an event, whether or not they interact with the content.

Save Your Changes with Locking Programs
Engagement Studio programs now lock during editing, letting marketers be confident that their edits will be saved. Other users can view the program in read-only mode when the program is locked, and admins can override a locked program if needed.

Track and Report on Engagement Program Versions
We’ve added versioning to let marketers measure the impact of changes made to their Engagement Programs. Reporting has been updated to give you the flexibility to view version-specific statistics, and view the edit history of a program.

SEE ALSO:
Salesforce Pardot Help: Engagement Program FAQ
Track and Report on Engagement Program Versions
Hold All Prospects on a Trigger with a Wait Time Option

We’ve added a “Wait” time option to Engagement Studio triggers. This option allows marketers to hold all prospects on a trigger for a specified period of time before moving to the next step in the program. For example, you may want to send prospects an email every three days leading up to an event, whether or not they interact with the content.

Save Your Changes with Locking Programs

Engagement Studio programs now lock during editing, letting marketers be confident that their edits will be saved. Other users can view the program in read-only mode when the program is locked, and admins can override a locked program if needed.

SEE ALSO:
Salesforce Pardot Help: Multiple Users Editing Engagement Programs

Track and Report on Engagement Program Versions

We’ve added versioning to let marketers measure the impact of changes made to their Engagement Programs. Reporting has been updated to give you the flexibility to view version-specific statistics, and view the edit history of a program.

SEE ALSO:
Salesforce Pardot Help: Editing Engagement Programs
New Engagement Studio Enhancements: Program Locking and Versioning

Other Changes in the Sales Cloud

Learn about other changes we’ve made to improve usability.

IN THIS SECTION:
Sales Console Changes
You can now control whether list view hovers appear in your console.
Import My Accounts and Contacts Wizard Is Retired
The Import My Accounts and Contacts wizard is now unavailable. Remind your users to upload their data using the Data Import Wizard instead. For more information, see “Import My Accounts and Contacts Retirement in Winter ’17.” This change affects both Lightning Experience and Salesforce Classic.
Account Autofill Supports More Companies
When reps start typing a company in the Account Name field, we offer up suggestions, which helps them enter data quickly and without errors. We’ve increased the number of companies that are available with autofill, so reps are more likely to find the company they’re looking for. This feature is available in Lightning Experience only.
Name Fields in Rows Visible in Custom Report Types
Name values for rows that aren’t accessible based on sharing rules are now visible in custom report types. These rows are hidden only if the name values of the lookup rows don’t match the filter criteria.
Opportunities: Probability Field Editable in Lightning Experience
Opportunity owners can now manually edit the Probability field without switching to Salesforce Classic. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.
Contact Mailing Field Labels Changed in Lightning Experience to Match Salesforce Classic
Mailing address labels on contact records no longer differ in Salesforce Classic and Lightning Experience. For example, Mailing Street in Salesforce Classic appeared as Street in Lightning Experience. Now both interfaces use Mailing Street.

Recurring Events Start and End Field Labels Have Changed
We’ve changed some field labels on recurring events so it’s easier to tell those fields apart from the same fields on stand-alone events. For example, in Summer ’16, recurring event labels were “Start” and “End.” In Winter ’17, we changed the labels to “Recurring Start” and “Recurring End.” The API names for these labels (RecurrenceStartDate; RecurrenceEndDate) remain the same. This feature is available in Salesforce Classic.

Sales Console Changes
You can now control whether list view hovers appear in your console.
For more information, see Control List View Hovers in the Console in the Salesforce Console for Service section, as that change also applies to the Sales Console.

Import My Accounts and Contacts Wizard Is Retired
The Import My Accounts and Contacts wizard is now unavailable. Remind your users to upload their data using the Data Import Wizard instead. For more information, see “Import My Accounts and Contacts Retirement in Winter ’17.” This change affects both Lightning Experience and Salesforce Classic.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Account Autofill Supports More Companies
When reps start typing a company in the Account Name field, we offer up suggestions, which helps them enter data quickly and without errors. We’ve increased the number of companies that are available with autofill, so reps are more likely to find the company they’re looking for. This feature is available in Lightning Experience only.

Name Fields in Rows Visible in Custom Report Types
Name values for rows that aren’t accessible based on sharing rules are now visible in custom report types. These rows are hidden only if the name values of the lookup rows don’t match the filter criteria.
Previously, if you filtered the name field of an object via a lookup relationship and the filter criteria excluded null values, rows were hidden for lookup objects that aren’t accessible based on sharing rules.
Consider a custom report based on cases with a lookup relationship to contacts. All contact names are visible, but other contact fields display null values based on your org’s sharing rules. For example, when you add a filter criteria for contact names starting with “A”, case rows related to contacts with names starting with “A” are now returned in the report result.
Opportunities: Probability Field Editable in Lightning Experience

Opportunity owners can now manually edit the Probability field without switching to Salesforce Classic. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

SEE ALSO:
   Lightning Experience: A Modern and Intelligent User Experience

Contact Mailing Field Labels Changed in Lightning Experience to Match Salesforce Classic

Mailing address labels on contact records no longer differ in Salesforce Classic and Lightning Experience. For example, Mailing Street in Salesforce Classic appeared as Street in Lightning Experience. Now both interfaces use Mailing Street.

Recurring Events Start and End Field Labels Have Changed

We’ve changed some field labels on recurring events so it’s easier to tell those fields apart from the same fields on stand-alone events. For example, in Summer ’16, recurring event labels were “Start” and “End.” In Winter ’17, we changed the labels to “Recurring Start” and “Recurring End.” The API names for these labels (RecurrenceStartDateTime; RecurrenceEndDateTime) remain the same. This feature is available in Salesforce Classic.

Data.com: Clean Rule Setup and Company Information for Accounts

More key Data.com features are now available in Lightning Experience: Clean rule setup and, for Data.com Clean customers, a rule that adds valuable company information to your account data.

IN THIS SECTION:
   Set Up Clean Rules in Lightning Experience
   With Data.com Clean rules, you can get the right data to your sales reps at the right moment. Clean rules don’t merely keep your existing data current. You can also use them to augment accounts and leads with valuable information, such as geocodes, industry, revenue, number of employees, and D-U-N-S number. In Summer ’16, we introduced Clean rules in Salesforce Classic. Now Data.com Clean customers can also use Lightning Experience to activate Clean rules.

   Add Key Information to Account Records Automatically
   Activate the new Company Info for Accounts Clean rule so that your sales teams can segment accounts, plan territories, and understand their customers better. The rule provides access to over 100 fields of company, industry, and financial information from Dun & Bradstreet, the same fields as for Clean jobs. It’s easy to set up the rule in Lightning Experience or Salesforce Classic.
Set Up Clean Rules in Lightning Experience

With Data.com Clean rules, you can get the right data to your sales reps at the right moment. Clean rules don’t merely keep your existing data current. You can also use them to augment accounts and leads with valuable information, such as geocodes, industry, revenue, number of employees, and D-U-N-S number. In Summer ’16, we introduced Clean rules in Salesforce Classic. Now Data.com Clean customers can also use Lightning Experience to activate Clean rules.

SEE ALSO:
- Set Up Data.com Clean Rules
- Lightning Experience Features in This Release

Add Key Information to Account Records Automatically

Activate the new Company Info for Accounts Clean rule so that your sales teams can segment accounts, plan territories, and understand their customers better. The rule provides access to over 100 fields of company, industry, and financial information from Dun & Bradstreet, the same fields as for Clean jobs. It’s easy to set up the rule in Lightning Experience or Salesforce Classic.

Considerations for Activating the Company Info for Accounts Rule

Recommendation to Use AppExchange Package Instead of Assessment Option

The Company Info for Accounts Clean rule includes options to update your data or generate a read-only assessment.

Conflicts with Existing Clean Setup

The Company Info for Accounts Clean rule conflicts with Clean jobs. To prevent conflicts and confusion, do the following.

- Deactivate Clean jobs on your accounts.
- On Account page layouts, remove the elements related to Clean jobs: the Clean button and the Clean Status field.

Access for Users Who Clean Records Manually

To let your users clean accounts manually, do the following:

- Make sure that users have “Read” and “Create” access to the D&B Company object. When a user cleans an account, the rule creates an associated D&B Company record (if the record doesn’t exist).
- Adjust field-level security to give users access to all the account fields containing data provided by the rule.

Triggers, Workflows, and Push Notifications

Before activating a Company Info rule, review your settings for triggers, workflows, and push notifications. Using a Company Info rule can set off those mechanisms.

No Support for Field Mapping Customization

You can’t customize field mapping for Company Info rules. Nor does customized field mapping for Clean jobs carry over to Company Info rules.

Fields Containing Data Provided by the Company Info for Accounts Rule

<table>
<thead>
<tr>
<th>Account Name</th>
<th>Employees</th>
<th>SIC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Site</td>
<td>Fax</td>
<td>SIC Description</td>
</tr>
</tbody>
</table>
Activate the Company Info for Accounts Rule

1. From Setup, enter Clean Rules in the Quick Find box, then select Clean Rules.
2. Edit the Company Info for Accounts Clean rule.

Company Info rules include an option to clean all records when the rule is activated or saved. If you choose that option, then Salesforce immediately checks whether new data is available for your existing accounts. For new accounts, Salesforce checks whether new data is available when the accounts are saved. New data is added only to blank fields—your data is never overwritten.

Guidelines for Cleaning Records Manually When the Company Info for Accounts Rule Is Activated

Because the rule doesn’t overwrite data, when users update the Company D-U-N-S Number field value while cleaning manually, they must delete the D&B Company field value. Then, when company information is added, Clean adds updated values for those two fields and links the correct D&B Company record to the account.

SEE ALSO:
- Lightning Experience Features in This Release
- What Salesforce Fields Are Affected by Data.com Clean?

Analytics: Lightning Enhancements, Trending in Wave, Wave Dashboard Designer, and More

Drive decisions with insights from reports and dashboards and Wave Analytics. Lightning Experience reports and dashboards offer improved access, more filtering options, and chart enhancements. Wave Analytics takes it to the next level with trending in Wave, prebuilt apps, Wave dashboard designer, a data manager tool, notifications, and an Android app.

IN THIS SECTION:
- Reports and Dashboards: New Ways to Get Your Data
  We’re pleased to introduce new ways to work with your data in Lightning Experience. The dashboard editor in Lightning Experience supports both keyboard shortcuts and screen readers. Run reports on external objects (in addition to standard and custom objects). And, of course, we’ve made a bunch of enhancements to charts.
Wave Analytics: Take Data Analysis to the Next Level
Wave is taking it to the next level with new tools and features that make it easier to get business insight from your data. Visualize trends in Salesforce data with one click. Run your Sales, Service, and Event Monitoring businesses with smarter, simpler Wave apps. Take advantage of the power and simplicity of the Wave dashboard designer. Put Wave where people work with embedded dashboards in Lightning Experience and the Salesforce1 mobile app.

Reports and Dashboards: New Ways to Get Your Data
We’re pleased to introduce new ways to work with your data in Lightning Experience. The dashboard editor in Lightning Experience supports both keyboard shortcuts and screen readers. Run reports on external objects (in addition to standard and custom objects). And, of course, we’ve made a bunch of enhancements to charts.

IN THIS SECTION:
- Design Your Dashboard with Keyboard Shortcuts, Use a Screen Reader
- Filter Reports by Role Hierarchy in Lightning Experience
- Filter Reports by Relative Dates in Lightning Experience
- Preserve Filters When Drilling in to a Report from a Dashboard in Lightning Experience

EDITIONS
Available in: Group, Professional, Enterprise, Performance, Unlimited, and Developer Editions
Chart Improvements in Lightning Experience: Table, Gauge, Bar, Scatter, Line, and Combo Charts

If a picture is worth a thousand words, is a chart worth a thousand insights? With our latest round of Lightning Experience chart enhancements, your charts are worth more insights than ever!

Broaden Your Horizons—Include External Data in Reports

Run reports on Salesforce Connect external objects to get a seamless view of data across system boundaries. External objects behave similarly to custom objects, except that they map to data that’s stored outside your Salesforce org. This feature is available in both Lightning Experience and Salesforce Classic.

Design Your Dashboard with Keyboard Shortcuts, Use a Screen Reader

Thanks to support for keyboard shortcuts and screen readers, the Lightning Experience dashboard designer is easier to use than ever. This feature is available in Lightning Experience only.

Use these handy keyboard shortcuts to build your next dashboard.

<table>
<thead>
<tr>
<th>Keyboard Shortcut</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tab</td>
<td>Focus on next item in the dashboard</td>
</tr>
<tr>
<td>Shift + Tab</td>
<td>Focus on previous item in the dashboard</td>
</tr>
<tr>
<td>Spacebar</td>
<td>Select a component to move or a component corner to resize</td>
</tr>
<tr>
<td>, , ,</td>
<td>Move or resize a widget</td>
</tr>
<tr>
<td>Enter</td>
<td>Click a button</td>
</tr>
<tr>
<td>Ctrl+Z</td>
<td>Undo</td>
</tr>
<tr>
<td>Ctrl+Y</td>
<td>Redo</td>
</tr>
<tr>
<td>Ctrl+S</td>
<td>Save</td>
</tr>
<tr>
<td>Ctrl+N</td>
<td>Add component</td>
</tr>
<tr>
<td>Esc</td>
<td>Cancel pending component move or resize</td>
</tr>
</tbody>
</table>

As you tab through dashboard components, notice that the option to have a screen reader read each chart’s dataset appears, **Read Chart Dataset (Screen Reader)**.

For more information about using screen readers with Salesforce, see **Recommendations for Salesforce Accessibility** in the Salesforce help.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience

Filter Reports by Role Hierarchy in Lightning Experience

Want to see all the opportunities managed by your team out west? Filtering your opportunity report by role hierarchy lets you view opportunities owned by reps who work for specific managers or in specific roles.
Once you set your role hierarchy filter to Manager Sales - West, your report returns opportunities owned by all the western sales managers plus everyone who reports up to them. To return the opportunities of a specific western sales manager, narrow your role hierarchy filter by selecting a person.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Filter Reports by Relative Dates in Lightning Experience

Want to see all the opportunities you’ve closed this year? Instead of filtering by calendar dates, such as Close Date greater than Jan 1, 2016, filter your report by a relative date: Close Date equals THIS YEAR. In addition to being easy to understand, you don’t have to remember to update your report filter once 2017 rolls around.
Preserve Filters When Drilling in to a Report from a Dashboard in Lightning Experience

Filter a dashboard, then view one of the component reports. Previously, the report opened unfiltered. Now the report opens filtered in the same way as the dashboard, so you can keep analyzing data without missing a beat!

Filters conveyed from a dashboard to a report are called linked filters. You can remove linked filters from the report, but you can’t edit them directly. Linked filters don’t persist after you leave the report.
SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience
Chart Improvements in Lightning Experience: Table, Gauge, Bar, Scatter, Line, and Combo Charts

If a picture is worth a thousand words, is a chart worth a thousand insights? With our latest round of Lightning Experience chart enhancements, your charts are worth more insights than ever!

Add Tables to Dashboards in Lightning Experience

From the Lightning Experience dashboard editor, you can now add table components and sort columns from the component editor. Tables in Lightning Experience dashboards show conditional highlighting and Chatter photos, but to configure conditional highlighting and Chatter photos, switch to Salesforce Classic.

Gauge Charts Display Percentages

Gauge charts added to Lightning Experience dashboards now show percentages by default. Gauge charts configured to show percentages in Salesforce Classic now also show the percentage in Lightning Experience.

Stack Bar Charts to 100%

Stacked bar charts are wonderful for comparing absolute values side by side. Stacking a bar chart to 100% enables you to compare relative values side by side. For example, instead of comparing opportunities by stage and total opportunity amount, stacking lets you compare the proportion of opportunity amounts by stage.
To stack a bar chart to 100%, your report must have at least two groupings, and one of the groupings must be a number.

![Bar Chart](image)

**Plot Report Data on a Scatter Chart**

Scatter charts make it easy to see how opportunity age affects opportunity amount.

To plot report data on a scatter chart, your report must have at least two summarized fields.

![Scatter Chart](image)

**Graph Report Data in a Cumulative Line Chart**

Now you can make your line charts on reports cumulative and really highlight revenue growth over time.
View Combination Charts on Reports in Lightning Experience

Previously, combination charts added to reports in Salesforce Classic appeared as bar or donut charts in Lightning Experience. Now, combination charts that you add to your report in Salesforce Classic appear above your report in Lightning Experience.
Broaden Your Horizons—Include External Data in Reports

Run reports on Salesforce Connect external objects to get a seamless view of data across system boundaries. External objects behave similarly to custom objects, except that they map to data that’s stored outside your Salesforce org. This feature is available in both Lightning Experience and Salesforce Classic.

Reports that include external objects have special behaviors and limitations. So be sure to read through the considerations in the Salesforce Help (can be outdated or unavailable during release preview).

SEE ALSO:
- External Object Reports—Get a Seamless View of Data Across System Boundaries
- Salesforce Help: Report Considerations for Salesforce Connect—All Adapters (can be outdated or unavailable during release preview)
Wave Analytics: Take Data Analysis to the Next Level

Wave is taking it to the next level with new tools and features that make it easier to get business insight from your data. Visualize trends in Salesforce data with one click. Run your Sales, Service, and Event Monitoring businesses with smarter, simpler Wave apps. Take advantage of the power and simplicity of the Wave dashboard designer. Put Wave where people work with embedded dashboards in Lightning Experience and the Salesforce1 mobile app.

IN THIS SECTION:

Track Your Business Over Time with Trending Wave Dashboards

Your data tells you where your business was, where it is, and where it’s going. But how do you track data over time? Introducing trending in Wave, the fastest and easiest way to visualize and share insights from your ever-changing business data. Run a Salesforce report, click Trend in Wave, and presto! You’re tracking data over time in Wave.

Accelerate Analytics with Prebuilt Wave Apps

We’ve expanded our prebuilt apps offering with Service Wave and Event Monitoring Wave, and an update to Sales Wave. We’ve also enhanced the upgrade tool so you can preview changes to your app caused by upgrading.

Wave: Explore, Visualize, and Easily Design

Produce beautiful dashboards fast with the Wave dashboard designer. Create incomparable compare tables with a powerful new formula editor. And gain more control over your visualizations with pyramid, gauge, and ratings chart types.

Wave: Extend Analytics to Every Business Process

Put Wave Analytics in the places people work: Lightning Experience, the Salesforce1 mobile app, mobile Visualforce pages, Chatter, and email. Follow, collaborate, and share more easily with notifications, annotations, and other enhancements.

Wave: Go Places with Wave Mobile Apps

Take Wave with you with the latest version of the iOS app and the new Android app.

Wave: Integrate Your Data

The new data manager puts all your data preparation tools in one place, making it easier to configure replication settings, create datasets, and manage your dataflows.

Wave: Develop on the Platform with SAQL and REST API enhancements

Developing on the Wave platform continues to get more powerful, with much-requested new SAQL functions and updates to the REST API.

Track Your Business Over Time with Trending Wave Dashboards

Your data tells you where your business was, where it is, and where it’s going. But how do you track data over time? Introducing trending in Wave, the fastest and easiest way to visualize and share insights from your ever-changing business data. Run a Salesforce report, click Trend in Wave, and presto! You’re tracking data over time in Wave.

To trend reports in Wave Analytics:

- “Use Wave Analytics” OR “Use Wave Analytics Templated Apps”
- AND
- “Trend Report Data in Wave Analytics”
After trending a report, weekly snapshots of the report are uploaded to a Wave dataset. You get a mobile-ready, fully customizable, shareable Wave dashboard that provides insights from the trended data. Use the trending Wave dashboard to track key metrics over time, like open pipeline, closed opportunities, and escalated cases. Explore your trending dataset through a lens, or use it to build your own Wave dashboard from scratch. It’s that simple.

For example, tracking opportunities is crucial to gauging the overall health of sales activities. Your opportunity report provides a moment-in-time portrait, but to effectively track your pipeline you need to see how opportunities change over time. One approach to monitoring pipeline health is to trend a report that shows opportunities with a probability of closing greater than 50%.

1. Run or create an opportunity report.
2. Click Trend in Wave.
3. Name the trending dashboard and dataset, then click Trend. You’ll receive an email letting you know when the trending dashboard is ready.
4. To view the dashboard, run the trending report and click View Trend.

The trending dashboard opens in Wave. At first, the dashboard displays a single datapoint, but each week it’ll update with more data. Check the dashboard weekly to track your pipeline as it changes over time.

Like any Wave dashboard, you can share it or embed it on a Lightning page, record detail page, or wherever your team works.

As you prepare to trend your Salesforce reports in Wave Analytics, keep these considerations and limitations in mind:

• The Enable Wave Dashboard Designer setting must be enabled in Setup for trending in Wave to work.

• Once trending begins, do not change access rights to the underlying report or add or delete dimensions and measures. Changing the report or the access rights can cause an error or inaccuracies at the time a snapshot is taken.

• Snapshots are taken every Sunday at midnight (local time). However, processing and surfacing the data usually takes up to a few hours.

• If trending is stopped and then restarted, a new snapshot dataset is created, with a new trending dashboard. The previously trended dataset is not included in the new dashboard.

• To ensure good performance, certain limits are placed on the size of the snapshots and the number of trended datasets each user can create:
  – Maximum number of trended datasets per user: 5
  – Maximum number of rows per snapshot: 100,000
  – Maximum monthly number of rows for all snapshots per org: 40 million
  – Trended datasets count towards the overall Wave platform limits, including total number of rows
  – Trending dashboards can’t be created from joined reports

Accelerate Analytics with Prebuilt Wave Apps

We’ve expanded our prebuilt apps offering with Service Wave and Event Monitoring Wave, and an update to Sales Wave. We’ve also enhanced the upgrade tool so you can preview changes to your app caused by upgrading.

IN THIS SECTION:

New Sales and Service Wave Configuration Wizards Take Guesswork Out of App Creation
The Wave for Sales and Wave for Service configuration wizards now check your org’s data to assure the success of creating an app.

Streamline Sales Cloud Analytics with the Refreshed Version of Sales Wave
The new version of Sales Wave provides completely new dashboards to provide a more immediate analytics experience for all member of the sales team.

Service Wave Gives You the Right Data at the Right Time to Make Smart Service Decisions
The Service Wave Analytics app’s ready-built dashboards guide you down a direct path through your Service Cloud data on any device. Service managers and agents get best-practice KPIs in a single place to deliver smarter customer service.

Get Smart Insights into Your Org’s Activities Fast with Event Monitoring Wave
The Event Monitoring Wave app brings your org’s event monitoring data to life with built-in Wave integration.

Take the Guesswork Out of Upgrading Prebuilt Wave Apps to a New Version
Find out how upgrading changes your app’s datasets and dashboards before you complete the process.
New Sales and Service Wave Configuration Wizards Take Guesswork Out of App Creation

The Wave for Sales and Wave for Service configuration wizards now check your org’s data to assure the success of creating an app.

When you create the Wave for Sales or Wave for Service apps, Wave first checks your Salesforce data. Based on the check, it assembles the configuration wizard questions and the default answers that are appropriate for your data. It also recommends answers other than the defaults to some of the questions.

Complete the wizard questions as before. When you get to the end of the questions, the wizard asks if you’d like to validate that your org meets minimum data requirements. Select “Yes” to have the wizard run another check of your org’s data, this time to make sure that it supports the answers you selected.

If your data doesn’t meet the app’s requirements, Wave displays an error message that tells you what data to add or change. Add the data to Salesforce and return to the wizard to finish creating the app with the right data. If the check doesn’t return an error, your app gets created successfully.

Previously, you could complete the wizard only to have Wave tell you that it encountered an error and couldn’t finish app creation. Or, it would create the app with errors in dashboard. With the new smart wizard, you can create the app successfully the first time, and dashboards work as intended, without errors.

Streamline Sales Cloud Analytics with the Refreshed Version of Sales Wave

The new version of Sales Wave provides completely new dashboards to provide a more immediate analytics experience for all member of the sales team.
The completely refreshed Sales Wave Analytics app gives you a streamlined analytics experience with intuitive, fast-to-navigate dashboards. Find the value in your Salesforce data more easily and faster than ever, either on your desktop or mobile device. Whether you’re a sales manager or rep or in operations, the app provides dashboards tailored to your role so you can move quickly from analysis to action. And the app now alerts you when we add dashboards and other enhancements so you know it’s time to upgrade to the new version.

To get started with Sales Wave, see The Sales Wave Analytics App in the Salesforce Help.

Service Wave Gives You the Right Data at the Right Time to Make Smart Service Decisions

The Service Wave Analytics app’s ready-built dashboards guide you down a direct path through your Service Cloud data on any device. Service managers and agents get best-practice KPIs in a single place to deliver smarter customer service.

The Service Wave app empowers service managers and agents by providing insights into the current case load, team and channel performance, customer satisfaction, and historical trends. Based on your Service Cloud data, the app is designed to help every member of the team make the right decisions to improve service. Service manager dashboards give you a complete view of service customer data, including trending and historical and peer benchmarks. If you’re an agent, you can quickly view a snapshot of all your cases and customers through sidebars that you can embed directly in a Salesforce page, such as your service console.

For step-by-step getting started details, see The Service Wave Analytics App.
Get Smart Insights into Your Org's Activities Fast with Event Monitoring Wave

The Event Monitoring Wave app brings your org's event monitoring data to life with built-in Wave integration.

To use the Event Monitoring Wave app:
- “Use Analytics Cloud Templated Apps”
- “Access Event Monitoring Wave Analytics Templates and Apps”

Event Monitoring Wave gives your business analysts at-a-glance insights into your monitoring data. It's the first built-in way to explore your monitoring data in Salesforce. The app comes with datasets and prebuilt dashboards that automatically pull event log file data from your org right into Wave. Event Monitoring Wave helps you drill into your org's data and swiftly identify suspicious behavior, slow page performance, and poor user adoption. Get valuable information instantly from your Salesforce event logs, such as the number of people and IP addresses accessing your org, which Visualforce requests are timing out, and which users make changes in Setup.

To get started with Event Monitoring Wave, see Event Monitoring Wave App.

Take the Guesswork Out of Upgrading Prebuilt Wave Apps to a New Version

Find out how upgrading changes your app's datasets and dashboards before you complete the process.
Upgrading Sales Wave, Service Wave, and Event Monitoring Wave apps is now more predictable thanks to an enhancement to the upgrade feature.

When you upgrade your app to a new version, Wave tells you exactly which assets are impacted by the upgrade. You learn how many datasets, dashboards, and lenses are changed, deleted, or added by the upgrade before you complete the process. You can also find out how changed assets will be modified—whether the change is to data or appearance.

Additionally, Wave creates a file that provides the code for changes made to the app, so you can copy and paste customization code into the new version of the app.

As before, you have the option of canceling the upgrade if you don’t like what you see. You can also choose between updating the current app, which overwrites all customizations you’ve made, or creating a new app, which preserves the current app and your customizations.

Wave: Explore, Visualize, and Easily Design

Produce beautiful dashboards fast with the Wave dashboard designer. Create incomparable compare tables with a powerful new formula editor. And gain more control over your visualizations with pyramid, gauge, and ratings chart types.

IN THIS SECTION:

Beyond Compare Table

The compare table has been upgraded from a sedan to a Formula One racer. Besides basic math functions, formulas now incorporate SAQL math functions, case statements, and nearly all other SAQL functions. Don’t like writing SAQL from scratch? Or at all? New built-in window functions write the SAQL for you.
More Charts for Your Viewing Pleasure

Pyramid, gauge, and rating charts are making their debut in Wave dashboard designer, expanding your ability to choose just the right visualization for the job.

Wave Dashboard Designer (Generally Available): Build Dashboards More Easily

“Wave dashboard designer” is the new name for the flex dashboard designer. It’s packed with significant usability enhancements that help even the most novice users quickly and easily build responsive dashboards for any device. Use templates to implement best-practice dashboard designs. Use layouts to customize a dashboard for different device types. Use wizards to quickly create widgets. Bring your charts to life with the new widget properties. Make all these changes with clicks, not code.

Understand the Changes Coming to Bindings

In Winter ’17, the Wave dashboard designer uses a new bindings syntax for steps. If you convert a dashboard created in the classic designer to Wave dashboard designer, Wave converts the bindings to the new syntax. In rare cases, this change can cause problems with some dashboards.

Get More Support with Enhanced Dashboard User Assistance and Documentation

We’ve added a complete set of documentation for building dashboards using the Wave dashboard designer. To enable in-app user assistance, we’ve also added more intuitive UI labels and descriptive tooltips for the more complex properties.

Beyond Compare Table

The compare table has been upgraded from a sedan to a Formula One racer. Besides basic math functions, formulas now incorporate SAQL math functions, case statements, and nearly all other SAQL functions. Don’t like writing SAQL from scratch? Or at all? New built-in window functions write the SAQL for you.

<table>
<thead>
<tr>
<th>Column Name</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close Date (Quarter)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account Industry</td>
<td>Count of Rows</td>
<td>Sum of Expected Revenue</td>
<td>Average Expected Revenue</td>
</tr>
<tr>
<td>Agriculture</td>
<td>24</td>
<td>6,551,590</td>
<td>26,938</td>
</tr>
<tr>
<td>Apparel</td>
<td>24</td>
<td>911,800</td>
<td>26,838</td>
</tr>
<tr>
<td>Banking</td>
<td>17</td>
<td>2,072,000</td>
<td>19,235</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>85</td>
<td>8,766,800</td>
<td>26,139</td>
</tr>
<tr>
<td>Chemicals</td>
<td>51</td>
<td>11,072,325</td>
<td>217,504</td>
</tr>
<tr>
<td>Communications</td>
<td>66</td>
<td>1,590,130</td>
<td>24,092</td>
</tr>
<tr>
<td>Consulting</td>
<td>68</td>
<td>6,062,590</td>
<td>89,449</td>
</tr>
<tr>
<td>Electronics</td>
<td>51</td>
<td>8,345,790</td>
<td>163,641</td>
</tr>
<tr>
<td>Energy</td>
<td>24</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Engineering</td>
<td>24</td>
<td>360,000</td>
<td>11,176</td>
</tr>
<tr>
<td>Entertainment</td>
<td>17</td>
<td>452,000</td>
<td>26,588</td>
</tr>
<tr>
<td>Environmental</td>
<td>51</td>
<td>9,908,700</td>
<td>294,268</td>
</tr>
<tr>
<td>Finance</td>
<td>24</td>
<td>8,800,110</td>
<td>261,268</td>
</tr>
</tbody>
</table>

We’ve made a number of other upgrades to the compare table:

- Column naming, formula editing, and built-in functions are all on the same page as the table. No more dialog windows to slow you down because the formula editor is right there (1).
- Changes are applied on clicking Apply (2). See the results of your formulas immediately.
- The compare table is now HTML-based, so you can copy text directly from columns and paste it into Chatter posts or emails (3).
- Sorting and summaries are now done server-side for the greatest speed and accuracy.

We’ve made SAQL functions available in the formula editor (1), which means you can go from simple math to complex aggregations like a Ferrari going from 0 to 60. In addition to more powerful functions such as \( \log() \) and \( \text{round}() \), you get aggregations, date
functions, case statements, and much more. This added horsepower, along with live editing and immediate application, allows you to build more powerful formulas and test them immediately.

Windowing functions allow you to perform calculations across a set of related table rows without grouping the rows, so each row retains its identity. A running total, for example, or a percentage of group, are useful views but required you to own a toolbox full of SAQL functions to write. Say hello to your new pit crew.

Click the function editor and choose from one of the built-in windowing functions.

Set the parameters, then switch back to the formula editor to see the SAQL printed by your choices.
More Charts for Your Viewing Pleasure

Pyramid, gauge, and rating charts are making their debut in Wave dashboard designer, expanding your ability to choose just the right visualization for the job.

- Pyramid charts (including stacked pyramids)

![Pyramid Chart Example]

Use pyramid charts to visually highlight relative sizes of stacked dimension values. Adding a second measure provides a comparison for evaluating impact relative to size. In the example, number of accounts in each industry is shown against the revenue those accounts are expected to generate.

- Polar and flat gauges
Use gauges to track progress along a single measure, such as how much revenue has been realized versus target.

- Rating charts

Rating charts give you a sense of how well a measured quality, such as customer satisfaction, is doing.

**Chart Properties In Wave Dashboard Designer**

Many new properties to configure charts are now available directly in the Wave dashboard designer. You can get your charts to behave and look exactly as you want them to, and you won’t have to tweak any JSON to do it. For a list and descriptions of all properties for each chart, see “Visualizing Data With Charts.”

**Wave Dashboard Designer (Generally Available): Build Dashboards More Easily**

“Wave dashboard designer” is the new name for the flex dashboard designer. It’s packed with significant usability enhancements that help even the most novice users quickly and easily build responsive dashboards for any device. Use templates to implement best-practice dashboard designs. Use layouts to customize a dashboard for different device types. Use wizards to quickly create widgets. Bring your charts to life with the new widget properties. Make all these changes with clicks, not code.

Wave dashboard designer is enabled, by default, giving all users access to it. Previously, the admin had to enable this feature. Wave now clips lenses to the Wave dashboard designer if no dashboards are open. Previously, it clipped lenses to classic designer. (“Classic designer” is the new name for the original dashboard designer.)

Each user can still choose to use the Wave dashboard designer or classic designer.
IN THIS SECTION:

Quickly Create Dashboards with Templates and Widget Wizards
Take advantage of the new dashboard templates for the Wave dashboard designer. These templates are created with best dashboard practices in mind. Each template offers a unique dashboard layout with empty widgets. Click inside each widget to kick off a wizard that helps you populate the widget with data. The simple wizards save you time and automatically build the right steps for you.

Layouts: Optimize Your Dashboards for Different Devices
You might have created the perfect dashboard when viewed on a desktop, only to realize that it looks funky on a mobile device. Now you can create and preview customized layouts for different devices. Remove, arrange, and style widgets in each layout.

Do More with the New Bindings Syntax
With the new bindings syntax for Wave dashboard designer, you can apply conditional formatting to highlight content or dynamically change widget properties based on selections or results. For example, color code the values of number widgets based on thresholds to draw attention to low and high numbers. Or, add a toggle widget that dynamically sets the chart type to show either a map or a bar chart.

Build Static Steps with Ease
Use the widget wizard, not JSON, to build static steps. The wizard walks you through the process of adding custom values for the step. For example, you can create a toggle widget that filters case records in a chart based on the following options: High Priority Cases, Medium Priority Cases, and Low Priority Cases.

Build Faster with More Usability Enhancements
The Wave dashboard designer comes with numerous usability enhancements that make it easier and faster to build better dashboards. For instance, fully customize the appearance of charts using the new chart properties. Increase the number of columns in the designer grid to gain better control when placing widgets in the dashboard. Use reflow to make room for new widgets.

Gain More Control of the Dashboard Using the New Properties
Wave dashboards contain new properties for configuring new features and for enabling finer control of charts. To increase usability, some properties have new labels and locations. In addition, given the new properties, some existing properties are no longer needed.

Get Familiar with Dashboard JSON Changes for Wave Designer
The dashboard JSON contains multiple changes that impact users who create the JSON from scratch.

Quickly Create Dashboards with Templates and Widget Wizards
Take advantage of the new dashboard templates for the Wave dashboard designer. These templates are created with best dashboard practices in mind. Each template offers a unique dashboard layout with empty widgets. Click inside each widget to kick off a wizard that helps you populate the widget with data. The simple wizards save you time and automatically build the right steps for you.

Note: Except for the “Blank Dashboard in the Classic Designer” template, the classic designer templates are no longer available. Existing dashboards built from these templates will continue to work.

The templates make use of the new widget wizards. Previously, when creating a widget, you had to add the widget to the dashboard, build the step, and then apply the step to the widget. To simplify the process for creating chart, table, and filter widgets, the new widget wizards do all these tasks in one fell swoop. For example, when creating a date widget, the wizard makes you select the date field in a dataset used to filter the results.

To see how easy it is, let’s create a dashboard. In this example, you create a dashboard that compares the product performance of two different systems.

1. In Wave, select Create > Dashboard.
2. In the list of templates, select **Comparison Dashboard** and click **Continue**.

   The template already has empty widgets defined for you—they don’t have steps applied to them yet.

3. Click **edit** to edit the dashboard.

4. Hover over the icon inside a widget until you see a button.

5. To open the widget wizard, click the button.
6. To create the underlying step for this widget, follow the wizard tasks.

   After you complete the wizard, Wave adds the step to the step panel. Wave also applies the step to the widget to populate the widget with the data.

7. To apply steps to the remaining widgets, perform the same tasks.

8. To exclude a widget from the layout, select the widget and press the Delete key on your keyboard. (Yes, these methods for deleting widgets are new features.)

   Note: To select multiple widgets, press Ctrl+click for Windows or Cmd+click for iOS. Press Ctrl+A or Cmd+A to select all widgets. (Yeah, multiselect is also a new feature.)

9. If needed, rearrange the widgets.
The template structure is just a suggestion—use it however you like. Press the Shift key while adding or moving a widget to squeeze it in between other widgets. The other widgets reflow down to make room. (Yup! You guessed it. Reflow is another cool, new feature.)

10. Save the dashboard to an app.

You’re done! How easy was that?

Layouts: Optimize Your Dashboards for Different Devices

You might have created the perfect dashboard when viewed on a desktop, only to realize that it looks funky on a mobile device. Now you can create and preview customized layouts for different devices. Remove, arrange, and style widgets in each layout.

To preview a layout, select the layout from the Layouts menu.

Here are some sample layouts of the same dashboard.
Wave Analytics: Take Data Analysis to the Next Level

Desktop Layout

Mobile Phone Layout

Apple Watch Layout
Notice that this layout has one less widget than the others.

**Note:** If you added a mobile layout to a dashboard created with the classic designer, and then convert that dashboard to the Wave dashboard designer, the layout isn’t carried over. You must re-create the mobile layout in the Wave dashboard designer.

IN THIS SECTION:

*Generate a Unique Layout for Each Device*
To enable the dashboard to fit nicely on different devices—like a desktop, tablet, and mobile phone—create a layout for each device.
You can even design a different layout based on whether the device orientation is portrait or landscape. The layouts can have different widgets and designs.

*Understand How Wave Selects the Layout for a Device*
Learn how Wave uses the layout properties to determine which layout to use for each type of device. By understanding Wave’s logic, you can set the properties appropriately.

---

**Generate a Unique Layout for Each Device**

To enable the dashboard to fit nicely on different devices—like a desktop, tablet, and mobile phone—create a layout for each device.
You can even design a different layout based on whether the device orientation is portrait or landscape. The layouts can have different widgets and designs.

When you generate a new layout, Wave adds the widgets from the currently selected layout to the new layout. This step is important because each layout can contain different widgets. So before you get started, select the layout that contains the widgets that you want in your new layout.

1. From the Layouts menu, select *Manage Layouts*.

2. Select the layout template and enter a unique layout name.
3. Click **Generate**.
   The layout properties appear for the new layout. If needed, click \(\text{Layout panel}\) to show the Layout panel.

![New dashboard layout](image)

4. In the Layout panel, expand the following sections and change the default properties, if needed.

   **General**
   Set the layout name, designer grid settings—like number of grid columns and spacing between grid cells, maximum dashboard width, and background color.

   **Device**
   Specify information about the devices that can use this layout. For more information about how Wave uses these properties to choose the right layout, see [Understand How Wave Selects the Layout for a Device](#).

   **Background Image**
   To apply a background image to the entire dashboard when this layout is used, enter the details about the background image.
   You don’t have to include a background image.

   The designer previews the dashboard and layout based on the layout property settings. The designer updates the preview in real time so you can see how your changes affect the dashboard layout. If you shrink the maximum dashboard width, the designer rearranges the widgets to fit the new size.
5. Rearrange the widgets, if needed.

6. To hide a widget from the layout, select the widget, and then click ![Hide Widget].
   If you hide a widget, it appears in the Unused Widgets section of the layout properties.

7. To add an unused widget to the layout, drag the widget from the Unused Widgets section to the canvas.

8. To create a widget, drag the widget from the widget toolbar to the canvas.

   **Note:** Wave adds the new widget only to the current layout and adds it to the list of unused widgets in all other layouts. To add the widget to another layout, open the other layout and drag the widget from the Unused Widgets section.

9. To save your layout changes and the dashboard, click ![Save Layout].

10. To delete a layout, in the Layouts menu, click **Manage Layouts**, and then click ![Delete Layout] next to the layout.
Understand How Wave Selects the Layout for a Device

Learn how Wave uses the layout properties to determine which layout to use for each type of device. By understanding Wave’s logic, you can set the properties appropriately.

Wave uses the following logic when determining which layout to use for a device.

1. A layout is eligible for use when the device accessing the dashboard meets all device properties set in the Layout panel.
2. If more than one layout is eligible, the one with the most device properties set is used. If there’s a tie, the last defined layout is used.
3. If no layouts are eligible with the device, the first defined layout is used.

Do More with the New Bindings Syntax

With the new bindings syntax for Wave dashboard designer, you can apply conditional formatting to highlight content or dynamically change widget properties based on selections or results. For example, color code the values of number widgets based on thresholds to draw attention to low and high numbers. Or, add a toggle widget that dynamically sets the chart type to show either a map or a bar chart.

Let’s say you want to change the colors of measures in three number widgets based on whether the numbers are high (green), medium (yellow) or low (red).
In the dashboard JSON, compute the color based on the measure of each step. Then apply the computed color to the `numberColor` field of each number widget.

```
{
  "label": "Sales Overview",
  "state": {
    "gridLayouts": [...],
    "layouts": [],
    "steps": {
      "color_1": {
        "type": "aggregateflex",
        "visualizationParameters": {
          "options": {}
        },
        "query": {
          "pigql": "q = load "Opportunity_Dataset";
          q = filter q by 'Region' == "US";
          q = group q by all;
          q = foreach q generate count() as 'count',
          (case when count() < 25000 then "#EE0A50"
          when count() < 50000 then "#F8CE00"
          else "#0FD178" end) as 'color';
          q = limit q 2000;",
          "measures": [ [ "count", "*", "count" ] ],
          "groups": [ "color" ],
          "measuresMap": {};
        },
        "isFacet": true,
        "useGlobal": true,
        "isGlobal": false,
        "datasets": [{
          "name": "Opportunity_Dataset",
          "url": "/services/data/v38.0/wave/datasets/0Fbx0000000000GKLCAY",
          "id": "0Fbx0000000000GKLCAY"
        }],
        "color_2": {
          "type": "aggregateflex",
          "visualizationParameters": {
```

Wave Analytics: Take Data Analysis to the Next Level

Salesforce Winter '17 Release Notes
"options": {}},
"query": {
"pigql": "q = load \"Opportunity_Dataset\";
q = filter q by 'Region' == \"AP\";
q = group q by all;
q = foreach q generate count() as 'count',
(case when count() < 25000 then \"#EE0A50\"
    when count() < 50000 then \"#F8CE00\"
    else \"#0FD178\" end) as 'color';
q = limit q 2000;",
"measures": [ [ "count", "*", "count" ] ],
"groups": [ "color" ],
"measuresMap": {}},
"isFacet": true,
"useGlobal": true,
"isGlobal": false,
"datasets": [{
"name": "Opportunity_Dataset",
"url": "/services/data/v38.0/wave/datasets/0Fbx000000000KLCAY",
"id": "0Fbx000000000KLCAY"
}]
},
"color_3": {
"type": "aggregateflex",
"visualizationParameters": {
"options": {}},
"query": {
"pigql": "q = load \"Opportunity_Dataset\";
q = filter q by 'Region' == \"EU\";
q = group q by all;
q = foreach q generate count() as 'count',
(case when count() < 25000 then \"#EE0A50\"
    when count() < 50000 then \"#F8CE00\"
    else \"#0FD178\" end) as 'color';
q = limit q 2000;",
"measures": [ [ "count", "*", "count" ] ],
"groups": [ "color" ],
"measuresMap": {}},
"isFacet": true,
"useGlobal": true,
"isGlobal": false,
"datasets": [{}]}
"name": "Opportunity_Dataset",
"url": "/services/data/v38.0/wave/datasets/0Fbx000000000KLCAY",
"id": "0Fbx000000000KLCAY"
]}
,
"widgetStyle": {...},
"widgets": {
"number_5": {
"type": "number",
"parameters": {
"step": "color_1",
"measureField": "count",
"textAlignment": "right",
"compact": false,
"exploreLink": true,
"titleColor": "#335779",
"titleSize": 14,
"numberColor": "{{cell(color_1.result, 0, \"color\").asString()}}",
"numberSize": 32,
"title": "Opp Count (United States)"
}
,

"number_6": {
"type": "number",
"parameters": {
"step": "color_2",
"measureField": "count",
"textAlignment": "right",
"compact": false,
"exploreLink": true,
"titleColor": "#335779",
"titleSize": 14,
"numberColor": "{{cell(color_2.result, 0, \"color\").asString()}}",
"numberSize": 32,
"title": "Opp Count (Asia Pacific)"
}
,

"number_7": {
"type": "number",
"parameters": {
"step": "color_3",
"measureField": "count",
"textAlignment": "right",
"compact": false,
"exploreLink": true,
"titleColor": "#335779",
"titleSize": 14,
"numberColor": "{{cell(color_3.result, 0, \"color\").asString()}}",
"numberSize": 32,
"title": "Opp Count (Europe)"
}
}
}
For more information about conditional formatting, see the Wave Analytics Bindings Developer Guide (can be outdated or unavailable during release preview).

**Build Static Steps with Ease**

Use the widget wizard, not JSON, to build static steps. The wizard walks you through the process of adding custom values for the step. For example, you can create a toggle widget that filters case records in a chart based on the following options: High Priority Cases, Medium Priority Cases, and Low Priority Cases.

1. In the step panel of the Wave dashboard designer, click **Create Step**.
   If you don’t see the step panel, click the dashboard header to show it.

2. Click **Create a Static Step with Custom Values**.
3. Add the list of values, including the display name and value for each.

   **Note:** The display name appears in the associated widget. Values are optional, but if included, you can bind them to other steps to filter the results of other widgets in the dashboard.

4. To create the static step, click **Create**.
   Wave adds the static step to the steps panel, making it available for use by other widgets in the dashboard.

5. To apply this static step to a widget, drag the step to an empty space in the canvas.
   By default, a toggle widget is added to the dashboard, showing the custom values as toggle options. If needed, you can change the chart type in the widget properties.

6. To enable a selection in the toggle widget to filter another widget, bind the custom values of the static step to the step of the other widget.
   For example, going back to the cases example, when you select High Priority Cases in the toggle widget, only those cases should appear in the chart. To enable this interactivity, bind the toggle widget step to chart widget step. In the binding, you specify the logic used to determine the case priority for each case. For more information about binding static steps, see the *Wave Analytics Bindings Developer Guide*.

**Build Faster with More Usability Enhancements**

The Wave dashboard designer comes with numerous usability enhancements that make it easier and faster to build better dashboards. For instance, fully customize the appearance of charts using the new chart properties. Increase the number of columns in the designer grid to gain better control when placing widgets in the dashboard. Use reflow to make room for new widgets.

The Wave dashboard designer contains the following usability enhancements:

- To create a values table or compare table in a dashboard, use the new table widget. The table widget displays as HTML, which means that you can search and copy its content.
- You can now move multiple widgets at the same time. To select multiple widgets in the dashboard, press Ctrl+click for Windows or Cmd+click for Mac OS. To select all widgets, press Ctrl+A for Windows or Cmd+A for Mac OS.
- Hold down the Shift key while adding, resizing, or moving a widget to move other widgets down to make room in the dashboard. This feature is called reflow.
Note: You can’t use reflow when moving multiple widgets at the same time. Reflow doesn’t resize a container widget to make room for widgets in the container.

- To toggle between showing and hiding the right panel that displays steps, widget properties, step properties, and layout properties, click the arrow.

- Widgets no longer have the Edit and Delete icons. To view or edit the widget and step properties, select the widget. To delete a widget, select it and click on the canvas. Or, press the Delete key on the keyboard.

- To view the step panel with a list of previously created steps, click the dashboard header or an empty space in the designer canvas.

- To gain better precision when placing widgets in a dashboard, increase the number of columns in the designer grid using the layout properties. Previously, the grid always contained 12 columns.

- In previous releases, the entire dashboard would not render when there was a problem with a step. Now, the widget with the problem step displays an error icon, but the remaining widgets render correctly.
Gain More Control of the Dashboard Using the New Properties

Wave dashboards contain new properties for configuring new features and for enabling finer control of charts. To increase usability, some properties have new labels and locations. In addition, given the new properties, some existing properties are no longer needed.

New Properties

**Layout Properties**

The new Layout panel contains properties that allow you to change the number of columns in the designer grid and specify the device properties for each layout. Wave uses the device properties to determine whether the layout can be used for a particular device. See *Salesforce Help: Layout Properties (can be outdated or unavailable during release preview)*.

**Widget Properties**

The Wave dashboard designer offers more properties that give you better control over the charts. The Widget panel groups widget properties into sections. For example, the panel contains separate sections for chart-specific properties, x-axis properties, y-axis properties, legend properties, trellis properties, and widget style properties. See *Salesforce Help: Widget Properties (can be outdated or unavailable during release preview)*.

Changed Properties

To make the properties more descriptive, Wave changed some the property labels. In addition, to enable layouts, some dashboard properties moved to the Layout panel.

**Dashboard Properties**

To give you more flexibility to define layouts differently, most dashboard properties now appear under layout properties. Only the default widget properties remain under dashboard properties.

**Widget Properties**

The following property labels changed.

<table>
<thead>
<tr>
<th>Old Property Label</th>
<th>New Property Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background Image ID</td>
<td>Image ID</td>
</tr>
<tr>
<td>Show link to step</td>
<td>Show Explore Icon</td>
</tr>
<tr>
<td>Show values</td>
<td>Show values in chart bars</td>
</tr>
<tr>
<td>Missing Value</td>
<td>Handling Missing Values</td>
</tr>
<tr>
<td>Always show zero</td>
<td>Start axis at 0</td>
</tr>
<tr>
<td>Background Image ID</td>
<td>Image ID</td>
</tr>
</tbody>
</table>

**Step Properties**

The following property labels changed.

<table>
<thead>
<tr>
<th>Old Property Label</th>
<th>New Property Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propagate Dashboard Selections</td>
<td>Apply selected filters</td>
</tr>
<tr>
<td>Apply global filter</td>
<td>Apply global filters</td>
</tr>
</tbody>
</table>
Obsolete Properties

Wave now ignores the following widget properties.

- Bar Thickness. To change how the chart fits, set the new Axis Mode widget property.
- Logarithmic Scale
- Multi Metric. The chart now displays multiple metrics if the step has them.
- Show Totals. This property is no longer available for compare and values tables. As a workaround, you can compute the totals in a calculated field of a compare table.

Get Familiar with Dashboard JSON Changes for Wave Designer

The dashboard JSON contains multiple changes that impact users who create the JSON from scratch.

Chart types

Wave designer dashboards support the following new chart types: flatgauge, pyramid, polargauge, rating, and stackpyramid.

Chart properties

Wave designer dashboards contain numerous new chart properties that allow you to configure how they appear in a dashboard. For a list and the descriptions of all JSON properties for each chart, see Visualizing Data With Charts.

Wave dashboard designer no longer uses the totals chart property for compare and values tables. As a workaround, you can compute the totals in a calculated field in a compare table.

Grid layouts

You now configure dashboard properties, like cell spacing in the grid and the dashboard background, under the new style key instead of the gridLayoutStyle key.

Step types

Wave designer dashboards support the following new step types.

- aggregateflex. It’s like the aggregate step type. To leverage the new bindings syntax, use this new step type. aggregate supports the old bindings syntax.
- staticflex It’s like the static step type.

Wave designer dashboards still support aggregate, grain, and static. Although, Salesforce recommends that you use the new aggregateflex and staticflex step types instead of aggregate and static. When you create steps, Wave applies the new step types.

The multi step type is deprecated for Wave designer dashboards only and automatically converted to aggregate.

Note: Wave can’t convert a multi step for a compare table that contains a separate SAQL query for each column. To fix this step, re-create the compare table.

Understand the Changes Coming to Bindings

In Winter ’17, the Wave dashboard designer uses a new bindings syntax for steps. If you convert a dashboard created in the classic designer to Wave dashboard designer, Wave converts the bindings to the new syntax. In rare cases, this change can cause problems with some dashboards.

If Wave can’t convert the binding, the step is broken. For each broken step, Wave shows an error icon on the affected widget in the dashboard. Hover over the icon to view the error. To fix the error, re-create the step using the new bindings syntax. For more information about the new binding syntax and examples of bindings, see the Wave Analytics Bindings Developer Guide.
Note: The new bindings syntax doesn’t affect existing dashboards created in Wave dashboard designer. Wave supports and retains the old bindings syntax.

Get More Support with Enhanced Dashboard User Assistance and Documentation

We’ve added a complete set of documentation for building dashboards using the Wave dashboard designer. To enable in-app user assistance, we’ve also added more intuitive UI labels and descriptive tooltips for the more complex properties. Check out the following new documentation for building Wave designer dashboards.

- Build a Dashboard with the Wave Dashboard Designer
- Bindings in Wave Designer Dashboards in the new Wave Analytics Bindings Developer Guide

Wave: Extend Analytics to Every Business Process

Put Wave Analytics in the places people work: Lightning Experience, the Salesforce1 mobile app, mobile Visualforce pages, Chatter, and email. Follow, collaborate, and share more easily with notifications, annotations, and other enhancements.

IN THIS SECTION:

Set Smart Notifications to Keep Up to Date on Your Most Important Business Metrics

With notifications, Wave works for you, when and where you choose. Attach notification criteria to number widgets in dashboards, and select when to run the queries. You can see notifications in Wave, Lightning Experience, the Salesforce1 mobile app, and email. Notifications are available in dashboards built in the Wave dashboard designer.

Embed Wave in Any Lightning Page

With Wave on Lightning, you can give users access to insights on any device. Integrate Wave into Lightning home pages, record pages, and app home pages. Create analytics apps for Lightning Experience and the Salesforce1 mobile app in just a few minutes.

Embed Wave in Any Mobile Page

Add Wave dashboard components to Visualforce pages in Salesforce websites accessed by mobile users, including Communities. Embedded Wave dashboards can responsively select layouts optimized for any device—including phones and tablets.

Annotate and Collaborate on Wave Dashboards More Easily

Open your annotated dashboard directly from a feed post. Add a screenshot of the current state of your dashboard when creating an annotation. Refresh the annotation feed, or close it with one click.

Download Dashboard Widget Data in the Wave Dashboard Designer

Download the query results from dashboard widgets in Microsoft Excel (.xls) and comma-separated values (.csv) formats. This feature downloads only the data from the query (or step) behind the widget.

Choose Your Session Security HttpOnly Attribute Setting

Wave Analytics supports enabling the session security setting require HttpOnly attribute. Previously, you couldn’t access Wave if this setting was enabled. Now Wave supports both enabled and disabled configurations.

Set Smart Notifications to Keep Up to Date on Your Most Important Business Metrics

With notifications, Wave works for you, when and where you choose. Attach notification criteria to number widgets in dashboards, and select when to run the queries. You can see notifications in Wave, Lightning Experience, the Salesforce1 mobile app, and email. Notifications are available in dashboards built in the Wave dashboard designer.

1. Locate the number widget on your dashboard that shows the KPI you want to be notified about. Optionally, you can use the dashboard’s filters to narrow the query against your data and create a personalized KPI.
2. Select **Set Notification** from the drop-down list.

![Set Notification](image)

3. In the New Notification panel, set the value that you want to know about as soon as your widget query returns it.

For example, say that you want to know when your team has reached 75% of quota. You’d click **Set Notification** on the Quota Attainment number widget. In the New Notification panel, you’d select **Equals or is greater than** from the drop-down list and enter **75** for the threshold value.

4. Select the frequency and time when you want the query to run.

![New Notification Panel](image)

5. Test your notification on the spot with **Save and Run**, or simply save it. No administrator setup is required.

When the conditions you’ve set for the KPI are met, you’re notified in the app and via email. In Wave, Lightning Experience, and Salesforce1, the bell icon (🔔) informs you of notifications.
In Wave, the drop-down list from the bell includes the option to manage Wave notifications. You can also manage notifications on the dashboard. The bell icon with the plus (➕) opens the list of notifications and shows numbers in blue (1) on widgets that have notifications attached. In the All Notifications panel, each notification has a drop-down action list for editing and deleting the notification.

Take note of the limitations for Wave notifications.

- You can set up to five notifications per user.
- Notifications are available only for dashboards designed in the Wave dashboard designer.
- Notifications are available only from number widgets.

**Embed Wave in Any Lightning Page**

With Wave on Lightning, you can give users access to insights on any device. Integrate Wave into Lightning home pages, record pages, and app home pages. Create analytics apps for Lightning Experience and the Salesforce1 mobile app in just a few minutes.

With drag-and-drop Wave components in the Lightning app builder, you can create Lightning pages that are optimized for desktop, tablet, and phone.
Be sure to create a responsive layout for your dashboard in the Wave dashboard designer so that it is sized to fit your platform. For more information, see Layouts: Optimize Your Dashboards for Different Devices.

Now that you can embed Wave dashboards in any Lightning page, it’s easy to give users access to Sales Wave and Service Wave prebuilt apps.

Note: For Salesforce1, only Lightning app home pages are supported. See Lightning Pages in the Salesforce Help for more information.

To create dashboards that are responsive on phone and tablet screens, generate device-specific layouts in the Wave dashboard designer.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

**Embed Wave in Any Mobile Page**

Add Wave dashboard components to Visualforce pages in Salesforce websites accessed by mobile users, including Communities. Embedded Wave dashboards can responsively select layouts optimized for any device—including phones and tablets.

A dashboard built in the Wave dashboard designer is responsive to any screen size. In the Wave designer, you can generate dashboard layouts for different devices such as tablets, phones, or watches. Then Wave automatically chooses the right layout for whatever device you’re using to view the dashboard. Embed the dashboard in a Visualforce page, and then any Salesforce website can include Wave Analytics optimized for viewing on desktop and mobile.

Wave dashboards embedded in Visualforce pages can include these features.

- A quick link to the native app, whether it’s Wave on desktop or Wave Mobile (available for Wave users but not Community users)

- A record action menu
- Links to other Wave assets
- Sharing and downloading options

On the other hand, Wave dashboards embedded in Visualforce pages have these limitations.

- The option to explore in Wave isn’t included.
- The charts don’t include hover-over information (tooltips).
- Some filters, such as date selectors, are difficult to set.
- Wave features, such as annotation, notification, and presentation, aren’t available.

**Annotate and Collaborate on Wave Dashboards More Easily**

Open your annotated dashboard directly from a feed post. Add a screenshot of the current state of your dashboard when creating an annotation. Refresh the annotation feed, or close it with one click.

Note: Annotations are supported only in dashboards built in the Wave dashboard designer.

Collaborating on dashboards is more intuitive with these enhancements.
• Follow dashboards in Chatter to view all posts on the dashboard.

• Click the dashboard image in Chatter to navigate directly to the annotation on the dashboard in Wave Analytics.

• The New Annotation panel includes the option to post a screenshot of the dashboard in Chatter.

• On an open annotation, you can refresh the feed or close the annotation.

• In the dashboard panel, each annotation has a drop-down action list for resolving or deleting the annotation.

**Download Dashboard Widget Data in the Wave Dashboard Designer**

Download the query results from dashboard widgets in Microsoft® Excel® (.xls) and comma-separated values (.csv) formats. This feature downloads only the data from the query (or step) behind the widget.

To set up, assign users a permission set that includes “Download Wave Analytics Data.” Users with the permission see download options when they select Share from the drop-down list on a widget.
Choose Your Session Security HttpOnly Attribute Setting

Wave Analytics supports enabling the session security setting Require HttpOnly attribute. Previously, you couldn’t access Wave if this setting was enabled. Now Wave supports both enabled and disabled configurations.

Wave: Go Places with Wave Mobile Apps

Take Wave with you with the latest version of the iOS app and the new Android app.

IN THIS SECTION:

Experience the Latest Wave for iOS
For the latest enhancements, download Wave Analytics from the App Store.

Ride the Wave You’ve Been Waiting For: Wave Analytics for Android
For the initial release, download Wave Analytics from Google Play™.

Experience the Latest Wave for iOS

For the latest enhancements, download Wave Analytics from the App Store.

Wave Analytics is available for Apple® devices running iOS 8 and later. The latest features include:

• View your beautiful dashboards created in the new Wave dashboard designer, with responsive layouts that automatically optimize for phones and tablets.
• Expand your visualization repertoire with scatter plots and combination bar-line charts!
• Large orgs launch screaming fast because we’ve implemented lazy loading for the home screen.
• Sort your home screen any way you want. The toggle at the top right gives you the power to switch between alphabetic order and most recently used.
• Impress your friends with relative fiscal date range filters in dashboards and lenses!
Ride the Wave You’ve Been Waiting For: Wave Analytics for Android

For the initial release, download Wave Analytics from Google Play™.

Wave Analytics is available for Android™ devices running Android 5 or later. This release is just the start. Wave on Android is currently a read-only dashboard viewer. Exploration, write actions, and dashboards built in the Wave dashboard designer aren’t supported yet.

Wave on Android organizes your Wave assets under Apps, Dashboards, and Lenses tabs. Tap an app to quickly access its dashboards and lenses. All lists are in most recently used (MRU) order.

On Android, one finger scrolls either the whole dashboard or the chart or table that you’re touching. Two fingers always scroll the dashboard.
Salesforce Winter ’17 Release Notes

Wave Analytics: Take Data Analysis to the Next Level

Tap to access help, settings, and other resources. Tap to search.
View your Wave dashboards and lenses on your Android device, take your data with you on the go, and answer business questions on the spot!

SEE ALSO:

*Mobile Help: Wave Analytics for Android*

**Wave: Integrate Your Data**

The new data manager puts all your data preparation tools in one place, making it easier to configure replication settings, create datasets, and manage your dataflows.

**IN THIS SECTION:**

*Prepare, Replicate, and Monitor in the New Data Manager*

The data manager is a new one-stop shop for all your dataset needs. If you opted in to the data prep beta, or enabled replication, the data manager is where you create your dataset recipes, view and edit your replication settings, and monitor all your jobs and dataflows. All in one place.

*Optimize Your Dataflows with Replication (Generally Available)*

Replication decouples the extract of Salesforce data from your dataflow, letting you run the extract on a separate schedule. By scheduling these extracts ahead of time, your dataflow has less to do and runs faster. Think of it like doing a big supermarket shop on the weekend so that you don’t have to head out to the store each time you need something during the week. To lighten the load even more, replication extracts Salesforce data incrementally, so only data that’s changed gets extracted.

*Create Datasets with Data Prep (Beta)*

Data prep is the quick new way to cook up new datasets using your existing datasets as ingredients. Combine data from multiple datasets, remove fields, and transform field values using a clear user interface, right within the new data manager. And not one line of JSON!

*Remove Fields from Your Datasets with the sliceDataset Transformation*

Use the new sliceDataset transformation to select a subset of fields from a dataset in your dataflow for use in a new dataset or in other transformations. This feature allows you to create multiple datasets, each with different sets of fields from the same Salesforce object, without performing a separate extract for each dataset. This helps you out if you are using replication, which performs only one extract of data from each Salesforce object.

**Prepare, Replicate, and Monitor in the New Data Manager**

The data manager is a new one-stop shop for all your dataset needs. If you opted in to the data prep beta, or enabled replication, the data manager is where you create your dataset recipes, view and edit your replication settings, and monitor all your jobs and dataflows. All in one place.

You can get to the data manager in Wave from the gear icon.
You land in the Prepare section (1), where you have access to data sources and existing datasets. If you have the data prep beta feature enabled, the Recipes (2) and Datasets (3) tabs are where you prepare new datasets. With replication enabled, the Replication tab (4) is where you can view and update settings for your replication-enabled Salesforce objects. And you don’t have to go too far to check on the status of all your recipes, replications, and other dataflow jobs. Just click Monitor (5) to open the data monitor without leaving the data manager!

Note: Remember, you see the data manager only if you’ve enabled data prep or replication.

Optimize Your Dataflows with Replication (Generally Available)

Replication decouples the extract of Salesforce data from your dataflow, letting you run the extract on a separate schedule. By scheduling these extracts ahead of time, your dataflow has less to do and runs faster. Think of it like doing a big supermarket shop on the weekend so that you don’t have to head out to the store each time you need something during the week. To lighten the load even more, replication extracts Salesforce data incrementally, so only data that’s changed gets extracted.

Replication has been a pilot feature since the Winter ’16 release, but now, in Winter ’17, it’s generally available. Multiple dataflows, which were added to the replication pilot in the Spring ’16 release, are now also generally available when you enable replication. What’s more, you can now view and edit your replication settings, and create dataflows, all in the new data manager.

How Does Replication Work?

When you enable replication, Wave looks at the sfdcDigest nodes in your existing scheduled user dataflows to see which Salesforce objects and fields you’re currently extracting. Using this information, Wave sets up replication for each object, to extract the data separately. You can schedule this replication to run ahead of your dataflows. If you later update your dataflows, or create new ones, Wave automatically updates the replication with relevant changes.

Enabling Replication and Configuring Replication Settings

You can enable Replication from Setup. Enter Wave Analytics in the Quick Find box, then click Settings. Select Enable Replication, and then click Save.

Important: A lot goes on when you enable replication, some of which might require your attention. For this reason, we recommend that you read Understand What Happens When You Enable Replication before you flip the switch.

When that’s done, the data manager is your new home for all things replication. Here you can view the enabled Salesforce objects, set up a replication schedule, and run replication.
To configure the replication settings for an object, click the object in the list. Here you can remove fields from the replication, and add a filter to replicate specific data.

Incremental Extracts

By default, replication extracts data from each Salesforce object incrementally. Records are inserted, updated, or deleted to match changes in the object since the previous replication run. Because only changes are extracted, replication runs faster. Whenever you make field changes in an sfdcDigest dataflow node, such as adding or removing fields or changing field attributes, Wave triggers a full extract of data from the object the next time replication is run.

To turn off incremental extracts for a replicated object, add the `incremental` parameter to the object’s sfdcDigest node in your user dataflow, and set its value to `false`. For example:

```json
{
    "Extract_Opportunities": {
        "action": "sfdcDigest",
        "parameters": {
            "object": "Opportunity",
            "incremental": false,
            "fields": [
                { "name": "Id" },
            ]
        }
    }
}
```
Note: Incremental extracts are not supported for all Salesforce objects. For this reason, replication automatically performs a full extract of any unsupported object. In addition, formula fields can become out of sync with your replicated object in incremental mode. Therefore, we recommend that you turn off incremental extracts for objects containing formula fields.

Create Multiple Dataflows with Replication Enabled

With the Wave Analytics Platform license, and replication enabled, you can now build multiple dataflows for different purposes and run them on their own schedules. This lets you break up a large default dataflow into smaller, independent ones to build datasets faster. You can delete any dataflows that you create, or unschedule them to temporarily prevent them from running. You can’t delete the default dataflow.

You can create and manage dataflows in Dataflow View, either in the data monitor or the Monitor area of the new data manager.

Note: With the Wave Analytics Platform license, your org can have up to 10 dataflows. This includes the default dataflow, and Wave app dataflows such as Sales Wave and Service Wave. Keep in mind that each dataflow run counts towards your limit of 24 dataflow runs per day.

Create Datasets with Data Prep (Beta)

Data prep is the quick new way to cook up new datasets using your existing datasets as ingredients. Combine data from multiple datasets, remove fields, and transform field values using a clear user interface, right within the new data manager. And not one line of JSON!

Note: This release contains a beta version of data prep that is production quality but has known limitations. Contact Salesforce if you’d like to try it out!
I'm Hungry for More. How Does Data Prep Work?

In data prep, you create a dataset by first creating a recipe for it. Just like a food recipe, a dataset recipe contains a list of ingredients (your existing datasets), and a set of instructions (the transformations you want to perform on these datasets). When your recipe is ready, you can use it to create a target dataset right away or schedule it to update the dataset on a recurring basis. Wave saves your recipes, so you can update them or even use them to create new recipes.

Create a Dataset with a Recipe

When you create datasets in data prep, you start off with the existing dataset you want to work from. Open up the data manager and head over to the Datasets tab. Here you see a list of the datasets available to you.

Click the dataset you want to start with and enter a recipe name. Choose carefully as this name is also used for the target dataset you are creating. Next, you see the dataset recipe page.

1. A preview of the data you'll see in your target dataset.
2. View and manage your transformations here, or navigate the fields in your preview.
3. Want to add data from another dataset? Click here.
4. Can't find the field you're looking for? Click here to view fields as a list, search for fields, or hide fields in the preview.
5. If you’ve added data or transformed fields, click here to see a list of these transformations. Need to remove transformations? You can do that from here, too.

6. Do your field values need work? Click here to change case, split a field value (such as phone number into area code and number), or find and replace values.

When you’re done, you can save the recipe and come back to it later or click Create Dataset to go ahead and run the recipe.

Note: If you’ve enabled replication, you can also create recipes from your replicated objects!

Manage Your Dataset Recipes

From the Recipes tab, you can track the status of all your recipes and their respective target datasets, and delete recipes.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Status</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="icon1.png" alt="Icon" /></td>
<td>Recipe Saved</td>
<td>New or updated recipe that has been saved, but not selected to run.</td>
</tr>
<tr>
<td><img src="icon2.png" alt="Icon" /></td>
<td>Recipe Pushed</td>
<td>New or updated recipe that has been selected to run.</td>
</tr>
<tr>
<td><img src="icon3.png" alt="Icon" /></td>
<td>Target Dataset Not Created</td>
<td>The associated recipe has not been run, or the target dataset is queued.</td>
</tr>
<tr>
<td><img src="icon4.png" alt="Icon" /></td>
<td>Target Dataset Created</td>
<td>The associated recipe has been run, and the target dataset has been created. If the recipe is later updated but not run, the status shows as Not Up to Date.</td>
</tr>
</tbody>
</table>

Remove Fields from Your Datasets with the sliceDataset Transformation

Use the new sliceDataset transformation to select a subset of fields from a dataset in your dataflow for use in a new dataset or in other transformations. This feature allows you to create multiple datasets, each with different sets of fields from the same Salesforce object, without performing a separate extract for each dataset. This helps you out if you are using replication, which performs only one extract of data from each Salesforce object.
Here’s an example. Let’s say your dataflow contains the sfdcDigest node, ExtractOpportunities, which extracts all fields from the Opportunity object. But some of your users don’t want Id fields in their Opportunities dataset. No problem. Just add a sliceDataset node to your dataflow, specifying the source node and the fields you want to remove.

```json
{
  "RemoveFieldsFromExtractOpportunities": {
    "action": "sliceDataset",
    "parameters": {
      "source": "ExtractOpportunities",
      "mode": "drop",
      "fields": [
        {
          "name": "Id"
        },
        {
          "name": "ProductId"
        }
      ]
    }
  }
}
```

The clever part of the transformation is the mode parameter, which lets you choose between two modes: drop or select.

```json
"mode": "drop"
"mode": "select"
```

Set mode to drop to remove the fields you specify—great if you only want to remove a few fields. Set it to select to keep the fields you specify. Think how much time select mode is going to save you when you want to remove a couple of hundred fields!

There are just a couple of things to bear in mind to avoid those pesky error messages. The mode parameter is required, so don’t leave it out, and you must specify at least one field.

**Wave: Develop on the Platform with SAQL and REST API enhancements**

Developing on the Wave platform continues to get more powerful, with much-requested new SAQL functions and updates to the REST API.

**IN THIS SECTION:**

- **Take Advantage of New String and Aggregation SAQL Functionality**
  Wave’s SAQL functionality continues to expand with exciting new functionality in string handling and aggregation.

- **Review Updates to the REST API for Wave**
  The REST API for Wave has new endpoints and representations.

**Take Advantage of New String and Aggregation SAQL Functionality**

Wave’s SAQL functionality continues to expand with exciting new functionality in string handling and aggregation.

**String Functions**

We added a number of key string handling functions.

- **starts_with** — Returns true if the string starts with the specified prefix.
- **ends_with** — Returns true if the string ends with the specified suffix.
• `index_of` — Returns the index of the specified occurrence of the search string, beginning at the specified position. The default position is 1, which means that the function begins searching at the first character. If present, an integer indicates which occurrence to search for. For example, if 2 is specified and there is more than one matching occurrence, the index of the second occurrence is returned.

• `replace` — Returns the string with every occurrence of the search string replaced by the supplied replacement string.

**Aggregation Functions**

Important new aggregation functions have been added, too.

• `regr_slope` — This simple linear regression function accepts a grouped dependent numeric expression and a grouped independent numeric expression. It returns the slope of the regression line.

• `regr_intercept` — This simple linear regression function accepts a grouped dependent numeric expression and a grouped independent numeric expression. It returns the y-intercept for the regression line.

• `regr_r2` — This simple linear regression function accepts a grouped dependent numeric expression and a grouped independent numeric expression. It returns the coefficient of determination (also called R-squared or goodness of fit) for the regression.

For more information, see the *Wave Analytics SAQL Reference*.

**Review Updates to the REST API for Wave**

The REST API for Wave has new endpoints and representations.

Trending report snapshots in Wave is now supported through the `/wave/trendedreports/${trendedReportId}` and `/wave/trendedreports` endpoints.

Replicated datasets are supported through the `/wave/replicatedDatasets/${id}`, `/wave/replicatedDatasets`, and `/wave/replicatedDatasets/${id}/fields` endpoints, but require the `orgHasReplicationEnabled`, `ELTEditor`, and `InsightsAdmin` permissions.

Many representations have new properties to support new or changed features, particularly for dashboards.

For more information, see the *Wave REST API Developer Guide*.

**Service: Big Changes to CTI, More Features for Field Service**

If you use CTI (computer-telephony integration), listen up! We’re retiring Desktop CTI in Spring ’17, so you’ve got only one more release to migrate to Open CTI. (On the bright side, Open CTI now works in Lightning Experience.) Expertly manage your field service operations with a host of new Field Service Lightning features. And Instagram joins Twitter and Facebook in the lively land of Social Customer Service.

**IN THIS SECTION:**

CTI: Say Hello to Open CTI for Lightning and Goodbye to Desktop CTI

Out with the old and in with the new. Desktop CTI is on its way out, and Open CTI now works in Lightning Experience.

Field Service: Meet Your Field Service Lightning Toolbox

Winter ’17 brings good tidings of a brand new set of features that you can use to manage your field service operations. Track work with service appointments, manage your workforce with service resources, standardize your work orders with work types, and more.

Social Customer Service: Instagram Generally Available, Improved Performance, and Lightning Experience

Instagram support is now generally available. Sync up to 2000 social accounts faster with 500 accounts viewable per page. Lightning strikes social! The Social post and persona pages and the case feed functions, except Reply, are available in Lightning Experience.
Salesforce Knowledge: New REST APIs and Professional Edition Support
Both authenticated and guest users can retrieve the user’s visible data categories and their associated articles through the new support REST APIs. Professional Edition organizations can enable Knowledge.

Salesforce Console for Service: Changes to List View Hovers
We know that you like being in control, so we created a console preference that lets you control whether hovers appear in list views.

Omni-Channel: Supercharge Your Supervisors
Put real-time insights at your support supervisors’ fingertips with Omni-Channel Supervisor (Beta). This feature is available in Salesforce Classic only.

Live Agent: Use Omni-Channel Routing for Chats (Beta) and Enhanced Chat Transcripts
Live Agent chats can queue side by side with other work types using Omni-Channel routing (beta), and the Live Chat Transcript is there for you from when the chat is requested to when it ends. This feature is available in Salesforce Classic only.

Case Feed: Increase Agent Efficiency in Lightning Experience
Case Feed gives support agents a more streamlined way of creating, managing, and viewing cases, so that they can see case history and customer interactions in context. Winter ’17 includes improvements to the email quick action in Lightning Experience and the ability to show the Case Owner field and contact fields on the case page. This feature is available in both Lightning Experience and Salesforce Classic.

Chatter Answers: Help Customers Get Answers Fast
Chatter Answers is a self-service and support community where users can post questions and receive answers and comments from other users or your support agents. Chatter Answers brings together Case, Questions and Answers, and Salesforce Knowledge articles in a unified experience. Chatter Answers is retiring in Winter ’18.

Entitlement Management: Better Update Rules and Modified Limits
Entitlement management lets you and your support agents verify and fulfill customers’ support contracts. Winter ’17 brings improvements to entitlement process update rules and changes to service contract hierarchy limits. This feature is available in Salesforce Classic only.

Assets: Updated Hierarchy Limits
Assets help you track products that customers have purchased from you. Winter ’17 brings changes to asset hierarchy limits. This feature is available in both Lightning Experience and Salesforce Classic.

Snap-Ins: Bring the Power of Service Cloud Components to Your Website
Ever wish you could add nifty Service Cloud features like chat directly to your website or mobile app? Snap-ins let you embed Service Cloud components into your web pages so that you can provide contextual support to your customers.

Service Cloud Lightning Snap-ins SDK: Now Generally Available for iOS
Quickly incorporate Service Cloud features right into your native iOS app using the new Service Cloud Lightning Snap-ins SDK.

CTI: Say Hello to Open CTI for Lightning and Goodbye to Desktop CTI
Out with the old and in with the new. Desktop CTI is on its way out, and Open CTI now works in Lightning Experience.

IN THIS SECTION:
Make Your Calls in Lightning Experience with Open CTI
Open CTI and all its awesomeness is now available in Lightning Experience. Open CTI helps partners integrate Salesforce with computer-telephony integration (CTI) systems. All this magic happens without installing adapter programs on users’ machines! Open CTI is now available in Lightning Experience as well as Salesforce Classic.
The End is Near for Desktop CTI

As a reminder, Desktop CTI (computer-telephony integration), also known as the CTI Toolkit, will reach the end of its life and stop functioning with the Spring ’17 release. You have one more release to migrate your CTI functionality to Open CTI.

Make Your Calls in Lightning Experience with Open CTI

Open CTI and all its awesomeness is now available in Lightning Experience. Open CTI helps partners integrate Salesforce with computer-telephony integration (CTI) systems. All this magic happens without installing adapter programs on users’ machines! Open CTI is now available in Lightning Experience as well as Salesforce Classic.

Previously, Open CTI worked only in Salesforce Classic.

So how does Open CTI work in Lightning Experience?

The path to Lightning Experience gave us an opportunity to modernize the Open CTI API. We created a new Open CTI API just for Lightning Experience that’s easier to use. The API uses JSON objects as parameters instead of individual parameters, returns error messages that are easier to understand, and adapts to the Lightning platform.

Now there are two separate Open CTI APIs—one for Salesforce Classic and one for Lightning Experience. Previous versions of Open CTI are now part of the Open CTI API for Salesforce Classic. The two APIs provide similar methods, but a few methods behave differently.

Note: Open CTI for Lightning Experience works only in Lightning apps—it doesn’t work in Classic apps. Even though you can view Classic apps in Lightning Experience, those apps are still Classic apps under the covers. To check if your app is a Lightning app, use the App Manager in Setup.

How do I start making calls in Lightning Experience?

To get up and running, complete these high-level steps.

1. Work with your CTI vendor to create an Open CTI implementation that works for Lightning Experience.
2. Install an Open CTI for Lightning package.
   The call center definition file in your package now identifies the user interface you plan to use—Salesforce Classic, Lightning Experience, or both. Simply specifying both user interfaces in a call center definition file doesn’t mean that your softphone works in both UIs.
3. Create a Lightning app and add the Open CTI Softphone option.

Tip: To help you get started, we’ve created an Open CTI Demo Adapter for Lightning Experience. Go check it out!

If you want your Open CTI implementation to work in Lightning Experience and in a Salesforce console, your CTI vendor must create a unique implementation that uses both Salesforce Classic and Lightning Experience. The console might look and feel like Lightning Experience, but it’s actually only available in Salesforce Classic.

For information about creating your Open CTI implementation, including differences in Open CTI API functionality, see the Open CTI Developer Guide.

What does a softphone look like in Lightning Experience?

After your Open CTI implementation is all set up, your softphone displays in the utility bar located in the footer of Lightning Experience. Here’s what our demo adapter looks like in Lightning Experience.
The End is Near for Desktop CTI

As a reminder, Desktop CTI (computer-telephony integration), also known as the CTI Toolkit, will reach the end of its life and stop functioning with the Spring ’17 release. You have one more release to migrate your CTI functionality to Open CTI.

If you’re using an adapter built on Desktop CTI, it will stop working with the Spring ’17 release. Work with your partners to create an Open CTI implementation.

SEE ALSO:

Knowledge Article: CTI Toolkit Retirement FAQ
Open CTI Developer Guide (can be outdated or unavailable during release preview)
Field Service: Meet Your Field Service Lightning Toolbox

Winter ‘17 brings good tidings of a brand new set of features that you can use to manage your field service operations. Track work with service appointments, manage your workforce with service resources, standardize your work orders with work types, and more.

To access Salesforce’s field service features, enable Field Service Lightning. Enter Field Service Settings in the Quick Find box in Setup. Click Field Service Settings, and then select Enable Field Service Lightning. To learn more about how to set up Field Service Lightning, see Field Service Lightning Help (can be outdated or unavailable during release preview).

Note: Users need a Field Service Lightning permission set license to access field service features other than work orders. Work orders don’t require a special permission set license.

IN THIS SECTION:

- Manage Your Workforce with Service Resources
  Nimbly track the schedule, skills, and availability of your field technicians and dispatchers by representing them in Salesforce as service resources. You can assign service resources to service appointments to solve your customers’ problems lightning-fast. This feature is available in both Lightning Experience and Salesforce Classic.

- Schedule Work with Service Appointments
  Service appointments help you track field service work to be performed for customers. With a customizable status field and the ability to track differences between scheduled and actual appointment times, service appointments make it easy to keep your customers happy. This feature is available in both Lightning Experience and Salesforce Classic.

- Define Your Field Service Footprint with Service Territories
  Create service territories to represent the regions where your team works. You can set each territory’s operating hours, assign service resources to a territory, and create territory hierarchies. This feature is available in both Lightning Experience and Salesforce Classic.

- Track Your Workforce’s Expertise with Skills
  Skills make it easy for you to track each field technician’s certifications and areas of expertise. They also help dispatchers find the best person to assign to a field service task. This feature is available in both Lightning Experience and Salesforce Classic.

- Manage Daily Schedules with Operating Hours
  Define operating hours for service territories, service territory members, and accounts to indicate their field service hours. This feature is available in both Lightning Experience and Salesforce Classic.

- Report on Field Service Lightning
  Want to analyze trends in service appointment length or cancellations? No problem. Need to see which accounts have the most work orders? We’ve got your back. You can create a variety of custom report types to stay informed about field service records in your org. This feature is available in both Lightning Experience and Salesforce Classic.

- Get Geocoding Data in Field Service Lightning
  When you add a street address to certain types of field service records, Salesforce calculates the address’s latitude, longitude, and location accuracy. You can reference this data, which is visible only in the API, in any custom field service applications. This feature is available in both Lightning Experience and Salesforce Classic.
Do More with Work Orders

Winter ’17 includes a suite of enhancements to work orders, including Professional Edition support, work order templates, in-app notifications, and criteria-based sharing. This feature is available in both Lightning Experience and Salesforce Classic.

SEE ALSO:
Access More Field Service Information in Salesforce1

Manage Your Workforce with Service Resources

Nimbly track the schedule, skills, and availability of your field technicians and dispatchers by representing them in Salesforce as service resources. You can assign service resources to service appointments to solve your customers’ problems lightning-fast. This feature is available in both Lightning Experience and Salesforce Classic.

Create service resources from the Service Resources tab in Salesforce. After you create a resource, you can add details about their availability and expertise.

• In the Service Territories related list, add territories where the resource is available to work. Indicate whether each territory is the resource’s primary, secondary, or relocation territory. The primary territory is typically the territory where the person works most often—for instance, near their home base—while secondary territories are territories where they can be assigned to appointments if needed. Relocation territories represent temporary moves. Service resources can have multiple secondary territories, but only one primary territory.

• In the Skills related list, assign skills to show the resource’s areas of expertise. Use the Start Time and End Time fields to specify when the resource’s skill is valid. For instance, if the skill represents a year-long certification, the End Time would be the date the certification expires.

• In the Service Appointments related list, view the service appointments assigned to the resource.

• In the Absences related list, create absences to represent time periods when the resource is unavailable to work.

• If the resource is a contractor, define their daily, weekly, or monthly capacity in the Capacities related list.

Sample service resource:
You can also set up service resource preferences and exclusions so that a particular account’s service appointments are always handled by the right person or team. An account’s work orders inherit its resource preferences. To get started, see Set Up Service Resources (can be outdated or unavailable during release preview).

Schedule Work with Service Appointments

Service appointments help you track field service work to be performed for customers. With a customizable status field and the ability to track differences between scheduled and actual appointment times, service appointments make it easy to keep your customers happy. This feature is available in both Lightning Experience and Salesforce Classic.

Service appointments are always associated with a parent record, which can be a work order, work order line item, opportunity, account, or asset. The type of parent record tells you about the nature of the service appointment.

- Service appointments on *work orders* and *work order line items* offer a more detailed view of the work being performed. Work orders and work order line items contain general information about the task, while service appointments include the details about scheduling and ownership.

- Service appointments on *assets* represent work being performed on the asset that isn’t associated with a work order.

- Service appointments on *accounts* represent work being performed for the account that isn’t associated with a work order.

- Service appointments on *opportunities* represent work being performed for the opportunity that isn’t associated with a work order.

Create service appointments from the Service Appointments tab in Salesforce, or from the Service Appointments related list on supported records. On service appointments, you can track:

- Subject and description
- Length of the appointment
- Arrival window
• Discrepancies between scheduled and actual appointment times
• Due date, which typically reflects terms in a customer's service-level agreement
• Appointment status

You can also expose service appointments in communities so customers can view and create their own appointments. For details, see Expand Your Community to Include Field Service Data.

When you create a service appointment, assign it to one or more service resources using the Assigned Resources related list. To get started, see Create Service Appointments (can be outdated or unavailable during release preview).

Example: Suppose you create a work order to track a customer’s annual refrigerator maintenance. In the Service Appointments related list on the work order, you create an Annual Maintenance appointment.

During the appointment, the technician completes most of the maintenance but determines that a replacement part must be ordered and installed. The technician changes the appointment status to Cannot Complete, and a second service appointment is created on the work order to track the installation. When the second appointment is completed and it is determined that the fridge is fully repaired, the second appointment and the work order can then be closed. Easy as pie!

Define Your Field Service Footprint with Service Territories

Create service territories to represent the regions where your team works. You can set each territory’s operating hours, assign service resources to a territory, and create territory hierarchies. This feature is available in both Lightning Experience and Salesforce Classic.

If you want to use service territories in Salesforce, determine which territories you need to create. Depending on how your business works, you may decide to create territories based on cities, counties, or other factors. If you plan to build out a hierarchy of service territories, create the highest-level territories first.

Create service territories from the Service Territories tab. After you create a territory, you can add members to it via the Service Territory Members related list. Service territory members are service resources who work within the territory. Associating them with a territory ensures that they’re assigned to appointments near their home base. To get started, see Set Up Service Territories (can be outdated or unavailable during release preview).

Example: You can create a hierarchy of territories to represent the areas where your team works in California. Include a top-level territory named California, three child territories named Northern California, Central California, and Southern California, and a series of third-level territories corresponding to California counties. Then assign service resources to each county territory to indicate who is available to work in that county.

Track Your Workforce’s Expertise with Skills

Skills make it easy for you to track each field technician’s certifications and areas of expertise. They also help dispatchers find the best person to assign to a field service task. This feature is available in both Lightning Experience and Salesforce Classic.

You can assign skills to all service resources in your org to indicate their certifications and areas of expertise. Optionally, specify each resource’s skill level from 0 to 99.99; for example, you can assign Maria the Welding skill, level 50.

In addition, you can add required skills to work types, work orders, and work order line items. This lets dispatchers know which skills are needed to complete a particular type of work. Define required skills in the Skill Requirements related list on a record.
If you intend to use the skills feature, determine which skills you want to track and how skill level is determined. For example, skill level can reflect years of experience, certification levels, or license classes. It’s up to you!

To get started, create skills from the Skills page in Setup under Field Service. Then assign skills to service resources and define skill requirements on work orders, work order line items, and work types. To learn more, see Set Up Skills for Field Service (can be outdated or unavailable during release preview).

Note: The skill feature in field service is also used in Live Agent to track agents’ areas of expertise. If you’re using both Live Agent and Field Service Lightning, we recommend creating separate skills for the field service side of your business.

Manage Daily Schedules with Operating Hours

Define operating hours for service territories, service territory members, and accounts to indicate their field service hours. This feature is available in both Lightning Experience and Salesforce Classic.

A service territory’s operating hours tell dispatchers when service appointments in that territory should take place. Service resources automatically use the operating hours of the service territory that they belong to. If service resources need different operating hours than their territory, you can create separate hours for them on their related service territory member record. And if an account only allows field service appointments during certain hours, operating hours help you track their preference.

Note: Only System Administrators can view, create, and assign operating hours.

Operating hours serve as a suggestion rather than a rule. Dispatchers can still assign a resource to an appointment that’s outside of their operating hours.

Sample operating hours:

To create and assign operating hours:
1. Click the Operating Hours tab, then click New.
2. Enter a name, description, and time zone.
3. Click Save.
4. In the Time Slots related list on the operating hours, create time slots for each day. For example, if the operating hours are 8 AM to 5 PM Monday through Friday, create five time slots, one per day. To reflect breaks such as lunch hours, create multiple time slots in a day: for example, Monday 8:00 AM – 12:00 PM and Monday 1:00 PM – 4:00 PM.
5. Assign the operating hours to a service territory, service territory member, or account using the Operating Hours lookup field.

**Note:** Operating hours are separate from business hours. Use operating hours for field service purposes.

### Report on Field Service Lightning

Want to analyze trends in service appointment length or cancellations? No problem. Need to see which accounts have the most work orders? We’ve got your back. You can create a variety of custom report types to stay informed about field service records in your org. This feature is available in both Lightning Experience and Salesforce Classic.

Custom report types let you track progress and get a bird’s-eye view of field service activity. The following object relationships are available.

<table>
<thead>
<tr>
<th>Primary Object</th>
<th>Description</th>
<th>Available Secondary Objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Hours</td>
<td>View the operating hours of service territories and their members.</td>
<td>Service Territories</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time Slots</td>
</tr>
<tr>
<td>Service Appointments</td>
<td>Compare the differences between scheduled and actual appointment times, and analyze trends in resource assignment on appointments.</td>
<td>Assigned Resources</td>
</tr>
<tr>
<td>Service Resources</td>
<td>Compare service resources’ capacities, absences, and skills, and view the territories they belong to and service appointments they are assigned to. And, see which accounts or work orders list resources as preferred.</td>
<td>Assigned Resources Resource Absences Resource Capacities Resource Preferences Service Resource Skills Service Territory Members</td>
</tr>
<tr>
<td>Service Territories</td>
<td>Compare the number and types of service appointments, work orders, and work order line items across service territories, and view which service resources belong to each territory.</td>
<td>Service Appointments Service Territory Members Work Orders Work Order Line Items</td>
</tr>
<tr>
<td>Work Orders</td>
<td>Compare information such as the number of appointments or line items per work order, or work order service territories. And, analyze how resource preferences and skill requirements vary between work orders.</td>
<td>Resource Preferences Service Appointments Skill Requirements Work Order Line Items</td>
</tr>
<tr>
<td>Primary Object</td>
<td>Description</td>
<td>Available Secondary Objects</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Work Order Line Items</td>
<td>Compare information such as work order line items’ owners, duration, and subject, and view service appointments and skill requirements associated with work order line items.</td>
<td>Service Appointments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skill Requirements</td>
</tr>
<tr>
<td>Work Types</td>
<td>Compare information such as work type duration and skill requirements.</td>
<td>Skill Requirements</td>
</tr>
<tr>
<td>Accounts</td>
<td>Compare accounts’ resource preferences and work orders.</td>
<td>Resource Preferences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work Orders</td>
</tr>
<tr>
<td>Assets</td>
<td>Compare the number and characteristics of work orders associated with assets.</td>
<td>Work Orders</td>
</tr>
<tr>
<td>Cases</td>
<td>Compare the number and characteristics of work orders associated with cases.</td>
<td>Work Orders</td>
</tr>
<tr>
<td>Contacts</td>
<td>Analyze the service appointments and work orders associated with contacts.</td>
<td>Service Appointments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work Orders</td>
</tr>
<tr>
<td>Entitlements</td>
<td>Compare the number and characteristics of work orders associated with entitlements.</td>
<td>Work Orders</td>
</tr>
<tr>
<td>Service Contracts</td>
<td>Compare the number and characteristics of work orders associated with service contracts.</td>
<td>Work Orders</td>
</tr>
</tbody>
</table>

We recommend saving your reports in Customer Support Reports or Other Reports. You can also create your own field service report folder.

**Get Geocoding Data in Field Service Lightning**

When you add a street address to certain types of field service records, Salesforce calculates the address’s latitude, longitude, and location accuracy. You can reference this data, which is visible only in the API, in any custom field service applications. This feature is available in both Lightning Experience and Salesforce Classic.

This location data feature, known as “geocoding,” is enabled for all supported field service objects when you enable Field Service Lightning. In the API, you’ll notice values in the following three fields on:

- Work orders
- Work order line items
- Service appointments
- Service territories
- Service territory members
- Resource absences

**EDITIONS**

Available in: **Enterprise, Performance, Unlimited**, and **Developer** Editions with the Service Cloud
### Field Name

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude</td>
<td>Latitude of the street address</td>
</tr>
<tr>
<td>Longitude</td>
<td>Longitude of the street address</td>
</tr>
<tr>
<td>GeocodeAccuracy</td>
<td>Accuracy of the latitude and longitude</td>
</tr>
</tbody>
</table>

Salesforce periodically refreshes these three geocoding fields to ensure their accuracy. Allow some time for the geocoding fields to refresh. The amount of processing time varies based on how many records are being updated at once. For details about geocoding, see [Location Tracking in Field Service Lightning](#) (can be outdated or unavailable during release preview).

**Note:** If you enabled work orders before Winter ’17, enabling Field Service Lightning auto-enables geocoding for all existing work orders in your org and populates their location fields. If you don’t enable Field Service Lightning, the geocoding feature isn’t available for work orders.

---

## Do More with Work Orders

Winter ’17 includes a suite of enhancements to work orders, including Professional Edition support, work order templates, in-app notifications, and criteria-based sharing. This feature is available in both Lightning Experience and Salesforce Classic.

**Note:** The Winter ’17 enhancements to work orders are available only if Field Service Lightning is enabled in your org.

---

### IN THIS SECTION:

- **Standardize Your Work Orders with Work Types**
  - Chances are, your business performs the same tasks for multiple customers. Work types are work order templates that save you time and make it easier to standardize your field service work. This feature is available in both Lightning Experience and Salesforce Classic.

- **Work Orders Supported in Professional Edition**
  - Work orders are now supported in Professional Edition orgs with the Service Cloud. This feature is available in both Lightning Experience and Salesforce Classic.

- **Add Duration and Required Skills to Work Orders**
  - New settings on work orders and work order line items let you specify how long the work will take and who’s qualified to do it. This feature is available in both Lightning Experience and Salesforce Classic.

- **View Suggested Articles on Work Orders**
  - Previously, the Knowledge One widget on work orders in the console sidebar let you manage attached articles and search the knowledge base. Now, it also displays article suggestions based on the work order’s title and description. This feature is available in both Lightning Experience and Salesforce Classic.

- **Changes to Work Order Enablement**
  - In Winter ’17, we’ve made some changes to the way work orders are enabled. This feature is available in both Lightning Experience and Salesforce Classic.

- **Create Criteria-Based Sharing Rules for Work Orders (Beta)**
  - You can define up to 50 criteria-based sharing rules to control who can view and update work orders. This feature is available in both Lightning Experience and Salesforce Classic.
Get Notified About Work Order Updates
Users in Salesforce1 and Lightning Experience can now get in-app notifications when a work order or work order line item they own or follow is updated. Enable this feature from Setup in Lightning Experience only.

Updated Limits on Work Order Hierarchies
Work order hierarchies can now have up to 10,000 records, and there are no longer any limits on hierarchy depth and width. Previously, a work order could have up to 2,000 child work orders, and a hierarchy of work orders could have up to 50 levels. This feature is available in both Lightning Experience and Salesforce Classic.

New Status Options on Work Orders
Work orders and their line items have three new status values, and we removed the Scheduled and Assigned values from the work order status options. In addition, new status-related fields make it easier to keep tabs on work being performed for customers. This feature is available in both Lightning Experience and Salesforce Classic.

Streamlined Work Order Pricing
We’ve made some changes to the way work order line items and price books work together.

Standardize Your Work Orders with Work Types
Chances are, your business performs the same tasks for multiple customers. Work types are work order templates that save you time and make it easier to standardize your field service work. This feature is available in both Lightning Experience and Salesforce Classic.

Work types indicate how long a particular task should take and which skills are required to complete it. Create work types from the Work Types tab. Simply add a name, description, estimated duration, and duration type. If you want, select the option to auto-create a service appointment on work orders or work order line items that use the work type. Then, add any required skills in the Skill Requirements related list.

To apply a work type to a work order or work order line item, select the work type in the Work Type lookup field on the record. When you add a work type, the work order or work order line item inherits the work type’s duration values and required skills.

Note: If needed, you can update the duration values and required skills on a work order or work order line item after they’re inherited from the work type.

Sample work type:
To get started, see Create Work Types (can be outdated or unavailable during release preview).

**Example**: Suppose you own a window company that often installs windows. Your window installations typically last 90 minutes. You can create a work type with the following settings.

- **Name**: Window Installation
- **Description**: Standard installation of single- or double-paned windows
- **Estimated Duration**: 90
- **Duration Type**: Minutes
- **Skill Requirements**:
  - Window Installation with a skill level of 50
  - Window Cleaning with a skill level of 10
- **Auto-Create Service Appointment** is selected

When a customer needs a window installed, you can create a work order for them and select the Window Installation work type in the Work Type lookup field. This auto-populates the work order’s duration and skill values, and creates a service appointment on the work order. High-five for efficiency!

### Work Orders Supported in Professional Edition

Work orders are now supported in Professional Edition orgs with the Service Cloud. This feature is available in both Lightning Experience and Salesforce Classic.

To enable work orders in a Professional Edition org, from Setup, enter Field Service Settings in the Quick Find box, then select Field Service Settings. Click Enable Field Service Lightning.

If you have an Enterprise, Performance, Unlimited, or Developer Edition org, work orders are automatically enabled whether or not Field Service Lightning is enabled. For details, see Changes to Work Order Enablement.
Add Duration and Required Skills to Work Orders

New settings on work orders and work order line items let you specify how long the work will take and who’s qualified to do it. This feature is available in both Lightning Experience and Salesforce Classic.

Estimate the Duration

The new **Duration** and **Duration Type** fields indicate how long a work order or work order line item should take to complete. Select a duration type—**Minutes** or **Hours**—and then enter a duration. For example, if a work order is expected to take four hours, enter **4** in the **Duration** field and select **Hours** in the **Duration Type** field.

Child service appointments inherit the duration values, although you can update them. If a work order or work order line item includes a work type, the duration values are inherited from the work type.

Add Required Skills

If a work order or work order line item can only be completed by a service resource with a particular set of skills, specify which skills are needed in the Skill Requirements related list.

1. Navigate to the record that needs required skills.
2. In the Skill Requirements related list, click **New**.
3. Select a skill. Skills must be created in Setup before they can be added as a requirement.
4. Enter a skill level from 0 to 99.99 based on how your business measures skill level.
5. Click **Save**. The skill now appears in the Skill Requirements related list on the record.

Required skills make it easier for dispatchers to assign work to service resources with the proper expertise.

**Note:** Required skills serve more as a recommendation than a rule. You can still assign work orders, work order line items, and related service appointments to service resources that don’t possess the skills listed in the Skill Requirements related list.

Sample work order with skill requirements, resource preferences, and service appointments:
View Suggested Articles on Work Orders

Previously, the Knowledge One widget on work orders in the console sidebar let you manage attached articles and search the knowledge base. Now, it also displays article suggestions based on the work order's title and description. This feature is available in both Lightning Experience and Salesforce Classic.

Changes to Work Order Enablement

In Winter '17, we’ve made some changes to the way work orders are enabled. This feature is available in both Lightning Experience and Salesforce Classic.

Work orders are one of the standard Field Service Lightning features, but they’re the only feature that’s available by default in all supported edition orgs—whether or not Field Service Lightning is enabled. To access other Field Service Lightning features and to get the Winter '17 enhancements to work orders, enable Field Service Lightning. (You need a Field Service Lightning permission set license to enable it.)

1. From Setup, enter Field Service Settings in the Quick Find box, then click Field Service Settings.
2. Select Enable Field Service Lightning.
   If you don’t have a Field Service Lightning permission set license, you just see an Enable Work Orders option, which is on by default.
3. Click Save.

Note:
- The Field Service Settings page replaces the Work Order Settings page in Setup.
- If you have a Professional Edition org with the Service Cloud, work orders are the only Field Service Lightning feature available to you. Work orders are enabled by default, but you can disable them on the Field Service Settings page.

Create Criteria-Based Sharing Rules for Work Orders (Beta)

You can define up to 50 criteria-based sharing rules to control who can view and update work orders. This feature is available in both Lightning Experience and Salesforce Classic.

To use criteria-based sharing on work orders, contact your Salesforce representative. To learn more, see Criteria-Based Sharing Rules.

Get Notified About Work Order Updates

Users in Salesforce1 and Lightning Experience can now get in-app notifications when a work order or work order line item they own or follow is updated. Enable this feature from Setup in Lightning Experience only.

Users are notified when any of the following actions occurs on a work order or work order line item that they own or follow.

- A text or file post is added
- A tracked field is updated
- The record owner changes
- The resource assignments change on a related service appointment

Note: If the option to track all related objects is selected in your feed tracking settings for work orders, users are also notified when child records of work orders—such as service appointments—are created or deleted.

To turn on work order notifications, enable the notification option on the Field Service Settings page in Setup.

202
Updated Limits on Work Order Hierarchies

Work order hierarchies can now have up to 10,000 records, and there are no longer any limits on hierarchy depth and width. Previously, a work order could have up to 2,000 child work orders, and a hierarchy of work orders could have up to 50 levels. This feature is available in both Lightning Experience and Salesforce Classic.

Similarly, work order line item hierarchies can now have up to 10,000 records.

New Status Options on Work Orders

Work orders and their line items have three new status values, and we removed the Scheduled and Assigned values from the work order status options. In addition, new status-related fields make it easier to keep tabs on work being performed for customers. This feature is available in both Lightning Experience and Salesforce Classic.

The Status picklist field on both work orders and work order line items now contains the following values:

- New—Record was created, but there hasn’t yet been any activity.
- In Progress—Work has begun.
- On Hold—Work is paused.
- Completed—Work is complete.
- Cannot Complete—Work could not be completed.
- Closed—All work and associated activity is complete.
- Canceled—Work is canceled, typically before any work began.

Changing a work order’s status doesn’t affect its line items’ statuses, and vice versa. If work orders were enabled in your org before Winter ’17, you’ll continue to see the previous Status values on work orders and work order line items until you modify the field or its values.

A new Is Closed checkbox on work order line items also indicate whether a line item is closed. Changing the line item’s status to Closed causes this checkbox to be selected. This makes it easy to report on closed versus open line items.

Finally, work orders and work order line items have a new picklist field, Status Category, which contains the same seven values as the Status field as well as a None value. Now when you create a custom value for the Status field, you’re prompted to select the status category that it belongs to. For example, if you create a Waiting for Response value, you may decide that it belongs in the On Hold category.

The Status Category field can be useful to reference in custom apps, triggers, and validation rules. Status categories let you extend and customize the work life cycle while still maintaining a consistent work classification for tracking, reporting, and business process management. If you’d like to use the field, add it to your work order and work order line item page layouts.

⚠️ Important: In orgs created during or after Winter ’17, the default status values on both work orders and work order line items are automatically assigned to their corresponding status category. For example, the New status has a status category of New. However, if work orders were enabled in your org before Winter ’17, existing status values have a status category of None which can’t be updated. If you want to change the status category from None for an existing status value, a little housekeeping in Setup is necessary. These steps apply to status values on both work orders and work order line items.

<table>
<thead>
<tr>
<th>Step</th>
<th>Example</th>
</tr>
</thead>
</table>
| **Step 1.** For each status value, create a new “dummy” status value with a modified name and an appropriate status category. | If you have a status value of Completed, create an additional status value with these settings:  
- Name: Completed_1  
- Status Category: Completed |
Step | Example
---|---
**Note:** Your default setup may have hidden status categories. You also need to create new status values for those status categories.

**Step 2.** Edit the status category of the original status value that your dummy value was based on. Edit the `Completed` status value so its status category is `Completed`.

**Step 3.** To keep things tidy, delete the dummy value. Delete the `Completed_1` value that you created.

### Streamlined Work Order Pricing

We’ve made some changes to the way work order line items and price books work together.

If you’re using the pricing features on work orders, you’ll know that you can associate a price book with each work order, and price book entries (products) to each of the work order’s line items. For example, you can associate your “Standard Price Book” with a particular work order, and create three line items on the work order which correspond to Product A, Product B, and Product C as listed in the price book.

Previously, it was possible for the `PricebookEntryId` and `Product2Id` fields on a work order line item to get out of sync. This could happen if a user selected a pricebook entry, then selected a product that didn’t correspond with that pricebook entry.

In Winter ’17 (API version 38.0), filling out the `PricebookEntryId` field automatically populates the corresponding `Product2Id` field, which is read-only to preserve the integrity of your data. We also made the following changes to price-related fields on work order line items:

- The `PricebookEntryId` field is now editable, and its label in the user interface changed from `Pricebook Entry` to `Product` for clarity.
- The `Product2Id` field is now read-only, and can’t be added to page layouts or updated via the API.
- When you select a product on a work order line item, the product must be included in the parent work order’s price book. If the work order doesn’t list a price book, you cannot add products to its line items.

If you weren’t using the pricing fields, including `Product`, on work orders before Winter ’17, these changes don’t affect you.

If you were using the pricing fields on work orders before Winter ’17, we recommend taking the following steps:

- Update to API version 38.0 to keep your data in sync.
- If you’ve written custom code or apps that reference the `Product2Id` field on work order line items, update your code to reference the `PricebookEntryId` field instead.
- If you need the `Product2Id` field on work order line items to be editable, consider creating a custom Visualforce page based on API version 37.0.
- Check your work order line item page layouts to make sure they contain the `Product` field (whose API name is `PricebookEntryId`) so you can continue associating work order line items with products.

This table explains how existing work order line items are affected when you upgrade to API version 38.0 (Winter ’17). In some cases the `Product` field must be updated manually.

<table>
<thead>
<tr>
<th>Line item data before Winter ’17</th>
<th>When line items are updated in Winter ’17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line item correctly lists a product and corresponding price book entry.</td>
<td>The <code>Product</code> field lists the original product.</td>
</tr>
</tbody>
</table>
Line item data before Winter ’17 | When line items are updated in Winter ’17
--- | ---
Line item lists a product, but not a price book entry. | The Product field is blank.
Line item lists a product and a price book entry, but the price book entry corresponds to a different product. | The Product field lists the product that corresponds to the original price book entry.
Line item’s price book entry belongs to a different price book than the one listed on the parent work order. | The user is prompted to select a product that is included in the parent work order’s price book.

Social Customer Service: Instagram Generally Available, Improved Performance, and Lightning Experience

Instagram support is now generally available. Sync up to 2000 social accounts faster with 500 accounts viewable per page. Lightning strikes social! The Social post and persona pages and the case feed functions, except Reply, are available in Lightning Experience.

IN THIS SECTION:

Instagram Generally Available
Deliver service on your customer’s favorite social channel. Support for Instagram is now generally available. Connect your Instagram account directly to Service Cloud, track cases, and respond directly to customers. This feature is available in both Lightning Experience and Salesforce Classic.

Sync Your Social Accounts Faster
Sync up to 2000 social accounts faster with 500 accounts viewable per page. This feature is available in Salesforce Classic only.

Social Post and Persona Home Pages Available in Lightning Experience
Access your social post and persona tabs without leaving Lightning Experience.

Case Feed Social Actions Available in Lightning Experience
You can like, unlike, view source, and delete social media from the case feed while in Lightning Experience. However, you must reply to posts in Salesforce Classic.

To Favorite Me Is to Like Me
We updated the social publisher to reflect Twitter’s change from Favorite to Like on posts. You can now like Twitter social posts instead of favorite, which reflects Twitter’s current interface. This feature is available in both Lightning Experience and Salesforce Classic.

Reply in Facebook Without the Original Post
Your agents can save time replying directly to a Facebook comment without the tedious task of importing the original post into Salesforce. This feature is available in Salesforce Classic only.

The End Is Here for the LinkedIn Pilot
The LinkedIn pilot program is no longer supported due to LinkedIn policy changes. If you are participating in the LinkedIn pilot program, remove your synced LinkedIn accounts and any social posts and personas from LinkedIn.

Instagram Generally Available
Deliver service on your customer’s favorite social channel. Support for Instagram is now generally available. Connect your Instagram account directly to Service Cloud, track cases, and respond directly to customers. This feature is available in both Lightning Experience and Salesforce Classic.
To activate Instagram #hashtag listening, create a rule in your Social Hub account to receive posts when your brand’s #hashtag is mentioned. Sync your Instagram #hashtag to Social Customer Service to receive Social posts when your brand’s #hashtag is mentioned on Instagram.

Sync Your Social Accounts Faster
Sync up to 2000 social accounts faster with 500 accounts viewable per page. This feature is available in Salesforce Classic only.
In Summer ’16, we increased the limit of managed social accounts from 500 to 2,000. Now your accounts sync faster and show up to 500 accounts per page. Your agents can respond from all synced accounts from the social publisher on the case feed.

Social Post and Persona Home Pages Available in Lightning Experience
Access your social post and persona tabs without leaving Lightning Experience.

Social Posts in Lightning Experience

Social Persona in Lightning Experience

Note: Social Customer Service setup and the moderation and authorization pages are only available in Salesforce Classic.

Case Feed Social Actions Available in Lightning Experience
You can like, unlike, view source, and delete social media from the case feed while in Lightning Experience. However, you must reply to posts in Salesforce Classic.

Social Publisher in Lightning Experience
To Favorite Me Is to Like Me

We updated the social publisher to reflect Twitter’s change from Favorite to Like on posts. You can now like Twitter social posts instead of favorite, which reflects Twitter’s current interface. This feature is available in both Lightning Experience and Salesforce Classic.

Reply in Facebook Without the Original Post

Your agents can save time replying directly to a Facebook comment without the tedious task of importing the original post into Salesforce. This feature is available in Salesforce Classic only.

The End Is Here for the LinkedIn Pilot

The LinkedIn pilot program is no longer supported due to LinkedIn policy changes. If you are participating in the LinkedIn pilot program, remove your synced LinkedIn accounts and any social posts and personas from LinkedIn.

Salesforce Knowledge: New REST APIs and Professional Edition Support

Both authenticated and guest users can retrieve the user’s visible data categories and their associated articles through the new support REST APIs. Professional Edition organizations can enable Knowledge.

IN THIS SECTION:

Access Your Data Categories and Articles with REST API
The new Knowledge Support REST APIs allow both authorized and guest users to retrieve the user’s visible data categories and their associated articles.

Welcome to Knowledge, Professional Edition
All Salesforce Knowledge functionality is now available in Professional Edition. If you have a Professional Edition of Salesforce, contact your Salesforce representative to enable Knowledge and build a powerful knowledge base.

Access Your Data Categories and Articles with REST API
The new Knowledge Support REST APIs allow both authorized and guest users to retrieve the user’s visible data categories and their associated articles.

The following resources are available with REST API.

Editions

Available in: Salesforce Classic

Salesforce Knowledge is available in Performance and Developer Editions and in Unlimited Edition with the Service Cloud.

Salesforce Knowledge is available for an additional cost in: Professional, Enterprise, and Unlimited Editions.
Welcome to Knowledge, Professional Edition

All Salesforce Knowledge functionality is now available in Professional Edition. If you have a Professional Edition of Salesforce, contact your Salesforce representative to enable Knowledge and build a powerful knowledge base.

For more information on building knowledge, see the new Knowledge Basics Trailhead module.

Salesforce Console for Service: Changes to List View Hovers

We know that you like being in control, so we created a console preference that lets you control whether hovers appear in list views.

IN THIS SECTION:

Control List View Hovers in the Console

We listened to what you wanted, and we’re happy to let you know that you can now control whether list view hovers appear in your console. Previously, list view hovers always appeared in responsive lists in the console. Now you can keep your responsive lists, but turn off list view hovers. In addition, hovers appear only when users mouse over a record name, or for cases, the subject field. Previously, the hover target was the entire row. This feature is available in Salesforce Classic only.

Control List View Hovers in the Console

We listened to what you wanted, and we’re happy to let you know that you can now control whether list view hovers appear in your console. Previously, list view hovers always appeared in responsive lists in the console. Now you can keep your responsive lists, but turn off list view hovers. In addition, hovers appear only when users mouse over a record name, or for cases, the subject field. Previously, the hover target was the entire row. This feature is available in Salesforce Classic only.
To see the **Enable List View Hovers** preference, your org needs the Console List View Hover permission. By default, this permission is enabled for all orgs, unless you previously contacted Salesforce to disable it.

If you previously disabled the Console List View Hover permission, give list view hovers another try. List view hovers now have a smaller hover target (just the record name or subject field). The new list view hovers are less intrusive and can help you work more efficiently. To try out list view hovers again, contact Salesforce to enable this permission.

Keep in mind, list view hovers are enabled in all consoles by default. To disable them, here's how.

1. In Setup, enter **Apps** in the **Quick Find** box, then select **Apps**.
2. Find the name of the console you want to modify, then click **Edit**.
3. Deselect **Enable List View Hovers**.
4. Click **Save**.

All done! No more hovers. Remember that you can always re-enable list view hovers in the future.

SEE ALSO:

* Salesforce Help: Optimize Salesforce Console List Views with Responsive Lists (can be outdated or unavailable during release preview)*

* Idea Exchange: Allow User to Turn Off Responsive List Hovers*

---

**Omni-Channel: Supercharge Your Supervisors**

Put real-time insights at your support supervisors’ fingertips with **Omni-Channel Supervisor (Beta)**. This feature is available in Salesforce Classic only.

---

**IN THIS SECTION:**

* **Omni-Channel Supervisor: Give Supervisors Real-Time Insight (Beta)**

Omni-Channel Supervisor brings real-time operational intelligence, all in a handy tab in the Salesforce Console. This feature is available in Salesforce Classic only.
Omni-Channel Supervisor: Give Supervisors Real-Time Insight (Beta)

Omni-Channel Supervisor brings real-time operational intelligence, all in a handy tab in the Salesforce Console. This feature is available in Salesforce Classic only.

**Note:** This release contains a beta version of Omni-Channel Supervisor, which means it’s a high-quality feature with known limitations. Omni-Channel Supervisor 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.

With Omni-Channel Supervisor, real-time information about your Omni-Channel agents, queues, and work are streamed live into the panel. Yes, you read that right: live. You see waiting times, open work, and more in real time. Omni-Channel Supervisor updates continuously to reflect the most up-to-date data, so you always know how your support center’s doing.

Supervisors can check the health of their call center in real time using the Agents, Queues, and Work tabs. Supervisors can survey the landscape and see what’s open and active, who’s assigned to what, and other details such as open capacities and average wait times for customers.

---

**Agents Tab**

---

**Queues Tab**

---

210
IN THIS SECTION:

Drill Down for Agent, Work, and Queue Details
Supervisors can select an agent, queue, or work item to see more detailed information, like status changes, assignments, and anything else they want to know. This feature is available in Salesforce Classic only.

View a Timeline of Agents’ Work
See how and when agents change status and work on items via an intuitive calendar view. Supervisors can set the day, time period, and zoom to get the best picture of how the agent is doing. And they can hover over the work to get some details. This feature is available in Salesforce Classic only.

Find What You Need with Sorting and Filtering
Sorting and filtering work in tandem to help supervisors easily find what they need. With Omni-Channel Supervisor, supervisors can get answers about how agents are performing with a couple of clicks. And unlike a report, the data is updated in real time. This feature is available in Salesforce Classic only.

Drill Down for Agent, Work, and Queue Details
Supervisors can select an agent, queue, or work item to see more detailed information, like status changes, assignments, and anything else they want to know. This feature is available in Salesforce Classic only.

On each tab, supervisors can select an item and see its details. For example, supervisors can see an agent’s assigned queues and configurations, recent statuses, and current work with the Agent Detail view.
Queue Detail has information about the queue's available agents, average and longest wait times, and current work items.

Work Detail shows the work type, timestamps, and real-time data like active handle time (AHT), which tracks how long the assigned agent has the work item open and in focus in the console.
View a Timeline of Agents’ Work

See how and when agents change status and work on items via an intuitive calendar view. Supervisors can set the day, time period, and zoom to get the best picture of how the agent is doing. And they can hover over the work to get some details. This feature is available in Salesforce Classic only.

Find What You Need with Sorting and Filtering

Sorting and filtering work in tandem to help supervisors easily find what they need. With Omni-Channel Supervisor, supervisors can get answers about how agents are performing with a couple of clicks. And unlike a report, the data is updated in real time. This feature is available in Salesforce Classic only.

Filter to narrow down what’s in the panel, and sort to organize the results. For example, to see which online agents have most recently accepted work, filter the Status column in the Agents Tab to display only Online, and then sort the results using the Time Since Last Accept column.
Live Agent: Use Omni-Channel Routing for Chats (Beta) and Enhanced Chat Transcripts

Live Agent chats can queue side by side with other work types using Omni-Channel routing (beta), and the Live Chat Transcript is there for you from when the chat is requested to when it ends. This feature is available in Salesforce Classic only.

IN THIS SECTION:

Omni-Channel Routing for Live Agent Chats: Use Omni-Channel Queues to Route Chats with Other Work (Beta)
Route Live Agent chats with Omni-Channel to prioritize chats alongside other work and take advantage of Omni-Channel’s powerful routing system. This feature is available in Salesforce Classic only.

Live Chat Transcript: Your Transcripts Get a Major Upgrade
For chats routed with Omni-Channel, the Live Chat Transcript covers the entire chat lifecycle, starting from the chat request. You can customize Live Chat Transcript page layouts for Omni-Channel-routed chats that are Waiting, Active, or Ended. This feature is available in Salesforce Classic only.

Customize Chat Time-Outs and Alert Agents to Unresponsive Customers
We don’t normally touch your precious settings, but we want to save your agents from abrupt goodbyes with timed-out customers. To make room for an added agent alert to chat time-outs, we’ve increased the chat time-out default settings. This feature is available in Salesforce Classic only.

EDITIONS

Available in: Salesforce Classic

Live Agent is available in: Performance Editions and in Developer Edition orgs that were created after June 14, 2012

Live Agent is available in: Unlimited Edition with the Service Cloud

Live Agent is available for an additional cost in: Enterprise and Unlimited Editions
Omni-Channel Routing for Live Agent Chats: Use Omni-Channel Queues to Route Chats with Other Work (Beta)

Route Live Agent chats with Omni-Channel to prioritize chats alongside other work and take advantage of Omni-Channel’s powerful routing system. This feature is available in Salesforce Classic only.

Note: This release contains a beta version of Omni-Channel routing for Live Agent chats, which means it’s a high-quality feature with known limitations. Omni-Channel routing for Live Agent chats 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.

Instead of using skills to route chats to the best-fit agent, select Omni as your button’s routing type and use your Omni-Channel queues instead.

IN THIS SECTION:

Pick Me! Prioritize Chats Alongside Other Omni-Channel Work
With Omni-Channel routing, your chats are prioritized relative to each other as well as your other channels. This feature is available in Salesforce Classic only.

Consolidate Agents’ Notifications on Omni-Channel
Your chat agents don’t have to use an entirely different system than your Omni-Channel agents. Set notifications in Omni-Channel for agents receiving chats routed by Omni-Channel. This feature is available in Salesforce Classic only.

Give Supervisors Real-Time Data from Omni-Channel-Routed Chats with Omni-Channel Supervisor (Beta)
Why have chat data separate from everything else? When your chats run on Omni-Channel, supervisors can observe chat activity in real time alongside all other Omni-Channel activity using Omni-Channel Supervisor (Beta). This feature is available in Salesforce Classic only.

More Chat Settings Moved to Omni-Channel Setup
When you use Live Agent and Omni-Channel together, some chat settings are configured in Omni-Channel Setup. This feature is available in Salesforce Classic only.

Limitations for Omni-Channel Routing for Live Agent Chats
Omni-Channel routing for Live Agent chats has some limitations. This feature is available in Salesforce Classic only.
Pick Me! Prioritize Chats Alongside Other Omni-Channel Work

With Omni-Channel routing, your chats are prioritized relative to each other as well as your other channels. This feature is available in Salesforce Classic only.

Your Omni-Channel-routed chats line up in queues just like everything else. Their place in the queue is determined by your Omni-Channel routing configuration and the age of the chat request.

EDITIONS

Available in: Salesforce Classic

Live Agent is available in: Performance Editions and in Developer Edition orgs that were created after June 14, 2012

Live Agent is available in: Unlimited Edition with the Service Cloud

Live Agent is available for an additional cost in: Enterprise and Unlimited Editions
Consolidate Agents’ Notifications on Omni-Channel

Your chat agents don’t have to use an entirely different system than your Omni-Channel agents. Set notifications in Omni-Channel for agents receiving chats routed by Omni-Channel. This feature is available in Salesforce Classic only.

Chat agents who receive chats routed by Omni-Channel use the Omni-Channel widget for chat notifications. Their desktop notifications and audio settings are also set through Omni-Channel in the Presence Configuration.

Give Supervisors Real-Time Data from Omni-Channel-Routed Chats with Omni-Channel Supervisor (Beta)

Why have chat data separate from everything else? When your chats run on Omni-Channel, supervisors can observe chat activity in real time alongside all other Omni-Channel activity using Omni-Channel Supervisor (Beta). This feature is available in Salesforce Classic only.
SEE ALSO:
Omni-Channel Supervisor: Give Supervisors Real-Time Insight (Beta)

More Chat Settings Moved to Omni-Channel Setup

When you use Live Agent and Omni-Channel together, some chat settings are configured in Omni-Channel Setup. This feature is available in Salesforce Classic only.

- Accept and decline are set in the Presence Configuration.
- Push time-out is set in the Routing Configuration.
- Agent capacity is set and consumed by Omni-Channel.
Limitations for Omni-Channel Routing for Live Agent Chats

Omni-Channel routing for Live Agent chats has some limitations. This feature is available in Salesforce Classic only.

- You can’t transfer a chat from a button using Live Agent routing to a button using Omni-Channel routing.
- You can’t use direct-to-agent routing with chats routed by Omni-Channel.
- You can’t use chat conferencing with chats routed by Omni-Channel.
- Queues with multiple object types can cause problems when using Omni-Channel routing for chats. We recommend creating a queue for each object type, such as Chats, Cases, and Leads, instead of setting queues to handle multiple object types.
- Chats routed with Omni-Channel can’t use supervisor whisper messages and assistance flags with Omni-Channel Supervisor.

Live Chat Transcript: Your Transcripts Get a Major Upgrade

For chats routed with Omni-Channel, the Live Chat Transcript covers the entire chat lifecycle, starting from the chat request. You can customize Live Chat Transcript page layouts for Omni-Channel-routed chats that are Waiting, Active, or Ended. This feature is available in Salesforce Classic only.

IN THIS SECTION:

New Page Layouts for Live Chat Transcripts
For chats routed with Omni-Channel, create page layouts and mini page layouts for Live Chat Transcripts based on the chat’s state: Waiting, Active, or Ended. Custom page layouts for each chat state gives your support staff the information they need for each phase of the chat. This feature is available in Salesforce Classic only.

Bye, Bye, Paper Clip! Attach Records to the Chat Transcript with a Sidebar Lookup Component
For chats routed through Omni-Channel, attached records move from the paper clip to the chat transcript. You can add a fancy sidebar lookup component to make it even easier for agents to attach records to the chat transcript. This feature is available in Salesforce Classic only.

Access More Data for Chats Routed with Omni-Channel
Chats routed through Omni-Channel can now use Omni-Channel data in reports. When you route chats using Omni-Channel, you can use Agent Work for even more data in your reports, including the real-time data captured by Omni-Channel Supervisor. This feature is available in Salesforce Classic only.
New Page Layouts for Live Chat Transcripts

For chats routed with Omni-Channel, create page layouts and mini page layouts for Live Chat Transcripts based on the chat’s state: Waiting, Active, or Ended. Custom page layouts for each chat state gives your support staff the information they need for each phase of the chat. This feature is available in Salesforce Classic only.

Waiting chats are chat requests waiting for an agent to accept. Active chats are in-progress chats with an agent. Ended chats are, well, ended.

<table>
<thead>
<tr>
<th>Live Chat Transcript Page Layouts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>**Edit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Live Chat Transcript (In Progress) Page Layouts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>**Edit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Live Chat Transcript (Waiting) Page Layouts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>**Edit</td>
</tr>
</tbody>
</table>

In addition to page layouts, you can also customize your mini page layouts for each new Live Chat Transcript page layout. This lets you control which chat details from the page layout are displayed in a bite-sized hover.
Bye, Bye, Paper Clip! Attach Records to the Chat Transcript with a Sidebar Lookup Component

For chats routed through Omni-Channel, attached records move from the paper clip to the chat transcript. You can add a fancy sidebar lookup component to make it even easier for agents to attach records to the chat transcript. This feature is available in Salesforce Classic only.

Now that the transcript is available when the chat’s requested, agents can attach records directly to it during a chat. Agents can use the transcript itself, or you can save them a few clicks by adding a console sidebar lookup component. The component lets agents look up or create records to attach to the chat without losing sight of the transcript or the chat. Just make sure that your agents have editing permissions for the chat transcript, or they won’t be able to attach records at all.

If the wrong record gets attached, have no fear! Agents can unlink attached records right in the sidebar component.
SEE ALSO:

Salesforce Help: Add a Console Sidebar Lookup Component for Chats Routed with Omni-Channel (Beta) (can be outdated or unavailable during release preview)

Access More Data for Chats Routed with Omni-Channel

Chats routed through Omni-Channel can now use Omni-Channel data in reports. When you route chats using Omni-Channel, you can use Agent Work for even more data in your reports, including the real-time data captured by Omni-Channel Supervisor. This feature is available in Salesforce Classic only.

SEE ALSO:

Salesforce Help: Fields for Agent Work Records (can be outdated or unavailable during release preview)
Customize Chat Time-Outs and Alert Agents to Unresponsive Customers

We don’t normally touch your precious settings, but we want to save your agents from abrupt goodbyes with timed-out customers. To make room for an added agent alert to chat time-outs, we’ve increased the chat time-out default settings. This feature is available in Salesforce Classic only.

We added an agent alert to chat timeouts so your agents know when a chat is timing out soon from a customer’s slow (or nonexistent) response, or from the customer losing their connection. This alert prevents abrupt endings for your agents’ chats, and gives your agents another shot at sending the customer a gentle reminder to find their way back to the chat window.

If you’re currently using time-outs, you now have our default values of 40 seconds until the warning appears for the agent, and 110 seconds until the chat ends. Previously, the default setting was 40 seconds until the chat ends. These new default values may sound low, but keep in mind that the timeout doesn’t start right away—there can be a difference of up to 40 seconds. If these numbers don’t work for your team, mosey on over to your Deployment settings and change them to something that suits you better.

Time-outs apply to all chats, whether they’re routed through Live Agent or Omni-Channel.

Case Feed: Increase Agent Efficiency in Lightning Experience

Case Feed gives support agents a more streamlined way of creating, managing, and viewing cases, so that they can see case history and customer interactions in context. Winter ’17 includes improvements to the email quick action in Lightning Experience and the ability to show the Case Owner field and contact fields on the case page. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

Change the Case Owner Using a Quick Action or a Macro
We’ve exposed the Case Owner field in Lightning Experience and Salesforce1 to make it easier to change the owner of a case. Previously, agents had to navigate to the Case Detail page to change the field. The Case Owner field is now available in quick actions in Salesforce Classic, Lightning Experience, and all versions of the Salesforce1 mobile app.

View All Contact Fields on Case Pages
Lightning Experience and Salesforce1 users can see case contact information on case pages if the contact fields are included on the case page layout. The Contact Phone, Contact Email, Contact Fax, and Contact Mobile fields are now available in Lightning Experience and in all versions of the Salesforce1 mobile app.

Case Feed: Updates to Lightning Experience Email
We’ve made several improvements to the Send Email action for cases, so your agents can work more efficiently with email in Lightning Experience.
Change the Case Owner Using a Quick Action or a Macro

We’ve exposed the Case Owner field in Lightning Experience and Salesforce1 to make it easier to change the owner of a case. Previously, agents had to navigate to the Case Detail page to change the field. The Case Owner field is now available in quick actions in Salesforce Classic, Lightning Experience, and all versions of the Salesforce1 mobile app.

For example, add the Case Owner field to an update quick action or create an update quick action to let support agents quickly change it on the case page. You and your agents also can create macros to change the case owner to a different user or queue in Salesforce Classic.

Note: Macros aren’t available in Lightning Experience or Salesforce1.

You can change the case owner in two ways.

1. Add a quick action to the actions bar so that agents can quickly change the field and transfer the case.
2. Add the field as a sidebar lookup component on the console. Agents can change the case owner by clicking inside the field or by clicking the blue icon.

SEE ALSO:
Salesforce Help: Create a Quick Action to Change the Case Owner (can be outdated or unavailable during release preview)

View All Contact Fields on Case Pages

Lightning Experience and Salesforce1 users can see case contact information on case pages if the contact fields are included on the case page layout. The Contact Phone, Contact Email, Contact Fax, and Contact Mobile fields are now available in Lightning Experience and in all versions of the Salesforce1 mobile app.
When agents change the case contact in Lightning Experience, the contact fields are automatically updated to show the information associated with the new contact. For example, if an agent changes the contact from “Carole White” to “Edward Stamos,” the Contact Phone field is refreshed to show Edward Stamos’s phone number.

SEE ALSO: Salesforce Help: Case Fields (can be outdated or unavailable during release preview)

Case Feed: Updates to Lightning Experience Email

We’ve made several improvements to the Send Email action for cases, so your agents can work more efficiently with email in Lightning Experience.

IN THIS SECTION:

Ensure Consistency by Using Default Email Templates in Lightning Experience and Salesforce1

Want to make sure that your agents’ emails to customers have a consistent look and feel and include your company’s branding? Set up a Send Email action for cases that immediately loads a default email template when agents select the action. Previously, default email templates weren’t supported in Lightning Experience or the Salesforce1 mobile app.

Declutter Your Screen with Collapsible CC and BCC Fields for Case Emails in Lightning Experience

By default, to save screen space, the CC Address and BCC Address fields in the Send Email action are automatically collapsed and shown as links when the fields are empty. If the fields are populated, then they are expanded so that agents can see the recipients. If the fields are required, then they’re always expanded.

Standardize From Addresses in Emails That Agents Send from Cases

Ensure consistency by using the new From field picklist for the Send Email action. The picklist lets agents select from org-wide email addresses, Email-to-Case email addresses, and the agent’s own email address. You can’t add other email addresses to the picklist. The From picklist is added by default in the Send Email action in orgs created in Winter ’17 or later. If your org or your Send Email action were created before Winter ’17, you can manually add the From picklist to the Send Email action.
Send Email Attachments from Cases in Lightning Experience
Agents can attach files to emails in the case feed in Lightning Experience. Just click the paper clip icon and select the files to attach from the file browser or upload files from your computer. Previously, sending attachments wasn’t supported in Lightning Experience.

View Email Attachments in Your Email Feed Items in Lightning Experience
Agents now can view attachments in the Case Feed in Lightning Experience. Email attachments display as thumbnails on the email feed item. If you have more than five attachments, then the Show all attachments link displays. Agents can click the link to open the Email Messages Attachments related list, where they can see all the files attached to the email. Previously, attachments weren’t supported in Lightning Experience.

SEE ALSO:
Do More With Case Emails in Salesforce1
Salesforce Help: Set Up Cases for Lightning Experience (can be outdated or unavailable during release preview)
Salesforce Help: Create a Send Email Quick Action for Cases (can be outdated or unavailable during release preview)

Ensure Consistency by Using Default Email Templates in Lightning Experience and Salesforce1
Want to make sure that your agents’ emails to customers have a consistent look and feel and include your company’s branding? Set up a Send Email action for cases that immediately loads a default email template when agents select the action. Previously, default email templates weren’t supported in Lightning Experience or the Salesforce1 mobile app.
For example, the screenshot shows a quick action named Acknowledge Case, which is a Send Email action that loads an HTML template into the email body.

Make sure the default email template is set up before you create the Send Email action. Only Custom templates can be included in a Send Email action.

SEE ALSO:

Salesforce Help: Apply a Default Email Template Using the Send Email Quick Action (can be outdated or unavailable during release preview)

Declutter Your Screen with Collapsible CC and BCC Fields for Case Emails in Lightning Experience

By default, to save screen space, the CC Address and BCC Address fields in the Send Email action are automatically collapsed and shown as links when the fields are empty. If the fields are populated, then they are expanded so that agents can see the recipients. If the fields are required, then they’re always expanded.
The **CC** and **BCC** fields are collapsed only when the **To Address** field is included in the Send Email action layout. If an agent clicks the **CC** or **BCC** link to open the field, the field remains expanded.

**SEE ALSO:**

*Salesforce Help: Fields Available on the Send Email Quick Action (can be outdated or unavailable during release preview)*

### Standardize From Addresses in Emails That Agents Send from Cases

Ensure consistency by using the new From field picklist for the Send Email action. The picklist lets agents select from org-wide email addresses, Email-to-Case email addresses, and the agent's own email address. You can’t add other email addresses to the picklist. The From picklist is added by default in the Send Email action in orgs created in Winter ’17 or later. If your org or your Send Email action were created before Winter ’17, you can manually add the From picklist to the Send Email action.
SEE ALSO:

Salesforce Help: Create a Send Email Quick Action for Cases (can be outdated or unavailable during release preview)
Salesforce Help: Fields Available on the Send Email Quick Action (can be outdated or unavailable during release preview)

Send Email Attachments from Cases in Lightning Experience

Agents can attach files to emails in the case feed in Lightning Experience. Just click the paper clip icon and select the files to attach from the file browser or upload files from your computer. Previously, sending attachments wasn’t supported in Lightning Experience.
Agents now can view attachments in the Case Feed in Lightning Experience. Email attachments display as thumbnails on the email feed item. If you have more than five attachments, then the **Show all attachments** link displays. Agents can click the link to open the Email Messages Attachments related list, where they can see all the files attached to the email. Previously, attachments weren’t supported in Lightning Experience.
Chatter Answers: Help Customers Get Answers Fast

Chatter Answers is a self-service and support community where users can post questions and receive answers and comments from other users or your support agents. Chatter Answers brings together Case, Questions and Answers, and Salesforce Knowledge articles in a unified experience. Chatter Answers is retiring in Winter ’18.

The legacy Chatter Answers is independent of Chatter, which is our current collaboration solution and contains features such as feeds, profiles, and groups.

IN THIS SECTION:

Chatter Answers Retires in Winter ’18

Start planning that retirement party for Chatter Answers! After years of faithful service helping users find answers to their pressing questions, Chatter Answers is calling it quits in Winter ’18. Salesforce will no longer support Chatter Answers, and users of Chatter Answers will no longer be able to post, answer, comment, or view any of the existing Chatter Answers data. Chatter Answers is passing the torch to Chatter Questions, an eager young thing ready to take up the self-service mantle.
Chatter Answers Retires in Winter ’18

Start planning that retirement party for Chatter Answers! After years of faithful service helping users find answers to their pressing questions, Chatter Answers is calling it quits in Winter ’18. Salesforce will no longer support Chatter Answers, and users of Chatter Answers will no longer be able to post, answer, comment, or view any of the existing Chatter Answers data. Chatter Answers is passing the torch to Chatter Questions, an eager young thing ready to take up the self-service mantle.

For more information, see Chatter Answers to Retire in Winter ’18.

SEE ALSO:
Knowledge Article: Chatter Answers Retirement FAQ

Entitlement Management: Better Update Rules and Modified Limits

Entitlement management lets you and your support agents verify and fulfill customers’ support contracts. Winter ’17 brings improvements to entitlement process update rules and changes to service contract hierarchy limits. This feature is available in Salesforce Classic only.

IN THIS SECTION:
Entitlement Process Update Rules Just Got... Well, Updated
A new status on entitlement process update rules lets you know if any records updates failed. This feature is available in Salesforce Classic only.

Updated Limits on Service Contract Hierarchies
Service contract hierarchies can now have up to 10,000 records, and there are no longer any limits on hierarchy depth and width. Previously, a service contract could have up to 2,000 child service contracts, and a hierarchy of service contracts could have up to 50 levels. This feature is available in Salesforce Classic only.

Entitlement Process Update Rules Just Got... Well, Updated
A new status on entitlement process update rules lets you know if any records updates failed. This feature is available in Salesforce Classic only.

When you create a new version of an entitlement process, you can set up an update rule that switches all entitlements, work orders, and cases that used the entitlement process to the new version. Update rules are configured on entitlement process detail pages.

Previously, if any records experienced an error during this update process, the update rule was canceled and no records were updated. Starting in Winter ’17, all error-free records are updated. If you run an update rule and one or more records can’t be updated due to errors, the update rule now displays a Completed With Exceptions status. To find out which records weren’t updated and why, contact Salesforce Support. A Completed status still means that all records were updated successfully.

Note: Update errors can be caused by a number of issues.

Updated Limits on Service Contract Hierarchies
Service contract hierarchies can now have up to 10,000 records, and there are no longer any limits on hierarchy depth and width. Previously, a service contract could have up to 2,000 child service contracts, and a hierarchy of service contracts could have up to 50 levels. This feature is available in Salesforce Classic only.

Similarly, contract line item hierarchies can now have up to 10,000 records.
Assets: Updated Hierarchy Limits

Assets help you track products that customers have purchased from you. Winter ’17 brings changes to asset hierarchy limits. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

Updated Limits on Asset Hierarchies

Asset hierarchies can now have up to 10,000 records, and there are no longer any limits on hierarchy depth and width. Previously, an asset could have up to 2,000 child assets, and a hierarchy of assets could have up to 50 levels. This feature is available in both Lightning Experience and Salesforce Classic.

Updated Limits on Asset Hierarchies

Asset hierarchies can now have up to 10,000 records, and there are no longer any limits on hierarchy depth and width. Previously, an asset could have up to 2,000 child assets, and a hierarchy of assets could have up to 50 levels. This feature is available in both Lightning Experience and Salesforce Classic.

Snap-Ins: Bring the Power of Service Cloud Components to Your Website

Ever wish you could add nifty Service Cloud features like chat directly to your website or mobile app? Snap-ins let you embed Service Cloud components into your web pages so that you can provide contextual support to your customers.

IN THIS SECTION:

Support Your Customers from Your Website with Snap-In Chat (Beta)

Add the Snap-in Chat widget to your website so that customers can quickly get answers to their questions by chatting with an agent while browsing your site. Snap-In Chat uses Live Agent, but with a simpler setup. The setup node for snap-ins chat is available only in Lightning Experience.

Support Your Customers from Your Website with Snap-In Chat (Beta)

Add the Snap-in Chat widget to your website so that customers can quickly get answers to their questions by chatting with an agent while browsing your site. Snap-In Chat uses Live Agent, but with a simpler setup. The setup node for snap-ins chat is available only in Lightning Experience.

The chat widget button sits unobtrusively on the web page. Customers just click the button to launch the chat.
Customers fill out the brief pre-chat form, which helps agents gather basic information about the customer, like contact information and needs.
Customers can chat while viewing your web page and can minimize the chat window as they browse, so it’s not in their way. The chat widget persists across your web pages, so customers can continue browsing other pages on your site while chatting with an agent.
Snap-in Chat uses a lightweight Live Agent deployment that you can quickly configure. Add the chat code to the web pages where you want the chat widget to be available.

Note: This release contains a beta version of Snap-ins, which means it's a high-quality feature with known limitations. Snap-ins aren'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 Snap-ins in the Success Community group for Snap-ins.

SEE ALSO:

Salesforce Help: Snap-Ins Chat (Beta) (can be outdated or unavailable during release preview)

Salesforce Help: Set Up Snap-In Chat for Your Website (can be outdated or unavailable during release preview)
Service Cloud Lightning Snap-ins SDK: Now Generally Available for iOS

Quickly incorporate Service Cloud features right into your native iOS app using the new Service Cloud Lightning Snap-ins SDK.

With the recent release of Service Cloud Lightning Snap-ins for iOS, you can put features like Knowledge, Case Management, Live Agent Chat, and SOS right into your native mobile app. Provide your app users with self-service tools like your Knowledge base. Let them create and manage cases. Have them chat in real time with an agent using Live Agent Chat. You can even provide screen sharing and two-way video communication with an agent using SOS. With this SDK, you can be up and running in hours—not weeks.

For download instructions and documentation, see the Service SDK page.

Communities: Field Service in Communities, Lightning Bolt, Comment Moderation, and More

Look out world—here comes an upgraded Communities experience that’s more robust, flexible, and extensible than ever. Field service in Communities lets customers easily schedule appointments from within a community. With Lightning Bolt, consulting partners and ISVs can quickly export custom templates and pages to distribute to their customers. And moderation on comments provides community managers with control over the entire feed. We’ve got many more time-saving features to tell you about, so dig in!

Note: Lightning Experience doesn’t support the global header, so internal users in your org can’t switch between the Salesforce org and their communities from Lightning Experience.

IN THIS SECTION:

Access Check Violations Are Now Enforced in Communities
Access check enforcement for Lightning resources, including custom components used in Communities, is being enforced for all orgs sometime between October 15 and October 19, 2016. Access check enforcement was a critical update in Summer ’16. Improved access check enforcement for Lightning resources enables component authors to have greater control over how their components are used.
LockeService for Communities Critical Update Postponed

LockeService is a powerful new security architecture for Lightning components that was a critical update for Communities in Summer ’16. This critical update was scheduled for auto-activation in Winter ‘17. The auto-activation date has been postponed until Spring ‘17.

Create Partner Communities with the Lightning Partner Management Solution

The Lightning Partner Management solution lets you quickly set up a branded community where you can invite your partners and work on channel sales together. The simplified setup experience, rich branding, and a responsive UI are an added bonus.

Community Builder: Where Everything Is Flexible, Customizable, and Reusable

Consulting partners and ISVs win the jackpot this release with custom theme layouts and packageable templates and pages. We’ve also given Community Builder an overhaul to provide a flexible workspace with even more room to work. Not only that—now you can access custom Lightning components on the AppExchange directly from Community Builder.

Community Templates: New Components, New Topic Capabilities, and More

We’ve been busy bees this release, making your template-driven community experience even better. Add field service objects to your Customer Service (Napili) template community. Use the new and improved Community Creation wizard to make a community. Keep folks up to date on topic activity with topic email notifications. The list goes on...

Chatter and Files in Community Templates: Robust Comments and Answers and a Better Mobile Experience

Format comments and answers and add inline images with the rich content editor. Do more on the go with an improved mobile experience. And work smarter with topic feeds and files list components.

Community Management: It’s All About Moderation

Last release we added tools to bring back the joy of community management. Now we’ve made it easier than ever to quickly respond to and track community activity. Premoderation on comments allows community managers to protect their community against malicious comments. The new Community Moderation Overview page allows you to track pending items and member activity at a glance. And moderation enhancements let you differentiate between flagging spam and inappropriate posts. Slow down, Community Moderator, you’re moving too fast!

Improve Your Community’s Search Quality with Search Dashboards

We’ve all done it: We go to a customer community, look for a specific topic, can’t find it, and have to log a case with support to answer our question. So frustrating. You now have the power to make your customers bypass this exercise in frustration by improving your community’s search quality. With Search Dashboards, you can set up specific metrics based on searches done in a community. You can even filter results by the type of user: Was the person doing the search a logged-in member or a guest user just prowling the community? Or filter by how often members used autocomplete to search for terms.

Other Changes in Communities

Learn about smaller changes that improve your experience with Communities.

Access Check Violations Are Now Enforced in Communities

Access check enforcement for Lightning resources, including custom components used in Communities, is being enforced for all orgs sometime between October 15 and October 19, 2016. Access check enforcement was a critical update in Summer ’16. Improved access check enforcement for Lightning resources enables component authors to have greater control over how their components are used.

⚠️ Important:

- Enable debug mode before you begin testing your community’s pages.
- To test your community before the enforcement date, enable the Enforce Lightning Components Access Checks critical update.
What Errors Appear in Community Builder?

When you open a page in Community Builder that contains a custom Lightning component with access check errors, an error message is displayed. The error message varies depending on the component and where the error is triggered—for example, from within an action callback in a JavaScript function.

![Error Message](image)

What Errors Appear in My Published Community?

When you view a published page that contains a custom Lightning component with access check errors:

- The component might not render or function correctly.
- If your browser’s developer tools are open, the console outputs the component’s access check errors.

How Do I Fix Access Check Errors?

See Access Check Violations Are Now Enforced for detailed information about access check violations and how to fix the errors that they cause.

SEE ALSO:

- Lightning Components Developer Guide: Controlling Access
- Lightning Components Developer Guide: Enable Debug Mode for Lightning Components

LockerService for Communities Critical Update Postponed

LockerService is a powerful new security architecture for Lightning components that was a critical update for Communities in Summer ’16. This critical update was scheduled for auto-activation in Winter ’17. The auto-activation date has been postponed until Spring ’17.

SEE ALSO:

- Summer ’16 Release Notes: Enhance Security with LockerService for Communities (Critical Update)
- Critical Updates: LockerService Changes, More Clickjack Protection for Visualforce Pages
Create Partner Communities with the Lightning Partner Management Solution

The Lightning Partner Management solution lets you quickly set up a branded community where you can invite your partners and work on channel sales together. The simplified setup experience, rich branding, and a responsive UI are an added bonus.

Once you create a community from the solution, channel managers and partners can create and share leads, opportunities, accounts, and contacts together in the partner. In addition, you also get other out-of-the-box partner features that support:

- Partner account management and channel plans
- Partner recruitment, onboarding, and support
- Lead distribution
- Deal registration
- Marketing development fund management
- Campaign management
- Case integration

The solution contains custom objects, pages, components, business logic, and other features that are optimized for channel management (sales + marketing + support) processes.

- Record types to manage deal registration and sales leads
- Custom objects and record types to track marketing fund requests and allocation
- Basic lead assignment rules
- Custom pages for marketing development fund management
- Dashboards and reports for tracking partner engagement and channel sales
- Search is optimized to boost sales data in results, just like global search in your Salesforce org

Download the Lightning Partner Management solution and follow the instructions in the Salesforce Lightning Partner Management guide to set up your own partner community in no time!

Here’s a quick look!
Create Partner Communities with the Lightning Partner Management Solution

**Partner Management**

by Salesforce

**CRM for Partners • Charts & Reports • Collaboration • Customization**

Create a responsive community that enables companies to work with their partners like resellers, franchisees,
Community Builder: Where Everything Is Flexible, Customizable, and Reusable

Consulting partners and ISVs win the jackpot this release with custom theme layouts and packageable templates and pages. We’ve also given Community Builder an overhaul to provide a flexible workspace with even more room to work. Not only that—now you can access custom Lightning components on the AppExchange directly from Community Builder.

IN THIS SECTION:

Lightning Bolt Solutions: Build Once, Then Distribute and Reuse
Lightning Bolt makes it easy to create and export industry-specific solutions and use them to jump-start new communities, or package and distribute them for others to use. Save time by building once, then reusing. Whether it’s for your own org or you’re a consulting partner or ISV, you can reduce the time required to build communities and cut development costs. And lower costs make everyone happy.

Rebrand Really Quickly with Custom Theme Layouts
Create custom theme layouts to instantly update the look and feel of your entire community. Customize the header and footer to match your company’s style, and create a custom search bar and user profile menu. Then easily switch between your custom theme layouts, search, and user profile menus, or package them up to share with other orgs. Whether you’re a consulting partner or an ISV, or you simply want to revamp your own community, custom theme layouts make rebranding a cinch.

Expand Your Workspace Horizons with the Streamlined Community Builder
We’ve redesigned the toolbars in Community Builder to create a single unified bar, and enhanced the property editor to give you even more room to work on your pages. More room means you can see two-column layouts properly.

Add Lightning Components from the AppExchange in Community Builder
The integrated AppExchange experience makes it easy for you to find custom Lightning components on the AppExchange and add them to your org directly from Community Builder.

Track, Learn, and Fine-Tune with Google Analytics
Enable page tracking by adding your Google Analytics™ tracking ID in Community Builder. Use the resulting data to learn more about the pages your customers visit. Then adjust your community’s pages to more accurately reach your customers.

Control Public Access for Each Page in Your Community
Set page-specific access to your community pages. Then you can restrict or open up access as you see fit.

SEO Enhancements Improve Search-Engine Ranking
To improve your community’s SEO ranking, we now redirect non-canonical URLs to canonical URLs using 301 redirects. A canonical URL lets you tell search engines that slightly different URLs, which all point to the same content, are actually the same thing. A 301 redirect indicates that a URL has been permanently moved, which is optimal for SEO.

Page Layouts Are Now Called Content Layouts
With the introduction of custom theme layouts, we’ve changed the name of page layouts to content layouts for clarity. Content layouts define the content regions of your page, such as a two-column layout with a 2:1 ratio.

Develop and Customize with Global Lightning Components, Interfaces, and Events
We’ve added several new global Lightning interfaces, components, and events to make it easier for developers to extend and customize communities built in Community Builder. Create custom search, navigation, and user profile menus, or track events with Google Analytics.
Lightning Bolt Solutions: Build Once, Then Distribute and Reuse

Lightning Bolt makes it easy to create and export industry-specific solutions and use them to jump-start new communities, or package and distribute them for others to use. Save time by building once, then reusing. Whether it’s for your own org or you’re a consulting partner or ISV, you can reduce the time required to build communities and cut development costs. And lower costs make everyone happy.

Note: This feature is available for communities using the Winter ’16 and later versions of the Customer Service (Napili) template.

Example: Let’s say you specialize in building partner relationship management (PRM) communities for the manufacturing or tech industries. With Lightning Bolt, you can build and export a PRM-focused Bolt solution that’s easy to distribute to your customers. After the template is installed on a customer’s org, you can further customize it to suit their unique needs. By building the bulk of the solution in your org and then distributing it to your customers’ orgs, you can launch their communities in no time.

Example: Let’s say you’re an ISV who builds several custom Lightning components and a custom page to create an e-commerce feature for use in Community Builder. Now you can quickly bundle the page and its components into a single package and distribute it to your customers.

What Is a Bolt Solution?

At its simplest, a Lightning Bolt solution comprises a template that’s made up of a theme layout and CSS, along with pages, content layouts, and Lightning components. Bolt solutions seamlessly integrate with Salesforce, and incorporate business logic, custom objects, industry best practices, and more.

Use the Customer Service (Napili) template as a base to build your custom template with standard pages and components, or create custom pages, layouts, and components of your own. When you’re ready to export the template, head on over to the new Developer section in the Settings area.

Add a name and category for the template, along with at least one thumbnail image and some of the key template features. This information appears in the Community Creation wizard and helps users understand the purpose and benefits of your template.
After you export a template, it appears in the Community Creation wizard in your org, where you can use it as a base for building new communities.

Similarly, you can export a single page, which includes the page’s content layout and components. After you export a page, it appears in the New Page dialog box in all the communities in your org.

Note: As part of the toolbar redesign in Community Builder, we moved the Developer Console button to the Developer section.
What About Packaging and Distribution?

In addition to using exported templates and pages in your own org, you can also package the solutions for distribution to your customers’ orgs. We recommend using managed packages to avoid naming conflicts with other packages in your customer’s org or your own.

In Packages under Setup, select Lightning Community Template or Lightning Page as the component type. Then upload the package and share the link privately with your clients, customers, or partners.

After a template is installed in another org, it appears in the org’s Community Creation wizard. Installed pages appear in the New Page dialog box.

To manage imported and exported templates, go to Lightning Community Templates in Setup. To manage imported and exported pages, go to Lightning Community Pages.

Rebrand Really Quickly with Custom Theme Layouts

Create custom theme layouts to instantly update the look and feel of your entire community. Customize the header and footer to match your company’s style, and create a custom search bar and user profile menu. Then easily switch between your custom theme layouts, search, and user profile menus, or package them up to share with other orgs. Whether you’re a consulting partner or an ISV, or you simply want to revamp your own community, custom theme layouts make rebranding a cinch.

Note: This feature is available for communities using the Winter ’16 and later versions of the Customer Service (Napili) template.

What’s a Theme Layout?

A theme layout is the top-level layout for the template pages (1) in your community. It includes the common header and footer (2), and often includes navigation, search, and the user profile menu. The theme layout applies to all the pages in your community, except the login pages.

In contrast, the renamed content layout (3) defines the content regions of your pages, such as a two-column layout.
How Do Theme Layouts Work?

Previously, you couldn’t modify the Template Header region of a Customer Service (Napili) template, apart from editing the properties of the components within it.

Now developers can create a custom theme layout component in the Developer Console that implements the `forceCommunity:themeLayout` interface. When the component is ready, you simply select the new theme layout (1) in **Settings > Theme**. And presto-chango, all the pages in your community are transformed!

And if your developer creates a custom search component (using the new `forceCommunity:searchInterface`) or a custom user profile component (using the new `forceCommunity:profileMenuInterface`), you can swap them out too. Select **Use a custom search component** or **Use a custom user profile component** (2) and choose the custom component you want.
Because a theme layout is a Lightning component, you can package it in the same way as standard Salesforce components, using the same tools. Select Lightning Component Bundle as the package component type, add the theme layout component and any custom search or user profile components, and you’re good to go.

**Note:** As part of our updates to the Theme area, we renamed the Show loading indicator as the page loads option to Show stencils when loading page content to better reflect its purpose. These settings apply only to the Customer Service (Napili) template.

SEE ALSO:
- New and Changed Lightning Components
- Lightning Components Developer Guide: Create Custom Theme Layout Components for Communities

**Expand Your Workspace Horizons with the Streamlined Community Builder**

We’ve redesigned the toolbars in Community Builder to create a single unified bar, and enhanced the property editor to give you even more room to work on your pages. More room means you can see two-column layouts properly.

- In the Community Builder menu (1), we removed the link to Site.com Studio because you no longer need it to configure your community, unless you’re creating a multilingual community. If you want to add languages to your community, fret not—the link to Site.com Studio is still available in Settings > Languages.
- The Page menu (2), and the Undo and Redo (3), View Mode (4), Preview (5), and Publish (6) buttons are now located on the slim toolbar across the top of the page.
- In the Page Editor, click 📐 in the Page menu (7) to open the Page Properties editor.
The context-sensitive property editor (8) appears only when you select a component to edit. You can also reposition the property editor wherever you like!

We removed the User Profile profile menu to save space and focus on Community Builder activities. Looking for the Developer Console link? Then check out the new Developer area. Want to access My Profile or My Settings? Then click Back to Setup in the Community Builder menu.

If you’re short on space, the toolbar switches to icons only, so you don’t lose any controls when you narrow the window.

Add Lightning Components from the AppExchange in Community Builder

The integrated AppExchange experience makes it easy for you to find custom Lightning components on the AppExchange and add them to your org directly from Community Builder.

Browse a selection of components that are ready to add to your community’s Lightning pages by clicking Get more on the AppExchange in the Page Editor. When you add a component, it appears in the Lightning Components pane of all the template-based communities in your org.
Track, Learn, and Fine-Tune with Google Analytics

Enable page tracking by adding your Google Analytics™ tracking ID in Community Builder. Use the resulting data to learn more about the pages your customers visit. Then adjust your community’s pages to more accurately reach your customers.

After you enter your Google Analytics ID in Settings > Advanced, publish a community to enable the service. Your community’s analytics data streams directly to the Google Analytics service where you can review and interpret it.
For developers of custom Lightning components for Communities, we provide the new global `forceCommunity:analyticsInteraction` event. Use this event to track events triggered by the custom component. For example, you could create a custom button and include the `forceCommunity:analyticsInteraction` event in the button's controller. Whenever a user clicks the button, event data is sent to Google Analytics.

**Control Public Access for Each Page in Your Community**

Set page-specific access to your community pages. Then you can restrict or open up access as you see fit.

To let folks access your community without logging in, under General Settings in Community Builder, select the new **Public can access the community** option. Check this box if you want folks to access your community without logging in.

Use the Page Manager to set page-level access.

**Community Default Setting**—If you allow public access, your community pages are accessible to the public, including unlicensed users. If you don’t allow public access, members must log in to access the community.

**Public**—This setting makes the page public, regardless of the community's default setting.

**Requires Login**—This setting makes the page private and requires members to log in, regardless of the community’s default setting.
You’re probably thinking, “Wait a second. How does this work with the profile-based page visibility introduced in Summer ’16?” Here’s how.

When a member is trying to access a page, we first check the community’s default setting. Is it public or does it require users to log in? After that first check, we look at the page access. We finally check the profile-based visibility that you set in Page Variations.

How does this logic work for standard pages?

And what, pray tell, would be the logic behind pages that show object data?
Note: Some pages are always public, while others are always private. Public pages include login-related pages (Login, Register, Forget Password, Login Error, Check Password). Direct message pages are always private.

SEO Enhancements Improve Search-Engine Ranking

To improve your community’s SEO ranking, we now redirect non-canonical URLs to canonical URLs using 301 redirects. A canonical URL lets you tell search engines that slightly different URLs, which all point to the same content, are actually the same thing. A 301 redirect indicates that a URL has been permanently moved, which is optimal for SEO.

For example, let’s say you add object pages for the Account object. In this case, the detail page has an object-specific Account Detail page and a generic Record Detail page. When community members access the generic Record Detail page (/s/detail/recordId), they’re now permanently redirected to the canonical URL of the object-specific Account Detail page instead (/s/account/recordId). Similarly, we added 301 redirects for list and related list pages.

In addition, we redirect URLs for the Topic Detail and the Question Detail pages to SEO friendly URLs. To create user-readable URLs, we add the topic name for Topic Detail pages, and the question title for Question Detail pages. So for example, https://mycommunity.com/s/question/0D5B0000007qtP7KAI now redirects to https://mycommunity.com/s/question/0D5B0000007qtP7KAI/need-help-picking-a-grinder.

Note: URL redirects occur only when a URL is accessed directly from the browser URL bar or from a link that’s external to your community.

Page Layouts Are Now Called Content Layouts

With the introduction of custom theme layouts, we’ve changed the name of page layouts to content layouts for clarity. Content layouts define the content regions of your page, such as a two-column layout with a 2:1 ratio.

We’ve also removed the Custom tab from the New Page and the Change Layout dialog boxes. After you create a custom content layout component in Developer Console, you now see both ready-to-use and custom content layouts displayed together in these dialog boxes.
Develop and Customize with Global Lightning Components, Interfaces, and Events

We’ve added several new global Lightning interfaces, components, and events to make it easier for developers to extend and customize communities built in Community Builder. Create custom search, navigation, and user profile menus, or track events with Google Analytics.

SEE ALSO:
- New and Changed Lightning Components
- New Lightning Events

Community Templates: New Components, New Topic Capabilities, and More

We’ve been busy bees this release, making your template-driven community experience even better. Add field service objects to your Customer Service (Napili) template community. Use the new and improved Community Creation wizard to make a community. Keep folks up to date on topic activity with topic email notifications. The list goes on...

IN THIS SECTION:
- Napili Is Now Called Customer Service (Napili)

A template by any other name is just as sweet. Yup, we’ve changed the name of our popular Napili template to Customer Service (Napili). Hawaiian name or not, the coolness quotient remains the same!
Create Communities with the Jazzed Up Wizard
We’re not heading to Hogwarts any time soon, but we’ve upgraded the look and feel of the Community Creation wizard. With its more streamlined flow, the wizard now allows you to make communities using exported and imported Lightning Bolt solutions, and gives you more information on notable features.

The Customer Service (Napili) Template Supports Even More Objects
Want to share sales reports and dashboards with partners? No problem! Always wanted to use emails in a community context? We have that covered too. We added support for a bunch of new objects.

Get Field-Level Help in Communities
Community users can now view the same field-level help in communities that’s available in Salesforce Classic and Lightning Experience. This feature is available in communities made with any template.

Expose Content from External Data Sources in Your Template-Driven Community
Picture all your data and content, independent from where they’re stored, around a campfire, holding hands and singing Kumbaya! Yes folks, you can now access external data and content that are stored outside your Salesforce org from your Customer Service (Napili) template community.

Add Reports and Dashboards to Community Pages
Want to show a dashboard with partner sales leaders in a partner community? How about a report chart highlighting the most active members in a group? You can include reports and dashboards from public folders in your Salesforce org on your community’s pages. The Report Chart and Dashboard components make it easy to drag and drop reports and dashboards you set up in a public folder in your Salesforce org on community pages.

Send Rich-Text Emails Directly from Cases, Leads, and Other Records
Do your partner community members want an easy way to keep in touch with their leads and prospects? (What a silly question. Of course they do!) Partner community members can send emails directly from accounts, contacts, leads, opportunities, and campaigns. You can even set up email templates in Salesforce to send uniform and approved messaging with consistent branding to leads and prospects. Rich text is supported, so add pictures and links to keep your content engaging.

Help Partners Follow Your Company’s Sales Processes with Sales Path
So you’ve set up your partner community and it’s generating leads like crazy. Now you can help your partners adopt and adhere to your company’s sales processes using the Sales Path component. Sales Path is available for opportunities and leads in communities made with the Customer Service (Napili) template.

Topics: Get Email Notifications, Find Topics to Feature, and More
Keep community members informed with email notifications on topics, easily find topics you want to feature, add topics across all translated articles, and more.

Expand Your Community to Include Field Service Data
How cool would it be to use your community to keep customers and field service technicians in the loop about field service work? Pretty cool, obviously. You can now use the Service Appointment, Product, Work Order, and Work Order Line Item objects in your community, in addition to previously available objects like Asset, Account, and Contact. Customers can easily schedule appointments, and technicians can check on work orders straight from their community.

See View Counts for Related Articles
When community members view articles, we show related articles to help them find what they’re looking for. Members can see the number of times articles have been viewed to discover the most helpful articles.

See Interaction Counts for Related Questions
When community members view questions, we show related questions to help them find what they’re looking for. Members can see the number of times questions have been viewed, liked, and commented on to discover the most helpful questions.
Edit Inline and Add Videos More Easily with the Enriched Rich Content Editor

Use the renamed Rich Content Editor component (previously Rich Text) to add and edit content inline and immediately see how your content looks on the page. And with the new video tool, it’s easier than ever to bring your community to life. Instead of adding embedded code, you simply add a link to YouTube or Vimeo and see a preview instantly.

Get Your Row Level Actions in List Views

Being able to work in just one place can be very handy. Row level actions in list views can help you do just that. We added Edit and Delete actions to the list view rows so you can manage your records more effectively without leaving the page.

A List with a View

Sometimes you just need to organize things your own way for them to make sense to you. So, we made it so that any community user can create a list view for objects they have permissions to access. This is only available in Salesforce Tabs + Visualforce.

The Birth of a New List View Layout

Hear my tale of three views. Once there were two view options in Communities. One, called Full, was a wide page, showed record details, and scrolled infinitely. The other, called Compact, was a narrow column, showed mainly record titles, and the admin chose the number of records to show at a time. All was well, but, not one to rest on our laurels, we thought it could be even better. Enter Standard. It has the wider page layout of a Full, but the limited record display of Compact and minus the row level and list view actions that take up space. It creates a best of all worlds for pages with lots of components.

Changing Templates Is No Longer Supported for Koa, Kokua, and Customer Service (Napili)

Starting with Winter ’17, the ability to change templates is supported only for communities that use the Salesforce Tabs + Visualforce template. We no longer support this functionality for communities that use the Koa, Kokua, and Customer Service (Napili) templates, but the functionality remains available in our UI.

Napili Is Now Called Customer Service (Napili)

A template by any other name is just as sweet. Yup, we’ve changed the name of our popular Napili template to Customer Service (Napili). Hawaiian name or not, the coolness quotient remains the same!

We’ve updated all our labels and documentation to use Customer Service (Napili). If any of your custom code depends on the Napili label, be sure to review and update it.

Create Communities with the Jazzed Up Wizard

We’re not heading to Hogwarts any time soon, but we’ve upgraded the look and feel of the Community Creation wizard. With its more streamlined flow, the wizard now allows you to make communities using exported and imported Lightning Bolt solutions, and gives you more information on notable features.
First, pick the template you want to use to make your community. You can browse all the available templates, or drill down based on your community’s use, such as sales, marketing, or service. You can even see exported and imported Lightning Bolt solutions.

After you pick your template, you see a description and its key features.

Next, give your community a name and a URL. But don’t worry: If you decide that The Coolest Community in History isn’t the name you really wanted, you can change it any time. (But really, why would you?)
And voilà! You’ve created your community.

Now the real work begins. Click **Build & Customize** to head to Community Builder, where you can customize your community using Lightning components, branding, and custom pages.

Click **Manage & Moderate** to go to Community Management, where you can set up moderation rules, communities dashboards, and topics.

**Note:** If you make a community using Salesforce Tabs + Visualforce, you only see the Manage My Community option. These communities are customized with Visualforce, not Community Builder.

**The Customer Service (Napili) Template Supports Even More Objects**

Want to share sales reports and dashboards with partners? No problem! Always wanted to use emails in a community context? We have that covered too. We added support for a bunch of new objects.

- Activity History
- Dashboard
- Email Message
- External Objects
- Product
- Report
- Service Appointment
- Shared Contact
- Work Order
Get Field-Level Help in Communities

Community users can now view the same field-level help in communities that’s available in Salesforce Classic and Lightning Experience. This feature is available in communities made with any template.

If you haven’t already, you can use Setup to define custom help for your org’s standard and custom fields. See Define Field-Level Help in the Salesforce Help.

Previously, the help showed up only in communities built with the Salesforce Tabs + Visualforce template.

Expose Content from External Data Sources in Your Template-Driven Community

Picture all your data and content, independent from where they’re stored, around a campfire, holding hands and singing Kumbaya! Yes folks, you can now access external data and content that are stored outside your Salesforce org from your Customer Service (Napili) template community.

For example, you can let your community users access:

- Data that’s stored in another Salesforce org, SAP® NetWeaver Gateway, or IBM WebSphere® that your org accesses via Salesforce Connect
- Content that’s stored in Google Drive or SharePoint that your org accesses via Files Connect

Note:

- High-data-volume external data sources aren’t supported.
- If the external data source has Identity Type set to Per User, Customer Service (Napili) template community users can’t set up their own authentication settings for external systems. However, you can set up and manage each user’s authentication settings for external systems from Lightning Experience or Salesforce Classic.

How can external data and content be useful in a community setting?

Let’s say you have a partner community for sales, and you store your product order information in a back-office ERP system. Now you can surface that information to your sales partners, enabling them to view and update orders within the context of all related data regardless of where it’s stored. Exciting, right?

Or maybe you store your templates for contracts and other agreements in (gasp) a non-Salesforce environment. Now your sales partners can access the latest and greatest of that content as needed.
Add Reports and Dashboards to Community Pages

Want to show a dashboard with partner sales leaders in a partner community? How about a report chart highlighting the most active members in a group? You can include reports and dashboards from public folders in your Salesforce org on your community’s pages. The Report Chart and Dashboard components make it easy to drag and drop reports and dashboards you set up in a public folder in your Salesforce org on community pages.

When you click a report, you see the Report Detail page, which shows the Report Summary component. The report summary includes details from the source report in Salesforce.

Note: Report list views aren’t yet fully supported in Customer Service (Napili)-based communities. If you navigate to a report list view in a Customer Service (Napili)-based community, you’ll receive an error message.

Example: Sample Report Chart (properties and component)
Note: Only reports with a chart populate in the drop-down list in the report’s properties.

Example: Sample Dashboard (properties and component)

Note: Members can’t change the dashboard’s running user in the community. This view is read only.
Send Rich-Text Emails Directly from Cases, Leads, and Other Records

Do your partner community members want an easy way to keep in touch with their leads and prospects? (What a silly question. Of course they do!) Partner community members can send emails directly from accounts, contacts, leads, opportunities, and campaigns. You can even set up email templates in Salesforce to send uniform and approved messaging with consistent branding to leads and prospects. Rich text is supported, so add pictures and links to keep your content engaging.

Find the email composer on the related tab of the record detail page. Click **Send an Email** in the Activity History section of the page, and you’re good to go.

After you send an email, it shows up on the record’s Activity History, leaving a paper trail (so to speak) of all actions taken on the record.

Help Partners Follow Your Company’s Sales Processes with Sales Path

So you’ve set up your partner community and it’s generating leads like crazy. Now you can help your partners adopt and adhere to your company’s sales processes using the Sales Path component. Sales Path is available for opportunities and leads in communities made with the Customer Service (Napili) template.

With your sales operations manager, determine and customize the stages that appear for leads and opportunities. Add fields that matter to your company and include guidance for success. In your guidance, include details about company policies, tips for establishing positive selling relationships, and even links to relevant feeds.

The sales path appears with the stages you set up. Partners mark stages complete when they’re ready to move to the next one. The beauty is that partners focus on only the fields that matter most to your sales managers, so partners qualify leads and close opportunities faster.

When you’re using the Sales Path component in the community, keep in mind that it is best intended for a wide-column layout. Try to add it to columns that are at least 50% wide, though full columns are best.

**Note:** To see sales paths on mobile devices, configure a custom one in your Salesforce org.
Topics: Get Email Notifications, Find Topics to Feature, and More

Keep community members informed with email notifications on topics, easily find topics you want to feature, add topics across all translated articles, and more.

IN THIS SECTION:

Send Topic Email Notifications to Keep Your MVPs Informed
Do your community managers, moderators, and MVPs want to keep up to date when new posts are added to a topic? Now they can receive email notifications on the topics they follow.

Easily Find Topics You Want to Feature
Want to highlight a popular topic as a featured topic in Community Management? We added a search box for finding your topics. Simply enter the topic name in the search box and add it as a featured topic. No more scrolling the drop-down list for what you were looking for. Huzzah!

No Getting Lost with These Breadcrumbs, Hansel and Gretel
Use the new Breadcrumbs component on topic detail pages to let your customers identify their location in a community with respect to the topic hierarchy. Drag and drop the Breadcrumb component on the topic, article, or feed detail pages in Community Builder. When the Breadcrumb component is in place, it tells community members where the community page is in the topic hierarchy.

Quickly Add Topics Across All Translated Languages
When you add a topic to an article in Article Management in Community Management, the translated topic is added to translated articles. You must have translated articles and translated topics uploaded in the system. What happens when you have a translated article, but no translated topic? The translated article is tagged with the English topic.

And Topics Have Even More Improvements
We’ve made other fabulous improvements to topics in communities.

Send Topic Email Notifications to Keep Your MVPs Informed
Do your community managers, moderators, and MVPs want to keep up to date when new posts are added to a topic? Now they can receive email notifications on the topics they follow.

When community members follow a topic, they see an option to subscribe to email notifications. They can choose to be emailed with every new post, or never. When you follow a topic, notifications default to Never.

After subscribing, members can unsubscribe by logging in to the community and choosing Never in the Email Notifications drop-down list on the topic detail page.

Chatter REST API supports topic email notifications.

Example:
Easily Find Topics You Want to Feature

Want to highlight a popular topic as a featured topic in Community Management? We added a search box for finding your topics. Simply enter the topic name in the search box and add it as a featured topic. No more scrolling the drop-down list for what you were looking for. Huzzah!

Example:

No Getting Lost with These Breadcrumbs, Hansel and Gretel

Use the new Breadcrumbs component on topic detail pages to let your customers identify their location in a community with respect to the topic hierarchy. Drag and drop the Breadcrumb component on the topic, article, or feed detail pages in Community Builder. When the Breadcrumb component is in place, it tells community members where the community page is in the topic hierarchy.

Use it to easily navigate back to parent or grandparent topics.
Quickly Add Topics Across All Translated Languages

When you add a topic to an article in Article Management in Community Management, the translated topic is added to translated articles. You must have translated articles and translated topics uploaded in the system. What happens when you have a translated article, but no translated topic? The translated article is tagged with the English topic.

And Topics Have Even More Improvements

We’ve made other fabulous improvements to topics in communities.

- Topic detail pages use compact feeds in discussions, giving a more streamlined view of conversations taking place.
- The post publisher supports direct addition of topics on community pages.

Expand Your Community to Include Field Service Data

How cool would it be to use your community to keep customers and field service technicians in the loop about field service work? Pretty cool, obviously. You can now use the Service Appointment, Product, Work Order, and Work Order Line Item objects in your community, in addition to previously available objects like Asset, Account, and Contact. Customers can easily schedule appointments, and technicians can check on work orders straight from their community.

Adding service appointments and work orders to your community gives your customers or partners helpful visibility into your field service progress. For example, customers can quickly find out an appointment’s status and know when to expect the technician. And letting partners view or update work orders keeps them informed about upcoming work to be performed.

To set up field service objects, make a new object page in Page Manager in Community Builder. When prompted, choose a Salesforce field service object (Service Appointment, Work Order, or Work Order Line Item). Page Manager creates three related pages for the new object page: a record detail page, a record list page, and a related list page. Add the objects to your community’s navigation bar, and you’re all set.
Tip: Be sure to review the field-level security on these objects so that customers and partners see only the fields that they need to. For example, on service appointments, you can decide to make the Arrival Window Start and End fields visible, but keep the Scheduled Start and End fields internal.

Note: Only service appointments, products, work orders, and work order line items are available in communities built using the Customer Service (Napili) template. Communities built using Salesforce Tabs + Visualforce support all standard Field Service Lightning objects.

SEE ALSO:
Salesforce Help: Objects Supported in the Customer Service (Napili) Template

See View Counts for Related Articles

When community members view articles, we show related articles to help them find what they’re looking for. Members can see the number of times articles have been viewed to discover the most helpful articles.

The Related Article List component appears by default on the Article Detail page. You can customize the component title, the number of articles in the list, and whether to show view counts. View counts are shown by default.

Example: Sample Related Articles List (property editor and component)

See Interaction Counts for Related Questions

When community members view questions, we show related questions to help them find what they’re looking for. Members can see the number of times questions have been viewed, liked, and commented on to discover the most helpful questions.

To see related questions, your community must have a best answer for at least one question.

The Related Question List component appears by default on the Question Detail page. You can customize the component title, the number of questions in the list, and whether to show interaction counts. Interaction counts are shown by default.
Example: Sample Related Questions List (property editor and component)

Edit Inline and Add Videos More Easily with the Enriched Rich Content Editor

Use the renamed Rich Content Editor component (previously Rich Text) to add and edit content inline and immediately see how your content looks on the page. And with the new video tool, it’s easier than ever to bring your community to life. Instead of adding embedded code, you simply add a link to YouTube or Vimeo and see a preview instantly.

Previously, the small editing area made it hard to add content, but with the new inline editor, you have all the space you need.
If you like editing source code directly for images, videos, and CSS, don’t worry—the Source button isn’t going anywhere.

Get Your Row Level Actions in List Views

Being able to work in just one place can be very handy. Row level actions in list views can help you do just that. We added Edit and Delete actions to the list view rows so you can manage your records more effectively without leaving the page.

A List with a View

Sometimes you just need to organize things your own way for them to make sense to you. So, we made it so that any community user can create a list view for objects they have permissions to access. This is only available in Salesforce Tabs + Visualforce.

The Birth of a New List View Layout

Hear my tale of three views. Once there were two view options in Communities. One, called Full, was a wide page, showed record details, and scrolled infinitely. The other, called Compact, was a narrow column, showed mainly record titles, and the admin chose the number of records to show at a time. All was well, but, not one to rest on our laurels, we thought it could be even better. Enter Standard. It has the wider page layout of a Full, but the limited record display of Compact and minus the row level and list view actions that take up space. It creates a best of all worlds for pages with lots of components.

Changing Templates Is No Longer Supported for Koa, Kokua, and Customer Service (Napili)

Starting with Winter ’17, the ability to change templates is supported only for communities that use the Salesforce Tabs + Visualforce template. We no longer support this functionality for communities that use the Koa, Kokua, and Customer Service (Napili) templates, but the functionality remains available in our UI.
If you choose to change your template from Koa, Kokua, or Customer Service (Napili) to another template type and run into problems, Salesforce Customer Support will not be able to assist you. We recommend creating a new community with the intended template in that case.

**Chatter and Files in Community Templates: Robust Comments and Answers and a Better Mobile Experience**

Format comments and answers and add inline images with the rich content editor. Do more on the go with an improved mobile experience. And work smarter with topic feeds and files list components.

**IN THIS SECTION:**

- Questions Come to More Chatter Feeds in Communities
  Your users can ask questions in more places. The question publisher has been added to account, group, user, and case feeds.

- Rich Content and Code Snippets Come to Comments and Answers
  Until now, community developers could add code snippets only to a post or a question and not to comments or answers. Exciting news—the rich content editor is now available on comments and answers. [Insert balloons here!] So when your users want to add formatting or your developers want to respond with their own brilliant code, they can add it to a comment.

- Make Your Comments and Answers Pop with Inline Images
  Comments and answers in the publisher now support inline images.

- More Ways to Mute a Feed Item
  Community feeds now offer the option of muting a feed item from its detail view.

- We Optimized Publishers in Your Mobile View of Communities
  When you navigate to a community through your mobile browser, notice that publishers have had a facelift.

- Sort Topic Feeds by Top Questions
  In a community, members can already sort a topic feed by the latest posts or the most recent activity. Now they can also sort by the most relevant questions. The new sort option **Top Questions** moves questions to the top of a topic feed based on a combination of the most interactions, the most answers, and a best answer.

- Find Out Who Likes Your Comment or Answer
  The likes card, introduced to feed posts and questions in the last release, is now also available on comments and answers. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

- Play Videos Directly in the Feed
  You can now play videos inline in feeds in communities based on the Customer Service (Napili) template! When you attach a video to a post or comment, anyone can play it right where it’s posted.

- New Location for View Case Link
  When a customer’s question is escalated to a case, a link to the case is added to the information above the question. Previously, the link to the case was included in the answer below the question. The new location makes it easier to see the View Case link and to navigate to the case. This feature is available only in communities based on the Customer Service (Napili) template.

- Files List Component—Now Playing on Mobile
  When you add a Files List component to your page, it works on mobile devices as well as on the desktop. Now your community members can work with their files while waiting in line for coffee or riding an elevator!

- Files List Component Welcomes Your Content Libraries
  The Files List component in the Customer Service (Napili) template now includes files in content libraries.
Questions Come to More Chatter Feeds in Communities

Your users can ask questions in more places. The question publisher has been added to account, group, user, and case feeds.

SEE ALSO:
Question Publisher Available in More Places

Rich Content and Code Snippets Come to Comments and Answers

Until now, community developers could add code snippets only to a post or a question and not to comments or answers. Exciting news—the rich content editor is now available on comments and answers. [Insert balloons here!] So when your users want to add formatting or your developers want to respond with their own brilliant code, they can add it to a comment.

Note: To enable code snippets, edit a user profile or permission set, and select Allow Inclusion of Code Snippets from UI.
Chatter REST API and Chatter in Apex support rich content in comments.

SEE ALSO:
- Rich Content and Inline Images in More Places

**Make Your Comments and Answers Pop with Inline Images**

Comments and answers in the publisher now support inline images.

You may have the best answer to a question in the community, but will people read it? They’re much more likely to if you include an image. Now you can do that! Some questions are best answered with a picture. Some answers don’t make sense without a visual aid. To add an inline image to your answer or comment, use the image tool in the new rich content editor.

Chatter REST API and Chatter in Apex support inline images in comments.

**More Ways to Mute a Feed Item**

Community feeds now offer the option of muting a feed item from its detail view.

One way to get to detail view is to click the post’s date (1). To mute the post, select Mute from its action menu (2).
SEE ALSO:

Mute a Feed Item from Its Detail View

We Optimized Publishers in Your Mobile View of Communities

When you navigate to a community through your mobile browser, notice that publishers have had a facelift.

We’ve made better use of space by providing tabbed buttons to open publishers and post messages and questions (1).
Sort Topic Feeds by Top Questions

In a community, members can already sort a topic feed by the latest posts or the most recent activity. Now they can also sort by the most relevant questions. The new sort option Top Questions moves questions to the top of a topic feed based on a combination of the most interactions, the most answers, and a best answer.

Find Out Who Likes Your Comment or Answer

The likes card, introduced to feed posts and questions in the last release, is now also available on comments and answers. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.
Play Videos Directly in the Feed

You can now play videos inline in feeds in communities based on the Customer Service (Napili) template! When you attach a video to a post or comment, anyone can play it right where it’s posted.
New Location for View Case Link

When a customer’s question is escalated to a case, a link to the case is added to the information above the question. Previously, the link to the case was included in the answer below the question. The new location makes it easier to see the View Case link and to navigate to the case. This feature is available only in communities based on the Customer Service (Napili) template.

Files List Component—Now Playing on Mobile

When you add a Files List component to your page, it works on mobile devices as well as on the desktop. Now your community members can work with their files while waiting in line for coffee or riding an elevator!

Give your community members a helpful tool for viewing and managing their files while they’re out and about. Drag a Files List onto your page. Now members can access all their files from their mobile devices.

Files List Component Welcomes Your Content Libraries

The Files List component in the Customer Service (Napili) template now includes files in content libraries.

Community members who have access to files in content libraries can now navigate to those files via the Files List component on community pages. The addition of content libraries provides a convenient way for community members to view and interact with all their files in one place.
Community Management: It’s All About Moderation

Last release we added tools to bring back the joy of community management. Now we’ve made it easier than ever to quickly respond to and track community activity. Premoderation on comments allows community managers to protect their community against malicious comments. The new Community Moderation Overview page allows you to track pending items and member activity at a glance. And moderation enhancements let you differentiate between flagging spam and inappropriate posts. Slow down, Community Moderator, you’re moving too fast!

IN THIS SECTION:

Moderation Has a Whole New Look
Just when you thought that moderation couldn’t get any easier, we turned it up a notch. See the entire picture of your community’s moderation activity at a glance on the Community Management Moderation Overview page.

Allow External Users to Moderate Community Content
Have you ever wished you could hire an external agency of super-moderators to come in and protect your community, but aren’t ready to give them an internal org license? We’ve solved this problem with the new Access Community Management permission. The Access Community Management permission lets external users access the Community Management console. No need to allow access to the community setup or moderation rules. As long as the user is a member of your community, has moderation permissions turned on, and has the Run Reports permission, they can moderate your community from Community Management without having an internal org license.
Premoderation: Review Posts and Comments from Your Community Members (Generally Available)
Your community managers and moderators are armed with another level of defense against spammers and malicious members. Set up your moderation rules to review and approve posts and comments made by community members. Rules to review content help you make sure noncompliant or inappropriate content is reviewed before it’s visible to everyone in your community. Premoderation is fully supported on posts and comments in communities using the Customer Service (Napili) template and Salesforce Tabs + Visualforce.

Premoderation on Comments—the Spam Stops Here
First, we blocked spammers from leaving nasty posts on your community wall with premoderation rules. Now, spammers are reaching the end of the line. The same moderation rules your community uses to stop noncompliant or inappropriate posts now apply to comments. Moderators can also change the status value from pending review to published and back again on feed posts and comments. So set up your moderation rules to review and approve community-member generated content, and relax. Nothing’s going to get by you.

Use Premoderation in Salesforce Tabs + Visualforce Communities
We didn’t want the Customer Service (Napili) template to have all the fun, so we made premoderation available on posts and comments in Salesforce Tabs + Visualforce communities, too. You can also set premoderation rules to run on feed publisher actions.

Moderate Record Feeds
Moderation is no longer bound to the main community feed. Now, moderation rules apply to record feeds as well. Community members can comment on any record types that have a feed, and community moderators can make sure that the discussion stays within the guidelines of their community.

Mark as Spam and Leave a Note
Managers, are you tired of receiving emails asking why a post was removed and then having to hunt for the answer? Wouldn’t it be great to have an answer besides “I’m sorry, but your post was flagged as inappropriate by a member of our community”? Your problem has been solved. Now your community members can mark a post as Inappropriate or Spam and specify a reason why.

Flagged Comments Insights Report
We know that actionable Insights are a community manager’s dream come true. That’s why we’ve brought more Insights with this release. Delete flagged comments using the Flagged Comments Insights report. The Moderation Type column indicates whether an item has been flagged as spam or inappropriate. These actions are available in all orgs with Communities—you don’t have to install a package to get them. All you need is a report to use them with.

Get Notified When a Post or Comment Is Pending Review
Tracking pending reviews is now easier because we let you know when an item is awaiting review. That’s right! Community moderators and managers using a Customer Service (Napili) template or Salesforce Tabs + Visualforce community can choose to receive email notifications when a post or comment goes into the Pending Review status.

Create Your Own Community Dashboards and Use Labels of Your Choice
Dashboards are great, right? They give you a high-level view of the information that you really need—as long as they contain the information that you really need. If you love our dashboards but need a few more, we’ve got you covered. Custom dashboard tabs are just waiting for your handiwork. If you need even more, you can edit the tab names and labels of the existing dashboards.

Someone’s Been Clicking My Recommendations
Include context variables in your custom recommendation URLs to get information about who clicks the recommendations and in what context. Knowing who clicks your recommendations can help you create other recommendations that are not too hot or too cold, but just right.

User Profile Photos Go Big and Circular
We’re updating the profile pages to make them feel more modern. So, we added larger, circularly cropped user profile images. If the cropping doesn’t look right, users can reupload the photo or upload a new one. We suggest that you review your users’ profile pics in the sandbox environment before Winter ’17 goes live just to “head off” any potential concerns. And if you find that the rounded images aren’t for your community, you can disable it and keep the rectangular photos.
Identify Your Members with Custom Community Roles and Company Names
In a community, users are often identified by their company name or by “Customer” or “Partner” role labels. In Winter ’17, we updated this “community role” feature. First, you can prevent users from seeing others’ company names roles. Second, we’ve add a third role: Employee. And finally, the role labels can be customized or turned off. This feature is available in both Lightning Experience and Salesforce Classic.

Smart Add for Group Members
Use search intelligence to suggest which members to add to your groups. Members you’ve interacted with and are potentially more likely to join your group are suggested while you search.

Customize the Group Engagement Tab
Last release, we brought you Group Engagement with all of its elucidating data for Lightning Experience. We’ve now expanded it for use in Community templates so you can see how your members are interacting with your group by way of charts and reports. We also separated the individual engagement components so that you can choose which ones to use and where.

Groups’ Creation Wizard
We’ve taken the process of group creation, streamlined it, and made it a breeze to use. You’ll be setting up groups in moments, flat.

Email on Announcement (Generally Available)
Email on Announcement is beta no longer and ready for you to use to send out email announcements to all your members at once, regardless of their email settings.

Customizable Groups Arrives (Beta)
Create a customizable group that matches the look, feel, and features you need.

Custom Group Report Charts
Create your own report charts for groups and capture the data you need in a neat, visual package.

Add Members Gets Its Own Component
To help make populating your groups ever easier, we created a persistent add members component for your group page. Add new members in a snap without having to open a separate dialog. This feature is available in both Lightning Experience and Salesforce Classic.

Moderation Has a Whole New Look
Just when you thought that moderation couldn’t get any easier, we turned it up a notch. See the entire picture of your community’s moderation activity at a glance on the Community Management Moderation Overview page.

Want to tackle all last weekend’s flagged comments while drinking your morning latte? Click Feed Comment Flags. Want to identify which moderation activity takes the longest so that you can prioritize your time? The number of associated tasks is prominently displayed on each tile. Maybe your team has several moderators and you want to divide and conquer tasks. Now that Moderation Insights have been organized into clickable tiles, it’s easier to track activity and organize your day.

To view all feed comment flags, click Feed Comment Flags and go directly to the Feed Comments Flags Insight report. You can approve or delete flagged comments directly from the Insight report.

Example: Feed Comment Flags in the Moderation Overview.
Tip: Install or upgrade the Salesforce Communities Management package available on the AppExchange shortly after the Winter ’17 release. This package provides preconfigured Insights reports that work with our preset actions.

Allow External Users to Moderate Community Content

Have you ever wished you could hire an external agency of super-moderators to come in and protect your community, but aren’t ready to give them an internal org license? We’ve solved this problem with the new Access Community Management permission. The Access Community Management permission lets external users access the Community Management console. No need to allow access to the community setup or moderation rules. As long as the user is a member of your community, has moderation permissions turned on, and has the Run Reports permission, they can moderate your community from Community Management without having an internal org license.

To allow community moderators to review and approve community-generated content, assign them the following user permissions.

<table>
<thead>
<tr>
<th>Permission</th>
<th>Allows Users To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate Communities Feeds</td>
<td>Review flagged posts and comments and take action, such as removing flags or deleting the post or comment. Moderator options for feed content are available in the community feed and in Community Management.</td>
</tr>
<tr>
<td>Moderate Communities Files</td>
<td>Review flagged files users have access to and take action, such as removing flags or deleting the file. Moderator options for files are available on a file’s detail page and in Community Management.</td>
</tr>
<tr>
<td>Moderate Communities Chatter Messages</td>
<td>Review flagged messages and take action, such as removing a flag or deleting a message. This permission allows users access only to flagged messages in communities they're a member of.</td>
</tr>
<tr>
<td>Can Approve Feed Post and Comment</td>
<td>Approve or delete posts and comments that are pending review.</td>
</tr>
<tr>
<td>Moderate Community Users</td>
<td>Freeze external users who are members of the community. Moderators can freeze members from the member’s user profile page or a Members report.</td>
</tr>
</tbody>
</table>
Pre-moderation: Review Posts and Comments from Your Community Members
(Generally Available)

Your community managers and moderators are armed with another level of defense against spammers and malicious members. Set up your moderation rules to review and approve posts and comments made by community members. Rules to review content help you make sure noncompliant or inappropriate content is reviewed before it’s visible to everyone in your community. Premoderation is fully supported on posts and comments in communities using the Customer Service (Napili) template and Salesforce Tabs + Visualforce.

How do I set up moderation rules to review posts and comments?
You can create and manage rules to review content in Community Management under Moderation > Rules. Create a content rule and use Review as the moderation action. You can also set up rules to review and approve posts using the Metadata API or Tooling API.

Which permissions do my moderators need?
To allow your community moderators and managers to review and approve posts and comments, assign them the following user permissions.

<table>
<thead>
<tr>
<th>Task</th>
<th>User Permissions Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approve, edit, and delete posts or comments that are pending review from the community feed.</td>
<td>“Can Approve Feed Post and Comment”</td>
</tr>
<tr>
<td>Approve, edit, and delete posts or comments that are pending review from Community Management.</td>
<td>“Can Approve Feed Post and Comment” AND “Access Community Management” OR “Manage Communities” OR “Create and Set Up Communities” AND Is a member of the community whose Community Management page they’re trying to access Download the Salesforce Communities Management package from the AppExchange, available shortly after the Winter ’17 release, to get predefined Insights reports that can help you manage reviewing posts.</td>
</tr>
</tbody>
</table>

From the new Moderation Overview page, community managers can easily access Insights reports to approve or delete comments in bulk.
To learn more about setting up moderation rules and reviewing posts, see Community Moderation Rules and Review and Approve Posts and Comments in Your Community

Premoderation on Comments—the Spam Stops Here

First, we blocked spammers from leaving nasty posts on your community wall with premoderation rules. Now, spammers are reaching the end of the line. The same moderation rules your community uses to stop noncompliant or inappropriate posts now apply to comments. Moderators can also change the status value from pending review to published and back again on feed posts and comments. So set up your moderation rules to review and approve community-member generated content, and relax. Nothing’s going to get by you.

You can create and manage rules to review content in Community Management under Moderation > Rules. Create a content rule, and use Review as the moderation action. You can also use the Metadata API or Tooling API to set up rules to review and approve posts and comments in the feed.

Chatter REST API and Chatter in Apex support changing the status value of posts and comments from pending review to published and back again.

Use Premoderation in Salesforce Tabs + Visualforce Communities

We didn’t want the Customer Service (Napili) template to have all the fun, so we made premoderation available on posts and comments in Salesforce Tabs + Visualforce communities, too. You can also set premoderation rules to run on feed publisher actions.

You can create and manage rules to review content in Community Management under Moderation > Rules. Create a content rule, and use Review as the moderation action. You can also use the Metadata API or Tooling API to set up rules to review and approve community-generated content.

Moderate Record Feeds

Moderation is no longer bound to the main community feed. Now, moderation rules apply to record feeds as well. Community members can comment on any record types that have a feed, and community moderators can make sure that the discussion stays within the guidelines of their community.

Let’s say your community encourages feedback on particular products. Customers can go to a product and hold a discussion right there. If the posts or comments don’t meet the moderation rules criteria, they are caught by the moderation rules configured for your community. Flags on a record feed are only visible from within the community that flags them.

Even better, you can turn off moderation rules for internal users so that their feed activity isn’t flagged. If your support team adds a comment to the same record type, they can help your customers without getting flagged or blocked by moderation rules.

Example: Error Message from Comment on a Product Flagged as Spam
Mark as Spam and Leave a Note

Managers, are you tired of receiving emails asking why a post was removed and then having to hunt for the answer? Wouldn’t it be great to have an answer besides “I’m sorry, but your post was flagged as inappropriate by a member of our community”? Your problem has been solved. Now your community members can mark a post as Inappropriate or Spam and specify a reason why.

Your administrator must enable community moderation before members can flag posts and comments.

To mark a post select Flag. Then identify the post as inappropriate or spam. You can also leave a message to the community moderator. The moderation type and message is displayed in the Flagged Posts Insights report.

These features are not available if you are using Site.com.

Tip: Access the Flagged Posts Insights report and other moderation Insights from the Community Management Moderation Overview page.

Chatter REST API and Chatter in Apex support marking posts and comments as inappropriate or spam and leaving a note.

Example: Inappropriate Comment on Community Discussion
Example: Option to Mark as Spam or Inappropriate and Leave a Note
Flagged Comments Insights Report

We know that actionable Insights are a community manager’s dream come true. That’s why we’ve brought more Insights with this release. Delete flagged comments using the Flagged Comments Insights report. The Moderation Type column indicates whether an item has been flagged as spam or inappropriate. These actions are available in all orgs with Communities—you don’t have to install a package to get them. All you need is a report to use them with.

Tip: Install the Salesforce Communities Management package available on the AppExchange shortly after the Winter ’17 release. This package provides preconfigured Insights reports that work with our preset actions.

SEE ALSO:
Insights for Community Engagement

Get Notified When a Post or Comment Is Pending Review

Tracking pending reviews is now easier because we let you know when an item is awaiting review. That’s right! Community moderators and managers using a Customer Service (Napili) template or Salesforce Tabs + Visualforce community can choose to receive email notifications when a post or comment goes into the Pending Review status.

Community moderators and managers must be assigned the Can Approve Post and Comment permission to approve and review posts and comments. To receive notification emails, moderators select Requires approval on an item in the Email Settings of their user profile. Moderators and community managers using a Customer Service (Napili) template can also choose to receive notification emails when a post or comment is flagged.

Example: Email Setting to Receive Email Notifications When an Item Requires Approval

Create Your Own Community Dashboards and Use Labels of Your Choice

Dashboards are great, right? They give you a high-level view of the information that you really need—as long as they contain the information that you really need. If you love our dashboards but need a few more, we’ve got you covered. Custom dashboard tabs are just waiting for your handiwork. If you need even more, you can edit the tab names and labels of the existing dashboards.

Go to Dashboards > Settings in Community Management to customize labels and map dashboards to the desired page.
**SEE ALSO:**

Measure Community Success with Dashboards

**Someone’s Been Clicking My Recommendations**

Include context variables in your custom recommendation URLs to get information about who clicks the recommendations and in what context. Knowing who clicks your recommendations can help you create other recommendations that are not too hot or too cold, but just right.

In Community Management, select **Recommendations**. The `https://` field supports context variables. For example, include a `{!userId}` context variable in your URL, `https://www.example.com/doSurvey?userId={!userId}`. When a user clicks the button in the recommendation, Salesforce sends the ID of that user to your server in the HTTP request.

Recommendations support these context variables.

<table>
<thead>
<tr>
<th>Context Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>{!actionLinkId}</code></td>
<td>The ID of the recommendation link that the user clicked.</td>
</tr>
</tbody>
</table>
### Context Variable

<table>
<thead>
<tr>
<th>Context Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>{!actionLinkGroupId}</td>
<td>The ID of the recommendation link group containing the recommendation that the user clicked.</td>
</tr>
<tr>
<td>{!communityId}</td>
<td>The ID of the community in which the user clicked the recommendation. The value for your internal Salesforce org is the empty key, &quot;000000000000000000&quot;.</td>
</tr>
<tr>
<td>{!orgId}</td>
<td>The ID of the org in which the user clicked the recommendation.</td>
</tr>
<tr>
<td>{!userId}</td>
<td>The ID of the user that clicked the recommendation.</td>
</tr>
</tbody>
</table>

### User Profile Photos Go Big and Circular

We're updating the profile pages to make them feel more modern. So, we added larger, circularly cropped user profile images. If the cropping doesn't look right, users can reupload the photo or upload a new one. We suggest that you review your users' profile pics in the sandbox environment before Winter '17 goes live just to "head off" any potential concerns. And if you find that the rounded images aren't for your community, you can disable it and keep the rectangular photos.

### Identify Your Members with Custom Community Roles and Company Names

In a community, users are often identified by their company name or by "Customer" or "Partner" role labels. In Winter '17, we updated this "community role" feature. First, you can prevent users from seeing others' company names roles. Second, we've add a third role: Employee. And finally, the role labels can be customized or turned off. This feature is available in both Lightning Experience and Salesforce Classic.

To change role label, replace the text. If you don't want to use one or more roles, leave the field blank.

### Smart Add for Group Members

Use search intelligence to suggest which members to add to your groups. Members you've interacted with and are potentially more likely to join your group are suggested while you search.

SEE ALSO:

Add Group Members the Smart Way

### Customize the Group Engagement Tab

Last release, we brought you Group Engagement with all of its elucidating data for Lightning Experience. We've now expanded it for use in Community templates so you can see how your members are interacting with your group by way of charts and reports. We also separated the individual engagement components so that you can choose which ones to use and where.

### Groups' Creation Wizard

We've taken the process of group creation, streamlined it, and made it a breeze to use. You'll be setting up groups in moments, flat.

SEE ALSO:

See the Wonderful Wizard of Groups
Email on Announcement (Generally Available)

Email on Announcement is beta no longer and ready for you to use to send out email announcements to all your members at once, regardless of their email settings.

SEE ALSO:
Email on Announcement Graduates to Generally Available

Customizable Groups Arrives (Beta)

Create a customizable group that matches the look, feel, and features you need.

Note: This release contains a beta version of Customizable Groups, which means it’s a high-quality feature with known limitations. For information on enabling this feature in your org, contact Salesforce. Customizable Groups 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 Feature in the IdeaExchange in the Success Community.

SEE ALSO:
Have It Your Way with Customizable Groups (Beta)

Custom Group Report Charts

Create your own report charts for groups and capture the data you need in a neat, visual package.

SEE ALSO:
DIY Custom Report Charts Give You What You Want

Add Members Gets Its Own Component

To help make populating your groups ever easier, we created a persistent add members component for your group page. Add new members in a snap without having to open a separate dialog. This feature is available in both Lightning Experience and Salesforce Classic.

Improve Your Community’s Search Quality with Search Dashboards

We’ve all done it: We go to a customer community, look for a specific topic, can’t find it, and have to log a case with support to answer our question. So frustrating. You now have the power to make your customers bypass this exercise in frustration by improving your community’s search quality. With Search Dashboards, you can set up specific metrics based on searches done in a community. You can even filter results by the type of user: Was the person doing the search a logged-in member or a guest user just prowling the community? Or filter by how often members used autocomplete to search for terms.

Add articles that are missing for most searched-for terms. Assign topics to articles based on most searched-for terms. Curate your content in a way that helps your community members. The world is your search oyster.

Tip: The Winter ’17 version of the Salesforce Communities Management package is available on the AppExchange shortly after the release.
**Note:** Search dashboards are only available for Lightning component-based communities, not communities built using Salesforce Tabs + Visualforce.

### Other Changes in Communities

Learn about smaller changes that improve your experience with Communities.

**IN THIS SECTION:**

- **Improved Default Group Icon**
  Updated default group icon helps keep even new groups looking modern.

- **Link Between Visualforce Pages in Salesforce1**
  Easily link to Visualforce pages from other Visualforce pages in Salesforce1 by selecting the option under Salesforce1 Settings for Communities in Communities Settings. The setting keeps the Apex prefix in all your community URLs.

- **Default Page Variation No Longer Required**
  Communities were previously required to have a default page. No more. We’ve removed that restriction, opening up the possibilities of making sure that, say, the marketing team’s landing page is visible only to those members who need access and not visible at all to the rest of the community.

- **Can’t Add Unpublished Pages to Navigation Menu**
  When editing the community navigation menu, you can only add published pages. Unpublished pages don’t appear in the page list, avoiding the issues that adding them before they were published created.
Page Visibility Setting No Longer Publishes Automatically
In days past, the page visibility setting you chose was live as you worked in your community, which led to some concern and confusion. Now, you can work away without your page visibility setting going live until you publish your community, giving you the chance to make all the changes you want and releasing them when you’re ready.

Improved Default Group Icon
Updated default group icon helps keep even new groups looking modern.

SEE ALSO:
- Group Icon Gets a New Look

Link Between Visualforce Pages in Salesforce1
Easily link to Visualforce pages from other Visualforce pages in Salesforce1 by selecting the option under Salesforce1 Settings for Communities in Communities Settings. The setting keeps the Apex prefix in all your community URLs.

Example:

```
[Salesforce1 Settings for Communities]
```

Note: Only communities that use the Salesforce Tabs + Visualforce template are supported in all of the Salesforce1 apps.

SEE ALSO:
- Salesforce Help: Access to Communities Using Salesforce1

Default Page Variation No Longer Required
Communities were previously required to have a default page. No more. We’ve removed that restriction, opening up the possibilities of making sure that, say, the marketing team’s landing page is visible only to those members who need access and not visible at all to the rest of the community.

Can’t Add Unpublished Pages to Navigation Menu
When editing the community navigation menu, you can only add published pages. Unpublished pages don’t appear in the page list, avoiding the issues that adding them before they were published created.

Page Visibility Setting No Longer Publishes Automatically
In days past, the page visibility setting you chose was live as you worked in your community, which led to some concern and confusion. Now, you can work away without your page visibility setting going live until you publish your community, giving you the chance to make all the changes you want and releasing them when you’re ready.
Chatter: New Group Wizard, Custom Group Reports, Videos in Place

Group feeds auto-refresh, rich content in feeds support inline images and code markup, and videos now play in context. Plus, custom reports for groups and several look-and-feel improvements make your Chatter experience richer!

IN THIS SECTION:
Groups: New Wizard, Custom Report Charts, Real-Time Chatter Feeds
Create groups with an easy wizard, add members using smart suggestions, create custom report charts, and more!

Chatter Feeds: Real-Time Comments, More Mute Options, Videos in Place
Ask questions in more feeds, see comments in real time, play videos directly in the feed, and more!

Groups: New Wizard, Custom Report Charts, Real-Time Chatter Feeds
Create groups with an easy wizard, add members using smart suggestions, create custom report charts, and more!

IN THIS SECTION:
See the Wonderful Wizard of Groups
We’ve taken the process of group creation, streamlined it, and come up with a set of steps that make setting up a new group a snap. This feature is available in Lightning Experience only.

Add Group Members the Smart Way
We’ve found a way to make adding members to your groups even easier. A new, sharp, Add Member component and intelligent suggestions about which members are a likely good fit help get the right people in your group the first time. The smart search box suggests members most likely to want to be a part of a group based on their interactions with other members and groups. The new search also includes such niceties as suggesting names as you type. This feature is available in Lightning Experience only.

DIY Custom Report Charts Give You What You Want
While out-of-the-box reports are time savers, occasionally they don’t capture the nuances of what you’re looking for. Custom report charts for groups to the rescue. You can create reports based on records associated in your group, such as Leads or Accounts, adding new insight into your group. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

Group Feeds Are Now Live!
Lightning Experience brings you real-time group feeds. No more page refreshes required to see what people are saying at the exact moment they say it. Each new post is briefly highlighted to call it to your attention. This feature is available in Lightning Experience only.

Email on Announcement Graduates to Generally Available
Email on Announcement is no longer in beta and is now ready for action. When posting an announcement, group managers can send emails and notifications to all group members, regardless of their email preferences, making sure that everyone sees the info. Because of the ability to spam large amounts of people at once, we put this feature behind a permission. Group owners that want this mighty power need the Send announcement emails perm enabled by their admin. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.
Have It Your Way with Customizable Groups (Beta)

All those page variations you created for different group layouts can be assigned to record types. When a user creates a group, one of the first things the user does is pick a record type and the variation populates. Voila! One customized group layout ready for action. Ready to try it? Just contact Salesforce Support to activate the feature. This feature is available in Lightning Experience and the Salesforce1 mobile browser app.

Group Icon Gets a New Look

Did we mention we’re sprucing things up? In keeping with our spiffy new look, we updated the default group icon. This feature is available in both Lightning Experience and Salesforce Classic.

See the Wonderful Wizard of Groups

We’ve taken the process of group creation, streamlined it, and come up with a set of steps that make setting up a new group a snap. This feature is available in Lightning Experience only.

Want to see it in action? Let’s follow Dorothy. Her company uses groups for interacting with customers as well as employees. Dorothy is a member of several groups and has noticed a recurring theme in the comments. It seems that both customers and employees have lots of questions and ideas about how to use her company’s weather mapping software to predict the likelihood of tornadoes touching down in a given area. She decides to create a group just for capturing this discussion in one place.

First things first, she goes to the group list page. When she clicks the New button, she’s off and running. She decides to name her group Tornado Touchdown (she’s a bit of a sports fan, too). In the Description box, she puts in a few sentences about her group. This information is public facing and indexed by search software, so she throws in some key terms to help others find it.

In the Information box, she adds a bit more. This info will be available on the Group page and is rich text, so she has a bit of fun with the font size, bold, and so on. She briefly considers adding links to other groups and sites here, but decides to hold off for now.

She clicks Save & Next and the group is created. She can leave the wizard at this step or continue on. Dorothy decides to upload a photo and temporarily use one she took at her aunt’s farm. Just until she can find a good one of a tornado, of course.
Clicking **Next** takes her to adding members. Typing a single letter brings up a short list of members whose names start with that letter. Clicking **Done** wraps up the total process and takes her to her new group. She gets ready to kick off the discussion by creating a “welcome to the group” post. Right after she picks up biscuits for her little dog.

### Add Group Members the Smart Way

We’ve found a way to make adding members to your groups even easier. A new, sharp, Add Member component and intelligent suggestions about which members are a likely good fit help get the right people in your group the first time. The smart search box suggests members most likely to want to be a part of a group based on their interactions with other members and groups. The new search also includes such niceties as suggesting names as you type. This feature is available in Lightning Experience only.

### DIY Custom Report Charts Give You What You Want

While out-of-the-box reports are time savers, occasionally they don’t capture the nuances of what you’re looking for. Custom report charts for groups to the rescue. You can create reports based on records associated in your group, such as Leads or Accounts, adding new insight into your group. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

If you add a report chart to a group, and the report is on standard Salesforce objects, you can set the chart to scope itself to only the records related to the Group. For example, you could show the closed value of Opportunities related to the group.
Group Feeds Are Now Live!

Lightning Experience brings you real-time group feeds. No more page refreshes required to see what people are saying at the exact moment they say it. Each new post is briefly highlighted to call it to your attention. This feature is available in Lightning Experience only.

When new posts are added to a live feed, a message appears briefly at the top of the feed (1).
When a new comment is added to a live feed, the comment briefly flashes yellow.

If you go idle for awhile or navigate away from a live feed, refresh the page to bring it back to live.

Live group feeds is a new feature with lots of potential for enhancement and a few known issues.

- Content posted to the group is live, but mentions are not. If you post to group A, the post is live. If you mention group A in another feed, group A requires a page refresh to show that mention.
- When a group has a new post, you receive notifications only in Lightning Experience.
- When new comments are made on a feed post that you’re engaged in, you receive notifications only in Lightning Experience and only when you’re actively typing comments or you’ve clicked into the comments box.
- The number of participants supported in a live feed depends on your org’s subscription limits. If you’re not getting a live group feed or live comments, refresh the page or click in a comments field. If the feed still isn’t live, looks like your org has hit its limit! You can still get updates the old-fashioned way by refreshing the page.
- If you’re in a group feed that seems not to be live anymore, this is a known issue that we’ll resolve!

Email on Announcement Graduates to Generally Available

Email on Announcement is no longer in beta and is now ready for action. When posting an announcement, group managers can send emails and notifications to all group members, regardless of their email preferences, making sure that everyone sees the info. Because of the ability to spam large amounts of people at once, we put this feature behind a permission. Group owners that want this mighty power need the Send announcement emails perm enabled by their admin. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Have It Your Way with Customizable Groups (Beta)

All those page variations you created for different group layouts can be assigned to record types. When a user creates a group, one of the first things the user does is pick a record type and the variation populates. Voilà! One customized group layout ready for action. Ready to try it? Just contact Salesforce Support to activate the feature. This feature is available in Lightning Experience and the Salesforce1 mobile browser app.

Note: When you activate Customizable Groups, Chatter groups in Lightning Experience and Salesforce1 become layout driven.

Once Customizable Groups is activated, users will now be asked to choose which type of group they want to use based on a group record type. You will need at least one record type for each customized group you want to create. Take a bit of time with your description to help your users understand what they are choosing. If you want, you can associate the record type with a new group layout as well and customize the quick actions, publisher actions, and related lists.

Next, in Community Builder, go to the Page Manager and choose Detail under Group. Here you can create page variations for different use cases, such as sales group or power users. Manage the visibility of each variation to associate it with a record type.

And you’re done!

Note: This release contains a beta version of Customizable Groups, which means it’s a high-quality feature with known limitations. For information on enabling this feature in your org, contact Salesforce. Customizable Groups 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 Feature in the IdeaExchange in the Success Community.

Group Icon Gets a New Look

Did we mention we’re sprucing things up? In keeping with our spiffy new look, we updated the default group icon. This feature is available in both Lightning Experience and Salesforce Classic.

Chatter Feeds: Real-Time Comments, More Mute Options, Videos in Place

Ask questions in more feeds, see comments in real time, play videos directly in the feed, and more!
IN THIS SECTION:

You Called Me “Feed,” Now Call Me “Chatter”
When you look for your feed in Lightning Experience, look instead for “Chatter.” In many places, the Feed and Collaborate labels have been changed to Chatter. This feature is available in Lightning Experience only.

Question Publisher Available in More Places
Joining posts and polls, there’s a new publishing option in your Lightning and community feeds: questions. Use the question publisher to post questions to your groups and communities and crowd-source answers. Raise the visibility of your questions and call out the best solution. In communities, the question publisher is available in account, group, profile, and case feeds. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

Comments Are Now Live!
Lightning Experience brings you real-time comments. No more page refreshes required to see what people are saying about a post at the exact moment they say it. Each new comment is briefly highlighted to call it to your attention. Comments refresh and stay live after you subscribe to them. Subscription is easy; just click in the comment field. This feature is available in Lightning Experience only.

Mute a Feed Item from Its Detail View
Your Lightning Experience and community feeds now offer the option of muting a feed post from its detail view. When you navigate to detail view from a notification, you can mute the post right on the spot. In the feed, you can click a post’s date to navigate to its detail view. This feature is available in Lightning Experience and communities based on the Customer Service (Napili) template.

Play Videos Directly in the Feed
Now the ability to play videos inline in feeds is available in Lightning Experience! When you attach a video to a post or comment, anyone can play it right where it’s posted. This feature is available in Salesforce Classic, Lightning Experience, and communities based on the Customer Service (Napili) template.

Find Out Who Likes Your Comment
Comments in Lightning Experience now show a complete list of people who liked your post. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

Edit Feed Posts and Comments in More Places, Get View Counts
You’ve been very patient, and now comes the reward: You can edit feed posts and comments in Lightning Experience. With a little admin setup, both feed posts and comments show the Edit option on their action menus. Enjoy! This feature is available in Lightning Experience only.

Rich Content and Inline Images in More Places
When all-caps just isn’t enough, go BOLD or italic or underscore. Want to add visual richness? Include an inline image in your post or comment. The possibilities are endless, now that you have rich content capabilities just about everywhere. This feature is available in Lightning Experience only.

Posts and Comments Have an Updated Look and Feel
We’ve made posts and comments even more compatible with mobile display. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

Hover Over a Name and See a Mini-Profile
Hover over any name and see a brief version of a person’s profile. Click the name and see the full profile page. The hover info, pulled from the compact user profile layout, also appears next to the person’s profile photo. This feature is available in Lightning Experience only.

Share News on Chatter
If you’ve enabled News for your org, your sales reps can share news articles on Chatter. Keeping colleagues up to date has never been easier. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.
You Called Me “Feed,” Now Call Me “Chatter”

When you look for your feed in Lightning Experience, look instead for “Chatter.” In many places, the Feed and Collaborate labels have been changed to Chatter. This feature is available in Lightning Experience only.

Why change it? Because Chatter is everywhere, and we’d like you to know it.

This change appears on the navigation item and in record feeds (accounts, opportunities, groups, user profiles, and cases).

SEE ALSO:
Feed Item in Salesforce1 Navigation Menu Now Called Chatter

Question Publisher Available in More Places

Joining posts and polls, there’s a new publishing option in your Lightning and community feeds: questions. Use the question publisher to post questions to your groups and communities and crowd-source answers. Raise the visibility of your questions and call out the best solution. In communities, the question publisher is available in account, group, profile, and case feeds. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.
Comments Are Now Live!

Lightning Experience brings you real-time comments. No more page refreshes required to see what people are saying about a post at the exact moment they say it. Each new comment is briefly highlighted to call it to your attention. Comments refresh and stay live after you subscribe to them. Subscription is easy; just click in the comment field. This feature is available in Lightning Experience only.

When a live comment is posted, it briefly flashes yellow.
If you go idle for awhile or navigate away from a feed, click in the comment field (1) to resubscribe.

Live comments is a new feature with lots of potential for enhancement and a few known issues.

- When new comments are made on a feed post that you’re engaged in, you receive notifications only in Lightning Experience. Notifications appear when you’re actively typing comments or you’ve clicked in the comments box.

- The number of participants supported for live comments depends on your org’s subscription limits. If you’re not getting live comments, click in a comment field. If comments still aren’t live, looks like your org has hit its limit! You can still get updates the old-fashioned way by refreshing the page.

**Mute a Feed Item from Its Detail View**

Your Lightning Experience and community feeds now offer the option of muting a feed post from its detail view. When you navigate to detail view from a notification, you can mute the post right on the spot. In the feed, you can click a post’s date to navigate to its detail view. This feature is available in Lightning Experience and communities based on the Customer Service (Napili) template.
When you mute a post, a notification pops up to confirm that the post is muted. You can still see the post in your feed, but you no longer receive notifications about activities on the post, unless you’re mentioned. Mentioning unmutes the post.

Want to restart notifications? From the post’s action menu, select **Unmute**.

**Play Videos Directly in the Feed**

Now the ability to play videos inline in feeds is available in Lightning Experience! When you attach a video to a post or comment, anyone can play it right where it’s posted. This feature is available in Salesforce Classic, Lightning Experience, and communities based on the Customer Service (Napili) template.
Find Out Who Likes Your Comment

Comments in Lightning Experience now show a complete list of people who liked your post. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.
Edit Feed Posts and Comments in More Places, Get View Counts

You’ve been very patient, and now comes the reward: You can edit feed posts and comments in Lightning Experience. With a little admin setup, both feed posts and comments show the Edit option on their action menus. Enjoy! This feature is available in Lightning Experience only.

If you want to edit your posts and comments, ask your admin to enable Edit my own posts on your user profile.

But wait! There’s more: now you can also see view counts on posts in Lightning Experience (1).
View counts easily gauge how interested people are in a post or how well-placed it is. The count tally increases any time a post is commented on, liked, or the post's detail page is viewed.

⚠️ **Note:** To get to a post's detail view, click its date and time information (2).

SEE ALSO:

Add and Remove Files When Editing Posts in Lightning Experience
Rich Content and Inline Images in More Places

When all-caps just isn’t enough, go **BOLD** or *italic* or _underscore_. Want to add visual richness? Include an inline image in your post or comment. The possibilities are endless, now that you have rich content capabilities just about everywhere. This feature is available in Lightning Experience only.

How is rich content useful? It lets you add emphasis to your text, post inline images, and add code snippets (with a little configuration). You can even edit your posts and comments to fix typos, reword, or add information.

You can embed images in your messages: “When you finish the project, would you fix me an 🎈?"

You can discuss and troubleshoot code.

Note: To enable code snippets, edit a user profile or permission set, and select **Allow Inclusion of Code Snippets from UI**.

Posts and Comments Have an Updated Look and Feel

We’ve made posts and comments even more compatible with mobile display. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

We’ve made better use of space by providing tabbed buttons to open publishers and post messages and questions (1).
Hover Over a Name and See a Mini-Profile

Hover over any name and see a brief version of a person’s profile. Click the name and see the full profile page. The hover info, pulled from the compact user profile layout, also appears next to the person’s profile photo. This feature is available in Lightning Experience only.
You admins can give your users a better experience by modifying the compact layout to remove unused fields from the hover. For example, go to Setup Home > Objects and Fields > Object Manager > User, and scroll down to Compact Layouts. Modify the active layout to include the Name and Title fields, removing Company Name and Active.

Note: If you’ve integrated Skype in your org, a beta feature is available to customers with the Unlimited and Enterprise editions. A Skype connection can appear at the bottom of the mini-profile, enabling you to call the person using Skype right from the card. For more information, see Use Skype for Business® Chat, Video Calling, and Audio Calling in Salesforce (Beta) on page 122.

Share News on Chatter

If you’ve enabled News for your org, your sales reps can share news articles on Chatter. Keeping colleagues up to date has never been easier. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

SEE ALSO:
- Start Spreading the News on Chatter
- Lightning Experience: A Modern and Intelligent User Experience

Files: Attach Multiple Files to Posts, Work Smarter with Files Connect, Upload Asset Files for Custom Apps

Attach up to 10 files to Chatter feed posts in Lightning Experience. Make your life easier with simpler setup and more relevant content in Files Connect. Use Salesforce Files as icons when packaging custom Lightning apps.

IN THIS SECTION:
- Load Up Your Feed Posts with Ten Files in Lightning Experience
  Less isn’t always more. Attach not just one but up to ten files to your feed posts. This feature is new to Lightning Experience, and is also available in Communities.
- Add and Remove Files When Editing Posts in Lightning Experience
  Now that Lightning Experience supports editing your own Chatter posts, you can also add and remove files when doing so. This feature is available in Lightning Experience only.
- Use Salesforce Files as Icons in Custom Lightning Apps
  When packaging custom apps in Lightning Experience, the app icon is now stored as a Salesforce File. Storing your custom app icons as Salesforce Files lets you take advantage of all the Files platform features such as versions, previews, and sharing rules. Salesforce Files used in this way are called asset files. This feature is available in Lightning Experience only.
- Simplify Setup of Files Connect for Office 365 with Azure
  With a new setup process using Azure Management Console, setting up Files Connect for SharePoint Online or OneDrive for Business is even easier. Instead of logging in to two different locations to configure options, you can now register your app in one step using the Windows Azure Management Console. You no longer need to copy and paste snippets of XML, because everything can be configured with point and click. This feature is available in both Lightning Experience and Salesforce Classic.
SharePoint System Folders Filtered Out of Files Connect

Spring cleaning came early! The SharePoint system folders Style Library, Customized Reports, and Form Templates no longer appear in Files Connect, so it’s easier than ever to find the external files you need. This update is enabled by default and applies across Salesforce Classic, Lightning Experience, all APIs, and all versions of the Salesforce1 mobile app.

Load Up Your Feed Posts with Ten Files in Lightning Experience

Less isn’t always more. Attach not just one but up to ten files to your feed posts. This feature is new to Lightning Experience, and is also available in Communities.

Do you have a bunch of photos or other files you want to share in Chatter? Are you tired of posting them one by one in post comments? Now you can attach not just one, not two, but up to ten files in your feed posts in Lightning Experience. Select any combination of your files already stored in Salesforce or upload some new ones. You might just love the way the thumbnails line up in the feed, and how you can click through them in the file previewer!

The file selector shows how many files you’ve selected so far, up to 10.
Once you share your post, your images or other files display as thumbnails with overflow.

Eric Ware
6m ago

Here are some pics from our coffee tour in Costa Rica!

Tap any thumbnail to open the file previewer, where you can scroll through all the attached files.
Add and Remove Files When Editing Posts in Lightning Experience

Now that Lightning Experience supports editing your own Chatter posts, you can also add and remove files when doing so. This feature is available in Lightning Experience only.

Did you forget to attach a file before sharing a post? Or maybe you attached the wrong file? No problem! When you edit your post, click the paperclip to attach more files. Or click the X for each file you want to remove. The editor keeps track of the total number of files, allowing you to attach up to ten.

SEE ALSO:
- Load Up Your Feed Posts with Ten Files in Lightning Experience
- Edit Feed Posts and Comments in More Places, Get View Counts
- Lightning Experience: A Modern and Intelligent User Experience
Use Salesforce Files as Icons in Custom Lightning Apps

When packaging custom apps in Lightning Experience, the app icon is now stored as a Salesforce File. Storing your custom app icons as Salesforce Files lets you take advantage of all the Files platform features such as versions, previews, and sharing rules. Salesforce Files used in this way are called asset files. This feature is available in Lightning Experience only.

When packaging an app, upload any .png, .jpg, .bmp, or static .gif file up to 5 MB. Anyone with access to manage the asset file can view it in Files Home.

Chatter REST API supports uploading asset files.

SEE ALSO:

Create Custom Apps in Lightning Experience and Navigate More Efficiently
Lightning Experience: A Modern and Intelligent User Experience

Simplify Setup of Files Connect for Office 365 with Azure

With a new setup process using Azure Management Console, setting up Files Connect for SharePoint Online or OneDrive for Business is even easier. Instead of logging in to two different locations to configure options, you can now register your app in one step using the Windows Azure Management Console. You no longer need to copy and paste snippets of XML, because everything can be configured with point and click. This feature is available in both Lightning Experience and Salesforce Classic.

SEE ALSO:

Salesforce Help: Create an Authentication Provider for SharePoint Online Using Azure (Preferred Method) (can be outdated or unavailable during release preview)
Lightning Experience: A Modern and Intelligent User Experience
SharePoint System Folders Filtered Out of Files Connect

Spring cleaning came early! The SharePoint system folders Style Library, Customized Reports, and Form Templates no longer appear in Files Connect, so it’s easier than ever to find the external files you need. This update is enabled by default and applies across Salesforce Classic, Lightning Experience, all APIs, and all versions of the Salesforce1 mobile app.

SEE ALSO:
  Lightning Experience: A Modern and Intelligent User Experience

Mobile: Do More on the Go

Mobile keeps us connected from just about everywhere, meaning we can get our stuff done from anywhere. So we’ve been hard at work adding new ways to be productive outside of the office. The Salesforce1 mobile app is pumped up with more intelligence, more actions, and more options for sharing info with colleagues. And Salesforce Authenticator makes it even easier to stay safe and secure with notifications about automated activities and a new option to back up (and restore) connected accounts.

IN THIS SECTION:
  Salesforce1: More Doing, More Sharing
  The Salesforce1 mobile app helps your reps stay up to date on their most-important records, activities, Chatter conversations, and dashboards from wherever they are. Examples? Send text messages directly from contact and lead records. Move opportunities along faster with enhancements to products, quotes, and campaigns. And everyone can keep the team updated by sharing important news or dashboard charts in Chatter.

  Salesforce Authenticator: Back Up and Restore Accounts, Automated Activity Notifications, Bolder Timer
  You can now back up your connected accounts in the app and restore them when you install the app on another phone. We’ve also added notifications for automated activities, and made copying your verification code and seeing the timer even easier. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

  Salesforce Classic Mobile App to Retire in December 2017
  To improve the overall mobile user, developer, and deployment experience, Salesforce is focusing mobile development on the Salesforce1 app. As a result, we are retiring the Salesforce Classic Mobile app on December 1, 2017. Also, iOS 10 and Android 7.0 are the final mobile OS versions that we’ll use for Salesforce Classic Mobile compatibility testing. We encourage you to start transitioning your mobile users to an alternative experience, such as rolling out the Salesforce1 downloadable apps or deploying custom mobile apps that address your current and future mobile needs.

  SalesforceA: More User Management Options with Version 3.3 for iOS
  Version 3.3 of SalesforceA for iOS is now generally available. You can now add a new user on the go!

SEE ALSO:
  Wave: Go Places with Wave Mobile Apps
  Service Cloud Lightning Snap-ins SDK: Now Generally Available for iOS
Salesforce1: More Doing, More Sharing

The Salesforce1 mobile app helps your reps stay up to date on their most-important records, activities, Chatter conversations, and dashboards from wherever they are. Examples? Send text messages directly from contact and lead records. Move opportunities along faster with enhancements to products, quotes, and campaigns. And everyone can keep the team updated by sharing important news or dashboard charts in Chatter.

IN THIS SECTION:

Access the Salesforce1 Mobile App
Your users have several options for accessing Salesforce1 on mobile devices that meet minimum platform requirements.

What’s New in the Latest Salesforce1 Downloadable Apps
The latest release of the Salesforce1 downloadable apps is version 11.0. At a glance, here’s what’s new.

Salesforce1 Enhancements in This Release
Our latest round of new and improved Salesforce1 features makes it easier to access Salesforce on the go.

Winter ’17 Features That Are Different or Unavailable in Salesforce1
The Salesforce1 mobile app doesn’t include all the functionality that’s available in the full Salesforce site, whether your org is using Lightning Experience or Salesforce Classic. Learn about the Winter ’17 Salesforce enhancements that either aren’t available in Salesforce1, have functional gaps from the full site, or work differently in the mobile app.

Access the Salesforce1 Mobile App
Your users have several options for accessing Salesforce1 on mobile devices that meet minimum platform requirements.

- Install the Salesforce1 downloadable app on Android™ and Apple® mobile devices. Users can download the app from Google Play™ or the App Store.
- Access the Salesforce1 mobile browser app from a supported mobile browser on Android and Apple devices or select Windows mobile phones. This option doesn’t require anything to be installed.

What’s New in the Latest Salesforce1 Downloadable Apps
The latest release of the Salesforce1 downloadable apps is version 11.0. At a glance, here’s what’s new.

Salesforce1 for iOS, Version 11.0
Beginning the week of October 24, 2016, the App Store starts serving up Salesforce1 for iOS, version 11.0. Here’s what’s new in Salesforce1 for iOS.

- Quickly Access Contacts, Profiles, Objects, and Apps (Oh My!) with iOS Spotlight Search
- View Forecast Data in Salesforce1 for iOS
- Access Content Libraries with Salesforce1 for iOS
- Salesforce1 Offline Cache Enhancements
- Log In Faster to Salesforce1 for iOS with Password Manager Apps
- Easier Reauthentication Process for Salesforce1 for iOS
- Get Enhanced Security for Salesforce1 Downloadable Apps with New Connected Apps Settings
- Set MDM Configurations for Salesforce1 for iOS with a Property List
Salesforce1 for Android, Version 11.0

The Salesforce1 downloadable app for Android, version 11.0 will be released to Google Play the week of October 31, 2016 and will gradually roll out to customers over several weeks.

Here’s what’s new in Salesforce1 for Android.

- Salesforce1 Offline Cache Enhancements
- Get Enhanced Security for Salesforce1 Downloadable Apps with New Connected Apps Settings

Salesforce1 Enhancements in This Release

Our latest round of new and improved Salesforce1 features makes it easier to access Salesforce on the go.

**Note:** The latest release of the Salesforce1 downloadable apps for Android and iOS is version 11.0. See What’s New in the Latest Salesforce1 Downloadable Apps for more details.

The Salesforce1 mobile app is available for all editions, except Database.com, without an additional license. Your organization’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 Salesforce1 user.

<table>
<thead>
<tr>
<th>Salesforce1 Enhancements and Changes</th>
<th>Android Downloadable App</th>
<th>iOS Downloadable App</th>
<th>Mobile Browser App</th>
<th>Setup in the Full Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Device and Browser Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Updated Salesforce1 Requirements</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>End of Support for the Salesforce1 Mobile Browser App on BlackBerry Devices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advance Notice that Salesforce1 Will Require iOS 10 in Spring ’17</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td><strong>Navigation and Actions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send Text Messages from Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Change Record Types in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Launch a Lightning Component from an Action</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>List Item Actions in Salesforce1 Related Lists Match Those in Lightning Experience</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Search</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quickly Access Contacts, Profiles, Objects, and Apps (Oh My!) with iOS Spotlight Search</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>(New in v11.0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get Search Results for More Objects</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Find the Right Record with Person Account Search Enhancements</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Get Spell Correction for Custom Objects</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>See More Relevant Instant Results in Lookup Searches in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
## Salesforce1 Enhancements and Changes

<table>
<thead>
<tr>
<th>Sales Features</th>
<th>Android</th>
<th>iOS</th>
<th>Mobile</th>
<th>Setup in the Full Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Insights Now Called News And Available in More Places in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Share News Items in Chatter from Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Give Feedback on News Items More Easily in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>See Company Logos on Accounts (Generally Available)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Relating a Contact to Multiple Accounts Gets Even Better</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Edit the Opportunity Probability Field in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Add Products to Opportunities in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Add Products with Schedules in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Add Quotes to Opportunities in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Add Multiple Influential Campaigns to Opportunities in Salesforce1 (Generally Available)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Do More with Contracts in Salesforce1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>View Forecast Data in Salesforce1 for iOS</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Productivity Features

| See the Forest and the Trees on Task Lists in the Downloadable Apps (Tablets Only) | ✓ | ✓ | ✓ | ✓ |
| List Item Actions Replace the Action Bar on Task Lists (Tablet Only) | ✓ | ✓ | ✓ | ✓ |
| List Views No Longer Available for People and Reports | ✓ | ✓ | ✓ | ✓ |

### Customer Service Features

<p>| See Contact Fields on Cases in Salesforce1 | ✓ | ✓ | ✓ | ✓ |
| Do More With Case Emails in Salesforce1 | ✓ | ✓ | ✓ | ✓ |
| Ensure Consistency with Default Email Templates in Salesforce1 | ✓ | ✓ | ✓ | ✓ |
| Change the Case Owner Field Using a Quick Action in Salesforce1 | ✓ | ✓ | ✓ | ✓ |
| Access More Field Service Information in Salesforce1 | ✓ | ✓ | ✓ | ✓ |
| Get Notified About Work Order Updates | ✓ | ✓ | ✓ | ✓ |
| Keep Up on Social Personas and Posts in Salesforce1 | ✓ | ✓ | ✓ | ✓ |</p>
<table>
<thead>
<tr>
<th>Salesforce1 Enhancements and Changes</th>
<th>Android Downloadable App</th>
<th>iOS Downloadable App</th>
<th>Mobile Browser App</th>
<th>Setup in the Full Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reports and Dashboards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhanced Charts to Replace Legacy Charts in Salesforce1 as Part of a Phased Retirement (Full Retirement in Summer ’17)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>View Scatter Charts (and Better Table and Gauge Charts) in Salesforce1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Read More Dashboard Metrics at Once in Salesforce1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Post Snapshots of Enhanced Charts to Chatter</td>
<td></td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Embed Wave Dashboards in Lightning App Home Pages</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Files</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access Content Libraries with Salesforce1 for iOS</td>
<td></td>
<td></td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>SharePoint System Folders Filtered Out of Files Connect</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Chatter</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feed Item in Salesforce1 Navigation Menu Now Called Chatter</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Turn Down the Noise in Chatter Feeds from Salesforce1</td>
<td></td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Customizable Groups Arrives (Beta)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Grow Group Membership in Salesforce1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Add Group Photos with the Salesforce1 Downloadable Apps</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>(As of Spring ’15)</td>
</tr>
<tr>
<td><strong>Salesforce Communities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Link Between Visualforce Pages in Salesforce1</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Business Logic and Process Automation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run Flows in Salesforce1 from App Home Lightning Pages (Beta)</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Offline Access</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salesforce1 Offline Cache Enhancements</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td><strong>Access and Security</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salesforce1 Enhancements and Changes</td>
<td>Android Downloadable App</td>
<td>iOS Downloadable App</td>
<td>Mobile Browser App</td>
<td>Setup in the Full Site</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------</td>
<td>----------------------</td>
<td>-------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Log In Faster to Salesforce1 for iOS with Password Manager Apps</td>
<td>✅</td>
<td></td>
<td></td>
<td>(New in v11.0)</td>
</tr>
<tr>
<td>Easier Reauthentication Process for Salesforce1 for iOS</td>
<td></td>
<td></td>
<td></td>
<td>(New in v11.0)</td>
</tr>
<tr>
<td>Get Enhanced Security for Salesforce1 Downloadable Apps with New Connected Apps Settings</td>
<td>✅</td>
<td>✅</td>
<td></td>
<td>(New in v11.0) (New in v11.0)</td>
</tr>
<tr>
<td>Set MDM Configurations for Salesforce1 for iOS with a Property List</td>
<td></td>
<td></td>
<td>✅</td>
<td>(New in v11.0)</td>
</tr>
</tbody>
</table>

**Setup**

Create a New Style of App Page with the New App Page Template in the Lightning App Builder | ✅ | ✅ | ✅ | ✅ |

Report Chart Components Are No Longer One Size (Doesn’t) Fits All | ✅ | | | ✅ |

**Other Enhancements**

Get Field-Level Help in Salesforce1 | ✅ | | ✅ | ✅ |

Clearer, More Actionable Popup Messages for Records | ✅ | | ✅ | ✅ |

**Updated Salesforce1 Requirements**

Salesforce1 is available on many popular mobile platforms, as a downloadable app and a mobile web app. With Winter ’17, Salesforce is revising the requirements for using Salesforce1. Learn about the mobile platform requirements for using the app and the devices that we use for feature and performance testing as we continue improving the Salesforce1 experience. Also review our Salesforce1 update philosophy.

**Mobile Platform Requirements**

Users can run Salesforce1 on phones and tablets that meet these mobile platform requirements.

<table>
<thead>
<tr>
<th>Operating System and Version Requirements</th>
<th>Mobile Browser Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android 4.4 or later</td>
<td>Google Chrome on Android</td>
</tr>
<tr>
<td></td>
<td>Good Browser on Android</td>
</tr>
<tr>
<td>iOS 9.2 or later</td>
<td>Apple Safari on iOS</td>
</tr>
<tr>
<td></td>
<td>Good Browser on iOS</td>
</tr>
<tr>
<td>Windows 10 (Mobile browser app only)</td>
<td>Microsoft Edge on Windows 10</td>
</tr>
</tbody>
</table>
Mobile Browser Requirements

* Operating System and Version Requirements
  - Windows 8.1 (Mobile browser app only)

* Mobile Browser Requirements
  - Internet Explorer 11 on Windows 8.1 (Support ends December 17, 2017)

The latest mobile browser version is required. Mobile browser requirements apply to the Salesforce1 mobile browser app only.

To allow for rapid innovation and to keep Salesforce1 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 Salesforce1 Testing

Salesforce performs automated and manual testing of the Salesforce1 downloadable and mobile browser apps on a select set of mobile devices. For the Winter ’17 release, this is the list of devices used for Salesforce1 testing.

<table>
<thead>
<tr>
<th>Platform</th>
<th>Phones</th>
<th>Tablets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Android</strong></td>
<td>• Google Nexus 5X</td>
<td>• Samsung Galaxy Note 10.1</td>
</tr>
<tr>
<td></td>
<td>• Google Nexus 6P</td>
<td>• Samsung Tab A 9.7</td>
</tr>
<tr>
<td></td>
<td>• Samsung Galaxy S7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Samsung Galaxy S6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Samsung Galaxy S5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Samsung Galaxy Note 4</td>
<td></td>
</tr>
<tr>
<td><strong>iOS</strong></td>
<td>• iPhone 6S / 6S Plus</td>
<td>• iPad Pro</td>
</tr>
<tr>
<td></td>
<td>• iPhone 6 / 6 Plus</td>
<td>• iPad Air 2</td>
</tr>
<tr>
<td></td>
<td>• iPhone 5S</td>
<td>• iPad Mini 4</td>
</tr>
<tr>
<td></td>
<td>• iPhone SE</td>
<td></td>
</tr>
<tr>
<td><strong>Windows</strong></td>
<td>• Nokia 1020 (with Windows 8.1)</td>
<td>• n/a</td>
</tr>
<tr>
<td>(Mobile browser app only)</td>
<td>• Lumia 950 (with Windows 10)</td>
<td></td>
</tr>
</tbody>
</table>

Customers aren’t blocked from using Salesforce1 on untested devices that meet current platform requirements.

To allow for rapid innovation and to keep Salesforce1 current in the rapidly evolving mobile market, the list of Salesforce1-tested devices is subject to change at the sole discretion of Salesforce, with or without advance notice.

Salesforce1 Updates

Customers whose devices meet current minimum platform requirements are eligible to receive Salesforce1 feature updates and fixes.

Our goal is to release Salesforce1 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.

Mobile Browser App

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

Enhanced features and functionality are provided in major version updates. We aim to release a new major version of the downloadable apps after the completion of each Salesforce major release to all production instances. The timeframe in which a new major version is released varies and may be impacted by factors outside of Salesforce’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 of the downloadable apps 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 Salesforce1 won’t appear in the app stores.

Customer Support Services for Salesforce1

Salesforce Customer Support uses commercially reasonable efforts to troubleshoot issues with Salesforce1, provided:

- Users’ devices meet current minimum platform requirements
- Downloadable app users have the most recent version of Salesforce1 installed

When customers run Salesforce1 on Salesforce-tested devices, it’s more efficient for us to troubleshoot issues with the mobile app. For customers using untested devices, even those meeting minimum platform requirements, we may not be able to replicate some issues due to device manufacturer-specific customizations.

Running Salesforce1 on older devices or devices with low computation and memory capabilities may adversely impact performance of the app, as compared to performance on Salesforce-tested devices.

End of Support for the Salesforce1 Mobile Browser App on BlackBerry Devices

As we first announced in the Winter ’16 Release Notes, support for using the Salesforce1 mobile browser app on BlackBerry 10 devices ends with Winter ’17. For a smooth transition, we recommend switching your BlackBerry users to the Connect to Salesforce app, which is available for download from BlackBerry World.

Users aren’t blocked from running the Salesforce1 mobile browser app on BlackBerry Z10 or Z30 phones. But Salesforce no longer provides technical support, bug fixes, or enhancements for any issues your users may encounter when working on BlackBerry devices.

Advance Notice that Salesforce1 Will Require iOS 10 in Spring ’17

With Spring ’17, the minimum mobile operating system requirement for iOS devices is changing to iOS 10 or later. To ensure a smooth transition, we recommend that your iPhone and iPad users update to iOS 10 in advance of the Spring ’17 release. Upgrading is especially important for Salesforce1 for iOS downloadable app users because the Spring ’17 version of the app won’t appear in the App Store for devices with older OS versions.

Your users can easily install the latest version of iOS for free on their iPhone and iPad devices. For help upgrading iOS, see Update the iOS software on your iPhone, iPad, and iPod touch on the Apple Support site.

Send Text Messages from Salesforce1

Some combinations are a natural fit: peanut butter and jelly, wine and cheese—and now Salesforce1 and text messaging. Finally your sales reps can do what’s natural and send SMS text messages to customers and colleagues, without needing to leave the app. What a time saver to whip out an answer to a lead’s question or confirm an appointment with an account, right from the record where all the details are. This feature is available in all versions of the Salesforce1 mobile app.

There are a few requirements for the new Send Text action.

- SMS messaging must be enabled on the user’s mobile phone or tablet. The action uses SMS messaging only, not iMessage on iOS devices.
The record must include a valid phone number. If there isn’t a phone number field on the record (for example the Phone field) or if all phone number fields are empty, the action doesn’t appear in the record’s action bar or action menu.

The Send Text action switches to the messaging app on the user’s device, opening a new message to the phone number in the record. The Send Text action is available for accounts, contacts, leads, and person accounts. By default, the action is included at the end of the Salesforce1 and Lightning Experience Actions section on the object’s page layout. This organization means that users must open the action menu (⋮) in the action bar to send text messages. You can streamline access for your reps by moving the action so it appears directly in the action bar. See Salesforce1 Action Bar and Customize Actions with the Enhanced Page Layout Editor in the Salesforce Help.

Change Record Types in Salesforce1

Now your Salesforce1 users can keep their business moving from the road by updating record types for existing records. The new Change Record Type action is available from the action bar in all versions of the Salesforce1 mobile app.
List Item Actions in Salesforce1 Related Lists Match Those in Lightning Experience

To provide continuity for users who work in both Salesforce1 and Lightning Experience, both interfaces now display the same set of list item actions on items in related lists. This change appears in all versions of the Salesforce1 mobile app.

For example, in Lightning Experience, the actions available in the pull-down menu on an Opportunity related list item are the same set of actions that Salesforce1 users see when swiping left on the same record in the related list.
Note: Even if your org doesn’t have Lightning Experience enabled, the actions on related lists that you see in Salesforce1 still match the actions that would appear on the related list items in Lightning Experience if it was enabled.

Quickly Access Contacts, Profiles, Objects, and Apps (Oh My!) with iOS Spotlight Search

What’s better than using the Salesforce1 mobile app to run your business from anywhere? Getting direct access to Salesforce data without first navigating to it in Salesforce1! Salesforce1 for iOS users can now use Spotlight Search to find recently viewed contacts and Chatter profiles. And users can also search for most Salesforce objects and apps, then navigate straight to the associated home pages in Salesforce1 with just a quick tap. Using Spotlight Search to locate Salesforce data is available in version 11.0 or later of the Salesforce1 for iOS downloadable app.

Salesforce1 for iOS works with Spotlight Search so that up to 200 of a user’s most recently accessed contacts and 200 most recently accessed Chatter profiles are indexed for availability in search results. Users simply enter what they’re looking for in the Spotlight Search field, such as a first or last name, job title, or company name. Users can even enter an account name to find recent contacts related to the account. Tap a contact or profile in search results to switch to that record in Salesforce1.
Depending on your org, the Salesforce1 navigation menu may include many items, meaning your users have to scroll a lot each time they want to find something specific. Now, when a user wants to see their opportunities, dashboards, Chatter feed, or most other standard and custom objects and apps available to them in Salesforce1, they can navigate straight to the desired home page from Spotlight Search results. For example, enter Opportunities in the Spotlight Search field. Then tap Opportunities in the search results to open the Opportunities home page in Salesforce1.

There are a few considerations for this feature:

- If your org employs any of these security measures, finding Salesforce data in Spotlight Search is disabled and can’t be turned on.
  - Salesforce1 requires a PIN code to log in.
  - Offline caching in Salesforce1 is disabled.
- Spotlight Search returns results for most items in the Salesforce1 navigation menu. The only exceptions are Visualforce tabs and Lightning page tabs, which aren’t supported in Spotlight Search.
- If a user has multiple accounts set up in the Salesforce1 Switcher, search results are for the currently active account only.
- Spotlight Search indexes Salesforce data only when Salesforce1 is in the background. If a user switches back to Salesforce1 before indexing is complete, they may not see all the search results they expect.

See More Relevant Instant Results in Lookup Searches in Salesforce1

If a related lookup filter was added to a field, the filter is now applied to instant results in Salesforce1. Instant results are recent items or record suggestions based on what the user is typing. Previously, the mobile app applied the related lookup filter only to full lookup search results. This feature is available in all versions of the Salesforce1 mobile app.

Related lookup filters are admin-set filters that restrict the valid values and search results for lookup fields for enhanced lookup searches. For example, you can configure the Account Owner lookup field to show only active users on the same record.

Note: Dependent lookup filters aren’t supported. Dependent lookup filters are admin-set filters that reference fields on the current object record (the source) for enhanced lookup searches. For example, you can configure the case Contact field to show only contacts associated with the account selected in the case Account Name field on the same record.
Account Insights Now Called News And Available in More Places in Salesforce1

First it was Account News, then Account Insights—now it’s News. But the feature isn’t just sporting a new name. It’s now automatically enabled for all orgs. And it’s now available on contacts and leads in Salesforce1. This feature is available in all versions of the Salesforce1 mobile app.

With the News component (formerly called Account Insights), your reps still get timely, relevant news articles to help them stay up-to-date with their accounts and opportunities. And now they also get the News component on contact and lead records. News for contacts and leads works pretty much the same as it does for other objects. News items are selected based on the contact’s or lead’s related account, its executives, and its industry, and come from U.S. sources.

News is automatically enabled for most new and existing orgs, but there are some exceptions. For more information, see Accounts Get an Automatic Upgrade.

If the News component doesn’t appear on the Related tab for your contacts or leads, from the full Salesforce site, go to the Account Settings page and enable News. And make sure that the News component is added to your contact and lead page layouts.

Share News Items in Chatter from Salesforce1

Your on-the-go sales reps can keep everyone in the org up to date on the latest news by sharing articles in Chatter. The News component, which includes timely, relevant news from U.S. sources, is available in all versions of the Salesforce1 mobile app on accounts, contacts, leads, and opportunities.

To share a news article, tap the sharing icon ( ).
When a rep shares a news article from the News component, the article is posted to that record’s feed. When a rep shares a news article from the News app, the article is posted to the rep’s own Chatter profile for all the rep’s followers to see. The rep can also mention individual users or groups when sharing an article.

**Give Feedback on News Items More Easily in Salesforce1**

We’ve simplified the feedback options in the News component so it’s easier to let us know when something is amiss. This feature is available in all versions of the Salesforce1 mobile app.

When sales reps want to report that a news item is irrelevant to the records it’s on, they can simply tap 😡. We’ll look into the item and make corrections as needed.

The More Like This and Fewer Like This options are no longer available.
See Company Logos on Accounts in Salesforce1 (Generally Available)

Now that logos are automatically added to account records, sales reps can visualize their business like never before. Plus, provide feedback on the logos if anything is amiss. This feature is available in all versions of the Salesforce1 mobile app.

Logos automatically appear on U.S.-based accounts if a logo is available for the company. If your org uses Social Accounts, logos that reps added manually from social networks might be replaced with a fresher, more up-to-date logo.

We’re confident you’ll be happy with the logos that appear on account records, but if you’re not, let us know and we’ll make it right. Here are the feedback options.

Remove Logo
Use this option when a logo violates trademark rights. Only admins can remove a logo. When an admin removes a logo, it’s removed from all users in that org. You can’t undo this action, so remove with care. But we all make mistakes, so if you have remover’s remorse, contact Salesforce support. The Remove Logo option is available within 24 hours after the release.

Flag for Review
Use this option when a logo is incorrect or the image quality is poor. Both admins and end-users can flag a logo. When a user flags a logo, it’s removed from the user’s view. When another user in the same org flags this logo, it’s removed from view for all users in the org. When users from five different orgs also flag this logo, it’s removed from view from all orgs and is gone for good.

Account logos are automatically enabled for most new and existing orgs, but there are some exceptions. For more information, see Accounts Get an Automatic Upgrade
Edit the Opportunity Probability Field in Salesforce1

Opportunity owners can now manually edit the Probability field without having to switch to Salesforce Classic. This enhancement is available in all versions of the Salesforce1 mobile app.

Add Products to Opportunities in Salesforce1

Sales reps can do more to get an opportunity ready from anywhere by adding products straight from Salesforce1. The new Add Products action is available in all versions of the Salesforce1 mobile app.

Did your org previously create a custom action for adding products to opportunities in Salesforce1? We recommend that you remove it when Winter ’17 is available. The new Add Products action is automatically available on the Products related list on opportunities and provides your reps with greater functionality.

If a price book isn’t already associated with an opportunity and more than one price book exists, the action prompts users to pick one. If just one price book is available, the action adds it automatically.

SEE ALSO:

Add Products with Schedules in Salesforce1

Winter ’17 Features That Are Different or Unavailable in Salesforce1
Add Products with Schedules in Salesforce1

Sales reps on the go have more flexibility when adding products to opportunities. All versions of the Salesforce1 mobile app now support adding products with established revenue or quantity schedules.

When a rep uses Salesforce1 to add a product sold on a schedule to an opportunity, the established schedule is added to the opportunity line item.

To enable product schedules, or to add, view, or edit a product’s schedule, users must access Salesforce Classic.

SEE ALSO:
- Add Products to Opportunities in Salesforce1
- Winter ’17 Features That Are Different or Unavailable in Salesforce1

Add Quotes to Opportunities in Salesforce1

Your sales reps are no longer limited to simply working with existing quotes while out of the office. Now they can create quotes and quote line items for your customers, and get quotes approved, directly from the field. These enhancements are available in all versions of the Salesforce1 mobile app.

The New Quote action is now available on the Quotes related list on opportunities. And the Add Line Item action is on the Quote Line Items related list on quotes.

The Submit for Approval action is now available when viewing quotes records.

Other aspects of managing quotes, such as syncing quotes and opportunities and creating and emailing quote PDF files, are available in Salesforce Classic. See Sales Features: What’s Not Available in Salesforce1 in the Salesforce Help for more details.

Add Multiple Influential Campaigns to Opportunities in Salesforce1 (Generally Available)

With Customizable Campaign Influence in Salesforce1, give your marketing and sales reps the flexibility to assign credit to each campaign that contributes to closing an opportunity directly from marketing events or anywhere on the road. This feature is available in all versions of the Salesforce1 mobile app.

Customizable Campaign Influence lets you set up multiple ways of tracking the influence that campaigns have on opportunities. For each method you want to use, create a separate campaign influence attribution model. To give credit to a campaign for the opportunities it helps generate, your marketing and sales users can manually associate the campaign with their opportunities. Alternatively, you or your partners can create triggers and workflows to add records automatically. On campaign detail pages, your users can see the opportunities generated by a campaign, and the total revenue generated.
For more information, see Assign Credit for Opportunities to Multiple Campaigns with Customizable Campaign Influence (Generally Available).

Do More with Contracts in Salesforce1

Managing contracts in Salesforce1 just got easier. Your mobile reps can activate contracts and submit contracts for approval, change the owner of contracts, and clone contracts. These new actions are available in all versions of the Salesforce1 mobile app.

SEE ALSO:

Winter ’17 Features That Are Different or Unavailable in Salesforce1

View Forecast Data in Salesforce1 for iOS

Forecast data is critical information for your sales teams. With the new Forecasts app in Salesforce1 for iOS, sales execs and managers get an instant top-down view of a team’s performance against quota. And sales reps benefit too, with a quick way to track their own progress. The Forecasts app is available in version 11.0 or later of the Salesforce1 for iOS downloadable app.

Note: To use the Forecasts app in Salesforce1 for iOS, Collaborative Forecasts must be enabled and set up for your org. The app isn’t available for Customizable Forecasts.

The Forecasts app helps your sales teams run their business on the go. Sales execs and sales managers see at a glance how much of the team’s quota has been attained so far, how much business must close to reach goal, and how many days are left in the sales cycle. In addition to the team summary, an exec or manager can drill in on individual performance to see who needs help pushing deals forward. Or they can look at the pipeline to see if there’s optimal distribution of available opportunities across the team or if someone with the largest pipeline should share some deals with other team members.
Sales reps can see how far along they are to reaching their individual quotas. They can also view the available opportunities they have in the pipeline. This information helps reps plan which opportunities to pursue to reach their quotas.

To learn about setting up Collaborative Forecasts for your org, see Collaborative Forecasts.

SEE ALSO:
- Sort Forecast Data in Salesforce1 for iOS
- Enable Forecasts for Salesforce1 for iOS Users
- Winter ’17 Features That Are Different or Unavailable in Salesforce1

Sort Forecast Data in Salesforce1 for iOS

With the Forecasts app in Salesforce for iOS, there are several ways that users can sort the details about sales team performance, as well as the view of a team member’s pipeline.

Sales execs and managers can arrange the list of sales team members by quota attained, size of pipeline, last name, or by most recent forecast updates.
Sales team members can sort the list of opportunities in their pipeline by largest to smallest, to concentrate on the most important deals first. Or they can switch the list to see the opposite order.
Tip: Users can tap to open a specific opportunity to get right to the details without having to navigate to the Opportunities item.

SEE ALSO:
View Forecast Data in Salesforce1 for iOS

Enable Forecasts for Salesforce1 for iOS Users

The Forecasts app for Salesforce1 for iOS is available if Collaborative Forecasts is enabled and set up for your org. The only extra step to make the app available to your Salesforce1 users is to add the app to the Salesforce1 navigation menu.

Note: If your org uses Customizable Forecasts, the Forecasts app for Salesforce1 isn’t available.

From Setup in the full Salesforce site, go to the Salesforce1 Navigation page to add the Forecasts item to the navigation menu. See Customize the Salesforce1 Navigation Menu in the Salesforce Help for more details. Users may need to refresh the navigation menu to see the addition of the Forecasts app.

SEE ALSO:
View Forecast Data in Salesforce1 for iOS
Winter ’17 Features That Are Different or Unavailable in Salesforce1

See the Forest and the Trees on Task Lists in the Downloadable Apps (Tablets Only)

Salesforce1 downloadable app users working on tablets no longer need to switch back and forth between task lists and task details. Now users can see a task list, plus the details of a selected task, together on the same page. Just tap a task in the list on the left and review the task information on the right. This feature was previously available in the Salesforce1 mobile browser app and is now also available in version 10.0 or later of the Salesforce1 downloadable apps.
To give your mobile sales reps more room to work on their tasks, we removed the task list action bar when Salesforce1 is accessed on a tablet. But fear not, users can still take action on specific tasks using the handy list item actions that we added to Salesforce1 several moons ago. Simply swipe to the left on a task in the list to reveal the available actions. This change was introduced in Summer ’16 and appears in all versions of the Salesforce1 mobile app, on tablets only.
See Contact Fields on Cases in Salesforce1

Salesforce1 users can now see case contact information in case details if the contact fields are included on the case page layout. Contact Phone, Contact Email, Contact Fax, and Contact Mobile fields are now available in all versions of the Salesforce1 mobile app.

Do More With Case Emails in Salesforce1

Your service reps are going to appreciate how efficient they are now with case emails in Salesforce1. Agents can create emails with less typing—always a good thing on a mobile device! And more information about sent emails is available directly in the case feed. These enhancements are available in all versions of the Salesforce1 mobile app.

Send Email actions on cases boast several improvements that reduce the amount of typing agents need to do when working in Salesforce1.

- The new From field includes a picklist for adding an email address with a quick tap. See Standardize From Addresses in Emails That Agents Send from Cases for more details.
- The Send Email publisher automatically loads the contents from an email template if a default template is assigned to the Send Email action. See Ensure Consistency by Using Default Email Templates in Lightning Experience and Salesforce1 to learn how to set up this option.

When reviewing sent emails, agents can see email attachments directly from email feed items instead of needing to switch to the Emails related list to drill in on specific emails. Simply tap Show all attachments in the feed item.
Send Email actions on cases are available if Email-to-Case is enabled for your org. Make sure that your Send Email actions are included in the Salesforce1 & Lightning Actions section on the case page layout.

SEE ALSO:
Winter ’17 Features That Are Different or Unavailable in Salesforce1

Access More Field Service Information in Salesforce1

See a service technician doing a happy dance in the field? It’s probably because service appointments, service resources, service territories, operating hours, and work types join work orders to give techs a 360-degree view of their work from wherever they are. The new standard Field Service Lightning objects are available in the Salesforce1 mobile browser app only. (If these objects appear in the navigation menu in the Salesforce1 downloadable apps but they aren’t fully functional yet.)

These new field service items are available from the Recent section of the Salesforce1 navigation menu.

- Service Appointments
- Service Resources
- Service Territories
- Operating Hours
- Work Types

If these items don’t appear, expand the Recent section by tapping More. The field service items are automatically included in the navigation menu as part of the Smart Search Items element. Check out Salesforce1 Mobile App Navigation Menu in the Salesforce Help to see how the navigation menu is populated.

To learn more about these new features, see Field Service: Meet Your Field Service Lightning Toolbox.

Note: Field Service Lightning must be enabled in your org. Only users with a Field Service Lightning permission set license can access Field Service Lightning features. Work orders, however, don’t require a special permission set license.

SEE ALSO:
Field Service: Meet Your Field Service Lightning Toolbox
Do More with Work Orders
Winter ’17 Features That Are Different or Unavailable in Salesforce1

Keep Up on Social Personas and Posts in Salesforce1

Service agents can keep an eye on customer sentiment from anywhere. Social personas and posts are now available in Salesforce1. And so are some basic social actions for the case feed. These features are available in all versions of the Salesforce1 mobile app.

The Like, Unlike, and Delete actions are available for social posts in the case feed. In Salesforce1, these actions switch to the social post, where the agent can actually like, unlike, or delete the post. The View Source action is also available in the case feed in Salesforce1, so agents can open posts directly in social media apps to get more context.

Agents can access all social personas and posts from the Salesforce1 navigation menu. The Social Personas and Social Posts items are included in the Recent section of the menu.

Agents must use Salesforce Classic to reply to posts. Moderation and authorization pages aren’t available in Salesforce1.
Enhanced Charts to Replace Legacy Charts in Salesforce1 as Part of a Phased Retirement (Full Retirement in Summer ‘17)

Legacy Charts have been part of the Salesforce1 experience for many years, but let’s bid them farewell. Enhanced Charts (the mobile version of Lightning Experience charts) will replace Legacy Charts in all versions of the Salesforce1 mobile app. Turn on Enhanced Charts now to grace the screens of your reps’ phones and tablets with the new charting experience. This feature is available in all versions of the Salesforce1 mobile app.

Legacy Charts will be retired in Summer ‘17. Here’s what the Legacy Charts retirement means for your org.

- In Summer ‘17, Salesforce1 will include only Enhanced Charts and you won’t be able to turn them off.
- Orgs created in or after the Summer ‘16 release already feature Enhanced Charts as the only charts experience for Salesforce1. For these orgs, the option to disable Enhanced Charts doesn’t appear in Setup.
- Legacy Charts retirement doesn’t affect charts in the full Salesforce site (Salesforce Classic and Lightning Experience).

For more information, see the Legacy Charts Retirement announcement.

Note: Legacy Charts are being retired as part of a phased retirement, and the date of full retirement may be moved to a later release. We will keep the release notes and the Legacy Charts Retirement Announcement updated with information as it becomes available.

View Scatter Charts (and Better Table and Gauge Charts) in Salesforce1

If a picture is worth a thousand words, is a chart worth a thousand insights? We think so, and that’s why we keep improving Enhanced Charts in Salesforce1. Your users will give a thousand cheers when they see the improvements to table and gauge charts. And they’ll give a thousand more because now they can visualize report data in a scatter chart after drilling down to the report from a dashboard component. These enhancements are available in all versions of the Salesforce1 mobile app.

Table Charts: See Conditional Highlighting, Chatter Photos, and Sorting

Table charts on dashboards have been available in Salesforce1 for awhile, but before now the mobile app didn’t pick up refinements that users made to these components in Salesforce Classic. Now Salesforce1 shows conditional highlighting, Chatter photos (for example, of opportunity owners), and data sorting by a column.

Gauge Charts: See Percentages

Gauge charts aren’t new in Salesforce1 either. But now the mobile app displays percentages if the component is set up this way in Salesforce Classic.
Scatter Charts: Visualize Report Data Grouped by Summarized Values

Scatter charts are now available in Salesforce1. They require a report with at least summarized fields. Users drill down from a dashboard component to the underlying report.

Read More Dashboard Metrics at Once in Salesforce1

We’ve redesigned dashboard metrics in Salesforce1 so that reps can see more information on a mobile device at once, without getting a bigger device! Depending on the size of a device’s screen, Salesforce1 used to show 1–2 metrics at a time. Now reps can see 4–5 metrics without scrolling, making data much easier to compare. This feature is available in all versions of the Salesforce1 mobile app.
Post Snapshots of Enhanced Charts to Chatter

Empower your users to keep each other up to date with the new chart sharing feature in Salesforce1. A user can take advantage of down moments, like waiting for the bus or a flight, to post snapshots of charts to his or her Chatter feed and solicit feedback or action from the team. Even colleagues out in the field can stay in the loop. Seeing the post in Salesforce1, mobile users can save the snapshot to their device or link directly to the actual dashboard. Sharing chart snapshots is available in the Salesforce1 mobile browser app only. Enhanced Charts must be enabled for your org.

To enable this feature, select Enable Dashboard Component Snapshots from the Reports and Dashboards Settings page in Setup.

To post a chart snapshot to Chatter, a user first drills down from a dashboard component. Then tap Share in the action bar. Share the snapshot directly with specific colleagues by mentioning individuals or groups in the post.

**Editions**

Enhanced Charts available in: Group, Professional, Enterprise, Performance, Unlimited, and Developer Editions
Access Content Libraries with Salesforce1 for iOS

If your org uses Salesforce CRM Content, Salesforce1 for iOS users can access public content libraries to view and share your official corporate files and other curated content. Content libraries and files are available in version 11.0 or later of the Salesforce1 for iOS downloadable app.

If Salesforce CRM Content is already up and running for your org, there’s nothing special to do to make libraries available to your Salesforce1 for iOS users. And there’s nothing new for your Salesforce1 users to learn because they access public libraries from the existing Files interface that they’re already familiar with. Simply tap Files in the Salesforce1 navigation menu, then select the Libraries filter in the file list on the Files home page. Users see all the public libraries that they have access to in the full site.
When accessing libraries in Salesforce1, users can:

- View files
- Open files in third-party apps
- See file versions and other information, including who a file is shared with
- Share files and content packs with colleagues and groups
- Mark files so they’re available offline or when there’s a weak data connection
- Find files in global search

Users have the same file sharing permissions in Salesforce1 that they do in the full site.

Support for Salesforce CRM Content in Salesforce1 for iOS is geared towards letting users view and share content. Other activities, such as managing or contributing to libraries, aren’t available in Salesforce1. See Winter ’17 Features That Are Different or Unavailable in Salesforce1 for the list of how working with content libraries in Salesforce1 is different from what users can do in the full site.

Feed Item in Salesforce1 Navigation Menu Now Called Chatter

To be consistent with changes in Lightning Experience, the Feed item in the Salesforce1 navigation menu is now called Chatter. This change appears in all versions of the Salesforce1 mobile app.

The new Chatter label appears in these places:

- On the Salesforce1 Navigation page in Setup. You now use the Chatter item to add the main Chatter feed to the navigation menu.
- In the Salesforce1 navigation menu. Selecting Chatter opens the user’s main Chatter feed. Users still access Groups and People from separate items in the navigation menu.
When viewing a record in Salesforce1, the tab for the record’s feed is still labeled Feed.

**Turn Down the Noise in Chatter Feeds from Salesforce1**

Posts offering congratulations and birthday wishes are nice, but they can be an unwanted distraction, especially out in the field. Now Salesforce1 mobile browser app users can mute irrelevant or unwanted feed posts and stay focused on the information that matters. This feature is available in the Salesforce1 mobile browser app only.

To mute a post, from any feed, tap on the post, then tap ![Mute](image) and select **Mute**. The post is removed from your What I Follow feed, although you can still see it in the All Company feed. Notifications for changes to the post stop unless you’re mentioned. When you’re mentioned, notifications restart.

To unmute, go to the post in your All Company feed, tap ![Mute](image) and select **Unmute**.

**Grow Group Membership in Salesforce1**

An empty group is a lonely place. To make it easier to manage group membership from outside the office, group owners and managers can now add members to groups from all versions of the Salesforce1 mobile app.

The **Add Members** action is available in the action bar on all groups. Users can quickly add everyone who belongs in a group in one go. The Add Members dialog displays a list of colleagues with whom the user has interacted and who may be appropriate to include in the group. Or users can search in the dialog to find any user in the org. To speed things up, the search box suggests members that match characters as they’re entered in the search box.
Add Group Photos with the Salesforce1 Downloadable Apps

Group owners and managers who use the Salesforce1 downloadable apps can now bring groups to life by adding photos directly from a mobile device. At a team-building event? Take a picture of the whole crew and upload it to the team’s group straight away. Instant pizzazz. Previously, adding group photos was available in the full Salesforce site and the Salesforce1 mobile browser app only.
See Profile and Group Banners in Salesforce1

You know those snazzy banners that display on groups and user profiles in Lightning Experience? Whether your org is using default banners or custom banner images, now your Salesforce1 users can enjoy them, too. Banners are available only if your org uses Lightning Experience. Group banners appear in all versions of the Salesforce1 mobile app. User profile banners appear in the Salesforce1 downloadable app for Android and the Salesforce1 mobile browser app only.

Adding or changing a custom banner is available in Lightning Experience only.

Run Flows in Salesforce1 from App Home Lightning Pages (Beta)

Let your users run Lightning-styled flows from Salesforce1 by adding them to App Home Lightning pages. It's easy to do with the point-and-click Lightning App Builder. App Home Lightning pages are supported in all versions of the Salesforce1 mobile app.

Note: This release contains a beta version of the Flow component for Lightning Pages, which means it's a high-quality feature with known limitations. The Flow 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. You can provide feedback and suggestions for the Flow component for Lightning Pages in the IdeaExchange.

Previously, you could add a flow to the Salesforce1 navigation menu by embedding it in a Visualforce tab. But that meant the page was styled like the Salesforce Classic interface. By adding flows to App Home pages in the Lightning App Builder, you get the Lightning styling for free!
Example:

**A Flow in an App Home Page vs. a Visualforce Tab**

When the App Home page is ready to go, remember to activate it. This step let’s you add the new page to the Salesforce1 navigation menu so your users can access the flow.

**Salesforce1 Offline Cache Enhancements**

Salesforce1 Offline Edit continues as a Beta feature in Winter ’17. But we’ve made some improvements to the Salesforce1 cache, which makes it easier when your users work offline, whether viewing or editing data. These changes are available in the Salesforce1 downloadable apps for Android and iOS.

**Note:** When your Salesforce1 users upgrade to a version 11.0 downloadable app, their existing offline cache is erased. This is necessary to take advantage of the improvements in version 11.0. Make sure that your users do a manual cache update after upgrading so they can work offline without missing a beat. See [Access Data in Salesforce1 While Offline](#) to learn how to manually cache data.

**Improved Cache Management**

Salesforce1 now grooms the size of the cache so it doesn’t grow to a size that hinders performance. If the cache reaches 5MB in size, the app removes the oldest stored data, freeing up room for more recently accessed records.

**Work with Recently Accessed Record Types**

Salesforce1 now caches up to 15 of the user’s most recently accessed record types per object. Previously, Salesforce1 cached the first 15 record types for an object, whether or not the user had recently worked with the record types. This limitation meant that offline users could find themselves unable to create or edit some of their recently accessed record types. With this version 11.0 enhancement, the Offline Edit feature works for a larger set of relevant records.

**Log In Faster to Salesforce1 for iOS with Password Manager Apps**

Good security practices require long, complex passwords. But typing long, complex passwords on small mobile keyboards is error prone and frustrating. Effectively, your users are penalized for being secure. Well, if your org uses a password manager, your Salesforce1 for iOS users are free to leave the penalty box. With version 11.0 or later of the Salesforce1 for iOS downloadable app, users can use a password manager app to simplify the login process down to a few taps.

Salesforce1 for iOS integrates with 1Password™, LastPass™, or other password manager apps that support the iOS password manager extension. Users simply tap 🔄 on the login page then select a password manager from the list.
Easier Reauthentication Process for Salesforce1 for iOS

We’ve made a few enhancements to speed up the process of logging in to Salesforce1 for iOS. After users log in for the first time, they no longer required to type in their user names for subsequent login sessions. And users have the option of turning off further verification code emails. These changes apply to version 11.0 or later of the Salesforce1 for iOS downloadable app.

On the Salesforce1 for iOS login page, selecting the Remember Me checkbox saves the user’s entry in the Username field. When the user needs to reauthenticate in the future, that username is automatically added to the field.
When a user logs in for the first time, they’re sent a verification code email so they can verify who they are. On the verification page in Salesforce1, selecting the Don’t ask again checkbox turns off future identity verification checks.

Get Enhanced Security for Salesforce1 Downloadable Apps with New Connected Apps Settings

If your business is in a regulated industry that can’t use Mobile Device Management (MDM) but you need extra data security to meet industry requirements, you have more options now. You can easily configure several new connected app security attributes for Salesforce1, such as disabling copy and paste from Salesforce1 to other apps, disabling file sharing outside your org, disabling printing from within Salesforce1, and requiring the use of a specific email client. These attributes apply to version 11.0 or later of the Salesforce1 downloadable apps for Android and iOS.

Note: The Salesforce1 connected app packages must be installed before you can configure the new security settings. See User Access and Security Policies for the Salesforce1 Downloadable Apps in the Salesforce Help for more information.

The following table describes the new security attributes. Many of these attributes have a default value that automatically applies when your users log in to a version 11.0 app for the first time. If the default values are appropriate for your org, you’re all set.

To change a default value, or configure an attribute that doesn’t have a default setting, go to Setup in the full Salesforce site. Enter Connected Apps in the Quick Find box, select Connected Apps, then click Salesforce1 for Android or Salesforce1 for iOS. In the Custom Attributes section on the connected app page, click New and enter the attribute name and value. Remember to put attribute values in quotation marks.

<table>
<thead>
<tr>
<th>Attribute Key</th>
<th>Attribute Value</th>
<th>Platform</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISABLE_EXTERNAL_PASTE</td>
<td>TRUE, FALSE (default)</td>
<td>Android</td>
<td>If set to TRUE, disables the ability to copy and paste data from Salesforce1 to other apps.</td>
</tr>
<tr>
<td>Attribute Key</td>
<td>Attribute Value</td>
<td>Platform</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| FORCE_EMAIL_CLIENT_TO         | The email app’s URI scheme. Can differ by platform. For example, these are the Android and iOS URI schemes for Gmail. | Android, iOS | If a user taps an email action or field in Salesforce1, the user is directed to the email app specified in the attribute value. You can specify one email app only. The attribute value you enter depends on the email app and the device platform.  
• For Android, use the URI listed in the Google Play Store for the desired email app.  
• For iOS, do an Internet search to locate the URI scheme for the desired email app. For example, search for iOS Mail URI scheme. |
| SHOW_OPEN_IN                  | • TRUE (default)  
• FALSE                                                                                   | iOS      | • If set to TRUE, lets users share a file from Salesforce1 via a link to the file, or open a Salesforce file in a third-party app.  
• If set to FALSE, disables users from sharing a file from Salesforce1 or opening a Salesforce file in a third-party app. |
| SHOW_PRINT                    | • TRUE (default)  
• FALSE                                                                               | iOS      | • If set to TRUE, lets users print from Salesforce1.  
• If set to FALSE, disables printing from Salesforce1. |

**Tip:** Connected app attribute changes take effect when users force quit Salesforce1 or when they log in to a new session. To ensure that new or modified settings take effect for all users, we recommend that you revoke access to Salesforce1 so everyone is required to log in again. We also recommend that you warn users about the changes you intend to make, especially if you’re going to restrict activities that were previously available. Salesforce1 doesn’t display messages or indicators that connected app settings have changed.
Set MDM Configurations for Salesforce1 for iOS with a Property List

Depending on your Mobile Device Management (MDM) provider, you can set key-value pair assignments for the Salesforce1 for iOS downloadable app using an XML property list, or plist. The plist contains the key-value pair assignments that an MDM provider sends to Salesforce1 for iOS to enforce security configurations.

Note: Setting key-value pair assignments with a plist works for Salesforce1 for iOS only.

Here is a sample plist configuration:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
.plist version="1.0">
<dict>
  <key>AppServiceHosts</key>
  <array>
    <string>host1</string>
    <string>host2</string>
  </array>
  <key>AppServiceHostLabels</key>
  <array>
    <string>Production</string>
    <string>Sandbox</string>
  </array>
  <key>RequireCertAuth</key>
  <true/>
  <key>ClearClipboardOnBackground</key>
  <false/>
  <key>OnlyShowAuthorizedHosts</key>
  <false/>
</dict>
</plist>
```

See the Salesforce1 Mobile Security Guide for more information about using MDM with Salesforce1.

Get Field-Level Help in Salesforce1

Your mobile users can now view the same field-level help in Salesforce1 that’s available in Salesforce Classic and Lightning Experience. This feature is available in all versions of the Salesforce1 mobile app.

To see help for a field when using Salesforce1, tap the information icon.
If you haven’t already, you can use Setup to define custom help for your org’s standard and custom fields. See Define Field-Level Help in the Salesforce Help.

**Winter ’17 Features That Are Different or Unavailable in Salesforce1**

The Salesforce1 mobile app doesn’t include all the functionality that’s available in the full Salesforce site, whether your org is using Lightning Experience or Salesforce Classic. Learn about the Winter ’17 Salesforce enhancements that either aren’t available in Salesforce1, have functional gaps from the full site, or work differently in the mobile app.

**Note:** For the complete list of differences between Salesforce1 and the full site, see What’s Not Available in the Salesforce1 Mobile App in the Salesforce Help.

**Data Access and Views**

**List Views**

- Selecting multiple records in list views isn’t supported in Salesforce1. Nor is it possible to apply an action to multiple records at the same time.
- Editing a record’s field in a list view isn’t available. Instead, users can open the record then tap the **Edit** action.

**Record View and Record Highlights**

- Customizations made to record highlights with Lightning App Builder, such as hiding fields or actions or displaying the highlights area vertically instead of horizontally, don’t apply to Salesforce1.
- Sections on the record detail page aren’t collapsible.

**Sales Features**

**Contacts to Multiple Accounts**

- When navigating to a person account from the Related Contacts related list, you’re taken to the Contact page layout, not the Person Account layout. Therefore, you might not see all the fields, related lists, and actions you expect.
Contracts

- Creating contact roles on contracts isn’t available.

Forecasts App

- The Forecasts app is available in the Salesforce1 for iOS downloadable app only.
- The Forecasts app requires Collaborative Forecasts. The app isn’t available for orgs using Customizable Forecasts.
- Forecast data in Salesforce1 is read-only.
- Only Opportunities - Revenue forecasts are available. These forecast types are not supported:
  - Opportunities - Quantity
  - Product Families - Revenue
  - Product Families - Quantity
  - Opportunity Splits - Revenue
  - Overlay Splits - Revenue
  - Custom Opportunity Currency Field - Revenue
  - Expected Revenue - Revenue
- Users can’t change the forecasting currency.
- Showing and hiding quota information isn’t supported.

Opportunities

- Users can associate a price book with an opportunity that doesn’t already have one, but have to switch back to the full site to change the association.
- Users can add products with quantity or revenue schedules to an opportunity, but can only edit the product schedule in Salesforce Classic.

Quotes

- Quote PDFs appear in the related list but aren’t viewable.
- You can’t edit multiple quote line items at the same time.
- You can’t search for quotes.
- You can’t perform these actions:
  - Email Quote
  - Create PDF
  - Start Sync
  - Stop Sync

Customer Service Features

Case Send Email Actions

- The CC and BCC fields on the Send Email publisher aren’t collapsible.
- HTML isn’t supported in Send Email actions on cases in Salesforce1. If a Send Email action includes an HTML Body field, html markup tags don’t appear in the Send Email publisher or in emails created from the action.
- It’s not possible to include email attachments when using a case Send Email action in Salesforce1.
- If a default email template is assigned to a case Send Email action, any attachments included in the template are ignored in Salesforce1. The attachments don’t appear in the Send Email publisher and aren’t included in emails created from the action.
Field Service Lightning

- When creating a record from a field service related list, the field that lists the parent record doesn’t populate until the record is saved. For example, when creating a service appointment from the Service Appointments related list on a work order, the Parent Record field is blank until the user taps Save. After the record is created, the parent record field lists the parent work order as expected.

Social Customer Service

- Agents must use Salesforce Classic to reply to social posts.
- Moderation and authorization pages aren’t available in Salesforce1.

Reports and Dashboards

Reports

- Users can’t hide details.
- Summary information, such as grand totals, subtotals, summarized fields, and record counts, isn’t available in Salesforce1.

Content Libraries and Files

The support for Salesforce CRM Content in the Salesforce1 for iOS downloadable app is geared towards letting users view and share content. Other activities, such as managing or contributing to libraries, aren’t available in Salesforce1. Here’s how working with content libraries in Salesforce1 is different from what users can do in the full site.

- The Private Library folder isn’t available. Instead, a user can access the files in their private library by selecting the Owned by Me filter in the Files list on the Files home page.
- When viewing libraries, the top content, popular tags, recent activity, and most active contributors sections aren’t available.
- Users can’t:
  - See content detail pages
  - Upload and publish new or revised files to libraries
  - Publish web links in libraries
  - Edit content details
  - Add, edit, or delete comments
  - Move files to different libraries
  - Use tags to classify or filter content
  - Subscribe to libraries, files, authors, or tags
  - Provide feedback on content, or review feedback on content
  - Delete, archive, or restore content

- Content search options like filtering by file type, author, or library name aren’t available. But users can use global search to find files in libraries.
- Interacting with content packs in Salesforce1 is limited. Users can see the content packs that exist and share them with Salesforce colleagues or groups. But it’s not possible to preview or download the files included in a content pack. Nor can mobile users create or modify content packs.
- Creating or managing content deliveries isn’t available. This includes generating an encrypted URL for sharing files and content packs with customers.
Chatter

Feeds
- Users don’t see live feed and live comment updates. Refresh the feed by pulling down on the page.
- Users can’t add inline images to feed posts or comments.
  If a feed item includes inline images, they don’t appear in the main feed in the Salesforce1 downloadable apps. Downloadable app users see a placeholder with the name of the image instead.
- Users can add only one attachment to a feed item.
  If a feed item includes multiple attachments, only the first one is displayed in the main feed in the Salesforce1 downloadable apps.

Groups
- Group member engagement data isn’t available.
- The group creation wizard isn’t available.
- Users can’t hover on user profile photos to quickly see user information.

Navigation and Actions
- The App Launcher isn’t available. Users don’t switch between standard or custom app in Salesforce1. Instead, the navigation menu gives access to all of the objects and apps that are available from the mobile app.
- The Lightning Experience utility bar isn’t available in Salesforce1.
- The Save & New button isn’t available in Salesforce1.

Search
- In the Salesforce1 mobile browser app, instant results are displayed for the selected object only, not for multiple objects.

Entering Data
- After creating a record from a related list in Salesforce1, the resulting success message doesn’t include a link to the new record (like in Lightning Experience).

Notifications

Push Notifications
- Closing the Salesforce1 app (that is, forcing it to stop running) prevents Salesforce1 push notifications from reaching the user’s device until the user launches the app again.

Salesforce Authenticator: Back Up and Restore Accounts, Automated Activity Notifications, Bolder Timer

You can now back up your connected accounts in the app and restore them when you install the app on another phone. We’ve also added notifications for automated activities, and made copying your verification code and seeing the timer even easier. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.
IN THIS SECTION:

Get Notifications About Automated Activities in Salesforce Authenticator
We know how much you love automated activities in Salesforce Authenticator. Now when an automated activity such as location-based authentication happens, we let you know when we’re taking care of that task for you. It’s another great way to track the activities you expect to authenticate automatically. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Back Up and Restore Your Connected Accounts in Salesforce Authenticator
New phones are awesome, but reinstalling all your apps often feels more like work than play. Salesforce Authenticator makes that process much easier with Backup and Restore. Back up your connected accounts in the app and restore them when you install the app on that shiny new phone. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Copy Codes and View Timer with Ease in Salesforce Authenticator
Sleek UI improvements make copying your authentication codes and seeing the timer even easier in the Salesforce Authenticator mobile app. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Say Goodbye to Passwords with Salesforce Authenticator and Lightning Login
So long, passwords! Instead of remembering, maintaining, and entering passwords, you can now use Salesforce Authenticator with Lightning Login. When you see the lightning bolt next to your username, click your username. Tap the notification on your phone, and verify your identity with your fingerprint or PIN. This feature is available in both Lightning Experience and Salesforce Classic.

Reorder Your Accounts in Salesforce Authenticator
Sometimes it’s OK to play favorites, especially with your connected accounts. If you find yourself authenticating with one account more than others, drag that account to the top of your list. It’s easy to rearrange your accounts. Tap and hold the account, and then drag it up or down.

Get Notifications About Automated Activities in Salesforce Authenticator
We know how much you love automated activities in Salesforce Authenticator. Now when an automated activity such as location-based authentication happens, we let you know when we’re taking care of that task for you. It’s another great way to track the activities you expect to authenticate automatically. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Back Up and Restore Your Connected Accounts in Salesforce Authenticator
New phones are awesome, but reinstalling all your apps often feels more like work than play. Salesforce Authenticator makes that process much easier with Backup and Restore. Back up your connected accounts in the app and restore them when you install the app on that shiny new phone. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

You can easily enable backups whether you already have the app installed or if you’re installing the app for the first time. You can enable backups from the Notifications menu (1) when you get a notification, or later from the Settings menu (2).

To enable backups, verify your mobile number with Salesforce and choose a super-secret four-digit passcode. Then you’re all set to restore your connected accounts on a new device. We live and breathe two-factor authentication, so we use both your mobile number (something you have) and your passcode (something you know) to verify who you are.
When you have your new device, install the Salesforce Authenticator app, verify your number, and enter your passcode. You’re all set! All your connected accounts appear on your new phone and you’re ready to go in less than 2 minutes.

Copy Codes and View Timer with Ease in Salesforce Authenticator

Sleek UI improvements make copying your authentication codes and seeing the timer even easier in the Salesforce Authenticator mobile app. Salesforce Authenticator works for Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. The timer next to each authentication code is now bolder and changes from green to red as the time runs out.

Not typing in your code? Tap the code, and an easy-to-see message displays at the top of the screen confirming that you’ve copied your code. No more holding your finger down to copy, or peeking around your finger to see the verification message!

Say Goodbye to Passwords with Salesforce Authenticator and Lightning Login

So long, passwords! Instead of remembering, maintaining, and entering passwords, you can now use Salesforce Authenticator with Lightning Login. When you see the lightning bolt next to your username, click your username. Tap the notification on your phone, and verify your identity with your fingerprint or PIN. This feature is available in both Lightning Experience and Salesforce Classic.

To use Lightning Login, your admin must first enroll your org. Lightning Login requires Android version 5.0 (Lollipop) or later or iOS 8 or later.

You can then opt in for a more streamlined login process. If you’re using an iPhone, enable fingerprint or PIN identification. To use your fingerprint on an Android phone, first set up a PIN, pattern, or password.

SEE ALSO:

Log In Password-Free with Lightning Login
Enroll in Lightning Login for Password-Free Logins
Reorder Your Accounts in Salesforce Authenticator

Sometimes it’s OK to play favorites, especially with your connected accounts. If you find yourself authenticating with one account more than others, drag that account to the top of your list. It’s easy to rearrange your accounts. Tap and hold the account, and then drag it up or down.

Salesforce Classic Mobile App to Retire in December 2017

To improve the overall mobile user, developer, and deployment experience, Salesforce is focusing mobile development on the Salesforce1 app. As a result, we are retiring the Salesforce Classic Mobile app on December 1, 2017. Also, iOS 10 and Android 7.0 are the final mobile OS versions that we’ll use for Salesforce Classic Mobile compatibility testing. We encourage you to start transitioning your mobile users to an alternative experience, such as rolling out the Salesforce1 downloadable apps or deploying custom mobile apps that address your current and future mobile needs.

On December 1, 2017, Salesforce Classic Mobile will be removed from the App Store and Google Play, and access to currently installed Salesforce Classic Mobile apps will be immediately disabled for all users and orgs.

For more information about the retirement of Salesforce Classic Mobile and your transition options, see Salesforce Classic Mobile App to Retire on December 1, 2017 and join the conversation in the Salesforce1 Mobile App Success group in the Success Community.

SalesforceA: More User Management Options with Version 3.3 for iOS

Version 3.3 of SalesforceA for iOS is now generally available. You can now add a new user on the go.

IN THIS SECTION:

Create a New User on the Go

In the past when you created a new user in your org, you had to be at your computer to use the full Salesforce site. Now you can create a new user in your org with just a couple of taps in SalesforceA. This feature gives you the freedom and confidence to perform admin duties when you’re away from your desk. Creating a new user is available in SalesforceA for iOS, version 3.3 only.

Create a New User on the Go

In the past when you created a new user in your org, you had to be at your computer to use the full Salesforce site. Now you can create a new user in your org with just a couple of taps in SalesforceA. This feature gives you the freedom and confidence to perform admin duties when you’re away from your desk. Creating a new user is available in SalesforceA for iOS, version 3.3 only.

1. From the Users page, tap +.
2. Enter the user’s name and email address and a unique username in the form of an email address. By default, the username is the same as the email address.

   Note: Your username must be unique across all Salesforce orgs. The username must be in the format of an email address, for example, jane@salesforce.com. This email username doesn’t have to work. You can have the same functioning email address associated with your account across orgs—only the username in the form of an email address must remain unique.

3. Select a User License. The user license determines which profiles are available for the user.
4. Select a profile, which specifies the user’s minimum permissions and access settings.
5. In Professional, Enterprise, Unlimited, Performance, and Developer Editions, select a Role.

6. Select Generate new password and notify user immediately to have the user’s login name and a temporary password emailed to the new user.

7. Tap Save.

You can create a new user even if you don’t have enough user licenses to accommodate one. Salesforce saves all the fields of your new user, but the user is in an inactive state. To change the state of an inactive user to active, you need to reassign a license from an existing user to your newly created user. For guidelines about creating a new user, see Guidelines for Adding Users in the Salesforce Help for more information.

Financial Services Cloud: Lightning Pages and Customization

Who said Lightning strikes only once? Well, Financial Services Cloud strikes again with a new Lightning Page for customizing clients and households. Don’t forget your surfboard, because the all new Advisor Wave will make a big splash with new Wave Dashboards, embedded in Financial Services Cloud.

Note: Be sure to read the Financial Services Cloud Implementation Guide for all the details about getting the most out of these new features and enhancements.

IN THIS SECTION:

Customize Client and Household Record Pages

Every financial services firm runs its business differently. With Lightning-enabled profiles, you can now customize your client and household views with drag-and-drop configuration.

Editions

Available in Lightning Experience for an extra cost in: Professional, Enterprise, and Unlimited Editions
Create Custom Individual and Household Record Types

Your business has unique individual clients and households, so Financial Services Cloud now gives you the flexibility of creating your own custom individual and household record types.

Wave for Financial Services Cloud

With the Wave app, you can empower your advisory teams with the ability to analyze their books of business from the insight out. Increase productivity with embedded Wave dashboards directly in Financial Services Cloud and instantly determine core actions needed to increase AUM.

Customize Client and Household Record Pages

Every financial services firm runs its business differently. With Lightning-enabled profiles, you can now customize your client and household views with drag-and-drop configuration.

The new Lightning Page for Clients and Households gives you added ease and flexibility of customizing Client and Household record pages. Admins can add, remove, and reorganize Lightning components through Lightning App Builder. A Lightning component can provide a canvas for other components, contain data you have come to expect from Financial Services Cloud, such as Assets and Liabilities, Financial Accounts, Insurance Policies, and do much more.

Financial Services Cloud now leverages the standard Salesforce Account page for both Client and Household record pages. This enhancement lets the Financial Services Cloud tap into the power of the Salesforce App Cloud, gives advisors added segmentation (filtering) options, and takes advantage of any new updates to the standard Salesforce Account page.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience

Create Custom Individual and Household Record Types

Your business has unique individual clients and households, so Financial Services Cloud now gives you the flexibility of creating your own custom individual and household record types.

When you create a custom individual record type, use the Individual Record Type Mapper to associate an account record type and a contact record type to your new custom individual record type. When you create a custom household record type, use the Group Record Type Mapper to associate an account record type with your new custom household record type.

For example, you can create a custom individual record type for an advisor who you are recruiting to your firm.

Wave for Financial Services Cloud

With the Wave app, you can empower your advisory teams with the ability to analyze their books of business from the insight out. Increase productivity with embedded Wave dashboards directly in Financial Services Cloud and instantly determine core actions needed to increase AUM.
Now as part of Financial Services Cloud, you also get Wave for Financial Services Cloud. Use this app to access only the data set preconfigured for you as part of your subscription. Please prevent your users from using the app to upload or access any other data. Salesforce sometimes monitors such usage. Wave for Financial Services Cloud is available in English only.

Financial Services Cloud now extends its core capability with Financial Services Cloud - Wave, offered as a managed package. Financial advisors don’t have to be business intelligence gurus to get what they need from their client data. We preconfigured the dataflows and the dashboards based on industry best practices, so advisors can make smarter decisions faster. By slicing and dicing data, your advisory team can also discover new opportunities in their books of business -- all without leaving Financial Services Cloud. All you need to do is install Financial Services Cloud - Wave through a few simple steps, and your whole team can use it right away.

Embedded Dashboards:

- **Client List**: Get a focused list of clients with robust filtering capabilities that surface financial data points and account details across an advisor’s entire book of business.
- **80/20**: Maximize your time by comparing client revenue against advising activities and identify key actions to apply to high-potential clients.
- **Activities**: Analyze interactions in context to different activity types to see how they are impacting your client relationships. Identify gaps and opportunities to improve future engagement.
- **Financial Accounts**: Respond to market conditions in a timely manner by uncovering the types of financial accounts and securities that make up an advisor’s book of business.
- **Client Goals**: Measure client goals across an advisor’s entire book of business, spot key trends and create tasks or opportunities in context to client data so advisors can help keep clients on track.

**Note**: If your Order Form for Financial Services Cloud doesn’t contain a link to the Wave for Financial Services Cloud managed package, please open a case with Support via the Help & Training portal to obtain such a link.
Health Cloud: Care Plan Templates and More

We’ve been hard at work making it easier for care coordinators to get more done and increase patient engagement.

IN THIS SECTION:

Care Plan Templates Simplify Patient Onboarding
Take the “work” out of workflows with care plan templates that let care coordinators create customized patient care plans with just a few clicks. Coordinators can add problems, goals, and tasks in bulk to a patient’s care plan. You can load your company’s care plan templates into Health Cloud. Loading your predefined templates reduces the time spent creating a care plan template and helps to enforce standards of care that improve healthcare outcomes.

Provide Easier Access to Patient Account Records
We’ve given care coordinators easier access to a patient’s account record by exposing it on the Details tab. The improved layout of the Patient Details tab shows patient records that are associated with the Account record.

Configure Custom Record Types for Individuals or Groups
Health Cloud gives you the flexibility to configure custom individual and household (group) record types. For example, custom record types let you add doctors as a type of individual or hospitals as a group record type. You can easily configure a custom record type based on the default individual or group record type provided by Health Cloud.

Health Cloud Has New Custom Objects
These custom objects are new.

Care Plan Templates Simplify Patient Onboarding

Take the “work” out of workflows with care plan templates that let care coordinators create customized patient care plans with just a few clicks. Coordinators can add problems, goals, and tasks in bulk to a patient’s care plan. You can load your company’s care plan templates into Health Cloud. Loading your predefined templates reduces the time spent creating a care plan template and helps to enforce standards of care that improve healthcare outcomes.

Create your own templates from within Salesforce or purchase templates from leading content providers and import them with Data Loader. From within the Health Cloud console, coordinators choose the templates that address a patient’s conditions; select the necessary problem, goals, and tasks; and apply them to the patient. Problems, goals, and tasks then appear in the patient’s care plan, making it easy for care coordinators to guide patients along their care journey.
Use the Select Templates tab to select the templates to apply to a patient.

- Search (1) for a template by typing its name in the search text box.
- Select the templates (2) to apply to the patient. You can add as many as five templates per patient.
- The templates appear in the selected templates section (3). You can remove a template from the list by clicking the X next to the template name.
The Customize to Patients tab is where you tailor the care plan to meet your patient’s unique healthcare needs.

- Select the name of the care coordinator (4) who is responsible for care coordination tasks, like scheduling appointments and making follow-up calls. If the patient isn’t a community member and can’t be assigned to a task, the care coordinator is assigned these tasks. Only care coordinators who are both internal Salesforce users and members of the care team appear in the list.

- Select the date (5) that the care plan starts for the patient. This date is the anchor date for the problems, goals, and tasks associated with the care plan. Tasks that have an offset date use this date as the starting point and add the assigned offset to the start date. For example, if the template start date is December 9 and a task offset is $7\text{ days}$, the task’s due date is December 16.

- Each care plan template (6) appears with the associated problems selected by default. If a problem or goal doesn’t apply to the patient, you can remove it and its child items from the care plan. For example, if a patient already has supplies for blood glucose control, you can remove the task for procuring supplies. When you remove a problem, you remove the goals and tasks associated with it.

- To see the goals and tasks (7) associated with a problem, expand individual sections by clicking the triangles. When you expand the list of tasks, you can see the owner, priority, and number of offset days.
Review the care plan before you apply it to the patient. After you click **Apply**, the care plan, along with its problems, goals, and tasks are added to the Care Plan tab for the patient.

**Provide Easier Access to Patient Account Records**

We’ve given care coordinators easier access to a patient’s account record by exposing it on the Details tab. The improved layout of the Patient Details tab shows patient records that are associated with the Account record.

If you prefer to have the Contact record appear on the tab, you can change the settings for HcFeatureDriver in Health Cloud Settings that are part of Custom Metadata Types. When you change the default settings or if you use a custom page layout, you must also modify the associated page layout.

For example, to modify the Account layout, follow these steps.

1. From Setup, enter **Account** in the Quick Find box, then select **Accounts**.
2. Select **Edit** next to Patient Layout.
3. Select the **Custom Console Components** link at the top of the page.
4. In the Primary Tab Components section, add the following information to the Left Sidebar section.

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style</td>
<td>Stack</td>
</tr>
<tr>
<td>Width px</td>
<td>350</td>
</tr>
<tr>
<td>Autosize Components</td>
<td>Selected</td>
</tr>
<tr>
<td>Type</td>
<td>Visualforce page</td>
</tr>
</tbody>
</table>
Configure Custom Record Types for Individuals or Groups

Health Cloud gives you the flexibility to configure custom individual and household (group) record types. For example, custom record types let you add doctors as a type of individual or hospitals as a group record type. You can easily configure a custom record type based on the default individual or group record type provided by Health Cloud.

To configure a custom individual record type, create a custom account record type using the Account (Individual) Layout and then create a custom contact record type using the Contact (Individual) Layout. To configure a custom household or group record type, you must first create a custom account record type using the Account (Household) Layout.

Health Cloud Has New Custom Objects

These custom objects are new.

- **CarePlanTemplate**
  - `CarePlanTemplate__c`
  - Represents the template used to create a care plan, including the problems, goals, and tasks that care coordinators use to manage and mitigate a medical condition.

- **CarePlanTemplateGoal**
  - `CarePlanTemplateGoal__c`
  - Represents a goal included in the care plan template.

- **CarePlanTemplateProblem**
  - `CarePlanTemplateProblem__c`
  - Represents a problem included in the care plan template.

- **CarePlanTemplateTask**
  - `CarePlanTemplateTask__c`
  - Represents a task that’s included in the care plan template.

Customization: Improved Setup for Lightning Experience, More Flexible Lightning Pages, and Reports for External Objects

This release is full of goodies for the point-and-click admin. Find things in Lightning Experience Setup by using global search. Enjoy more granular control over your Lightning pages and picklist values. And if your company uses external objects, run reports across all your data, regardless of where it’s stored.

Customization features help you expand your organization by enhancing your objects, data, and fields, updating your org’s look and feel, augmenting your business processes, creating websites, and creating apps—all by using point-and-click tools and maybe some code. Customization features also include tools to administer and secure your organization.

IN THIS SECTION:

- **Lightning Experience Setup: Find Setup Records Faster and Manage Lightning Apps**
  - We’re all about saving you time. With this release, you don’t have to go to Setup to find things in Setup. Just use global search! And of course, check out the Lightning Experience App Manager for all your Lightning app needs. These features are available only in Lightning Experience.
Lightning App Builder: Assign Record Pages to Apps, More App Page Templates, Component List Refresh

The teams behind Lightning App Builder have been busy making all kinds of awesome new enhancements for you. You can now assign your custom record pages to different Lightning apps, or make one record page the default page across all Lightning apps. We’ve created new templates for app pages and a read-only view for managed Lightning pages. But wait, there’s more! You can now refresh the components list without refreshing the entire App Builder. This feature is available in both Lightning Experience and Salesforce Classic.

Salesforce Connect: External Object Reports, Expanded Communities Support, Feed-Based Layouts, and Search Improvements

Now you can run reports on Salesforce Connect external objects and surface your external data to communities built with the Customer Service (Napili) template. You can also create feed-based page layouts and get more search results.

Visual Workflow: Flows Are Going Lightning!

We’ve got a handful of betas and pilots to make your flows look and feel like Lightning Experience, even if you’re still using Salesforce Classic, as well as to help you customize your screens. This feature is available in both Lightning Experience and Salesforce Classic.

Process Builder: Invoke Processes and Access More Fields

Process Builder just keeps getting better! You can now invoke a process from another process. Plus you can access owner fields and encrypted fields. This feature is available in both Lightning Experience and Salesforce Classic.

Picklist Administration: Easier Value Maintenance, Enhanced API, Global Picklists in Lightning Experience

The power of picklists continues to grow. We’ve added more ways to manage picklist values as granularly or as broadly as you want. Manage picklist values from Setup with improved user interface flows and even more options for adding, replacing, or removing values in all types of picklists. Or use our enhanced Metadata API structure to define picklists outside of Setup. Streamline your data management with global picklists, now available in Lightning Experience Setup.

Data Import: Campaign Members and New Data Loader Version

The Force.com platform makes it easy for you to manage your data by improving the import of campaign members in the Data Import Wizard, including the ability to import contacts, person accounts, and leads as campaign members from a single file. Also, the new version of Data Loader supports more operating systems.

Sharing: More Granular and Efficient Recalculation

Recalculate sharing rules on a per-object basis with object-specific share locks. Recalculate org-wide defaults more efficiently with asynchronous parallel recalculation. This feature is available in both Lightning Experience and Salesforce Classic.

General Administration: Lightning Component Actions

The biggest hitter this release is Lightning component actions—actions in Lightning Experience that support Apex and JavaScript. We also simplified how you manage permission set licenses and cleaned up some things in the Page Layout Editor, user detail page, and Cloud Flow Designer.

Lightning Experience Setup: Find Setup Records Faster and Manage Lightning Apps

We’re all about saving you time. With this release, you don’t have to go to Setup to find things in Setup. Just use global search! And of course, check out the Lightning Experience App Manager for all your Lightning app needs. These features are available only in Lightning Experience.

IN THIS SECTION:

Search Lightning Experience Setup with Global Search

Now you can use global search instead of Quick Find to find specific setup records, such as the Lead Source picklist or the Sales Rep profile. This feature is available in Lightning Experience only.
Be the Boss of Your Apps with the App Manager

We’ve enhanced Setup in Lightning Experience with the Lightning Experience App Manager. Now you can create and manage your apps all in one place. This feature is available in Lightning Experience only.

Manage Global Picklists in Lightning Experience Setup

Now you can create and manage your global picklist value sets from either user interface. No more switching back and forth to manage all of your picklists in Setup. This feature is available in both Lightning Experience and Salesforce Classic.

Search Lightning Experience Setup with Global Search

Now you can use global search instead of Quick Find to find specific setup records, such as the Lead Source picklist or the Sales Rep profile. This feature is available in Lightning Experience only.

While in Setup, enter the name of the setup record into global search. For example, you want to find Admin User quickly without browsing through Users so that you can reset the password. On the search results page, use the search scope bar beneath global search to see results only for a specific Setup object.

**Example:** Global search gives you the option to search in Setup as well as across all Salesforce.

![Global search example](image1)

**Example:** Top Results includes results from the Setup objects you use most frequently, so it’s a good place to start.

![Top Results example](image2)

Setup search has a few restrictions.

- You must be in Setup to see Setup search results from global search.
- You can’t search all Setup objects.
- You can only search by the name of the setup record.
- You can’t customize which setup record appears in the search scope bar beneath global search.
- You can’t customize the search layout.
- You can’t sort or filter results.
Be the Boss of Your Apps with the App Manager

We’ve enhanced Setup in Lightning Experience with the Lightning Experience App Manager. Now you can create and manage your apps all in one place. This feature is available in Lightning Experience only.

To find the App Manager, from Setup enter App Manager in the Quick Find box, then select App Manager.

SEE ALSO:
- Create Custom Apps in Lightning Experience and Navigate More Efficiently
- Lightning Experience: A Modern and Intelligent User Experience

Manage Global Picklists in Lightning Experience Setup

Now you can create and manage your global picklist value sets from either user interface. No more switching back and forth to manage all of your picklists in Setup. This feature is available in both Lightning Experience and Salesforce Classic.

SEE ALSO:
- Create and Manage Global Picklists in Lightning Experience

Lightning App Builder: Assign Record Pages to Apps, More App Page Templates, Component List Refresh

The teams behind Lightning App Builder have been busy making all kinds of awesome new enhancements for you. You can now assign your custom record pages to different Lightning apps, or make one record page the default page across all Lightning apps. We’ve created new templates for app pages and a read-only view for managed Lightning pages. But wait, there’s more! You can now refresh the components list without refreshing the entire App Builder. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:
- Assign a Custom Record Page to Lightning Apps, or Make It the Default for All
- See Newly Installed Components in the Lightning App Builder with Component List Refresh
- Create a New Style of App Page with the New App Page Template in the Lightning App Builder
- Feed Component Renamed Introduces Two New Chatter Components

Assign a Custom Record Page to Lightning Apps, or Make It the Default for All

When you activate a custom record page in the Lightning App Builder, you now have two options. You can make the record page the default for all your users. Or you can assign the record page to one or more Lightning apps to give your users access to a page customized for the app that they’re working in.

See Newly Installed Components in the Lightning App Builder with Component List Refresh

You’re in the Lightning App Builder, working on a page. One of your developers tells you that a new Lightning component was deployed into the org for you to use. No longer must you refresh the whole App Builder to access the new component. With the click of a button, you can refresh only the components list. Newly added components are highlighted in the list.

Create a New Style of App Page with the New App Page Template in the Lightning App Builder

The new Header and Two Columns template in the Lightning App Builder lets you customize the layout of your app pages a different way. App pages created with this template are available in Lightning Experience and all versions of the Salesforce1 mobile app.

Feed Component Renamed Introduces Two New Chatter Components

We’ve renamed the Feed component to Chatter in the Lightning App Builder. It combines the publisher and feed. We’ve also created two new components that break the feed into its parts with the new Chatter Publisher and Chatter Feed. Now you can place the publisher and the feed separately wherever you want them on the page.
Power Up Your Lightning Pages with the Flow Component (Beta)
Welcome a new component to the Lightning App Builder. Use the Flow component to embed active flows in your Lightning Pages.

View and Activate Read-Only Lightning Pages from Managed Packages in the Lightning App Builder
Previously, you couldn’t open managed pages in the Lightning App Builder. Now you can open Lightning Pages from a managed package in a read-only editor and review, activate, or de-activate them.

Report Chart Components Are No Longer One Size (Doesn’t) Fits All
Report chart components are now more dynamic and responsive to the size of the page they display on. Report chart components resize themselves horizontally to fill larger display regions, up to a maximum of 800 pixels wide. The height is limited to 300 pixels. This enhancement is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Add Components from the AppExchange in Lightning App Builder
The integrated AppExchange experience is now available in Lightning App Builder. You can browse and install third-party components directly from the user interface, making it easier than ever to add pre-built solutions to your projects.

Streamline Your Record Highlights to See More Data
Use new Lightning App Builder attributes to display the highlights panel in less space, show fewer buttons, and change the orientation from horizontal to vertical. These customizations reduce page scrolling and heading truncation, making it easier for your users to see key information at a glance. The highlights panel is available in Lightning Experience only.

Assign a Custom Record Page to Lightning Apps, or Make It the Default for All
When you activate a custom record page in the Lightning App Builder, you now have two options. You can make the record page the default for all your users. Or you can assign the record page to one or more Lightning apps to give your users access to a page customized for the app that they’re working in.

Use the new Assignments by App column in the Lightning Record Pages related list in the Object Manager to see which Lightning apps each record page is assigned to.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

See Newly Installed Components in the Lightning App Builder with Component List Refresh
You’re in the Lightning App Builder, working on a page. One of your developers tells you that a new Lightning component was deployed into the org for you to use. No longer must you refresh the whole App Builder to access the new component. With the click of a button, you can refresh only the components list. Newly added components are highlighted in the list.
Create a New Style of App Page with the New App Page Template in the Lightning App Builder

The new Header and Two Columns template in the Lightning App Builder lets you customize the layout of your app pages a different way. App pages created with this template are available in Lightning Experience and all versions of the Salesforce1 mobile app.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Feed Component Renamed Introduces Two New Chatter Components

We’ve renamed the Feed component to Chatter in the Lightning App Builder. It combines the publisher and feed. We’ve also created two new components that break the feed into its parts with the new Chatter Publisher and Chatter Feed. Now you can place the publisher and the feed separately wherever you want them on the page.

The pairing between the publisher and feeds on the same page is made automatically, with no additional coding.
Power Up Your Lightning Pages with the Flow Component (Beta)

Welcome a new component to the Lightning App Builder. Use the Flow component to embed active flows in your Lightning Pages.

Note: This release contains a beta version of the Flow component for Lightning Pages, which means it’s a high-quality feature with known limitations. The Flow 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. You can provide feedback and suggestions for the Flow component for Lightning Pages in the IdeaExchange.

For more details, see Embed Your Flows in Lightning Pages (Beta) in the Visual Workflow section.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

View and Activate Read-Only Lightning Pages from Managed Packages in the Lightning App Builder

Previously, you couldn’t open managed pages in the Lightning App Builder. Now you can open Lightning Pages from a managed package in a read-only editor and review, activate, or de-activate them.

Report Chart Components Are No Longer One Size (Doesn’t) Fits All

Report chart components are now more dynamic and responsive to the size of the page they display on. Report chart components resize themselves horizontally to fill larger display regions, up to a maximum of 800 pixels wide. The height is limited to 300 pixels. This enhancement is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Add Components from the AppExchange in Lightning App Builder

The integrated AppExchange experience is now available in Lightning App Builder. You can browse and install third-party components directly from the user interface, making it easier than ever to add pre-built solutions to your projects.

To see the integrated AppExchange experience in action, open a page in the Lightning App Builder. Then click Get more on the AppExchange to browse a selection of components that are ready to plug into custom Lightning pages.

SEE ALSO:
AppExchange and Your Salesforce Org—Together at Last
Lightning Experience: A Modern and Intelligent User Experience

Streamline Your Record Highlights to See More Data

Use new Lightning App Builder attributes to display the highlights panel in less space, show fewer buttons, and change the orientation from horizontal to vertical. These customizations reduce page scrolling and heading truncation, making it easier for your users to see key information at a glance. The highlights panel is available in Lightning Experience only.

To access the new attributes, in Lightning App Builder, click the highlights panel in the canvas. The Collapsed and Number of Visible Actions attributes are in the properties pane.
For example, use Number of Visible Actions to limit the number of buttons to one. (However, the Follow button is always displayed.) Here’s an example of a Lead record layout with the Collapsed attribute enabled and Number of Visible Actions set to 1.

To display the highlights horizontally or vertically, drag the Highlights Panel component into a region with the horizontal or vertical dimensions you want. The highlights panel adjusts to fit the region’s space. For example, if you drag it into a narrow column, the highlights display vertically. If you drag it to a full-page width column, the highlights display horizontally.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Salesforce Connect: External Object Reports, Expanded Communities Support, Feed-Based Layouts, and Search Improvements

Now you can run reports on Salesforce Connect external objects and surface your external data to communities built with the Customer Service (Napili) template. You can also create feed-based page layouts and get more search results.

IN THIS SECTION:

External Object Reports—Get a Seamless View of Data Across System Boundaries
We know you’ve waited a long time to include external objects in reports. There are still some limitations and considerations to keep in mind, but now you can run reports on all your data, regardless of where it’s stored. This feature is available in both Lightning Experience and Salesforce Classic.

Expose External Object Data in Communities Built with the Customer Service (Napili) Template
Sometimes your community members need data that you’ve stored outside your Salesforce org. Set up your org to access that data via Salesforce Connect, and then expose the external object data to your communities. Previously, only communities that were built with the Salesforce Tabs + Visualforce template could access external objects. Now external objects are also available in communities built with the Customer Service (Napili) template. This feature is available in Salesforce Classic only.

Create Feed-Based Page Layouts for External Objects
Make it easier for your users to work with external object records by providing two separate views: one for the record’s feed, and one for its details and related lists. Users can switch between feed view and details view to focus on the information they need at any moment. This feature is available in both Lightning Experience and Salesforce Classic.

Get More External Object Search Results
External object search results are no longer limited to 25 rows. This change applies to Lightning Experience only.
External Object Reports—Get a Seamless View of Data Across System Boundaries

We know you’ve waited a long time to include external objects in reports. There are still some limitations and considerations to keep in mind, but now you can run reports on all your data, regardless of where it’s stored. This feature is available in both Lightning Experience and Salesforce Classic.

Setting up reports for an external object involves these high-level steps.

1. **Select “Allow Reports” on the external object.**
   Enabling reports creates the following in the Other Reports report type category.
   - A report type for the external object
   - A report type for each lookup relationship in which both objects allow reports
   Report types aren’t created for external lookup or indirect lookup relationships, but you can create custom report types for these relationships.

2. **If needed, create custom report types.**
   A report type defines the set of records and fields available to a report based on the relationships between a primary object and its related objects. Reports display only records that meet the criteria defined in the report type.

3. **Build and test reports as an end user.**

4. **Notify your users with the names of the category folders and the custom report types so that they can create and run reports on external objects.**

SEE ALSO:
- Salesforce Help: Report Considerations for Salesforce Connect—All Adapters (can be outdated or unavailable during release preview)
- Salesforce Help: External Object Relationships
- Lightning Experience: A Modern and Intelligent User Experience

Expose External Object Data in Communities Built with the Customer Service (Napili) Template

Sometimes your community members need data that you’ve stored outside your Salesforce org. Set up your org to access that data via Salesforce Connect, and then expose the external object data to your communities. Previously, only communities that were built with the Salesforce Tabs + Visualforce template could access external objects. Now external objects are also available in communities built with the Customer Service (Napili) template. This feature is available in Salesforce Classic only.

Before you can expose external objects in communities that are built with the Customer Service (Napili) template, set up the associated external data sources. Note the following setting requirements.

- Deselect **High Data Volume**.
- Set **Identity Type** to Named Principal or Anonymous.

Although you can set **Identity Type** to Per User, understand that community members can’t set up their own credentials. However, you can set up and manage each user’s authentication settings for external systems from Lightning Experience or Salesforce Classic.
Example: Let’s say you have a partner community for sales, and you store your product order information in a back-office enterprise resource planning system. Surfacing that information to your sales partners lets them view and update orders within the context of all related data, regardless of where it’s stored.

SEE ALSO:

- Expose Content from External Data Sources in Your Template-Driven Community
- Salesforce Help: Define External Data Sources
- Salesforce Help: Identity Type for External Data Sources
- Salesforce Help: Store Authentication Settings for External Systems

Create Feed-Based Page Layouts for External Objects

Make it easier for your users to work with external object records by providing two separate views: one for the record’s feed, and one for its details and related lists. Users can switch between feed view and details view to focus on the information they need at any moment. This feature is available in both Lightning Experience and Salesforce Classic.

Setting up a feed-based page layout for an external object involves these high-level steps:

1. Enable feed tracking on the external object.
2. Create a layout for the external object. As you do so, select Feed-Based Layout.
3. Assign the page layouts to user profiles.

SEE ALSO:

- Salesforce Help: Create Feed-based Page Layouts
- Lightning Experience: A Modern and Intelligent User Experience

Get More External Object Search Results

External object search results are no longer limited to 25 rows. This change applies to Lightning Experience only.

SEE ALSO:

- Lightning Experience: A Modern and Intelligent User Experience

Visual Workflow: Flows Are Going Lightning!

We’ve got a handful of betas and pilots to make your flows look and feel like Lightning Experience, even if you’re still using Salesforce Classic, as well as to help you customize your screens. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

- Run Flows with a Lightning Skin (Beta)

Have you ever wanted your flows to look better? So have we. When you enable this beta, all of your URL-based flows render using the Lightning runtime instead of the Classic runtime. The new skin fits in with the rest of Lightning Experience, but it’s also available in Salesforce Classic.
Embed Your Flows in Lightning Pages (Beta)
We’re rolling out a flow component for the Lightning App Builder. You can now add flows to any Lightning Page—App pages, Record pages, and Home pages alike. All Lightning Pages are available in Lightning Experience (and App pages are available in all versions of the Salesforce1 mobile app).

Display Flow Screens in Two Columns (Beta)
When you build flows that collect lots of information, their screens can render as a never-ending skinny column of fields. Break up the layout of those screens by rendering specific flows in two columns. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Customize the Look and Feel of Flow Interviews with the REST API (Pilot)
We’re continuing to pilot REST API resources that give you full access to flows and their interviews. Use the REST API to build your own flow runtime experience.

Access Encrypted Data in Your Flows (Pilot)
Flows now support encrypted fields, except in filters and sorting. Platform Encryption is available in Salesforce Classic. Flows are available in Lightning Experience and Salesforce Classic.

“Trust Percent Values in Flow sObject Variables Again” Critical Update Postponed
This critical update, released in Summer ‘16, was scheduled for auto-activation in Winter ‘17, but has been postponed to Spring ‘17.

SEE ALSO:
Streamlined Feedback in the Cloud Flow Designer

Run Flows with a Lightning Skin (Beta)
Have you ever wanted your flows to look better? So have we. When you enable this beta, all of your URL-based flows render using the Lightning runtime instead of the Classic runtime. The new skin fits in with the rest of Lightning Experience, but it’s also available in Salesforce Classic.

Note: This release contains a beta version of Flow Lightning Runtime, which means it’s a high-quality feature with known limitations. Flow Lightning Runtime 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 the Flow Lightning Runtime in the IdeaExchange.

From Process Automation Settings, select the option to enable Lightning runtime. And voila! Your flows use Lightning runtime when someone runs them from:

• A direct link
• A custom button
• Setup: the flow list page, flow detail page, and the Cloud Flow Designer
Embed Your Flows in Lightning Pages (Beta)

We’re rolling out a flow component for the Lightning App Builder. You can now add flows to any Lightning Page—App pages, Record pages, and Home pages alike. All Lightning Pages are available in Lightning Experience (and App pages are available in all versions of the Salesforce1 mobile app).

Note: This release contains a beta version of the Flow component for Lightning Pages, which means it’s a high-quality feature with known limitations. The Flow 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. You can provide feedback and suggestions for the Flow component for Lightning Pages in the IdeaExchange.

Add the flow component to your Lightning Pages just like you would any other component. Your flow might need the ID of the record that it’s operating on, but don’t worry! Record pages send the ID to your flow automatically if you have the correct Text input variable configured.

Example: Here’s how a flow called Survey Customers appears when embedded in a Record page in Lightning Experience.
When you build flows that collect lots of information, their screens can render as a never-ending skinny column of fields. Break up the layout of those screens by rendering specific flows in two columns. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

**Note:** This release contains a beta version of Two-Column Flows, which means it’s a high-quality feature with known limitations. Two-Column Flows 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 Two-Column Flows in the IdeaExchange.

From Process Automation Settings, select the option to enable Lightning runtime. That’s it. When you distribute a flow via a URL or a Lightning Page, you can now decide whether to display a flow in two columns.
Customize the Look and Feel of Flow Interviews with the REST API (Pilot)

We’re continuing to pilot REST API resources that give you full access to flows and their interviews. Use the REST API to build your own flow runtime experience.

**Note:** We provide Flow Runtime REST API 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. Flow Runtime REST API 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 Flow Runtime REST API in the IdeaExchange.

If you’re an existing pilot customer, nothing has changed since the last release.

Here are some of the things that you can do with this API.

- Apply your company’s branding
- Create two-column layouts
- Create choice buttons, instead of requiring users to select a choice and click **Next**
- Update screens dynamically based on the user’s response
Example: In this screen, the second field changes based on the answer to the first field. If you select Yes, by email, the second field prompts you for your email address. If you select Yes, by text, the second field prompts you for your phone number instead.

SEE ALSO:
New Resources: Flows and Flow Interviews (Pilot)

Access Encrypted Data in Your Flows (Pilot)
Flows now support encrypted fields, except in filters and sorting. Platform Encryption is available in Salesforce Classic. Flows are available in Lightning Experience and Salesforce Classic.

Note: Encryption support for formula fields, flows, and Process Builder is a pilot program available in Developer Edition and in Sandboxes for Enterprise, Unlimited, and Performance Editions. For information about joining this pilot, contact your Salesforce account executive.

Example: If you’ve encrypted Account Name, you can update that field’s value, but you can’t filter based on that field.

SEE ALSO:
Access Encrypted Data with Custom Formula Fields, Flows, and Process Builder (Pilot)

“Trust Percent Values in Flow sObject Variables Again” Critical Update Postponed
This critical update, released in Summer ’16, was scheduled for auto-activation in Winter ’17, but has been postponed to Spring ’17.

SEE ALSO:
Critical Updates: LockerService Changes, More Clickjack Protection for Visualforce Pages
Summer ’16 Release Notes: Trust Percent Values in Flow sObject Variables Again (Critical Update)
Process Builder: Invoke Processes and Access More Fields

Process Builder just keeps getting better! You can now invoke a process from another process. Plus you can access owner fields and encrypted fields. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

**Build Reusable Processes**

Now you can create a process that another process can invoke. With invocable processes, you can reuse sections of your processes. Build one invocable process, call it from multiple processes or from multiple action groups in the same process. This ability to reuse can save you precious time, and who doesn’t love that?

**View Your Process Types in One Place**

When you view your list of processes in My Processes, check out the new column we added: Process Type. In it, you can see if a specific process is invocable or not. A blank cell indicates that it’s a noninvocable process.

**Access Owner Fields from Process Builder**

Process Builder now lets you access fields on an owner, such as to reference the email or name of a case’s owner. Previously, you could reference Owner.Id but not any of the owner’s fields. If you’re working with an object that can be owned by multiple other objects—such as User and Queue—you choose which object’s fields to reference.

**Access Encrypted Data in Process Builder (Pilot)**


**View Version History for a Process in One Place**

In previous releases, you had two ways to manage process versions. Now there’s just one. Version history no longer appears in a process’s properties.

**Build Reusable Processes**

Now you can create a process that another process can invoke. With invocable processes, you can reuse sections of your processes. Build one invocable process, call it from multiple processes or from multiple action groups in the same process. This ability to reuse can save you precious time, and who doesn’t love that?

You can invoke processes with objects that share at least one unique ID. For example, in the Account and Case objects, the Account.Id field is unique to Account and also used by Case. You can create an invocable process that updates a Case record. Then you can invoke it from:

- A process that updates an Account record’s owner
- A process that adds an Account shipping address or updates it

When you create a process that invokes another process, each one counts toward your process and other applicable limits. DML limits in processes that invoke processes count as one transaction.

When you create a process, have it start when another process invokes it by selecting It’s invoked by another process.
When you add an object, pay attention to the object you select. Your selection determines which other processes can invoke the one you’re creating. Only processes based on objects that share at least one unique field ID can invoke or be invoked by another process.

If you want the process you’re creating to invoke another process, that’s easy too. When you define or edit your process actions, select **Processes**. Only active invocable processes are available.

**SEE ALSO:**
- Idea Exchange: Launch another Process from within Process Builder
- Idea Exchange: Decision Tree for True
- Idea Exchange: Introduction of decision boxes in the Process Builder
- Idea Exchange: Have an Initial Filter for getting into a process
- Idea Exchange: Nested Criteria (If Statements)
- Idea Exchange: Create Hierarchy for Process Builder

**View Your Process Types in One Place**

When you view your list of processes in My Processes, check out the new column we added: Process Type. In it, you can see if a specific process is invocable or not. A blank cell indicates that it’s a noninvocable process.

**Access Owner Fields from Process Builder**

Process Builder now lets you access fields on an owner, such as to reference the email or name of a case’s owner. Previously, you could reference `OwnerId` but not any of the owner’s fields. If you’re working with an object that can be owned by multiple other objects—such as User and Queue—you choose which object’s fields to reference.

**Example:** Let’s say your org uses a queue for cases. A case’s owner can be either a user or a queue, so you can access fields on both User and Queue.
Access Encrypted Data in Process Builder (Pilot)


**Note:** Encryption support for formula fields, flows, and Process Builder is a pilot program available in Developer Edition and in Sandboxes for Enterprise, Unlimited, and Performance Editions. For information about joining this pilot, contact your Salesforce account executive.

**Example:** If you’ve encrypted Account Name, you can update that field’s value, but you can’t filter based on that field.

**View Version History for a Process in One Place**

In previous releases, you had two ways to manage process versions. Now there’s just one. Version history no longer appears in a process’s properties.

To view a process’s version history:

1. Go to the process management page.
2. Click the caret next to the process name.
Picklist Administration: Easier Value Maintenance, Enhanced API, Global Picklists in Lightning Experience

The power of picklists continues to grow. We’ve added more ways to manage picklist values as granularly or as broadly as you want. Manage picklist values from Setup with improved user interface flows and even more options for adding, replacing, or removing values in all types of picklists. Or use our enhanced Metadata API structure to define picklists outside of Setup. Streamline your data management with global picklists, now available in Lightning Experience Setup.

IN THIS SECTION:

Streamline Picklist Maintenance with Global Picklists (Generally Available)
Efficiently share values across custom picklists on multiple objects by creating picklist fields that use a global value set. Global picklists are always restricted, so your picklist data stays clean because users can’t add erroneous or redundant values through the API. This feature is available in both Lightning Experience and Salesforce Classic.

Create and Manage Global Picklists in Lightning Experience
No more switching back and forth to manage all your picklists in Setup. Now you can create and manage your global picklist value sets from either user interface. This feature is available in both Lightning Experience and Salesforce Classic.

Use Global Value Sets in Picklist Dependencies
Managing picklist dependencies just got more efficient. You can now make a local, custom picklist dependent on a local, custom picklist that uses a global value set. The global value set is defined in one place and shared. Use that value set for as many local, custom picklists—and their dependent picklists—as you need. This feature is available in both Lightning Experience and Salesforce Classic.

Replace Values from Global Picklists
Now you have even more flexibility for keeping picklist field values current on existing records. Conveniently replace a value in a custom picklist that uses a global value set. Previously, you couldn’t do this kind of field-level replace on shared picklists. This feature is available in both Lightning Experience and Salesforce Classic.

Convert a Shared Picklist’s Field Type from the User Interface
Sometimes one picklist value is plenty. Other times it’s not enough. Now you can switch a custom picklist that uses a global value set from multi-select to single-select, or vice versa, right from the user interface. Enjoy the flexibility in fine-tuning your data. This feature is available in both Lightning Experience and Salesforce Classic.

Manage Inactive Values in Unrestricted Custom Picklists
Conveniently deactivate or reactivate unrestricted picklist values to keep up with changing business needs. No need to totally delete values before you’re ready. Deactivating a value doesn’t disrupt the existing records that use that picklist value. When you no longer need the value for future records, you can delete it. This feature is available in both Lightning Experience and Salesforce Classic.

Make an Existing Custom Picklist Required
Reduce empty picklist fields and skewed data by making custom picklist fields required. You can set any custom picklist field to be required when you create it, or modify an existing custom picklist field. This feature is available in both Lightning Experience and Salesforce Classic.

Updated User Interface Labels for Picklists
Our new user interface labels for picklist configuration help you keep track of your global value sets and custom picklist fields. The new nomenclature clearly differentiates between global picklist value sets, local custom picklists, and picklist values. This feature is available in both Lightning Experience and Salesforce Classic.
Streamlined Metadata API for Picklists

We bring you elegance and efficiency with a reimagined Metadata API for picklists, with no wasted elements to clutter your API calls. The new structure clearly differentiates between global picklist value sets, local custom picklists, and standard picklists, making it super-easy to track your fields and values. This feature is available in both Lightning Experience and Salesforce Classic.

Higher Limits for Standard Picklists

Standard, multi-select picklists can be as detailed as you need them to be with a new limit of 255 characters per entry. This feature is available in both Lightning Experience and Salesforce Classic.

Streamline Picklist Maintenance with Global Picklists (Generally Available)

Efficiently share values across custom picklists on multiple objects by creating picklist fields that use a global value set. Global picklists are always restricted, so your picklist data stays clean because users can’t add erroneous or redundant values through the API. This feature is available in both Lightning Experience and Salesforce Classic.

Note: To provide feedback or suggestions for global picklists, visit the Global, Restricted Custom Picklists group in the Salesforce Success Community.

A global picklist is a restricted picklist by definition. When you create a global picklist, the list of values you specify is protected. Only you can add or edit values.

When you create a custom picklist field and base it on the global picklist, its list of values is inherited from the global picklist. Users can’t change the values because they’re defined as a picklist value set. They also can’t add values through the API to the value set or to picklist fields that use it.

Conveniently create a global picklist from Setup. Then create custom picklist fields the way you always have. But now you have the option of using a global value set for as many custom picklists as you want.

Picklist Value Sets Node in Setup (Salesforce Classic)
Specify the picklist value set when you create a global picklist. If you edit the global picklist definition, all of the picklist fields that use its picklist value set are also updated.

Say you want a picklist field called “Rating” on Accounts and Opportunities, with values Hot, Warm, and Cool. Instead of maintaining those picklist values separately on two different objects, create a picklist value set with your values.

Then create a picklist field on each object, and set those picklists to inherit the global picklist value set you have created.
Create and Manage Global Picklists in Lightning Experience

No more switching back and forth to manage all your picklists in Setup. Now you can create and manage your global picklist value sets from either user interface. This feature is available in both Lightning Experience and Salesforce Classic.

Find global picklist value sets in Setup by entering *picklist* in the Quick Find box, then selecting *Picklist Value Sets*.

Use the Object Manager in Lightning Experience to manage the custom picklists that use your global value sets. To update your picklists and other custom fields for an object, go to the object’s detail page.
Use Global Value Sets in Picklist Dependencies

Managing picklist dependencies just got more efficient. You can now make a local, custom picklist dependent on a local, custom picklist that uses a global value set. The global value set is defined in one place and shared. Use that value set for as many local, custom picklists—and their dependent picklists—as you need. This feature is available in both Lightning Experience and Salesforce Classic.

For example, your business has four large warehouses and ships orders all over the United States. You want to select which warehouse to use for customer accounts based on the customer’s region. So you make the Account Territory field the controlling field for the Warehouse Location field on accounts.
But wait—the Account Territory picklist inherits its values from a global value set named Territory. So you can't use it as a controlling field, right? No problem. We've said "so long" to another picklist limitation. You can make Account Territory the controlling field for any custom picklist, like Warehouse Location.

Select which picklist values you want to display for each Account Territory (or region). For example, if a rep selects Northeast (1) as the account territory, only Philadelphia, PA (2) appears as a possible warehouse location. Save, and you're done.

Replace Values from Global Picklists

Now you have even more flexibility for keeping picklist field values current on existing records. Conveniently replace a value in a custom picklist that uses a global value set. Previously, you couldn't do this kind of field-level replace on shared picklists. This feature is available in both Lightning Experience and Salesforce Classic.
To update a picklist field for an object, go to the object’s detail page, and then click Replace.

Convert a Shared Picklist’s Field Type from the User Interface

Sometimes one picklist value is plenty. Other times it’s not enough. Now you can switch a custom picklist that uses a global value set from multi-select to single-select, or vice versa, right from the user interface. Enjoy the flexibility in fine-tuning your data. This feature is available in both Lightning Experience and Salesforce Classic.

For example, it turns out that an account can occupy more than one territory. You can make the Account Territory picklist field, which inherits the global value set Territory, a multi-select picklist.
To find global picklist value sets in Setup, enter *picklist* in the Quick Find box, then select **Picklist Value Sets**.

To manage the custom picklists that use your global value sets, go to the Fields page of the object that has the picklist.

### Manage Inactive Values in Unrestricted Custom Picklists

Conveniently deactivate or reactivate unrestricted picklist values to keep up with changing business needs. No need to totally delete values before you’re ready. Deactivating a value doesn’t disrupt the existing records that use that picklist value. When you no longer need the value for future records, you can delete it. This feature is available in both Lightning Experience and Salesforce Classic.

When you deactivate a value, it no longer appears in the picklist that users select from when creating or editing a record.

Let’s say you want to hide a picklist value. First, navigate to the picklist definition.

- For a picklist on an object, go to the fields area of the object. For example, for an Account picklist: From Setup, enter *Account* in the Quick Find box, then select **Fields** under Accounts.
- For a global picklist: From Setup, enter *picklist* in the Quick Find box, then select **Picklists**.

Then go to the picklist’s detail page. Remove the value from future use by clicking **Deactivate** next to its name.

![Deactivate Picklist Value](image)

The value moves to the Inactive Picklist Values section. If you decide later that you need the value, click **Activate** next to the value’s name.

![Activate Picklist Value](image)

When you change a picklist value, the action is logged in Setup Audit Trail. The log entries for deactivate actions now say that the value was deactivated. Previously, it was tricky to distinguish deactivated values from deleted values in global and custom unrestricted picklists because the action involved a delete command.

### Make an Existing Custom Picklist Required

Reduce empty picklist fields and skewed data by making custom picklist fields required. You can set any custom picklist field to be required when you create it, or modify an existing custom picklist field. This feature is available in both Lightning Experience and Salesforce Classic.
To create or modify custom picklists:

- Picklist on an object—Use the fields area of the object.
- Global picklist—From Setup, enter *picklist* in the Quick Find box, then select Picklists.

**Updated User Interface Labels for Picklists**

Our new user interface labels for picklist configuration help you keep track of your global value sets and custom picklist fields. The new nomenclature clearly differentiates between global picklist value sets, local custom picklists, and picklist values. This feature is available in both Lightning Experience and Salesforce Classic.

The user interface labels related to creating and editing picklists have changed as follows.

<table>
<thead>
<tr>
<th>Where the Label Is</th>
<th>Label in Summer '16</th>
<th>Label in Winter '17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setup node</td>
<td>Global Picklists</td>
<td>Picklist Value Sets</td>
</tr>
<tr>
<td>Global value set detail page title</td>
<td>Global Picklist Detail</td>
<td>Global Value Set Detail</td>
</tr>
<tr>
<td>Global value set detail page</td>
<td>Global Picklist Values</td>
<td>Values</td>
</tr>
<tr>
<td>Custom picklist field detail page</td>
<td>Picklist Values</td>
<td>Value Set</td>
</tr>
<tr>
<td>New custom picklist definition</td>
<td>Strictly enforce picklist values</td>
<td>Restrict picklist to the values defined in the value set</td>
</tr>
</tbody>
</table>

**Streamlined Metadata API for Picklists**

We bring you elegance and efficiency with a reimagined Metadata API for picklists, with no wasted elements to clutter your API calls. The new structure clearly differentiates between global picklist value sets, local custom picklists, and standard picklists, making it super-easy to track your fields and values. This feature is available in both Lightning Experience and Salesforce Classic.
If you’re using API v37.0, you can still use the existing elements for defining picklists and their values. If you’re using API v38.0, your brain is about to get a break because defining all types of picklists makes more sense. Here’s a high-level comparison:

<table>
<thead>
<tr>
<th>Metadata Type in API Version 37.0</th>
<th>Metadata Type in API Version 38.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picklist</td>
<td>StandardValueSet, ValueSet</td>
</tr>
<tr>
<td>GlobalPicklist</td>
<td>GlobalValueSet</td>
</tr>
<tr>
<td>GlobalPicklistValue, PicklistValue</td>
<td>CustomValue</td>
</tr>
<tr>
<td>GlobalPicklistTranslation</td>
<td>StandardValueSetTranslation, GlobalValueSetTranslation</td>
</tr>
</tbody>
</table>

For type and field descriptions and sample definitions, see the Metadata API Developer Guide.

SEE ALSO:

- Metadata API

Higher Limits for Standard Picklists

Standard, multi-select picklists can be as detailed as you need them to be with a new limit of 255 characters per entry. This feature is available in both Lightning Experience and Salesforce Classic.

Data Import: Campaign Members and New Data Loader Version

The Force.com platform makes it easy for you to manage your data by improving the import of campaign members in the Data Import Wizard, including the ability to import contacts, person accounts, and leads as campaign members from a single file. Also, the new version of Data Loader supports more operating systems.

IN THIS SECTION:

- Add and Update Campaign Members Using the Data Import Wizard
  For any campaign, you can now easily add contacts, person accounts, and leads as new campaign members and update existing campaign members by Salesforce ID, all from one source file. The Salesforce ID can be a campaign member ID, contact ID, or lead ID. This feature is available in both Lightning Experience and Salesforce Classic.

- Import Data from Object Home Pages
  A link to import data now appears on object home pages, such as the Accounts home page. If a user clicks the link and doesn’t have permission to import accounts, contacts, or person accounts, an insufficient privileges message appears. This feature is available in both Lightning Experience and Salesforce Classic.

- New Data Loader Version Includes Updated Operating System Support
  We’ve released a new version of Data Loader! It supports Microsoft® Windows® 7 or later and macOS El Capitan for orgs that have TLS 1.0 disabled and must use TLS 1.1 or 1.2. Earlier versions of macOS don’t fully support TLS 1.2. This feature is available in both Lightning Experience and Salesforce Classic.

- Use Any Character Delimiter to Separate Data in Your Import File
  You’re no longer limited to comma and tab characters to indicate individual data records in your import file. For example, if you use the | (pipe) character to delimit data records because they contain embedded commas, you can specify that character as a delimiter in Data Loader. This feature is available in both Lightning Experience and Salesforce Classic.
Legacy Data Import Tools Retired in New Orgs

If you still use the individual import wizards for accounts, contacts, leads, person accounts, solutions, and custom objects, start using the Data Import Wizard instead. If you have a new org, these legacy import tools are unavailable. If you have an existing org, these import tools will no longer be available as of the Spring ’17 release. This feature is available in Salesforce Classic only.

Add and Update Campaign Members Using the Data Import Wizard

For any campaign, you can now easily add contacts, person accounts, and leads as new campaign members and update existing campaign members by Salesforce ID, all from one source file. The Salesforce ID can be a campaign member ID, contact ID, or lead ID. This feature is available in both Lightning Experience and Salesforce Classic.

For person accounts, you use the contact ID associated with the person account as the Salesforce ID. If you’re on a non-campaign page and want to import records, the campaign ID is required.

You can easily navigate to the Data Import Wizard via a link on any Campaign page.
Import Data from Object Home Pages

A link to import data now appears on object home pages, such as the Accounts home page. If a user clicks the link and doesn’t have permission to import accounts, contacts, or person accounts, an insufficient privileges message appears. This feature is available in both Lightning Experience and Salesforce Classic.

New Data Loader Version Includes Updated Operating System Support

We’ve released a new version of Data Loader! It supports Microsoft® Windows® 7 or later and macOS El Capitan for orgs that have TLS 1.0 disabled and must use TLS 1.1 or 1.2. Earlier versions of macOS don’t fully support TLS 1.2. This feature is available in both Lightning Experience and Salesforce Classic.

Note: Salesforce no longer bundles Java with the Data Loader for Windows installer. Download and install Java on your Windows computer.

We recommend that you set the JAVA_HOME environment variable to the directory where the Java Runtime Environment (JRE) is installed. Doing so ensures that you can run Data Loader in batch mode from the command line.

Data Loader is now signed for Windows.
System Requirements for Windows
To use Data Loader for Windows, you need:
• Microsoft Windows 7 or later
• 120 MB of free disk space
• 256 MB of available memory
• Java JRE 1.8 (32-bit)

System Requirements for macOS
To use Data Loader for macOS, you need:
• macOS El Capitan
• 120 MB of free disk space
• 256 MB of available memory
• Java JRE 1.8
• Administrator privileges on the machine

Important: All connections to and from Salesforce must use the TLS 1.1 or 1.2 encryption protocol. This change impacts API-based software that Salesforce makes available for download, such as Data Loader. In a previous release, Data Loader was enhanced to support TLS 1.2.

Use Any Character Delimiter to Separate Data in Your Import File
You’re no longer limited to comma and tab characters to indicate individual data records in your import file. For example, if you use the | (pipe) character to delimit data records because they contain embedded commas, you can specify that character as a delimiter in Data Loader. This feature is available in both Lightning Experience and Salesforce Classic.

You can also pick more than one delimiter to support. However, make sure that each CSV file contains only one delimiter character, or you can get unexpected splitting of data during import. To set delimiters in Data Loader, select Settings | Settings.
Legacy Data Import Tools Retired in New Orgs

If you still use the individual import wizards for accounts, contacts, leads, person accounts, solutions, and custom objects, start using the Data Import Wizard instead. If you have a new org, these legacy import tools are unavailable. If you have an existing org, these import tools will no longer be available as of the Spring ’17 release. This feature is available in Salesforce Classic only.

The Data Import Wizard behaves differently from the legacy data import tools and requires different user permissions. Confirm that your users have the required permissions and educate your users.

CSV files that work with the legacy data import tools don’t always work with the Data Import Wizard. The Data Import Wizard also sometimes requires more fields in the import file to ensure the completeness of records in your Salesforce org. Unlike some legacy data import tools, the Data Import Wizard can’t import contacts, leads, and person accounts from the same import file.
Sharing: More Granular and Efficient Recalculation

Recalculate sharing rules on a per-object basis with object-specific share locks. Recalculate org-wide defaults more efficiently with asynchronous parallel recalculation. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

Update Sharing Rules with Object-Specific Share Locks (Generally Available)

Object-specific share locks enable you to make changes to sharing rules for multiple objects simultaneously, depending on the objects affected by the sharing rules, sharing rule type, and target groups or roles of the affected users.

Update Org-Wide Defaults with Asynchronous Parallel Recalculation (Pilot)

When you update an org-wide default, recalculation is now processed asynchronously and in parallel. This change provides optimal efficiency of server resources and guards against site operations such as patches and server restarts. Your org must have object-specific share locks enabled, which is available to all new and existing orgs in Winter ’17.

Update Sharing Rules with Object-Specific Share Locks (Generally Available)

Object-specific share locks enable you to make changes to sharing rules for multiple objects simultaneously, depending on the objects affected by the sharing rules, sharing rule type, and target groups or roles of the affected users.

Note: This feature was previously available to select customers through a pilot program. In Winter ’17, the feature is enabled for both new and existing orgs. Administrators or users with the “Manage Sharing” permission can use this feature when working with sharing rules.

Criteria-based and ownership-based sharing rules

Recalculation is run if a sharing rule has changed or when you click the Recalculate button on the Sharing Settings page. Clicking this button locks sharing rules for that object (1), but you can still make changes to sharing rules for another object.

Note: Use the Recalculate buttons on the Sharing Rules related lists only if sharing rule updates have failed or are not working as expected.

When recalculation for an ownership-based sharing rule is in progress, you can’t create, edit, or delete ownership-based sharing rules for that object targeting the same group of users. For example, let’s say you’re creating an ownership-based lead sharing rule targeting the All Internal Users group. While recalculation is in progress, you can create another ownership-based sharing rule for
leads targeting any other public group except the All Internal Users group. You can create, update, or delete ownership-based sharing rules for leads targeting all internal users only after the recalculation finishes. You receive an email notification when the recalculation is complete.

When recalculation for a criteria-based sharing rule is in progress, you can’t edit or delete that rule. But you can create, edit, or delete any other criteria-based or ownership-based sharing rule for that object regardless of the target group of users.

**Note:** You can’t modify the org-wide defaults when a sharing rule recalculation for any object is in progress. Similarly, you can’t modify sharing rules when recalculation for an org-wide default update is in progress.

**Account, cases, contacts, and opportunities**

Sharing rules can affect accounts and the associated account children—cases, contacts, and opportunities—so they are locked together to ensure that recalculation runs properly. For example, creating or editing an account sharing rule prevents you from creating or editing a case, contact, or opportunity sharing rule. Similarly, creating or editing an opportunity sharing rule prevents you from creating or editing a case, contact, or account sharing rule before recalculation is complete. Locks are not shared across objects, except across accounts and associated account children.

**Note:** Clicking the *Recalculate* button for any of these four objects’ sharing rules prevents anyone from making changes to sharing rules for those objects until recalculation finishes.

In the following example, an ownership-based account sharing rule has been deleted and recalculation is in progress. Although you can’t create, edit, or delete another ownership-based sharing rule for any of these objects, you can make changes to a criteria-based sharing rule (2) for those objects.
Update Org-Wide Defaults with Asynchronous Parallel Recalculation (Pilot)

When you update an org-wide default, recalculation is now processed asynchronously and in parallel. This change provides optimal efficiency of server resources and guards against site operations such as patches and server restarts. Your org must have object-specific share locks enabled, which is available to all new and existing orgs in Winter ‘17.

Note: We provide Asynchronous Parallel Recalculation of Org-Wide Defaults 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 Asynchronous Parallel Recalculation of Org-Wide Defaults 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 based on generally available products and features. You can provide feedback and suggestions for the Asynchronous Parallel Recalculation of Org-Wide Defaults in the IdeaExchange.

You receive an email notification when the recalculation is completed. Consider the following guidelines when updating your org-wide defaults.

- While recalculation is in progress, you can’t create, update, or delete sharing rules and org-wide defaults for that object. However, you can make changes to the org-wide default and sharing rules for another object.
- Updating the org-wide default on an account or its children—cases, contacts, and opportunities—disables further org-wide default and sharing rule updates on them. For example, when you update the opportunity org-wide default and recalculation is in progress, you can’t update the org-wide default or sharing rules for accounts, contacts, opportunities, and cases.

General Administration: Lightning Component Actions

The biggest hitter this release is Lightning component actions—actions in Lightning Experience that support Apex and JavaScript. We also simplified how you manage permission set licenses and cleaned up some things in the Page Layout Editor, user detail page, and Cloud Flow Designer.

IN THIS SECTION:

Launch a Lightning Component from an Action
Lightning component actions are custom actions that invoke a Lightning component. Because they support Apex and JavaScript, Lightning component actions provide a secure way to build client-side custom functionality. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Create More Spanning Relationships Per Object in Formulas
Sometimes you want more! We’ve increased the number of unique relationships per object from 10 to 15. This increase is available in both Lightning Experience and Salesforce Classic.

Easily Associate Permission Sets with Permission Set Licenses
Who doesn’t love ease? Now when you create a permission set, you can immediately associate it with an available permission set license and then assign them both at the same time to users. When you enable the permissions within these permission sets, only permissions available through the permission set license are visible, simplifying your life. This feature is available in both Lightning Experience and Salesforce Classic.

See License Types in Your Permission Set List View
Want to see what types of licenses go with your existing permission sets? No problem! Now when you create or update a permission set list view, you can add a column for License. The License column lists what type of license was used to create your permission set, whether it’s a Salesforce user license or a specific permission set license. This feature is available in both Lightning Experience and Salesforce Classic.
The Salesforce1 Actions Category in the Page Layout Editor Has a New Name

With the introduction of Lightning component actions, the name of the Salesforce1 Actions category in the enhanced page layout editor doesn’t reflect all the actions that you can find there. You can use the actions in that category in both Salesforce1 and Lightning Experience. So we renamed it to Salesforce1 & Lightning Actions. This feature is available in both Lightning Experience and Salesforce Classic.

Salesforce Newsletter Options Removed

When you sign up a new user or edit an existing user, options for receiving Salesforce newsletters are no longer available. The user detail page no longer includes the Newsletter and Admin Newsletter options.

Profile Field-Level Security Has Improved UI Labeling

If you use the original profile user interface, we updated labels for two columns. Visible and Read-Only are now Read Access and Edit Access.

Streamlined Feedback in the Cloud Flow Designer

We removed the feedback link from the button bar in the Cloud Flow Designer. This way, you and other admins have one way to provide feedback on Visual Workflow: IdeaExchange. Even better: you can see whether others have had the same feedback, and comment or vote on others’ feedback.

Improvements for Functions

The new function ISCLONE checks whether an item is a clone of another item. We also improved the documentation for the DATEVALUE and ROUND functions.

“Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process” Critical Update Postponed

This critical update, released in Summer ’16, was scheduled for auto-activation in Winter ’17, but has been postponed to Spring ’18.

Launch a Lightning Component from an Action

Lightning component actions are custom actions that invoke a Lightning component. Because they support Apex and JavaScript, Lightning component actions provide a secure way to build client-side custom functionality. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Available in: Group, Professional, Enterprise, Performance, Unlimited, Contact Manager, and Developer Editions

To create a Lightning component action, select Lightning Component from the Action Type drop-down list when you create either a global or object-specific action.

Lightning component actions can’t call just any Lightning component in your org. For a component to work as a Lightning component action, it has to be configured specifically for that purpose and implement either the force:LightningQuickAction or force:LightningQuickActionWithoutHeader interfaces. You can find out more about configuring custom components in the Lightning Components Developer Guide.

You can add Lightning component actions to an object’s page layout using the page layout editor. If you have Lightning component actions in your org, you can find them in the Salesforce1 & Lightning Actions category in the page layout editor’s palette.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience
Enable Lightning Components for Custom Actions
Lightning Components Developer Guide: Configure Components for Custom Actions
Create More Spanning Relationships Per Object in Formulas

Sometimes you want more! We’ve increased the number of unique relationships per object from 10 to 15. This increase is available in both Lightning Experience and Salesforce Classic.

Objects can be related to each other via a relationship field. You can create formulas that reference fields on another object, known as a spanning relationship. When creating a formula in a formula field, field update, or validation rule, you might get an error if you exceed the limit. You’ll hit the limit in several ways, including:

- You have 15 formula fields and each formula references a unique object.
- You have 10 formula fields and each formula references a unique object. You then create a workflow field update that references 5 different objects.
- You have a validation rule that references 4 unique objects, a field update that references 7 other objects, and a formula field that references 4 other objects.

For example, you have two custom objects, Object1__c and Object2__c. Object1__c has a lookup relationship with Object2__c. When creating formula fields on Object1__c, you can reference fields found on Object2__c, which then counts as one spanning relationship or object reference.

Easily Associate Permission Sets with Permission Set Licenses

Who doesn’t love ease? Now when you create a permission set, you can immediately associate it with an available permission set license and then assign them both at the same time to users. When you enable the permissions within these permission sets, only permissions available through the permission set license are visible, simplifying your life. This feature is available in both Lightning Experience and Salesforce Classic.

If you haven’t used permission set licenses and aren’t sure what they are, check out What Are Permission Set Licenses? in the Salesforce Help. You’ll be glad you did!
The Updated Permission Set Creation Page

See License Types in Your Permission Set List View

Want to see what types of licenses go with your existing permission sets? No problem! Now when you create or update a permission set list view, you can add a column for License. The License column lists what type of license was used to create your permission set, whether it’s a Salesforce user license or a specific permission set license. This feature is available in both Lightning Experience and Salesforce Classic.

The Salesforce1 Actions Category in the Page Layout Editor Has a New Name

With the introduction of Lightning component actions, the name of the Salesforce1 Actions category in the enhanced page layout editor doesn’t reflect all the actions that you can find there. You can use the actions in that category in both Salesforce1 and Lightning Experience. So we renamed it to Salesforce1 & Lightning Actions. This feature is available in both Lightning Experience and Salesforce Classic.

Permission Sets Available in:
- Contact Manager
- Professional
- Group
- Enterprise
- Performance
- Unlimited
- Developer Editions

Available in:
- Group
- Professional
- Enterprise
- Performance
- Unlimited
- Contact Manager
- Developer Editions
Salesforce Newsletter Options Removed

When you sign up a new user or edit an existing user, options for receiving Salesforce newsletters are no longer available. The user detail page no longer includes the Newsletter and Admin Newsletter options.

Profile Field-Level Security Has Improved UI Labeling

If you use the original profile user interface, we updated labels for two columns. Visible and Read-Only are now Read Access and Edit Access.

Streamlined Feedback in the Cloud Flow Designer

We removed the feedback link from the button bar in the Cloud Flow Designer. This way, you and other admins have one way to provide feedback on Visual Workflow: IdeaExchange. Even better: you can see whether others have had the same feedback, and comment or vote on others’ feedback.

SEE ALSO:
Visual Workflow: Flows Are Going Lightning!

Improvements for Functions

The new function ISCLONE checks whether an item is a clone of another item. We also improved the documentation for the DATEVALUE and ROUND functions.

- The ISCLONE function compares two items and returns TRUE if one item is a clone of the other.
- We’ve clarified that the DATEVALUE function uses Coordinated Universal Time to calculate dates and times for list views, reports, and related lists. All other calculations are based on the user’s time zone.
- We’ve corrected some ROUND function examples that had incorrect values.

“Make Sure Records That Are Submitted Behind the Scenes Are Routed to the Right Approval Process” Critical Update Postponed

This critical update, released in Summer ’16, was scheduled for auto-activation in Winter ’17, but has been postponed to Spring ’18.

SEE ALSO:
Summer ’16 Release Notes: Make Sure Records That Are Submitted Behind the Scenes Are Routed to the Right Approval Process (Critical Update)
Critical Updates: LockerService Changes, More Clickjack Protection for Visualforce Pages
Security and Identity: Quicker Logins, Policy-Based Responses, Bring Your Own Encryption Key

Protect your org and your users with an even more secure and convenient login experience, U2F security keys for two-factor authentication, and more secure login handling. In Lightning Experience, get to Salesforce apps, custom apps, and connected apps from one App Launcher view. Transaction Security policies let you respond quickly to specified security situations. You can generate your own encryption keys, and you can store larger OAuth tokens and password fields.

IN THIS SECTION:

Authentication and Identity: Quicker Logins, Connected Apps Enhancements, More Authentication Options
We’ve introduced password-free logins with Lightning Login, U2F security keys and more options for two-factor authentication, and enhanced OAuth features. We redesigned the App Launcher and connected app descriptions show up on App Launcher tiles. The App Launcher for External Identity customers takes on the new look too.

Salesforce Shield: Bring Your Own Encryption Key, Resource Metering
Salesforce Shield, a special premium package of powerful security features, now offers more control of your own encryption keys, an encrypted search index, and metering to help you manage your transaction security policies.

Other Security Changes: HTTPS Login, Fix Risks, and Permission Changes
We’ve made more changes that impact security, including improvements to login security and the Health Check tool.

Authentication and Identity: Quicker Logins, Connected Apps Enhancements, More Authentication Options
We’ve introduced password-free logins with Lightning Login, U2F security keys and more options for two-factor authentication, and enhanced OAuth features. We redesigned the App Launcher and connected app descriptions show up on App Launcher tiles. The App Launcher for External Identity customers takes on the new look too.

IN THIS SECTION:

Log In Password-Free with Lightning Login
Passwords get the job done, helping to secure your Salesforce org. But it’s no secret—weak passwords, forgotten passwords, and locked-out accounts can be a hassle. Now, logging in can be as simple as a click, a tap, and a touch: Click your username, tap to approve the notification on your mobile device, and authenticate with your fingerprint or PIN. The speed, convenience, and enhanced security that users get with Lightning Login leaves password-protected logins in the dust. This feature is available in both Lightning Experience and Salesforce Classic.

Update Existing Connected App Descriptions
The revamped App Launcher makes it easy for your users to discover your connected apps now that your app’s name and description appear on an App Launcher tile. The description comes from the text that you supply in the description field when you create the app. For the connected apps that you created before Winter ’17, those descriptions appear in the App Launcher as well. So make sure that the names and descriptions of your existing apps are appropriate for a public audience and mistake-free. You’ve got 256 characters for a description. Make it work for you.

Make the App Launcher Your Landing Page
Make it easy for your Salesforce Identity users to access what they need by presenting the redesigned App Launcher as the default landing page when they log in to Salesforce.
External Identity App Launcher Has a New Look

If you set up Salesforce Identity for your customers or partners (referred to as external identity), you probably used the Aloha communities template with the app launcher. When Winter '17 releases, your app launcher takes on the fresh look of our redesigned App Launcher.

Let Users Verify Their Identity with U2F Security Keys

Your users can now use a U2F security key anytime they’re challenged to verify their identity, including two-factor authentication and device activations. Instead of using Salesforce Authenticator or one-time passwords sent by email or SMS, users insert their U2F security key into a USB port to complete verification. This feature is available in both Lightning Experience and Salesforce Classic.

Restrict Location-Based Automated Verifications with Salesforce Authenticator

For more control, you have new options to restrict the use of location-based automated verifications when users authenticate with the Salesforce Authenticator mobile app. Previously, we allowed automated verification from all locations, and still do so by default. Now, you can choose to restrict use to trusted IP addresses only or to disable it completely. This feature is available in both Lightning Experience and Salesforce Classic.

Let Users Connect Multiple Authentication Apps

Your users can now connect a second one-time password generator app to their Salesforce accounts, in addition to connecting Salesforce Authenticator. Some users prefer the flexibility of using either Salesforce Authenticator or a third-party app, such as Google Authenticator, on their mobile devices. They can now use that second app to generate time-based one-time passwords for two-factor authentication and identity verification. This feature is available in both Lightning Experience and Salesforce Classic.

More ID Token Options for Authenticating Connected Apps

For connected apps that use OAuth to authenticate with Salesforce, you’re now able to configure the ID token in the OAuth request. We can include the ID token when a refresh token is returned. And you can control whether to include standard claims, custom attributes, and custom permissions in the ID token for both access and refresh token responses. This feature is available in both Lightning Experience and Salesforce Classic.

Successfully Reauthorize Your Users When Provisioning Connected Apps

For those customers using Salesforce provisioning for connected apps, we’ve improved how we handle users that you have reauthorized after unauthorizing them. Previously, reauthorizing a user would trigger a create event, which could cause an error since the user already existed. Salesforce now reactivates the existing user.

Log In Password-Free with Lightning Login

Passwords get the job done, helping to secure your Salesforce org. But it’s no secret—weak passwords, forgotten passwords, and locked-out accounts can be a hassle. Now, logging in can be as simple as a click, a tap, and a touch: Click your username, tap to approve the notification on your mobile device, and authenticate with your fingerprint or PIN. The speed, convenience, and enhanced security that users get with Lightning Login leaves password-protected logins in the dust. This feature is available in both Lightning Experience and Salesforce Classic.

Your users’ Lightning Login experience is incredibly simple.
1. **Click**—Look for the lightning bolt next to your Lightning Login–enabled username, and click your username.

2. **Tap**—On your mobile device, tap the notification from the Salesforce Authenticator app.

3. **Touch**—Verify your identity with your fingerprint or PIN. Presto! You’re logged in.

Password-free logins rely on Salesforce Authenticator (version 2 or later), the two-factor authentication mobile app that’s available as a free download for iOS and Android devices. Not only are we making logins more convenient, we’re adding a layer of security by requiring two factors of authentication for every Lightning Login. The first factor is something that the user has—a mobile device that has Salesforce Authenticator installed and connected with the user’s Salesforce account. The second factor is something that the user is, such as a fingerprint, or something that the user knows, such as a PIN. The second level of authentication enhances security by requiring access to the mobile device and the user’s fingerprint or PIN.

Setting up and educating your users is also simple.

- Enable Lightning Login for your users by assigning them the “Lightning Login User” permission using profiles (cloned or custom profiles only) or permission sets. Lightning Login isn’t supported for external users.
- Lightning Login isn’t limited to orgs using Lightning Experience. It works in Salesforce Classic, too.
- Each user who has the required permission enrolls individually in Lightning Login.

On the user’s Advanced User Details page, clicking **Enroll** prompts a notification on the user’s mobile device. A tap to approve and a fingerprint or PIN to authenticate completes the enrollment. For users who aren’t already using Salesforce Authenticator, enrollment includes a few extra steps. Users are guided through downloading and installing Salesforce Authenticator, connecting it to their Salesforce account, and setting up the second factor (fingerprint or PIN).

- Enrolled users are also able to log in by entering only their username, skipping the password field, and clicking **Log In**.
- While enrolled, if users are ever without their mobile device, they can still log in with their password. If users disconnect Salesforce Authenticator from their Salesforce account, Lightning Login isn’t allowed until they connect it again.
- Users can cancel their own enrollment at any time. An admin can cancel any individual user’s enrollment (although an admin can’t enroll on behalf of a user).
- To monitor your users’ Lightning Login usage, use Salesforce’s Login History or Identity Verification History tools to fine-tune your roll-out.
In your org’s Session Settings, the Allow Lightning Login setting makes Lightning Login available, although no one can enroll until you assign them the “Lightning Login User” user permission. You can disable Allow Lightning Login at any time, to switch all users back to username and password logins.

The Lightning Login method is assigned the Standard security level by default. A Lightning Login establishes a Standard security level for the user’s session, which is the default security level for the Username Password method that Lightning Login typically replaces. If needed, you can change the security level to High Assurance.

As you plan your Lightning Login roll-out, keep these things in mind.

- Lightning Login is generally available as of October 15, 2016. Before then, it’s not available in sandboxes.
- The Salesforce Authenticator (version 2 or later) mobile app is required. If your org isn’t already using it, review the requirements, support, and considerations for the app.

SEE ALSO:

Salesforce Help: Enable Lightning Login for Password-Free Logins
Lightning Experience: A Modern and Intelligent User Experience

Update Existing Connected App Descriptions

The revamped App Launcher makes it easy for your users to discover your connected apps now that your app’s name and description appear on an App Launcher tile. The description comes from the text that you supply in the description field when you create the app. For the connected apps that you created before Winter ’17, those descriptions appear in the App Launcher as well. So make sure that the names and descriptions of your existing apps are appropriate for a public audience and mistake-free. You’ve got 256 characters for a description. Make it work for you.

Take this opportunity to brand your app with a logo. If you don’t supply a logo, the App Launcher generates one for you using the app’s initials. If you don’t include a description, just the name appears. If you previously supplied a logo, make sure that you like how it displays. With the App Launcher redesign, we resize images to 128 by 128 pixels.

How you create connected apps has also changed. You create connected apps from the new Lightning Experience App Manager. You open the app for editing the text here as well.
To create and edit connected apps, from Setup, enter App Manager in the Quick Find box, then select App Manager (1). Then select New Connected App (2).

You still manage existing connected apps the same as before. From Setup, enter Connected App in the Quick Find box, then select Manage Connected Apps (3).

Tip: Start updating your existing connected app names, descriptions, and logos today so that they’re ready when Winter ’17 goes live.

SEE ALSO:
- Lightning Experience: A Modern and Intelligent User Experience
- Salesforce Help: Connected Apps

### Make the App Launcher Your Landing Page

Make it easy for your Salesforce identity users to access what they need by presenting the redesigned App Launcher as the default landing page when they log in to Salesforce.

The App Launcher tab is under All Items.

To make the App Launcher the landing page, start by creating a Lightning app with the App Manager. In the wizard, choose the App Launcher tab and then choose the desired profiles. You can make the App Launcher the default home page by editing a profile’s custom app settings.

SEE ALSO:
- Lightning Experience: A Modern and Intelligent User Experience
- Salesforce Help: View and Edit Assigned Apps in Profiles
- Salesforce Help: What is a Salesforce App?

### External Identity App Launcher Has a New Look

If you set up Salesforce identity for your customers or partners (referred to as external identity), you probably used the Aloha communities template with the app launcher. When Winter ’17 releases, your app launcher takes on the fresh look of our redesigned App Launcher.

As with the Lightning Experience App Launcher, the app launcher for external identity communities shows connected apps as tiles containing the app’s name, logo, and description.
Now that your connected apps are prominently displayed, make sure that you’re satisfied with the names and descriptions. You can also take this opportunity to brand an app with a logo. If you previously supplied a logo, make sure that you like how it looks. We resize your image to 128 x 128 pixels.

Note: We recommend that you take the time before the release goes live to check that your connected app names and descriptions are appropriate for your users.

Do you want to know more about external identity and the Aloha template? Well, there’s a Trailhead module for that, Salesforce Identity for Customers. It teaches you how to set up an external identity community to extend your reach to your customers and partners. It’s time to get your latest badge in the Secure Identity and Access Management trail.

SEE ALSO:
- Lightning Experience: A Modern and Intelligent User Experience
- Salesforce Help: Getting Started with the Aloha Community Template for Salesforce Identity

Let Users Verify Their Identity with U2F Security Keys

Your users can now use a U2F security key anytime they’re challenged to verify their identity, including two-factor authentication and device activations. Instead of using Salesforce Authenticator or one-time passwords sent by email or SMS, users insert their U2F security key into a USB port to complete verification. This feature is available in both Lightning Experience and Salesforce Classic.

The Universal Second Factor (U2F) authentication standard is part of the FIDO Alliance and features the security of public-key cryptography, which strongly resists phishing. U2F security keys, which commonly plug into a USB port, are easy to deploy and work well in environments where mobile devices aren’t an option for identity verification. You can use the same security key with multiple service providers and multiple Salesforce orgs and accounts.

It’s worth mentioning a couple of things about how security keys work.
• Users can self-provision their own security keys. These devices don’t require upfront registration by IT or admins.

• Security keys can look similar to other USB authentication devices that users carry on a keychain. Try to look for the FIDO U2F logo indicating that the device is compatible with the U2F protocol. If you’re not sure, verify with your security hardware vendor that their keys are U2F compliant.

• Security keys aren’t a biometric device, even though some have a button that requires the user’s touch to activate the device.

Your users who have registered U2F security keys get to breeze through the identity verification process.

1. Enter your username and password.

2. Insert your security key into the computer’s USB port. If there’s a button, touch the button.

3. The security key generates the required credentials, and the browser passes them on to Salesforce to complete the verification.

   **Note:** As of Winter ’17, this identity verification method is supported only in Google Chrome version 41 or later because it’s the only browser that natively supports U2F.

Ready to implement this secure, convenient identity verification method? First, enable the security key (U2F) method in your org’s Session Settings.

Then, encourage your users to individually register their security keys. On the user’s Advanced User Details page, clicking **Register** prompts the user to log in and insert a U2F security key into the computer’s USB port. A tap of the button—if the security key has a button—completes the registration.

If your org has deployed My Domain, you have access to the setting to enable U2F security keys. If your org has not deployed My Domain, contact Salesforce to request access. Enabling My Domain after you’ve enabled U2F invalidates existing registrations for users who registered security keys with your original Salesforce domain. Keep in mind that affected users’ registrations must be removed and users must register again with your custom domain name.

After registration, if users are ever without their security key, they can still use Salesforce Authenticator, any previously registered verification method that generates a verification code, or a temporary verification code generated by an admin. Users can cancel their own registration at any time. An admin can cancel any individual user’s registration (although an admin can’t register on behalf of a user).

As with other identity verification methods, you can use standard tools in Salesforce to track users’ security key usage.

• View users’ security key activity on the Identity Verification History page.

• Monitor security key adoption using the Identity Verification Methods report (via the link on the Identity Verification History page).

• Create user list views that include the Has U2F Security Key field to see who has registered this method.

Using the Mass Email Users tool, you can send targeted communications to users who have registered this method.

SEE ALSO:

* Salesforce Help: Enable U2F Security Keys for Identity Verification*

* About the FIDO Alliance*

* Lightning Experience: A Modern and Intelligent User Experience*
Restrict Location-Based Automated Verifications with Salesforce Authenticator

For more control, you have new options to restrict the use of location-based automated verifications when users authenticate with the Salesforce Authenticator mobile app. Previously, we allowed automated verification from all locations, and still do so by default. Now, you can choose to restrict use to trusted IP addresses only or to disable it completely. This feature is available in both Lightning Experience and Salesforce Classic.

In Session Settings, the default setting allows Salesforce Authenticator users to authenticate automatically from trusted locations, such as their home or office.

- To restrict automated verifications to trusted IP addresses only, such as your corporate network, select Allow only from trusted IP addresses.
- To disable automated verifications, deselect Allow location-based automated verifications with Salesforce Authenticator.

When location-based restrictions prevent a user from authenticating automatically, the Salesforce Authenticator app shows that automation isn't allowed.
Let Users Connect Multiple Authentication Apps

Your users can now connect a second one-time password generator app to their Salesforce accounts, in addition to connecting Salesforce Authenticator. Some users prefer the flexibility of using either Salesforce Authenticator or a third-party app, such as Google Authenticator, on their mobile devices. They can now use that second app to generate time-based one-time passwords for two-factor authentication and identity verification. This feature is available in both Lightning Experience and Salesforce Classic.

On the user’s Advanced User Details page, use the App Registration: Salesforce Authenticator setting to connect Salesforce Authenticator. Use the App Registration: One-Time Password Generator setting to connect the second app.

More ID Token Options for Authenticating Connected Apps

For connected apps that use OAuth to authenticate with Salesforce, you’re now able to configure the ID token in the OAuth request. We can include the ID token when a refresh token is returned. And you can control whether to include standard claims, custom attributes, and custom permissions in the ID token for both access and refresh token responses. This feature is available in both Lightning Experience and Salesforce Classic.

Look for the new Include ID Token settings when you create or edit a connected app.

1. From Setup, enter Apps in the Quick Find box, then select Apps.
2. In the Connected Apps section, click New for a new connected app or Edit next to an existing connected app.
3. In the API (Enable OAuth Settings) section, select Enable OAuth Settings to expand the available options.

To include the ID token in refresh token responses, select Include ID Token. (We always include it in access token responses.) With the primary setting enabled, you can configure the secondary settings, which control the ID token contents in both access and refresh token responses. Select at least one of the secondary settings.

Include Standard Claims
Include the standard claims that contain information about the user, such as the user’s name, profile, phone_number, and address. The OpenID Connect specifications define a set of standard claims to be returned in the ID token.
Include Custom Attributes
If your connected app has specified custom attributes, include them in the ID token.

Include Custom Permissions
If your connected app has specified custom permissions, include them in the ID token.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience

Successfully Reauthorize Your Users When Provisioning Connected Apps
For those customers using Salesforce provisioning for connected apps, we’ve improved how we handle users that you have reauthorized after unauthorizing them. Previously, reauthorizing a user would trigger a create event, which could cause an error since the user already existed. Salesforce now reactivates the existing user.

SEE ALSO:
Lightning Experience: A Modern and Intelligent User Experience
Salesforce Help: User Provisioning for Connected Apps

Salesforce Shield: Bring Your Own Encryption Key, Resource Metering
Salesforce Shield, a special premium package of powerful security features, now offers more control of your own encryption keys, an encrypted search index, and metering to help you manage your transaction security policies.

IN THIS SECTION:
Platform Encryption: Bring Your Own Key, Government Cloud Support, Faster Mass Encryption
Bringing your own encryption key (BYOK) gives you even more control over your data security. You can also meet FedRAMP compliance standards, encrypt your search index, sync with Lightning for Outlook and Lightning Sync, and more.

Transaction Security: Resource Metering, Event Logging, Apex Examples
Transaction Security now includes resource metering, a better way to handle login policies, event logging, and improved Apex examples. These changes let you track your policies and run them more efficiently.

Platform Encryption: Bring Your Own Key, Government Cloud Support, Faster Mass Encryption
Bringing your own encryption key (BYOK) gives you even more control over your data security. You can also meet FedRAMP compliance standards, encrypt your search index, sync with Lightning for Outlook and Lightning Sync, and more.
IN THIS SECTION:

“View Encrypted Data” Permission Not Needed with Shield Platform Encryption Beginning Spring ’17
Beginning in Spring ’17, you can control who sees encrypted data using the same permission sets, profiles, and field-level security settings that you use to secure your non-encrypted data. When this change takes place, you will no longer be able to use the “View Encrypted Data” permission to control who sees unmasked encrypted field values. Instead, all users with read access for a field or record will see its contents in the presentation layer in plaintext when it’s encrypted at rest. Users who don’t have access to a field, record, or object won’t see that information, whether it’s encrypted or not.

Introducing the Bring Your Own Key Service (Generally Available)
The Shield Platform Encryption Bring Your Own Key (BYOK) service gives you the option to generate and manage your own tenant secrets outside Salesforce, for added control and flexibility.

Encrypt Your Search Index (Generally Available)
Until now, your org’s search indexes weren’t encrypted when you applied encryption to fields. Now they are. When enabled, Search Index Encryption runs when Shield Platform Encryption is in use, leveraging our HSM-based key derivation architecture, metadata, and configurations. This feature is available in both Lightning Experience and Salesforce Classic.

Shield Platform Encryption in Trailhead
That’s right, we have a shiny new Shield Platform Encryption module. In this module, learn how encryption provides an extra layer of protection for your data. Get hands-on practice with enabling Shield Platform Encryption in an org, and pick up some best practices for deploying encryption the smart way.

Improved Mass Encryption Experience
When you turn on encryption for fields or files, that data is encrypted from then on, but existing data in those fields or files has to be brought up to date with a mass encryption process that Salesforce runs for you on request. That mass encryption process just got faster.

Shield Platform Encryption is FedRAMP-Approved
Great news, Government Cloud! Shield Platform Encryption is now FedRAMP compliant. Government agencies can now use Shield Platform Encryption as an additional layer of security when handling sensitive data, and control the life cycle of their encryption keys.

Encrypted Files and Attachments Are PCI-DSS-Compliant
Files and attachments protected with Shield Platform Encryption are now compliant with the Payment Card Industry Data Security Standard (PCI-DSS).

Shield Platform Encryption Supports the Pardot Connect Tool
Pardot Connect can handle encrypted contact email addresses if your Pardot org allows multiple prospects with the same email address.

Shield Platform Encryption Supports Syncing
You can keep working with your Lightning for Outlook and Lightning Sync tools, while interacting with sensitive, regulated and private (encrypted) data. You can manage this from both Lightning Experience and Salesforce Classic.

Shared Activities Lookup Works with Encrypted Fields
Shield Platform Encryption now supports the Shared Activity lookup field. This lets you embed encryption on the Contact Name field, and use Shared Activities to relate multiple contacts to specific events or tasks. This feature is available in both Lightning Experience and Salesforce Classic.

Access Encrypted Data with Custom Formula Fields, Flows, and Process Builder (Pilot)
The Shield Platform Encryption service now extends to custom formula field types, flows, and Process Builder. This pilot program allows even more options for customizing how you interact with your encrypted data. This feature is available in both Lightning Experience and Salesforce Classic.
“View Encrypted Data” Permission Not Needed with Shield Platform Encryption Beginning Spring ’17

Beginning in Spring ’17, you can control who sees encrypted data using the same permission sets, profiles, and field-level security settings that you use to secure your non-encrypted data. When this change takes place, you will no longer be able to use the “View Encrypted Data” permission to control who sees unmasked encrypted field values. Instead, all users with read access for a field or record will see its contents in the presentation layer in plaintext when it’s encrypted at rest. Users who don’t have access to a field, record, or object won’t see that information, whether it’s encrypted or not.

This future update decouples masking capabilities from Shield Platform Encryption.

Trust is our top priority. While our out-of-the-box field- and object-level controls secure access to specific fields, records, and objects, encryption puts a wrapper around your entire org. Think of it like a castle: Moats protect the castle, securing everything inside. But those you welcome into the castle might not be able to enter certain rooms because they don’t have the keys to the doors. Similarly, encryption adds yet another level of security to your data at rest, and field-level security limits access to specific users and information.

This change doesn’t affect Classic Encryption. If you have questions about how this change impacts you and your org, or how to prepare for this change, contact your Salesforce account executive.

Introducing the Bring Your Own Key Service (Generally Available)

The Shield Platform Encryption Bring Your Own Key (BYOK) service gives you the option to generate and manage your own tenant secrets outside Salesforce, for added control and flexibility.

With the BYOK service, you have two options to manage your encryption key life cycle: use the built-in Salesforce key management infrastructure or use your own cryptographic resources to generate tenant secrets and share them individually with Salesforce.

When you Bring Your Own Key, you get the security benefits built into the Shield Platform Encryption service plus the control that comes from exclusively managing your tenant secret. You can generate and store your tenant secrets outside of Salesforce using your own crypto libraries, hardware security module (HSM), or key brokering service.

We’ve partnered with leading third-party key brokering companies to give you even more ways to reduce complexity, administration, and governance efforts. These key brokering services are optional.

BYOK is built with security and flexibility in mind. You can encrypt your tenant secret with a self-signed or certificate authority (CA) certificate’s public key. Uploading your secret to Salesforce grants the Shield Platform Encryption key management machinery access to your tenant secret. Your tenant secret is then stored securely in the database, ready for key derivation. You can revoke access to your tenant secret at will and update your tenant secret on your own schedule.

Encrypt Your Search Index (Generally Available)

Until now, your org’s search indexes weren’t encrypted when you applied encryption to fields. Now they are. When enabled, Search Index Encryption runs when Shield Platform Encryption is in use, leveraging our HSM-based key derivation architecture, metadata, and configurations. This feature is available in both Lightning Experience and Salesforce Classic.

Salesforce applies strong encryption on your org-specific search index .fdt, .tim, and .tip file types, using an org-specific AES-256-bit encryption key.

Search Index Encryption provides seamless additional protection. Your org’s encryption policy determines access to this feature, so you don’t have to change any of your org’s settings. To activate Search Index Encryption, contact Salesforce Support.

Note: Search Index Encryption is not yet available in the Government Cloud.

SEE ALSO:
Salesforce Help: Search Encryption
Shield Platform Encryption in Trailhead

That's right, we have a shiny new Shield Platform Encryption module. In this module, learn how encryption provides an extra layer of protection for your data. Get hands-on practice with enabling Shield Platform Encryption in an org, and pick up some best practices for deploying encryption the smart way.

It's part of the Secure Your Apps with Salesforce Shield trail, a new trail dedicated just to Salesforce Shield. It teaches users how to establish governance and enforce compliance policies in their org with Event Monitoring, Transaction Security, and Shield Platform Encryption.

Improved Mass Encryption Experience

When you turn on encryption for fields or files, that data is encrypted from then on, but existing data in those fields or files has to be brought up to date with a mass encryption process that Salesforce runs for you on request. That mass encryption process just got faster.

Salesforce Support is always there to help you mass encrypt existing data, fields, or files with their org-specific derived data encryption key. Now this process runs even faster, without changing the timestamps or disabling Apex Triggers.

Shield Platform Encryption is FedRAMP-Approved

Great news, Government Cloud! Shield Platform Encryption is now FedRAMP compliant. Government agencies can now use Shield Platform Encryption as an additional layer of security when handling sensitive data, and control the life cycle of their encryption keys.

SEE ALSO:

FedRAMP and Salesforce

Encrypted Files and Attachments Are PCI-DSS-Compliant

Files and attachments protected with Shield Platform Encryption are now compliant with the Payment Card Industry Data Security Standard (PCI-DSS).

For organizations with PCI Merchant Level 1 status, data contained in encrypted files, including credit card-related data, is now processed, stored, and transmitted according to PCI-DSS standards.

Data contained in encrypted fields was already PCI-compliant.

SEE ALSO:

Salesforce PCI Attestation of Compliance

Shield Platform Encryption Supports the Pardot Connect Tool

Pardot Connect can handle encrypted contact email addresses if your Pardot org allows multiple prospects with the same email address.
The ability to have multiple prospects with the same email address is available to customers whose Pardot orgs were provisioned after June 14, 2016. Only customers whose Pardot orgs were provisioned after that date can use Shield in conjunction with Pardot to encrypt email addresses.

In Pardot orgs provisioned before June 14, 2016, the sync process will not work if the prospect’s email address is encrypted. However, Shield Platform Encryption can still be applied to any other encryptable field besides email address.

Pardot does not encrypt data at rest within the Pardot environment. Salesforce Shield encrypts data within the Salesforce database, which is then shared with Pardot.

⚠️ **Important**: The connector user for your Salesforce connector in Pardot must have “View Encrypted Data” permission in Salesforce in addition to “Read” access. If the connector user does not have that permission, all data will be synced over as asterisks and will completely overwrite Pardot data.

SEE ALSO:

- Salesforce Pardot Help: How can I find out if my account allows multiple prospects with the same email address?
- Salesforce Help: Lightning for Outlook
- Salesforce Help: Lightning Exchange

**Shield Platform Encryption Supports Syncing**

You can keep working with your Lightning for Outlook and Lightning Sync tools, while interacting with sensitive, regulated and private (encrypted) data. You can manage this from both Lightning Experience and Salesforce Classic.

**Lightning for Outlook**

Lightning for Outlook is now compatible with Shield Platform Encryption, for users with the “View Encrypted Data” permission. Users without the “View Encrypted Data” permission enabled don’t always see records with encrypted fields that are related to their emails and calendar events from Lightning for Outlook.

**Lightning Sync**

Lightning Sync is now compatible with Shield Platform Encryption, for users with the “View Encrypted Data” permission. Previously, we prevented organizations using Platform Encryption from running Lightning Sync.

SEE ALSO:

- Salesforce Help: Lightning for Outlook
- Salesforce Help: Lightning Exchange

**Shared Activities Lookup Works with Encrypted Fields**

Shield Platform Encryption now supports the Shared Activity lookup field. This lets you embed encryption on the Contact Name field, and use Shared Activities to relate multiple contacts to specific events or tasks. This feature is available in both Lightning Experience and Salesforce Classic.

SEE ALSO:

- Salesforce Help: Activities
- Relating a Contact to Multiple Accounts Gets Even Better
Access Encrypted Data with Custom Formula Fields, Flows, and Process Builder (Pilot)

The Shield Platform Encryption service now extends to custom formula field types, flows, and Process Builder. This pilot program allows even more options for customizing how you interact with your encrypted data. This feature is available in both Lightning Experience and Salesforce Classic.

With custom formula fields, you can reference encrypted fields with the following methods and get your results as Text, Date, or Date/Time.

- & (Concatenate)
- isBlank
- isNull
- Spanning relationships

You can also access encrypted data from most elements in flows and Process Builder, except when filtering or sorting records. You can update the value for an encrypted field or reference an encrypted field in logic, but you can't look up records based on a specific value in an encrypted field.

**Note:** Encryption support for formula fields, flows, and Process Builder is a pilot program available in Developer Edition and in Sandboxes for Enterprise, Unlimited, and Performance Editions. For information about joining this pilot, contact your Salesforce account executive.

SEE ALSO:
- Access Encrypted Data in Your Flows (Pilot)
- Access Encrypted Data in Process Builder (Pilot)
- Salesforce Help: Lightning Process Builder
- Quick Reference: Formula Fields

Transaction Security: Resource Metering, Event Logging, Apex Examples

Transaction Security now includes resource metering, a better way to handle login policies, event logging, and improved Apex examples. These changes let you track your policies and run them more efficiently.

IN THIS SECTION:

- Resource Usage Improved for All Policies
  Resource metering helps stop malicious or unintentional monopolization of shared, multi-tenant platform resources by preventing policy evaluations from using too many resources and impacting your org.

- More Efficient Login Policies
  Login policies now make better use of computer resources, saving time and helping ensure that every login has the proper policies applied. Your users will have fewer login requests blocked unnecessarily.

- Monitor Usage with Transaction Security Log Events
  The new Transaction Security event type in event log files lets you easily see your policy volume and usage. You can also analyze Transaction Security events with the Salesforce analytics tools.

- More Complete Apex Examples
  All Apex examples in the Apex Developer Guide now make better use of Transaction Security capabilities.
Resource Usage Improved for All Policies

Resource metering helps stop malicious or unintentional monopolization of shared, multi-tenant platform resources by preventing policy evaluations from using too many resources and impacting your org.

Policies are metered for uniform resource use. If a user’s policy requests can’t be handled quickly enough, a fail-close behavior occurs and access is blocked. The result is that the user is denied access to the resource or entity.

Here’s an example of how metering works for login policies. Your org has a login policy with a notification action. A user makes four login requests concurrently. For some reason, the four login policies can’t all be executed in sufficient time. Transaction Security stops processing the policies and fails closed, blocking all four login requests. Because the policy evaluations didn’t finish, no notifications are sent.

Note: With metering, you can’t use static local variables in the Apex code for your policies.

More Efficient Login Policies

Login policies now make better use of computer resources, saving time and helping ensure that every login has the proper policies applied. Your users will have fewer login requests blocked unnecessarily.

Monitor Usage with Transaction Security Log Events

The new Transaction Security event type in event log files lets you easily see your policy volume and usage. You can also analyze Transaction Security events with the Salesforce analytics tools.

Here is an example Transaction Security event.

```
"TransactionSecurity","20160728000023.195","","","","00DD00000008JzR","005D0000001c54j","23","12","","","","0NID00000004CVe","2016-07-28T00:00:22.916Z", "TRIGGERED","6","2016-07-28T00:00:23.195Z","005D0000001c54jIAA","","0NID00000004CVeOAM"
```

There are ID values for the org, the user that caused the event, and the policy invoked. Also included are timestamps, execution times, and whether the policy was triggered.

See Also:

SOAP API Developer Guide: EventLogFile

More Complete Apex Examples

All Apex examples in the Apex Developer Guide now make better use of Transaction Security capabilities.

See Also:

Salesforce Help: Apex Policies for Transaction Security Notifications

Apex Developer Guide: TxnSecurity Namespace

Other Security Changes: HTTPS Login, Fix Risks, and Permission Changes

We’ve made more changes that impact security, including improvements to login security and the Health Check tool.
Logging In to Salesforce Server Instances Requires HTTPS

Logging in to a Salesforce server instance, such as na1.salesforce.com, now requires an HTTPS secure connection. Previously, HTTPS was required for logins via login.salesforce.com and custom domain URLs. HTTPS is now required for all Salesforce logins. Replace HTTP with HTTPS anytime you call yourInstance.salesforce.com. This feature is available in both Lightning Experience and Salesforce Classic.

If you enter http://yourInstance.salesforce.com in your browser, it redirects to https://yourInstance.salesforce.com. However, if you try to log in over HTTP using a URL that contains a username and password in the query string, you get an error.

For example, this URL won’t work: http://yourInstance.salesforce.com?un=myusername&pw=mypassword. You’ll also see the error if you post HTML to http://yourInstance.salesforce.com that passes a username and password.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience

Remote Site Settings Require “View Setup and Configuration” Permission

For security reasons, only users with the “View Setup and Configuration” user permission can view remote site settings in Setup and in the API. Users with “View Setup and Configuration” plus the “Customize Application” or “Modify All Data” permission can edit remote site settings. Previously, the “Modify All Data” user permission was all users needed to view and edit remote site settings. This feature is available in both Lightning Experience and Salesforce Classic.

<table>
<thead>
<tr>
<th>To do this in Setup and API...</th>
<th>Admins need these user permissions...</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Remote Site Settings</td>
<td>“View Setup and Configuration”</td>
</tr>
</tbody>
</table>
Admins need these user permissions...

<table>
<thead>
<tr>
<th>To do this in Setup and API...</th>
<th>Admins need these user permissions...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit Remote Site Settings</td>
<td>“View Setup and Configuration” and “Customize Application” OR “View Setup and Configuration” and “Modify All Data”</td>
</tr>
</tbody>
</table>

Instantly Fix Your Security Risks Using Health Check

Tired of having to go to different Setup pages to improve security settings in your org? Now you can fix settings in Health Check with one click using the Fix Risks feature. Use Fix Risks to address your org’s security vulnerabilities in Login Access Policies, Password Policies, and Session Settings without leaving the Health Check page. This feature is available in both Lightning Experience and Salesforce Classic.

Click Fix Risks, choose which settings to change to the Salesforce-recommended values, and watch your Health Check score climb!

Don’t worry: If you loved visiting Setup pages to edit settings, they’re still there. In Health Check, click Edit next to each setting.
Audit Your Certificate and Key Management Settings in Health Check

Discover and close even more security gaps right from the Health Check page in Setup. In addition to login access policies, password policies, remote site settings, session settings, and network access settings, you can now identify and fix security risks for certificates and keys. This feature is available in both Lightning Experience and Salesforce Classic.

From Setup, enter Health Check in the Quick Find box, then select Health Check.

Access to Security Health Check Limited by User Permissions

For security reasons, only users with specific permissions can view and edit information on the Health Check page in Setup and using the API. Previously, users with "View Setup and Configuration" and "Modify All Data" user permissions could view and edit Health Check settings. This feature is available in both Lightning Experience and Salesforce Classic.

To do this in Health Check... | Admins need these user permissions...
--- | ---
View | "View Setup and Configuration"
Fix risks | "Manage Login Access Policies" and "Manage Password Policies"
Access SecurityHealthCheck in Tooling API | "View Setup and Configuration"
Access SecurityHealthCheckRisks in Tooling API | "View Setup and Configuration"

To access Health Check from Setup, enter Health Check in the Quick Find box, then select Health Check.

Default Certificate No Longer Available in New Orgs

Starting in Winter ’17, new orgs don’t have the Default Certificate option in the API Client Certificate and SAML Request Signing Certificate picklists. Instead, you must use a self-managed certificate. The self-managed certificate can be a self-signed certificate or a certificate authority (CA)-signed certificate.

- To select an API client certificate, from Setup, enter API in the Quick Find box, then select API. On the API WSDL page, click Manage API Client Certificate. On the Certificate and Key Management page, in the API Client Certificate section, click Edit to open the API Client Certificate page.
To select a SAML request signing certificate, from Setup, enter Single in the Quick Find box, then select Single Sign-On Settings. Click to edit a setting or click New.

Features that use the default certificate include:

- AJAX proxy
- Delegated authentication
- PageReference.getContent() Apex call
- PageReference.getContentAsPDF() Apex call
- SAML with default certificate for single sign-on (SSO)
- Workflow automated messaging

**Deployment: More Flexible Quick Deployments, More Deployable Items**

You now have new ways to deploy changes to your org. Take advantage of the larger time window for quick deployments, add picklist values to change sets, and deploy suites of Apex tests.

**IN THIS SECTION:**

- **New Change Set Component**
  The components available for a change set vary by edition. This component is now available for change sets.

- **Get More Days to Schedule Your Quick Deployments**
  The time window to quick-deploy your validations has expanded from 4 days to 10 days. This larger time window provides you more flexibility for scheduling your quick deployment and helps minimize the impact on your org.

- **Deploy Apex Test Suites to Other Orgs**
  Apex test suites are now accessible through the Metadata API, using the ApexTestSuite type. You no longer need to recreate test suites in each of your testing orgs. Instead, create an Apex test suite once and deploy it and its test classes to each of your test environments. Now you can focus on more important things, like whether to call your new test method whatTheHeckIsWrongHere() or pleasePleasePleaseReturnTrue().

**SEE ALSO:**

- Metadata API

**New Change Set Component**

The components available for a change set vary by edition. This component is now available for change sets.

**Global Value Set**

A global picklist value set, which is the set of shared values that custom picklist fields can use. A global value set isn’t a field itself.
Get More Days to Schedule Your Quick Deployments

The time window to quick-deploy your validations has expanded from 4 days to 10 days. This larger time window provides you more flexibility for scheduling your quick deployment and helps minimize the impact on your org.

For example, if you successfully validated metadata components during off-peak hours on a weekend, you can wait until the following weekend to schedule your quick deployment of the validation. This change applies to change sets, Metadata API, and Metadata API–based tools, such as the Force.com Migration Tool.

SEE ALSO:

Salesforce Help: Quick Deployments
Metadata API Developer Guide: deployRecentValidation()
Force.com Migration Tool Guide: <sf:deployRecentValidation> Task

Deploy Apex Test Suites to Other Orgs

Apex test suites are now accessible through the Metadata API, using the ApexTestSuite type. You no longer need to recreate test suites in each of your testing orgs. Instead, create an Apex test suite once and deploy it and its test classes to each of your test environments. Now you can focus on more important things, like whether to call your new test method whatTheHeckIsWrongHere() or pleasePleasePleaseReturnTrue().

SEE ALSO:

Metadata API Developer Guide: ApexTestSuite
SOAP API Developer Guide: ApexTestSuite
SOAP API Developer Guide: TestSuiteMembership

Development: Create Your Own Salesforce App

Force.com helps you develop new applications and integrations for your organization or for resale to other organizations.

IN THIS SECTION:

Debugging: Log Fewer Irrelevant Events
Root out problems in your Salesforce org more easily, thanks to improvements to the debugging experience. Public users’ activity no longer generates unmanageably large debug logs. This feature is available in both Lightning Experience and Salesforce Classic.

Developer Console
Use new features of Developer Console to more easily manage code in your organization. This feature is available in both Lightning Experience and Salesforce Classic.

AppExchange: Introducing the Integrated Experience
The integrated AppExchange experience is now available in your Salesforce org. With the integrated experience, you can browse and search thousands of app, Lightning component, and consulting service listings directly from your org. It’s never been easier to connect with secure, pre-built solutions from the world’s leading business app marketplace. This feature is available in both Lightning Experience and Salesforce Classic.
Custom Metadata Types: Relationship Field Updates, Loader Enhancements, Management of Deleted Metadata

Build better apps than ever before with custom metadata types which let you base your apps on types of metadata rather than just data. Zoom your view on related records with relationship fields, power through record updates, easily delete or undelete relationship fields, and get the full scoop on referenced custom objects. This feature is available in both Lightning Experience and Salesforce Classic.

Apex Code

We’ve introduced a stub API to allow advanced developers to build their own mocking frameworks. We’ve also added diagnostic methods for Platform Cache and the ability to escape special characters in merge fields for Apex callouts that use named credentials. The Apex Test History page now shows the start date and time, and the number of failed and enqueued methods for the test run.

Lightning Components: Actions, Events, Styles, and Security

The Lightning Component framework powers Lightning Experience and Salesforce1. Use the framework to build mobile apps and pages in Lightning Experience, Salesforce1, Salesforce Classic, and Communities. Enhancements in this release are focused on customizing Lightning Experience and Salesforce1 with custom actions, a more sophisticated event bubbling model, and improved access to the Lightning Design System. It also includes previously announced security changes, including a delay in enforcement for LockerService. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Visualforce: Enhanced for Lightning Experience

Develop apps to customize your org using Visualforce. Visualforce language and feature improvements make app development easier. Changes in this release are focused on improving integration with Lightning Experience. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Lightning Design System

The Lightning Design System is a CSS Framework that provides a look and feel that’s consistent with Lightning Experience. The component classes enable you to build custom applications with a UI that is consistent with Salesforce, without having to reverse engineer our styles.

API

Access more metadata types and data objects in API version 38.0.

ISVforce: Automation of Package Uploads and Upgrades with the API

ISVforce tools make it easy to build, package, and distribute apps and Lightning components. This release takes the effort out of package management with package upload and upgrade automation using the Tooling API and standard objects, respectively. You can also address subscriber issues quickly by using automated email notifications.

Debugging: Log Fewer Irrelevant Events

Root out problems in your Salesforce org more easily, thanks to improvements to the debugging experience. Public users’ activity no longer generates unmanageably large debug logs. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

- Set a Browser Cookie to Enable Debug Logging for Guest Users
  Your public users generate a large volume of events, which can quickly fill up your debug logs. For this reason, logs are collected for site visitors who are using your Guest User license only when a public user’s browser has a special cookie. Logging of public users’ asynchronous activity isn’t available because asynchronous requests don’t include browser cookies. This feature is available in both Lightning Experience and Salesforce Classic.
Set a Browser Cookie to Enable Debug Logging for Guest Users

Your public users generate a large volume of events, which can quickly fill up your debug logs. For this reason, logs are collected for site visitors who are using your Guest User license only when a public user's browser has a special cookie. Logging of public users' asynchronous activity isn't available because asynchronous requests don't include browser cookies. This feature is available in both Lightning Experience and Salesforce Classic.

To enable logging for a guest user's synchronous activity:

1. Ask the user to set a browser cookie with a domain of .force.com, a name of debug_logs, and any value. (If you use a custom domain, ask your user to set the cookie for your domain rather than for .force.com.) Refer to the documentation for your user's browser for information on adding cookies. To add cookies, your user probably needs a browser plug-in or extension for web development.
   - To set a cookie for API requests made with Java code, use the URLConnection class and set the cookie value as follows.
     - If you use a .force.com domain, use this code.

```java
URL url = new URL("http://yourSite.force.com/");
URLConnection con = url.openConnection();
con.setDoOutput(true);
con.setRequestProperty("Cookie", "debug_logs=debug_logs,domain=.force.com");
con.setRequestProperty("Content-Type", "text/plain; charset=utf-8");
con.connect();
```

   - If you use a custom domain (for example, yourCustomDomain.com), use this code.

```java
URL url = new URL("http://yourCustomDomain.com/");
URLConnection con = url.openConnection();
con.setDoOutput(true);
con.setRequestProperty("Cookie", "debug_logs=debug_logs,domain=.force.com");
con.setRequestProperty("Content-Type", "text/plain; charset=utf-8");
con.connect();
```

   - To set a browser cookie in Google Chrome™:
     a. Navigate to your site.
     b. Open the Chrome DevTools Console by pressing Ctrl+Shift+J (Cmd+Opt+J on macOS).
     c. Execute a command to set the cookie.
       - If you use a .force.com domain, use this command.

```
document.cookie="debug_logs=debug_logs;domain=.force.com";
```

   - If you use a custom domain (for example, yourCustomDomain.com), use this command.

```
document.cookie="debug_logs=debug_logs;domain=yourCustomDomain.com";
```

   - To set a browser cookie in other browsers, install a plug-in or extension.

2. Find the name of your site's guest user.
   a. From Setup, enter Sites in the Quick Find box, then select Sites.
   b. Select your site from the Site Label column.
c. Select Public Access Settings > View Users.

3. Set a user-based trace flag on the guest user.
   a. From Setup, enter Debug Logs in the Quick Find box, then click Debug Logs.
   b. Click New.
   c. Set the traced entity type to User.
   d. Open the lookup for the Traced Entity Name field, and then find and select your guest user.
   e. Assign a debug level to your trace flag.
   f. Click Save.

Tip: Debug logs are for live troubleshooting. To record all site traffic, use event monitoring. For details, see the Sites section of SOAP API Developer Guide: EventLogFile.

SEE ALSO:
   Set Up Debug Logging

Developer Console

Use new features of Developer Console to more easily manage code in your organization. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:
   Rename and Edit Test Suites More Easily

   You can now rename test suites easily from within the Developer Console, using the Test Suite Manager’s new Rename Suite button. You can also edit a test suite by double-clicking the test suite’s name. This feature is available in both Lightning Experience and Salesforce Classic.

Rename and Edit Test Suites More Easily

You can now rename test suites easily from within the Developer Console, using the Test Suite Manager’s new Rename Suite button. You can also edit a test suite by double-clicking the test suite’s name. This feature is available in both Lightning Experience and Salesforce Classic.

AppExchange: Introducing the Integrated Experience

The integrated AppExchange experience is now available in your Salesforce org. With the integrated experience, you can browse and search thousands of app, Lightning component, and consulting service listings directly from your org. It’s never been easier to connect with secure, pre-built solutions from the world’s leading business app marketplace. This feature is available in both Lightning Experience and Salesforce Classic.
IN THIS SECTION:

AppExchange and Your Salesforce Org—Together at Last

Some things just go together, like Trailhead and Astro or Dreamforce and epic keynote selfies. We’re introducing another perfect match: AppExchange and Salesforce. Now you can install apps, components, and other AppExchange offerings without ever leaving your org.

To open the integrated AppExchange experience, go to the App Launcher and click AppExchange (1).

Note: To access the integrated experience from the App Launcher, you must have the “Download AppExchange Packages” permission.

From here, you can:

• Browse thousands of app, component, and consulting service listings
• Use sorting and filtering to see only the offerings that meet your business requirements
• View product screenshots and documentation, plus ratings and reviews from Salesforce community members
• Install a package in your org as part of a trial or subscription

In this example, we use searching and filtering to quickly find Lightning-compatible adoption apps.
If you build custom solutions in Lightning App Builder or Community Builder, the integrated AppExchange experience makes it easy to find components for your next project. To open the integrated experience in Lightning App Builder, go to the Lightning Components pane. In Community Builder, go to the Page Editor. Then click Get more on the AppExchange to browse a selection of components that are ready to plug into whatever you’re building.

Some AppExchange features, like writing reviews or watching demos, aren’t available in the integrated experience yet. We’re working hard to add those features in coming releases, but for now, we direct you to the AppExchange website.

SEE ALSO:

Lightning Experience: A Modern and Intelligent User Experience
Custom Metadata Types: Relationship Field Updates, Loader Enhancements, Management of Deleted Metadata

Build better apps than ever before with custom metadata types which let you base your apps on types of metadata rather than just data. Zoom your view on related records with relationship fields, power through record updates, easily delete or undelete relationship fields, and get the full scoop on referenced custom objects. This feature is available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

Metadata Relationship Fields Now Fully Supported (Generally Available)
Relationship fields for custom metadata types are fully supported in your production environment. Use metadata relationship fields to look up records of other custom metadata types. They work just like a configuration record of a custom object, which can look up a record of another custom object that contains application configuration data. But because they are custom metadata types, they act like true application configuration data rather than just business data. You can also look up EntityDefinitions, the objects that provide row-based access to metadata about standard and custom objects.

Metadata Relationship Fields to EntityDefinition Show Up as Links in List View Results
You can now easily navigate between related custom metadata records by creating list views with relationship fields. When you query custom metadata records with this list view, the relationship field value displays as a link that takes you to the management page of the referenced object or record. Previously, if the relationship field referenced an EntityDefinition, you had to navigate the Setup tree to find the referenced objects.

Do More with the Custom Metadata Loader
You can now update existing records of a custom metadata type using the custom metadata loader. Previously, you could only bulk-load new records.

Easily Manage a Custom Metadata Record When Deleting Its Referenced Object
If you try to delete a custom object that is referenced by a relationship field of a custom metadata record, Setup correctly returns an error. Setup now also displays links to the referencing custom metadata record. Previously, Setup provided only a text list of the records, and you had to manually navigate the Setup tree to delete or update them.

View Filtering on Metadata Relationship Fields Has Changed
When you create a view to search for custom metadata records, you can define a filter on a metadata relationship field. The way you specify the filter value, however, has changed from the pilot release for two cases.

All Is Not Lost—Restore Deleted Metadata Relationship Fields
Deleted relationship fields of a custom metadata type are now stored until your org permanently deletes them or 15 days has elapsed, whichever happens first. Until that time, you can restore the field. The relationship field’s data is also restored, unless the referenced object no longer exists. This behavior is similar to that of regular custom fields.

Limitations When Querying Custom Metadata Types with SOQL
This release includes exciting updates to custom metadata types, but it also brings a few limitations when using SOQL to query a relationship field.
Metadata Relationship Fields Now Fully Supported (Generally Available)

Relationship fields for custom metadata types are fully supported in your production environment. Use metadata relationship fields to look up records of other custom metadata types. They work just like a configuration record of a custom object, which can look up a record of another custom object that contains application configuration data. But because they are custom metadata types, they act like true application configuration data rather than just business data. You can also look up EntityDefinitions, the objects that provide row-based access to metadata about standard and custom objects.

Metadata Relationship Fields to EntityDefinition Show Up as Links in List View Results

You can now easily navigate between related custom metadata records by creating list views with relationship fields. When you query custom metadata records with this list view, the relationship field value displays as a link that takes you to the management page of the referenced object or record. Previously, if the relationship field referenced an EntityDefinition, you had to navigate the Setup tree to find the referenced objects.

Do More with the Custom Metadata Loader

You can now update existing records of a custom metadata type using the custom metadata loader. Previously, you could only bulk-load new records.

The loader also has a new home on GitHub.

Easily Manage a Custom Metadata Record When Deleting Its Referenced Object

If you try to delete a custom object that is referenced by a relationship field of a custom metadata record, Setup correctly returns an error. Setup now also displays links to the referencing custom metadata record. Previously, Setup provided only a text list of the records, and you had to manually navigate the Setup tree to delete or update them.

View Filtering on Metadata Relationship Fields Has Changed

When you create a view to search for custom metadata records, you can define a filter on a metadata relationship field. The way you specify the filter value, however, has changed from the pilot release for two cases.

In the pilot release, you could click a Lookup icon to select an available object. However, if the list of available objects was long, the lookup window was unwieldy and difficult to use. For consistency and simplicity, you now specify the filter value manually.

Filter by an EntityDefinition relationship field to find records that reference a particular object

1. Select the child’s metadata relationship field.
2. Select the operator.
3. For the filter value, enter the object name of the referenced object. To find the object name of a custom object, navigate to its Setup management page. For a standard object, use its API name.

Filter by a relationship field to find records that reference a record of another custom metadata type

1. Select the child’s metadata relationship field.
2. Select the operator.
3. For the filter value, enter the name of the custom metadata type of the parent’s record. To find the name of a custom metadata record, navigate to its detail page.
All Is Not Lost—Restore Deleted Metadata Relationship Fields

Deleted relationship fields of a custom metadata type are now stored until your org permanently deletes them or 15 days has elapsed, whichever happens first. Until that time, you can restore the field. The relationship field’s data is also restored, unless the referenced object no longer exists. This behavior is similar to that of regular custom fields.

For example, assume that you have a custom metadata record with the relationship field MyRelField that references the custom metadata record MyRecord. You delete MyRelField and then delete MyRecord. If you restore MyRelField, the field value for the record that referenced the now-deleted MyRecord is NULL. This behavior is also true for relationship fields of type EntityDefinition.

Limitations When Querying Custom Metadata Types with SOQL

This release includes exciting updates to custom metadata types, but it also brings a few limitations when using SOQL to query a relationship field.

You can’t use the ORDER BY clause on a relationship field of a custom metadata type.

SOQL and Setup (or Metadata API) queries sometimes behave differently.

If you use SOQL to query a custom metadata type, the results include only those records that reference objects you have permission to access. However, a similar query within Setup or using the Metadata API results in all relevant records, including records that reference objects you can’t access.

SOQL limits apply when querying custom metadata types.

When you execute a join query to an EntityDefinition object, the query counts toward your Apex transaction SOQL query limit. If you join to another custom metadata type, however, the query doesn’t count toward your limit.

Apex Code

We’ve introduced a stub API to allow advanced developers to build their own mocking frameworks. We’ve also added diagnostic methods for Platform Cache and the ability to escape special characters in merge fields for Apex callouts that use named credentials. The Apex Test History page now shows the start date and time, and the number of failed and enqueued methods for the test run.

For detailed information on these enhancements, refer to the Apex Developer Guide.

IN THIS SECTION:

Build a Mocking Framework with the Apex Stub API (Pilot)
Apex now provides a stub API for implementing your own mocking framework. You can define the behavior of stub objects, which are created at runtime as anonymous subclasses of Apex classes. The stub API is composed of the SystemStubProvider interface and the SystemTest.createStub() method.

Monitor Platform Cache with Diagnostic Methods
Platform Cache now provides new methods for monitoring how your cache is being used.

Escape Special Characters in Merge Fields for Apex Callouts That Use Named Credentials
Your code can use merge fields to construct the bodies of Apex callouts to named credential–defined endpoints. Those merge fields now support the HTMLencode function so you can escape special characters, such as underscore (_) and ampersand (&), in the merge fields in callout bodies.

View More Information About Apex Test Runs
The Apex Test History page now shows the start date and time for test runs. In addition, the status column has been updated to show the number of failed and enqueued methods for the test run. This feature is available in Lightning Experience only.
New and Changed Apex Classes, Exceptions, and Interfaces

These classes, exceptions, and interfaces are new or have changed.

ConnectApi (Chatter in Apex)

Create custom experiences in Salesforce using Chatter in Apex. In this release, you can flag posts and comments as inappropriate or spam, include rich text and inline images in your comments, provide article and file recommendations to guest users, and more.

Build a Mocking Framework with the Apex Stub API (Pilot)

Apex now provides a stub API for implementing your own mocking framework. You can define the behavior of stub objects, which are created at runtime as anonymous subclasses of Apex classes. The stub API is composed of the System.StubProvider interface and the System.Test.createStub() method.

Note: We provide the Apex stub API to selected customers through a pilot program that requires agreement to specific terms and conditions. The Apex stub API is subject to change and 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.

A mocking framework has many benefits. It can streamline and improve testing and help you create faster, more reliable tests. You can use it to test classes in isolation, which is important for unit testing. Building your mocking framework with the stub API can also be beneficial because stub objects are generated at runtime. Because these objects are generated dynamically, you don’t have to package and deploy test classes.

To use a stub version of an Apex class:

• Define the behavior of the stub class by implementing the System.StubProvider interface.
• Instantiate a stub object by using the System.Test.createStub() method.
• Invoke the relevant method of the stub object from within a test class.

Note: This feature is intended for advanced Apex developers. Using it requires a thorough understanding of unit testing and mocking frameworks. If you think that a mocking framework is something that makes fun of you, you might want to do a little more research before reading further.

Monitor Platform Cache with Diagnostic Methods

Platform Cache now provides new methods for monitoring how your cache is being used.

The new Apex methods allow you to monitor the following values for org cache, session cache, and partitions.

• Average get time
• Average item size
• Maximum get time
• Maximum item size
• Key miss rate
• Total number of keys
Escape Special Characters in Merge Fields for Apex Callouts That Use Named Credentials

Your code can use merge fields to construct the bodies of Apex callouts to named credential–defined endpoints. Those merge fields now support the HTMLENCODE function so you can escape special characters, such as underscore (_) and ampersand (&), in the merge fields in callout bodies.

HTMLENCODE is an existing formula function. Other formula functions aren't supported, and you can't use HTMLENCODE on merge fields in HTTP headers.

Example: The following example escapes special characters in credentials.

```apex
req.setBody('UserName:{!HTMLENCODE($Credential.Username)}')
req.setBody('Password:{!HTMLENCODE($Credential.Password)}')
```

SEE ALSO:
- Salesforce Help: Named Credentials
- Apex Developer Guide: Merge Fields for Apex Callouts That Use Named Credentials

View More Information About Apex Test Runs

The Apex Test History page now shows the start date and time for test runs. In addition, the status column has been updated to show the number of failed and enqueued methods for the test run. This feature is available in Lightning Experience only.

From Setup, enter Apex in the Quick Find box, and select Apex Test History to view all test run results for your org. Test results are retained for 30 days after they finish running, unless cleared.

New and Changed Apex Classes, Exceptions, and Interfaces

These classes, exceptions, 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 Interface
This interface was introduced in this release.

New Apex Classes
These classes were introduced in this release.

Classes in the Auth Namespace

JWS Class
The new Auth.JWS class contains methods that apply a digital signature to a JSON Web Token (JWT), using a JSON Web Signature (JWS) data structure. This class creates the signed JWT bearer token, which can be used to request an OAuth access token in the OAuth 2.0 JWT bearer token flow.

clone()
Makes a duplicate copy of the JWS object.

getCompactSerialization()
Returns the compact serialization representation of the JWS as a concatenated string, with the encoded JWS header, encoded JWS payload, and encoded JWS signature strings separated by period (\'\.') characters.

JWT Class
The new Auth.JWT class contains methods that generate the JSON Claims Set in a JSON Web Token (JWT). The resulting Base64-encoded payload can be passed as an argument to create an instance of the Auth.JWS class.

clone()
Makes a duplicate copy of the JWT object.

getAdditionalClaims()
Returns a map of additional claims in the JWT, where the key string contains the name of the claim, and the value contains the value of the claim.

getAud()
Returns the audience claim that identifies the intended recipients of the JWT.

getIss()
Returns the issuer claim that identifies the issuer of the JWT.

getNbfClockSkew()
Returns the not before claim that identifies the time before which the JWT must not be accepted for processing, while allowing some leeway for clock skew.

getSub()
Returns the subject claim that identifies the current user of the JWT.

getValidityLength()
Returns the length of time that the JWT is valid, which affects the expiration claim.

setAdditionalClaims(additionalClaims)
Sets the additional claims in the JWT. Returned by the getAdditionalClaims() method.

setAud(aud)
Sets the audience claim in the JWT. Returned by the getAud() method.

setIss(iss)
Sets the issuer claim in the JWT. Returned by the getIss() method.
setNbfClockSkew(nbfClockSkew)
Sets the not before claim in the JWT. Returned by the getNbfClockSkew() method.

setSub(sub)
Sets the subject claim in the JWT. Returned by the getSub() method.

setValidityLength(validityLength)
Sets the length of time that the JWT is valid, which affects the expiration claim. Returned by the getValidityLength() method.

toJSONString()
Generates the JSON object representation of the Claims Set as an encoded JWT payload.

**JWTBearerTokenExchange Class**
The new Auth.JWTBearerTokenExchange class contains methods that POST the signed JWT bearer token to a token endpoint to request an access token, in the OAuth 2.0 JWT bearer token flow.

clon()
Makes a duplicate copy of the JWTBearerTokenExchange object.

getAccessToken()
Returns the access_token in the token response to the JWT bearer token request.

getGrantType()
Returns the grant type specified in the JWT bearer token request. The grant type value defaults to urn:ietf:params:oauth:grant-type:jwt-bearer.

getHttpReponse()
Returns the full System.HttpResponse token response to the JWT bearer token request.

getJWS()
Returns the JWS specified in the JWT bearer token request.

getTokenEndpoint()
Returns the token endpoint that the JWT bearer token request is POSTed to.

setGrantType(grantType)
Sets the grant type in the JWT bearer token request. Returned by the getGrantType() method.

setJWS(jws)
Sets the JWS in the JWT bearer token request. Returned by the getJWS() method.

setTokenEndpoint(tokenEndpoint)
Sets the token endpoint that the JWT bearer token request is POSTed to. Returned by the getTokenEndpoint() method.

**Changed Apex Classes**
These existing classes have new or changed methods or constants.

**Cache.Org Class**

**New Methods**

getAvgGetTime()
Returns the average time taken to get a key from the org cache, in nanoseconds.

getAvgValueSize()
Returns the average item size for keys in the org cache, in bytes.
getMaxGetTime()  
Returns the maximum time taken to get a key from the org cache, in nanoseconds.

getMaxValueSize()  
Returns the maximum item size for keys in the org cache, in bytes.

getMissRate()  
Returns the miss rate in the org cache.

getNumKeys()  
Returns the total number of keys in the org cache.

Cache.Partition Class  
New Methods

getAvgGetTime()  
Returns the average time taken to get a key from the partition, in nanoseconds.

getAvgValueSize()  
Returns the average item size for keys in the partition, in bytes.

getMaxGetTime()  
Returns the maximum time taken to get a key from the partition, in nanoseconds.

getMaxValueSize()  
Returns the maximum item size for keys in the partition, in bytes.

getMissRate()  
Returns the miss rate in the partition.

getNumKeys()  
Returns the total number of keys in the partition.

Cache.Session Class  
New Methods

getAvgGetTime()  
Returns the average time taken to get a key from the session cache, in nanoseconds.

getAvgValueSize()  
Returns the average item size for keys in the session cache, in bytes.

getMaxGetTime()  
Returns the maximum time taken to get a key from the session cache, in nanoseconds.

getMaxValueSize()  
Returns the maximum item size for keys in the session cache, in bytes.

getMissRate()  
Returns the miss rate in the session cache.

getNumKeys()  
Returns the total number of keys in the session cache.

QuickAction.DescribeLayoutSection Class  
New Methods

getLayoutSectionId()  
Returns the ID of the record details section in the layout.
isCollapsed()
Indicates whether the record details section is collapsed (true) or expanded (false). If you build your own app, you can use this method to see whether the current user collapsed a section, and respect that preference in your own UI.

New Properties

collapsed
The current view of the record details section: collapsed (true) or expanded (false).

layoutsectionid
The unique ID of the record details section in the layout.

QuickAction.DescribeQuickActionResult Class

New Methods

getLightningComponentBundleId()
If the custom action invokes a Lightning component, returns the ID of the Lightning component bundle to which the component belongs.

getLightningComponentBundleName()
If the custom action invokes a Lightning component, returns the name of the Lightning component bundle to which the component belongs.

getLightningComponentQualifiedName()
If the custom action invokes a Lightning component, returns the fully qualified name of the Lightning component invoked by the custom action.

getShowQuickActionLcHeader()
Returns an indication of whether the Lightning component quick action header and footer are shown.

New Properties

lightningcomponentbundleid
If the custom action invokes a Lightning component, the ID of the Lightning component bundle to which the component belongs.

lightningcomponentbundlename
If the custom action invokes a Lightning component, the name of the Lightning component bundle to which the component belongs.

lightningcomponentqualifiedname
The fully qualified name of the Lightning component invoked by the custom action.

showquickactionlcheader
Indicates whether the Lightning component quick action header and footer are shown. If false, then both the header containing the quick action title and the footer containing the Save and Cancel buttons aren’t displayed.

Schema.DescribeSobjectResult Class

New Method

getHasSubtypes()
Indicates whether the object has subtypes. The Account object, which has subtype PersonAccount, is the only object that will return true.

New Property

hassubtypes
Indicates whether the object has subtypes. The Account object, which has subtype PersonAccount, is the only object that will return true.
System. System Class

New Method

movePassword(targetUserId, sourceUserId)

Moves the specified user’s password to a different user. If you require access to this method, contact Salesforce.

System. Test Class

New Method

createStub(parentType, stubProvider) (Pilot)

Creates a stubbed version of an Apex class that you can use for testing. This method is part of the Apex stub API. You can use it with the System.StubProvider interface to create a mocking framework.

New Apex Exception

This exception was introduced in this release.

Auth Namespace

Auth.JWTBearerTokenExchange.JWTBearerTokenExchangeException

Indicates a problem with the response from the token endpoint in the JWTBearerTokenExchange class. This exception occurs when the HTTP response during the OAuth 2.0 JWT bearer token flow:

- Fails to return an access token.
- Is not in JSON format.
- Returns a response code other than a 200 “OK” success code.

New Apex Interface

This interface was introduced in this release.

StubProvider Interface (Pilot)

StubProvider is a callback interface that you can use as part of the Apex stub API to implement a mocking framework. Use this interface with the Test.createStub() method to create stubbed Apex objects for testing.

handleMethodCall(stubbedObject, stubbedMethodName, returnType, listOfParamTypes, listOfParamNames, listOfArgs)

Use this method to define the behavior of each method of a stubbed class.

ConnectApi (Chatter in Apex)

Create custom experiences in Salesforce using Chatter in Apex. In this release, you can flag posts and comments as inappropriate or spam, include rich text and inline images in your comments, provide article and file recommendations to guest users, and more.

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, it’s possible to access some Chatter data using SOQL queries and objects. However, ConnectApi classes expose Chatter data in a much simpler way. Data is localized and structured for display. For example, instead of making many 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 and Changed Chatter in Apex Classes
- New and Changed Chatter in Apex Input Classes
- New and Changed Chatter in Apex Output Classes
- New and Changed Chatter in Apex Enums

New and Changed Chatter in Apex Classes

Community Moderation

These methods are in the ConnectApi.CommunityModeration class.

Flag posts as inappropriate or spam and include a note

- `addFlagToFeedElement(communityId, feedElementId, type)`—Add a moderation flag of the specified type to a feed element.
- `addFlagToFeedElement(communityId, feedElementId, note)`—Add a moderation flag with a note to a feed element.
- `addFlagToFeedElement(communityId, feedElementId, type, note)`—Add a moderation flag of the specified type with a note to a feed element.
- `addFlagToFeedElement(communityId, feedElementId, type, visibility)`—Add a moderation flag of the specified type and visibility to a feed element.
- `addFlagToFeedElement(communityId, feedElementId, visibility, note)`—Add a moderation flag of the specified visibility with a note to a feed element.
- `addFlagToFeedElement(communityId, feedElementId, type, visibility, note)`—Add a moderation flag of the specified type and visibility with a note to a feed element.

Flag comments as inappropriate or spam and include a note

- `addFlagToComment(communityId, commentId, type)`—Add a moderation flag of the specified type to a comment.
- `addFlagToComment(communityId, commentId, note)`—Add a moderation flag with a note to a comment.
- `addFlagToComment(communityId, commentId, type, note)`—Add a moderation flag of the specified type with a note to a comment.
- `addFlagToComment(communityId, commentId, type, visibility)`—Add a moderation flag of the specified type and visibility to a comment.
- `addFlagToComment(communityId, commentId, visibility, note)`—Add a moderation flag of the specified visibility with a note to a comment.
- `addFlagToComment(communityId, commentId, type, visibility, note)`—Add a moderation flag of the specified type and visibility with a note to a comment.

Chatter Feeds

These methods are in the ConnectApi.ChatterFeeds class.
Include rich text in a comment
Use the existing `postCommentToFeedElement(communityId, feedElementId, comment, feedElementFileUpload)` method with the existing `ConnectApi.MarkupBeginSegmentInput` and `ConnectApi.MarkupEndSegmentInput` classes.

Rich text and inline images are supported in comment bodies in version 35.0 and later.

Include an inline image in a comment
Use the existing `postCommentToFeedElement(communityId, feedElementId, comment, feedElementFileUpload)` method with the existing `ConnectApi.InlineImageSegmentInput` class.

Rich text and inline images are supported in comment bodies in version 35.0 and later.

Mention a user by user name instead of ID
Use the existing `postFeedElement(communityId, feedElement)` method with the updated `ConnectApi.MentionSegmentInput` class.

Approve a comment or set its status to pending review
Use the new `setFeedCommentStatus(communityId, commentId, status)` method with the existing `ConnectApi.StatusCapabilityInput` class.

Only users with the “Can Approve Feed Post and Comment” permission can set the status of a feed post or comment.

Set the status of a feed post to pending review
Use the existing `setFeedEntityStatus(communityId, feedElementId, status)` method with the existing `ConnectApi.StatusCapabilityInput` class.

Only users with the “Can Approve Feed Post and Comment” permission can set the status of a feed post or comment.

Managed Topics
This method is in the `ConnectApi.ManagedTopics` class.

Get managed topics associated with a list of topics
Use the new `getManagedTopics(communityId, managedTopicType, recordIds, depth)` method, where `recordIds` is a list of up to 10 topic IDs.

⚠️ Important: In version 38.0 and later, `getManagedTopics(communityId, managedTopicType, recordId, depth)` isn’t supported. Use the new method instead.

Recommendations
These methods are in the `ConnectApi.Recommendations` class.

Article and file recommendations are available to guest users
If your community allows access without logging in, these methods return only article and file recommendations for guest users.

- `getRecommendationsForUser(communityId, userId, contextAction, contextObjectId, channel, maxResults)`
- `getRecommendationsForUser(communityId, userId, action, contextAction, contextObjectId, channel, maxResults)`
- `getRecommendationsForUser(communityId, userId, action, objectCategory, contextAction, contextObjectId, channel, maxResults)`
New and Changed Chatter in Apex Input Classes

Chatter Feeds

ConnectApi.FeedElementCapabilitiesInput
The new topics property is a list of topics to assign to a feed element.

ConnectApi.MentionSegmentInput
The new username property is the user name of the user to mention.

ConnectApi.TopicsCapabilityInput
This new input class is a subclass of ConnectApi.FeedElementCapabilityInput. It has these properties:

• contextTopicName—Name of the parent topic in the community to which the feed element belongs.
• topics—List of topics to assign to the feed element.

Topics

ConnectApi.TopicsCapabilityInput
This new input class has these properties:

• contextTopicName—Name of the parent topic in the community to which the feed element belongs.
• topics—List of topics to assign to the feed element.

New and Changed Chatter in Apex Output Classes

Chatter Feeds

ConnectApi.CommentCapabilities
The new status property indicates whether a comment has a status that determines its visibility.

ConnectApi.CommentPage
The total property is the total number of published comments.

ConnectApi.RelatedQuestion
The new interactions property is the number of times a related question has been viewed, liked, or commented on.

ConnectApi.SocialAccount
The new externalSocialAccountId property is the ID of the external social account, if available.

ConnectApi.SocialPostCapability
This response body has these new properties.

• deletedBy—The user who deleted the social post.
• messageType—The message type of the social post. Values are:
  – Comment
  – Direct
  – Post
  – PrivateMessage
  – Reply
  – Retweet
  – Tweet
• **recipientId**—The ID of the recipient of the social post.

**Knowledge**

*ConnectApi.ArticleSummary*

The new **viewCount** property is the number of times a knowledge article has been viewed.

**Messages**

*ConnectApi.EmailMessageCapability*

The new **totalAttachments** property is the total number of attachments in the email message.

**New and Changed Chatter in Apex Enums**

For complete information about these enums, see **ConnectApi Enums** in *Apex Developer Guide*.

*ConnectApi.CommunityFlagType*

This new enum specifies the type of moderation flag.

- **FlagAsInappropriate**—Flag for inappropriate content.
- **FlagAsSpam**—Flag for spam.

*ConnectApi.FeedSortOrder*

The new **Relevance** value specifies a feed sorted by the most relevant content. This sort order is available only for questions with topics within a navigational hierarchy in communities with the Customer Service (Napili) template.

*ConnectApi.SocialPostMessageType*

This new enum specifies the message type of the social post.

- **Comment**
- **Direct**
- **Post**
- **PrivateMessage**
- **Reply**
- **Retweet**
- **Tweet**
Lightning Components: Actions, Events, Styles, and Security

The Lightning Component framework powers Lightning Experience and Salesforce1. Use the framework to build mobile apps and pages in Lightning Experience, Salesforce1, Salesforce Classic, and Communities. Enhancements in this release are focused on customizing Lightning Experience and Salesforce1 with custom actions, a more sophisticated event bubbling model, and improved access to the Lightning Design System. It also includes previously announced security changes, including a delay in enforcement for LockerService. This feature is available in Lightning Experience and all versions of the Salesforce1 mobile app.

Use out-of-the-box components or build your own components with JavaScript, HTML, CSS, Apex, or any web-enabled code.

The AppExchange for Components enables you to install components created by Salesforce partners or publish your own components.

For more information, refer to the Lightning Components Developer Guide.

IN THIS SECTION:

- **Introducing Base Lightning Components**
  Base Lightning components are the building blocks that make up the modern Lightning Experience, Salesforce1, and Lightning Communities user interfaces.

- **Introducing Lightning Data Service (Developer Preview)**
  Use Lightning Data Service to load, create, edit, or delete a record in your component, without requiring Apex code. Lightning Data Service handles sharing rules and field level security for you. In addition to not needing Apex, Lightning Data Service improves performance and user interface consistency.

- **Enable Lightning Components for Custom Actions**
  Add the `force:lightningQuickAction` or `force:lightningQuickActionWithoutHeader` interface to a Lightning component to enable it to be used as a custom action in Lightning Experience or Salesforce1. You can use components that implement one of these interfaces as *object-specific* actions in both Lightning Experience and Salesforce1. You can use them as *global* actions only in Salesforce1.

- **Access Check Violations Are Now Enforced**
  Access check enforcement was a critical update in Summer ’16 and will be enforced for all orgs sometime between October 15 and October 19, 2016. Improved access check enforcement for Lightning resources enables component authors to have greater control over how their components are used.

- **LockerService Critical Update Postponed**
  LockerService is a powerful security architecture for Lightning components that was a critical update for Summer ’16. This critical update was scheduled for auto-activation in Winter ’17. The auto-activation date has been postponed until Summer ’17.

- **All Orgs Can Toggle the LockerService Critical Update**
  Previously, some orgs didn’t have the option to deactivate the critical update without contacting Salesforce. Since the critical update has been extended until Summer ’17, we’ve simplified this process so that these orgs can now deactivate the critical update. Also, there is a new setting on the Lightning Components setup page to let you control whether LockerService is enforced for components installed from a managed package. There is no behavior change for LockerService enforcement for existing orgs.

- **Capture Events Before They Bubble Up and Away**
  The Lightning Component framework supports a new capture phase for component and application events. Previously, the framework only supported a bubble phase for component events. The framework now also supports the bubble phase for application events. These phases are similar to DOM handling patterns and provide an opportunity for interested components to interact with an event and potentially control the behavior for subsequent handlers.
Handle Bubbled Events in Container Components
Some components contain other components but aren’t the owner of those components. These components are known as container components. You can now handle captured or bubbled events in container components. This feature paves the way for wrapper components that provide event handling behavior around their dynamic content, enabling new patterns for component design, composition, and reuse.

Events from Dynamically Created Components Propagate Properly
Before Winter ’17, if you created a component programmatically using `$A.createComponent()`, events didn’t propagate to the component’s containment hierarchy. This bug meant that there was a difference in event propagation behavior depending on whether the event was fired in a component created in markup versus code. In Winter ’17, we fixed event propagation behavior so that components created programmatically in code behave the same way as components created declaratively in markup.

Use the Lightning Design System in Lightning Apps
Use the Lightning Design System to style your Lightning apps by extending `force:slds` or using a static resource. The Salesforce Lightning Design System provides a look and feel that’s consistent with Lightning Experience. Use Lightning Design System styles to give your custom applications a UI that is consistent with Salesforce, without having to reverse-engineer our styles.

Create a Consistent Look with the Lightning Design System in Lightning Out and Lightning Components for Visualforce
The Lightning Design System is now automatically added to your Lightning Out and Lightning Components for Visualforce apps. The Lightning Design System provides a look and feel that’s consistent with Lightning Experience.

Restrict Your Custom Lightning Components to Specific Objects
If you have a custom Lightning component bundle designed for use on Lightning pages, add the new `<sfdc:object>` tag set to the .design file to restrict the component only to certain objects.

Navigate from a Lightning Component to Another (Beta)
The `force:navigateToComponent` event enables you to navigate to another component easily within Salesforce1 and Lightning Experience.

Debug Lightning Components Faster and Easier with Salesforce Lightning Inspector
Get component descriptions from more product areas, see transactions graphically, review event call stacks, and get the Salesforce Lightning Inspector DevTools extension in more languages.

New and Changed Lightning Components
Components help you build apps faster. Use them in your Lightning apps or in Salesforce1.

New Lightning Events
Events add a layer of interaction to your components.

Introducing Base Lightning Components
Base Lightning components are the building blocks that make up the modern Lightning Experience, Salesforce1, and Lightning Communities user interfaces.

Base Lightning components incorporate Lightning Design System markup and classes, providing improved performance and accessibility with a minimum footprint.

These base components handle the details of HTML and CSS for you. Each component provides simple attributes that enable variations in style. This means that you typically don’t need to use CSS at all. The simplicity of the base Lightning component attributes and their clean and consistent definitions make them easy to use, enabling you to focus on your business logic.

You can find base Lightning components in the `lightning` namespace to complement the existing `ui` namespace components. In instances where there are matching `ui` and `lightning` namespace components, we recommend that you use the `lightning` namespace component. The `lightning` namespace components are optimized for common use cases. Beyond being equipped with the Lightning Design System styling, they handle accessibility, real-time interaction, and enhanced error messages.
In subsequent releases, we intend to provide additional base Lightning components. We expect that in time the `lightning` namespace will have parity with the `ui` namespace and go beyond it.

In addition, the base Lightning components will evolve with the Lightning Design System over time. This ensures that your customizations continue to match Lightning Experience and Salesforce1.

Note: This release contains a beta version of a few components that are production quality but have known limitations. This feature isn’t generally available unless or until Salesforce announces its general availability in documentation or in press release 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 this feature in the IdeaExchange.

The following components are new. For more information on these components, refer to the *Lightning Components Developer Guide*.

- **lightning:badge**
  A label that holds a small amount of information, such as the number of unread notifications.

- **lightning:button**
  A button element. Buttons can be either a label only, label and icon, body only, or body and icon.

- **lightning:buttonGroup**
  Represents a set of buttons that can be displayed together to create a navigational bar.

- **lightning:buttonIcon**
  An icon-only HTML button.

- **lightning:buttonMenu (Beta)**
  Represents a button that when clicked displays a dropdown menu of actions.

- **lightning:card**
  Applies a stylized container around a grouping of information. The information could be a single item or a group of items such as a related list.

- **lightning:formattedDateTime (Beta)**
  Displays formatted date and time.

- **lightning:formattedNumber (Beta)**
  Displays formatted numbers for decimals, currency, and percentages.

- **lightning:icon**
  A visual element that provides context and enhances usability. Icons can be used inside the body of another component or on their own.

- **lightning:input (Beta)**
  Represents interactive controls that accept user input depending on the type attribute.

- **lightning:layout**
  Represents a responsive grid system for arranging containers on a page.

- **lightning:layoutItem**
  An item in a `lightning:layout`.

- **lightning:menuItem (Beta)**
  Represents a menu item within the `lightning:buttonMenu` dropdown component.

- **lightning:select**
  Creates an HTML `select` element.

- **lightning:spinner**
  Represents an animated spinner.
lightning:tab (Beta)
Represents a single tab that is nested in a lightning:tabset component.

lightning:tabset (Beta)
Displays a tabbed container with multiple content areas.

lightning:textarea
Represents a multiline text input.

Changed Components
The following components have changed since the initial release.

lightning:button
The following attributes are new.
- **name**—The name for the button element. This value is optional and can be used to identify the button in a callback.
- **value**—The value for the button element. This value is optional and can be used when submitting a form.

lightning:card
The compact variant is no longer supported. Additionally, the styling in the card body has been removed such that it's no longer center aligned. You can use the Lightning Design System helper classes to modify the look and behavior of the card body.

lightning:buttonIcon
The following attributes are new.
- **name**—The name for the button element. This value is optional and can be used to identify the button in a callback.
- **value**—The value for the button element. This value is optional and can be used when submitting a form.

lightning:buttonMenu
The following attributes are new.
- **menuAlignment**—Determines the alignment of the menu relative to the button. Available options are left, center, and right. This value defaults to left.
- **name**—The name for the button element. This value is optional and can be used to identify the button in a callback.
- **value**—The value for the button element. This value is optional and can be used when submitting a form.

The following attributes have been changed.
- **onSelect**—This attribute name has been changed back to onSelect.
- **size**—This attribute has been renamed iconSize.

Additionally, the expression to determine the selected menu item has changed from event.detail.target to event.detail.menuItem.

lightning:input
The following attributes have been changed.
- The checked attribute value now defaults to false.
- The step attribute has been changed from Decimal type to Object. This attribute now supports any as a value to allow any float value in a user’s input.

lightning:tabset
The onSelect attribute name has been changed back to onSelect. Additionally, the expression to determine the selected tab has changed from event.detail.target to event.detail.selectedTab.

lightning:tooltip
This component is no longer available in Winter ’17. Hang on tight!
Base Lightning Components Considerations

Learn about the guidelines on using the base Lightning components.

We recommend that you don’t depend on the markup of a Lightning component as its internals can change in the future. For example, using `cmp.get("v.body")` and examining the DOM elements can wreak havoc should the component markup change down the road. With LockerService enforced, you won’t be able to traverse the DOM for components you don’t own. Instead of accessing the DOM tree, you can rely on the component tree and take advantage of value binding with component attributes. For example, you’ll go far with `cmp.find("myInput").get("v.name")` instead of `cmp.find("myInput").getElement().name`.

Many of the base Lightning components are still evolving and the following considerations can help you while you’re building your apps.

**lightning:buttonMenu (Beta)**

This component contains menu items that are created only if the button is triggered. You won’t be able to reference the menu items during initialization or if the button isn’t triggered yet.

**lightning:formattedDateTime (Beta)**

This component provides fallback behavior in Apple Safari 10 and below. The following formatting options have exceptions when using the fallback behavior in older browsers.

- `era` is not supported.
- `timeZoneName` appends `GMT` for short format, `GMT-h:mm` or `GMT+h:mm` for long format.
- `timeZone` supports `UTC`. If another timezone value is used, `lightning:formattedDateTime` uses the browser timezone.

**lightning:formattedNumber (Beta)**

This component provides the following fallback behavior in Apple Safari 10 and below.

- If `style` is set to `currency`, providing a `currencyCode` value that’s different from the locale displays the currency code instead of the symbol. The following example displays \( EUR12.34 \) in fallback mode and €12.34 otherwise.

  ```html
  <lightning:formattedNumber value="12.34" style="currency"
  currencyCode="EUR"/>
  ```

- `currencyDisplayAs` supports `symbol` only. The following example displays $12.34 in fallback mode only if the `currencyCode` matches the user’s locale currency and USD12.34 otherwise.

  ```html
  <lightning:formattedNumber value="12.34" style="currency"
  currencyCode="USD" currencyDisplayAs="symbol"/>
  ```

**lightning:input (Beta)**

The `file` type is not supported. Also, date pickers are available in the following components but they don’t inherit the Lightning Design System styling.

- `<lightning:input type="date" />`
- `<lightning:input type="datetime-local" />`

Fields for percentage and currency input must specify a step increment of 0.01 as required by the native implementation.

  ```html
  <lightning:input type="number" name="percentVal" label="Enter a percentage value" formatter="percent" step="0.01" />
  ```
When working with checkboxes, radio buttons, and toggle switches, use `aura:id` to group and traverse the array of components. Grouping them enables you to use `get("v.checked")` to determine which elements are checked or unchecked without reaching into the DOM. You can also use the `name` and `value` attributes to identify each component during the iteration. The following example groups three checkboxes together using `aura:id`.

```xml
<aura:component>
  <form>
    <fieldset>
      <legend>Select your favorite color:</legend>
      <lightning:input type="checkbox" label="Red"
      name="color1" value="1" aura:id="colors"/>
      <lightning:input type="checkbox" label="Blue"
      name="color2" value="2" aura:id="colors"/>
      <lightning:input type="checkbox" label="Green"
      name="color3" value="3" aura:id="colors"/>
    </fieldset>
    <lightning:button label="Submit" onclick="!c.submitForm"/>
  </form>
</aura:component>
```

In your client-side controller, you can retrieve the array using `cmp.find("colors")` and inspect the `checked` values.

**lightning:tab (Beta)**

This component creates its body during runtime. You won't be able to reference the component during initialization. Referencing the component using `aura:id` might return unexpected results, such as the component returning an undefined value when implementing `cmp.find("myComponent")`.

**lightning:tabset (Beta)**

When you load more tabs than can fit the width of the viewport, the tabset provides navigation buttons that scrolls horizontally to display the overflow tabs.

### Introducing Lightning Data Service (Developer Preview)

Use Lightning Data Service to load, create, edit, or delete a record in your component, without requiring Apex code. Lightning Data Service handles sharing rules and field level security for you. In addition to not needing Apex, Lightning Data Service improves performance and user interface consistency.

**Note:** Lightning Data Service is available as a developer preview. Lightning Data Service isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. You can provide feedback and suggestions for Lightning Data Service on the IdeaExchange.

At the simplest level, you can think of Lightning Data Service as the Lightning Components version of the Visualforce standard controller. While this statement is an over-simplification, it serves to illustrate a point. Whenever possible, your components should use Lightning Data Service to read and modify Salesforce data.

Data access with Lightning Data Service is usually simpler than the equivalent using a server-side Apex controller. Read-only access can be entirely declarative in your component's markup. For code that modifies data, your component's JavaScript controller is roughly the same amount of code, and you eliminate the Apex entirely. Additionally, all of your data access code is consolidated into your component, which significantly reduces complexity.
Lightning Data Service provides other benefits aside from the code. It’s built on highly efficient local storage that’s shared across all components that use it. Records loaded in Lightning Data Service are cached and shared across components.

Components accessing the same record see significant performance improvements, because a record is only loaded once, no matter how many components are using it. Shared records also improve user interface consistency. When one component updates a record, any other components using it are notified, and in most cases refresh automatically.

SEE ALSO:  
Lightning Components Developer Guide: Lightning Data Service (Developer Preview)

Enable Lightning Components for Custom Actions

Add the force:lightningQuickAction or force:lightningQuickActionWithoutHeader interface to a Lightning component to enable it to be used as a custom action in Lightning Experience or Salesforce1. You can use components that implement one of these interfaces as object-specific actions in both Lightning Experience and Salesforce1. You can use them as global actions only in Salesforce1.

When used as actions, components that implement the force:lightningQuickAction interface display in a panel with standard action controls, such as a Cancel button. These components can also display and implement their own controls, but should be prepared for events from the standard controls.

Components that implement the force:lightningQuickActionWithoutHeader interface display in a panel without additional controls and are expected to provide a complete user interface for the action.

SEE ALSO:  
Launch a Lightning Component from an Action  
Lightning Components Developer Guide: Configure Components for Custom Actions

Access Check Violations Are Now Enforced

Access check enforcement was a critical update in Summer ’16 and will be enforced for all orgs sometime between October 15 and October 19, 2016. Improved access check enforcement for Lightning resources enables component authors to have greater control over how their components are used.

You can control access to Lightning resources via the access system attribute on these tags:

- <aura:application>
The default value for Lightning resources is `access="public"`, which makes the resources available only within the same namespace. This sample component has global access.

```aura:component access="global">
  ...
</aura:component>
```

### Access Violations

If your code accesses a resource, such as a component or attribute, that doesn’t have an access system attribute allowing you to access it, the code doesn’t execute or returns `undefined`.

If you enabled debug mode, you also see a popup error message.

### Anatomy of an Access Check Error Message

Here is a sample access check error message for an access violation.

```
Access Check Failed ! ComponentService.getDef():'markup://c:targetComponent' is not visible to 'markup://c:sourceComponent'.
```

An error message has four parts:

1. The context (who is trying to access the resource). In our example, this is `markup://c:sourceComponent`.
2. The target (the resource being accessed). In our example, this is `markup://c:targetComponent`.
3. The type of failure. In our example, this is `not visible`.
4. The code that triggered the failure. This is usually a class method. In our example, this is `ComponentService.getDef()`, which means that the target definition (component) was not accessible. A definition describes metadata for a resource, such as a component.

### Fixing Access Check Errors

**Tip:** If your code isn’t working as you expect, enable debug mode to get better error reporting.

You can fix access check errors using one or more of these techniques:

- Add appropriate `access` system attributes to the resources that you own.
- Remove references in your code to resources that aren’t available. In the earlier example, `markup://c:targetComponent` doesn’t have an access value allowing `markup://c:sourceComponent` to access it.
- Ensure that an attribute that you’re accessing exists by looking at its `<aura:attribute>` definition. Confirm that you’re using the correct case-sensitive spelling for the name.

Accessing an undefined attribute or an attribute that is out of scope, for example a private attribute, triggers the same access violation message. The access context doesn’t know whether the attribute is undefined or inaccessible.

For more information about the `access` system attribute, see the [Lightning Components Developer Guide](https://developer.salesforce.com/docs/atlas.en-us.lightning.meta/lightning/lightning_components_dev_guide.htm).
LockerService Critical Update Postponed

LockerService is a powerful security architecture for Lightning components that was a critical update for Summer ’16. This critical update was scheduled for auto-activation in Winter ’17. The auto-activation date has been postponed until Summer ’17.

SEE ALSO:
- Summer ’16 Release Notes: Enhance Security with LockerService (Critical Update)
- Critical Updates: LockerService Changes, More Clickjack Protection for Visualforce Pages

All Orgs Can Toggle the LockerService Critical Update

Previously, some orgs didn’t have the option to deactivate the critical update without contacting Salesforce. Since the critical update has been extended until Summer ’17, we’ve simplified this process so that these orgs can now deactivate the critical update. Also, there is a new setting on the Lightning Components setup page to let you control whether LockerService is enforced for components installed from a managed package. There is no behavior change for LockerService enforcement for existing orgs.

Toggle the Critical Update

The critical update is automatically enabled for new orgs and for some older orgs. Toggle the critical update to activate or deactivate the critical update.

1. From Setup, enter Critical Updates in the Quick Find box, and then select Critical Updates.
2. For “Enable Lightning LockerService Security”, click Activate or Deactivate.
3. Refresh your browser page to proceed with LockerService activated or deactivated.

We recommend that you test LockerService in a sandbox or a Developer Edition org to verify correct behavior of your components before enabling it in your production org.

Components Installed from Managed Packages

To control whether LockerService is enforced for components installed from a managed package:

1. From Setup, enter Lightning Components in the Quick Find box, and then select Lightning Components.
2. Select the Enable LockerService for Managed Packages checkbox to enforce LockerService for components installed from a managed package.

Note: The checkbox is only visible when the critical update is activated.

If you deselect the Enable LockerService for Managed Packages checkbox, LockerService is not enforced for components installed from a managed package. Components that you create in your org still run with enforcement of LockerService restrictions.

Default Settings for New Orgs

In Winter ’17, the default settings for LockerService enforcement are the same for new orgs. Here’s a table summarizing how LockerService is enforced for new orgs.

Components created in your org are in the default namespace, c, or in your org’s namespace, if you created a namespace.
You can change LockerService enforcement by toggling the critical update (for components created in your org) or the Enable LockerService for Managed Packages checkbox (for components from managed packages).

**Capture Events Before They Bubble Up and Away**

The Lightning Component framework supports a new capture phase for component and application events. Previously, the framework only supported a bubble phase for component events. The framework now also supports the bubble phase for application events. These phases are similar to DOM handling patterns and provide an opportunity for interested components to interact with an event and potentially control the behavior for subsequent handlers.

The component that fires an event is known as the source component. The framework allows you to handle the event in different phases. These phases give you flexibility for how to best process the event for your application.

The phases are:

**Capture**
- The event is captured and trickles down from the application root to the source component. The event can be handled by a component in the containment hierarchy that receives the captured event.
- Event handlers are invoked in order from the application root down to the source component that fired the event.
- Any registered handler in this phase can stop the event from propagating, at which point no more handlers are called in this phase or the bubble phase.

**Bubble**
- The component that fired the event can handle it. The event then bubbles up from the source component to the application root.
- The event can be handled by a component in the containment hierarchy that receives the bubbled event.
- Event handlers are invoked in order from the source component that fired the event up to the application root.
- Any registered handler in this phase can stop the event from propagating, at which point no more handlers are called in this phase.

Here’s the sequence of component event propagation.

1. **Event fired**—A component event is fired.
2. **Capture phase**—The framework executes the capture phase from the application root to the source component until all components are traversed. Any handling event can stop propagation by calling `stopPropagation()` on the event.
3. **Bubble phase**—The framework executes the bubble phase from the source component to the application root until all components are traversed or `stopPropagation()` is called.

**Note:** Application events have a separate default phase that’s executed after the bubble phase. The default phase preserves the framework’s original handling behavior for application events.

The `<aura:handler>` tag has a new `phase` attribute to set the phase of event handling. If you don’t set a `phase` value, the default phase is `bubble` for component events, and `default` for application events. Here is an example of a handler for the capture phase for an application event.

```xml
<aura:handler event="c:appEvent" action="{!c.handleCapturedEvent}"
    phase="capture" />
```
For more information, see the Lightning Components Developer Guide.

SEE ALSO:
Handle Bubbled Events in Container Components
Lightning Components Developer Guide: Communicating with Events

Handle Bubbled Events in Container Components

Some components contain other components but aren’t the owner of those components. These components are known as container components. You can now handle captured or bubbled events in container components. This feature paves the way for wrapper components that provide event handling behavior around their dynamic content, enabling new patterns for component design, composition, and reuse.

Default Event Propagation Rules

By default, every parent in the containment hierarchy can’t handle an event during the capture and bubble phases. Instead, the event propagates to every owner in the containment hierarchy.

A component’s owner is the component that is responsible for its creation. For declaratively created components, the owner is the outermost component containing the markup that references the component firing the event. For programmatically created components, the owner component is the component that invoked $A.createComponent to create it.

The same rules apply for the capture phase, although the direction of event propagation (down) is the opposite of the bubble phase (up).

Confused? It makes more sense when you look at an example in the bubbling phase.

```
<!--c:owner-->
<aura:component>
  <c:container>
    <c:eventSource />
  </c:container>
</aura:component>
```

If c:eventSource fires an event, it can handle the event itself. The event then bubbles up the containment hierarchy.

c:container contains c:eventSource but it's not the owner because it's not the outermost component in the markup, so it can’t handle the bubbled event.

c:owner is the owner because c:container is in its markup. c:owner can handle the event.

Propagation to All Container Components

The default behavior doesn’t allow an event to be handled by every parent in the containment hierarchy. Some components contain other components but aren’t the owner of those components. These components are known as container components. In the example, c:container is a container component because it’s not the owner for c:eventSource. By default, c:container can’t handle events fired by c:eventSource.

A container component has a facet attribute whose type is Aura.Component[], such as the default body attribute. The container component includes those components in its definition using an expression, such as {!v.body}. The container component isn’t the owner of the components rendered with that expression.
To allow a container component to handle the event, add `includeFacets="true"` to the `<aura:handler>` tag of the container component. For example, adding `includeFacets="true"` to the handler in the container component, `c:container`, enables it to handle the component event bubbled from `c:eventSource`.

```aura:handler name="bubblingEvent" event="c:compEvent" action="{!c.handleBubbling}" includeFacets="true" />```

SEE ALSO:
- Capture Events Before They Bubble Up and Away
- Lighting Components Developer Guide: Communicating with Events

Events from Dynamically Created Components Propagate Properly

Before Winter ’17, if you created a component programmatically using `$A.createComponent()`, events didn’t propagate to the component’s containment hierarchy. This bug meant that there was a difference in event propagation behavior depending on whether the event was fired in a component created in markup versus code. In Winter ’17, we fixed event propagation behavior so that components created programmatically in code behave the same way as components created declaratively in markup.

If you wrote code to work around the issue with event propagation in dynamically created components, make sure that you don’t have duplicate event handlers now. For example, you no longer need to use `cmp.addHandler()` to wire up a handler to work around the limitation for dynamically created components.

Use the Lightning Design System in Lightning Apps

Use the Lightning Design System to style your Lightning apps by extending `force:slds` or using a static resource. The Salesforce Lightning Design System provides a look and feel that’s consistent with Lightning Experience. Use Lightning Design System styles to give your custom applications a UI that is consistent with Salesforce, without having to reverse-engineer our styles.

Your application automatically gets Lightning Design System styles and design tokens if it extends `force:slds`. This method is the easiest way to stay up to date and consistent with Lightning Design System enhancements.

To extend `force:slds`:

```aura:application extends="force:slds">
    <!-- customize your application here -->
</aura:application>```

When you extend `force:slds`, the version of Lightning Design System styles are automatically updated whenever the CSS changes. If you want to use a specific Lightning Design System version, download the version and add it to your org as a static resource.

Note: We recommend extending `force:slds` instead so that you automatically get the latest Lightning Design System styles. If you stick to a specific Lightning Design System version, your app’s styles will gradually start to drift from later versions in Lightning Experience or incur the cost of duplicate CSS downloads.

SEE ALSO:
- Create a Consistent Look with the Lightning Design System in Lightning Out and Lightning Components for Visualforce
Create a Consistent Look with the Lightning Design System in Lightning Out and Lightning Components for Visualforce

The Lightning Design System is now automatically added to your Lightning Out and Lightning Components for Visualforce apps. The Lightning Design System provides a look and feel that’s consistent with Lightning Experience.

Lightning Design System references are added to any page that’s using Lightning Out when the Lightning dependency app extends from `<ltng:outApp>`. In this way, Lightning Design System styles and resources are available “as expected” in your Lightning components, even when they’re used outside of Lightning Experience and Salesforce1. That is, your components can depend on Lightning Design System styles being available wherever they’re deployed.

In previous releases, Lightning Design System wasn’t included, making it challenging to create components that looked and behaved the same when they were used in different contexts.

If you don’t want Lightning Design System resources included automatically when you use Lightning Out, extend your dependency app from `<ltng:outAppUnstyled>` instead.

SEE ALSO:
- Use the Lightning Design System in Lightning Apps
- Lightning Design System Extends to Lightning Out, Lightning Apps, and Lightning Components for Visualforce
- Lightning Components Developer Guide: Lightning Out Dependencies
- Lightning Components Developer Guide: Using the Salesforce Lightning Design System in Apps

Restrict Your Custom Lightning Components to Specific Objects

If you have a custom Lightning component bundle designed for use on Lightning pages, add the new `<sfdc:object>` tag set to the `.design` file to restrict the component only to certain objects.

Example: For example, here’s a design resource that goes in a bundle with a “Hello World” component.

```xml
<design:component label="Hello World">
    <design:attribute name="subject" label="Subject" description="Name of the person you want to greet" />
    <design:attribute name="greeting" label="Greeting" />
</design:component>
```

Here’s the same design resource restricted to two objects.

```xml
<design:component label="Hello World">
    <design:attribute name="subject" label="Subject" description="Name of the person you want to greet" />
    <design:attribute name="greeting" label="Greeting" />
    <sfdc:objects>
        <sfdc:object>Custom__c</sfdc:object>
        <sfdc:object>Opportunity</sfdc:object>
    </sfdc:objects>
</design:component>
```
Navigate from a Lightning Component to Another (Beta)

The force:navigateToComponent event enables you navigate to another component easily within Salesforce1 and Lightning Experience.

Note: This release contains a beta version of force:navigateToComponent that’s production quality but has known limitations. This feature isn’t generally available unless or until Salesforce announces its general availability in documentation or in press release 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 this feature in the IdeaExchange.

To navigate from a Lightning component to another, specify the component name using componentDef. This example navigates to a component c:myComponent and sets a value on the contactName attribute.

```javascript
navigateToMyComponent : function(component, event, helper) {
    var evt = $A.get('e.force:navigateToComponent');
    evt.setParams({
        componentDef : "c:myComponent",
        componentAttributes: {
            contactName : component.get("v.contact.Name")
        }
    });
    evt.fire();
}
```

You can navigate only to a component that’s marked access="global" or a component within the current namespace.

Debug Lightning Components Faster and Easier with Salesforce Lightning Inspector

Get component descriptions from more product areas, see transactions graphically, review event call stacks, and get the Salesforce Lightning Inspector DevTools extension in more languages.

More Component Information

You can get information about Lightning components from more product areas to learn where components originate. For example, on any DOM element on a page, right-click the element and select Inspect Lightning Component to see a description and attributes. Or, click a DOM element in the DevTools Elements tab or an element with a data-aura-rendered-by attribute to see a description and attributes in the Lightning tab.
Transactions Graph

See transactions in a whole new way! The Transactions tab shows a timeline with bars for each transaction.

Call Stacks

See the precursors that led to events firing by looking at the call stack in the event log. Click an event handler to find where it’s defined in your code. The handler in the yellow row is the most current.
More Languages
Salesforce Lightning Inspector is now available in French, German, Italian, Japanese, and Spanish.

SEE ALSO:
Lightning Components Developer Guide: Salesforce Lightning Inspector

Lightning Components: Other Changes
We’ve made additional changes in Lightning Components.

$Label References Are Improved
Custom labels referenced in your Lightning components using the $Label global value provider are automatically resolved for package dependencies. You no longer need a non-Lightning member of a package to reference the label for it to be included in the package. Also, you can now reference custom labels included in managed packages.

Get More Information from Lightning Component Error Messages
We’ve improved the way save errors are generated and displayed. If you have errors saving or deploying a component bundle (or an AuraDefinitionBundle when using the API), more complete error messages can help you resolve the issues.

Removed References to $A.util.format() Method
We removed references in the documentation to $A.util.format(). This JavaScript method is intended for internal usage within the framework and was incorrectly referenced in the documentation.

New and Changed Lightning Components
Components help you build apps faster. Use them in your Lightning apps or in Salesforce1.
New Components

The following components are new.

**forceCommunity:navigationMenuBase**

An abstract component for customizing the navigation menu in a community, which loads menu data and handles navigation. Lets you create a custom navigation component for the Customer Service (Napili) and custom community templates. The menu’s look and feel is controlled by the custom component that’s extending it.

**ui:scrollerWrapper**

Creates a container that enables native scrolling in Salesforce1.

**Note:** If you are looking for components that apply the Lightning Design System styling, see [Introducing Base Lightning Components](#).

Changed Components

The following components have changed.

**force:inputField**

Updated to work when access checks are turned on.

**force:outputField**

Updated to work when access checks are turned on.

New Interfaces

The following interfaces are new.

**forceCommunity:profileMenuInterface**

Lets you create a custom profile menu component for the Customer Service (Napili) community template. Implement this interface if you want to replace the template’s standard Profile Header component. After you create a custom profile menu component, admins can select it in Community Builder in **Settings > Theme**.

**forceCommunity:searchInterface**

Lets you create a custom search component for the Customer Service (Napili) community template. Implement this interface if you want to replace the template’s Search & Post Publisher component. After you create a custom search component, admins can select it in Community Builder in **Settings > Theme**.

**forceCommunity:themeLayout**

Lets you create a custom theme layout to transform the overall structure of the pages in the Customer Service (Napili) community template. Implement this interface if you want to replace the template’s standard theme layout. After you create a custom theme layout component, admins can select it in Community Builder in **Settings > Theme**.

SEE ALSO:

- [Rebrand Really Quickly with Custom Theme Layouts](#)
- [Introducing Base Lightning Components](#)

New Lightning Events

Events add a layer of interaction to your components.
New Events

The following events are new.

**forceCommunity:analyticsInteraction**
Tracks events triggered by Lightning components and sends the data to Google Analytics. Supported in template-based communities only. Ensure that Google Analytics is enabled in Community Builder and the community is published.

**forceCommunity:routeChange**
Fires when a page’s URL changes. Lightning components can listen to this system event and handle it as required—for example, for analytics or SEO purposes. Supported in template-based communities only.

**lightning:navigateToComponent (Beta)**
Navigates from a Lightning component to another. This release contains a beta version of force:navigateToComponent.

**lightning:openFiles**
Opens one or more file records from the ContentDocument and ContentHubItem objects. On desktops, the event opens the SVG file preview player, which lets users preview images, documents, and other files in the browser. The file preview player supports full-screen presentation mode and provides quick access to file actions, such as upload, delete, download, and share. On mobile devices, the file is downloaded, which triggers file preview if supported by the device. Supported in Lightning Experience, Salesforce1, and communities based on the Customer Service (Napili) template only.

Visualforce: Enhanced for Lightning Experience

Develop apps to customize your org using Visualforce. Visualforce language and feature improvements make app development easier. Changes in this release are focused on improving integration with Lightning Experience. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

For more information on features affected by these enhancements, refer to the Visualforce Developer's Guide.

IN THIS SECTION:

Clickjack Protection Improvements for Visualforce Pages Without Page Header

In this release we’ve improved clickjack protection for Visualforce pages that have their headers disabled by setting `showHeader="false"` on the `<apex:page>` tag.

Clickjack Protection for Legacy Browsers for Visualforce Pages Without Page Header (Critical Update)

This critical update extends legacy browser-compatible clickjack protection for Visualforce pages that set `showHeader="false"` when those pages are also configured to use API versions before 27.0.

PageReference getContent() and getContentAsPDF() Methods Now Behave as Callouts (Critical Update)

This critical update was introduced in Summer ’15 and was enforced for all orgs on October 18, 2016.

Clickjack Protection Improvements for Visualforce Pages Without Page Header

In this release we’ve improved clickjack protection for Visualforce pages that have their headers disabled by setting `showHeader="false"` on the `<apex:page>` tag.

In certain circumstances, even if you had enabled the Enable clickjack protection for customer Visualforce pages with headers disabled setting, a bug could prevent clickjack protection from fully working.
We’ve resolved the bug, but some pages might depend on the old behavior. To preserve compatibility for these pages, this change is versioned. You must update pages to API 38.0 or later to take advantage of the fix. Until you do so, pages with `showHeader` set to `false` have reduced protection against clickjacking.

The pages most likely to have problems are those that add a static `<head>` block themselves, but don’t use the `applyHtmlTag` and `applyBodyTag` attributes of the `<apex:page>` tag to take full control of the page’s HTML structure. We recommend that, if you’re adding a static `<head>` element to a page, take full control and add static `<html>` and `<body>` elements yourself, too. And, if you do this, remember to set the page’s `applyHtmlTag` and `applyBodyTag` attributes to `false`!

**Clickjack Protection for Legacy Browsers for Visualforce Pages Without Page Header (Critical Update)**

This critical update extends legacy browser-compatible clickjack protection for Visualforce pages that set `showHeader="false"` when those pages are also configured to use API versions before 27.0.

Several security settings add clickjack protection to Visualforce pages. Two of these settings are affected by this critical update. The “Enable clickjack protection for customer Visualforce pages with headers disabled” setting, found in Security > Session Settings in Setup, enables clickjack protection on an org’s Visualforce pages that set the page’s `showHeader` attribute to false. The “Clickjack Protection Level” setting, found in Develop > Sites in Setup, enables clickjack protection for Visualforce pages displayed in Force.com Sites.

Modern browsers are protected from clickjack attacks by setting the X-Frame-Options HTTP header. Legacy browsers, such as older versions of Internet Explorer, don’t respect this header. To enable clickjack protection for these older browsers, some HTML markup and JavaScript code are added to the page itself.

However, when rendered without the standard Salesforce page header (by setting the page’s `showHeader` attribute to false), Visualforce pages set to API versions 26.0 or earlier didn’t include the HTML markup and JavaScript code necessary to embed the clickjack protection scripts for legacy browsers. Legacy browser clickjack protection was omitted even when the org or site was configured to include that protection.

With this update enabled, Visualforce ensures that, when necessary, the expected markup and code are added to the page regardless of the page’s API setting. This update allows all Visualforce pages to respect the org or site’s clickjack protection settings.

This critical update has no effect on pages that set the page’s `contentType` attribute to any value besides “text/html” or “text/xhtml”.

**Test This Critical Update**

We recommend that you test this update in a sandbox or Developer Edition org to verify correct behavior of your Visualforce pages before enabling it in your production org. If you must work in your production org, do so during off-peak hours.

To activate this critical update:

1. From Setup, enter Critical Updates in the Quick Find box, and then select Critical Updates.
2. Click Activate for “Clickjack Protection for Legacy Browsers for Visualforce Pages Without Page Header”.
3. Test any Visualforce pages you have that are set to API version 26.0 or earlier and that have the `showHeader` attribute set to false.

The pages most likely to have problems are those that add a static `<head>` block themselves, but don’t use the `applyHtmlTag` and `applyBodyTag` attributes of the `<apex:page>` tag to take full control of the page’s HTML structure. We recommend that, if you’re adding a static `<head>` element to a page, take full control and add static `<html>` and `<body>` elements yourself, too. And, if you do this, remember to set the page’s `applyHtmlTag` and `applyBodyTag` attributes to `false`!
PageReference getContent() and getContentAsPDF() Methods Now Behave as Callouts (Critical Update)

This critical update was introduced in Summer ‘15 and was enforced for all orgs on October 18, 2016.

The getContent() and getContentAsPDF() methods return the content of a rendered Visualforce page as HTML and PDF, respectively. With this critical update, the getContent() and getContentAsPDF() methods of the PageReference object behave as callouts, and the calls are tracked against the limits of the calling transaction.

Lightning Design System

The Lightning Design System is a CSS Framework that provides a look and feel that’s consistent with Lightning Experience. The component classes enable you to build custom applications with a UI that is consistent with Salesforce, without having to reverse engineer our styles.

Below is a quick overview of the changes we’ve made. Additional information and component examples can be found at https://www.lightningdesignsystem.com/release-notes/.

IN THIS SECTION:

New Lightning Design System Component Classes
Component classes provide a unified language and consistent look and feel when designing apps and products within the Salesforce ecosystem. Use them in your Lightning apps, Salesforce1, Lightning Out, and in Lightning Components in Visualforce.

Changes and Additions to Classes and Variants
We’ve updated these component classes and variants in order to expand your styling options.

New Lightning Design System Utility Classes
These new utility classes allow you to apply a single rule or simple pattern to your components.

Deprecated Lightning Design System Component Classes
The following classes are being marked as deprecated.

Lightning Design System Extends to Lightning Out, Lightning Apps, and Lightning Components for Visualforce
The Lightning Design System is now available in Lightning Out, stand-alone Lightning apps, and Lightning components in Visualforce pages.

New Lightning Design System Component Classes
Component classes provide a unified language and consistent look and feel when designing apps and products within the Salesforce ecosystem. Use them in your Lightning apps, Salesforce1, Lightning Out, and in Lightning Components in Visualforce.

New Component Classes
The following component classes are new.

Feeds
To provide a mobile-friendly and responsive discussion feed we created an entirely new feeds class. This new class includes a new action bar model for posts, metrics for posts, and a new likers bar. The styling for comments, links, and file attachments have also been updated.

The previous version of feeds is being marked as deprecated, so you need to update your components to use the new feeds class.

Files
Files are a visual representation of content uploaded as an attachment.
File Selector
The file selector class allows a user to select file(s) from their file system. The file selector works natively using a file input, or can be used to drag and drop.

Global Navigation
Navigation represents a list of links that either take the user to another page, or to sections within their current page.

Global Header
The global header is the anchor for the Salesforce platform and spans all other parts of the UI. The functionality in the header is applicable across all contexts in the Salesforce ecosystem (internal or third party).

Docked Utility Bar
A docked utility bar is a persistent bar that allows a user to continually use the app to complete tasks while expanding or collapsing utility panels.

Changes and Additions to Classes and Variants
We’ve updated these component classes and variants in order to expand your styling options.

Buttons
The button icon variant has two new classes. These classes allow you to create an inverse button icon with a border, or add a hover hint onto a button icon.

Cards
A compact variant of this component has been added.

Data Tables
The ‘Base’ data table has been renamed to ‘Basic.’ Complex data table features were abstracted into a variant named “Advanced.”

Forms
An indeterminate checkbox class was added to this component.

Images
An image card and image ratio class have been added to this component. An image card is a self-contained unit of content, such as an image with a caption.

Panels
The slide-out panel was renamed to details. A new filter panel allows a user to filter a record or record list view. Clicking the filter icon on the page header opens this slide-out filter panel.

Popovers
A close button was added to error popovers so that a screen reader can access the popover.

Product Selector
The product selector has been renamed to List Builder.

New Lightning Design System Utility Classes
These new utility classes allow you to apply a single rule or simple pattern to your components.

New Utility Classes
The following utility classes are new.

Hyphenation
A hyphenation class can be used on text that could be served in narrow width containers.
Changed Utility Classes

The following utility classes have been changed.

Grid
Horizontal and vertical padding can now be applied to `slds-grid--padded` as `slds-grid--padded-around-{size}`. The `position: relative` was removed from `.slds-grid`.

Interactions
Text inside `.slds-text-link--reset` now appears as a link.

Text
Text color helpers were added. This helper sets color to body copy. Text titles were also added. These title headings are used for small mini headers like labels for table columns or list sections. The light font-weight was removed from the text utility.

Truncation
A max-width container has been added.

Sizing
Absolute size utility classes and their responsive equivalents have been added.

Deprecated Lightning Design System Component Classes

The following classes are being marked as deprecated.

Deprecated Component Classes

The following classes are being marked as deprecated in this release and will be removed in three releases:

Feeds v1
A new mobile-friendly and responsive feeds component class is replacing the original feeds class. You need to update your components to use the new feed component class.

Text heading label utility
The new text title utility class is replacing the text heading label utility.

Lightning Design System Extends to Lightning Out, Lightning Apps, and Lightning Components for Visualforce

The Lightning Design System is now available in Lightning Out, stand-alone Lightning apps, and Lightning components in Visualforce pages.

SEE ALSO:
Use the Lightning Design System in Lightning Apps
Create a Consistent Look with the Lightning Design System in Lightning Out and Lightning Components for Visualforce
API

Access more metadata types and data objects in API version 38.0.

IN THIS SECTION:

Make More API Calls and Get Fewer Headaches When Calculating API Limits
We simplified the API request limit calculation and gave everyone more calls per 24-hour period.
For Enterprise Edition, Unlimited Edition, Performance Edition, and Professional Edition with API access enabled, the old calculation was based on your number of licenses and the license types, with a guaranteed minimum of 15,000 calls per 24-hour period. We scrapped the minimum and gave everyone 15,000 more calls. The calculation for Developer Edition orgs and sandboxes remains the same.

New and Changed Objects
Access more data through these new and changed standard objects.

SOQL
Salesforce Object Query Language (SOQL) includes read access to names on foreign keys.

SOSL
Salesforce Object Search Language (SOSL) includes expanded support for the WITH SNIPPET clause.

REST API
REST API includes changed resources and a pilot resource for making several requests at once.

SOAP API
SOAP API includes new, changed, and deprecated calls.

Chatter REST API
Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. In this release, you can flag posts and comments as inappropriate or spam, include rich text and inline images in your comments, subscribe to topic notifications, and more.

Reports and Dashboards REST API
Reports and Dashboards REST API enhancements include new resources describing analytics notifications, and access to new report and dashboard properties.

Bulk API
Bulk API limits have increased.

Messaging
Messaging includes a pilot feature, Platform Events.

Tooling API
Tooling API includes new and changed objects, calls, and resources.

Actions API
Actions API has been updated to reflect invocable processes.

Metadata API
Metadata API includes new and changed types and fields.

Open CTI API
Open CTI is now available in Lightning Experience. New Open CTI methods let you customize and integrate Salesforce with Computer-Telephony Integration (CTI) systems.
Make More API Calls and Get Fewer Headaches When Calculating API Limits

We simplified the API request limit calculation and gave everyone more calls per 24-hour period. For Enterprise Edition, Unlimited Edition, Performance Edition, and Professional Edition with API access enabled, the old calculation was based on your number of licenses and the license types, with a guaranteed minimum of 15,000 calls per 24-hour period. We scrapped the minimum and gave everyone 15,000 more calls. The calculation for Developer Edition orgs and sandboxes remains the same.

Updates to the new calculation might not take effect immediately. If your org is using the old calculation after it has upgraded to Winter '17, contact your account executive to switch to the new calculation.

New and Changed Objects

Access more data through these new and changed standard objects.

IN THIS SECTION:

New Objects
These objects are new.

Changed Objects
These objects have changed.

New Objects

These objects are new.

AssignedResource
Represents a service resource who is assigned to a service appointment. Assigned resources appear in the Assigned Resources related list on service appointments.

CampaignInfluence
Represents the association between a campaign and an opportunity in Customizable Campaign Influence.

CampaignInfluenceModel
This read-only object represents a campaign influence model in Customizable Campaign Influence. Use campaign influence models to group CampaignInfluence records created by a specific set of triggers and workflows that you define.

ContentAsset
Represents a Salesforce file that has been converted to an asset file in a custom app in Lightning Experience. Enables Salesforce Files to be used for org setup and configuration purposes. Asset files can be packaged and referenced by other components.

MetadataPackage
Represents a managed or unmanaged package that has been developed in the org you’re logged in to.

MetadataPackageVersion
Represents a package version (managed or unmanaged) that has been uploaded from the org you’re logged in to.

OperatingHours
Represents the hours in which a service territory, service resource, or account is available for field service work.

OperatingHoursFeed
Represents a single feed item on an operating hours record detail page.

OperatingHoursHistory
Represents the history of changes made to tracked fields on an operating hours record.
**PackagePushError**
Represents an error encountered during a push request. The number of PackagePushError records created depends on the number of push jobs in the request that result in an error.

**PackagePushJob**
Represents an individual push job for upgrading a package in an org from one version to another version. There can be multiple push jobs created for one push request. For example, if you want to upgrade five orgs as part of one push, you have one PackagePushRequest record and five PackagePushJob records.

**PackagePushRequest**
Represents the push request for upgrading a package in one or many orgs from one version to another version.

**PackageSubscriber**
Represents an installation of a package in an org. This object contains installation information for managed packages developed in the org you’re logged in to.

**ResourceAbsence**
Represents a period of time in which a service resource is unavailable to work.

**ResourceAbsenceFeed**
Represents a single feed item on a resource absence record detail page.

**ResourceAbsenceHistory**
Represents the history of changes made to tracked fields on a resource absence.

**ServiceAppointment**
Represents an appointment to complete field service work for a customer.

**ServiceAppointmentFeed**
Represents a single feed item on a service appointment record detail page.

**ServiceAppointmentHistory**
Represents the history of changes made to tracked fields on a service appointment.

**ServiceAppointmentOwnerSharingRule**
Represents the rules for sharing a service appointment with users other than the owner.

**ServiceAppointmentShare**
Represents a sharing entry on a service appointment.

**ServiceResource**
Represents a service technician or dispatcher in field service.

**ServiceResourceCapacity**
Represents the maximum number of scheduled hours or number of service appointments that a capacity-based service resource can complete within a specific time period.

**ServiceResourceCapacityFeed**
Represents a single feed item on a service resource capacity record detail page.

**ServiceResourceCapacityHistory**
Represents the history of changes made to tracked fields on a service resource capacity record.

**ServiceResourceFeed**
Represents a single feed item on a service resource record detail page.

**ServiceResourceHistory**
Represents the history of changes made to tracked fields on a service resource.

**ServiceResourceOwnerSharingRule**
Represents the rules for sharing a service resource with users other than the owner.
ServiceResourceShare
Represents a sharing entry on a service resource.

ServiceResourceSkill
Represents a skill that a service resource possesses.

ServiceResourceSkillFeed
Represents a single feed item on a service resource skill record detail page.

ServiceResourceSkillHistory
Represents the history of changes made to tracked fields on a service resource skill.

ServiceTerritory
Represents a region in which field service work can be performed.

ServiceTerritoryFeed
Represents a single feed item on a service territory record detail page.

ServiceTerritoryHistory
Represents the history of changes made to tracked fields on a service territory.

ServiceTerritoryMember
Represents a service resource who can work in the service territory.

ServiceTerritoryMemberFeed
Represents a single feed item on a service territory member record detail page.

ServiceTerritoryMemberHistory
Represents the history of changes made to tracked fields on a service territory member.

SkillRequirement
Represents a skill that is required to complete a particular task. Skill requirements can be added to work types, work orders, and work order line items.

SkillRequirementFeed
Represents a single feed item on a skill requirement record detail page.

SkillRequirementHistory
Represents the history of changes made to tracked fields on a skill requirement.

TimeSlot
Represents a period of time on a specified day of the week during which field service work can be performed. Operating hours consist of one or more time slots.

TimeSlotHistory
Represents the history of changes made to tracked fields on a time slot.

UserCustomBadge
Represents a custom badge for a user.

UserCustomBadgeLocalization
Represents the translated version of a custom badge for a user.

WorkType
Represents a type of work to be performed. Work types are templates that can be applied to work order or work order line items.

WorkTypeFeed
Represents a single feed item on a work type record detail page.

WorkTypeHistory
Represents the history of changes made to tracked fields on a work type.
Changed Objects
These objects have changed.

Account
In Developer, Professional, Enterprise, Unlimited, and Performance editions, Salesforce now automatically adds or updates geolocation fields when you create or update Account records. To use this feature, your administrator must enable the geo clean rules for account.

For all other editions, set values for latitude and longitude by using SOQL, Workbench, SOAP or REST API, or a geocoding service. You can then use address fields as locatable values. To find geocoding services, search the AppExchange.

In addition, the Account object has a new field, OperatingHoursId. This field lists the operating hours associated with the account, and is available only if Field Service Lightning is enabled.

ApexTestRunResult
The ApexTestRunResult object has three new fields.
- MethodsCompleted—The total number of methods completed during the test run. This value is updated after each class is run.
- MethodsEnqueued—The total number of methods enqueued for the test run. This value is initialized before the test runs.
- MethodsFailed—The total number of methods that failed during this test run. This value is updated after each class is run.

Case
The Case object has four new fields.
- ContactEmail—Email address for the Contact. The Case.ContactEmail field displays the Email field on the contact that is referenced by Case.ContactId. Label is Contact Email.
- ContactFax—Fax number for the Contact. Label is Contact Fax.
- ContactMobile—Mobile telephone number for the Contact. Label is Contact Mobile.
- ContactPhone—Telephone number for the Contact. Label is Contact Phone.

Contact
In Developer, Professional, Enterprise, Unlimited, and Performance editions, Salesforce now automatically adds or updates geolocation fields when you create or update Contact records. To use this feature, your administrator must enable the geo clean rules for contact.

For all other editions, set values for latitude and longitude by using SOQL, Workbench, SOAP or REST API, or a geocoding service. You can then use address fields as locatable values. To find geocoding services, search the AppExchange.

ContentDocument
The ContentAssetId field has been added. This field points to the file asset if it’s an asset file. For most files, the value of this field is null.

ContentVersion
The IsAssetEnabled field has been added. When an admin creates a new ContentVersion record, this field specifies whether to automatically create an asset from the associated ContentDocument file if one doesn’t already exist.

EmailMessage
The EmailMessage object has one new field.
ContentDocumentIds—a string array of IDs for content documents, such as files and attachments, that are associated with an email. Each ID is linked to a ContentDocumentLink record, which represents the relationship between an email message and a content document record.
Entitlement
The Entitlement object has one new lookup field, SvcApptBookingWindows, whose label in the user interface is Operating Hours. The field lists the entitlement’s operating hours, and is available only if Field Service Lightning is enabled.

FeedComment
The FeedComment object has two new fields:
- **Status**—Lets certain users specify whether a feed comment is pending review and hidden from most users or published and visible to all who have access to the parent feed item. You can change a feed comment’s Status from pending review to published and from published to pending review.
- **IsRichText**—Indicates whether the feed CommentBody contains rich text, that is, any combination of formatting, inline graphics, and code snippets.

FeedItem
The Status field of the FeedItem object is generally available and no longer beta. You can change a feed item’s Status from pending review to published and from published to pending review.

ForecastingItem
The ForecastingItem object has the following new fields.
- **AmountWithoutOwnerAdjustment**—The forecast amount as seen by the forecast owner without the owner’s adjustment. This is the sum of the subordinate’s opportunities, including adjustments made by their manager or by the subordinate themselves, plus the rollup of the owner’s own opportunities. *It doesn’t include adjustments made by the forecast owner.*
- **QuantityWithoutOwnerAdjustment**—The forecast quantity as seen by the forecast owner without the owner’s adjustment. This is the sum of the subordinate’s opportunities, including adjustments made by their manager or by the subordinate themselves, plus the rollup of the owner’s own opportunities. *It doesn’t include adjustments made by the forecast owner.*

Lead
In Developer, Professional, Enterprise, Unlimited, and Performance editions, Salesforce now automatically adds or updates geolocation fields when you create or update Lead records. To use this feature, your administrator must enable the geo clean rules for lead.

For all other editions, set values for latitude and longitude by using SOQL, Workbench, SOAP or REST API, or a geocoding service. You can then use address fields as locatable values. To find geocoding services, search the AppExchange.

LiveChatDeployment
The LiveChatDeployment object has two new fields:
- **ConnectionTimeoutDuration**—Indicates the amount of time before the chat times out, in seconds.
- **ConnectionWarningDuration**—Indicates the amount of time before a time-out warning is displayed to the agent, in seconds.

OpportunityLineItemSchedule
When an OpportunityLineItem record is created for a product with a previously established schedule, an OpportunityLineItemSchedule record is also created.

PlatformAction
The PlatformAction object has two new fields.
- **IsMassAction**—Indicates whether the action can be performed on multiple records.
- **RelatedListRecordId**—Represents the ID of a record in an object’s related list.

In addition, the ActionListContext picklist field gained one new value, Assistant.

PermissionSet
The PermissionSet object has two new fields:
- **LicenseId**—The ID of either the related PermissionSet or UserLicense associated with this permission set. Use this field instead of UserLicenseId, which is deprecated and only available up to API version 37.0.
• PermissionsShowCompanyNameAsUserBadge—When on, a user’s company name, if available, will be displayed in place of the community role.

PermissionSet and Profile
The PermissionSet and Profile objects have a new user permission:
• PermissionsSendThroughGmail—Allow users to send their emails through the external email service configured for the org, such as Gmail or Office 365.

PermissionSetLicense
The PermissionSetLicense object has one new field:
• MaximumPermissionsShowCompanyNameAsUserBadge—When on, a user’s company name, if available, displays in place of the community role.

Profile
Now object permissions, field permissions, and setup object access can be updated for existing custom profiles. Field permissions and setup object access can be updated for existing standard profiles. Previously, you had to make these updates via Metadata API or the user interface. For example, you can use Data Loader to mass update the field-level permissions for several profiles. Or, if you’re a developer, you can create an Apex class to update the profiles and reference the class in an approval flow.

The Profile object also has one new field:
• PermissionsShowCompanyNameAsUserBadge—When on, a user’s company name, if available, displays in place of the community role.

QuoteDocument
The QuoteDocument object has a new field Template. This field is reserved for future use.

Skill
The Skill object has two new fields:
• Description—A description of the skill.
• LastViewedDate—The date when the skill was last viewed.

And, the MasterLabel field gained a new property: idLookup.

TwoFactorMethodsInfo
The TwoFactorMethodsInfo object has one new field.
HasU2F—Indicates whether the user has registered a U2F security key as an identity verification method.

User
The User object has three new fields:
• MediumBannerPhotoURL—The URL for the medium user profile banner photo.
• SmallBannerPhotoURL—The URL for the small user profile banner photo.
• UserPreferencesHideBiggerPhotoCallout—Let’s users hide the callout text below the large profile photo.

VerificationHistory
The following fields have new picklist values related to Lightning Login enrollment and login.
• Activity field:
  – EnableLL—The user attempted to enroll in Lightning Login.

• Policy field:
  – EnableLightningLogin—Identity verification required for users enrolling in Lightning Login. This verification is triggered when the user attempts to enroll. Users are eligible to enroll if they have the “Lightning Login User” user permission and the org has enabled “Allow Lightning Login” in Session Settings.
LightningLogin—Identity verification required for users logging in via Lightning Login. This verification is triggered when the enrolled user attempts to log in. Users are eligible to log in if they have the “Lightning Login User” user permission, have successfully enrolled in Lightning Login, and the org has enabled “Allow Lightning Login” in Session Settings.

- VerificationMethod field:
  - EnableLL—Salesforce Authenticator sent a notification to the user’s mobile device to enroll in Lightning Login.
  - LL—Salesforce Authenticator sent a notification to the user’s mobile device to approve login via Lightning Login.

WorkOrder
The WorkOrder object has five new fields:

- Duration—The estimated time required to complete the work order. The work order’s service appointments inherit this value.
- DurationType—The unit of the duration: Minutes or Hours. The work order’s service appointments inherit this value.
- ServiceTerritoryId—The service territory where the work order takes place.
- StatusCategory—The category that the Status field’s value belongs to. The Status Category field has eight default values: seven values which are identical to the default Status values, and a None value for statuses without a status category.
- WorkTypeId—The work type associated with the work order. If a work type is selected, the work order inherits the work type’s skill requirements and its Duration and DurationType.

In addition, the Status picklist field gained three new values—On Hold, Canceled, and Cannot Complete—and the Assigned and Scheduled values were removed.

For WorkOrder, the behavior of geolocation compound fields has also changed.

In Developer, Professional, Enterprise, Unlimited, and Performance editions, Salesforce now automatically adds or updates geolocation fields when you create or update WorkOrder records. To use this feature, your administrator must enable the geo clean rules for WorkOrder.

For all other editions, set values for latitude and longitude by using SOQL, Workbench, SOAP or REST API, or a geocoding service. You can then use address fields as locatable values. To find geocoding services, search the AppExchange.

WorkOrderLineItem
The WorkOrderLineItem object has 16 new fields:

- Address—The address where the line item is taking place.
- City—The city of the line item’s address.
- Country—The country of the line item’s address.
- Duration—The estimated time required to complete the line item.
- DurationType—The unit of the duration: Minutes or Hours.
- GeocodeAccuracy—The level of accuracy of a location’s geographical coordinates compared with its physical address.
- IsClosed—Indicates whether the line item is closed. Changing the line item’s status to Closed causes this checkbox to be selected in the user interface.
- Latitude—Used with Longitude to specify the precise geolocation of the address where the line item is completed.
- Longitude—Used with Latitude to specify the precise geolocation of the address where the line item is completed.
- PostalCode—The postal code of the line item’s address.
- ServiceTerritoryId—The service territory where the line item takes place.
- State—The state of the line item’s address.
- StatusCategory—A category corresponding to the line item’s status.
• Street—The street of the line item’s address.
• Subject—A short phrase describing the line item.
• WorkTypeId—The work type associated with the line item. When a work type is selected, the line item automatically inherits the work type’s Duration, Duration Type, and required skills.

In addition:
• The Status picklist field gained three new values—On Hold,Canceled, and Cannot Complete.
• The CurrencyIsoCode field is no longer updateable, createable, or nillable.
• The Product2Id field is no longer updateable or creatable.
• The PricebookEntryId field is now updateable.

SOQL
Salesforce Object Query Language (SOQL) includes read access to names on foreign keys.

Access Names on Foreign Keys
You now have read access to name fields on foreign keys, even if you don’t have access to the referenced object. Previously, you got a null value on names retrieved using dot notation if you didn’t have access to the object.

In the following example, Parent.Name now returns the correct value, regardless of access to the parent object.

```
SELECT Name, Parent.Name FROM Account
```

Similarly, when filtering using names on objects that you don’t have access to, all rows that satisfy the criteria are returned.

SOSL
Salesforce Object Search Language (SOSL) includes expanded support for the WITH SNIPPET clause.

Expanded Support for WITH SNIPPET
Snippets and highlighting are now supported for Case, CaseComment, FeedItem, FeedComment, Idea, and IdeaComment. In addition, highlighted terms are now tagged with `<mark>` instead of `<em>`.

Here’s an example of a request for feed posts where the results include snippets and highlighting.

```
FIND {San Francisco} IN ALL FIELDS RETURNING FeedItem, FeedComment WITH SNIPPET (target_length=120)
```

And here’s an example of the highlighted term in the response.

"snippet.text" : "The <mark>SF</mark> Bay Area, commonly known as the Bay Area, is a populated region that"
Access Data Categories and Articles with REST API

The new Knowledge Support REST APIs allow both authorized and guest users to retrieve the user’s visible data categories and their associated articles.

Make Several Requests at Once with the Composite Resource (Pilot)

Imagine you’re writing a mobile app. To cut down on the number of round trips between your client and Salesforce, you want to make several REST API requests in a single call. You consider the Batch resource, but Batch doesn’t let you pass information between subrequests. Are you out of luck? Not anymore! The Composite resource lets you make several requests in a single call and provides a way to reference the results of one subrequest in later subrequests.

New Resources: Flows and Flow Interviews (Pilot)

Have you ever wanted to build your own runtime experience for Visual Workflow? Here’s your chance. We’re providing two resources to describe flows and three resources to describe and manipulate interviews. If you’re an existing pilot customer, nothing has changed since the last release.

Changed Resource: Parameterized Search

Snippets and highlighting are now supported for Case, CaseComment, FeedItem, FeedComment, Idea, and IdeaComment.

Changed Resource: Search Suggested Records

You can now specify up to 10 types of objects within a single suggested records request. The resource now also supports KnowledgeArticleVersion. Finally, if you want to show errors when the list of objects in the request includes unsupported objects, the new ignoreUnsupportedSObjects parameter lets you decide.

Changed Resource: SObject Suggested Articles

Article suggestions are now supported for work orders and work order line items.

Access Data Categories and Articles with REST API

The new Knowledge Support REST APIs allow both authorized and guest users to retrieve the user’s visible data categories and their associated articles.

The following resources are available with REST API.

**Note:** Links can be outdated or unavailable during release preview.

- Data Category Group
- Data Category Detail
- Article List
- Article Detail

**SEE ALSO:**

Force.com REST API Developer Guide (can be outdated or unavailable during release preview)

Make Several Requests at Once with the Composite Resource (Pilot)

Imagine you’re writing a mobile app. To cut down on the number of round trips between your client and Salesforce, you want to make several REST API requests in a single call. You consider the Batch resource, but Batch doesn’t let you pass information between subrequests. Are you out of luck? Not anymore! The Composite resource lets you make several requests in a single call and provides a way to reference the results of one subrequest in later subrequests.
Note: We provide the Composite resource 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 Composite resource 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 the Composite resource in the IdeaExchange.

Composite

/api/vXX.X/composite

New Resources: Flows and Flow Interviews (Pilot)

Have you ever wanted to build your own runtime experience for Visual Workflow? Here's your chance. We're providing two resources to describe flows and three resources to describe and manipulate interviews. If you're an existing pilot customer, nothing has changed since the last release.

Note: We provide Flow Runtime REST API 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. Flow Runtime REST API 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 Flow Runtime REST API in the IdeaExchange.

Flows

Lists active flow definitions in your org.

/api/vXX.X/process/flows

Specific Flow

Lists summary information about a specific flow.

/api/vXX.X/process/flows/FlowName

Paused Interviews

Lists paused interviews that the running user can resume.

/api/vXX.X/process/interviews

New Interview

Starts a flow interview.

/api/vXX.X/process/interviews/FlowName

Specific Interview

Continues, pauses, or finishes an in-progress interview, or resumes a paused interview.

/api/vXX.X/process/interviews/FlowName/guid

SEE ALSO:

Customize the Look and Feel of Flow Interviews with the REST API (Pilot)
**Changed Resource: Parameterized Search**
Snippets and highlighting are now supported for Case, CaseComment, FeedItem, FeedComment, Idea, and IdeaComment.
For example, `q=tourism&sobject=Case&snippet=500`.

**Changed Resource: Search Suggested Records**
You can now specify up to 10 types of objects within a single suggested records request. The resource now also supports KnowledgeArticleVersion. Finally, if you want to show errors when the list of objects in the request includes unsupported objects, the new `ignoreUnsupportedSObjects` parameter lets you decide.
Here’s an example of a request that specifies multiple types of objects.
```
search/suggestions?q=Acme&sobject=Lead,Account,Opportunity
```

**Changed Resource: SObject Suggested Articles**
Article suggestions are now supported for work orders and work order line items.

**SOAP API**
SOAP API includes new, changed, and deprecated calls.

**New, Changed, and Deprecated Calls**

**New Calls**

**findDuplicates()**
Performs rule-based searches for duplicate records. The input is an array of sObject, each of which specifies the values to search for and the type of object that supplies the duplicate rules. The output identifies the detected duplicates for each object that supplies the duplicate rules. `findDuplicates()` applies the rules to the values to do the search. The output identifies the detected duplicates for each sObject.

**Changed Calls**

**describeFlexiPages() and DescribeFlexiPageResult**
The `type` field has been added to DescribeComponentInstanceProperty. If this field value is `null`, then the ComponentInstanceProperty values apply to the Lightning component. If this field value is `decorator`, then the ComponentInstanceProperty values apply to the `component decorator` for the Lightning component.

The component decorator is a wrapper around a Lightning component. The decorator can apply additional capabilities to the component when it renders on a specific page in Lightning Experience. For example, you can configure a component decorator around a component on the Lightning Experience utility bar to set the component’s height or width when opened. The `UtilityBar` is the only page type that supports component decorators.

**describeLayout() and DescribeLayoutResult**
The `fieldApiName` field was added to RelatedListColumn. This field represents the SOQL field syntax for the field in relation to the main sObject for the related list. Unlike `name`, it doesn’t return a value in the `toLabel()` format.

**describeQuickAction() and DescribeQuickActionResult**
The following fields were added.
- `lightningComponentBundleId`—The ID of the Lightning component bundle called by the Lightning component quick action.
- `lightningComponentBundleName`—The name of the Lightning component bundle called by the Lightning component quick action.

The type field now supports the `LightningComponent` value, which represents a Lightning component action.

**Upcoming Deprecated Calls**

The `describeFlexiPages()` call will be deprecated in Spring ’17, API version 39.0. You will still be able to access FlexiPages through the Metadata and Tooling APIs.

**New Types**

**UserAppInfo**

Stores the last Lightning app logged in to. This object is available in API version 38.0 and later.

**Changed Types**

This type has changed in API version 38.0.

**EventLogFile**

Added the **ENTITY_NAME** field to the REST API event type. This field lists all the API objects that are accessed.

Added **LOGIN_KEY** and **SESSION_KEY** fields to the event types listed here. The **LOGIN_KEY** field ties together all events in a given user’s login session. A session starts with a Login event and ends either with a Logout event or with user session’s expiration. The **SESSION_KEY** field ties together all events for a particular activity. For example, URI events while user is interacting with an Accounts page.

- API
- Apex Callout
- Apex Execution
- Apex SOAP
- Apex Trigger
- Asynchronous Report Run
- Bulk API
- Change Set Operation
- Console
- Dashboard
- Login
- Metadata API Operation
- Multiblock Report
- Package Install
- Queued Execution
- Report
- Report Export
- Rest API
- Sites
Chatter REST API

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. In this release, you can flag posts and comments as inappropriate or spam, include rich text and inline images in your comments, subscribe to topic notifications, and more.

**Note:** To create custom Chatter and Communities experiences in Salesforce, use ConnectApi (Chatter in Apex).

### Communities Moderation

**Flag posts as inappropriate or spam, add an optional note**

Make a POST request to the existing `/connect/communities/communityId/chatter/feed-elements/feedElementId/capabilities/moderation` resource with the new `type` parameter set to `FlagAsInappropriate` or `FlagAsSpam`. Optionally, include a note with the flag using the new `note` parameter.

**Flag comments as inappropriate or spam, add an optional note**

Make a POST request to the existing `/connect/communities/communityId/chatter/comments/commentId/moderation-flags` resource with the new `type` parameter set to `FlagAsInappropriate` or `FlagAsSpam`. Optionally, include a note with the flag using the new `note` parameter.

**Flag files as inappropriate or spam, add an optional note**

Make a POST request to the existing `/connect/communities/communityId/files/fileId/moderation-flags` resource with the new `type` parameter set to `FlagAsInappropriate` or `FlagAsSpam`. Optionally, include a note with the flag using the new `note` parameter.

### Chatter Feeds

**Include rich text in a comment**

Make a POST request to the existing `/chatter/feed-elements/feedElementId/capabilities/comments/items` resource with the existing Message Segment Input: Markup Begin and Message Segment Input: Markup End request bodies.

Rich text and inline images are supported in comment bodies in version 35.0 and later.
Include an inline image in a comment
Make a POST request to the existing /chatter/feed-elements/feedElementId/capabilities/comments/items resource with the existing Message Segment Input: Inline Image request body.
Rich text and inline images are supported in comment bodies in version 3.0 and later.

Mention a user by user name instead of user ID
Make a POST request to the existing /chatter/feed-elements resource with the updated Message Segment Input: Mention request body.

Access the status capability of a comment
Make a GET request to the new /chatter/comments/commentId/capabilities/status resource.

Approve a comment or set its status to pending review
Make a PATCH request to the new /chatter/comments/commentId/capabilities/status resource with the existing Status Capability Input.
Only users with the “Can Approve Feed Post and Comment” permission can set the status of a feed post or comment.

Set the status of a feed post to pending review
Make a PATCH request to the existing /chatter/feed-elements resource with the existing Status Capability Input.
Only users with the “Can Approve Feed Post and Comment” permission can set the status of a feed post or comment.

Files
Create an asset file
Make a POST request to the new /connect/files/fileId/asset resource without a request body.

Get information about an asset file
Make a GET request to the new /connect/file-assets/assetId resource.

Files Connect
Get Files Connect repository information for a repository file
Make a GET request to the new /connect/content-hub/items/repositoryItemId/repository resource.

Managed Topics
Get managed topics associated with a list of topics
Make a GET request to the existing /connect/communities/communityId/managed-topics resource with the new recordIds parameter, where recordIds is a list of up to 10 topic IDs.

Topics
Users follow an entity, for example a topic, and choose whether to receive notifications for the topics they follow. If they opt to receive notifications, they get an email when the topic is added to a post that they have access to.

Get information about the frequency with which a user receives subscription notifications
Make a GET request to the new /chatter/subscriptions/notification/entityId/members/userId resource.
In version 38.0 and later, entityId must be a topic ID.

Subscribe a user to receive subscription notifications
Make a POST request to the new /chatter/subscriptions/notification/entityId/members/userId resource with the new Notification Member Input or the notificationFrequency parameter.
In version 38.0 and later, *entityId* must be a topic ID.

**Unsubscribe a user from receiving notifications**
Make a DELETE request to the new `/chatter/subscriptions/notification/entityId/members/userId` resource.
In version 38.0 and later, *entityId* must be a topic ID.

**New and Changed Chatter REST API Request Bodies**

**Communities Moderation**

**Moderation Flag Input**
This request body has these new properties.

- **note**—A note of up to 4,000 characters about the flag.
- **type**—Specifies the type of moderation flag.
  - *FlagAsInappropriate*—Flag for inappropriate content.
  - *FlagAsSpam*—Flag for spam.

**Chatter Feeds**

**Feed Element Capabilities Input**
The new *topics* property is the list of topics to assign to the feed element.

**Message Segment Input: Mention**
The new *username* property is the user name of the user to mention.

**Topics Capability Input**
This new request body has these properties.

- **contextTopicName**—Name of the parent topic in the community to which the feed element belongs.
- **topics**—List of topics to assign to the feed element.

**Topics**

**Topics Capability Input**
This new request body has these properties.

- **contextTopicName**—Name of the parent topic in the community to which the feed element belongs.
- **topics**—List of topics to assign to the feed element.

**Notification Member Input**
This new request body has one property, *notificationFrequency*, which is the frequency with which users receive email for topics they follow.

**New and Changed Chatter REST API Response Bodies**

**Chatter Feeds**

**Comment Capabilities**
The new *status* property indicates whether a comment has a status that determines its visibility.
**Comment Page**

The *total* property is the total number of published comments.

**Related Question**

The new *interactions* property is the number of times a related question has been viewed, liked, or commented on.

**Social Account**

The new *externalSocialAccountId* property is the ID of the external social account, if available.

**Social Post Capability**

This response body has these new properties.

- **deletedBy**—The user who deleted the social post.
- **messageType**—The message type of the social post. Values are:
  - Comment
  - Direct
  - Post
  - PrivateMessage
  - Reply
  - Retweet
  - Tweet
- **recipientId**—The ID of the recipient of the social post.

**Files**

**Asset File**

This new response body has these properties.

- **baseAssetUrl**—The base download URL of the asset.
- **id**—The ID of the asset.
- **masterLabel**—The master label of the asset.
- **name**—The unique name of the asset.
- **namespacePrefix**—The namespace prefix of the package containing the asset.
- **type**—The type of asset.

**File Details**

The new *fileAsset* property is an asset file.

**Files Connect**

**Repository Folder Detail**

This new response body has these properties.

- **createdBy**—Name of user who created the folder.
- **createdDate**—Created date of the folder.
- **description**—Folder description.
- **externalFolderUrl**—Chatter REST API URL for this folder in the external system.
- **folderItemsUrl**—Chatter REST API URL that lists the files and folders in this folder.
- **id**—ID of the folder.
Knowledge Article Summary
The new `viewCount` property is the number of times a knowledge article has been viewed.

Messages Email Message Capability
The new `totalAttachments` property is the total number of attachments in the email message.

Topics Notification Member
This new response body has these properties.
- `notificationFrequency`—Specifies the frequency with which a user receives email. In version 38.0 and later, `EachPost` is the only valid value.
- `url`—URL for the notification member.

Reports and Dashboards REST API
Reports and Dashboards REST API enhancements include new resources describing analytics notifications, and access to new report and dashboard properties.

New Resources: Analytics Notifications, Analytics Notifications List, Analytics Notifications Limits
The Reports and Dashboards REST API includes new resources that describe Wave notifications.

<table>
<thead>
<tr>
<th>Resource URI</th>
<th>Supported HTTP Methods</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytics Notifications List</td>
<td>GET, POST</td>
<td>Returns a list of recent notifications (GET). Creates an analytics notification (POST).</td>
</tr>
</tbody>
</table>
### Resource URI | Supported HTTP Methods | Description
---|---|---
Analytics Notifications | PUT | Save changes to the notification as specified in the request body (PUT).  
notification ID>  
Delete a notification. Deleted notifications can’t be recovered (DELETE).  
Analytics Notifications Limits | GET | Check to see how many more analytics notifications you can create. There is no org-wide limit on the number of analytics notifications. Instead, the limit is per-user.  

For more information, see the [Reports and Dashboards REST API Developer Guide](https://developer.salesforce.com/docs/atlas.en-us.api_rest.htm).

#### Changed Resources: reportMetadata and Dashboard Results

The Reports and Dashboards REST API includes new properties to describe role hierarchy filters, picklist value colors, and Chatter photos.

**Reports**

The `reportMetadata` object contains new properties.

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>supportsRoleHierarchy</td>
<td>Boolean</td>
<td>Indicates whether the report lets users filter by role hierarchy in Lightning Experience (true) or not (false).</td>
</tr>
<tr>
<td>userOrHierarchyFilterId</td>
<td>String</td>
<td>Unique user or role ID of the user or role used by a role hierarchy filter.</td>
</tr>
</tbody>
</table>

**Dashboards**

The Dashboard Results resource contains new properties.

<table>
<thead>
<tr>
<th>Property</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>picklistColors</td>
<td>String</td>
<td>The color in hexadecimal format used to represent a picklist value.</td>
</tr>
<tr>
<td>chatterPhotoUrl</td>
<td>String</td>
<td>URL pointing to a user’s Chatter photo.</td>
</tr>
</tbody>
</table>

For more information, see the [Reports and Dashboards REST API Developer Guide](https://developer.salesforce.com/docs/atlas.en-us.api_rest.htm).

#### Bulk API

Bulk API limits have increased.
Process Twice as Many Records with Bulk API

You know what’s better than being able to upload 5,000 batches a day with Bulk API? If you guessed, “being able to upload 10,000 batches a day,” you’re right! The daily batch limit has been increased to 10,000 for all orgs.

Messaging

Messaging includes a pilot feature, Platform Events.

Deliver Customizable Events with Platform Events (Beta)

Use platform events to deliver secure and scalable custom notifications within Salesforce or from external sources. Define fields to customize your platform event. Your custom platform event determines the event data that the Force.com Platform can produce or consume. This feature is available in both Lightning Experience and Salesforce Classic. You can define platform events in Salesforce Classic only.

Note: This release contains a beta version of Platform Events, which means it’s a high-quality feature with known limitations. For information on enabling this feature in your org, contact Salesforce. Platform Events 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 Events in the Success Community.

By using platform events, publishers can send customized event data through Apex or an API. Subscribers can receive custom notifications from Salesforce or an external system and respond with actions using Apex or CometD clients. For example, a printer can make an API call to publish an event when the ink is low. The custom printer event can contain custom fields for the printer model, serial number, and ink level. The event is processed in Salesforce by an Apex trigger that places an order for a new cartridge.

Platform events simplify the process of communicating changes and responding to them without writing complex logic. Publishers and subscribers communicate with each other through events. Multiple subscribers can listen to the same event and carry out different actions.

Define Your Platform Event

Define your platform event in the Platform Events page in the Salesforce user interface. From Setup, enter Platform Events in the Quick Find box, then select Platform Events.

Platform events are sObjects, similar to custom objects but with some limitations. Event notifications are instances of platform events. Unlike sObjects, you can’t update event notifications. You also can’t view them in the user interface. When you delete platform event definitions, they’re permanently deleted.

Publish and Subscribe to Platform Events

After you define your platform event, you can publish event notifications and subscribe to events using Apex or an API.

In Apex, you publish event notifications by inserting event records with the EventBus.publish static method. To receive published notifications, write an after insert trigger on your event object. In the trigger, you can inspect each event notification and perform some business logic. You don’t need to create a channel, because Salesforce creates a channel for each defined platform event.

Using an API, you publish events by creating records of your event in the same way that you insert sObjects. You can use any Salesforce API to create platform events, such as SOAP API, REST API, or Bulk API. Unlike Apex, there is no extra call to publish the event. Subscribe to events with CometD clients or by writing Apex after insert triggers on your event object.
**Example: Publish an Event with Apex**

In Apex, use the `EventBus.publish` method to publish one or more events. The event API name is the name of the event appended with the `__e` suffix. In this example, the event name is `Low_Ink`, and the event API name used in Apex is `Low_Ink__e`. This example creates two `Low_Ink__e` events and inserts them using the `EventBus.publish` method.

```java
List<Low_Ink__e> inkEvents = new List<Low_Ink__e>();
inkEvents.add(new Low_Ink__e(Printer_Model__c='XZO-5', Serial_Number__c='12345', Ink_Percentage__c=0.2));
inkEvents.add(new Low_Ink__e(Printer_Model__c='MN-123', Serial_Number__c='10013', Ink_Percentage__c=0.15));

// Call method to publish events
List<Database.SaveResult> results = EventBus.publish(inkEvents);
```

**Example: Subscribe to an Event with Apex**

This example is a trigger on the `Low_Ink__e` event. The trigger is fired when low ink notifications are received. The trigger iterates through each event, and based on the printer model, creates a case. Finally, the trigger inserts all generated cases.

```java
trigger LowInkTrigger on Low_Ink__e (after insert) {
    // Trigger for catching Low_Ink events.
    // Iterate through each notification.

    // List to hold all cases to be created.
    List<Case> cases = new List<Case>();
    for (Low_Ink__e event : Trigger.New) {
        System.debug('Printer model: ' + event.Printer_Model__c);
        if (event.Printer_Model__c == 'MN-123') {
            // Create Case to order new printer cartridge.
            Case cs = new Case();
            cs.Priority = 'Medium';
            cs.Subject = 'Order new ink cartridge for SN ' + event.Serial_Number__c;
            cases.add(cs);
        }
    }

    // Insert all cases corresponding to events received.
    insert cases;
}
```

SEE ALSO:
- Platform Events (Beta)

**Tooling API**

Tooling API includes new and changed objects, calls, and resources.

IN THIS SECTION:

Tooling API New and Changed Objects
Tooling API includes new and changed objects. The ManageableState field was exposed in additional objects.

Tooling API Changed Calls and Resources
Tooling API includes changed SOAP calls and REST resources.

Tooling API New and Changed Objects
Tooling API includes new and changed objects. The ManageableState field was exposed in additional objects.

New Objects

CleanDataService
Represents a data service that adds and updates data in existing records in an org.

CleanRule
Represents a clean rule that controls how a data service adds and updates data for existing records in an org.

Document
Represents a file that a user has uploaded. Unlike Attachment records, documents are not attached to a parent object.

EmbeddedServiceConfig
Represents a setup node for creating a snap-in deployment.

EmbeddedServiceLiveAgent
Represents a setup node for creating a snap-in Live Agent deployment.

FieldMapping
Represents a mapping between fields in an object in the org and fields in a data service. A data service uses two separate field maps: one controls how the data service matches records in an object, and the other controls how the data service adds or updates data for an existing record.

FieldMappingField
Represents a field in an object in the org that maps to a field in a data service.

FieldMappingRow
Represents a field in a data service record that maps to a field in an object record in the org.

Group
Represents a set of User records. Groups can contain individual users, other groups, or the users in a particular role or territory. In addition, groups can contain all users below a particular role or territory in the hierarchy.

MetadataPackage
Represents a managed or unmanaged package that has been developed in the org you’re logged in to.

MetadataPackageVersion
Represents a package version (managed or unmanaged) that has been uploaded from the org you’re logged in to.

PackageUploadRequest
Represents the request for uploading a package for eventual installation in subscriber orgs.

Changed Objects

ApexTestRunResult
The following fields were added.
MethodsCompleted
The total number of methods completed during the test run. This value is updated after each class is run.

MethodsEnqueued
The total number of methods enqueued for the test run. This value is initialized before the test runs.

MethodsFailed
The total number of methods that failed during this test run. This value is updated after each class is run.

ApexTestSuite
Apex test suites can now be deployed among orgs. The ApexTestSuite object is now available in the mns namespace, in Tooling API version 38.0 and later. ApexTestSuite is also available in the ens namespace, in Tooling API version 36.0 and later.

FlexiPage
The Type field now supports the following values.
- availableforMailAppAppPage, which represents the email application pane used to override the default layout for Lightning for Outlook.
- UtilityBar, which represents a Lightning Page used as the utility bar in Lightning Experience apps.

QuickActionDefinition
The Type field now supports the LightningComponent value, which represents a Lightning component action.

SecurityHealthCheckRisks
The following fields were added.

OrgValueRaw
The org’s value for the security setting as it is stored in the database, usually without units of measure or extra text.

StandardValueRaw
Salesforce-recommended standard value for the security setting as it is stored in the database, usually without units of measure or extra text.

ManageableState Field Exposed in Additional Objects
The ManageableState field indicates the manageable state of the specified component that is contained in a package. The ManageableState field was exposed in several additional objects in API version 38.0.

- ApexClass
- ApexComponent
- ApexPage
- AuraDefinition
- AuraDefinitionBundle
- CompactLayout
- Flexipage
- FlowDefinition
- OpportunitySplitType
- QuickActionDefinition
- RemoteProxy
- TransactionSecurityPolicy
Tooling API Changed Calls and Resources

Tooling API includes changed SOAP calls and REST resources.

Changed SOAP Calls

`runTestsAsynchronous()`

In API version 38.0 and later, the `runTestsAsynchronous()` call takes two new required parameters: `classNames` and `suiteNames`. The `classids`, `suiteids`, `classNames`, and `suiteNames` parameters must all be specified. To provide values for only some of these parameters, specify the others as `null`.

This example shows a call to a class that calls the `runTestsAsynchronous` endpoint.

```java
class conn.runTestsAsynchronous(classids, suiteids, maxFailedTests, testLevel.value, classNames, suiteNames)
```

Changed REST Resources

`/completions?type=`

In API version 38.0 and later, you can use the `?type=visualforce` parameter with the `/completions` resource to retrieve available code completions for Visualforce markup.

`/runTestsAsynchronous/`

In API version 38.0 and later, two new parameters are available for calls to the `/runTestsAsynchronous/` resource: `classNames` and `suiteNames`.

If you provide a `testLevel` value of `RunLocalTests` or `RunAllTestsInOrg`, don’t specify classes or suites. If you don’t provide a `testLevel` value, or if you set `testLevel` to `RunSpecifiedTests`:

- You can send any combination of `classNames`, `classids`, `suiteNames`, and `suiteids`.
- At least one of these four parameters is required.

Actions API

Actions API has been updated to reflect invocable processes.

Invoke Active Processes

You can now invoke an active process in your current organization. Previously you could only invoke autolaunched flows.

Metadata API

Metadata API includes new and changed types and fields.

New Metadata Types

**ApexTestSuite**

Represents a suite of Apex test classes to include in a test run.

**CampaignInfluenceModel**

Represents a campaign influence model used by Customizable Campaign Influence. You can’t configure Customizable Campaign Influence via the Metadata API, but you can add a campaign influence model.
ContentAsset
Represents the metadata for creating an asset file. Enables a Salesforce file to be used for org setup and configuration purposes. Asset files can be packaged and referenced by other components.

CommunityTemplateDefinition
Represents the definition of a community template.

CommunityThemeDefinition
Represents the definition of a community theme.

CleanDataService
Represents a data service that adds and updates data in standard objects.

DuplicateRule
Represents a rule that specifies how duplicate records in an object are detected.

GlobalValueSet
Represents the metadata for a global picklist value set, which is the set of shared values that custom picklist fields can use. A global value set isn’t a field itself. (In contrast, the custom picklist fields that are based on a global picklist are of type ValueSet.)

GlobalValueSetTranslation
Contains details for a global value set translation. Global value sets are lists of values that can be shared by multiple custom picklist fields, optionally across objects.

StandardValueSet
Represents the set of values in a standard picklist field. This type extends the Metadata metadata type and inherits its fullName field.

StandardValueSetTranslation
Contains details for a standard picklist translation. It returns a translated standard value set.

Updated Metadata Types and Fields
These metadata types have changed or have fields that have been added or changed.

Certificate
The following fields have been added.

  encryptedWithPlatformEncryption
  Indicates whether this certificate is encrypted with Platform Encryption.

  privateKeyExportable
  Indicates whether this certificate’s private key is exportable. If privateKeyExportable isn’t specified when you create a certificate, its default value is true.

CustomApplication
The following fields have been added.

  actionOverrides
  Represents an action override for an application. Use it to create, update, edit, or delete action overrides.

  brand
  The color scheme and logo used for the app.

  enableListViewHover
  Indicates if a Salesforce console app has list view hovers enabled. If set to true, summary information is displayed about a record in a responsive list when the user hovers over a record name. For cases, hover over the subject field.
**enableListViewReskin**
Indicates if Salesforce console apps use responsive list views instead of Salesforce Classic lists views.

**formFactors**
Indicates the form factors for which the app is visible for Lightning Experience.

*Note:* As of version 38.0, `formFactors` is set to `Large` for existing Salesforce Classic apps, except for Salesforce Classic consoles. Salesforce Classic apps installed from packages created before version 38.0 also have `formFactors` set to `Large`. For Salesforce Classic apps in packages created with 38.0 or later, you must set `formFactors` to `Large` for Salesforce Classic apps to appear in the Lightning Experience desktop.

**navType**
Not updateable. Indicates the type of navigation the app uses.

**uiType**
Not updateable. Identifies the type of custom app.

**utilityBar**
The developer name of the UtilityBar associated with this app.

**CustomField**
The following field has been added.

**valueSet**
Represents the set of values that make up a picklist on a custom field.

**globalPicklist**
The following field has been removed.

**CustomObject**
The `enableReports` field now supports external objects.

**FlexiPage**
The `type` field now supports the following values.

- `AvailableForMailAppAppPage` value, which represents the email application pane used to override the default layout for Lightning for Outlook.
- `CommObjectPage`, which represents a Lightning Page used to override an object page in Lightning Experience, as created in the Community Builder, in Communities.
- `CommQuickActionCreatePage`, which represents a Lightning Page used to override a create record page in Lightning Experience, as created in the Community Builder, in Communities.
- `CommRecordPage`, which represents a Lightning Page used to override a record page in Lightning Experience, as created in the Community Builder, in Communities.
- `CommRelatedListPage`, which represents a Lightning Page used to override a related list page in Lightning Experience, as created in the Community Builder, in Communities.
- `CommSearchResultPage`, which represents a Lightning Page used to override a search result page in Lightning Experience, as created in the Community Builder, in Communities.
- `CommThemeLayoutPage`, which represents a Lightning Page used to override a theme layout page in Lightning Experience, as created in the Community Builder, in Communities.
- `UtilityBar` value, which represents a Lightning Page used as the utility bar in Lightning Experience apps.

This new field has been added to the ComponentInstanceProperty subtype.
**type**
If this field value is null, then the ComponentInstanceProperty values apply to the Lightning component. If this field value is decorator, then the ComponentInstanceProperty values apply to the *component decorator* for the Lightning component.

The component decorator is a wrapper around a Lightning component. The decorator can apply additional capabilities to the component when it renders on a specific page in Lightning Experience. For example, you can configure a component decorator around a component on the Lightning Experience utility bar to set the component’s height or width when opened. The UtilityBar is the only page type that supports component decorators.

**Flow**
The `processType` field now supports the *InvocableProcess* value, which represents a process that can be invoked by another process.

**GlobalValueSetTranslation**
The `valueTranslation` field represents the translated name of a value in a translated global value set.

**LiveChatDeployment**
The following fields have been added.

- `connectionTimeoutDuration` Indicates the amount of time before the chat times out, in seconds.
- `connectionWarningDuration` Indicates the amount of time before a time-out warning is displayed to the agent, in seconds.

**Network**
The following field has been added.

- `enableSiteAsContainer` Determines whether the community uses Site.com pages instead of tabs.

**PermissionSet**
The `license` field contains either the related permission set license or the user license associated with this permission set. Use this field instead of `userLicense`, which is deprecated and only available up to API version 37.0.

**PermissionSet and Profile**
You can change field permissions to make a field editable using the Metadata API for fields that you can’t change through the user interface. For example, you can deploy Asset.ProductCode as an editable field even though you can’t through the user interface.

**QuickAction**
The `type` field now supports the *LightningComponent* value, which represents a Lightning component action.

This new field has been added.

- `lightningComponent` If the custom action invokes a Lightning component, this field represents the fully qualified name of the component. Otherwise, this field is null.

**Report**
The following fields have been added.

- `isUnlocked` Optional. Indicates whether a report filter is unlocked (true) or locked (false). You can edit unlocked filters on the report run page in Lightning Experience. If unspecified, the default value is false.
- `numSubscriptions` Reserved for future use.
ReportType
The `baseObject` field now supports external objects.

Skill
The new `description` field lets you add a description to a skill.

Translations
The `globalPicklists` field has been removed and is replaced by `customValue`, which represents a value in a global value set or custom picklist field. In API version 38.0 and later, translations are done through `GlobalValueSetTranslation` and `StandardValueSetTranslation`.

SEE ALSO:
- Streamlined Metadata API for Picklists
- Deployment: More Flexible Quick Deployments, More Deployable Items

Open CTI API
Open CTI is now available in Lightning Experience. New Open CTI methods let you customize and integrate Salesforce with Computer-Telephony Integration (CTI) systems.

The path to Lightning Experience gave us an opportunity to modernize the Open CTI API. We created a new Open CTI API just for Lightning Experience that’s easier to use. The API uses JSON objects as parameters instead of individual parameters, returns error messages that are easier to understand, and adapts to the Lightning platform.

For more information about Open CTI for Lightning Experience, see Make Your Calls in Lightning Experience with Open CTI and the Open CTI Developer’s Guide.

ISVforce: Automation of Package Uploads and Upgrades with the API
ISVforce tools make it easy to build, package, and distribute apps and Lightning components. This release takes the effort out of package management with package upload and upgrade automation using the Tooling API and standard objects, respectively. You can also address subscriber issues quickly by using automated email notifications.

IN THIS SECTION:
Track Subscriber Package Errors Through Email Notifications
You can now send a notification to an email address in your org whenever your subscriber’s attempt to install, upgrade, or uninstall a package app fails. Use notifications to proactively address issues with managed and unmanaged packages and provide support to subscribers so that they can successfully install and upgrade your apps. This feature is available in Salesforce Classic only.

Automate Managed Package Push Upgrades with the API
Introducing push upgrade automation, which consists of six new standard objects. Make SOQL queries to find active package subscribers, schedule push upgrades to subscribers, monitor the upgrade status, and list errors.

Upload Managed and Unmanaged Packages with the Tooling API
You can now automate uploading packages to subscribers using the PackageUploadRequest object in the Tooling API. After you create an upload request, you can make SOQL queries to monitor the upload status and help create an installation URL.
View Obfuscated Code in Subscriber Orgs with Login As

The code contained in an Apex class, trigger, or Visualforce component that’s part of a managed package is obfuscated and can’t be viewed in an installing org. The only exceptions are methods declared as global. You can view global method signatures in an installing org. However, License Management Org users with the “Author Apex” permission can view their packages’ obfuscated Apex classes when logged in to subscriber orgs via the Subscriber Support Console.

Track Subscriber Package Errors Through Email Notifications

You can now send a notification to an email address in your org whenever your subscriber’s attempt to install, upgrade, or uninstall a package app fails. Use notifications to proactively address issues with managed and unmanaged packages and provide support to subscribers so that they can successfully install and upgrade your apps. This feature is available in Salesforce Classic only.

To enable this feature, contact your Salesforce representative.

Note: This feature is available to eligible Salesforce partners. For more information on the Partner Program, including eligibility requirements, visit www.salesforce.com/partners.

SEE ALSO:
- ISVforce Guide

Automate Managed Package Push Upgrades with the API

Introducing push upgrade automation, which consists of six new standard objects. Make SOQL queries to find active package subscribers, schedule push upgrades to subscribers, monitor the upgrade status, and list errors.

Note: This feature is available to eligible Salesforce partners. For more information on the Partner Program, including eligibility requirements, visit www.salesforce.com/partners.

As an app vendor, you can use the API to automate package upgrades for your customers. For example, you can create a web form for customers to select whether they want to upgrade to a new app package version. Clicking a button on the form can trigger code to schedule a push upgrade for those customers.

SEE ALSO:
- New Objects
- ISVforce Guide

Upload Managed and Unmanaged Packages with the Tooling API

You can now automate uploading packages to subscribers using the PackageUploadRequest object in the Tooling API. After you create an upload request, you can make SOQL queries to monitor the upload status and help create an installation URL.

Note: This feature is available to eligible Salesforce partners. For more information on the Partner Program, including eligibility requirements, visit www.salesforce.com/partners.

SEE ALSO:
- ISVforce Guide
View Obfuscated Code in Subscriber Orgs with Login As

The code contained in an Apex class, trigger, or Visualforce component that's part of a managed package is obfuscated and can't be viewed in an installing org. The only exceptions are methods declared as global. You can view global method signatures in an installing org. However, License Management Org users with the “Author Apex” permission can view their packages' obfuscated Apex classes when logged in to subscriber orgs via the Subscriber Support Console.

Note: This feature is available to eligible Salesforce partners. For more information on the Partner Program, including eligibility requirements, visit www.salesforce.com/partners.

Marketing: Tools to Engage Your Customers Like Never Before

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, and plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time, and measure the impact of each interaction on your business so you can optimize your approach in real time and deliver better results.

SEE ALSO:
- Marketing Cloud Overview
- Marketing Cloud: July 2016 Release Notes
- Marketing Cloud: May 2016 Release Notes
- Marketing Cloud: Earlier Release Notes
- Salesforce Marketing Cloud Facebook Page

Critical Updates: LockerService Changes, More Clickjack Protection for Visualforce Pages

The LockerService critical update from last release has been postponed. Also, this release includes a critical update that extends legacy browser-compatible clickjack protection for Visualforce pages that hide the page header.

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 the 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 automatically activated. For more details, see Respond to Critical Updates.

PageReference getContent() and getContentAsPDF() Methods Now Behave as Callouts (Critical Update)

This critical update was introduced in Summer ’15 and was enforced for all orgs on October 18, 2016. With this critical update, the getContent() and getContentAsPDF() methods of the PageReference object behave as callouts, and the calls are tracked against the limits of the calling transaction.

Clickjack Protection for Legacy Browsers for Visualforce Pages Without Page Header (Critical Update)

This critical update extends legacy browser-compatible clickjack protection for Visualforce pages that set showHeader="false" when those pages are also configured to use API versions before 27.0.

LockerService Critical Update Postponed

LockerService is a powerful security architecture for Lightning components that was a critical update for Summer ’16. This critical update was scheduled for auto-activation in Winter ’17. The auto-activation date has been postponed until Summer ’17.
LockerService for Communities Critical Update Postponed

LockerService is a powerful new security architecture for Lightning components that was a critical update for Communities in Summer ’16. This critical update was scheduled for auto-activation in Winter ’17. The auto-activation date has been postponed until Spring ’17.

All Orgs Can Toggle the LockerService Critical Update

All orgs can now deactivate the critical update. Also, there is a new setting on the Lightning Components setup page to let you control whether LockerService is enforced for components installed from a managed package.

“Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process” Critical Update Postponed

This critical update, released in Summer ’16, was scheduled for auto-activation in Winter ’17, but has been postponed to Spring ’18.

“Trust Percent Values in Flow sObject Variables Again” Critical Update Postponed

This critical update, released in Summer ’16, was scheduled for auto-activation in Winter ’17, but has been postponed to Spring ’17.

Help and Training

We added walkthroughs and Trailhead modules and added instructional videos. We also updated the Salesforce Trust and Compliance documents.

IN THIS SECTION:

Walkthroughs
A walkthrough is a series of interactive steps that guide you through a task or feature. Before you start a walkthrough, make sure you have the correct user permissions and license associated with the feature so you can access the proper pages in Salesforce.

Videos
We created instructional videos to help your users learn about new and improved Salesforce features.

Trailhead
Looking for a good way to get started with Salesforce or dive into a new feature? Meet Trailhead, a fun, guided, and interactive tool to learn Salesforce. You can follow guided learning paths for admins or developers, or choose your own adventure with self-paced modules and projects.

Trust and Compliance Documentation
The Salesforce Trust and Compliance documents have undergone seasonal updates.

Introducing the Utility Bar Implementation Guide
Lightning Experience allows you to add your components to prime real estate in any Lightning app so that your users have one-click access to powerful productivity tools. Now, you can access those same productivity tools in a horizontal footer, called the utility bar.

Walkthroughs

A walkthrough is a series of interactive steps that guide you through a task or feature. Before you start a walkthrough, make sure you have the correct user permissions and license associated with the feature so you can access the proper pages in Salesforce.

Important: A walkthrough guides you through your own Salesforce account, so you’re actually making changes to the data in your org as you go through the steps. If you’re concerned about making these changes, follow the walkthrough in a sandbox account or other test environment.


<table>
<thead>
<tr>
<th>Feature</th>
<th>Walkthroughs</th>
<th>You’ll need…</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lightning Experience</td>
<td>Walk Through It: Meet the Lightning Experience Navigation Bar</td>
<td>Access to Lightning Experience</td>
</tr>
<tr>
<td></td>
<td>Walk Through It: Manage Your Apps in Lightning Experience</td>
<td>&quot;View Setup and Configuration&quot;</td>
</tr>
</tbody>
</table>

Videos

We created instructional videos to help your users learn about new and improved Salesforce features.

- The new [Add Events to the Patient Health Timeline](#) video teaches you how to add patient healthcare events to the timeline and tailor it to show the events most important to your care coordinators.
- The new [Add Essential Information to the Patient Card](#) video shows you how to add healthcare-related information to the patient card so that care coordinators have all the important details to effectively manage their patients.
- The new [Release Management: Deploy Changes Efficiently with Quick Deployments & Test Levels](#) video shows you how to deploy your change sets to production in less time by using quick deployment and test levels.
- The new [Filtering Search Results in Salesforce Classic](#) video shows you how to navigate the search results page to find the record you need quickly.
- The new [Get More Accounts in Lightning](#) video shows you how to search for and filter on Data.com accounts so you can keep your sales pipeline full.
- The new [Get More Contacts in Lightning](#) video shows you how to search for and filter on Data.com contacts so you can keep deals moving.
- The new [Set Up the Checkout Management App](#) video shows you how to configure your org to make it ready to sync AppExchange Checkout data from Stripe. The Checkout Management App is available to eligible Salesforce partners.

Trailhead

Looking for a good way to get started with Salesforce or dive into a new feature? Meet Trailhead, a fun, guided, and interactive tool to learn Salesforce. You can follow guided learning paths for admins or developers, or choose your own adventure with self-paced modules and projects.

Check out Trailhead at [https://trailhead.salesforce.com](https://trailhead.salesforce.com) and find the right content for you. These are the latest trails, modules, and projects:

**New Modules**

**Community Rollout Strategy**
Develop a strategy to build, launch, and nurture a community.

**AppExchange Basics**
Extend the power of Salesforce with apps, components, and services from the AppExchange.

**Knowledge Basics**
Help employees and customers find answers fast with an online, searchable knowledge base.

**Knowledge Search Basics**
Learn how search works in Salesforce Knowledge and customize search in your org for better results.
Live Agent Basics
Connect customers to the best agent for the job using live chat. The Build a Branded Chat project is a prerequisite to this module.

Salesforce1 Rollout
Develop a rollout strategy to help your company do more with Salesforce1.

Salesforce1 Basics for Users
Collaborate with your teammates on the go with the Salesforce1 mobile app.

New Projects
Build an Automated Workshop Management System
Automate the tasks associated with organizing a development workshop.

Build a Branded Chat
Add branded chats to your service channels with Live Agent. No code required.

Create a Satisfaction Survey
Use flow to make a simple customer satisfaction survey.

Trust and Compliance Documentation
The Salesforce Trust and Compliance documents have undergone seasonal updates.

Notices and Licenses
The following changes have been made in the Notices and Licenses Documentation.

Salesforce
Purpose of this Documentation: Added a reference to additional terms in Order Forms.
External Facing Services: New section referencing the External-Facing Service (EFS) policy.
Account Intelligence Features: Updated section.
Distributed Software: Updated links to Order Form Supplements for distributed software.

Analytics Cloud
Services Covered: Updated information.
Purpose of this Documentation: Added a reference to additional terms in Order Forms.
Third-Party Platforms: Updated information.
Distributed Software: Updated information.
Interoperation with Other Salesforce Services: Updated information.

Data.com
Purpose of this Documentation: Added a reference to additional terms in Order Forms.
Data.com Data: Updated information.
Interoperation and Customer Data: Updated information.
Interoperation with Other Salesforce Services: Added new section for clarification purposes.

Desk.com
Purpose of this Documentation: Added a reference to additional terms in Order Forms.
ExactTarget
   Services Covered: Updated information to reflect changes to branding and product offerings.
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
   Restricted Uses of Information: Updated information related to best practices and guidelines.
   Advertising Studio: Added new section.

Financial Services Cloud
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
   Account Intelligence Features: Updated information.
   Distributed Software: Updated information.

Health Cloud
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
   Account Intelligence Features: Updated information.
   Distributed Software: Updated information.

Heroku
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
   Heroku Elements: Updated information.
   Heroku Dev Center: Updated information.
   Distributed Software: Updated information.

IoT Cloud
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
   Third-Party Platforms: Added new section.

Marketing Cloud
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
   Third-Party Notices: Updated information to reflect changes to commercial entities that interoperate with the ET Services.
   Distributed Software: Updated link to Marketing Cloud Open Source website.

Pardot
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
   Third-Party Notices: Updated information.

Predictive Intelligence
   Services Covered: Updated information to reflect changes to branding and product offerings.
   Purpose of this Documentation: Added a reference to additional terms in Order Forms.
   External Facing Services: New section referencing the External-Facing Service (EFS) policy.
Distributed Software: Update to include link to Predictive Intelligence Open Source website.

SalesforceIQ
Services Covered: Updated information to include Salesforce Inbox.
Purpose of this Documentation: Added a reference to additional terms in Order Forms.
Third-Party Applications: Added new section, to include integrations with MailChimp, HubSpot, and Zapier.
Distributed Software: Updated information.
External Facing Services: New section referencing the External-Facing Service (EFS) policy.
Interoperation With Other Salesforce Services: Added new section for clarification.

Steelbrick
Product title change
Services Covered: Updated information.
Purpose of this Documentation: Added a reference to additional terms in Order Forms.
Third-Party Platforms: Updated information.
Social Accounts, Contacts, and Leads: Removed section.
Quick Contact Import Feature: Removed section.
Chatter Third-Party Integrations: Removed section.
Account News Feature: Removed section.
Files Connect Feature: Removed section.
Google Maps: Removed section.
Exchange Sync: Removed section.
Distributed Software: Updated information.
Interoperation with Other Salesforce Services: Updated information.

Work.com
Purpose of this Documentation: Added a reference to additional terms in Order Forms.

Security, Privacy, and Architecture
The following changes have been made in the Security, Privacy, and Architecture Documentation.

Salesforce
Services Covered: Changed defined term from Salesforce Services to Covered Services and clarified that SPARC does not cover recent acquisitions MetaMind or BeyondCore.
Salesforce Infrastructure: Revised instance chart to reflect addition of new data center in France and eliminate distinction between primary and secondary data centers. Added language clarifying how data resides on primary and back-up data centers and explaining how sandbox copies may redirect to other data centers in region.
Third-Party Architecture: Added section on Account Intelligence feature available in Sales Cloud that can render news articles and other content to users.
Audits and Certifications: Replaced references to the EU/US and Swiss/US Safe Harbor self-certifications with Privacy Shield certification. Removed Work.com exclusion from SOC and ISO certifications and PCI Attestation of Compliance (AoC) and clarified that PCI AoC now covers encrypted file attachments.
Sensitive Personal Data: Eliminated restrictions on data allowed in Work.com and clarified that encrypted file attachments are now a permitted option.
Buddy Media
  **Salesforce Infrastructure**: Removed reference to data storage in Canada.
  **Audits and Certifications**: Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.

Data.com
  **Audits and Certifications**: Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.
  **Audits and Certifications**: Added reference to ISO 27018 certification.

Desk.com
  **Audits and Certifications**: Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.

ExactTarget
  **Services Covered**: Added reference to new Advertising Campaigns branding.
  **Audits and Certifications**: Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.
  **Security Controls**: Clarified explanation of “Identity Validation Option” by removing reference to two-factor authentication.
  **Security Controls**: Added description of self-managed SFTP provisioning.
  **Security Procedures, Policies, and Logging**: Removed reference to Watchdog Behavioral Analysis Program.

Financial Services Cloud
  **Salesforce Infrastructure**: Removed details on Salesforce infrastructure to instead cross-reference SPARC for Salesforce Services.
  **Sensitive Personal Data**: Modified restrictions on submission of various types of sensitive personal data and clarified that encrypted file attachments are now a permitted option.

Health Cloud
  **Salesforce Infrastructure**: Removed details on Salesforce infrastructure to instead cross-reference SPARC for Salesforce Services.
  **Sensitive Personal Data**: Modified restrictions on submission of various types of sensitive personal data and clarified that encrypted file attachments are now a permitted option.

Heroku
  **Third-Party Architecture**: Updated list of countries in which architecture hosted by AWS in the provisioning of the Heroku Services is located to include Germany and Japan.
  **Audits and Certifications**: Replaced references to the EU/US and Swiss/US Safe Harbor self-certifications with Privacy Shield certification.
  **Sensitive Personal Data**: Modified restrictions on submission of various types of sensitive personal data.

IoT Cloud
  **Salesforce Infrastructure**: Added statement indicating that a portion of IoT Cloud is hosted on Heroku infrastructure and added cross-reference to Heroku SPARC.
  **Third-Party Architecture**: Clarified that only part of IoT Cloud is hosted directly on AWS.
  **Audits and Certifications**: Added reference and links to AWS certifications.

Pardot
  **Audits and Certifications**: Replaced references to the EU/US and Swiss/US Safe Harbor self-certifications with Privacy Shield certification. Added provision regarding annual internal and third-party security assessments.
  **Security Procedures, Policies, and Logging**: Revised description of data points contained in user logs.
Predictive Intelligence

- **Services Covered:** Added reference to new Predictive Scoring branding.
- **Audits and Certifications:** Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.
- **Security Procedures, Policies, and Logging:** Removed reference to password storage, which was outdated after Predictive Intelligence moved to single sign-on with other Marketing Cloud services.

Radian6

- **Third-Party Architecture:** Removed references to use of content delivery networks.

SalesforceIQ

- **Audits and Certifications:** Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.

Social.com

- **Audits and Certifications:** Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.

Social Studio

- **Audits and Certifications:** Removed references to the EU/US and Swiss/US Safe Harbor self-certifications.

Steelbrick

- **Services Covered:** Description changed to reflect new branding of Salesforce Quote-to-Cash.
- **Salesforce Infrastructure:** Removed details on Salesforce infrastructure to instead cross-reference SPARC for Salesforce Services. Revised language regarding hosting the PDF generator/quote calculator on Heroku and moved it from the Third-Party Architecture section to the Salesforce Infrastructure section.
- **Audits and Certifications:** Replaced references to the EU/US and Swiss/US Safe Harbor self-certifications with Privacy Shield certification. Clarified description of security testing.

Introducing the Utility Bar Implementation Guide

Lightning Experience allows you to add your components to prime real estate in any Lightning app so that your users have one-click access to powerful productivity tools. Now, you can access those same productivity tools in a horizontal footer, called the utility bar. The utility bar in Lightning Experience combines the best features from home page components in Salesforce Classic and the footer in Salesforce Classic console apps. The utility bar shows components in Lightning Experience so your users can easily access tools like Lightning Voice and Notes.

The **Utility Bar Implementation Guide** guides you through the process of adding a utility bar to a Lightning app using Metadata API and Tooling API.

Other Salesforce Products

desk.com

Desk.com is an all-in-one customer support app for small businesses and growing teams. For information on new features, go to the Desk.com Product Updates Blog.

Heroku

Heroku is a cloud-based application platform for building and deploying web apps. For information on new features, go to the Heroku Changelog.