Salesforce.com Spring '12 Release Notes

Note: Any unreleased services or features referenced in this or other press releases or public statements are not currently available and may not be delivered on time or at all. Customers who purchase our services should make their purchase decisions based upon features that are currently available.

Last updated: February 2 2012

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About the Release Notes

The Release Notes are a comprehensive user guide for the latest release of Salesforce. Unlike a traditional release notes document that includes only a simple list of enhancements, the Salesforce Release Notes give you everything you need to get up and running with the new features and enhancements in the latest release.

What's Included in the Release Notes

For every new major enhancement, the Release Notes provide:

- A brief, high-level description of the functionality
- Implementation tips to help you get started with setup and administration
- Best practice tips to help you maximize the benefit of the functionality
- Complete end-to-end instructions on how to set up and use the functionality

Beyond the major new features, the Additional Enhancements sections include a list and brief description of every other enhancement or functional change included in the latest release—everything from email enhancements, to new report types, to security and packaging enhancements.

Let the Release Notes be your guide to success with the latest release from salesforce.com!

Your Feedback Matters

We know how important the Release Notes, online help, and documentation are to your company's success with Salesforce. To continually improve the content we deliver to you, we want to know what works and what doesn't. Let us know!

- Feedback forms—Every HTML documentation page, both in the online help and in our developer guides at Developer Force, includes a feedback form for you to submit your suggestions, corrections, and feedback about the documentation. Let us know what you think!
- IdeaExchange—We're listening to your ideas too. Spring '12 includes some of your top ideas. Visit IdeaExchange for a complete list of ideas coming in Spring '12.

Want to be notified whenever we publish new documentation or make significant updates to existing documentation? Follow us on Twitter: @salesforcedocs.

Release Notes Changes

You asked for it, we listened. In Spring '12, we're introducing the Release Notes Change Log. No more wondering what's changed with each new iteration of the release notes. No more sifting through the sand to find the gold nuggets. It's all right here, with the newest updates at the top.

Date	What's New	Description
February 1, 2012	Joined Reports—Generally Available, Cross Filters—Generally Available, and Data Bucketing—Generally Available	Updated information about joined reports, cross filters, and data bucketing to clarify that they are included automatically in Enterprise and Unlimited editions, and to provide information about their release schedules.
January 31, 2012	Streaming API—Generally Available	Added an entry announcing that Streaming API is now generally available.
January 31, 2012	Salesforce Mobile for Android Phones—Generally Available	Added entry announcing that Salesforce Mobile for Android Phones is now generally available.
January 27, 2012	Flow Administrator Permission Change	Added an entry describing a change in the required permissions for flow administrators to run flows.
January 26, 2012	New and Changed Objects	Added a description on how to enable the `IsPrmSuperUser` field.
January 26, 2012	Re-Posting Chatter Updates on page 21	Added a sentence to clarify that posts with file attachments can't be shared.
January 24, 2012	Help and Training Enhancements	Added Help and Training Enhancements section.
January 20, 2012	Mobile Dashboards App for the iPad Widely Available	Added that the mobile dashboards app for iPad will be available within 24 hours after the Spring '12 release. The entry is in the Mobile and Analytics tables in the Summary of Spring '12 Features and Impact on Salesforce Users. Also moved the checkmark in the Mobile and Analytics tables for visibility.
January 20, 2012	Visualforce JavaScript Remoting Response Compression	Added entry to the Visualforce section about JavaScript Remoting response compression.
January 20, 2012	Chatter for iPad v2.0 Generally Available	Added entry announcing that Chatter 2.0 for iPad is available in the App Store.
January 20, 2012	Running a Post-Installation Apex Script—Pilot	Added a description of new feature, which enables an Apex script to be run automatically on package installation.
January 19, 2012	Mobile Dashboards App for the iPad Widely Available	Added the editions that support the mobile dashboards app for the iPad under Additional Analytics Enhancements. Also included entries for the app in the Mobile and Analytics tables in the Summary of Spring '12 Features and Impact on Salesforce Users.
January 19, 2012	New and Changed Objects	Updated the User object entry to include the `IsPrmSuperUser` field that enables you to turn on super user access for a partner user.

Date	What's New	Description
January 16, 2012	New `Navigation Name` Property	Added information about the new page `Navigation Name` property in Siteforce, which lets you include spaces and special characters in the names of menu items.
January 12. 2012	Visual Workflow To Be Enabled for All Enterprise and Unlimited Editions	Added entry to the Visual Workflow Enhancements section announcing that Visual Workflow is going to be enabled for all Enterprise and Unlimited Editions.
January 11, 2012	Clarification of setup requirements for Live Agent	Because Live Agent requires separate feature licenses, the table at the beginning of the Service Enhancements section of the Summary of Spring '12 Features and Impact on Salesforce Users table now indicates that administrators need to contact salesforce.com to enable this feature.
January 10, 2012	Chatter Enhancements	Chatter Messenger will now be available by the end of February.
January 9, 2012	New and Changed Objects	`ValidationStatus` added to the list of available fieldsKnowledgeArticleVersion API object.
January 5, 2012	Free Licenses for Customer Groups	Changed title from "Unlimited Invitations for Customer Groups" to "Free Licenses for Customer Groups." Changed dates of free license availability.
January 4, 2012	Release Notes Change Log	New feature to track updates and changes to the release notes.

Summary of Spring '12 Features and Impact on Salesforce Users

Spring '12 has features that immediately impact all users after the release. You might want to communicate these changes to your users beforehand so they are prepared. Other features require direct action by an administrator before users can benefit from the new functionality.

The following table summarizes the Spring '12 features and their impact on users. Review the feature details for the applicable Salesforce Editions.

Chatter Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Chatter Messenger (available by the end of February)				✓
Chatter Bookmarks	✓			
Re-Posting Chatter Updates	✓			
Attach Files in Comments	✓			
Change File Sharing Settings	✓			
2 GB File Upload Size Limit	✓			
Improved File List Views	✓			
See Other Files That People Also Viewed (available within 24 hours after the Spring '12 release)	✓			
Smart Search	✓			
Videos in Search Results	✓			
File Recommendations	✓			
Improved People Recommendations on Profiles	✓			
Chatter Quick Start	✓			
More Relevant Recommendations	✓			

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Chatter for Android Tablets Generally Available			✓	
Chatter REST API Enhancements		✓		
Customer Invitations Enabled (available within 24 hours after the Spring '12 release)	✓			
Free Licenses for Customer Groups	✓			
Likes on Comments Counted in Likes Received Number	✓			
Chatter Influence on Profiles	✓			
Improved Mentions	✓			
Delete Chatter Messages via the SOAP API		✓		
Send Chatter Invitations to 200 Domains		✓		
Chatter Invitations Link Now Available on the Chatter Settings Page		✓		
Additional YouTube™ Video Support	✓			
Improved Chatter Email Settings Page	✓			
Control Chatter Email Settings Using the API	✓			
Chatter Favorites	✓			
Newsfeed for Visualforce		✓		

Sales Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Configurable Forecast Date Range for End Users	✓			
Updated Links in Forecasts	✓			
Creating Cases Directly from Microsoft® Outlook®			✓	
Controlling Items You Don't Want to Sync	✓			
Better Control for Managing Email	✓			
Social Accounts and Contacts—Generally Available			✓	
Change a Salesforce CRM Content Document's Managing Library Using the ContentDocument API Object	✓			
Archive and Unarchive Salesforce CRM Content Documents Using the ContentDocument API Object	✓			
Apex Triggers Enabled on the ContentDocument Object	✓			
New Email to Salesforce Features	✓			
Salesforce for Google AdWords Not Available to New Organizations	✓			

Service Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Chatter Answers				✓
Case Feed (available within 24 hours after the Spring '12 release)			✓	
Live Agent				✓
Console Push Notifications				✓
Sharing Service Cloud Console Links	✓			
Custom–Branded Console		✓		
Visualforce Console Components			✓	
New Methods for the Service Cloud Console Integration Toolkit			✓	
Custom API Fields for Answers (Questions and Replies)			✓	
Custom Lookup Fields for Replies		✓		
New Field and New Requirement on Email-to-Case Auto-Response Rule Entries Page			✓	
Validation Status Field			✓	
Article Versioning (available within 24 hours after the Spring '12 release)	✓			
Agent-Authored Knowledge			✓	
English-Only Spell Correction for Knowledge Search (Beta)		✓		
Improved Navigation	✓			
Knowledge Actions (Pilot)				✓
Article HTML Editor	✓			
Self-Service Portal Not Available to New Organizations	✓			

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Creating Cases Directly from Microsoft® Outlook®			✓	

Analytics Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Joined Reports—Generally Available (Available on February 7 in preview sandbox and on February 12 in production and sandbox. See Joined Reports Release Schedule.)	✓			
Cross Filters—Generally Available (Available on February 7 in preview sandbox and on February 12 in production and sandbox. See Cross Filters Release Schedule.)	✓			
Data Bucketing—Generally Available (Available on February 7 in preview sandbox and on February 12 in production and sandbox. See Data Bucketing Release Schedule.)	✓			
Mobile Dashboards App for the iPad Widely Available (available within 24 hours after the Spring '12 release)			✓	
Dashboard Enhancements	✓			
All Items Search in the Reports Tab	✓			
Custom View in the Reports Tab	✓			
Deleting Report Filters with Filter Logic	✓			

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Increased Report Filter Limits	✓			
Drag-and-Drop Report Filters	✓			

Mobile Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Chatter for Android Tablets Generally Available			✓	
Salesforce Mobile SDK			✓	
Mobile Dashboards App for the iPad Widely Available (available within 24 hours after the Spring '12 release)			✓	
Chatter for iPad v2.0 Generally Available			✓	
Salesforce Mobile for Android Phones—Generally Available			✓	

Data.com Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Data.com Corporate				✓

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Purchase Data.com Licenses and record additions from the Licenses & Limits page		✓		
Additional Account Fields Now Enabled for Data.com Data	✓			
Associate or create an account when you add Data.com contacts from the Data.com tab	✓			
Get company overview information and additional data on the enhanced account card	✓			
Additional prospecting enhancements	✓			
Data.com Clean—Beta				✓

Force.com Enhancements

Visual Workflow

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Visual Workflow To Be Enabled for All Enterprise and Unlimited Editions (available within 24 hours after the Spring '12 release)*		✓		
Cloud Flow Designer—Generally Available		✓		
Flows in the Metadata API		✓		
Flow Version Limit Increased		✓		
Flow Administrator Permission Change		✓		
Record Delete Element		✓		

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Decision Element No Longer Boolean		✓		
Flows in Change Sets and Packages		✓		
Choices as Flow Resources		✓		
Label Fields Now Rich Text		✓		
Global Constants		✓		

* Administrators can create flows within 24 hours after the Spring '12 release; however it may take until February 20th before users are able to run the newly-created flows.

Workflow and Approvals

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Field Updates for Encrypted Custom Fields	✓			
Workflow Field Updates Can Retrigger Workflow Rules	✓			
Cross-Object Workflow	✓			

Global Search

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Smart Search	✓			
Improved Search Results Relevancy	✓			

Visualforce

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Visualforce Components for Chatter Answers			✓	
Visualforce Components for Live Agent			✓	
Visualforce Component for Chatter			✓	
Visualforce Component for Social Accounts and Contacts			✓	
Dynamic Visualforce Components		✓		
Dynamic References to Global Variables		✓		
Single View State				✓
PDF Optimizations and Limits		✓		
Referential Integrity Validation Improvements		✓		
Visualforce JavaScript Remoting Response Compression	✓			
Other Optimizations		✓		

Platform Development Tools—Developer Console

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Raw Debug Log Viewer		✓		
Visualforce Pages and Components		✓		
Visualforce Syntax Highlighting and Auto-Complete		✓		
Packages Support		✓		
Heap Search		✓		
General Development Improvements		✓		

General Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Force.com System Overview		✓		
Configuring Force.com System Overview Messages		✓		
Tab Bar Organizer		✓		
App Quick Start Enhancements	✓			
Custom Tab Detail	✓			
Force.com Quick Access Menu Enhancements		✓		

ISVforce Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Enhanced Trialforce Branding—Generally Available			✓	
Subscriber Support Console—Generally Available			✓	
Package Installation Improvements	✓			
Modifying Custom Fields in Packages			✓	
New Apex Methods and Class for Package Versions	✓			
Running a Post-Installation Apex Script—Pilot				✓

Siteforce Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Repeaters and Repeater Elements—Generally Available	✓			
Data Tables	✓			
Data Functions	✓			
Repeater and Data Table Pagination (Pilot)				✓
Web-to-Object Forms	✓			
Data Access Permissions		✓		
Selective Publishing	✓			
Folder Manager	✓			
URL Redirects	✓			
Custom HTML Attributes	✓			
HTML5	✓			
Import, Export, and Duplicate Sites	✓			
Reorganized Overview Tab	✓			
New `Navigation Name` Property	✓			

Database.com Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Schema Builder Enhancements—Beta	✓			
Sandbox Retention Policy		✓		

Security Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Single Sign-On Changes		✓		
Increased Maximum Timeout Value		✓		
New Password Complexity Option		✓		
Requiring a Secure Connection (HTTPS) Is Permanent		✓		
Increased Service Provider Selection Availability	✓			
Encrypted Fields Available in Full-Copy Sandbox				✓
Social Sign-On (available within 24 hours after the Spring '12 release)			✓	
Network Access Column Changes	✓			

Sharing Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
Criteria-Based Sharing Rules Enabled for Leads and Campaigns	✓			
Name Fields for Groups, Queues, Roles, and Territories	✓			
Name Fields for Sharing Rules	✓			
Partner Super User Access	✓			
Sharing Rule Components for Change Sets	✓			

Apex Code Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available requires some setup.	Contactsalesforce.com to enable this feature.
Apex REST API	✓			
Higher Limit for Concurrently Scheduled Apex Classes	✓			
Apex Triggers Enabled on the ContentDocument Object	✓			
Isolation of Test Data in Unit Tests	✓			
New `IsTest(SeeAllData=true)` Annotation	✓			
Running Tests on Package Installation	✓			
New Package Version Methods and Class	✓			
New isPermissionable Method for the Describe Field Result	✓			
Single Sign-On when Using Authentication Providers	✓			

API Enhancements

Feature	Automatically visible to all users. No setup required.	Automatically visible to all administrators. No setup required.	Not automatically visible. Feature is available but requires some setup.	Contact salesforce.com to enable this feature.
API Enhancements	✓			
Paging Using the `OFFSET` Clause				✓

CHATTER

Chatter Messenger — Pilot

Allow people in your organization to chat securely with people they follow in Chatter without using external chat clients.

Note: Chat is currently available through a pilot program. For information about enabling chat for your organization, contact salesforce.com.

Enabling and Disabling Chat

Chat may be enabled for organizations with Chatter enabled, including those with Chatter Plus and Chatter Free licenses. If chat is enabled for your organization, administrators with the "Customize Application" permission can enable and disable chat by following these steps.

1. Click ***Your Name*** > **Setup** > **Customize** > **Chatter** > **Chat Settings**.
2. Click **Edit**.
3. Under Chat Settings, select Enable Chat. Deselect to disable chat.
4. Click **Save**.

Enabling and Disabling Chat for Visualforce Pages

Add a chat widget to your custom Visualforce pages. If Chat is enabled for your organization, administrators with the "Customize Application" permission can enable Chat for Visualforce pages by following these steps.

1. Click ***Your Name*** > **Setup** > **Customize** > **Chatter** > **Chat Settings**.
2. Click **Edit**.
3. Under Visualforce Settings, select Allow. Deselect to disable chat for custom Visualforce pages.
4. Click **Save**.

To prevent the chat widget from displaying on a specific Visualforce page, do any of the following:

- Turn off the Salesforce tab header on your page by setting <apex:page showHeader=”false”>.
- Set the page contentType to something other than text/html, for example, <apex:page contentType="text/plain">.

Chatter Bookmarks

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, **Contact Manager**, and **Developer** Editions

You asked for it! Spring '12 addresses this idea on IdeaExchange.

Starting in Spring '12, you can save posts by bookmarking individual posts in your Chatter feed. Click **Bookmarks** on the left sidebar to see your saved posts in your Chatter feed. When someone comments on a post you bookmarked, you receive an email notification. Email notifications for bookmarks are enabled by default. To change your email notifications, click ***Your Name*** > **Setup** > **My Chatter Settings** > **Chatter Email Settings**.

Bookmarks are private and other users can't see which posts you bookmark. When you are no longer interested in a post you saved, you can remove the bookmark. The post no longer appears in your saved posts when you click **Bookmarks**.

Bookmarking a Chatter Post

1. Hover over the post you want to bookmark in your Chatter feed.
2. Click at the top right corner of the post.

   The icon changes ( ) to indicate that you successfully marked the post.

After you bookmark one or more posts, click **Bookmarks** on the Chatter sidebar to see all of your saved posts in your Chatter feed.

Removing a Bookmark

1. Click **Bookmarks** on the sidebar to see your saved posts in your Chatter feed.
2. Find the saved post in your Chatter feed.
3. Click at the top right corner of the post to remove the bookmark.

   The icon changes ( ) to indicate that you successfully removed the post from your bookmarks.

Re-Posting Chatter Updates

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, **Contact Manager**, and **Developer** Editions

You asked for it! Spring '12 addresses this idea on IdeaExchange.

Starting in Spring '12, you can share public Chatter posts that contain text or a link to your profile or to a group directly from the Chatter feed.

To share a post, click **Share** in the footer of the post and select one of the options from the drop-down list:

- **To my profile** to share the post on your profile.
- **With a group** to share the post with a group.
- **Link to post** to include the link to the post in an email or instant message.

When you share a post, keep in mind:

- You can share a post to your own profile, but not to another person's profile.
- Only the original post is shared. Comments and likes on the original post are not shared.

- You can comment on the shared post, but you can't edit a shared post.
- You can't share a post that has a file attached. You can share the file itself by using the Share File option.
- You can't share feed tracked items and custom feed items, such as approvals, dashboard snapshots, or case interactions.
- You can only share posts with a group you're a member of.
- You can't share a post from a private group.
- You can share a post in a group that allows customers. However, a customer can't share posts because customers are only allowed in private groups.
- Only Chatter users inside your company can see a post that you shared using a link in an email or instant message.

When someone shares your post, you receive an email notification. To change your email notifications, click ***`Your Name`*** > **Setup** > **My Chatter Settings** > **Chatter Email Settings**.

Chatter Files Enhancements

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, **Contact Manager**, and **Developer** Editions

Attach Files in Comments

You asked for it! Spring '12 addresses this idea on IdeaExchange.

Starting with Spring '12, you can attach a file to a comment in Chatter. Now more than ever, it's easy to keep collaboration going by attaching files to specific Chatter comments. Click in the text box on a comment and optionally add a comment, then click **Attach File** and choose a file from Salesforce or your computer. Click **Comment** to post your file and comment if you added one.

Two new fields have been added to the FeedComment object so you can attach files to comments via the API:

- `CommentType` is the type of comment. File attachments are of type `ContentComment`.
- `RelatedRecordId` is the ID of the ContentVersion object associated with a `ContentComment`.

Note: Prior to API version 24.0, a text entry was required on a comment. As of version 24.0, a text entry is optional if the `CommentType` is `ContentComment`—an uploaded file on a comment. If you have any Apex triggers associated with the FeedComment object, keep in mind that this change may affect the behavior of existing triggers.

Change File Sharing Settings

File owners and collaborators can now control how a file is shared with their company by choosing one of these file permissions on the Sharing Settings dialog box, next to `Any Chatter user in your company`:

- **No Access**—No one in your company can find or view the file unless it's specifically shared with them or a private group they're a member of.
- **Viewer**—Anyone in your company can view, download, and share the file.
- **Collaborator**—Anyone in your company can view, download, share, change permission, edit the file, and upload new versions.

A file is automatically shared with your company by posting it to a feed on the Home page, Chatter page, a profile, a record, or a public group. All Chatter users in your company are given viewer permission by default.

2 GB File Upload Size Limit

We've raised the size limit for uploading Chatter files from 100 MB to 2 GB in Salesforce CRM organizations with Chatter enabled. All file types are supported, including everything from Microsoft® PowerPoint presentations and Excel spreadsheets, to Adobe® PDFs, image files, audio files, and video files. Attach a file to a Chatter feed or upload a file from any of these locations:

- On the Files page, the Files Shared with list on a group, or the Files Owned by list on a profile—Click **Upload a file**.
- On the Home page—Click **Create New** > **File**.
- On the Files Shared with list on a group—Click **Upload a file**.
- On the Files Owned by list on a profile—Click **Upload a file**.

Improved File List Views

Spring '12 includes the following file list view improvements:

- File Search Results
  - ◊ Now offer file actions in list views. The file actions drop-down list in the Actions column lets you perform actions like download and share, for example, depending on your permissions.
  - ◊ Moved the ability to follow or stop following a file from the Following column to the Actions column.
  - ◊ No longer have the Type column. File type is indicated visually by the icon next to the file name in the Name column and by hovering over the icon.
- Select from Salesforce
  - ◊ No longer have the Type column. File type is indicated visually by the icon next to the file name in the Name column and by hovering over the icon.

See Other Files That People Also Viewed

Spring '12 makes it easier to discover interesting files. The file detail page now includes a People Also Viewed list of files that viewers of this file also viewed. If no other files have been viewed by the same people, the People Also Viewed section doesn't appear on the file detail page.

Chatter Search Enhancements

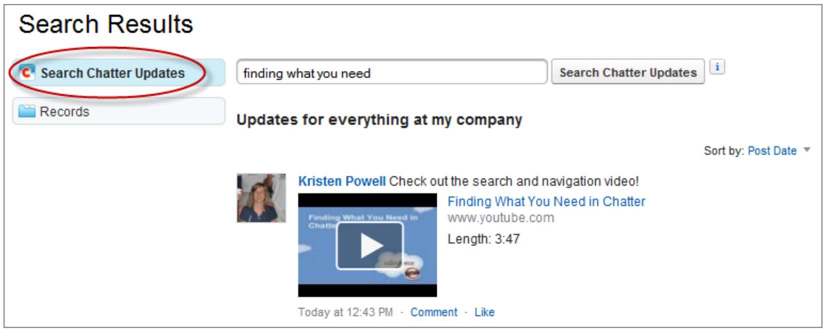
Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, **Contact Manager**, and **Developer** Editions

Smart Search

With Spring '12, global search keeps track of which objects you use and how often you use them, and arranges the search results accordingly. Search results for the objects you use most frequently appear at the top of the list. You can also pin important objects to the top of your search results. For more information, see Global Search Enhancements.

Videos in Search Results

With Spring '12, YouTube™ videos posted in Chatter feeds are included in search results. After searching for the title of a YouTube™ video, click **Search Chatter Updates** to see matches in your Chatter Updates search results.



Chatter Recommendations Enhancements

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, **Contact Manager**, and **Developer** Editions

File Recommendations

Chatter recommends files that you might want to follow based on the popularity of the file, determined by the number of people who have viewed or downloaded the file. To see an expanded list of your recommendations, click **More** in the Recommendations section. If no recommendations appear, then you already viewed all the recommended files.

Improved People Recommendations on Profiles

Chatter recommends people in your organization that you might want to follow based on similar interests. With Spring '12, you can see a new type of recommendation immediately after following someone on a profile page. This recommendation appears if many people who follow that person also follow someone else. For example, if you follow Madison Rigsby on her profile page, you immediately get a recommendation for Suzanne Powell if many people who follow Madison also follow Suzanne.

Chatter Quick Start

Recommendations on the Chatter page now include a mix of people, group, file, and record recommendations with no section dividers. Click **More** to display the Recommendations page where you can use the side filters to narrow your recommendations to people, files, records, or groups.

With Spring '12, we've restyled the What To Do Next section that appears above your recommendations. This section is now included with the recommendations and shows one recommended action at a time. You can complete or skip a recommended action to see the next one. If you skip a recommended action, you don't see that recommendation again. If you previously dismissed the What To Do Next section, you don't see the updated user interface.

More Relevant Recommendations

With spring '12, Chatter provides more relevant recommendations based on some of your user information, such as how long you've been using Chatter and how frequently you post and comment in Chatter. For example, if you're new to Chatter, we prioritize recommendations for popular groups and people to help you get started. If you've been using Chatter for a while, we prioritize recommendations for files, records, and new groups to enhance your Chatter experience.

Chatter for Android Tablets Generally Available

Available in: **All** Editions except **Database.com**

Now you can collaborate in Chatter from your Android tablet! Chatter for Android Tablets keeps you connected to the people and records that matter most, whether you're in the office or on the road. Use it to:

- View updates about the people, groups, and records you follow
- Create posts (with photos) and add comments
- View documents and links shared by others
- Find and follow people in your organization
- Find and join groups in your organization
- View coworkers' profiles, and email, call, or text them directly

For more information, see Chatter for Android Tablets Generally Available.

Chatter REST API Enhancements

Available in: **All** editions except **Personal** Edition

Spring '12 (Chatter API version 24.0) improvements:

- Pilot Resources and Response Bodies
- New and Changed Resources
- New and Changed Response Bodies
- New and Changed Request Bodies

Attention: Resources, parameters, and response bodies change from release to release. We strongly recommend that you test your application in a test environment before deploying it to production.

Pilot Resources and Response Bodies

Note: All Files resources are currently available through a pilot program. For information about enabling Chatter API Files for your organization, contact salesforce.com.

- The Files resource is new and provides information about specific files.
- The Groups resource now contains a Files resource that returns information about files posted to the group.
- The Users resource now contains the following new resources for files:
  - `files`—Returns information about files that a user has posted.
  - `files/filter/groups`—Returns information about files posted to groups that the logged-in user is a member of.
  - `files/filter/sharedwithme`—Returns information about files that have been shared with the logged-in user.
- File, File Details, and File Page are all new resources that return information about files.

- File Shares Page, Library, and Shares are all new resources that return information about file shares.

New and Changed Resources

- Bookmarks is a new resource that provides information about the logged-in user's bookmarks saved in Chatter.
- Chatter Influence is a new feature that provides information about a user's influence rank, relative to other users in the organization. The Influence resource is new and provides access to the percentile thresholds used to categorize the organization's users by influence.
- Chatter is a new resource that returns URLs to the resources available for this organization, such as Feeds, Groups and Users.
- You asked for it! This enhancement is from an idea on the IdeaExchange.

  The Comments resource now returns information about the likes for a specific comment. It also can be used to add a like to a comment.
- The Company Feed resource no longer requires the "View All Data" permission.
- You asked for it! This enhancement is from an idea on the IdeaExchange.

  Favorites is a new resource that provides information about the logged-in user's favorites saved in Chatter.
- The POST request parameters for Feed Item Comments have been updated to enable posting files on comments. The new request parameters are:
  - `contentDocumentId`
  - `desc`
  - `feedItemFileUpload`
  - `title`
- Organization is a new resource that provides information about the logged-in user's permissions in the organization.

  Note: This resource is under the base URL of `/services/data/v24.0/connect`, not `/services/data/v24.0/chatter`.
- The Users resource now returns a mixture of all your user, group, file, and record recommendations. It can also be used to return and delete specific recommendations.
- The Users resource now supports the `q` query parameter for the following resources:
  - `conversations`—Searches across all private conversations.
  - `conversations/`***`conversationId`***—Searches within a specific private conversation.
  - `messages`—Searches across all messages in private conversations.
- The number of items you can specify for the `pageSize` request parameter has increased for the following resources:
  - Number of groups (`/chatter/groups/`): from 100 to 250
  - Number of group members (`/chatter/groups/`***`groupId`***`/members`): from 100 to 1000
  - Number of groups the logged-in user is a member of (`/chatter/users/me/groups`): from 100 to 250
  - Number of followers has increased from 100 to 1000 for the following resources:
    - `/chatter/records/`***`recordId`***`/followers`
    - `/chatter/users/me/followers`
    - `/chatter/users/me/following`

- Request parameters for all resources that can be used to POST feed items have changed as follows:
  - ◊ `originalFeedItemId` is a new request parameter for sharing (re-posting) feed items.

    Note: The `originalFeedItemId` parameter takes precedence over all other parameters. For example, if you share a post and also try to upload a file, the generated feed item only contains the shared post. You must either share a post or upload a file, not both in the same feed item.

  - ◊ `title` is a new request parameter for adding the title to a file being uploaded.
  - ◊ `fileName` should no longer be used as of version 24.0. Use `title` instead. If a value is specified for both `title` and `fileName`, the value for `title` is used.

New and Changed Response Bodies

- The Chatter Activity response body now includes the total number of likes on both posts and comments received by the user, not just likes on posts. Any likes on comments received before Chatter API version 24.0 aren't included in the response body parameter likeReceivedCount.
- Chatter Directory is a new resource that returns URLs to the general resources for this organization, such as Groups, Feeds, and Users.
- The Comments response body now includes the following:
  - ◊ attachment—information about an attachment supplied with a comment, may be null
  - ◊ type—information about the type of comment
- Explanation Details is a new response body that contains detailed information about a user's recommendation explanation.
- Explanation Summary response body now includes the following:
  - ◊ detailsUrl—URL for Explanation Details or null
  - ◊ type—type of recommendation explanation, such as `followingSameUsers`
- Favorites Page and Favorite are new response bodies that contain information about a user's favorites.
- The Feeds Directory resource now includes a link to the collection of favorites saved by the logged-in user.
- The Feed Item response body now includes the following:
  - ◊ isBookmarkedByCurrentUser—specifies whether the current user has bookmarked this feed item
  - ◊ originalFeedItemId—if this feed item is a shared feed item, specifies a Reference response body that contains information about the original feed item
  - ◊ originalFeedItemActor—if this feed item is a shared feed item, specifies more information about the original feed item

  The Feed Item attachment field has the following changes:

  - ◊ If an attachment is part of a feed item, the value returned is a `ContentPost`
  - ◊ If an attachment is part of a comment, the value returned is a `ContentComment`
  - ◊ The new value `CaseCommentPost` returns the response body Feed Item Attachment: Case Comment, which is new and contains information about a case comment
  - ◊ The new values `DashboardComponentSnapshot` and `DashboardAlert` return the response body Feed Item Attachment: Dashboard, which is new and contains information about a dashboard
- The Group response body now includes the following:
  - ◊ fileCount—number of files posted to this group
  - ◊ lastFeedDatePosted—date of the most recent post
  - ◊ owner—information about the owner of the group

- Influence Thresholds is a new response body that contains information about the percentile thresholds used to define users' influence within the organization.
- Organization is a new response body that contains information about the user's timeout limits, the organization ID, as well as two new lower-level response bodies:
  - ◊ features—information about the features available in the organization
  - ◊ userSettings—information about the organization permissions for the user
- The Photo response body now contains a photoVersionId that can be used to compare versions of a photo.
- The Recommendations response body is changed:
  - ◊ object now includes files
  - ◊ type is no longer included
- Unauthenticated User is a new response body that contains information about a user who is not a Salesforce user.
- The User Detail response body now includes the username.
- The User Page response body now returns a collection of User Detail response bodies, instead of User Summary.
- The mySubscription field for all response bodies now returns the Id of the subscription, not the user.
- The following general updates to likes and subscriptions have been made:
  - ◊ myLike on the Like Page response body is no longer available as of version 24.0.
  - ◊ The Comment response body now includes myLike, which returns a reference to the like or null
  - ◊ On the Feed Item response body, the currentUserLike field is no longer available as of version 24.0. Use the new myLike field instead.
  - ◊ mySubscription on the Followers Page response body is no longer available as of version 24.0.
  - ◊ The Record Summary response body now includes mySubscription

New and Changed Request Bodies

- Attachment File: New File Upload now includes the field `title` to hold the title of the file
- Comment now includes the field `attachment` to hold attachments for comments
- Feed Item now includes the following:
  - ◊ `isBookmarked`
  - ◊ `originalFeedItem`
- The following new request bodies have been added:
  - ◊ Feed Favorite Input
  - ◊ File Input
  - ◊ User Message Recipient Input
  - ◊ User Message Recipient List Input
  - ◊ User Stream (Conversation) Input

Additional Chatter Enhancements

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, **Contact Manager**, and **Developer** Editions

Customer Invitations Enabled

Starting in Spring '12, customer invitations are enabled for organizations that haven't opted out and haven't enabled them. Customer invitations allow users who manage or own private Chatter groups that allow customers to invite customers to those groups. Customers are users outside of your company's email domains. They have very limited Chatter access and can only see groups they're invited to and interact with members of those groups.

To disable customer invitations:

1. Click ***`Your Name`*** > **Setup** > **Customize** > **Chatter** > **Settings**.
2. Click **Edit**.
3. Deselect `Allow Customer Invitations`.

   Note: Turning off customer invitations won't delete existing customers or groups that allow customers. Additionally, administrators can still create customer users in ***`Name`*** > **Setup** > **Manage Users** > **Users**.

4. Click **Save**.

Free Licenses for Customer Groups

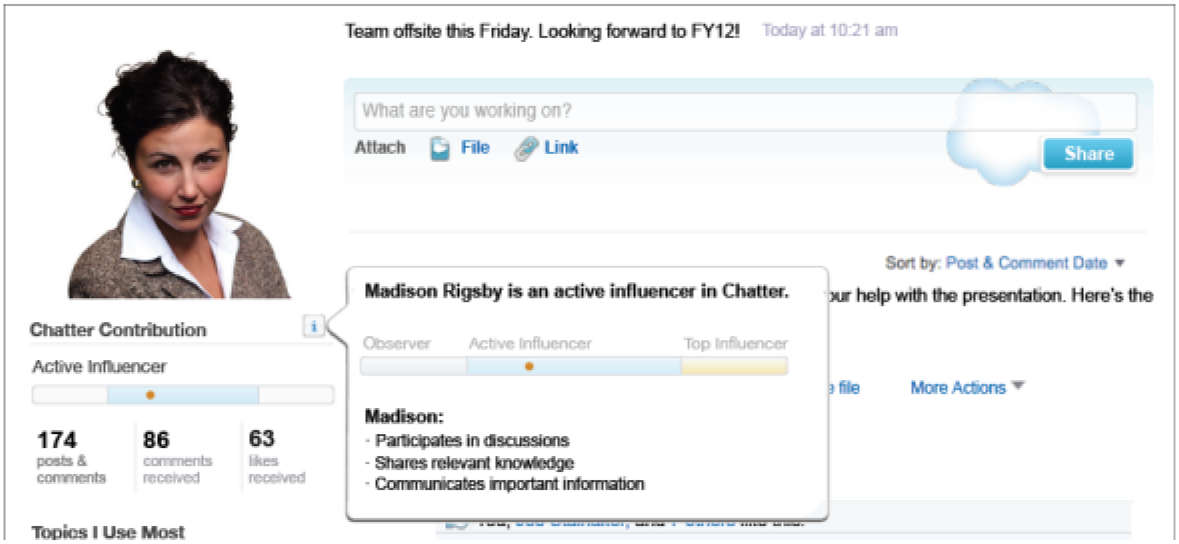
From now until September 17, 2012, you can use as many Chatter External licenses for Chatter customer groups as you need, for free. After September 17, 2012, the number of free Chatter External licenses will be limited, but you keep the free licenses that you have used.

Likes on Comments Counted in Likes Received Number

Starting with Spring '12, likes on comments count toward the likes received number in a person's Chatter activity statistics. Any likes on comments received before Spring '12 aren't included.

Chatter Influence on Profiles

Spring '12 introduces Chatter influence, a quick way to see who's driving collaboration with their contributions in Chatter. Together with the existing Chatter activity statistics—which show how many posts and comments someone's made, and how many comments and likes they've received—Chatter influence shows what these numbers mean for a person's overall influence.



Go to people's profiles or person hovers to see the Chatter influence indicator. Top Influencers are leading collaboration efforts by regularly sharing essential content, Active Influencers are encouraging others to get involved and share knowledge, and Observers are quiet participants or just getting started in Chatter. When viewing someone's profile, hover over i under the profile photo for details about how that person is uniquely influential.

Note: If your organization has Chatter Free users, they don't see influence information on their own profiles or anyone else's.

Chatter influence data is available through the Chatter REST API. See New and Changed Resources on page 26.

Improved Mentions

You asked for it! Spring '12 addresses this idea on IdeaExchange.

With Spring '12, you can select from one single list of matches when you mention someone in a post or comment. Just type @ followed by the first few letters of the person's name. The list now includes all matches, people you follow and people you don't follow, with the best matches at the top of the list.

Delete Chatter Messages via the SOAP API

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions for users with a Salesforce license, and **Database.com** Edition for users with a Database.com Admin license

User Permissions Needed	
To control other administrators' access to Chatter messages:	"Manage Users"
To view and delete Chatter messages via the SOAP API:	"Manage Chatter Messages" AND "API Enabled"

Administrators with the "Manage Chatter Messages" permission can now delete any user's Chatter messages via the SOAP API; for example, for compliance purposes. The ChatterMessage object now supports the `delete()` call.

When deleting Chatter messages, consider these guidelines:

- Messages are hard deleted. They aren't sent to the Recycle Bin.
- Deleted messages aren't included in message search results.
- If all messages in a conversation are deleted, the conversation isn't shown in My Messages and can't be retrieved via the Chatter REST API.
- If replies via email are enabled, when a user replies to a deleted message, Chatter returns an error notification and doesn't process the reply message.

Send Chatter Invitations to 200 Domains

You asked for it! Spring '12 addresses this idea on IdeaExchange.

You can now add up to 200 email domains to define who can join Chatter for your organization. Once you add an email domain to the list, users in your company can send invitations to people with email addresses in that domain.

To add domains:

1. Click ***Your Name*** > **Setup** > **Customize** > **Chatter** > **Settings**.
2. Click **Edit**.
3. Ensure that **Allow Coworker Invitations** is selected.
4. Enter the email domains. If all rows are full, click **Add More** below the list of domains.
5. Click **Save**.

Chatter Invitations Link Now Available on the Chatter Settings Page

The Chatter settings page now contains a link that allows you to send Chatter invitations from your own email account.

1. Click ***Your Name*** > **Setup** > **Customize** > **Chatter** > **Settings**.
2. Click **Send invitations from your email account**.
3. If you have a default email client set, an email containing an invitation link opens in your mail program. Otherwise, you see an invitation link that you can copy and paste into an email.

You can also still send invitations from the Chatter home page, People page, or from within a group.

Additional YouTube™ Video Support

Starting in Spring '12, you can add your own video title when you post a video from the YouTube™ community. Click **Link**, enter the YouTube™ video URL and a title for the video, and click **Share**. The video player displays a thumbnail preview and the video title in the Chatter feed update. If you don't enter a title, the video player uses the title provided by the YouTube™ community.

Improved Chatter Email Settings Page

For Spring '12, we improved the layout of the Chatter Email Settings page. Your email options are now grouped by feature to make them easier to find and to help you select the email settings you want. To access your email options, click ***`Your Name`*** > **Setup** > **My Chatter Settings** > **Chatter Email Settings**.

Control Chatter Email Settings Using the API

Available in: **Enterprise**, **Unlimited**, and **Developer** editions

User Permissions Needed	
To use the API:	"API Enabled"

Spring '12 makes it easier to change users' Chatter email settings. Using the Web Services API, you can now control whether users receive email notifications when someone mentions them, follows them, likes their post or comment, and so on. See the new settings available on the User object in Changed Objects on page 171.

Chatter Favorites

Starting in Spring '12, you can add a list view as a Chatter favorite to monitor key business processes directly from your Chatter tab.

To add a list view as a Chatter favorite:

1. Open an existing list view or create a list view for a set of records, like for example accounts, opportunities, or leads.
2. Click **Chatter** in the top-right corner to see the Chatter updates for the list items.
3. Click **Add to Chatter Favorites** in the right sidebar.

   The favorite name on the Chatter tab is the same as the list view name.

Newsfeed for Visualforce

Starting in Spring '12, Salesforce provides the `<chatter:newsfeed/>` Visualforce component, which displays the feed updates on the Chatter tab of the user viewing the Apex page that contains the embedded `<chatter:newsfeed/>` component.

The `<chatter:newsfeed/>` component offers different functionality than the `<chatter:feed/>` component. The `<chatter:feed/>` component displays only the Chatter updates on a user's profile page or a record's detail page.

SALES CLOUD

Forecasts Enhancements and Updates

Available in: **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

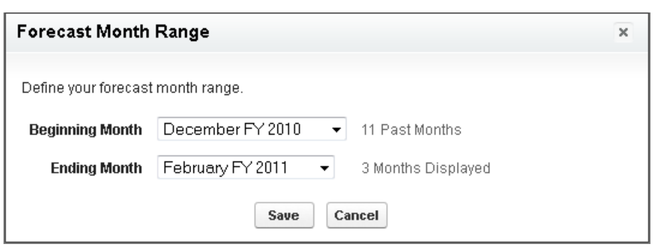
User Permissions Needed	
To use Forecasts:	"Allow Forecasting"

Note: This information only applies to the Forecasts product beginning with the Winter '12 release and not Customizable Forecasting or Forecasts (Classic).

Configurable Forecast Date Range for End Users

For Spring '12, we made further enhancements to our latest forecasting product! You can now select your own date range display for forecasts. The range you select is relative to the current month. For example, in January you might select January as your beginning month and April as the ending month. In February, the date range displayed becomes February to May and so forth. Your date range selection will remain until you choose another one. To change your forecast date range display:

1. Click the Forecasts tab.
2. Click **Change**, located next to the total number of months.
3. In Forecast Month Range, use the drop-down lists to select a beginning month and ending month.



4. Click **Save**.

Updated Links in Forecasts

We updated the View Forecast As link in Spring '12. View a subordinate's forecast detail by hovering over the row and clicking **Details >>**. Previously you clicked on **View Forecasts >>** to see this information. Additionally, the date range previously contained month and year information. The date range now displays the number of months selected for the range.

Salesforce for Outlook Enhancements

Available in: **Contact Manager**, **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

Spring ’12 and Salesforce for Outlook include a new feature for creating cases directly from Microsoft® Outlook® emails. In addition, this release introduces helpful options for controlling items your users don’t want to sync, as well as improvements for managing the email they add to Salesforce.

Creating Cases Directly from Microsoft® Outlook®

You asked for it! This enhancement is from an idea on the IdeaExchange.

The Create Case feature in Salesforce for Outlook lets users create cases in Salesforce from emails in Microsoft® Outlook®. As an administrator, you can create Email-to-Case destinations that appear in the drop-down list button **Create Cases** in Outlook. For each destination, you choose the assignee, which can be either individual users or queues. You can add up to 10 destinations for each Outlook configuration. When users create cases, they can add up to 10 emails simultaneously for each destination.

Before Salesforce for Outlook users can create cases from Outlook emails, you’ll need to perform the following procedures.

1. If you haven’t already enabled the On-Demand Service for Email-to-Case, complete the procedure “Enabling On-Demand Email-to-Case” in the online help.
2. If you haven’t already defined Email-to-Case destinations (also known as email routing addresses), complete the procedure “Defining and Verifying Email Routing Addresses” in the online help.
3. Enable Create Case in your configurations. The topic “Enabling Create Case” in the online help provides details for editing configurations to include the drop-down list button **Create Cases** in Outlook.

Salesforce for Outlook assigns a category to the emails that Salesforce for Outlook users add as cases to Salesforce. This category, *Added to Salesforce as a case*, makes it easy for users to search for emails they added as cases to Salesforce.

Controlling Items You Don’t Want to Sync

You asked for it! This enhancement is from an idea on the IdeaExchange.

Your users now have more control over the items they don’t want to sync.

- In Salesforce for Outlook Settings, users can now choose whether to sync Microsoft Outlook contacts, events, and tasks they mark as Private.
- In Microsoft Outlook, users can now indicate any items they don’t want to sync with Salesforce, regardless of whether they mark them as Private, by assigning them to the new category *Don’t Sync with Salesforce*. For example, this can be helpful when users want to prevent specific contacts, events, and tasks from syncing with Salesforce. For details on using categories in Outlook, refer to your Outlook documentation.

Better Control for Managing Email

We’ve made a number of improvements to help your users better control the management of emails they add to Salesforce.

- For emails users add to Salesforce, Salesforce for Outlook now adds a row to My Unresolved Items for each unresolved email address. While this may result in additional rows, your users now have the opportunity to assign emails to all of the contacts and leads in the email. In addition, My Unresolved Items now includes an Email Address column so that users know which email addresses weren't resolved.

- In My Email to Salesforce, users can now specify email domains they want to exclude from automatic association when they use Salesforce for Outlook to add emails to Salesforce. For example, your users can exclude their own email domain so that Salesforce for Outlook won't associate emails to contacts with their email domain. This can be especially helpful for organizations that create contacts for internal users, and don't want emails associated with those users.
- Salesforce for Outlook now assigns a category to emails your users add to Salesforce. This new category, *Added to Salesforce*, makes it easy to search for emails you added to Salesforce.
- Salesforce for Outlook now stores the original date of the email in the Due Date field of the email task. Previously, Salesforce for Outlook stored the date when the email was added.

Social Accounts and Contacts—Generally Available

Business accounts available in: **All** Editions except **Database.com**

Person accounts available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Contacts available in: **All** Editions except **Database.com**

Leads available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

Visualforce available in: **Contact Manager**, **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

You asked for it! Spring '12 addresses this idea on IdeaExchange.

In Spring '12, an enhanced version of Social Contacts—now called Social Accounts and Contacts—is generally available. With Social Accounts and Contacts, Salesforce users can see social information for accounts (both business and person accounts), contacts, and leads directly in Salesforce. Easy access to this information provides your sales users with social sales intelligence that they can use to better meet existing and potential customers' needs.

The Social Accounts and Contacts feature includes these enhancements.

- Facebook® profiles are now available for accounts and leads, as well as contacts. Facebook gives you a more personal view of your existing and potential customers and helps you find common interests. For contacts, leads, and person accounts, you can see profiles, status updates, and the number of mutual friends you share. For business accounts, you can view your customers' corporate social media presence, including their company profile and wall posts.
- LinkedIn® profiles are now available for leads and person accounts, as well as contacts. LinkedIn is useful for staying up to date on your existing and potential customers' professional personas. You can see profile photos, current titles and companies, and locations.
- Twitter™ profiles are now available for accounts and leads, as well as contacts. Twitter is a great way to see the public personas of your existing and potential customers and to find out what's on their minds. You can see bios, recent tweets, and the people who are following and being followed by your accounts, contacts, and leads.
- Two new social networks are available.
    - ◊ Klout™ is a third-party service that analyzes people's influence across social networks, including Twitter, Facebook, and LinkedIn. Use Klout to see your accounts', contacts', and leads' influence on social media, who they influence, who influences them, and the topics they talk about.
    - ◊ YouTube™ helps you find and view videos related to your accounts, contacts, and leads.

- A new Visualforce component—called Visualforce for Social Accounts and Contacts—is available, so you can easily add the Social Accounts and Contacts viewer to your custom account, contact, and lead detail pages. You don't need to use this component for standard account, contact, or lead pages.

  The viewer displays the record name, a profile picture for the account, contact, or lead, the social network icons that allow users to sign in to their accounts from Salesforce, and the popup that displays social data directly in Salesforce See social_profileViewer in the *Visualforce Developer's Guide* for more information.

Important: The Social Accounts and Contacts feature uses Facebook, Klout, LinkedIn, Twitter, and YouTube public APIs to display social information in Salesforce. Because these social networks have the option of modifying or terminating access to their APIs at any time, salesforce.com can't guarantee the future availability of this feature or any of its functionality, including access to the data that is currently provided or to any particular social network as a whole.

Security and Privacy When Using Social Accounts and Contacts

Social Accounts and Contacts is secure and private. Here's an overview of its security and privacy features:

- Salesforce uses the trusted OAuth protocol when you sign in to your Facebook, LinkedIn, or Twitter accounts, so your login credentials aren't exposed to Salesforce.
- Salesforce doesn't import or store social information. Each time you select a contact's social profile or YouTube video, Salesforce retrieves the information directly from the corresponding social network and simply displays it. The information that you see is read-only and can't be modified.
- You can't import or store social data in Salesforce records. This ensures that you always see current details when viewing your accounts', contacts', and leads' social information.
- The details that are visible to you when you view a Facebook, LinkedIn, or Twitter profile are determined by the connection that you have with the account, contact, or lead, as well as privacy settings. Typically you see the same information as you would when viewing the profile while logged in directly to the social network. Some of your customers, however, may have privacy settings that restrict the visibility of some or all of their profile details outside the network. In those cases, you see very few, if any, profile details in Salesforce.
- Your view of a Facebook, LinkedIn, or Twitter profile is not shared with anyone else in your organization. Other Salesforce users must sign in to their own social network accounts to use Social Accounts and Contacts and the profile details that are visible depend on each user's connection level with the account, contact, or lead, as well as their privacy settings.
- None of your Facebook, LinkedIn, or Twitter profile information is stored in Salesforce, nor does Salesforce post anything about you or your activities to your social network accounts.
- Accounts, contacts, and leads aren't notified when you view their social network profiles using the Social Accounts and Contacts feature.

Enabling and Configuring Social Accounts and Contacts

User Permissions Needed
To enable, configure, or disable Social Accounts and Contacts: "Customize Application"

The Social Accounts and Contacts feature is enabled by default for organizations created after the Spring '12 release. For existing organizations, the administrator must enable Social Accounts and Contacts..

Note: Social Accounts and Contacts won't be enabled if the Social Contacts feature in the Winter '12 release was turned off. If your organization has been using Social Contacts since the Winter '12 release, you automatically get the new support for accounts and leads, and the YouTube and Klout services are enabled by default.

To enable Social Accounts and Contacts for your organization:

- Click ***Your Name*** > **Setup** > **Customize** > **Social Accounts and Contacts** > **Settings**.
- Click **Change your organization's Social Accounts and Contacts settings**.
- Select **Enable Social Accounts and Contacts**. To disable Social Accounts and Contacts for everyone, deselect this checkbox.
- Select the social networks that your organization may use. Deselect any of the services that you want to turn off for your organization. By default, all social networks are turned on.
- Click **Save**.

Users can turn off the social networks that they personally don't want to use, or they can turn off the entire feature for themselves. To do this, users click ***Your Name*** > **Setup**, then in the Personal Setup section, click **My Social Accounts and Contacts** > **Settings**.

Implementation Tips

- You can select the social networks that your organization may use. By default, all of the supported services are turned on.
- Users must sign in to their social network accounts from any Salesforce account, contact, or lead detail page before they can link or view any Facebook, LinkedIn, and Twitter profiles. Users don't need Klout or YouTube accounts to see information from these sites.
- The Klout service requires that Twitter is enabled for your organization. Before users can see Klout information for an account, contact, or lead, they must be signed in to their Twitter accounts and a Twitter profile must already be associated with the record.
- Users need these object permissions.

To sign in to social network accounts...	On Business Account detail pages: "Read" on accounts On Contact detail pages: "Read" on contacts On Lead detail pages: "Read" on leads On Person Account detail pages: "Read" on accounts and contacts
To link social network profiles to Salesforce records...	On Business Account detail pages: "Edit" on accounts On Contact detail pages: "Edit" on contacts On Lead detail pages: "Edit" on leads On Person Account detail pages: "Edit" on accounts and contacts
To view social network profiles that are linked to Salesforce records... To view Klout information... To search for and watch YouTube videos...	On Business Account detail pages: "Read" on accounts On Contact detail pages: "Read" on contacts On Lead detail pages: "Read" on leads On Person Account detail pages: "Read" on accounts

- Additional social networks may be available in future updates.

Getting Started with Social Accounts and Contacts

Social Accounts and Contacts is easy to use. Simply click any of the social network icons in the header on account, contact, and lead detail pages to display the Social Accounts and Contacts viewer. Users can:

- Sign in to their Facebook, LinkedIn, and Twitter accounts from any account, contact, or lead detail page. This creates private connections between Salesforce and the social network accounts, which allows users to see external social profiles in Salesforce. (Users don't need to sign in to YouTube or Klout accounts to see information from these services.)
- Link Facebook, LinkedIn, and Twitter profiles to their account, contact, and lead records then view these profiles whenever desired. Once a profile is linked to a record, others in your organization can also view the information without logging in to other sites. The social profile details that Salesforce displays are always current.
- View Klout information about customers. Salesforce automatically displays this information if a Twitter profile is associated with the account, contact, or lead record.
- Watch YouTube videos. Each time a user selects the YouTube service, a current list of videos related to the account, contact, or lead is displayed.

Salesforce CRM Content Enhancements

Change a Salesforce CRM Content Document's Managing Library Using the ContentDocument API Object

Available in: **Contact Manager**, **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

The ContentDocument object is updateable in Spring '12 and includes a new `ParentId` field which can be used to query and update a document's managing library. The `ParentId` field is set automatically when a ContentVersion is inserted via the API for the first time.

Archive and Unarchive Salesforce CRM Content Documents Using the ContentDocument API Object

Available in: **Contact Manager**, **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

The `IsArchived` field on the ContentDocument object is updateable in Spring '12 and can be used to archive or unarchive a document.

- When `IsArchived` is set to `true`, the document is archived. Starting in Spring '12, archived documents are returned by the `queryAll()` call.
- When `IsArchived` is set to `false`, the document is not archived.

Apex Triggers Enabled on the ContentDocument Object

You can now associate Apex triggers with the ContentDocument object. You can create Apex triggers for the ContentDocument object only through the Metadata API. Alternatively, you can create the triggers using the Force.com IDE or the Force.com Migration Tool, which make use of the Metadata API. For more information, see the:

- *Metadata API Developer's Guide*
- *Using the Force.com IDE to Deploy Apex* topic in the *Force.com Apex Code Developer's Guide*
- *Force.com Migration Tool Guide*

Additional Sales Cloud Enhancements

New Email to Salesforce Features

Available in: **All** Editions except **Database.com**

Spring '12 includes the following enhancements to Email to Salesforce:

- For emails you add to Salesforce, My Unresolved Items now displays a row for each unresolved email address. While this may result in additional rows, you now have the opportunity to assign emails to all of the contacts and leads in the email. In addition, My Unresolved Items now includes an Email Address column so that you know which email addresses weren't resolved.
- In My Email to Salesforce, you can now specify email domains you want to exclude from automatic association when you add emails to Salesforce. For example, you can exclude your own email domain so that Salesforce won't associate emails to contacts with your email domain. This can be especially helpful for organizations that create contacts for internal users, and don't want emails associated with those users.

Salesforce for Google AdWords Not Available to New Organizations

Starting in Spring '12, Salesforce for Google AdWords isn't available for new organizations. Existing organizations that have already set up Salesforce for Google AdWords continue to have access.

SERVICE CLOUD

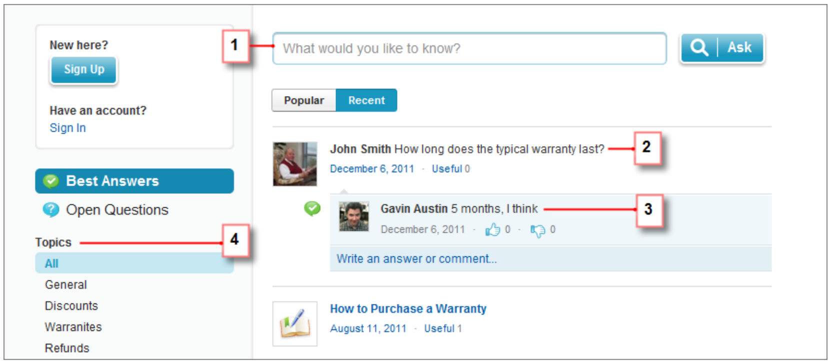
Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

Answering your customers' questions is critical to maintaining your brand's reputation. A lot of customers, and potential customers, look to the Web to quickly find answers for your products or services, or to connect with others who can help them find the information they need. Have you wanted to strengthen your brand and increase your service and support presence online? With Chatter Answers, you can.

Chatter Answers integrates Cases, Answers, Force.com Sites, Customer Portal, and Salesforce Knowledge to provide you with a Web community for your customers. It lets your customers:

- Post, browse, and reply to questions.
- Delete their own questions and replies.
- Flag questions and replies as spam, hateful, or inappropriate.
- Receive emails when their questions are answered or when best answers are chosen for questions they're following.
- Collaborate publicly or privately with support agents to resolve issues.
- Search and review articles from Salesforce Knowledge.
- Vote on the usefulness of knowledge articles and answers.
- Upload photos of themselves to their user profiles.
- View other users' total number of posts and number of replies marked as best answers by others.



1. **Search**. Customers can search for existing questions before they post their own.
2. **Question**. Customers can post a question to the community for help.
3. **Comment**. Community members and support agents can comment on the question, and the customer can select a comment as the best answer.
4. **Filter**. Community members and support agents can view questions and comments by specific topics.

Chatter Answers lets service organizations and support agents:

- Create multiple Web communities.
- Brand and customize communities.
- Respond to customers publicly or privately.
- Automate the creation of cases from questions via an Apex trigger and workflow rules.
- Deflect customer inquiries through community participation.
- Encourage community participation by publicly displaying user statistics.
- Moderate questions and answers from a Questions tab in Salesforce (or from the Service Cloud console).

A customer's question is typically answered on Chatter Answers using one of these processes:

Question Answered by a Similar Question with a Best Answer	Question Answered by the Community	Question Answered by a Support Agent	Question Answered by a Knowledge Article
1. A customer types a question or keyword into Chatter Answers and clicks **Ask**. **2.** A similar question with an answer displays in search results.	**1.** A customer types a question or keyword into Chatter Answers and clicks **Ask**. **2.** No similar questions display in search results. **3.** The customer signs in to Chatter Answers to post a public question. **4.** A community member or support agent reads the question and adds a comment, which answers the customer's question.	**1.** A customer types a question or keyword into Chatter Answers and clicks **Ask**. **2.** No similar questions display in search results. **3.** The customer signs in Chatter Answers to post a private question. **4.** The private question is converted to a case. **5.** A support agent reads the case and adds a private comment, which answers the customer's question.	**1.** A customer types a question or keyword into Chatter Answers and clicks **Ask**. **2.** A similar knowledge article with an answer displays in search results.

Limitations

- Chatter Answers doesn't support Internet Explorer® 6.
- Users can't escalate a question to a case, but support agents can escalate questions from the Answers or Questions tabs.
- Users can't unfollow questions.
- Each question can receive up to 500 replies from users.
- Administrators can't customize or brand Chatter Answers email notifications.
- There are no standard reports for Chatter Answers, but you can create custom report types for questions.
- Administrators can't customize the FAQ (Frequently Asked Questions) available to customers when they click **Need help?**.

Implementation Tips

- We recommend that advanced Salesforce administrators and developers set up and maintain Chatter Answers, as it involves several Salesforce features.
- Before administrators can set up Chatter Answers, their organizations must have implemented Data Categories. If you want knowledge articles to display in your Web community, then administrators need to implement Salesforce Knowledge.

- You can customize fields, Apex triggers, and validation rules for questions and replies for Chatter Answers by clicking ***Your Name*** > **Setup** > **Customize** > **Chatter Answers** and choosing the appropriate setting.
- After you enable Chatter Answers, several items are automatically added to your organization for use with setting up communities:
  - ◊ Questions on user profiles so that you can grant users permissions to questions and replies.
  - ◊ Visualforce pages that you add to a Force.com site so that users can register, sign in, and view feed items on a community.
  - ◊ An Apex trigger for questions named `chatter_answers_question_escalation_to_case_trigger` so that questions with specified attributes are automatically escalated to cases.
  - ◊ A workflow field update named `chatter_answers_num_subscriptions_above_` so that when a question is escalated to a case, `Priority` on questions is updated.
  - ◊ Two workflow rules, `chatter_answers_no_best_reply_within_time_limit_wf` and `chatter_answers_num_subscriptions_above_limit_wf`, which you can customize and activate so that questions without best replies or questions with a specified number of followers are automatically escalated to cases.
- Chatter Answers is designed to support one user language for each Web community you create. When you enable Chatter Answers, the Visualforce pages automatically added to your organization inherit your organization's default language. However, you can change the language attribute on each Visualforce page. Users who self-register for your community inherit your organization's default language. Guest users view your community in the language specified in the Visualforce pages, no matter the language chosen for their browsers.
- You can rename `Customer Support` on your communities' user interface. For example, you can change "Customer Support" to "Acme Support." Just edit the Customer Support label on the Question object. See "Renaming Tab and Field Labels" in the online help.
- Questions escalated to cases display a Chatter-like feed on case detail pages. The case detail page also includes a Customer View section that lets support agents reply publicly or privately to the thread posted to the community.
- Case comments marked `Public` display as private messages from customer support in Chatter Answers; they don't display to the entire community. For example, if a support agent adds a public case comment, it only displays to the case's contact when he or she logs in to Chatter Answers to review private messages. Support agents can read all private and public case comments. See "Creating and Editing Case Comments" in the online help.
- Chatter Answers sends emails to users when they:
  - ◊ Sign up for an account.
  - ◊ Follow a question (answers or comments).
  - ◊ Receive an answer or comment to their question.
  - ◊ Receive a private reply to their question from customer support.
- Internet Explorer 8 users receive a security warning if you customize Chatter Answers with URLs that don't include `https://`.
- Before you make a Web community public, add at least 20 frequently asked questions, answers, or articles. This content will generate conversations.
- Create knowledge articles that contain:
  - ◊ Your support organization's phone number so that customers can contact your support agents directly.
  - ◊ Terms and conditions for community members, such as when support agents might delete customers' questions and comments.
- Chatter Answers uses the following API objects:
  - ◊ Case
  - ◊ Community
  - ◊ Question
  - ◊ QuestionReportAbuse
  - ◊ QuestionSubscription

◊ Reply
◊ ReplyReportAbuse

See the *Web Services API Developer's Guide*.

Best Practices

- We recommend that you tell support agents that:
  - ◊ The `Case Origin` field lists Chatter Answers on any case converted from a question.
  - ◊ If they answer a question privately, they can't convert it to a public answer.
- We recommend that you assign a support agent to review public questions from the Questions tab. Agents can't click **Flag** next to questions or replies that are spam, hateful, or inappropriate, but they can delete questions or replies from a Web community via the Questions tab if they have the "Delete" permission on questions.
- To moderate many questions quickly, we recommend that support agents review questions from pinned lists on the Service Cloud console (this requires adding the Questions tab to the console's Navigation tab; see "Creating a Service Cloud Console App" in the online help).
- To see a list of cases converted from questions, we recommend that administrators or support agents create a case view where Case Origin equals Chatter Answers. See "Creating Custom List Views" in the online help.
- Because photos added to profiles display externally on Chatter Answers, we recommend that support agents choose photos that match their company's policies and branding. See "Uploading Chatter Group and Profile Photos" in the online help.

Chatter Answers Terminology

Available in: **Enterprise** and **Unlimited** Editions

The following terms are used when describing Chatter Answers features and functionality.

Answers

Answers is a feature of the Community application that enables users to ask questions and have community members post replies. Community members can then vote on the helpfulness of each reply, and the person who asked the question can mark one reply as the best answer.

Article

Articles capture information about your company's products and services that you want to make available in your knowledge base.

Best Answer

When a member of an answers community asks a question and other community members post a reply, the asker can mark one of the replies as the best answer. The best answer then appears directly under the question (above the other replies). Identifying the best answer helps other community members with the same question quickly find the most relevant, useful information.

Flag

An icon that users can click on a question or reply to report it as spam, hateful, or inappropriate.

Follow

A subscription to a question that lets you receive emails when someone answers or comments on a specific question. You can only follow questions that don't have best answers.

Like

To show support for a customer's question.

Popular

Each question's popularity is based on the number of users who mark it as **Useful** within a certain amount of time.

Question

An issue posted to an answers community. When a community member asks a question, other community members post replies to help resolve the question.

Question, Private

An issue posted to an answers community, but marked **Private** so that only support agents can view and respond to it.

Reply

The response to a question in an answers community. When community members reply to a question, the person who asked the question can mark one of the replies as the best answer to resolve and close the question.

Topics

The sidebar that lists data categories from which your customers can browse questions and replies. For example, if you have a community for hardware products, your topics may include laptops, desktops, and printers.

Useful

Anyone signed in to Chatter Answers can mark a question with a best answer or Knowledge article as **Useful** to help determine its popularity.

Vote, Reply

In an answers community, a vote means you either like or dislike a reply to a question.

Chatter Answers Users Overview

Available in: **Enterprise** and **Unlimited** Editions

Because Chatter Answers integrates several features with the Customer Portal, managing Chatter Answers users is similar to managing Customer Portal users. Use the following to manage the data and functions that are accessible to Chatter Answers users:

- Profiles, permissions, and access settings determine a user's permission to perform different functions, such as adding comments to a case.
- User licenses define which profiles and permission sets are available to a user, such as the High Volume Customer Portal (Service Cloud Portal User) or Customer Portal Manager Custom license.
- Feature licenses entitle a user to additional Salesforce features, such as Chatter Answers.
- Field-level security defines which fields users can access, such as fields on Salesforce Knowledge articles.

- Sharing sets let you selectively grant record access to defined groups of high-volume portal users.

Chatter Answers excludes some features typically available to Customer Portal users, such as:

- Ideas
- Groups
- Teams
- Reports
- Content
- Page layouts
- Custom objects
- Delegated portal user administration
- Customer Portal role hierarchy (available, but not used)
- Customer Portal sharing rules, except for high-volume portal users

Chatter Answers users can only access the following records from your Web community:

- Cases
- Questions
- Replies (answers)
- Salesforce Knowledge articles

Chatter Answers is designed to support one user language for each Web community you create. When you enable Chatter Answers, the Visualforce pages automatically added to your organization inherit your organization's default language. However, you can change the language attribute on each Visualforce page. Users who self-register for your community inherit your organization's default language. Guest users view your community in the language specified in the Visualforce pages, no matter the language chosen for their browsers.

Note:

- Chatter Answers isn't supported for partner portal users.
- Chatter Answers users can't change their language, timezone, or locale settings.
- Portal users must have the Chatter Answers User feature license to use Chatter Answers. This feature license is automatically assigned to high-volume portal users who self-register for Chatter Answers. You can manually assign the license to users who don't self-register by editing a user and clicking `Chatter Answers User`.

Chatter Answers Implementation Overview

Available in: **Enterprise** and **Unlimited** Editions

Note: We recommend that advanced Salesforce administrators and developers set up and maintain Chatter Answers, as it involves several Salesforce features.

Chatter Answers integrates Cases, Answers, Force.com Sites, Customer Portal, and Salesforce Knowledge to provide you with a Web community for your customers. Before administrators can set up Chatter Answers, their organizations must have implemented Data Categories. If you want knowledge articles to display in your Web community, then administrators need to implement Salesforce Knowledge.

Unlike other Salesforce features, Chatter Answers spans across several areas of setup. There isn't one location in Salesforce where you can update and configure all of the settings related to Chatter Answers. For example, configuring Chatter Answers might require you to update Customer Portal settings by clicking ***Your Name*** > **Setup** > **Customize** > **Customer Portal** > **Settings**, as well as Force.com Site settings by clicking ***Your Name*** > **Setup** > **Develop** > **Sites**.

Setting up Chatter Answers also includes customizing or maintaining:

- Cases
- Case assignment rules
- Workflow rules on cases or questions
- Apex triggers on questions
- Visualforce pages
- Customer Portal users
- Organization-wide sharing defaults
- Feature licenses

Customizing the appearance of your Chatter Answers community to match your company's branding involves creating or updating Visualforce pages and adding them to the Force.com Site used to host your community.

Setting Up Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To set up Chatter Answers:	"Customize Application" AND "Manage Users" AND "Edit Self-Service Users"

Note: The steps below are general guidelines for setting up Chatter Answers. Chatter Answers integrates several Salesforce features, including features administrators may have implemented already, so each Chatter Answers implementation may be different. Contact salesforce.com for specifics on your implementation.

Before administrators can set up Chatter Answers, their organizations must have implemented Data Categories. If you want knowledge articles to display in your Web community, then administrators need to implement Salesforce Knowledge.

Before you set up Chatter Answers, you must purchase an adequate number of the following licenses:

- Chatter Answers User
- Knowledge User, if you plan to use knowledge articles
- Customer Portal user licenses, we recommend High Volume Customer Portal

1. Enable Chatter Answers.

2. Configure email notification settings.
3. Implement a Customer Portal (if one doesn't already exist for your organization).
4. Configure your organization's Customer Portal for Chatter Answers.
5. Configure high-volume portal users for self-registration.
6. Implement a Force.com site (if one doesn't already exist for your organization).
7. Configure your organization's Force.com site for Chatter Answers.
8. Configure cases for Chatter Answers.
9. Set Questions tab visibility.
10. Optionally:
    - Assign data categories to Chatter Answers.
    - Configure Salesforce Knowledge for Chatter Answers.
11. Configure one or more Chatter Answers communities.

Important: After you set up Chatter Answers, it may not work properly if you change any of the configurations in the features mentioned above. If certain configuration issues are detected, Salesforce sends email notifications to the `Site Contact` user.

Tip:

- You can add custom fields to questions or replies for API integration purposes only. For example, add a custom text field to questions and use the API to populate that text field with the name of the country from which each question is posted. Any custom fields you create for questions or replies can't display in the Salesforce user interface.
- You can customize fields, Apex triggers, and validation rules for questions and replies for Chatter Answers by clicking ***`Your Name`*** > **Setup** > **Customize** > **Chatter Answers** and choosing the appropriate setting.
- You can rename `Customer Support` on your communities' user interface. For example, you can change "Customer Support" to "Acme Support." Just edit the Customer Support label on the Question object. See "Renaming Tab and Field Labels" in the online help.

Enabling Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To enable Chatter Answers:	"Customize Application"

Enable Chatter Answers to set up Chatter Answers communities.

1. Click ***`Your Name`*** > **Setup** > **Customize** > **Chatter Answers** > **Settings**.
2. Click **Edit**.
3. Select **Enable**.
4. Click **Save**.

After you enable Chatter Answers, several items are automatically added to your organization for use with setting up communities:

- Questions on user profiles so that you can grant users permissions to questions and replies.

- Visualforce pages that you add to a Force.com site so that users can register, sign in, and view feed items on a community.
- An Apex trigger for questions named `chatter_answers_question_escalation_to_case_trigger` so that questions with specified attributes are automatically escalated to cases.
- A workflow field update named `chatter_answers_num_subscriptions_above_` so that when a question is escalated to a case, `Priority` on questions is updated.
- Two workflow rules, `chatter_answers_no_best_reply_within_time_limit_wf` and `chatter_answers_num_subscriptions_above_limit_wf`, which you can customize and activate so that questions without best replies or questions with a specified number of followers are automatically escalated to cases.

Visualforce Pages for Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

After you enable Chatter Answers, the Visualforce pages below are automatically added to your organization. You can use these pages to set up and configure Chatter Answers communities.

Visualforce page	Description
`Community Name``_main` (Home Page)	The page that includes the question, reply, and Knowledge article feeds for your community. This page is also used to determine the community from which email notifications are sent to users. This page is automatically generated when you save a new community without choosing `Visualforce Page That Hosts Your Community's Feeds`. The generated page includes your community's ID so that topics, questions, and replies are associated with your specific community and can display on it. The page is named after your community with a suffix of "_main," for example, `CommunityName_main`. The page also includes a language attribute that matches your organization's default language.
`ChatterAnswersAgentView`	The Visualforce component that displays questions on case detail pages when questions are converted to cases. This component is optional and offers an alternative to the case detail page.
`ChatterAnswersChangePassword`	The page where users can change their passwords to your community.
`ChatterAnswersForgotPassword`	The forgot password page for your community.
`ChatterAnswersForgotPasswordConfirm`	The forgot password confirmation page for your community.
`ChatterAnswersHelp`	The online help page displayed to users when they click **Need Help?**.
`ChatterAnswersLogin`	The login page for your community.
`ChatterAnswersRegistration`	The page where users can self-register for access to your community.

Configuring Email Notifications for Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To configure email notifications for your Chatter Answers communities:	"Customize Application"

Determine when emails are sent to users by configuring the notification settings that apply to all of your Web communities. Each email includes a link to a specific community so that users can easily return to it.

1. Click ***Your Name*** > **Setup** > **Customize** > **Chatter Answers** > **Email Notification Settings**.
2. Click **Edit**.
3. Choose from the following settings:

Option	Description
Replies to a question they own	Notify customers when other users reply to their questions.
Replies to a question they follow	Notify customers when other users reply to questions they're following.
Selects a best answer on a question they follow	Notify customers when a best answer is selected for a question they're following.
Sends a private reply to their question (Customer Support)	Notify customers when customer support responds to their questions privately.

4. Click **Save**.

Configuring Portal Users for Self-Registration to Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To set up and update the Customer Portal:	"Customize Application"
To manage Customer Portal users:	"Edit Self-Service Users"

Configure Customer Portal users for self-registration to your Chatter Answers community.

1. Clone the High Volume Customer Portal profile so that you can customize it:
   a. Click ***Your Name*** > **Setup** > **Manage Users** > **Profiles**.
   b. Click **Clone** next to High Volume Customer Portal.
   c. Type a name for the new profile.
   d. Click **Save**.
2. Customize the cloned profile to include permissions to the standard objects on your community:

a. Click ***Your Name*** > **Setup** > **Manage Users** > **Profiles**.
b. Click the name of the cloned profile.
c. Click **Edit**.
d. In Standard Object Permissions, click on the following permissions to these objects:

Object	Permissions
Cases	`Read`, `Create`
Contacts	`Read`
Questions	`Read`, `Create`

e. Click **Save**.

Configuring a Customer Portal for Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To set up and update the Customer Portal:	"Customize Application"

Configure a Customer Portal for Chatter Answers to authenticate users who sign in to your Chatter Answers community.

1. Click ***Your Name*** > **Setup** > **Customize** > **Customer Portal** > **Settings**.
2. Click **Edit** next to the Customer Portal you want to configure for Chatter Answers.
3. Click `Login Enabled` to let customers sign in to Chatter Answers.
4. In `From Email Address`, type the address from which all email communications from your Chatter Answers community are sent. For example, support@acme.com.
5. In `From Email Address Name`, type the name associated with the `From Email Address`. For example, Acme Customer Support.
6. Click `Self-Registration Enabled` to let customers register themselves for access to Chatter Answers.
7. In `Default New User License`, choose the portal user license that's automatically assigned to customers who self-register. We recommend you choose the High Volume Customer Portal license.
8. In `Default New User Profile`, choose the profile that's automatically assigned to customers who self-register. We recommend you choose the profile you cloned and customized for self-registration.
9. Click **Save**.
10. Assign the profile you selected as the `Default New User Profile` to your Customer Portal so that users can sign in to your community:
    a. Click ***Your Name*** > **Setup** > **Customize** > **Customer Portal** > **Settings**.
    b. Select your portal's name.
    c. In the Assigned Profiles section, click **Edit Profiles**.
    d. Click `Active` next to the profile you selected as the `Default New User Profile`.
    e. Click **Save**.

Configuring a Force.com Site for Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create and edit Force.com sites:	"Customize Application"

Configure a Force.com site for Chatter Answers to host a domain and publicly display some of your Salesforce data, such as questions, replies, and knowledge articles.

1. Click ***`Your Name`*** > **Setup** > **Develop** > **Sites**.
2. Click **Edit** next to the name of the site you want to configure for Chatter Answers.
3. Click `Active` to activate the site.

   You can activate the site after you've finished setting up Chatter Answers.
4. In `Active Site Home Page`, choose a Visualforce page as the home page for your Chatter Answers community.
5. Click **Save**.
6. Click **Edit** on the Site Visualforce Pages related list.
   a. Use the **Add** and **Remove** buttons to enable the following Visualforce pages for your site:
      - `ChatterAnswersAgentView`
      - `ChatterAnswersChangePassword`
      - `ChatterAnswersForgotPassword`
      - `ChatterAnswersForgotPasswordConfirm`
      - `ChatterAnswersHelp`
      - `ChatterAnswersLogin`
      - `ChatterAnswersRegistration`

   b. Click **Save**.
7. Click **Public Access Settings** to grant guest users (unauthenticated, non-Customer Portal users) access to cases, questions, and Salesforce Knowledge articles.
   a. Click **Edit** on the profile for Chatter Answers users.
   b. In Standard Object Permissions, click **Read** on Cases and Questions.
   c. Optionally, if you want articles to display in your Chatter Answers community, click **Read** on articles types in Article Type Permissions.
   d. Click **Save**.
8. Click **Edit** next to a category group in the Category Group Visibility Settings related list to grant users access to the categories so that they can browse questions, replies, and knowledge articles.
   a. Next to `Visibility`, click `All Categories`.
   b. Click **Save**.
9. Return to the site and select its name by clicking ***`Your Name`*** > **Setup** > **Develop** > **Sites**.
10. Click **Login Settings** to enable user authentication for the site.
   a. Click **Edit**.
   b. In `Enable Login For`, choose the Customer Portal you created for Chatter Answers.

c. Click **Save**.

After you configure your Force.com site for Chatter Answers, you can replace the standard Visualforce pages that make up your community with customized ones. The Visualforce pages are automatically set to your site's URL so that portal users can navigate to them.

1. Click ***`Your Name`*** > **Setup** > **Customize** > **Chatter Answers** > **Sites Settings**.
2. Click **Edit** next to a site.
3. Choose the pages to replace. If you replace the `Change Password Page`, the `Change Password Page` for your site is automatically updated too.
4. Click **Save**.

Note: Internet Explorer 8 users receive a security warning if you customize Chatter Answers with URLs that don't include `https://`.

Configuring Cases for Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To set organization-wide sharing defaults:	"Manage Users" AND "Customize Application"
To set field-level security:	"Customize Application"
To customize fields: To create assignment rules: To grant high-volume portal users access to cases:	"Customize Application"

Configure case features for Chatter Answers so that cases are created, escalated, and accessed by the appropriate users of your Chatter Answers communities.

1. Set your organization-wide sharing defaults to Private on Account, Controlled by Parent on Contact, and Private on Case to prevent users from accessing each others' information.
2. Set field-level security on `Question` on cases to Visible for profiles assigned to your Customer Portal so that users can access their private questions.
3. Update `Origin` on cases with the value in the Question trigger so that support agents can see which cases originated from Chatter Answers.
4. Create a case assignment rule where Case Origin equals the value of Chatter Answers so that cases created from private questions are assigned to support agents.
5. Grant high-volume portal users access to cases so that they can access their private questions on Chatter Answers.

Setting Questions Tab Visibility

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To set Questions tab visibility:	“Manage Users”

Set the visibility of the Questions tab to `Default On` so that support agents can view, search, filter, and moderate questions posted to your Chatter Answers community.

1. Click ***Your Name*** > **Setup** > **Manage Users** > **Profiles**.
2. Select a support agent profile.
3. Depending on which user interface you're using, do one of the following:
   - Enhanced profile user interface—In the **Find Settings...** box, enter the name of the tab you want and select it from the list, then click **Edit**.
   - Original profile user interface—Click **Edit**, then scroll to the Tab Settings section.
4. Specify the visibility of the Questions tab to `Default On`.
5. (Original profile user interface only) To reset users’ tab customizations to the tab visibility settings that you specify, select **Overwrite users' personal tab customizations**.
6. Click **Save**.

Assigning Data Categories to Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To assign data categories to Chatter Answers:	“Customize Application”

Assign a data category group to Chatter Answers so that it’s available to all of your Chatter Answers communities. You configure each community with a top-level data category (topic) in which customers and support agents can categorize and filter questions and knowledge articles.

1. Click ***Your Name*** > **Setup** > **Customize** > **Chatter Answers** > **Data Category Assignments**.
2. Click **Edit**.
3. Select a category group.
4. Click **Save**.

Configuring Salesforce Knowledge for Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create or edit users:	"Manage Users"
To create article types and article actions:	"Customize Application" AND "Manage Salesforce Knowledge"
To manage synonyms:	"Manage Synonyms"
To create data categories:	"Manage Data Categories"

To display knowledge articles in your Chatter Answers communities, you must:

1. Implement Data Categories (if you haven't done so already).
2. Implement Salesforce Knowledge (if you haven't done so already).
3. Configure both for Chatter Answers.

You configure each community with a top-level data category (topic) in which customers and support agents can categorize and filter questions and knowledge articles.

1. Set the Default Data Category Visibility to `All Categories` so that customers not included in your organization's role hierarchy, such as high-volume portal users, can access categories that include questions and knowledge articles.
2. Create one category group for all of your communities so that you're less likely to reach the limit of three active data categories. Then add a child category for each community; and add child categories to those categories to provide topics.
3. Activate the category group you want available to Chatter Answers so that users can access it.
4. Grant "Read" permissions to specific article types on the profiles of Chatter Answers users so that they can access articles from your communities.

Configuring a Chatter Answers Community

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To configure a Chatter Answers community:	"Customize Application"

Configure a Chatter Answers community to integrate the user authentication features of the Customer Portal with the domain and public data features of a Force.com site.

1. Click ***`Your Name`*** > **Setup** > **Customize** > **Chatter Answers** > **Communities**.
2. Select an existing community, or click **New** to create a new community.
3. Type a name and description for your community.
4. Click **Active** to activate the community for ideas, answers, or Chatter Answers.

5. Click **Enable This Community for Chatter Answers** to associate the community with Chatter Answers.
6. Click **Enable Private Questions** to let customers post their questions privately to customer support (create cases). If you don't select this setting, support agents can still initiate private communications with customers.
7. In `Data Category for Top-Level Topics`, choose the top-level topic in which customers and support agents can categorize and filter questions and knowledge articles.
8. In `Site That Hosts Your Community`, click and choose the Force.com site on which you want to host the community.
9. In `Visualforce Page That Hosts Your Community's Feeds`, click and choose the Visualforce page on which questions, replies, and knowledge articles display.

   The page you choose must include the `chatteranswers:allfeeds` component so that the community is linked to your Force.com site correctly. If you don't choose a Visualforce page, one is automatically generated when you save your community. The generated page includes your community's ID so that topics, questions, and replies are associated with your specific community and can display on it. The page is named after your community with a suffix of "_main," for example, `CommunityName_main`. The page also includes a language attribute that matches your organization's default language.
10. In `Portal`, choose the Customer Portal in which to authenticate community members.
11. Click **Save**.

Note: You can create a community for each product you want to support. If you create multiple communities, your portal users have access to all of them. Each question a user creates is associated with the community in which it's posted, and the community name is added to each question so that users and support agents can see where it originated. Users can view all of the questions they've posted to your communities by clicking **My Questions** from any community. You only need one Force.com site and one Customer Portal to support multiple communities.

Using Chatter Answers

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To view questions:	"Read" on questions
To ask and reply to questions:	"Create" on questions
To view cases:	"Read" on case
To change cases:	"Edit" on case
To manage Chatter Answers (Customer Portal) users:	"Edit Self-Service Users"

Chatter Answers lets you work with questions and cases that originate from customers in a Web community. Once a customer posts a question to the community, you or other customers may reply. Questions are converted to cases when they're marked `Private`, or after a time specified by your administrator.

With Chatter Answers, you can:

- Reply to questions converted to cases.

- Create custom views for cases converted from questions by filtering on `Case Origin`.
- Upload a photo to your profile so that customers can see who you are.
- Work with Chatter Answers users, who are essentially Customer Portal users.
- Assign the Chatter Answers User feature license to portal users who don't self-register so that they can access your community.
- Use the Questions tab to moderate questions and to:
  - ◊ Review lists of questions.
  - ◊ Answer questions or add replies to questions.
  - ◊ Manually escalate a question to a case.
  - ◊ Delete questions or replies.
  - ◊ Select best answers for questions.

Note: We recommend that you assign a support agent to review public questions from the Questions tab. Agents can't click **Flag** next to questions or replies that are spam, hateful, or inappropriate, but they can delete questions or replies from a Web community via the Questions tab if they have the "Delete" permission on questions.

Tip: To moderate many questions quickly, we recommend that support agents review questions from pinned lists on the Service Cloud console (this requires adding the Questions tab to the console's Navigation tab; see "Creating a Service Cloud Console App" in the online help).

Questions Home

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To view the Questions tab:	"Read" on questions
To ask and reply to questions:	"Create" on questions
To delete questions and replies:	"Delete" on questions
To escalate a question to a case:	"Create" on cases

The Questions tab lets you view, search, filter, and moderate questions from lists.

- Search for questions by typing two or more letters of a question in the Search All Questions box. As you type, questions that match your search terms appear.
- Select predefined list views from the View drop-down list. Some predefined lists from which you can filter questions include:
  - ◊ Questions with Best Replies
  - ◊ Questions without Best Replies
- Click **Create New View** to define your own custom list view. To edit or delete any view you created, select it from the View drop-down list and click **Edit**. If your organization has multiple communities, we recommend you add `Community` to your views so that you can see the name of the community associated with each question.

- Click to refresh a list that's been updated.
- After you select a question from the list:
  - ◊ Type an answer or comment and click **Answer Customer & Community** to reply to customers.
  - ◊ Click to delete a reply on the question.
  - ◊ Click and choose:
    - **Delete** to delete the question from the community.
    - **Escalate to Case** to create a case from the question.

Note: The Questions tab is intended for Chatter Answers, but you can also use it to view questions from the answers feature.

Live Agent

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Need to spice up your customer experience and increase customer satisfaction? Live Agent lets you add real-time Web chat to your existing customer service channels. Place chat buttons on your website, public knowledge base, or Customer Portal and allow your customers to contact your support agents instantly. Live Agent features:

- A dedicated console that lets agents easily manage chat sessions, view incoming chat requests, and transfer chats to other agents
- Quick Text, which allows agents to create standard chat messages, such as greetings and reusable troubleshooting steps
- Seamless integration with Salesforce records and Salesforce Knowledge articles in the chat console, giving agents easy access to customer information and knowledge articles
- Six chatlets, mini applications that run within the Live Agent console to extend its functionality
- Visitor and chat transcript records, which let agents and supervisors view and monitor information about customers and their issues
- The ability to customize your chat buttons and windows to include your company's logo, specify the language users see, control how chats are distributed to agents, and associate each button with a specific agent skill set
- Customizable agent configurations that let you create different chat experiences for agents and customers

Setting Up Live Agent

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To set up Live Agent:	"Customize Application"
To create user profiles or permission sets:	"Manage Users"

To set up Live Agent:

1. Enable Live Agent for your organization.
2. Create user profiles or permission sets to determine which users can access chat transcripts and visitor records.
3. Create Live Agent users.
4. Assign users a configuration to give them access to the Live Agent console.
5. Identify a set of skills to help route incoming chats to the right agents.
6. Create skills and assign users to them.
7. Determine the number and type of deployments that your organization requires.
8. If you want to brand the chat windows your visitors see (for example, to display your company's logo), create one or more Force.com sites to host the images.
9. Upload the images as static resources.
10. Create deployments, and add the deployment code to each Web page that will have a chat button.
11. Create chat buttons.

Optionally:

- Customize the Live Chat Transcript page.
- Customize the Live Chat Visitor page.
- Add a custom Chat Answer field to Salesforce Knowledge article types to let agents copy information from an article into a chat.
- Create Quick Text messages to help agents chat with customers more efficiently.

Setup Tips

- We recommend that advanced Salesforce administrators and developers set up and maintain Live Agent, as the process involves multiple steps and significant customization.
- Live Agent requires feature licenses, which you can purchase by contacting salesforce.com. Each Live Agent user needs his or her own feature license.
- We recommend that you review the following questions before setting up Live Agent:
    - ◊ How many deployments do you need? Deployments control the look and feel of your chat windows. If your customer service departments supports multiple products or websites, you may want to create several different deployments.
    - ◊ How do you want to divide and define agent skill sets? Each chat button you create is associated with a particular skill, such as technical support, billing, or general inquiries. Before you can create chat buttons, you need to create skills and assign them to users or user profiles.
    - ◊ How many agent configurations do you need? Configurations determine agents' chat capacity, or how many active chats they can participate in at a time, as well as the chatlets they have access to. You may want to create one configuration for junior agents, for example, with a low chat capacity and access to only the basic chatlets, and another for supervisors, with a higher chat capacity and access to all chatlets.

- ◊ What Quick Text categories and subcategories do you need? Defining and creating an effective categorization system for your Quick Text messages will make it easier for agents to find the ones they need when chatting with customers.
- ◊ Do you want your users to see customized pre-chat forms or post-chat pages? You might want to create a pre-chat form that collects information such as a user's name and a short description of their question or issue, for example, or a post-chat page with a link to a survey about the customer's experience with your support team.

  Creating pre-chat forms and post-chat pages requires knowledge of HTML, Javascript, and Visualforce.

- If you choose to use a Force.com site to customize your chat buttons or deployments, you need to create the site and upload images to it as static resources before creating buttons or deployments.

Enabling Live Agent

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To enable Live Agent:	"Customize Application"

To enable Live Agent for your organization:

1. Click ***`Your Name`*** > **Setup** > **Customize** > **Live Agent** > **Settings**.
2. Select `Enable Live Agent`.
3. Click **Save**.

Assigning Live Agent Permissions

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Access to and interactions with certain types of Live Agent records, such as chat transcripts, visitor records, and Quick Text messages, are controlled by object permissions. When you create profiles or permission sets for Live Agent users, you'll grant "Create," "Read," "Edit," or "Delete" permissions on objects depending on the functionality your users need. For example:

- Agents need at least the "Read" permission on Live Chat Visitors and Live Chat Transcripts to review visitor and transcript records.
- In addition, you might need to give users in supervisory or compliance roles "Create," Edit," and "Delete" permissions on these objects. For example, supervisors may need to flag some records for follow up for training purposes, or they may need to add additional comments or update other information in the records. For compliance purposes, some users might need to delete records if they contain sensitive information.
- Other users who want to see transcripts and visitor records will need "Read" permission on these objects.
- To create Quick Text messages, users need "Create," "Read," "Edit," and "Delete" permissions on the Quick Text object.
- To access the Quick Text sidebar in the Live Agent console, agents need at least "Read" permission on Quick Text.

Note: Salesforce automatically creates visitor and transcript records for each chat regardless of which permissions an agent has on Live Chat Visitor and Live Chat Transcript.

Creating Live Agent Users

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create or edit users:	"Manage Users"

1. Click ***Your Name*** > **Setup** > **Manage Users** > **Users**.
2. Click **Edit** next to a user's name.
3. Select `Live Agent User`. If you don't see this checkbox, make sure your organization has purchased enough Live Agent feature licenses.
4. Make sure the user has the correct profile based on the permissions required.
5. Click **Save**.

After creating users, make sure that you assign them a Live Agent configuration and associate them with the appropriate skills.

Agent Configuration Overview

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Agent configurations control the functionality of the Live Agent console. Configurations control:

- Which "chatlets" in the online help are enabled.
- Chat capacity, which is the number of simultaneous chat sessions an agent can participate in.
- Whether or not a sound plays when a new chat is available or when the agent is disconnected from a chat session.
- Whether or not sneak peek is enabled. Sneak peek lets agents see what visitors are typing before visitors send messages.
- The greeting message that appears automatically to visitors when a chat begins.

You give Live Agent users access to the Live Agent console by assigning them a configuration either through a profile or at the user level. If a user is assigned a configuration at both the profile and user level, the user-level configuration overrides the profile one.

Users that aren't associated with a configuration get the default configuration:

- All chatlets enabled
- Unlimited chat capacity
- Sneak peek enabled
- Request sound and disconnect sounds disabled
- Auto greeting disabled

Configurations let you make sure that agents get the Live Agent console functionality that makes sense for their skill levels and job requirements. For example, you might want to create different configurations for new and experienced agents. The configurations can contain the same chatlets and visitor greeting, but specify different chat capacities: new agents are assigned a capacity of two chats, while experienced users are assigned a capacity of five chats. Then, depending on what makes sense for your organization, you can assign configurations by:

- Creating separate profiles for new and experienced agents, and then associating the new agent profile with the new agent configuration, and the advanced agent profile with the advanced configuration.
- Creating a single profile, assigning it to the new agent configuration, and then assigning the individual experienced agents the advanced configuration at the user level.

Depending on the size of your organization, you may have few or many configurations. For example, in a small organization, you might have three configurations: one for new agents, one for experienced agents, and a third for supervisors. In a global enterprise, you could have dozens of configurations. We recommend that you assess your organization's configuration requirements as part of your implementation planning.

Skills Overview

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Skills identify the capabilities of agents, and are used to route requests to the right set of agents. For example, if your support center handles both technical and end-user issues, you'd create separate "Technical" and "End User" skills, and assign agents accordingly. Then, when a query comes in that requires technical expertise, Salesforce routes the request to those agents in the "Technical" skill set only.

You can assign skills to both profiles and individual users, and you can associate both users and profiles with multiple skills. For example, if your organization supports laptop, desktop, and tablet computers, you'd assign all three computer skills to agents qualified to provide support on each type of computer, while you'd assign just the "desktop" skill to agents only trained on desktop computers.

During implementation planning, we recommend that you identify the skills that you'll assign to agents. If your organization's agents can handle any chat request, then you need to create only one skill. However, it's more likely that your agents are specialized, and you'll need to create skills to make sure that they receive the appropriate requests.

Creating Skills

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create skills:	"Customize Application"

To create a skill and assign it to users:

1. Click ***Your Name*** > **Setup** > **Customize** > **Live Agent** > **Skills**.
2. Click **New**.
3. Enter a name for the skill.
4. In the Assign Users area, select the users you want to associate with the skill.
5. In the Assign Profiles area, select the profiles you want to associate with the skill.
6. Click **Save**.

Live Agent Deployment Overview

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

A deployment is a place on your company's website that's enabled for Live Agent. Deployments let you:

- Create the code that you add to Web pages to enable them for Live Agent.
- Control the appearance of the Chat window that visitors access from the Web page. You do this by adding images (for example, your company's logo) to a deployment to brand it.
- Enhance security and minimize the number of illegitimate chat requests you receive by specifying the domains allowed to host chat buttons.
- Segment your visitor traffic to better understand the different types of visitors using chat for service or sales support. Chat agents can see deployment information for each visitor, and the deployment is saved as part of the chat transcript.

A deployment consists of a few lines of JavaScript that you add to a Web page. Your organization can have a single Live Agent deployment or multiple deployments. For example, if you have a single service center that supports multiple websites, creating a separate deployment for each site lets you present different Chat windows to your visitors.

Creating Deployments

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create deployments:	"Customize Application"

If you plan to customize the Chat window (for example, brand the window with your company's logo), you need to upload images as static resources and then create one or more Force.com sites to host the images. Note that when you create a Force.com site for use with Live Agent, you need to provide only the following information:

- A site label and a site name
- A site contact
- The active site's home page
- A site template

To create a deployment:

1. Click ***`Your Name`*** > **Setup** > **Customize** > **Live Agent** > **Deployments**.
2. Click **New**.
3. Enter a name for the deployment. This name, or a version of it, automatically becomes the `Developer Name`.
4. Enter a title for the Chat window.

   This is the title that visitors see.
5. Select `Allow Visitors to Save Transcripts` to let visitors download a copy of the chat session when it ends.
6. Select the site that you'll associate with the deployment.

   Visitors see this URL in the Chat window.

7. In `Chat Window Branding Image`, select the graphic that will appear in the Chat window.
8. In `Mobile Chat Window Branding Image`, select the graphic that visitors using mobile devices will see in the Chat window.
9. Click **Save**.
   Salesforce generates the deployment code.
10. Copy the deployment code and paste it on each Web page where you want to deploy Live Agent. For best performance, paste the code right before the closing body tag (that is, `</body>`).

After creating deployments, you need to create the buttons that visitors click to initiate chat sessions, and then add that code to web pages as well. See Creating Chat Buttons.

Creating Chat Buttons

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create and customize chat buttons:	"Customize Application"

Before you create chat buttons, you need to:

- Create skills. Each chat button is associated with a particular skill so that chats initiated from the button are routed to the right agents.
- Create a Force.com site if you'll be using it to host the images for the online and offline versions of your button. If you don't have a Force.com site, you can specify online and offline button images or text by modifying the code that's generated when you create a button.
- Decide how you want chat requests that come in through the button to be routed to agents.

To create a button:

1. Click ***Your Name*** > **Setup** > **Customize** > **Live Agent** > **Chat Buttons**.
2. Click **New**.
3. Type a name for the button.
4. Select a skill to associate with the button.
5. Select a routing option for chats initiated through the button.
6. Optionally, if you select the Least Active or Most Available routing option, specify how long agents have to answer incoming chat requests before they're re-routed.
7. Optionally, enable queueing for incoming chat requests, and specify the maximum number of requests that can be in the queue.
8. Customize your chat button using one of these options:

Option	Prerequisites	Steps
Use a Force.com site	Create a Force.com site that has the following information: • A site label and a site name • A site contact	**a.** In `Site for Resources`, select the site that hosts your chat button images.

Option	Prerequisites	Steps
	• The active site's home page • A site template	**b.** In `Online Image`, select the button image that visitors will see when agents with the associated skill are available to chat. **c.** In `Offline Image`, select the button image that visitors will see when no agents are available. **d.** Optionally, in `Custom Chat Page`, select the page you want to use instead of the standard chat window. **e.** Click **Save**. Salesforce generates the button code.
Use custom code	You'll need access to a text or HTML editor in order to change the button code. You may want to have a developer do this customization.	**a.** Click **Save**. (You don't need to enter anything in the Chat Button Customization fields.) Salesforce generates the button code. **b.** Copy and paste the Chat Button Code into a text or HTML editor. **c.** Replace the <!-- Online Chat Content --> and <!-- Offline Chat Content --> comments with code for the chat button images or text you want to use.

9. Optionally, choose the Visualforce page, or type the URL of the external Web page, that hosts the pre-chat form and post-chat page for the button.
10. Copy the button code and paste it on each Web page where you've deployed Live Agent. Make sure to paste the code in the area on the page where you want the button to appear.

    Tip: Remember to copy and paste the code each time you update the button, as the code changes with each modification.

Setting Up Live Chat Transcripts

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To set up Live Chat Transcripts:	“Customize Application”

The Live Chat Transcripts tab contains the transcripts of completed chat sessions. Depending on your organization's requirements, you may want to customize the Live Chat Transcripts tab to display or hide standard fields, manage security, add custom fields, add buttons or links, or more.

To set up the tab:

1. Customize Live Chat Transcript fields.
   This lets users add additional information to Live Chat Transcript records.
2. Customize Live Chat Transcript page layouts.
   This lets you specify which fields display to users.
3. Set field-level security on Live Chat Transcript fields.
   This lets you choose which fields users can access.
4. Add the Live Chat Transcript tab to an app
   This lets users view the tab from a specific app.
5. Optionally, set up validation rules to prevent users from saving incorrect data.

Setting Up Live Chat Visitors

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To set up Live Chat Visitors:	“Customize Application”

The Live Chat Visitor tab contains information about visitors that have participated in chat sessions. Depending on your organization's requirements, you may want to customize the Live Chat Visitor tab to display or hide standard fields, manage security, add custom fields, add buttons or links, or more.

To set up the tab:

1. Customize Live Chat Visitor fields.
   This lets users add additional information to Live Chat Visitor records.
2. Customize Live Chat Visitor page layouts.
   This lets you specify which fields display to users.
3. Set field-level security on Live Chat Visitor fields.
   This lets you choose which fields users can access.
4. Add the Live Chat Visitor tab to an app
   This lets users view the tab from a specific app.

5. Optionally, set up validation rules to prevent users from saving incorrect data.

Setting Up Quick Text

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To set up Quick Text:	"Customize Application"

Quick Text lets Live Agent users create standard messages, such as greetings and answers to common questions, which agents can easily insert into chat sessions.

To set up Quick Text:

1. Optionally, customize Quick Text settings.
2. Grant permissions to users so that they can create Quick Text messages.
3. Create Quick Text messages.
4. Give agents access to the Quick Text sidebar in the Live Agent console.

Customizing Quick Text Settings

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To customize Quick Text:	"Customize Application"

Quick Text lets Live Agent users create standard messages, such as greetings and answers to common questions, which agents can easily insert into chat sessions.

By customizing Quick Text, you make it more useful to your Live Chat agents, and can add fields, categories, triggers, and rules that support your business' needs. You can do any of the following to customize Quick Text:

- "Customize standard fields" in the online help, create custom fields (such as categories and subcategories relevant to your company's Quick Text messages), and define field dependencies to associate categories and subcategories.
- Create validation rules.
- Define Apex triggers.
- Customize, create, and assign page layouts.
- Customize search layouts.
- Customize buttons and links.
- Create record types.

Creating Quick Text Messages

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create Quick Text messages:	"Create," "Read," "Edit," and "Delete" on Quick Text

1. Click the **Quick Text** tab.
2. Click **New**.
3. If you have more than one Quick Text record type, select a record type for the new message and then click **Continue**.
4. Type a message name.
5. Type the message. It can include line breaks, lists, and special characters, and can be up to 4096 characters long.
6. Select a category.
7. Optionally, select a subcategory.
8. Click **Save**.

Giving Agents Access to the Quick Text Sidebar in the Live Agent Console

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To set up Quick Text:	"Customize Application"

The Quick Text sidebar in the Live Agent console lets agents choose standard messages to include in their chats with customers. To allow agents to use the sidebar:

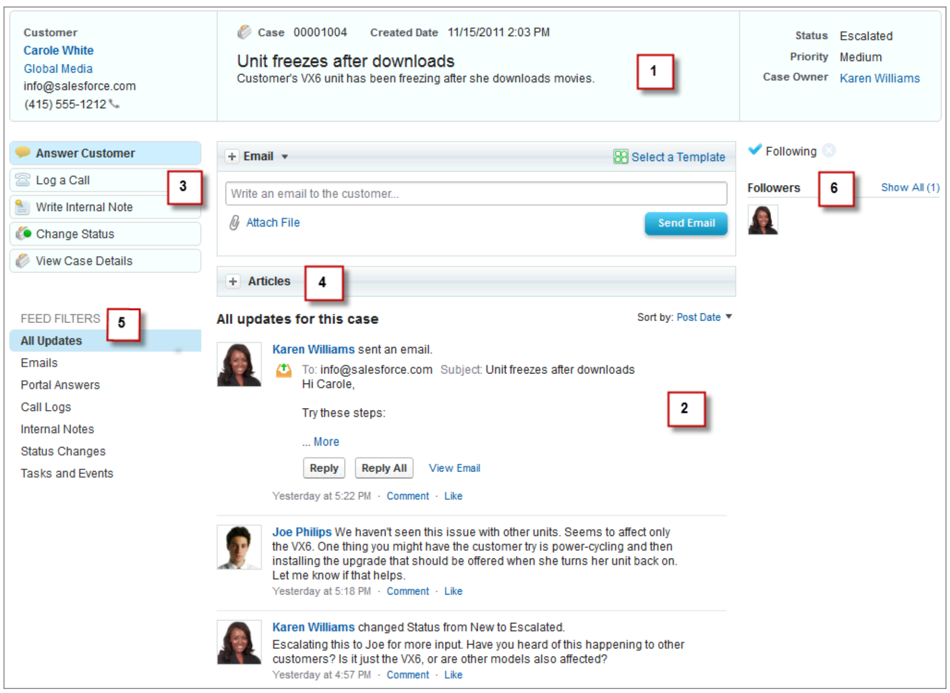
- Give them "Read" permission on Quick Text
- Do one of the following:

Option	Steps
Give agents ownership of at least one Quick Text message	◊ "Transfer ownership of existing Quick Text messages to the agents" in the online help, or ◊ Have them create new messages
Change your organization-wide default sharing setting for Quick Text	1. Click ***Your Name*** > **Setup** > **Security Controls** > **Sharing Settings**. 2. In `Organization-Wide Defaults`, click **Edit**. 3. Select Public Read Only or Public Read-Write in the `Default Access` dropdown list forQuick Text. 4. Click **Save**.
Use sharing rules	If you don't want to change your organization-wide default sharing settings, create sharing rules to specify which groups

Option	Steps
	of users should have at least Read Only access to Quick Text messages.

Case Feed

The future of case management is here! Case Feed introduces a new way of creating, reviewing, and updating cases, and is designed for agents in fast-paced environments who interact with customers via multiple channels, including phone, email, and portals.



Case Feed includes:

1. A customizable highlights panel that keeps the most important information about a case at the top of each page
2. A Chatter feed optimized for case management that lists updates made to a case
3. Publishers that let agents communicate with customers, log calls, write internal notes, and view details about cases, all from within the feed
4. An Articles tool that makes it easy for agents to search for Salesforce Knowledge articles and attach them to cases or email them to customers
5. The ability to filter case activities by type for a one-click view, such as a view of all emails associated with a case or all calls logged on it
6. A list of case followers for an at-a-glance overview of other agents who are involved in resolving a customer's issue

Implementation Tips

- Before you can enable Case Feed, you must enable Chatter and Chatter tracking on cases.

- Once you've enabled Case Feed, you can assign it to users through permission sets or custom profiles.

Best Practices

- To boost support agent productivity, we recommend that you implement Case Feed along with other Service Cloud features, such as the Service Cloud console and Salesforce Knowledge. Case Feed is designed to integrate easily with these features to help your agents close cases quickly.
- We recommend that you customize many of the features in Case Feed to meet your company's needs. For example, you can create different feed and highlights panel layouts for agents and supervisors to show case information that's important for users in those roles.

Console Push Notifications

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions with the Service Cloud

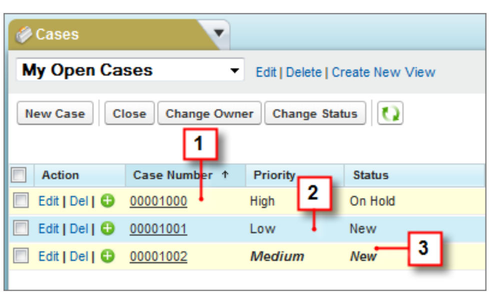
User Permissions Needed	
To customize push notifications:	"Customize Application"

Note: Push notifications are currently available through a pilot program. For information on enabling push notifications for your organization, contact salesforce.com.

Do your support agents work off of a list or queue? Have multiple agents mistakenly worked on the same case at the same time? Well, not any more. With Spring '12, Service Cloud Console users can see in real-time when a record they're working on has been updated by others. Visual indicators on lists and detail pages let console users know when a record or field has changed. These indicators let users work with the most up-to-date information, and help prevent them from duplicating the efforts of their teammates.

Administrators choose when push notifications display and which objects and fields trigger push notifications.

- Detail pages automatically refresh with updates or display notifications as dialog boxes when changes occur.
- Lists display notifications as:



1. Yellow when a record changes
2. Blue if it's the last item you viewed
3. Bold and italic when a field specified by an administrator changes

- Notifications are cleared when you refresh your browser.

The following objects and their fields are available for push notifications:

- Custom objects
- Cases
- Accounts
- Contacts
- Leads
- Campaigns
- Opportunities

To set up push notifications:

1. Click ***Your Name*** > **Setup** > **Create** > **Apps**.
2. Select a Service Cloud console app.
3. Click **Edit**.
4. In `Choose How Lists Refresh`, select when push notifications occur:

Option	Description
None	Lists don't refresh. Push notifications don't occur.
Refresh List	The entire list refreshes when there are any changes to it. Records are added to or removed from the list based on the list's criteria.
Refresh List Rows	Rows in the list refresh when there are any changes to fields specified for push notifications.

5. In `Choose How Detail Pages Refresh`, select when push notifications occur:

Option	Description
Do Not Refresh	Detail pages don't refresh. Push notifications don't occur.
Automatically Refresh	The detail page automatically refreshes when a record is changed.
Flag	A message appears on the detail page when a record is changed.

6. Click **Select objects and fields for notifications**.
7. Click **Edit**.
8. Select the objects you want to trigger push notifications. For example, if you want changes to cases and case fields to trigger push notifications, move Cases from Available Items to Selected Items.
9. Under Fields, click **Edit** to select the object fields you want to trigger push notifications.
10. Click **OK**.
11. Click **Save**.

Salesforce Knowledge Enhancements

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Knowledge is most powerful when it's shared. With Spring '12, Salesforce Knowledge provides a set of features that let users collaborate on Knowledge articles and author new articles without leaving the case they're working on. We've made it easier to publish articles, too: authors can now publish important new information even before it's validated.

Validation Status Field

User Permissions Needed	
To create or change validation status picklist values:	"Customize Application" AND "Manage Salesforce Knowledge

A new field has been added to Salesforce Knowledge articles that allows users to select the level of confidence they have in the accuracy of an article. When you activate the field on the Knowledge Settings page, users can select values to show whether the content of the article has been validated. Your organization can create a picklist with values that show the state of the article in the article publication lifecycle. For example, values in the article lifecycle could be `Validated`, `Needs Review`, or `Not Validated`.

Note: Validation status picklist values aren't retained when you export articles for translation. Articles with picklist values can be imported, however, and their values are retained as long as the values exist in your organzation.

To create a Validation Status picklist:

1. Click ***Your Name*** > **Setup** > **Customize** > **Knowledge** > **Validation Statuses**.
2. On the picklist edit page, click **New** to add new values to the validation status field. You can also edit, delete, reorder, and replace picklist values. When you replace a picklist value, the system replaces it in all versions of the article, including any archived versions.
3. Add one or more picklist values (one per line) in the text area.
4. To set the value as the default for the picklist, be sure to select the `Default` checkbox.
5. Click **Save**.

Agent-Authored Knowledge

With Spring '12, agents can create articles from more places and get articles approved and published more easily. Improvements include:

- A streamlined process for submitting articles for approval and publishing with fewer clicks. If users have the "Publish Articles" permission and an approval process is set up for an article, they'll see both **Publish...** and **Submit for Approval** buttons when they create or edit an article. If a user doesn't have publishing rights, he or she can still submit articles for approval.
- A new Salesforce Knowledge setting that allows users to create and update Knowledge articles from more places including the Articles related list on Case records and the Articles tab.
- A new Salesforce Knowledge setting that lets users create an article from a case using one of two options:

◊ Create articles using the simple editor only when closing cases.
◊ Create articles using the standard editor any time a user creates an article. Make sure that users have "Manage Articles," "Read,“ and "Create" permissions.

For more information, see "Customizing Salesforce Knowledge Settings" and "Managing Articles and Translations" in the online help.

Knowledge Actions (Pilot)

When knowledge actions are enabled, you can use them to link article types to specific workflow article actions, such as publishing. For example, if you want to have each FAQ published as a new version each time it completes the approval process, you can create a knowledge action that links the FAQ article type to the `Publish as New` action. Then, when you create an approval process for FAQs, select the new knowledge action. You can also use Knowledge actions to automatically publish imported articles. For information about enabling Knowledge Actions for your organization, contact salesforce.com.

Article Versioning

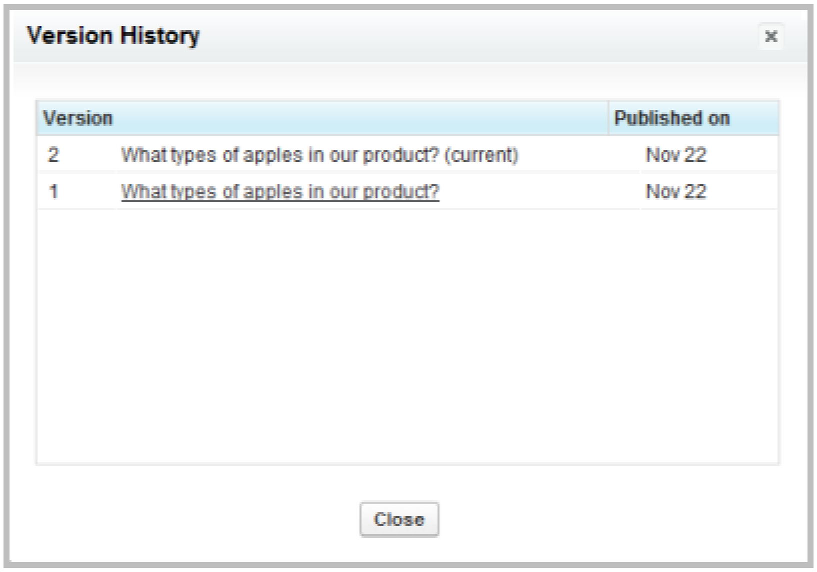
User Permissions Needed	
To create, edit, or delete articles:	"Manage Articles" AND "Create," "Read," "Edit," or "Delete" on the article type
To publish or archive articles:	"Manage Articles" AND "Create," "Read," "Edit," and "Delete" on the article type
To submit articles for translation:	"Manage Articles" AND "Create," "Read," and "Edit" on the article type
To submit articles for approval:	Permissions vary depending on the approval process settings

Your business is growing quickly, and so are the versions of your articles! Now, you can keep previous article versions and keep track of which version has been communicated to your customer. Article versions allows you to save an older version of a published article and then see which version of the article is associated with a case. To save the previous version, select the `Flag as new version` checkbox when publishing a new version. The previously published version is saved and the new version is published with the next sequential version number as an identifier.

When an article is attached to a case and a new version of the article is published, the system identifies the version attached to the case as being outdated. For example, if Version 2 is attached to a case and a third version is published, the article attached to the case becomes Version 2 (outdated). This notation ensures that there is a permanent record of which content was associated with the case.

When you click the version number in the Article View, you'll see the Version History list. In the version history list you can:

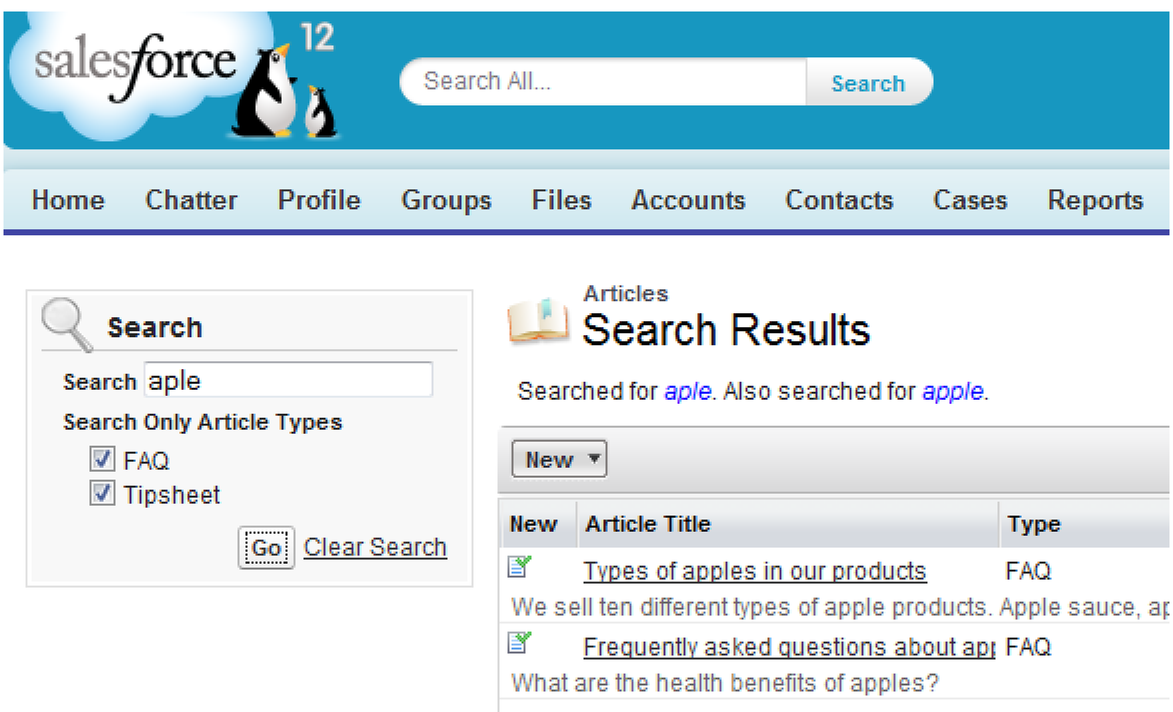
- View the list of versions including draft, master, and archived versions.
- Click a version title to view that version of the article.



By default, the system stores up to ten versions of an article, plus any versions that are attached to cases. Versions also appear in custom reports, allowing you to find and read the article version attached to a case.

English-Only Spell Correction for Knowledge Search (Beta)

No more empty search result lists! With search spell correction, mistakes in your search keywords can still bring back results. When you search for articles, Knowledge search suggests and searches alternate spellings for English search terms on the Articles and Article Management tabs, in the articles tool in Case Feed, and in the Salesforce Knowledge sidebar in the Service Cloud console. This setting applies to article searches via the API but not to article searches in global search.



Article HTML Editor

You asked for it! The Article HTML editor now addresses the following ideas on the IdeaExchange: add numbered lists, add hyperlinks, format tables, remove links, add sub-bullets and sub-lists, clear formatting, and edit HTML source.

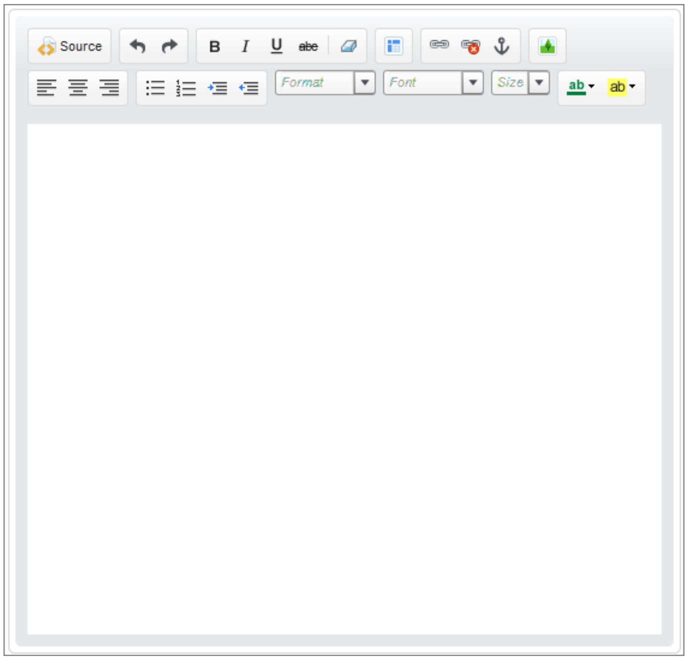
User Permissions Needed	
To create articles:	"Manage Articles" AND "Create" and "Read" on the article type
To edit draft articles:	"Manage Articles" AND "Read" and "Edit" on the article type
To edit published or archived articles:	"Manage Articles" AND "Create," "Read," and "Edit" on the article type

The HTML rich text editor has been enhanced to let users create more effective and informative articles by leveraging the power of HTML. When authoring an article with the HTML editor, users can:

- Add formatted tables
- Clear formatting and remove links from selected text
- View and edit the HTML source of content
- Use anchors to link to another place in the same article
- Specify that a hyperlink opens in a new browser window or a new tab

To enable the HTML rich text editor:

1. Click ***`Your Name`*** > **Setup** > **Customize** > **Knowledge** > **Settings**.
2. Click `Allow users to create an article from a case`.
3. Click `Use the standard editor any time a user creates an article`.

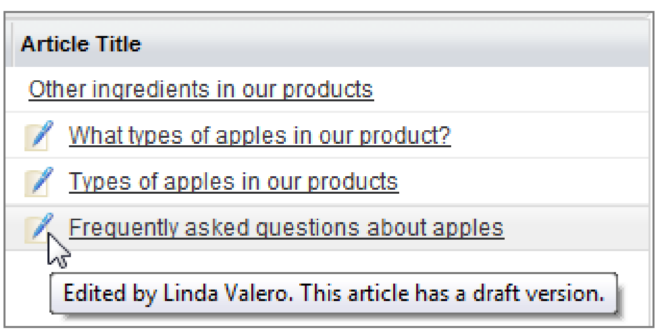


Improved Navigation

Salesforce Knowledge has new navigation shortcuts from the Article detail page to the draft detail page for use when editing. These shortcuts appear on the top left corner of pages, allowing users to quickly jump back to the Article management tab from online/archive details pages and from translation details pages. In addition, link back to the case when searching for articles from the Articles related list.

Additional Salesforce Knowledge Enhancements

- We've added a new icon for articles with draft versions. When an article is being edited a new icon indicates that there is a draft version being edited.

-  You asked for it! This enhancement is from an idea on IdeaExchange.

  The search fields in the Articles Management tab now remember your search criteria, making it easier to search for commonly used words or phrases.

Additional Service Cloud Enhancements

Sharing Service Cloud Console Links

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions with the Service Cloud

User Permissions Needed	
To share links in the Service Cloud console:	"Read" on the object in the link

The Service Cloud console is designed for users in fast-paced environments who need to find, update, and create records quickly. With Spring '12, working in the console just got faster. That's because console users can open and share links to console tabs. They can also add new console tabs in which to display links they've copied from within Salesforce. Want to share a console link to a case and a Knowledge article with a support agent? Want to open a console link to a contact with a call script and a service contact? Now you can with a few simple clicks.

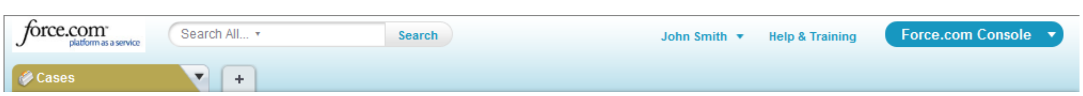
- To copy the URL of a tab in your Service Cloud console and send it to another user, click and select next to the tab's name. In the Link to Share dialog box, choose whether the URL includes only the selected tab or all of the tab's primary tabs and subtabs. If you're sending the URL to a non-console user, choose to create a standard Salesforce URL. Then, press CTRL+C to copy the URL. When you're finished, click **Close** to close the Link to Share dialog box.
- To add a new tab to your Service Cloud console in which to paste a URL you've copied, click . In the text box, press CTRL+V to paste the URL; then click **Go!**. You can paste a console URL or a standard Salesforce URL into a new tab.

Custom–Branded Console

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions with the Service Cloud

User Permissions Needed	
To view apps:	"View Setup and Configuration"
To manage apps:	"Customize Application"

The Service Cloud console is designed for users in fast-paced environments who need to find, update, and create records quickly. In Spring '12, you can brand your Service Cloud console apps by adding your logo to the apps' headings. For example, here's a Service Cloud console with a Force.com logo:



Before you can add a logo to a Service Cloud console, you must upload it to the document library (Documents tab). Note that:

- The image must be in GIF or JPEG format and less than 20 KB in size.
- If the image is larger than 300 pixels wide by 55 pixels high, then it will be scaled to fit.
- For the best on-screen display, we recommend you use an image with a transparent background.

- The `Externally Available` checkbox must be selected on the document's properties so that users can view the image.

To add a logo to a Service Cloud console:

1. Click ***Your Name*** > **Setup** > **Create** > **Apps**.
2. Click **Edit** next to a Service Cloud console app.
3. Click **Insert an Image** to choose an image file from the document library.
4. Click **Save**.

For more information, see “Creating a Service Cloud Console App” in the online help.

Visualforce Console Components

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions with the Service Cloud

User Permissions Needed	
To add custom console components:	“Customize Application”
To create Visualforce pages:	“Customize Application”

Console components let you customize, extend, or integrate the sidebars of the Service Cloud console using Visualforce. Visualforce uses a tag-based markup language to give developers a more powerful way to build applications and customize the Salesforce user interface.

For example, you might want to create custom console components that:

- Display custom highlights panels or interaction logs
- Show registered products on accounts or contacts
- Display the location of contacts on Google maps
- List new cases on accounts or contacts
- Display the next milestones on cases
- Show similar cases on each case

With Spring ‘12, you can extend custom console components to primary tabs. This lets you add components to new areas of the user interface, such as the highlights panel and interaction log, if those items are turned off. It also lets you display components across all of the subtabs in a primary tab instead of just individual subtabs.

For more information, see “Custom Console Components Overview” and “Adding Custom Console Components” in the online help.

New Methods for the Service Cloud Console Integration Toolkit

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions with the Service Cloud

The Service Cloud Console Integration Toolkit is an API that uses browsers to display pages as tabs in the console. It provides advanced administrators and developers with programmatic access to the console so that they can extend it to meet your business needs. For example, developers can use the toolkit to open and close tabs in the console to streamline a business process.

With Spring '12, the following new methods are available.

Method	Description
`getEnclosingPrimaryTabObjectId()`	Returns the object ID of the current primary tab, which contains a subtab. For example, a case ID or account ID.
`getFocusedSubtabObjectId()`	Returns the object ID of the subtab on which the browser is focused. For example, a case ID or account ID.
`getCallAttachedData()`	Returns the attached data of a call represented by the call object ID or null if there isn't an active call. The data is returned in JSON format.
`getCallObjectIds()`	Returns any active call object IDs in the order in which they arrived or null if there aren't any active calls.
`onCallBegin()`	Registers a function that is called when a call begins (comes in).
`onCallEnd()`	Registers a function that is called when a call ends.
`onEnclosingTabRefresh()`	Registers a function to call when the enclosing tab refreshes.
`onFocusedSubtab()`	Registers a function to call when the focus of the browser changes to a different subtab.
`resetSessionTimeOut()`	Resets a session timeout on a Visualforce page so that users can continue working without being logged out.
`sendCTIMessage()`	Sends a message to the CTI adapter.

For more information (English only) about the toolkit, see the *Service Cloud Console Integration Toolkit Developer's Guide*.

Custom API Fields for Answers (Questions and Replies)

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To view the Answers tab:	"Read" on questions
To ask and reply to questions:	"Create" on questions
To vote for replies:	"Read" on questions

Answers is a feature of the Community application that enables users to ask questions and have community members post replies. Community members can then vote on the helpfulness of each reply, and the person who asked the question can mark one reply as the best answer.

With Spring '12, administrators and developers can add custom fields to questions or replies for API integration purposes only. For example, add a custom text field to questions and use the API to populate that text field with the name of the country from which each question is posted. Any custom fields you add to questions or replies can't display in the Salesforce user interface because questions and replies don't have page layouts.

For more information, see "Answers Overview," "Customizing Fields," and "Which API Should I Use?" in the online help.

Custom Lookup Fields for Replies

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create or change custom fields:	"Customize Application"

Answers is a feature of the Community application that enables users to ask questions and have community members post replies. With Spring '12, administrators can add custom lookup fields to replies. Lookup fields let you link replies to other objects, such as cases.

For more information, see "Answers Overview" and "Creating Custom Fields" in the online help.

Self-Service Portal Not Available to New Organizations

Starting in Spring '12, the Self-Service portal isn't available for new organizations. Existing organizations continue to have full access to the Self-Service portal.

New Field and New Requirement on Email-to-Case Auto-Response Rule Entries Page

Some Email-to-Case users have experienced an email loop when sending auto-response messages to customers who have out–of–office notifications enabled. To address this issue, Winter '12 includes a new field on the rule entries page for Email-to-Case auto-response rules. The new field, `Reply-to Address`, lets administrators specify the email address to which any replies to your auto-response messages are sent.

In addition, there's a new requirement for the `Email Address` field on the rule entries page: to prevent looping, this address, which appears in the From line of your auto-responder, can no longer match your Email-to-Case routing address.

For more information, see "Creating Auto-Response Rules" in the online help.

Creating Cases Directly from Microsoft® Outlook®

Salesforce for Outlook users can now create cases directly from Outlook. To learn more about this feature and the setup required, see Creating Cases Directly from Microsoft® Outlook® on page 34.

ANALYTICS

Joined Reports—Generally Available

Available in: **Enterprise** and **Unlimited** Editions

Important:

Joined reports will be available in sandbox and production environments according to this schedule.

Date	Environments
February 7	Preview sandbox: CS0, CS3, CS4, CS5, CS7, CS9, CS11, CS12, CS13
February 12	Production: AP0, AP1, NA0, NA1, NA2, NA3, NA4, NA5, NA6, NA7, NA8, NA9, NA10, NA11, NA12, NA14, EU0, EU1 Sandbox: CS1, CS2, CS6, CS8, CS10

This enhancement addresses an idea on IdeaExchange.

Joined reports let you view different types of information in a single report, so you create one report when, previously, you would have had to create several. For example, with joined reports you can create a report comparing the number of support cases that are new, closed, or in-progress by priority. Similarly, you can use joined reports to create a report containing each of your organization's deals, and the sales team members and products associated with each deal.

A joined report consists of up to five report *blocks*, which you add to the report to create multiple views of your data. For each block, you can add regular and summary fields, create custom summary formulas, apply filters, and sort columns. You apply groupings across all blocks in the report, and can add up to three groupings to the blocks, the same as for the summary format.

A joined report can contain data from multiple standard or custom report types. You can add report types to a joined report if they have relationships with the same object or objects. For example, if you have a joined report that contains the Opportunities report type, you can add the Cases report type as well because both have a relationship with the Accounts object.

When a joined report contains multiple report types, some fields are identified as *common* fields. A field is a common field if it's shared by all report types or if all report types share a lookup relationship to the field. These fields appear in the Common Fields area in the Fields pane, and can be used to group report blocks. Some common fields have different names or appear in different sections in different report types. In those fields, click to see the name of the field in other report types.

Considerations

Report builder is required to create or edit joined reports. Without it, you can only run joined reports. See "Upgrading Report Builder" in the Salesforce online help for information on enabling report builder for your entire organization.

Joined reports require that the new user interface theme be enabled. Users without the new theme are unable to create, edit, or run joined reports. See Enable New User Interface Theme in the online help.

Internet Explorer 6 is not supported for joined reports.

Working with Joined Reports

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

To get started with joined reports, create a new or edit an existing report in report builder, click the **Format** drop-down, and choose `Joined`.

Most of the things you can do with summary or matrix reports you can also do with joined reports. For example, you can find, add, and remove fields; summarize fields; add custom summary fields; and run and save reports. See Working with Report Builder.

Additionally, when working with a joined report, you can:

- Add up to 16 report types to the report.
- Add additional blocks to the report. A report can have up to 5 blocks.
- Add custom summary formulas to each block. You can add up to 10 to each block, and up to 50 for each joined report.
- Filter individual blocks using standard and boolean filters.
- Sort columns for each block, and hide or show details across blocks.
- Change the principle report type.
- Click **Run Report** to run the report. Note that the report is run in the joined report version of the run report page.

Watch a Demo on Building Joined Reports (3:19 minutes)

Currently, you can't do the following with joined reports:

- Create a chart.
- Add bucketed fields.
- Add cross filters.
- Drag and drop filters from the Fields pane on to the Filter pane.
- Apply conditional highlighting.
- Schedule or export joined reports.
- Change the hierarchy for opportunity or activity reports.

- Use a joined report as the data source for a dashboard.
- Create analytics snapshots based on joined reports.

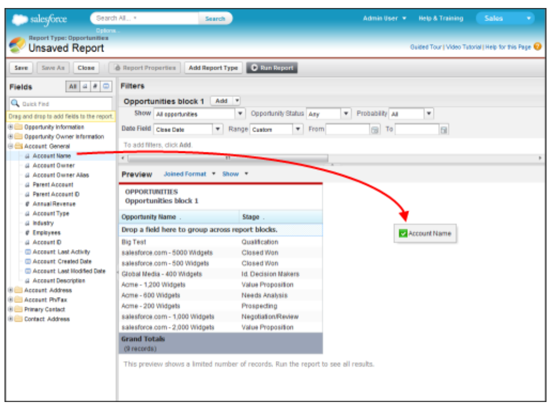
Adding Blocks to a Joined Report

Available in: **Enterprise** and **Unlimited** Editions

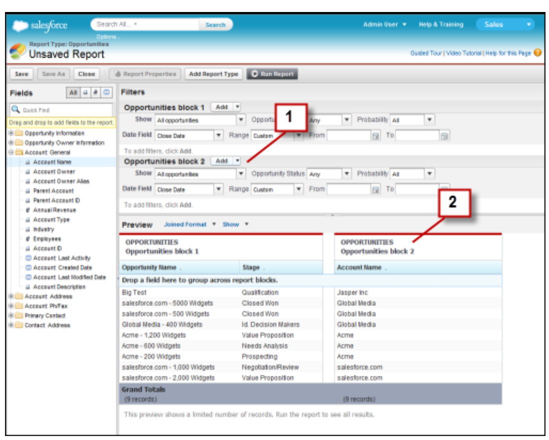
User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

Adding blocks to reports lets you create multiple views of the data included in a single report.

1. Select a field from the Fields pane and drag it to the empty area of the Preview pane.



2. Drop the field to create the block.



When you've added the block, notice that standard and field filters for the additional block are added to the Filters pane (1). Also, the new block appears in the Preview pane (2). Optionally, you can rename the block by clicking the block name and entering a new name.

Note: A block is also added to a joined report when you add a new report type to a report. See Adding Additional Report Types to Joined Reports on page 83.

To remove a block, drag it to the Fields pane.

Adding Additional Report Types to Joined Reports

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

Adding an additional report type lets you expand the set of data available for analysis in a joined report.

1. Select `Joined` from the report format menu.
2. Click **Add Report Type**.

   The Choose an Additional Report Type overlay appears and displays the report types that you can add to the existing report.
3. Select the report type.

   The overlay displays a message that identifies the objects that are common to the selected report type and the types already included in the report.
4. Click **OK**.

The additional report type is added. Notice that:

- A new block appears in the report.
- The Fields pane updates with a new area that contains fields unique to the report type. Fields common to all report types are in the Common Fields area.

Running Joined Reports

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To run reports:	"Run Reports"
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

Joined reports run in an updated version of the run reports page.

From the joined reports run page, you can:

- Click **Run Report** to run the report.
- Click **Show Details** to view all data or **Hide Details** to show only summary information.
- Click **Customize** to open the report in report builder.
- Save or delete the report.
- Click **Report Properties** to change a report's name, description, or folder.
- View the report generation status.

Joined Report Examples

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To run reports:	"Run Reports"
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

This topic provides you with some examples of the types of reporting you can do with joined reports.

Creating a Sales Rep Performance Scorecard

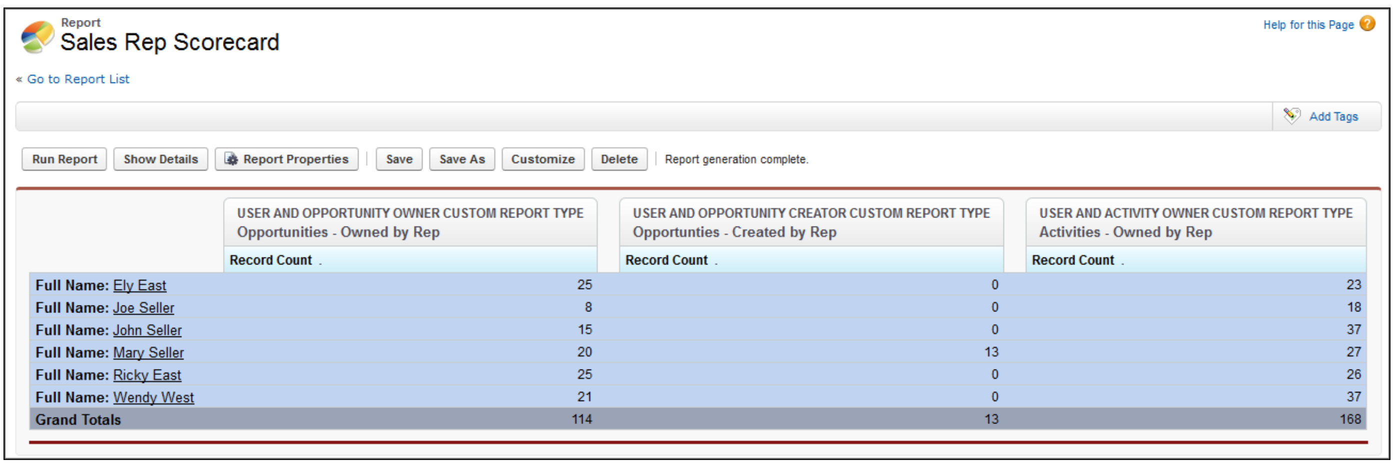
A sales rep scorecard lets your sales management team understand the performance and actions of your organization's sales reps. To create it, you need to have three separate custom report types, each of which creates a relationship between User (as the primary object) and one of the following three objects: Opportunity Owner, Opportunity Creator, and Activity Owner.

Note that, in this example, we've named the custom report types `User and Opportunity Owner Custom Report`, `User and Opportunity Creator Custom Report`, and `User and Activity Owner Custom Report`.

Start by creating a new custom report based on the User and Opportunity Owner custom report type, and then add the User and Opportunity Creator and User and Activity owner custom report types as two additional blocks. Then, group by Sales Rep (opportunity owner) and set the filters as described in the procedure.

To create the report:

1. Create a new report, selecting `User and Opportunity Owner Custom Report` as the report type.
2. Select `Joined` from the **Format** drop-down.
3. Click **Add Report Type**.
4. Select `User and Opportunity Creator Custom Report`.
5. Click **Add Report Type** again, and choose `User and Activity Owner Custom Report`.
6. Group the blocks by `Full Name`.
7. Add additional fields and filters to the report as needed. For example, you might want to change the date filters to focus on rep performance during a particular time frame. Or, to make sure that only sales people are included as opportunity owners, create a filter on the `Role: Name` filter limit your results to users with "Sales" in their roles.
8. Optionally, provide names for the blocks.
9. Click **Save** or **Run Report**.



	USER AND OPPORTUNITY OWNER CUSTOM REPORT TYPE Opportunities - Owned by Rep	USER AND OPPORTUNITY CREATOR CUSTOM REPORT TYPE Opportunities - Created by Rep	USER AND ACTIVITY OWNER CUSTOM REPORT TYPE Activities - Owned by Rep
	Record Count	Record Count	Record Count
Full Name: Ely East	25	0	23
Full Name: Joe Seller	8	0	18
Full Name: John Seller	15	0	37
Full Name: Mary Seller	20	13	27
Full Name: Ricky East	25	0	26
Full Name: Wendy West	21	0	37
Grand Totals	114	13	168

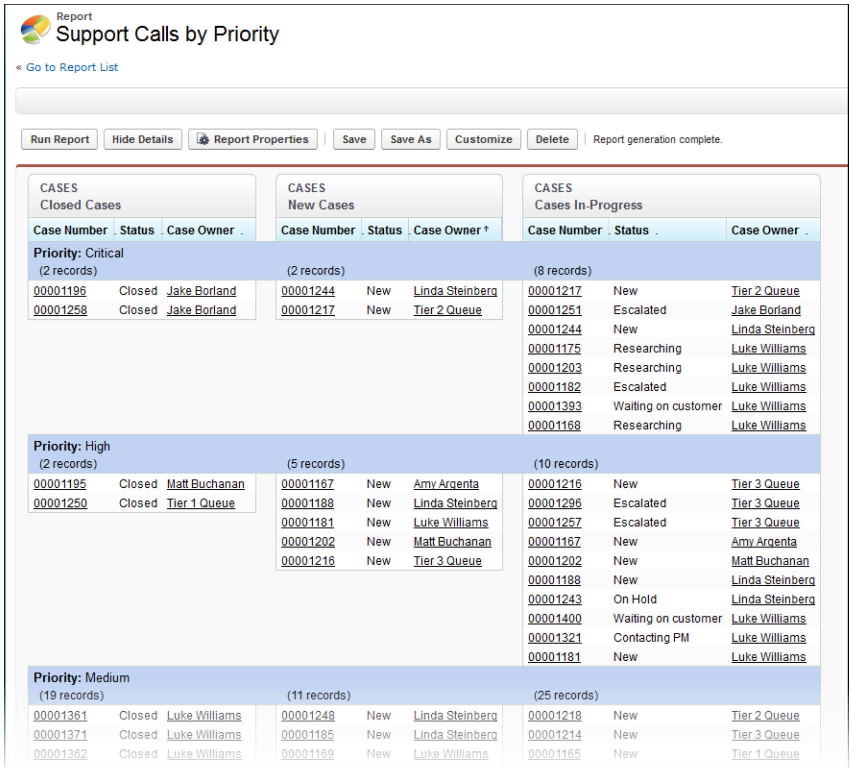
Reviewing Support Cases by Status

You can also create a report comparing the number of support cases that are new, closed, or in-progress by priority. The report contains a single standard report type: Cases. First, create the report, add three blocks to the report, filter each block by the appropriate status, and then use the `Priority` field for grouping.

To create the report:

1. Create a new report, selecting `Cases` as the report type.
2. Select `Joined` from the **Format** drop-down.
3. Remove unwanted fields by dragging them to the Fields pane, or click `Remove All Columns` to start from scratch.
4. Create three blocks, each containing the `Case Number` and `Status` and, optionally, `Case Owner` fields.
5. For each block, filter on all cases. Then, filter each of the blocks by `Status` as follows:
   - Block 1: `Status equals Closed`
   - Block 2: `Status equals New`
   - Block 3: `Status not equal to Closed, New, Closed in Portal, Closed — First Call`

6. Group the blocks by `Priority`.
7. Optionally, rename the blocks.
8. Click **Save** or **Run Report**.



Cross Filters—Generally Available

Available in: **Enterprise** and **Unlimited** Editions

Important:

Cross filters will be available in sandbox and production environments according to this schedule.

Date	Environments
February 7	Preview sandbox: CS0, CS3, CS4, CS5, CS7, CS9, CS11, CS12, CS13
February 12	Production: AP0, AP1, NA0, NA1, NA2, NA3, NA4, NA5, NA6, NA7, NA8, NA9, NA10, NA11, NA12, NA14, EU0, EU1 Sandbox: CS1, CS2, CS6, CS8, CS10

This enhancement addresses an idea on IdeaExchange.

Use *cross filters* to filter a report by an object's child objects using WITH or WITHOUT conditions. For example, filter a report to show just accounts with cases, or contacts without activities. You can apply cross filters by themselves, or in combination with field filters. Note that filter logic applies only to field filters—not cross filters. You can create up to three cross filters per report.

Add *subfilters* to further filter by fields on the child object. For example, if you have a cross filter of `Accounts with Opportunities`, click **Add Opportunity Filter** and create the `Opportunity Name equals ACME` subfilter to see just those opportunities. You can create up to five subfilters for each cross filter.

Considerations

- Report builder is required to create or edit cross filters. Without it, you can only run reports with cross filters. See Upgrading Report Builder for information on enabling report builder for your organization.
- Each report can have up to three cross filters.
- Each cross filter can have up to five subfilters.
- Adding cross filters can potentially slow down your report. To avoid having the report or preview time out, limit the data returned by setting filters. For example, select `My opportunities` for `Show` and `Current FQ` for `Range` instead of viewing all opportunities for all time.
- Since the objects available in cross filters depend on the parent object of the report type you choose, consider the related child objects before selecting a report type. For example, choose the Accounts report type to filter on `Accounts with Partners` because Partner is a child object of Account.
- Cross filters work in conjunction with your report type selection. Cross filters have an AND relationship with the report type you select. Therefore, choosing a report type of Accounts with Partners and adding a cross filter for `Accounts without Partners` will yield no results.
- Not all Opportunity Product fields are available in report filters. For example, the `Product Family` field is not available in Opportunity Product report filters because it is related to that object through the Pricebook Entry object. To make the `Product Family` field available in Opportunity Product report filters—for cross-sell or upsell reporting—create a custom formula field to store its contents and use that formula field in your filter. Click ***`Your Name`*** > **Customize** > **Opportunities** > **Opportunity Products** > **Fields** and create a custom field of type Formula, making sure to use `Text` for your formula return type and `TEXT(PricebookEntry.Product2.Family)` for your formula.

Creating Cross Filters

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

Use cross filters to include or exclude records in your report results based on related objects and their fields. To create a cross filter for your report:

1. In the Filters pane of report builder, click **Add** > **Cross Filter**.
2. Select a parent object from the drop-down list. Your choice determines which related objects you see in the child object list.
3. Choose `with` or `without`.
4. Select a child object from the drop-down or search by its name. This drop-down list contains all eligible child objects of your selected parent object.
5. Optionally add subfilters:
   a. Click **Add** ***`Your Related Child Object`*** **Filter**.
   b. Select a field. The fields are determined by the child object in the cross filter. For example, if your cross filter is `Accounts with Cases`, you can use case fields for your subfilter.
   c. Choose a filter operator.
   d. Enter a value.
6. Click **OK**.

Example: Using WITH in Cross Filters

Let's say a recent campaign in California won you a lot of new customers. You want to ensure that their customer cases get resolved quickly. You can create a report to see which of those accounts currently have cases:

1. Create a new report. For the report type, click **Accounts & Contacts**, select **Accounts**, and click **Create**.
2. In the report builder's Filters pane, set the appropriate standard filters.
3. Create a field filter where `Billing State/Province equals CA` and click **OK**.
4. Click **Add** > **Cross Filter** and specify `Accounts with Cases`.

When you click **Run Report**, the results will include only California accounts with an associated case.


Filtered By: Edit
Billing State/Province equals CA Clear
AND Accounts with Cases Clear

Account Owner	Account Name	Type	Rating	Last Activity	Last Modified Date	Billing State/Province
Admin User	United Partners*	Customer	Warm	1/13/2013	11/15/2011	CA
John Seller	Southern Research Co.	Customer	-	5/5/2012	11/15/2011	CA
Wendy West	Net Inc.	Customer	-	6/12/2012	11/15/2011	CA
Wendy West	Towson Inc.	Prospect	-	8/2/2012	11/15/2011	CA
Mary Seller	Optos Inc.	Customer	-	8/2/2012	11/15/2011	CA
Admin User	Larry Baxter	-	-	7/30/2012	11/15/2011	CA
Wendy West	Morpon Brothers	Customer	Warm	8/2/2012	11/15/2011	CA
Tom Reseller	Valley Supply Inc.	Customer	-	7/31/2012	11/15/2011	CA
Wendy West	Open Source Inc.	Customer	-	8/2/2012	11/15/2011	CA
Admin User	Steam Power Company	Prospect	-	8/2/2012	11/15/2011	CA
Wendy West	General Utilities	Prospect	-	7/31/2012	11/15/2011	CA
Wendy West	Missoula & Sons Inc.	Prospect	-	-	11/15/2011	CA

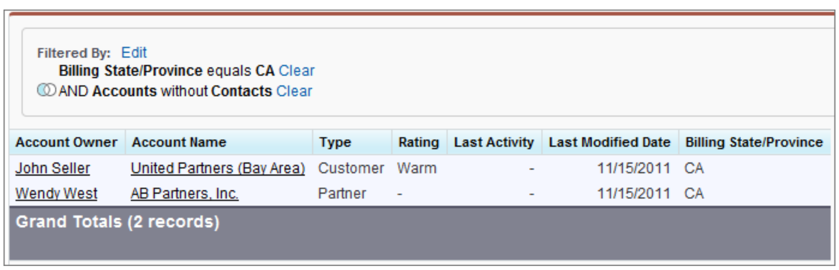
Grand Totals (12 records)

Example: Using WITHOUT in Cross Filters

Let's say that you've just imported a list of California accounts and you want to find which ones are missing contacts before you assign owners:

1. Create a new report. For the report type, click **Accounts & Contacts**, select **Accounts**, and click **Create**.
2. In the report builder's Filters pane, set the appropriate standard filters.
3. Create a field filter where `Billing State/Province equals CA` and click **OK**.
4. Click **Add** > **Cross Filter** and specify `Accounts without Contacts.`

When you click **Run Report**, the results will include only California accounts without an associated contact.


Filtered By: Edit
Billing State/Province equals CA Clear
AND Accounts without Contacts Clear

Account Owner	Account Name	Type	Rating	Last Activity	Last Modified Date	Billing State/Province
John Seller	United Partners (Bay Area)	Customer	Warm	-	11/15/2011	CA
Wendy West	AB Partners, Inc.	Partner	-	-	11/15/2011	CA

Grand Totals (2 records)

Example: Using Multiple Cross Filters

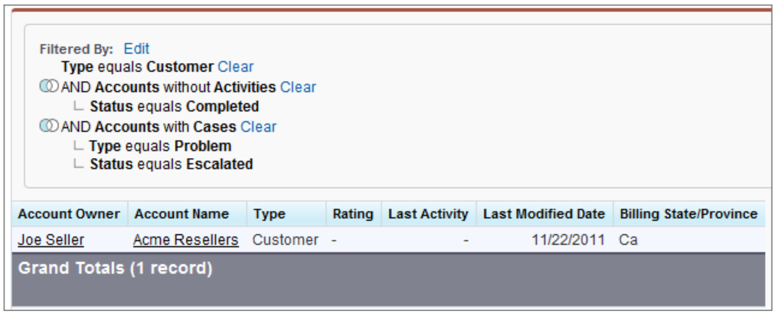
Say you're a salesperson who wants to see which customer accounts have unresolved problem escalations because you want to ensure your support team takes care of them.

1. Create a new report. For the report type, click **Accounts & Contacts**, select **Accounts**, and click **Create**.
2. In the report builder's Filters pane, set the appropriate standard filters.
3. To limit your report to customer accounts, click **Add** > **Field Filter** and specify `Type equals Customer`.
4. To see which accounts have no activities, click **Add** > **Cross Filter** and specify `Accounts without Activities`.
5. To see only accounts without completed activities, add a subfilter to your cross filter:

a. Click **Add Activities Filter** and specify `Status equals Completed`.
b. Click **OK**.

6. To include your accounts that currently have cases, add another cross filter but this time specify `Accounts with Cases`.
7. To exclude cases that were not escalated, add a subfilter to this cross filter:
   a. Click **Add Cases Filter** and specify `Type equals Problem`.
   b. Click **Add Cases Filter** again, but this time specify `Status equals Escalated`.
   c. Click **OK**.

When you run the report, it will include only customer accounts without completed activities with escalated cases.



Data Bucketing—Generally Available

Available in: **Enterprise** and **Unlimited** Editions

Important:

Data bucketing will be available in sandbox and production environments according to this schedule.

Date	Environments
February 7	Preview sandbox: CS0, CS3, CS4, CS5, CS7, CS9, CS11, CS12, CS13
February 12	Production: AP0, AP1, NA0, NA1, NA2, NA3, NA4, NA5, NA6, NA7, NA8, NA9, NA10, NA11, NA12, NA14, EU0, EU1 Sandbox: CS1, CS2, CS6, CS8, CS10

Bucketing lets you quickly categorize report records without creating a formula or a custom field. When you create a bucket field, you define multiple categories (buckets) used to group report values. For example, create a bucket field named `Size` based on the `# Employees` field. Then, create buckets that group records into “Large,” “Medium,” or “Small” ranges that you define. Bucket fields can be used like any other field to sort, filter, and group your report.

Watch a Demo (3 minutes)

Adding a Bucket Field

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

You can add up to five bucket fields per report, each with up to 20 buckets.

To add a bucket field:

1. In the Fields pane of the report builder, double-click **Add Bucket Field** or drag it into the report preview. You can also click a column menu for a field in the report and select **Bucket this Field**.
2. Edit the bucket field according to the field type.
   - Editing Numeric Bucket Fields
   - Editing Picklist Bucket Fields
   - Editing Text Bucket Fields

Editing Bucket Fields

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

1. In the report builder Fields pane under Bucket Fields, hover over a bucket field and click . Or in the Preview pane, click the bucket field column menu and select **Edit Bucket Field**.
2. Edit the bucket field according to the field type.
   - Editing Numeric Bucket Fields
   - Editing Picklist Bucket Fields
   - Editing Text Bucket Fields

Editing Numeric Bucket Fields

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

In the Edit Bucket Field overlay for a numeric field:

1. For `Source Column`, select the field you want to bucket.
2. Enter a bucket field name. This appears as the column name in the report.

   Since a bucket field is intended to have multiple buckets (known as "ranges" in numeric bucket fields) within it, a good name for a bucket field describes the scope of the ranges. For example, a bucket field named "Size" could have ranges of "Small," "Medium," and "Large."
3. Define your ranges by entering a number and a name. The range names appear as values in your new column.

   Each range is greater than the lower number up to and including the higher number.

   To remove all ranges and start over, click **Clear All**.
4. To move all empty values to the bucket containing the value zero, enable `Treat empty` *`source column`* `values in the report as zeros.`

   If this is disabled, unbucketed values appear as a dash (-) in the column.
5. Click **OK**.

In a report, numeric bucket columns are sorted by range values.

Numeric Bucketing Example: Deal Size

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

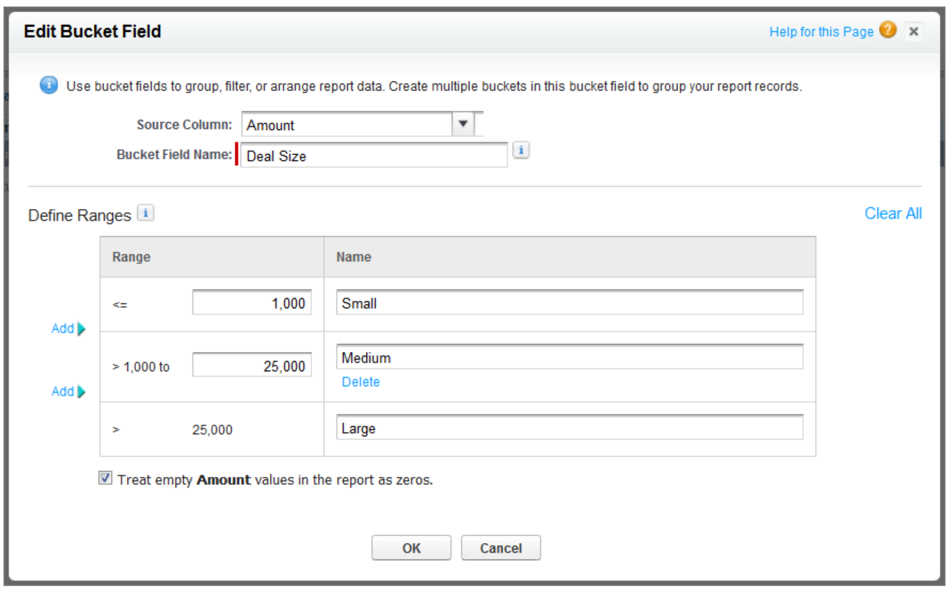
To gain insight into your deals, use bucketing to group by deal size instead of looking at individual deals. This lets you concentrate on the large deals that affect your quota the most.

1. Create or edit a standard opportunity report.

2. In the Fields pane of the report builder, double-click **Add Bucket Field** or drag it into the report.
3. For Source Column, select `Amount`.
4. For Bucket Field Name, enter `Deal Size`.
5. Under Define Ranges, enter `1000` in the first row. This represents the maximum for a small deal. Name this range `Small`.
6. Click **Add** and enter `25000` in the second row. This represents the maximum for a medium-size deal. Name this range `Medium`.
7. By default, the last range is any amount over the previous range. You don't need to enter a number for this range. Name this range `Large`.
8. Click **OK**.

With numeric bucket fields, each range is greater than the lower number, up to and including the higher number. Once you've set up this bucket field, amounts will be bucketed as follows:

Amounts	Bucket
1000 or less	Small
1001 to 25000	Medium
25001 or more	Large



Editing Picklist Bucket Fields

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	“Create and Customize Reports” AND “Report Builder”

Note: The following picklist types can’t be bucketed.

- Record types
- Divisions
- Multi-value picklists
- The `Type` picklist in Activity reports

In the Edit Bucket Field overlay for a picklist field:

1. For `Source Column`, select the field you want to bucket.
2. Enter a bucket field name. This appears as the column name in the report.

   Since a bucket field is intended to have multiple buckets within it, a good name for a bucket field describes the scope of the buckets. For example, a bucket field named “Priority” could have “High,” “Medium,” and “Low” buckets.
3. To create a bucket, click **New Bucket** and enter a bucket name. Create multiple buckets to group your report records.
4. To find a particular value in the list of values, type the first few characters of its name in the Quick Find box. As you type, items that match your search terms appear in the menu.
5. Select values and drag them into a bucket. Alternatively, select values, click **Move To**, and select a bucket or enter a new bucket name.

   While you’re bucketing values, use these functions as needed:

   - To show all the values in the report, click **All Values**.
   - To show the values for a particular bucket, click the bucket name.
   - To remove values from a bucket, select the values and drag them to another bucket, or drag them to **Unbucketed Values**.

   Note: You can bucket only active picklist values. Inactive picklist values aren’t shown.
6. To move all unbucketed values into a bucket named “Other,” enable `Show unbucketed values as “Other.”` If this is disabled, unbucketed values appear in the bucket column with the value name.
7. Click **OK**.

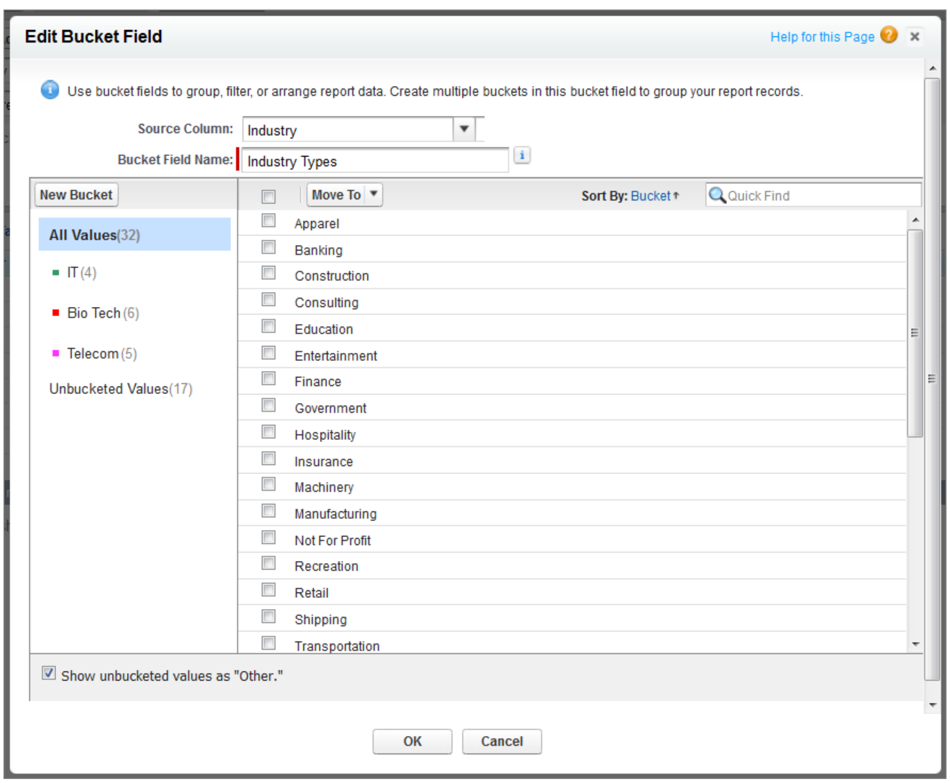
In a report, picklist bucket columns are sorted by the bucket position as shown in the Edit Bucket Field dialog box, followed by “Other” if `Show unbucketed values as “Other”` is enabled, or the unbucketed picklist item names if `Show unbucketed values as “Other”` is disabled.

Picklist Bucketing Example: Industry Types

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

1. Create or edit a standard accounts report, making sure at least a few records appear in the report.
2. In the Fields pane of the report builder, double-click **Add Bucket Field** or drag it into the report.
3. For Source Column, select `Industry`.
4. For Bucket Field Name, enter `Industry Types`.
5. Click **New Bucket** and name the bucket `IT`.
6. Click **New Bucket** and name the bucket `Bio Tech`.
7. Click **New Bucket** and name the bucket `Telecom`.
8. Select values and drag them into the appropriate buckets.
9. Enable `Show unbucketed values as "Other."`
10. Click **OK**.



Editing Text Bucket Fields

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

Note: The following text types can't be bucketed.

- Text area
- Text area—long
- text area—rich
- text area—encrypted
- URL
- Date
- Date/Time

In the Edit Bucket Field overlay for a text field:

1. For `Source Column`, select the field you want to bucket.
2. Enter a bucket field name. This appears as the column name in the report.

   Since a bucket field is intended to have multiple buckets within it, a good name for a bucket field describes the scope of the buckets. For example, a bucket field named "Region" could have "East," "West," and "Central" buckets.
3. To create a bucket, click **New Bucket** and enter a bucket name. Create multiple buckets to group your report records.
4. To find a particular value in the list of values, type all or part of its name in the **Search for values...** box and click **Search**, or leave the box empty and click **Search**.

   The search returns up to 200 values.
5. Select values and drag them into a bucket. Alternatively, select values, click **Move To**, and select a bucket or enter a new bucket name.

   While you're bucketing values, use these functions as needed:

   - Use Enter Values to enter the exact name of a value you want to bucket, or to bucket values that may appear in your report later.
   - To show the values for a particular bucket, click the bucket name.
   - To remove values from a bucket, select the values, select **Move To**, and select a bucket or enter a new bucket name.
6. To move all unbucketed values into a bucket named "Other," enable `Show unbucketed values as "Other."` If this is disabled, unbucketed values appear in the bucket column with the value name.
7. Click **OK**.

In a report, text bucket columns are sorted in alphanumeric order.

Entering Values for Text Buckets

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

If you know the exact value you want to bucket, you can use the Enter Values function to quickly bucket it without searching. This is useful if your report has a large number (such as millions) of values and searching for a value is slow. You can also use this method to enter and bucket values that may appear in your report later.

In the Edit Bucket Field overlay for a text field:

1. Click **Enter Values**.
2. Select the bucket where you want to move the values. If you select **New Bucket**, enter a name for the bucket.
3. Type one or more values in the box. Enter multiple values on separate lines.
4. Click **Move**.

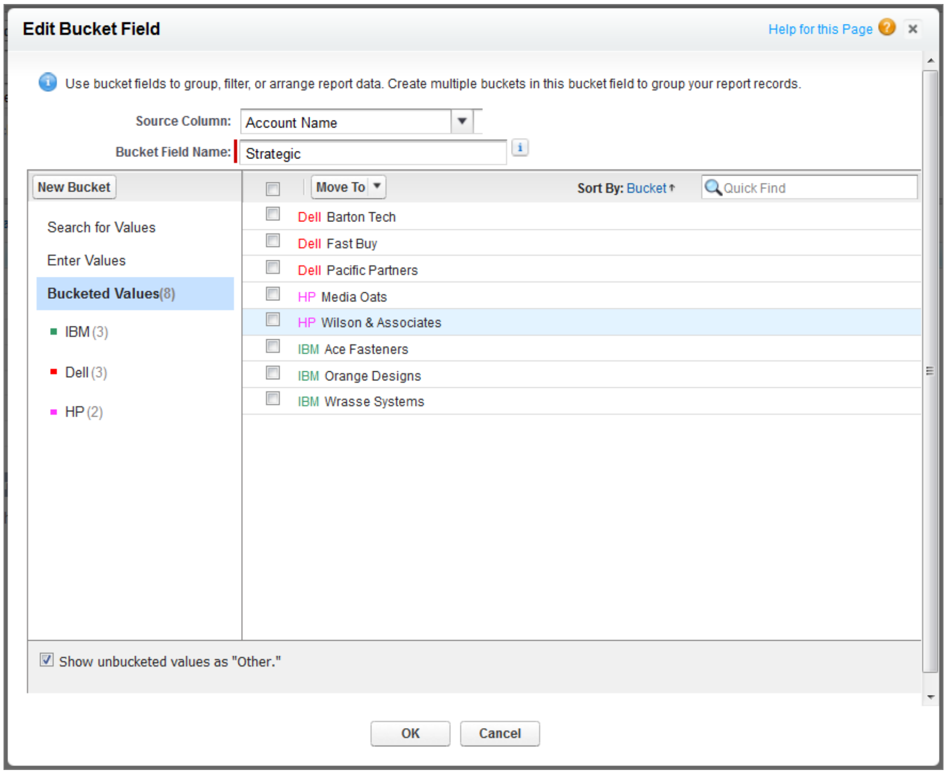
Text Bucketing Example: Strategic Accounts

Available in: **Enterprise** and **Unlimited** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

1. Create or edit a standard account report, making sure at least a few records appear in the report.
2. In the Fields pane of the report builder, double-click **Add Bucket Field** or drag it into the report.
3. For Source Column, select `Account Name`.
4. For Bucket Field Name, enter `Strategic`.
5. Click **New Bucket** and name the bucket `IBM`.
6. Click **New Bucket** and name the bucket `Dell`.
7. Click **New Bucket** and name the bucket `HP`.
8. To show the available values, leave the **Search for values...** box empty and click **Search**.
9. Select values and drag them into the appropriate buckets.
10. Enable `Show unbucketed values as "Other."`

11. Click **OK**.



Dashboard Enhancements

User Permissions Needed	
To view and refresh dashboards:	"Run Reports" AND access to dashboard folder
To create, edit, and delete dashboards:	"Run Reports" AND "Manage Dashboards"

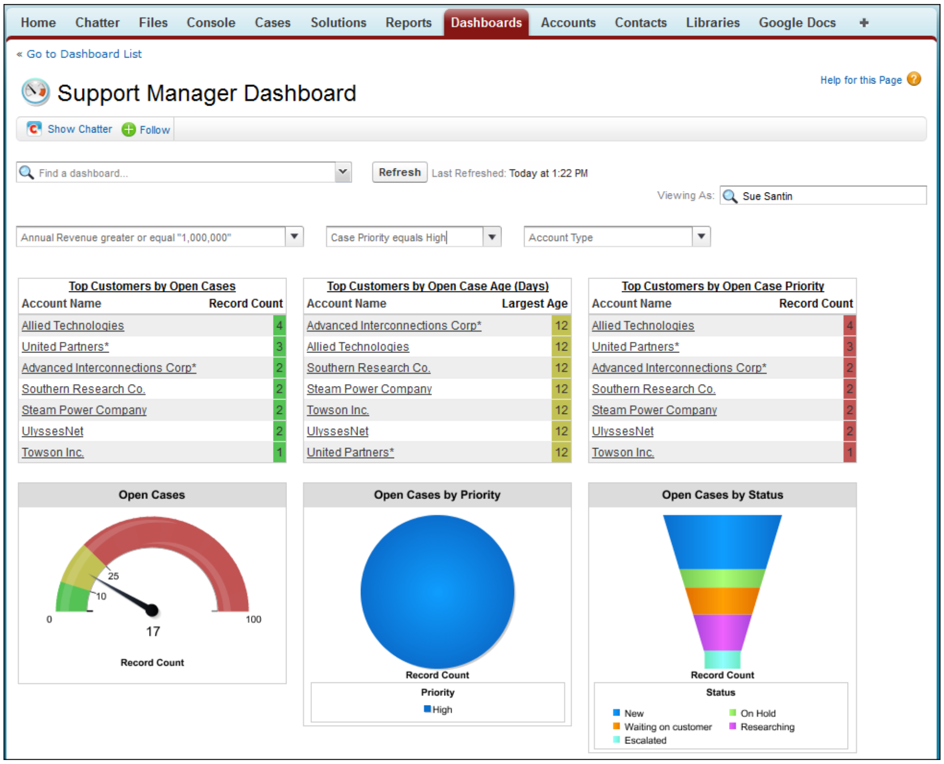
In Spring '12, we've made numerous enhancements to dashboards. Now, you can create up to three filters per dashboard. Additionally, filters are available for dynamic dashboards and users can post snapshots of filtered dashboards to Chatter and dashboard feeds. We've also added additional fields and operators to dashboard filters. Read through the rest of this section to learn more about enhancements to filtered dashboards as well as changes to the look and feel and functionality of all dashboards. You can also watch a dashboards demo (3:20 minutes) that covers some of these features.

More Filters per Dashboard

Available in: **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

You asked for it! This enhancement is from an idea on IdeaExchange.

By giving you different views of the data contained in a dashboard, dashboard filters let you perform interactive analysis at the dashboard level. Administrators can now create up to three filters for each dashboard. Previously, only one was available. The additional dashboard filters give you more views of your data from a single dashboard.



There are some considerations when filtering dashboards.

- You can't add a filter to dashboards that contain Visualforce or s-control components.
- By default, you can add up to 10 options defined by operator and value for each filter. Contact salesforce.com if you want to increase this limit. Note that a maximum of 50 per filter is supported.
- Scheduling or emailing a filtered dashboard returns unfiltered data.
- You can't filter on bucket fields.

Filtered Dynamic Dashboards

Administrators can create up to three filters for each dynamic dashboard. Filtering dynamic dashboards gives administrators additional flexibility in creating dashboards. For example, an administrator can create an organization-wide sales scorecard that contains sales rep and product filters. This allows individual sales managers to view their reps' performance collectively as well as individually. It also lets them view sales by product to understand which products specific reps are or aren't selling.

Administrators add filters to dynamic dashboards the same way as for standard dashboards and users apply filters to dynamic dashboards the same as standard ones.

Filtered Dashboard Snapshots

Users can now post snapshots of filtered dashboard components to Chatter or dashboard feeds. When a user clicks the snapshot title, they're taken to the filtered view of the dashboard if the filters are still valid. If they aren't they see the unfiltered dashboard.

Additional Fields and Operators for Filtered Dashboards

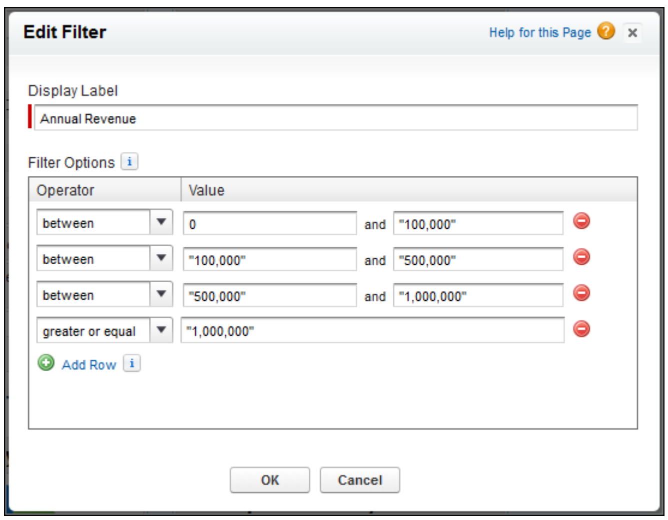
With Spring '12, you can filter on date, date/time, and currency fields in addition to picklist, lookup, and text fields.

We've also added support for additional filter operators. Specifically, we're introducing:

- Not equal to
- Less than
- Greater than
- Less or equal
- Greater or equal
- Contains
- Does not contain
- Start with
- Includes
- Excludes

With the additional operators, dashboard filters now support the same set of operators as report filters.

We've also introduced a new filter: "between." Use the between operator to get results that are greater than or equal to a minimum value and less than a maximum value. For example, if you enter "Number of Employees between 100 and 500," your results include accounts with 100 employees up to those with 499 employees. Accounts with 500 employees aren't included in the results. The between operator is available for dashboard filters only.



General Dashboard Enhancements

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To view and refresh dashboards:	"Run Reports" AND access to dashboard folder
To create, edit, and delete dashboards:	"Run Reports" AND "Manage Dashboards"

In Spring '12, we've made several enhancements to the look and feel and functionality of dashboards.

We've made these changes to the dashboard view page:

- Dashboard filter drop-downs now appear beneath the dashboard finder. Previously, the filter drop down appeared beneath the running user information. Additionally, you can have up to three filters per dashboard.
- When you refresh a dashboard, spinners now appear in the upper right corner on each component, and display until the component is refreshed fully. Previously, during a refresh, we simply displayed the message “Refreshing dashboard” beneath the running user information.
- The date and time that the dashboard last refreshed displays next to the **Refresh** button. Previously, it appeared above the running user information.
- The running user label has been simplified: it now says “Viewing As: (running user).” Previously, the label was “Viewing dashboard as: (running user).”

We’ve made these changes to the dashboard finder:

- We’ve added the “Recently Viewed” category to the finder results. “Recently Viewed” contains the dashboards that you’ve viewed most recently and match the search criteria. The category contains up to five dashboards.
- Previously, dashboard finder was disabled for users with access to more than 20,000 dashboards. This limitation has been removed.
- Previously, the dashboard finder was disabled for Internet Explorer 6 users with access to more than 1000 dashboards. This limitation has also been removed.
- The ghost text has been simplified: it now says “Find a dashboard...” instead of “Type here to search for a dashboard...”

We’ve made one change to the dashboard edit page: we’ve replaced the Add Filter link with an **Add Filter** button.

Additionally, auto-follow has been enabled for dashboards so that now, when you create a new dashboard, you automatically follow it in Chatter.

Dashboard Component Snapshot Enhancements

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

In Spring ‘12, we’ve enhanced the display of dashboard components that are posted to dashboard, user, and group feeds. Now, each snapshot has a “Viewing As” label that identifies the user whose data you’re viewing. For example, if you share a component from a dashboard generated by your co-worker, you’ll see her name in the View As: label.

Additional Analytics Enhancements

Also to note in Spring ‘12 are these additional analytics improvements:

- All Items Search in the Reports Tab
- Custom View in the Reports Tab
- Deleting Report Filters with Filter Logic

- Increased Report Filter Limits
- Drag-and-Drop Report Filters
- Mobile Dashboards App for the iPad Widely Available

All Items Search in the Reports Tab

You asked for it! This enhancement is from an idea on IdeaExchange.

Available in: **All** Editions except **Database.com**

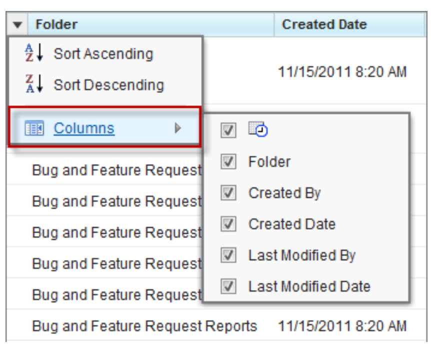
User Permissions Needed	
To view the Reports tab:	"Run Reports"

We've expanded the scope for search on the Reports tab. Now, search finds reports and dashboards across all folders in the folder tree. When you type in the search box or select a folder, the list view filters change to all items and types.

Custom View in the Reports Tab

Available in: **All** Editions except **Database.com**

User Permissions Needed	
To view the Reports tab:	"Run Reports"



Personalize your view of dashboards and reports in the Reports tab. Resize, reorder, sort, or choose the columns in your view.

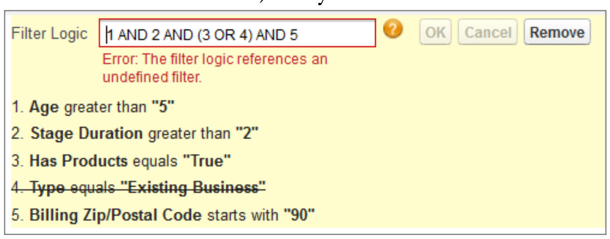
To resize a column, click and drag its right margin to the preferred size. Hide a column by clicking > **Columns** and deselecting the column you don't want displayed. `Action` and `Name` can't be deselected from view but can be reordered. You can reorder a column by dragging it to where you'd like it to appear.

Deleting Report Filters with Filter Logic

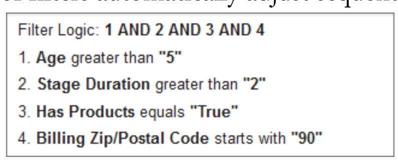
Available in: **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

When you remove a filter, it's crossed out in the filter list, and you must remove the filter's number and operator from the filter logic. For example, let's say you have a list of filters with the filter logic "1 AND 2 AND (3 OR 4) AND 5". If you remove the fourth filter, you'll see it crossed out in the list, and you must remove "OR 4" in the filter logic.



Once you click **OK**, the filter logic and list of filters automatically adjust sequentially.



Increased Report Filter Limits

You asked for it! This enhancement is from an idea on IdeaExchange.

Available in: **All** Editions except **Database.com**

We've increased the limit for the number of field filters across all editions on a report. In Spring '12, a report can have up to 20 field filters.

This increase may affect your reports and dashboards in a couple of ways:

- The report wizard has a limit of 10 field filters for all editions. If you use the wizard to edit a report with more than 10 filters, additional filters are dropped and any filter logic displays an error.
- Dashboard filters count against the report filter limit. For example, if a dashboard uses source reports that have 20 filters, those components show errors when a filter is applied on the dashboard. To avoid this, reduce the number of filters in those source reports.

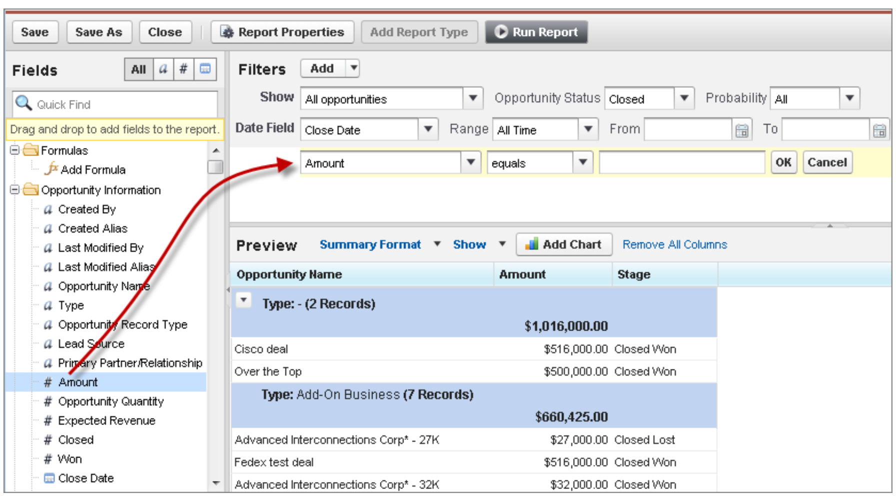
Drag-and-Drop Report Filters

You asked for it! This enhancement is from an idea on IdeaExchange.

Available in: **All** Editions except **Database.com**

User Permissions Needed	
To create, edit, and delete reports:	"Create and Customize Reports" AND "Report Builder"

Starting in Spring '12, you can add field filters to a report by drag-and-drop. In report builder, simply drag a field from the Fields pane to the Filters pane.



Mobile Dashboards App for the iPad Widely Available

Available in: **Enterprise**, **Unlimited**, **Developer**, and **Database.com** Editions

Salesforce Mobile Dashboards, a free download from the Apple App Store and AppExchange, is now available in most editions.

Aside from editions noted, the app is available to organizations enabled with REST API.


iPad
1:43 PM
Search Dashboards
Salesforce Mobile Dashboards
Sync
Recent
Following

MOBILE

Chatter for Android Tablets Generally Available

Available in: **All** Editions except **Database.com**

Now you can collaborate in Chatter from your Android tablet! Chatter for Android Tablets keeps you connected to the people and records that matter most, whether you're in the office or on the road. Use it to:

- View updates about the people, groups, and records you follow
- Create posts (with photos) and add comments
- View documents and links shared by others
- Find and follow people in your organization
- Find and join groups in your organization
- View coworkers' profiles, and email, call, or text them directly

Chatter for Android Tablets FAQ

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, **Contact Manager**, and **Developer** Editions

- How do I get started using Chatter for Android Tablets?
- How do I connect Chatter for Android Tablets to different instances of Chatter or Salesforce?
- What OS versions does Chatter for Android Tablets support?
- How do I post and comment in Chatter for Android Tablets?
- Can I send private Chatter messages from Chatter for Android Tablets?
- Can customer users use Chatter for Android Tablets?
- How do I filter Chatter updates to see only those that mention me in Chatter for Android Tablets?
- How do I refresh a feed in Chatter for Android Tablets?
- How do I search for people and groups in Chatter for Android Tablets?
- Does Chatter for Android Tablets have status bar notifications?
- Does Chatter for Android Tablets have a widget?

How do I get started using Chatter for Android Tablets?

Download the Chatter Android tablet app directly to your tablet from the Android Market. Before users can log into the Chatter Android tablet app, an administrator must:

1. Log into Salesforce or Chatter through a Web browser.
2. Click ***`Your Name`*** > **Setup** > **Mobile Administration** > **Chatter Mobile** > **Settings**.
3. Enable Chatter for your organization.
4. Select `Android` under Authorized Devices.
5. Click **Save**.
6. If your organization restricts login IP ranges, click ***`Your Name`*** > **Setup** > **Mobile Administration** > **Chatter Mobile** > **IP Restricted Users** and specify the users and groups that need to access the Chatter Android tablet app outside of your organization's login IP range.

Restart the Chatter Android tablet app if configuration changes in Salesforce do not appear on your tablet.

How do I connect Chatter for Android Tablets to different instances of Chatter or Salesforce?

To connect to another instance of Chatter or Salesforce:

1. If you're logged in to Chatter Android tablet app, log out and relaunch it. The Login screen appears.
2. Tap , then **Change Server**.
3. Tap **Add Connection**.
4. Enter a name for the connection, such as Sandbox.
5. Enter the URL you use to log in to that instance.

   Important: The URL you enter must start with `https://`.

6. Tap **Apply**. The login screen appears.
7. Enter your user name and password, and follow the prompts.

What OS versions does Chatter for Android Tablets support?

The Chatter Android tablet app runs on Android tablets with OS version 3.0 and higher. If you install the Chatter Android tablet app on a tablet with OS version 2.2, the tablet launches the Android Chatter phone app instead.

How do I post and comment in Chatter for Android Tablets?

To post to a feed, navigate to the feed and tap . To comment on a post, navigate to the post and tap .

When posting, tap  to select from the photos on your device, or  to take a picture to attach to the post.

Can I send private Chatter messages from Chatter for Android Tablets?

The Chatter app for Android tablets doesn't currently support private Chatter messages.

Can customer users use Chatter for Android Tablets?

Yes, customer users can use the Chatter Android tablet, but they can't access all of its functionality.

How do I filter Chatter updates to see only those that mention me in Chatter for Android Tablets?

Tap to display both posts others make to your Chatter profile and updates that mention you.

How do I refresh a feed in Chatter for Android Tablets?

The Chatter Android tablet app refreshes automatically every few minutes when you're online. You can also manually refresh feeds by tapping .

How do I search for people and groups in Chatter for Android Tablets?

To search for people, tap , then .

To search for groups, tap , then .

Does Chatter for Android Tablets have status bar notifications?

The current version of the Chatter Android tablet app does not have status bar notifications, but future releases will.

Does Chatter for Android Tablets have a widget?

Yes, the Chatter Android tablet app has a widget that you can add to your tablet home screen the same way you add widgets for other apps.

Salesforce Mobile for Android Phones—Generally Available

Available in: **All** Editions except **Database.com**

Salesforce Mobile is now generally available for Android phones! Use it to access your Salesforce data, tasks, and calendar from your Android phone, even when you're not connected to a Wi-Fi network. Salesforce Mobile for Android phones also integrates with native Android features, allowing you to make calls, send email, and map addresses by tapping fields on Salesforce records. Salesforce Mobile for Android phones also supports dashboards and Salesforce CRM Content.

See Salesforce Mobile for Android Phones FAQ for more information.

Chatter for iPad v2.0 Generally Available

Available in: **All** Editions except **Database.com**

Chatter for iPad v2.0 is now generally available! The entire Chatter experience for the iPad has been redesigned to create a sleek, intelligent way of keeping you connected to the people and records that matter most, whether you're in the office or on the road. With Chatter installed on your iPad, you can:

- View updates for the people, groups, and records you follow.
- Update your status.
- Create posts and add comments.
- Attach photos and files to Chatter posts.
- Mention people in posts and comments.
- View documents and links shared by others.
- Find and join groups in your organization.
- Find and follow people in your organization.
- View your coworkers' profiles to see their contact information, bio, the files they own, who they're following, and who's following them.
- Initiate FaceTime calls and send emails and text messages to your coworkers.

Chatter for iPad is available for download in the Apple App Store. To use the Chatter app on your iPad, your device must be running iOS 5.0 or higher, and it must be connected to a WiFi or cellular network. For more information about using Chatter on your device, open the Chatter app on your iPad, then tap **Settings** > **Help**.

Note: Chatter for iPad v2.0 is a brand new app – not an upgrade of Chatter for iPad v1.5 – so current users of the Chatter mobile app won't see a pending update on their iPad. Current Chatter users should download the new Chatter app from the App Store.

Chatter for BlackBerry Enhancements

Available in: **All** Editions except **Database.com**

Spring '12 includes several enhancements to the Chatter mobile app for BlackBerry devices. To use the new Chatter features on your BlackBerry device, download the updated Chatter mobile app by visiting the BlackBerry App World.

BlackBerry Contacts Integration

Spring '12 provides seamless integration between Chatter and your BlackBerry contacts. As you use the Chatter mobile app, your BlackBerry links contacts in the address book with people in Chatter if their email address and phone numbers match. If you're viewing a contact in the Contacts app and you see the **Chatter** menu option, the contact is linked to a Chatter user record.

- To open a person's Chatter profile from the Contacts app, select **Chatter** > **View Chatter Profile**.
- To post to someone's Chatter profile feed from the Contacts app, select **Chatter** > **Post to Chatter Profile**.

Enhanced Navigation

As of October 2011, Chatter has an improved user interface that makes navigating the BlackBerry app even easier. The tabs along the top of the screen were moved to a navigation menu. The navigation menu lets you access common Chatter features, like your Chatter feed, messages, lists, the @ Me filter, and search. Select the Chatter icon in the upper left corner of the app to open the new navigation menu.

As with most BlackBerry apps, you can press the physical menu button on your device while using Chatter to open a menu containing context-sensitive options related to the current screen.

Chatter Private Messages

As of October 2011, you can have secure conversations directly in Chatter. They're a fast, convenient way to communicate privately with a few select people when the discussion isn't relevant to everyone you work with.

Private messages are available in the Chatter mobile app for BlackBerry. To access messages in the BlackBerry app, select **Chatter** > **Messages**. From the Messages page, you can:

- See the most recent message in each of your conversations. The most recent message displays at the top of the list.
- See if you have unread messages. Conversations with unread messages are highlighted in blue.
- Select any message to view the full history of messages exchanged in that conversation. After selecting a message, you can reply to it, delete it, or view the profile of the person who sent it by using the options on the main menu.
- Send a new message.

To send a new message:

1. Select **Chatter** > **Messages**.
2. Press the menu key and choose **New Message**.
3. Search for a person and select their name in the People list.
4. To add additional recipients, select the `To` field.
5. Write your message.
6. Select **Send**.

Tip: You can also select on someone's profile to send them a message.

Note: Chatter Messages aren't currently available in the Chatter mobile apps for Android, iPad, iPhone, or iPod Touch.

Support for BlackBerry OS 7.0

As of October 2011, the Chatter mobile app for BlackBerry is compatible with BlackBerry devices running OS 7.0.

BlackBerry Messenger Integration

As of October 2011, the mobile app is integrated with BlackBerry Messenger (BBM), the instant messenger application included on BlackBerry devices. With the Chatter mobile app connected to BlackBerry Messenger (BBM), users can easily share information in Chatter with their BBM contacts who also use Chatter. The Chatter mobile app can also update users' BBM profiles with their latest activities in Chatter.

1. Visit the BlackBerry App World from your device and upgrade to the latest version of BlackBerry Messenger. The minimum requirement is BlackBerry Messenger 6.0.

If you've never used BlackBerry Messenger, complete the BBM setup process on your device before attempting to connect Chatter to BBM.

2. Visit the BlackBerry App World from your device and upgrade to the latest version of Chatter. The minimum requirement is Chatter 3.0.
3. Go to the BlackBerry Settings screen for Chatter, select the `Connect Chatter to BBM` option, then save your changes.
4. Open the Chatter mobile app.
5. When prompted to connect Chatter to BlackBerry Messenger, select **Connect**, then select **Edit Settings**.

   The prompt only displays if you're using BlackBerry Messenger 6.0 or higher.
6. In the Connect to BBM drop-down list, select **Connected**.
7. Optionally, select the `Post recent activities to my profile` checkbox to let Chatter update your BBM status with recent app activities.
8. Optionally, select the `Ignore invitations to become a BBM contact` checkbox to prevent other Chatter users in your company from sending you BBM contact invites.
9. Press the menu key and select **Close**.
10. Select **Save**, then select **OK**.

To share information in Chatter with BBM contacts, navigate to the user profile, group profile, record, or file, press the menu key, and select **Share via BBM**.

Chatter Push Notifications

You asked for it! This enhancement is from an idea on IdeaExchange.

As of August 2011, Chatter for BlackBerry users can take advantage of push notifications to stay aware of important Chatter activity. *Push notifications* are alerts that Chatter sends to the BlackBerry home screen when users aren't using the app. The Chatter for BlackBerry app uses push notifications to notify a user when someone posts on the user's profile, mentions the user in a post, comments on the user's post, sends the user a message, and more.

To enable push notifications on a BlackBerry device:

1. Navigate to the BlackBerry Settings screen for third party applications and choose Chatter.
2. Select the `Enable Chatter push notifications` chekcbox.
3. Select **Save** from the menu.

Tip: If you're using BlackBerry OS 6.0 or higher, the push notifications on your home screen are links that open the related item in Chatter.

You can also set up Chatter so that push notifications are delivered to your BlackBerry inbox. To enable push notifications in the Messages app:

1. Navigate to the BlackBerry Settings screen for third party applications and choose Chatter.
2. Select the `Send push notifications to my BlackBerry inbox` checkbox.
3. Select **Save** from the menu.

To change the sound alert for push notifications on a BlackBerry device:

1. Navigate to the BlackBerry Settings screen for third party applications and choose **Sounds and Ringtones**,
2. Select **Sounds for Selected Profile**, then select **Other Applications — Notifiers**.
3. Choose **Chatter**.
4. Adjust the sound alert settings, then select **Save** from the menu.

Note:

- Users can’t enable push notifications on the device if they were disabled by the administrator. To access your organization's push notification settings, click ***Your Name*** > **Setup** > **Mobile Administration** > **Chatter Mobile** > **Settings**.
- Chatter push notifications aren't currently available in the Chatter mobile apps for Android, iPad, iPhone, or iPod Touch.

Salesforce Mobile SDK

The Salesforce Mobile SDK is an open source suite of developer technologies that simplify the development of mobile applications.

The Mobile SDK provides the following:

- Native OAuth implementations for Android and iOS that work out-of-the-box
- OAuth access token management, including persistence and refresh capabilities
- App containers for building hybrid applications

Using the Salesforce Mobile SDK, you can create three types of mobile applications:

- **Native** — Native apps are coded using a mobile platform's native capabilities. Typically, these apps are more difficult to develop, but they also offer the best performance. In this workbook, we show how to construct native applications for iOS and Android.
- **HTML5** — HTML5 apps are built using HTML5, CSS and JavaScript. These lightweight server-side pages typically offer the most portability, but don't have access to native platform features. HTML5 apps aren't OS-specific, so the same app will run on an iOS, Android, Windows Mobile, or other device.
- **Hybrid** — Hybrid apps use a JavaScript bridge in a native container to merge the portability of HTML5 with native device capabilities, such as the camera or address book.

Because the Mobile SDK is new technology, with many rapid changes expected over the coming year, the most recent release notes can be found at http://wiki.developerforce.com/MobileSDK.

Additional Mobile Enhancements

Windows Mobile CRM No Longer Available

Starting in Spring ‘12, the Windows Mobile CRM app is no longer available for organizations that don’t currently have active Windows Mobile users.

DATA.COM

Data.com Overview

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

Watch a Demo (3:19 minutes)

Data.com is a leading provider of business information and data, combining 30 million crowd-sourced business contacts with the Dun & Bradstreet database to deliver the best data source inside of Salesforce. Data.com Corporate is an upgrade product that provides additional Dun & Bradstreet fields, including `D-U-N-S Number`, `NAICS Code`, `NAICS Description`, and more. Starting December 16, 2011, all organizations purchasing Data.com will get the Data.com Corporate product. Organizations using versions purchased prior to that date will have a limited set of fields.

Note: Prior to the Winter '12 release of Salesforce, Data.com was known as Jigsaw or Jigsaw.com.

Salesforce's Data.com product includes prospecting features and clean features. This topic introduces them.

Within Salesforce, you can search for Data.com accounts and contacts, and if you have a Data.com license, you can add them to Salesforce. You can add your contact search results as either contacts *or* leads. It's remarkably easy to find the accounts and contacts you need, and using Data.com is a great way to plan your sales territories, segment campaigns, find new accounts to engage, and get new contacts to quickly expand your sales network.

Go to the Data.com tab to search for accounts. Generate a broad list based on criteria like company name, industry, and location. Then use filters to narrow your results based on number of employees, revenue, and more.

Need contacts in Salesforce? You can get them for a specific account, starting from the account record. Your search automatically includes the company's website, but you can add criteria like name or email, location, and more on the Data.com tab. You can also start from the Data.com tab, and select an account when you add contacts. Filters like `Department` and `Title` make it easy to narrow your results and get a list you can work. Use phone or email to make connections right away, or add the records to Salesforce as contacts or leads.

Want to analyze the impact of Data.com data on your business? Use theData.com Reports AppExchange package. It offers eight preconfigured Data.com reports and a corresponding impact dashboard. Use these tools to find out how many records are sourced from Data.com, who has added them and when, and how they contribute to your sales forecast and revenue.

Data.com Clean is an important part of Salesforce's Data.com offering. You can use Data.com Clean to make sure your CRM records are always up to date. Clean works for all the account, contact, and lead records you have access to in Salesforce—not just those you previously added from Data.com.

Note: Data.com Clean is in beta for the Spring '12 release.

Considerations for Using Jigsaw for Salesforce for Prospecting and Cleaning

If you've previously installed the Jigsaw for Salesforce AppExchange package (JFS), you can continue to use that product for *both prospecting and cleaning* records. There are a number of limitations, however.

- JFS does not provide access to Dun & Bradstreet data, so if you want access to that data, you need to migrate to the Data.com prospecting product built in to Salesforce.
- If you choose to use the clean features from JFS, as explained below, you should not participate in the beta program for the Data.com Clean product built in to Salesforce for Spring '12.

You can also use *Data.com in Salesforce for prospecting* and use *JFS features to clean your records*. Your approach depends on whether you already use JFS or you're installing it for the first time.

- If you already use JFS, you may need to reconfigure it for use with Data.com in Salesforce.
- If you don't use JFS (but you *do* use the Data.com prospecting features built in to Salesforce) download and install the Jigsaw for Salesforce AppExchange package and configure Salesforce to use its clean features.

Jigsaw for Salesforce is available in Developer, Enterprise, Professional, and Unlimited editions.

Data.com Prospecting

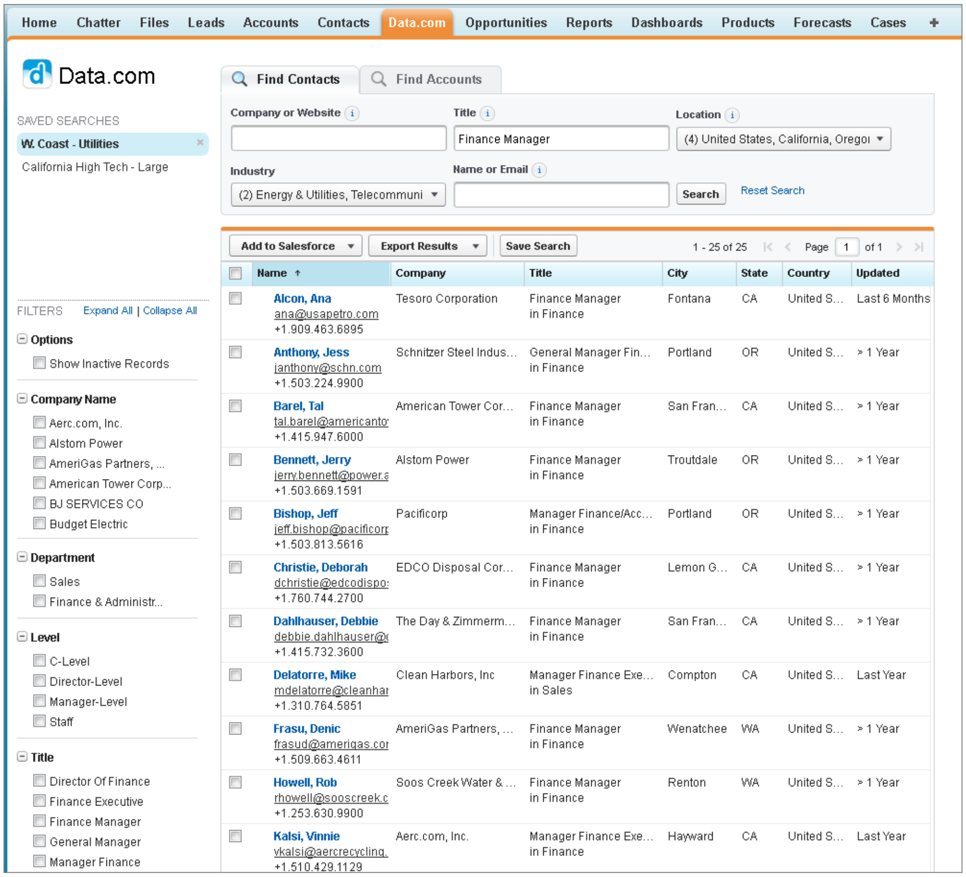
With the Spring '12 release, Data.com Prospecting offers a number of exciting enhancements.

- Thanks to a strategic new relationship, Data.com now includes data from Dun & Bradstreet (D&B). Starting on December 16, 2011, over 2.5 million of the company records you get from Data.com will include fields with key data sourced from D&B. This major enhancement to the Data.com product means that a number of the fields on account and lead records will get D&B values when the records are added to Salesforce.

  You also have access to *additional* D&B fields with Data.com Corporate. This product provides additional fields, including `D-U-N-S Number`, `NAICS Code`, `Tradestyle`, and more. Users will see them on account and lead records and the account card, and if you use Data.com Clean (in beta release for Spring '12), you can clean the Data.com Corporate fields, as well. (For more information on Data.com Clean, see Data.com Clean—Beta.)

- If you want to purchase additional Data.com licenses, now you can—right from the Data.com Licenses & Limits page.

- In addition to the exclusive D&B fields available from Data.com Corporate, we've also enabled several other fields on account, contact, and lead records to accept Data.com data.
- Users can now assign an account when they add contacts to Salesforce from the Data.com tab. And if they need to create an account at the same time, they can do that, too.
- The account card now has tabs that make it easier to use and provide additional information. The Data.com Contacts tab lists contacts at the account by level and department. The Overview tab provides a detailed company description from Dun & Bradstreet (when available). The Additional D&B Data tab shows the additional Dun & Bradstreet fields that come with the Data.com Corporate product.
- We've also made other enhancements and updates. It's easier to search for contacts now that we've separated the `Title, Name, or Email` field into two fields: `Title` and `Name or Email`. Contacts and accounts both have a single, easier to use `Industry` field that includes subindustry options. And when you convert leads, the value in the `Lead Source` field updates the corresponding fields on the newly created contact and account records. We've also added a new `Account Source` field on account records.



Implementing Data.com

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

User Permissions Needed	
To implement Data.com:	"Customize Application"
To enable Data.com users:	"Manage Users"

Implementing Data.com is easy. Here's what you need to know.

The free version of Data.com provides Data.com data to all users. Users can find the Data.com tab on the All Tabs page, or you can add it for them.

With the free version, users can search for unlimited Data.com accounts and contacts. Free version users can't see phone and email information for contacts, and they can't add records to Salesforce. To take full advantage of Data.com's data, your organization needs to purchase Data.com licenses and set up the feature.

Data.com Clean is an important part of Salesforce's Data.com offering. You can use Data.com Clean to make sure your CRM records are always up to date. Clean works for all the account, contact, and lead records you have access to in Salesforce—not just those you previously added from Data.com. Data.com Clean is in beta for the Spring '12 release.

Organizations that purchase Data.com Corporate get additional account fields from Dun & Bradstreet, including `D-U-N-S Number`, `NAICS Code`, `NAICS Description`, and more.

To implement Data.com, you need to:

- Understand Data.com licenses, limits, and products.
- Enable users for Data.com, assign type for each user, and assign record addition limits.
- Add the Data.com tab to user profiles.
- Add the **Get Contacts** button to your account page layouts.
- (Optional) Purchase additional Data.com licenses or record additions.
- If your organization uses Data.com Clean (beta for Spring '12), add the **Clean** button and the `Clean Status` field to your account, contact, and lead page layouts. You can also implement clean features from the Jigsaw for Salesforce AppExchange package.
- If your organization uses Data.com Corporate, you'll need to do a few additional customizations.
- Install the Data.com Reports AppExchange package.

Implementation Tips and Best Practices

- If a user adds more than 200 leads to Salesforce at one time, any lead assignment rules your organization uses won't run. To make sure your lead assignment rules run, instruct your users to limit their additions to fewer than 200 leads at any time.
- If your organization uses validation rules on fields that are mapped to Data.com, either deactivate the rules or make sure they match Data.com field names to avoid errors when you add records. For example, if you have a validation rule for the contact object's `Home Phone` field, you should create a custom field called `Phone` on the contact object and use that field with your validation rule because the Data.com field is `Phone`.
- If your organization uses Data.com Corporate, and you create validation rules for the fields that Data.com Corporate provides, those rules will still attempt to run even if you stop using Data.com Corporate, so disable any validation rules using those fields if you stop using Data.com Corporate.

Setting Up Data.com Users

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

User Permissions Needed	
To implement Data.com:	"Customize Application"
To enable Data.com users:	"Manage Users"

The All Data.com Users page shows all users, grouped by user type: Data.com User and Data.com List User.

- Data.com Users get a limited number of records to add per month, and their unused additions expire at the end of each month. For each Data.com User, you can see the monthly limit and number of records added to Salesforce or exported during the month.
- Data.com List users share account, contact, and lead record additions from a pool. You can see the organization's limit, and the number of records each Data.com List User has added to Salesforce or exported.

Enable each Data.com user on his or her User Edit page.

1. Click ***Your Name*** > **Setup** > **Manage Users** > **Users**, then click **Edit** next to the name of the user you want to enable.
2. In the `Data.com User Type` drop-down, select the user type.
3. For Data.com users, in the `Monthly Contact and Lead Limit` drop-down, select the number of contact and lead records the user can add each month. You can select up to the organization limit for any user or all users, but once the organization's monthly limit is reached, users won't be able to add more records.
   For example, if your organization's monthly addition limit is 3000 records, you might assign one user a monthly addition limit of 500 records, another user a limit of 1,000 records, and another user the organization limit (in this case 3,000 records). If the second user adds all 1,000 of his records right away, the third user will only be able to add up to 2,000 records, and depending on how many the third user adds, the first user may not be able to add any records.

   Tip: You can find your organization's monthly organization addition limit on the Data.com Licenses & Limits page. Click ***Your Name*** > **Setup** > **Data.com Administration** > **Data.com** > **Licenses & Limits**.

4. Click **Save** to save the current record, or **Save and New** if you want to enable other users for Data.com.

   Tip: You can also enable Data.com users from the Apex Data Loader. To do so, you export your user records to a .csv file, change the Data.com user permission for each user you want to enable, and then import the .csv file into Salesforce. The fields to export from the User object are `LastName`, `FirstName`, and `UserPermissionsJigsawProspectingUser`. Contact salesforce.com support if you need help.

   The number of Data.com users you can enable—within Salesforce or via the Data Loader—depends on the number of Data.com licenses you have purchased. Make sure you stay within that limit when enabling users via the Data Loader.

Purchasing Additional Data.com Licenses

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

User Permissions Needed	
To implement Data.com:	"Customize Application"
To enable Data.com users:	"Manage Users"
To use Checkout:	"Manage Billing"

If you need to purchase additional licenses for Data.com Users, you can do so using Checkout, right from the Data.com Licenses & Limits page. Just make sure you're enabled to use Checkout. When your purchase is complete, you can assign licenses to users if you need to.

1. Click `Your Name` > **Setup** > **Data.com Administration** > **Data.com** > **Licenses & Limits**.
2. Click **Purchase More** and follow the steps.
3. (Optional) Assign the new licenses to users.

For detailed instructions on using Checkout, see the Checkout User Guide.

Additional Account Fields Now Enabled for Data.com Data

With the Spring '12 release, we've enabled additional fields on account records to accept Data.com data.

Note: The Data.com Corporate product provides additional fields exclusive to Dun & Bradstreet that you can access on account and lead records. Starting December 16, 2011, all organizations purchasing Data.com will get the Data.com Corporate product. Organizations using versions purchased prior to that date will have a limited set of fields.

For complete details on *all* account fields, look up "Account Fields" in the Salesforce help.

Field	Definition
`Account Site`	Information about the account's location, such as `single location`, `Headquarters`, or `London`. Up to 80 characters are allowed in this field.
`Description`	Description of account. Up to 32 KB of data are allowed in this field. Only the first 255 characters display in reports.
`Fax`	Fax number. Up to 40 characters are allowed in this field.
`Ownership`	Ownership of company, for example, public or private. Entry is selected from a picklist of available values, which are set by an administrator. Each picklist value can have up to 40 characters.
`SIC Code`	Standard Industrial Classification code of the account's main business categorization. For example: 57340 for Electronics. Up to 10 characters are allowed in this field.
`Ticker Symbol`	Listing of company's exchange and stock symbol, for example, NASDAQ: ACME. Up to 20 characters are allowed in this field.
`Website`	URL of account's website, for example, www.acme.com. Up to 255 characters are allowed in this field; only the first 50 are displayed.

Understanding Data.com Corporate

Users with Data.com licenses can search Data.com for account and contact records, and add them, as well as leads, to Salesforce, then clean those records to keep them up to date.

Now, thanks to a strategic relationship with Dun & Bradstreet, when a user adds a Data.com CRM record to Salesforce, or cleans the record with Data.com data, the values in many of the record's fields display Dun & Bradstreet data.

Note: Data.com Clean is in beta release for Salesforce Spring '12.

Your organization can use Data.com Corporate, which provides *additional* Dun & Bradstreet account and lead data beyond the basics, including `D-U-N-S Number`, `NAICS Code`, `Tradestyle`, and more. Starting December 16, 2011, all organizations purchasing Data.com will get the Data.com Corporate product. Organizations using versions purchased prior to that date will have a limited set of fields.

Tip: To find out whether your organization has Data.com Corporate, just click ***Your Name*** > **Setup** > **Data.com Administration** > **Data.com** > **Licenses & Limits**. On the Licenses & Limits page, check the Data.com Licenses section. If it says "Data.com Licenses - Corporate" you have the product.

Data.com Corporate Account Fields

Field	Definition
`D-U-N-S Number`	Data Universal Numbering System (D-U-N-S) number is a unique, nine-digit number assigned to every business location in the Dun & Bradstreet database that has a unique, separate, and distinct operation. D-U-N-S numbers are used by industries and organizations around the world as a global standard for business identification and tracking. This field is only available to organizations that use Data.com Corporate.
`NAICS Code`	The six-digit North American Industry Classification System (NAICS) code is the standard used by business and government to classify business establishments into 20 industries, according to their economic activity for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. This field is only available to organizations that use Data.com Corporate.
`NAICS Description`	A brief description of an organization's line of business, based on its NAICS code. This field is only available to organizations that use Data.com Corporate.
`SIC Description`	A brief description of an organization's line of business, based on its SIC code. This field is only available to organizations that use Data.com Corporate.
`Tradestyle`	A name, different from its legal name, that an organization may use for conducting business. Similar to "Doing business as" or "DBA". This field is only available to organizations that use Data.com Corporate.
`Year Started`	The date when an organization was legally established.This field is only available to organizations that use Data.com Corporate.

Data.com Corporate Lead Fields

Field	Definition
`Company D-U-N-S Number`	Data Universal Numbering System (D-U-N-S) number is a unique, nine-digit number assigned to every business location in the Dun & Bradstreet database that has a unique, separate, and distinct operation. D-U-N-S numbers are used by industries and organizations around the world as a global standard for business identification and tracking. This field is only available to organizations that use Data.com Corporate.

Implementing Data.com Corporate

Data.com Corporate provides *additional* Dun & Bradstreet account and lead data beyond the basics, including `D-U-N-S Number`, `NAICS Code`, `Tradestyle`, and more. Starting December 16, 2011, all organizations purchasing Data.com will get the Data.com Corporate product. Organizations using versions purchased prior to that date will have a limited set of fields.

Tip: To find out whether your organization has Data.com Corporate, just click ***`Your Name`*** > **Setup** > **Data.com Administration** > **Data.com** > **Licenses & Limits**. On the Licenses & Limits page, check the Data.com Licenses section. If it says “Data.com Licenses - Corporate” you have the product.

Here’s how to implement this product.

- Make sure you’ve implemented Data.com.
- Identify the account fields provided by Data.com Corporate and add them to your account page layouts. For instructions on adding fields, look up “Customizing Page Layouts” in the Salesforce help.
- Make sure that for all account fields provided by Data.com Corporate, field-level security is set to `Visible`. For instructions on field-level security, look up “Setting Field Permissions in Permission Sets and Profiles” in the Salesforce help.
- Identify the lead fields provided by Data.com Corporate and add them to your lead page layouts. For instructions on adding fields, look up “Customizing Page Layouts” in the Salesforce help.
- Make sure that for all lead fields provided by Data.com Corporate, field-level security is set to `Visible`. For instructions on field-level security, look up “Setting Field Permissions in Permission Sets and Profiles” in the Salesforce help.

Finding and Adding Data.com Contacts from the Data.com Tab

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

User Permissions Needed	
To search Data.com for contacts:	No permissions required
To add Data.com contacts:	“Create” on contacts
To create an account when adding contacts:	“Create” on accounts

Want to search for contacts across multiple companies, locations, or industries? Start from the Data.com tab. If you add records as contacts, you'll be prompted to associate them with a single account, so keep that in mind when you define your search.

Note: You can also add Data.com contacts directly from an account. Just start your search from that account's detail page.

1. Click the Data.com tab.
2. Click **Find Contacts**.
3. Enter or select your search criteria.
4. Click **Search Data.com**.
   Your search results appear. They're sorted alphanumerically. If you've already added a contact (as a contact or a lead) to Salesforce, you'll see an icon that tells you so: ●. You can't re-add that record.

   Tip:

   - Click the contact's name to see the “contact card”—a handy summary of contact information.
   - To show records that have been flagged as inactive, under Options, select the `Show Inactive Records` checkbox. Inactive records are marked with an icon: .

5. If the results list is long, you can:

   - Sort the results by any table heading
   - Jump to a page by entering a number in the `Page` field
   - Click the arrows to move from page to page

   Sorting and page navigation only work for lists of fewer than 100,000 records.

6. If you don't see what you're looking for, use filters to narrow your results. Expand filter categories as needed, and select the checkbox next to each filter you want to apply.
   The list is updated automatically

   Tip: If you want to start a new search, just click **Reset Search** to clear all of your search criteria and filters.

7. Sort the list if you need to.
8. Add all contacts or a selection to Salesforce.

   - To add all contacts, click **Add to Salesforce** and select **All**.

- To add selected contacts, first select the ones you want, then click **Add to Salesforce** and choose `Selected`.

  You'll get a confirmation message showing the number of records you're adding.

9. Select **Contacts**.
   Enter or select the account you want to associate the contacts with. You can associate only one account. If you need to create the account to associate, use the lookup.
10. Click **Continue**.
11. Click **Go to Account** to go to the Accounts tab, where you can open the account record.

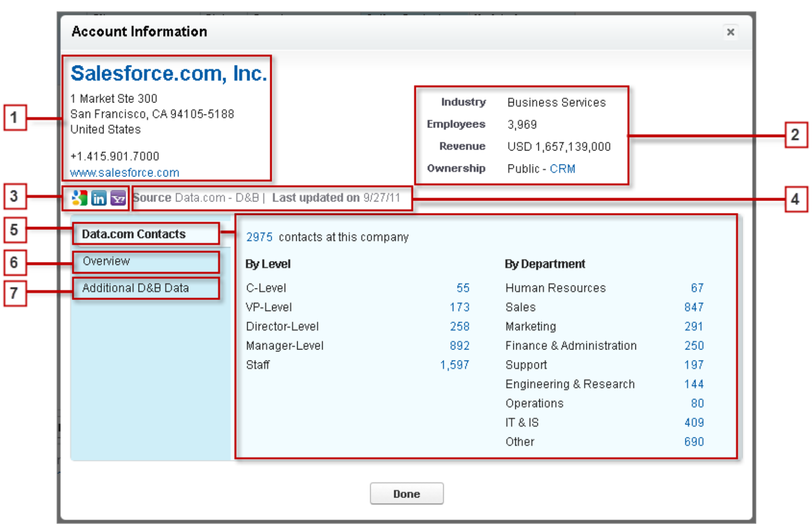
Exploring Data.com Accounts from the Account Card

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

User Permissions Needed	
To search Data.com for accounts:	No permissions required

From a list of Data.com account search results, just click the name of any account and its account card appears. Use the account card to research the company, get an overview of its business, or view a breakdown of its contacts. Key Dun & Bradstreet data is available if you use Data.com Corporate.

Tip: You can view the account card for any of your Salesforce accounts that exist in Data.com. Just do a quick search for the account on the Data.com tab.



Here are your options.

1. Get address and phone information plus a link to the account's website.
2. View the account's demographic and financial data.
3. Click an icon to research the account by searching Google, Yahoo Finance, or LinkedIn. If the account's data comes from Jigsaw, you'll see an icon for Data.com and can search there.
4. Identify the source of the account information (Dun & Bradstreet or Jigsaw), and find out when the source's information was last updated.
5. Click the Data.com Contacts tab to see the account's Data.com contact breakdown by level and department. Click a number to find the account's contacts at that level on the Salesforce Data.com tab.
6. Click the Overview tab to get a detailed company description from Dun & Bradstreet (if available).
7. If your organization uses Data.com Corporate, click the Additional D&B Data tab to view the additional Dun & Bradstreet fields available with that product, including `D-U-N-S Number` and `NAICS Code`.

Note: You can't see the entire `D-U-N-S Number` value for an account (on the comparison page or the account card) until the account has been added to Salesforce from Data.com or (for existing records) cleaned with Data.com. Until you add or clean the record, the number's first five digits are masked with asterisks (*).

Additional Data.com Prospecting Enhancements

Separated Title, Name, or Email Field on Find Contacts Tab

On the Data.com tab's Find Contacts tab, we've separated the `Title, Name, or Email` field into two fields: `Title` and `Name or Email`. This change makes it easier to use search modifiers to get exactly the results you want.

Combined Industry Field on Find Contacts Tab

We've also combined the formerly separate `Industry` and `Sub-industry` fields on the Find Contacts tab. It has a single `Industry` field that includes sub-industry options.

Combined Industry Field on Find Accounts Tab

We've combined the formerly separate `Industry` and `Sub-industry` fields on the Find Accounts tab. It now has a single `Industry` field that includes sub-industry options.

Lead Conversion

When you convert a lead, the value from its `Lead Source` field affects the source fields on the contact and account records that are generated from the conversion process. The contact's `Lead Source` field will say `Jigsaw` and the account's `Account Source` field will be blank.

Account Source Field

Newly added to the account object, the `Account Source` field identifies the source of the account's data. If the data comes from Data.com, the field value will be `Data.com`. Make sure you add this field to your account page layouts. For instructions on adding fields, look up "Customizing Page Layouts" in the Salesforce help.

Using Data.com Search Modifiers

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

User Permissions Needed	
To search Data.com for accounts:	No permissions required
To search Data.com for contacts:	No permissions required

When searching for Data.com accounts and contacts, you can use modifiers to target and narrow your search results. Here's how modifiers work, field by field.

Company or Website

- To search for or exclude multiple companies, separate them with commas: **,**. For example, `salesforce.com,Apple` returns results for both salesforce.com and Apple (for example, Apple Computer, Inc. and Apple Inc.), or either one, depending on Data.com data.
- To search for the exact name of a company, type the name within quotation marks: **" "**. For example, `"Apple, Inc."` returns only results with the exact company name Apple, Inc.
- To exclude a company from your results, before the company name, type a minus sign: **–**. For example, `–Oracle` returns a list of results that excludes Oracle. For company names with more than one word, after the minus sign, type the first part of the name. For example, `–Adobe` returns a list of results that excludes Adobe Systems.
- You can also use mixed search modifiers. For example, `salesforce, –Microsoft, "GE Healthcare"` returns all results including salesforce (for example, salesforce and salesforce.com, inc.); it excludes all results containing Microsoft; and it finds GE Healthcare but not GE Health Care.

Title

- To exclude a title, before the title, type a minus sign: **–**. For example: –buyer.
- .
- To search for exact titles, type them within quotation marks: **" "**. For example: "Managing Director".
- To search for multiple titles, separate them with commas: **,**. For example: `CEO,–Dr,"managing director"`.

Name or Email

- To search for results for an individual element in this field—just Name or just Email—type that element followed by a colon (**:**) and a space, then type the name, or email you're looking for. For example, `Name: Marc Benioff` returns results with only the name Marc Benioff. `Email: marcbenioff@salesforce.com` returns results with only the email address marcbenioff@salesforce.com. Modifiers will not work if you don't include "name: " or "email: "., and you can't mix and match these modifiers (for example, using "name: " and "email: " in the same search).
- To search for multiple titles, names, or emails, separate them with commas: **,**.
- To search for exact titles, names, or emails, type them within quotation marks: **" "**.
- To exclude a title, name, or email from your results, before the element, type a minus sign: **–**.

Location | ZIP Code

- To search for multiple ZIP codes, separate them with commas: **,**. For example, `94105,94122` returns results for both 94105 and 94122, or either one, depending on Data.com data.
- To exclude a ZIP code from your results, before the ZIP code, type a minus sign: **–**. For example, `–94122` returns a list of results that excludes 94122.

Location | Area Code

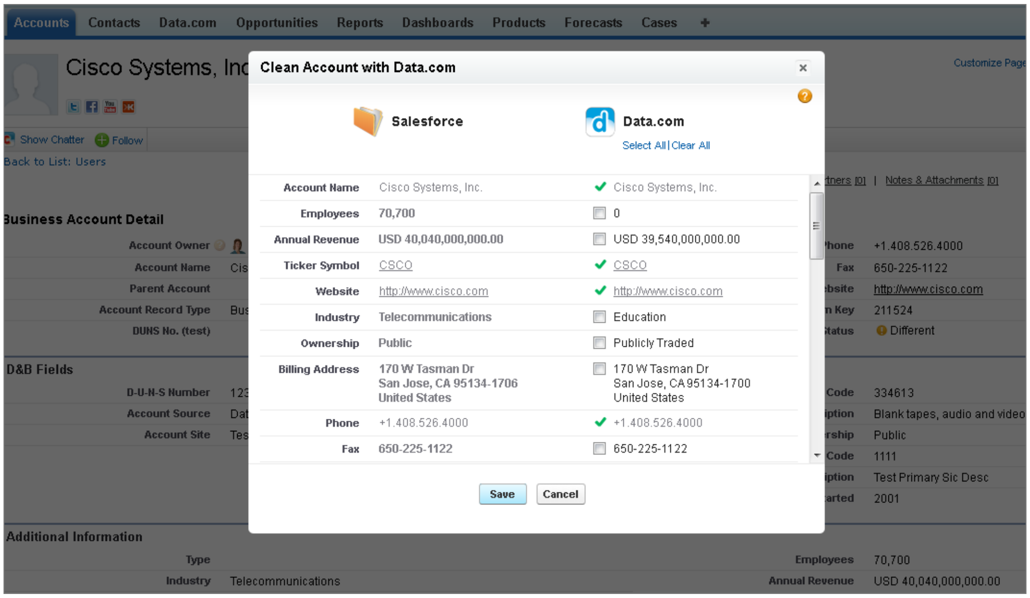
- To search for multiple area codes, separate them with commas: **,**. For example, `312,708` returns results for both 312 and 708, or either one, depending on Data.com data.
- To exclude an area code from your results, before the area code , type a minus sign: **–**. For example, `-708` returns a list of results that excludes 708.
- To find area codes outside the United States and Canada, you need to add the country calling code as a prefix. For example, the United Kingdom's country calling code is `44`, and London's area code is `20`, so to find accounts or contacts in London by area code, you would enter `4420` in the `Area Code` field. Here's a list of country codes you might need to use.
  - ◊ Australia: 61
  - ◊ Brazil: 55
  - ◊ India: 91
  - ◊ Ireland: 353
  - ◊ New Zealand: 64
  - ◊ Singapore: 65
  - ◊ South Africa: 27
  - ◊ United Kingdom: 44

Data.com Clean—Beta

Data.com Clean is in beta for the Spring '12 release.

Data.com Clean is an important part of Salesforce's Data.com offering. You can use Data.com Clean to make sure your CRM records are always up to date. Clean works for all the account, contact, and lead records you have access to in Salesforce—not just those you previously added from Data.com.

Note: You can also use clean features available from the Jigsaw for Salesforce AppExchange package. For more information, see Data.com Overview on page 113.



Beta Limitations

In the Spring '12 release, Data.com Clean does not allow system administrators to create and schedule automated jobs that link individual Salesforce records to individual Data.com records and provide clean status information on account, contact, and lead records. This means that a record's `Clean Status` field may not be accurate unless the user manually cleans the record.

Implementation Tips

For guidelines on implementing Data.com Clean, see:

- Data.com Overview on page 113
- Implementing Data.com on page 115

Cleaning Records with Data.com Clean

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

User Permissions Needed	
To clean account records:	“Edit” on accounts
To clean contact records:	“Edit” on contacts
To clean lead records:	“Edit” on leads

Note: Data.com Clean is in beta for the Spring ’12 release.

Use Data.com Clean to make sure your CRM records are always up to date.

Clean works for *all* the account, contact, and lead records you have access to in Salesforce—not just those you previously added from Data.com. Start from the record’s `Clean Status` field.

1. Check the record’s `Clean Status` field.
2. If the status is not `In Sync`, or if it’s been a while since an `In Sync` record was compared, click **Clean** to compare the Salesforce record with Data.com’s.

   Tip: You can also get additional status information, and clean a record directly from the `Clean Status` field. Just click the status icon and the popup will guide you.

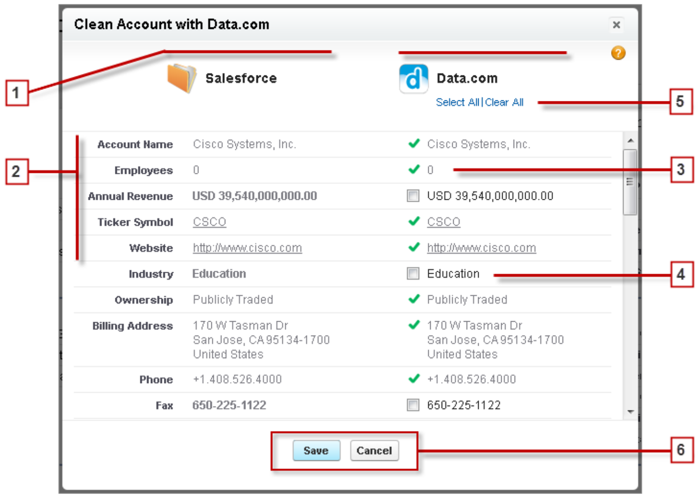
3. Compare the two records side by side. You’ll see a check mark next to any Data.com field value that matches the corresponding value in your Salesforce record.
4. Select the check box next to any Data.com value you want to accept.
5. Click **Save** when you’re satisfied that the record is accurate, even if you don’t accept any data from Data.com.
   The `Clean Status` field reflects the record’s current status. If you click **Cancel**, the record’s status will not change. The `Clean Status` field’s time stamp will be updated to reflect your activity.

Comparing Salesforce and Data.com Data at a Glance

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

Note: Data.com Clean is in beta for the Spring ’12 release.

When you clean a Salesforce account, contact, or lead record, you compare the data in your Salesforce record with data from Data.com. Cleaning records is easier if you understand how to read and use the comparison page. Here’s what you’ll find there.



1. The columns present Salesforce and Data.com records side by side, so you can easily compare the data from each source.
2. Field names appear on the left. If a field is blank, that means the source (Salesforce or Data.com) has no data for that field.

Note: Some account and lead fields are available only to organizations that purchase Data.com Corporate.

3. If your Salesforce data matches Data.com's you'll see a green checkmark (✔) for that field in the Data.com column.
4. If Data.com has data for a field that's blank or different in Salesforce, you'll see a checkbox. Select it to accept Data.com's data.
5. The **Select All** and **Clear All** links do just what they say.
6. Click **Save** when you're satisfied that you have the data you want, even if you don't make any changes. The Salesforce record's clean status will be updated to `Reviewed` or `In Sync`. Click **Cancel** if you decide not to compare the two records. In that case, the Salesforce record's clean status won't change.

Note: You can't see the entire `D-U-N-S Number` value for an account (on the comparison page or the account card) until the account has been added to Salesforce from Data.com or (for existing records) cleaned with Data.com. Until you add or clean the record, the number's first five digits are masked with asterisks (*).

Understanding Data.com Clean Status

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

Note: Data.com Clean is in beta for the Spring '12 release.

If you use Data.com, the Salesforce CRM records you have access to show a status message in the `Clean Status` field.

To *clean* a record is to bring it up to date with the values you want—either accepting some or all of the latest values from Data.com, or keeping all of the values in the Salesforce record. If a user has compared two records and opted to keep one or more values from the Salesforce record, the record's status is `Reviewed`. If the Data.com and Salesforce records are identical, either before or after they've been compared by a user, the Salesforce record's clean status is `In Sync`. Both `Reviewed` and `In Sync` records are considered *clean*.

This table explains each clean status message and tells you how to clean records in other states (such as `Not Compared` and `Different`).

Clean Status	Definition	How to Clean the Salesforce Record
`Not Compared`	Either the Salesforce record has never been compared with any Data.com record or the Salesforce record has been edited and not compared again.	Click **Clean** and compare the records side by side. If you want to keep all of the values in the Salesforce record, click **Save**. The Salesforce record's clean status changes to `Reviewed`. If you want to accept any or all of the Data.com values, select the checkboxes as appropriate, then click **Save**. The Salesforce record's clean status changes to `Reviewed` and until: • The two records are identical (`In Sync` status) • The record is updated in Salesforce or Data.com (`Different` status) • The record becomes inactive in Data.com (`Inactive` status)
`In Sync`	When your Salesforce record was last compared with the Data.com record, the two were identical. Records in `In Sync` status are considered to be clean, but you can repeat the clean process.	Click the icon in the `Clean Status` field and check the time stamp to see when the record was last compared. If it's been a while, click **Clean** and see if anything has changed. Clean the record if you need to.
`Reviewed`	When your Salesforce record was last compared with the Data.com record, the user who compared them accepted one or more field values from the Data.com record and kept one or more values from the Salesforce record. Records in `Reviewed` status are considered to be clean, but you can repeat the clean process.	Click **Clean** and compare the records side by side. Accept or skip Data.com values as appropriate. The Salesforce record will remain in `Reviewed` status until: • The two records are identical (`In Sync` status) • The record is updated in Salesforce or Data.com (`Different` status) • The record becomes inactive in Data.com (`Inactive` status)

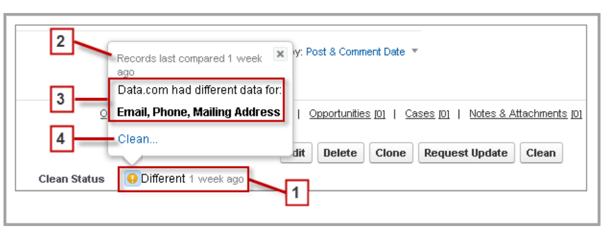
Clean Status	Definition	How to Clean the Salesforce Record
`Different`	The Salesforce record has different data from the corresponding Data.com record.	Click **Clean** and compare the records side by side. Accept or skip Data.com values as appropriate. The Salesforce record will remain in `Different` status until: • The two records are identical (`In Sync` status) • A user reviews the two records and keeps one or more values from the Salesforce record (`Reviewed` status). • The record becomes inactive in Data.com (`Inactive` status)
`Not Found`	The Salesforce record has no similar records in Data.com record.	The record can't be cleaned in Salesforce because no Data.com record could be associated with it.
`Inactive`	The Data.com record corresponding to the Salesforce record has been marked inactive.	You currently can't clean records whose status is `Inactive`.

Working with a Record's Data.com Clean Status

Available in: **Contact Manager**, **Developer**, **Enterprise**, **Group**, **Professional**, and **Unlimited** Editions

Note: Data.com Clean is in beta for the Spring '12 release.

The `Clean Status` field on account, contact, and lead records shows you the record's Data.com Clean status at a glance, including when the status was last updated. But if you click the icon next to the status, you'll get more status details, plus options for refreshing the status. Depending on the status, you can also clean some records right from the `Clean Status` field. Here's an example that shows some of your options.



1. This record's status is `Different` because when it was last compared, one week before, the records in Salesforce and Data.com had different values for some or all of their fields. The user who compared the records previously may have

accepted some values from Data.com or elected to keep all of the Salesforce data. Click the icon to view the popup, which provides additional information and Clean options.

2. This line tells you about the Salesforce record's most recent comparison activity.

   In this case, a user compared the Salesforce account record with Data.com's version one week ago.

3. This section provides more details about the comparison. In this case, Data.com had *different* `Email`, `Phone`, and `Mailing Address` values for the contact. The user who compared the records previously may have accepted other values from Data.com when he or she compared the records, or elected to keep all of the Salesforce data.
4. You can click the **Clean...** link to compare the Salesforce and Data.com records yourself. If you don't accept any data from Data.com, the record's status will continue to be `Different`.

FORCE.COM

APPFORCE

Force.com System Overview

Available in: All Editions except **Personal** Edition

User Permissions Needed	
To view the system overview page:	"Customize Application"

Note: The system overview page shows only the items enabled for your organization. For example, your system overview page shows workflow rules only if workflow is enabled for your organization.

Starting in Spring '12, the system overview page shows usage data and limits for your organization, and displays messages when you reach 95% of your limit (75% of portal roles). Click statistics to get more details about your usage. If it's available, use Checkout to increase usage limits for your organization. For example, if your organization reaches the limit for licenses, the system overview page shows a notification. Click the link to clean up any unused licenses, or visit Checkout to increase your limit for licenses.

The system overview page displays usage for:

- Schema
- API usage
- Business logic
- User interface
- Most used licenses
- Portal roles

Configuring Force.com System Overview Messages

Available in: All Editions except **Personal** and Database.com

User Permissions Needed	
To configure Force.com messages:	"Customize Application"

Note: The system overview page shows only the items enabled for your organization. For example, your system overview page shows workflow rules only if workflow is enabled for your organization.

Add system overview usage messages to the Force.com home page to remind you when your organization approaches its limits. You can expand, collapse, and dismiss the system overview messages that appear on the Force.com home page. The system overview home page messages are not enabled by default.

To enable the system overview messages on the Force.com home page:

1. Click ***Your Name*** > **Setup** > **System Overview**.
2. Click **Configure Force.com Messages**.
3. Select the types of system overview messages to show on the Force.com home page.
4. Click **OK**.

Important: System overview messages only appear on the Force.com home page when your organization approaches its limits.

When you enable or dismiss system overview messages on the Force.com home page, it only impacts your individual view of the system overview messages.

Visual Workflow Enhancements

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Visual Workflow To Be Enabled for All Enterprise and Unlimited Editions

Starting with Spring '12, all new and existing Enterprise or Unlimited Edition organizations will have Visual Workflow enabled automatically.

Cloud Flow Designer—Generally Available

With Spring '12, the Cloud Flow Designer is now generally available. The Cloud Flow Designer is native to Salesforce. With it, you can create new flows and manage their content directly from the flow list and detail pages.

Flows in the Metadata API

You can now use the Metadata API to create, access, and edit cloud-based flows. For all the details, see the new Flow metadata type in the *Force.com Metadata API Developer's Guide*.

Flows in Change Sets and Packages

Flows created in the Cloud Flow Designer can now be included in change sets and in both managed and unmanaged packages. For more information, see “Flows in Change Sets and Packages” in the online help.

Flow Version Limit Increased

We’ve increased the number of versions allowed for each flow to 50.

Flow Administrator Permission Change

Flow administrators no longer need the `Force.com Flow User` field enabled on their user detail page in order to run flows. All you need is the “Manage Force.com Flow” permission.

Record Delete Element

Starting in Spring ’12, use a Record Delete element in the Cloud Flow Designer to delete one or many records, depending on how you set your filter criteria.

Important: Things to note when using a Record Delete element:

- Be careful when testing flows that contain Record Delete elements. Even if the flow is inactive, running it will trigger the delete operation.
- To prevent deleting records by mistake, be as specific in your filter criteria as possible.
- Records are deleted from your organization the moment the flow executes the Record Delete element.
- Deleted records are sent to the Recycle Bin and remain there for 15 days before they are permanently deleted.

For more information, see “Adding and Configuring a Record Delete Element” in the online help.

Decision Element No Longer Boolean

The Decision element in the Cloud Flow Designer has been enhanced to handle multiple outcomes. You can now create many outcomes and define discrete conditions for each. When you draw a connector from the Decision element to other elements, you may then choose which outcome to assign to that connector.

Note: When you open a flow from Winter ‘12 that contains a Boolean decision, the old Decision element is converted to the Spring ‘12 multi-outcome format. The Boolean outcomes from the old decision become a set of True and False outcomes in the new Decision element.

For example, let’s say you have a Boolean decision from Winter ‘12 with the name “My Decision” and unique name of “my_decision”. After the conversion, the new decision retains the name “My Decision” but the unique name is appended with ”_switch”, becoming “my_decision_switch”. The new decision has two pre-configured outcomes: a default outcome labeled “False”, and another outcome labeled “True” with the unique name “my_decision” and a set of conditions migrated from the True outcome of the old decision.

Label Fields Now Rich Text

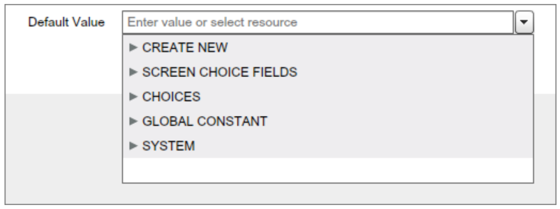
In the Cloud Flow Designer, anywhere you can create a label for a field, you can now customize the label using a rich text editor.

Choices as Flow Resources

In Spring ‘12, choices and dynamic choices have become standalone resources. As a result, any choice option you create, either directly within the Screen element or from the Resources tab, can be referenced and reused elsewhere in your flow.

Global Constants

In any value or resource drop-down list in the Cloud Flow Designer, you may see a section called GLOBAL CONSTANT. Global constants are system values that, depending on the context of the drop-down list, let you assign `EmptyString`, `True`, or `False` as the value for that field.



For example, when creating a variable of type `Boolean`, if you click on the arrow button to the right of the `Default Value` field and expand the GLOBAL CONSTANT section, you'll see `$GlobalConstant.True` and `$GlobalConstant.False`. However, when creating a variable of type `Currency`, the GLOBAL CONSTANT section isn't available. Visibility of this section depends on the data type of the resource you're working with.

Cross-Object Workflow

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

You asked for it! This enhancement is from an idea on IdeaExchange.

With Spring '12, cross-object field updates in workflow rules and approval processes now support standard objects. Both custom-to-standard and limited standard-to-standard relationships are supported.

Custom Object to Standard Object

You can use cross-object field updates for custom objects that are children of certain standard objects in a master-detail relationship. The standard objects which support cross-object field updates are:

- Account
- Asset
- Campaign
- Case
- Contact
- Contract
- Contract Line Item
- Entitlement
- Opportunity
- Order
- Question
- Quote
- Service Contract
- Solution

Standard Object to Standard Object

You can now use cross-object field updates for standard objects that are children of standard objects in a master-detail relationship. However, only a few standard-to-standard relationships are supported.

Case Comments updating Case and Email updating Case were supported previously. The new relationships that we've opened up are:

- Opportunity Product updating Opportunity

  Note: Cross-object field updates to a parent opportunity's `Amount` and `Quantity` fields only work if the opportunity has no opportunity products associated with it.

- Opportunity updating Account—Supported for both business accounts and person accounts.

Global Search Enhancements

Available in: **All** Editions except **Database.com**

Improved Search Results Relevancy

Continuing in Spring '12, Salesforce is improving relevancy in search results. The order of your search results might change as a result of moving more popular matches higher in your list. These relevancy improvements also affect SOSL search results.

Smart Search

You asked for it! Spring '12 addresses this idea on IdeaExchange.

With Spring '12, global search keeps track of which objects you use and how often you use them, and arranges the search results accordingly. Search results for the objects you use most frequently appear at the top of the list. You can also pin important objects to the top of your search results.

You might notice these changes in your search results:

- Search results are no longer listed alphabetically. Objects are ordered by how frequently you use them. You can change the result order by pinning objects to the top of your results.
- **Options...** moved from under the header search box to next to the search box in the results page. Use these options to restrict your search to items you own, if available; to exact phrase searches; and to divisions, if your organization uses them.
- If you previously clicked **Options...** to select the objects you want to search, you might see results for different objects. If you're missing an object, click **Search All** and pin any missing objects to the top of your search results.
- If you previously searched all objects, you might now have a search scope based on which objects you use most frequently. Click **Search All** to expand your search, and pin objects to the top of your search results to keep them in your scope.
- If global search doesn't have enough information about which objects you use, you see results for your previous saved scope or for all objects until it has more information.

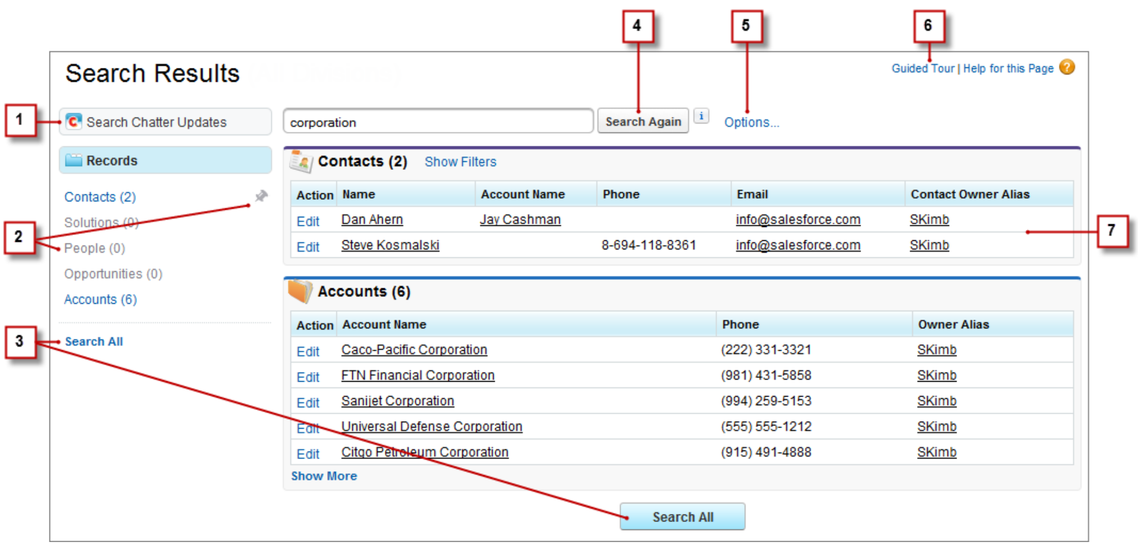
For more information, see Global Search Results.

Global Search Results

Available in: **All** Editions except **Database.com**

[Watch a Demo on Smart Search](#) (2:12 minutes)

Your search results include items and tags that you have permission to view. Global search keeps track of which objects you use and how often you use them, and arranges the search results accordingly. Search results for the objects you use most frequently appear at the top of the list. If global search doesn't have enough information about which objects you use, you see results for your previous saved scope or for all objects until it has more information.



From this page you can:

1. Click **Search Chatter Updates** at the top left of the page to see Chatter posts and comments that include your search terms.

   On the Chatter updates results page, save a topic or search result to your favorites on the Chatter page by clicking **Add to Chatter Favorites**.

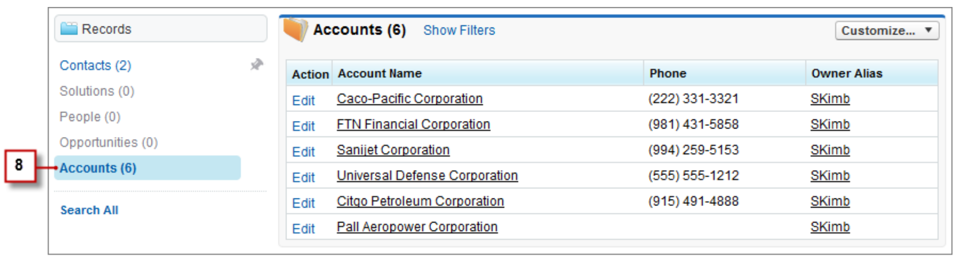
2. Quickly see which items (ordered by most frequent use) were searched.

   - Click any item to see only that item's results.
   - Hover over and pin important items to the top of your results to manually change the order. You can always unpin them later.

3. Click **Search All** at the bottom of the left side or under the related lists to do a one-time search across all items using your current search terms.

   After clicking **Search All**, you can pin items that don't appear in your scope to the top of your search results. You can always unpin them later.

4. Use the search box in the page to search within your current view. For example, if you drill down to view Chatter Updates and then decide to search Chatter for something different, enter your new search terms and click **Search Chatter Updates** to search across all Chatter posts and comments.
5. Click **Options...** to restrict your search to records you own, if available, to exact phrase searches, and to divisions, if your organization uses them.
6. Take a guided tour of the search results.
7. See up to five results for each item you searched.
   - Click a result to open it or click **Edit**, if available.
   - Click **Show Filters**, if available, to filter your search results.
   - Click **Show More** to drill down to the full list of that item's results.



8. Drill down to a specific item's results, and then:
   - Click **Show Filters**, if available, to filter your search results.
   - Click **My Columns** to customize columns in your search results.
   - (Administrators only) Click **Customize...** to customize filters and specify search results columns and column order for all users' search results.

Visualforce Enhancements

Available in: **Group**, **Professional**, **Enterprise**, **Unlimited**, and **Developer** Editions Custom controllers and standard controller extensions are not supported in **Group** or **Professional** Editions.

Spring '12 introduces several new features that enhance the capabilities of previous versions of Visualforce. For detailed information on these new features, see the *Visualforce Developer's Guide*.

Visualforce Components for Chatter Answers

Spring '12 introduces Chatter Answers, which integrates Cases, Answers, Force.com Sites, Customer Portal, and Salesforce Knowledge to provide you with a Web community for your customers. When administrators enable Chatter Answers, seven Visualforce components are automatically added to your organization so that you can set up and customize communities. See Visualforce Pages for Chatter Answers in the Salesforce online help.

Visualforce Components for Live Agent

Spring '12 introduces Live Agent, which lets support agents chat with customers in a customized console within Salesforce. Enabling Live Agent automatically adds eight Visualforce components to your organization so you can create and customize chat windows. See Setting Up Live Agent in the Salesforce online help.

Visualforce Component for Chatter

Starting in Spring '12, Salesforce provides the `<chatter:newsfeed/>` Visualforce component. The component displays the feed updates on the Chatter tab of the user viewing the Apex page that contains the embedded `<chatter:newsfeed/>` component.

The `<chatter:newsfeed/>` component offers different functionality than the `<chatter:feed/>` component. The `<chatter:feed/>` component displays only the Chatter updates on a user's profile page or a record's detail page.

Visualforce Component for Social Accounts and Contacts

New in Spring '12, the Social Accounts and Contacts feature includes Visualforce for Social Accounts and Contacts. This new `<social:profileViewer/>` component allows you to easily add the Social Accounts and Contacts viewer to your custom account, contact, and lead detail pages. The viewer displays the record name, a profile picture for the account, contact, or lead, the social network icons that allow users to sign in to their accounts from Salesforce, and the popup that displays social data directly in Salesforce. See Social Accounts, Contacts, and Leads Overview in the Salesforce online help.

Here are a few notes to help with implementing this component.

- It's only available for custom account, contact, and lead detail pages and can only be used once on a page.
- It isn't available for Visualforce pages on Force.com sites.
- Social Accounts and Contacts must be enabled to use it.

Dynamic Visualforce Components—Generally Available

Dynamic Visualforce is generally available in Spring '12, with dynamic components now supported in production code and managed packages.

Dynamic Visualforce components offer a way to create Visualforce pages that vary the content or arrangement of the component tree according to a variety of states, such as a user's permissions or actions, user or organization preferences, the data being displayed, and so on. Rather than using standard markup, dynamic Visualforce components are designed in Apex.

A dynamic Visualforce component is defined in Apex like this:

```
Component.Component_namespace.Component_name
```

For example, `<apex:dataTable>` becomes `Component.Apex.DataTable`.

Note: The Standard Component Reference contains the dynamic representation for all valid Visualforce components.

Visualforce components that are dynamically represented in Apex behave like regular classes. Every attribute that exists on a standard Visualforce component is available as a property in the corresponding Apex representation with get and set methods. For example, you could manipulate the `value` attribute on an `<apex:outputText>` component as follows:

```
Component.Apex.OutputText outText = new Component.Apex.OutputText();
outText.value = 'Some dynamic output text.';
```

Dynamic Visualforce is a powerful feature for advanced developers, and you'll want to read about it in depth before using it. See Dynamic Visualforce Components in the *Visualforce Developer's Guide*.

Dynamic References to Global Variables—Generally Available

Visualforce dynamic bindings adds support for dynamic references for global variables such as `$ObjectType`, `$Resource`, and `$Action`.

A simple example of using this is to allow dynamic references to static resources:

```
<apex:page controller="logoController">

  <h1>Logo Test</h1>
  This is a dynamic reference to a static resource:
  <apex:image value="{!$Resource[customLogo]}"/>

</apex:page>
```

`customLogo` refers to a method in the page controller:

```
public class logoController {

    public string getCustomLogo() {
        return('MyLogo');
    }

}
```

This controller method returns a string, which is used to dynamically reference a graphic stored in a static resource, using the global `$Resource` variable. You can dynamically return a graphic customized for the user's role, the data being displayed, the value of a custom setting, and so on. Use `$Action` to dynamically change links based on the data being displayed, and use `$ObjectType` to work with a wide variety of object metadata.

To learn more about this powerful new feature, see Dynamic Visualforce Bindings in the *Visualforce Developer's Guide*.

Single View State

The Spring '12 release has a new performance enhancement, Single View State. This is an optimization to how the view state is encoded and sent for Visualforce forms. This optimization can reduce the amount of data transmitted between Salesforce servers and browser clients, and reduce processing time on the server, as well as in the browser. This can improve the responsiveness of complex Visualforce pages. View state optimization is performed automatically and transparently for new and existing Visualforce pages. You don't have to do anything to take full advantage of this improvement.

Although this optimization will have minimal-to-zero impact, it is a change from past behavior in Visualforce, and we expect that customers will want to proceed cautiously. Single View State will initially only be enabled for customers who request it. The enhancement will be generally available and rolled out to all customers at a later date. Contact salesforce.com to have Single View State enabled for your organization.

To assist customers with their validation processes, here are some technical details regarding Single View State. The specific enhancement is to only include one copy of the view state per Visualforce page, no matter how many forms are on that page. Previously every form on a page had a redundant copy of the view state, embedded in the form using a hidden input field. If there were many forms on a page, this added up, increasing the amount of data that needed to be transferred every time a page was loaded.

With Single View State enabled, Visualforce will only include one copy of the encoded view state, in a hidden input field at the beginning of the page content. When a form is submitted the view state is dynamically attached to the form via JavaScript and then submitted normally.

The enhancement makes a long-standing "best practice" obsolete. While we still recommend that you don't overload Visualforce pages with too much functionality all on one page, you no longer need to worry about using multiple forms on a page. Using multiple forms will no longer "bloat" your page with extra copies of the view state.

PDF Optimizations and Limits

In Spring '12, PDF generation of Visualforce pages that include images has been optimized. The time to generate pages using `renderAs="PDF"` should be reduced and the resulting PDF files are smaller. The optimization is most significant for pages with repeating images.

Also, two new limits have been added. They ensure the PDF optimizations are effective and evenly applied to all customers:

- Maximum PDF file size: 60 MB
- Maximum total size of all images included in a PDF: 30 MB

These limits are intended to prevent unintentional runaway PDF file generation. Customers with Visualforce pages that generate large PDF files that exceed these limits can contact salesforce.com to arrange for short-term increased limits.

More Strict Validation for Input Components `value` Attribute

When you save a page, the `value` attribute of all input components—`<apex:inputField>`, `<apex:inputText>`, and so on—is validated to ensure it's a single expression, with no literal text or white space, and is a valid reference to a single controller method or object property. Beginning with pages saved using API version 24.0, this error checking is more strict for two specific cases:

- An empty expression "`{!}`" is treated as an error instead of silently doing nothing.
- An incomplete expression, such as "`{!someProp`", which is missing the trailing "`}`", is treated as an error instead of displaying as literal text.

Pages saved using API version 23.0 or earlier are subject to the previous validation behavior for input components. If you want less strict validation, keep your pages saved in API version 23.0 or earlier.

Referential Integrity Validation Improvements

With additional referential integrity checking it is now more difficult to unintentionally break a Visualforce page by making a change to an Apex class, or changes to objects, custom settings, labels, or fields sets in the Salesforce application.

Visualforce JavaScript Remoting Response Compression

JavaScript Remoting responses are now compressed, significantly reducing payload size. This optimization is transparent, and results in improved response times.

Other Optimizations

Spring '12 also brings a larger-than-usual collection of internal optimizations to improve the performance and robustness of Visualforce. You won't see them, but we think you'll feel them.

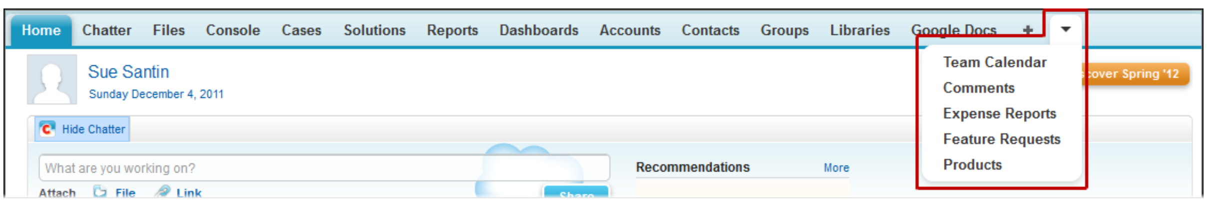
Additional Appforce Enhancements

Tab Bar Organizer

Available in: **Personal**, **Contact Manager**, **Group**, **Professional**, **Enterprise**, and **Unlimited** Editions

User Permissions Needed	
To modify user interface settings:	"Customize Application"

In Spring '12, we're pleased to introduce the Tab Bar Organizer. The Tab Bar Organizer automatically arranges tabs in the main tab bar to prevent horizontal scrolling of the page. It dynamically determines how many tabs can display based on the width of the browser window and puts tabs that extend beyond the browser's viewable area into a drop-down list.



Note the following considerations:

- The Tab Bar Organizer isn't available with the partner portal or Customer Portal.
- The Tab Bar Organizer is only available with the new user interface theme. Organizations using the old user interface theme can enable the feature, but it won't be available for users until the new theme is also enabled.
- The Tab Bar Organizer isn't available on Internet Explorer 6.

The Tab Bar Organizer is enabled by default. To disable it:

1. Click ***Your Name*** > **Setup** > **Customize** > **User Interface**
2. Deselect the `Enable Tab Bar Organizer` checkbox.
3. Click **Save**.

Field Updates for Encrypted Custom Fields

With Spring '12, we've expanded the reach of workflow field updates to include encrypted custom fields. Note, however, that if you try to use a formula to set an encrypted custom field's new value, the encrypted custom field isn't available in the formula editor as a resource.

Workflow Field Updates Can Retrigger Workflow Rules

We added a new checkbox option to workflow field updates that allows you to select whether you want a field update to trigger a re-evaluation of all workflow rules on the object.

Here's how it works:

- If the field update changes the field's value, all workflow rules on the associated object are re-evaluated. Any workflow rules whose criteria are met as a result of the field update will be triggered.
- If any of the triggered workflow rules result in another field update that's also enabled for workflow rule re-evaluation, a domino effect occurs, and more workflow rules can be re-evaluated as a result of the newly-triggered field update. This cascade of workflow rule re-evaluation and triggering can happen up to five times after the initial field update that started it.
- In a batch update, workflow is only retriggered on the entities where there is a change.
- Only workflow rules on the same object as the initial field update will be re-evaluated and triggered.
- Only workflow rules that didn't fire before will be retriggered.
- Cross-object workflow rules and time-based workflow rules aren't candidates for re-evaluation.
- Cross-object field updates that cause a field value to change don't trigger workflow rule re-evaluation on the associated object.

Force.com Quick Access Menu Enhancements

In Spring '12, you can use your keyboard to scroll down the options of the menu. Press ALT+; to open the menu, and press TAB to scroll down the menu. Press ENTER to select an option on the menu.

Custom Tab Detail

With Spring '12, you can view the custom tab details of your app from the App Detail page. To view custom tab details from the App Detail page, click on a custom tab in the Included Tabs list to view details.

App Quick Start Enhancements

Starting in Spring '12, users will need to have "Customize Application" and "Manage Users" enabled to create an app with App Quick Start.

The App Quick Start now:

- Generates a permission set that grants access to the new custom object.
- Assigns the permission set to the user who creates the app.

With Spring '12, you can add new fields to your app with the App Quick Start. After you click **Create** in the App Quick Start, click **add more fields here** to add new fields to your new app.

SITEFORCE

Siteforce Enhancements

Available for purchase in: **Enterprise** and **Unlimited** Editions Available (with limitations) in: **Developer** Edition

For publishers, Spring '12 introduces Siteforce dynamic data services, which combine many new features that let you connect to Salesforce objects. Retrieve data from your organization's objects and dynamically display it on your site pages, or alternatively, gather and submit data from your customers using web-to-object forms.

The following examples illustrate a few ways to use Siteforce data services:

- Publish a catalog of products—List your company's products and include information, such as model numbers and prices, pulled dynamically from your organization.
- Post company press releases—Publish your company's press releases and sort by publication date.
- Create a realtor website—Display current listings filtered by city or price.
- Create a recruiting website—Post job openings to a public site and allow visitors to submit applications and resumes.

For publishers, Spring '12 also introduces selective publishing, which lets you publish selected items only, and folder management features for organizing your site content, along with URL redirects, custom HTML attributes, and new HTML5 additions.

Plus, we've revamped the Overview tab in Siteforce Studio for both publishers and contributors, and reorganized the way site components are displayed.

Repeaters and Repeater Elements—Generally Available

With the Spring '12 release, repeater and repeater elements are now generally available to publishers. Together, these two page elements let you connect to standard and custom objects, retrieve data, and dynamically display it on your site's pages. And when you update data in an object, the changes are reflected automatically on the live site—no site updates required!

A repeater:

- Connects to a standard or custom object and returns a data set based on the filter criteria that you specify.
- Contains repeater elements that are directly related to individual fields in the Salesforce object.
- Can contain custom code that can access the object's fields. It can also contain other page elements that can't access the object's fields, such as panels for layout.
- Can be controlled with a custom button that lets users page through the data for easy viewing.

A repeater element, which must be contained in a repeater, binds to a field in the Salesforce object. Each repeater element acts as a placeholder that displays the content of a specified field for the current record.

Together, the repeater and repeater elements result in a "repeating template" that displays one or more records on the page. You can access these two page elements from the Page Elements pane in Siteforce Studio when a page is open. You can also style the repeater and its elements as you would any other page element.

See "Using a Repeater to Retrieve Data" and "Displaying Data in a Repeater Using Repeater Elements" in the online help.

Data Tables

In addition to repeaters and repeater elements, we've introduced data tables as another way for publishers to connect to standard or custom objects, filter and retrieve data, and display the records on the page. The records are automatically displayed in a table which you can quickly customize using themes. To add a data table to your page, drag it from the Page Elements pane in Siteforce Studio onto the page canvas. See "Using a Data Table to Retrieve Data" in the online help.

Data Functions

Spring '12 enhances data services features with the introduction of data functions. Publishers can use this page element to connect to standard or custom objects, perform calculations on the returned results, and display the calculation on the page. For example, for a particular field in an object, you can use a data function to calculate the total value or the average amount of all returned records. Combine it with other data services features like forms to collect comments from your customers and display the number of comments received. Add a data function to a page by simply dragging it from the Page Elements pane in Siteforce Studio onto the page canvas. See “Using Data Functions” in the online help.

Repeater and Data Table Pagination (Pilot)

When working with repeaters and data tables, publishers can let users page through the displayed data by adding one of three new pagination events. These events—Previous Page, Next Page, and Go To Page—are available in the Events pane in Siteforce Studio when the page is open. This feature is particularly useful when working with large amounts of data. See “Adding Pagination to Repeaters and Data Tables” in the online help.

Note: The pagination feature is currently available through a pilot program. For information on enabling it for your organization, contact salesforce.com

Web-to-Object Forms

Forms complete the Siteforce data services feature set by letting you submit data to your organization’s standard or custom objects. Create web-to-object forms that capture customer details, or gather feedback on your products or services. As with the other data page elements, publishers can add a form to a page via the Page Elements pane in Siteforce Studio. See “Adding a Form to the Page” in the online help.

Data Access Permissions

Sites built with Siteforce are publicly available, so visitors access the site via the Guest User license that’s associated with the site. By default, site visitors have access to information made available in an active public site, such as the site’s pages and assets. To allow guest users to view data from standard or custom objects on a site page, however, you must edit the site’s guest user profile. Each site has a separate Guest User license, so you can control data access on a per-site basis.

Available for purchase in: **Enterprise** and **Unlimited** Editions

Available (with limitations) in: **Developer** Edition

User Permissions Needed	
To build and publish Siteforce sites:	`Siteforce Publisher User` field enabled on the user detail page
To edit the guest user profile:	“Manage Users” AND “Customize Application”

To edit the guest user profile:

1. On the Overview tab of Siteforce Studio, click **Site Configuration** and click ***`Site Name`*** **Profile**. Alternatively, if you're adding a repeater, data table, data function, or form to the page, click **go to the guest user profile** in the item's dialog box.
2. In the site's guest user profile, enable the "Read" permission on the standard or custom objects you want to retrieve data from using repeaters, data tables, or data functions. Enable the "Edit" permission on the objects you want to submit data to using forms. All permissions that aren't set by default must be set manually. See "User Profiles Overview" in the online help.
3. If required, modify the field-level security of an object. See "Setting Field Permissions in Permission Sets and Profiles" in the online help.

Selective Publishing

When you update your site, instead of publishing the entire site, you can publish only the items you want. This can speed up publishing considerably, especially if you have a large site. When you click **Publish Changes...**, you see a list of all changes that were made since the last time the site was published. Items are listed by type and include all changed pages, templates, style sheets, and assets, which you can select or deselect. If an item has dependencies, they will be selected along with the main item. For example, if you select a page, but you actually changed both the page and the style sheet it relies on, the style sheet is also automatically selected. Click **View** to see the list of dependencies. You can deselect a dependency as long as it's not a critical dependency. Critical dependencies are noted with a red dot.

See "Publishing Parts of Your Site" in the online help.

Folder Manager

As a publisher, you can manage folders and items using the All Site Content view on the Overview tab in Siteforce Studio. From All Site Content, you can:

- Create and manage folders and files
- Import assets
- Create site pages
- Create page templates
- Create style sheets

This flexibility lets you organize your site in a way that makes sense to you. You can also manage your assets from the All Site Content view without switching to the individual views for pages, style sheets, and assets.

URL Redirects

If you move or reorganize pages in your site, search engines may have trouble finding the new page locations. To avoid this, publishers can set up URL redirects to inform users and search engines that site content has moved.

You can use URL redirects to:

- Maintain search engine ranking. For example, if you change a page's name from "Gadgets" to "Widgets," creating a redirect rule from `/Gadgets` to `/Widgets` lets you restructure the site without affecting your page ranking.
- Make URLs more readable and memorable. For example, site visitors will find long or numeric page names, such as `/widget65AD890004ab9923`, difficult to remember. Instead, you can provide them with a short, friendly URL, such as `/widget`, and create an alias that redirects to the correct page when the user uses the short URL alias.

- Assist with migration from another system to Siteforce if you're still using the same domain. For example, if your old site ran on PHP, you can create a redirection rule from an old page, such as `/index.php`, to a new page in Siteforce, such as `/myNewPage`.

To add redirects to your site, click **Site Configuration** > **URL Redirects** on the Overview tab in Siteforce Studio. See "Creating URL Redirects in Siteforce" in the online help.

Custom HTML Attributes

Publishers can add custom HTML attributes to pages and page elements, which are rendered on the HTML tag of the page element. For example, this is useful when working with third-party frameworks that render page elements differently based on certain attributes. See "Adding Custom HTML Attributes" in the online help.

HTML5

As a publisher, you can now set a page's doctype property to HTML5, and take advantage of several semantic HTML5 elements that describe the content they contain. See "Changing a Page's Doctype Property" and "Changing a Panel's Render Tag Property" in the online help.

Import, Export, and Duplicate Sites

The import, export, and duplicate site features are especially helpful if you don't want to start from scratch to build a new site. Available from the Siteforce tab in the Siteforce app, these features save time and money, because you can reuse all or parts of existing sites. For example, let's say you have several ideas for home page layouts. Using the duplicate feature, you can create one initial site, duplicate it, and then make the other prototypes. The export and import features allow you to export an entire site to your hard drive, and then import it into another org. Only users with the "Manage Users" and "Customize Application" permissions, and the `Siteforce Publisher User` field enabled on their user detail page can duplicate, import, and export sites.

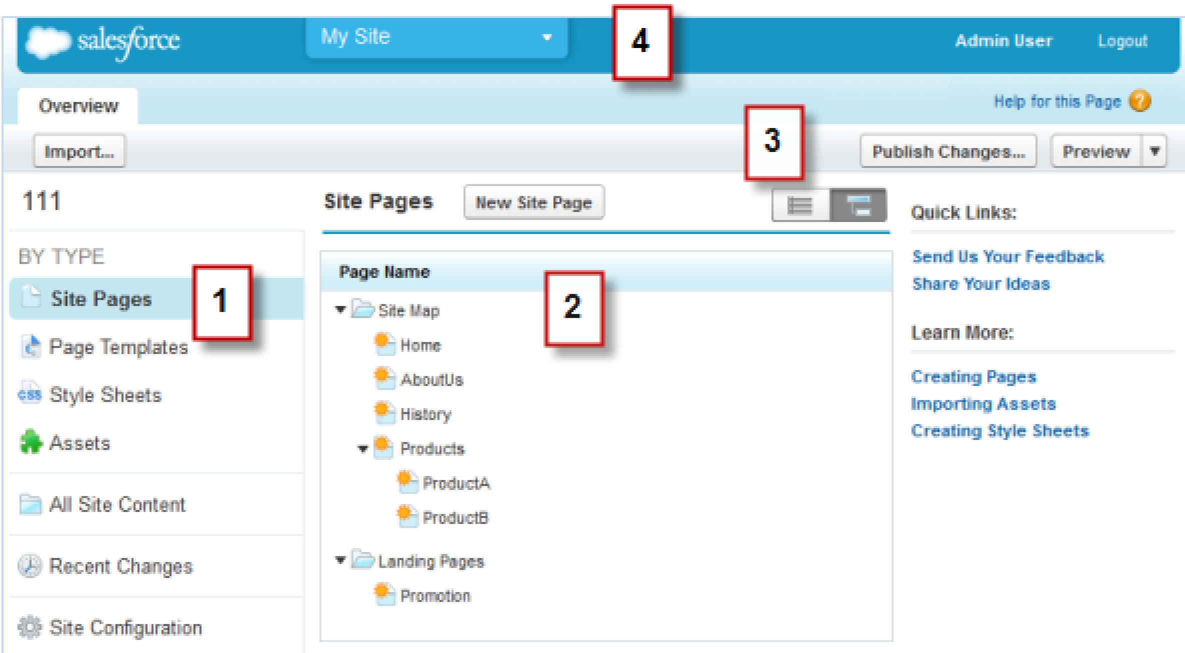
See "Duplicating a Siteforce Site," "Exporting a Siteforce Site," and "Importing a Siteforce Site" in the online help.

Reorganized Overview Tab

We're reorganized the Overview tab in Siteforce Studio for both publishers and contributors. This is the tab you first see when you open a site in Siteforce Studio.

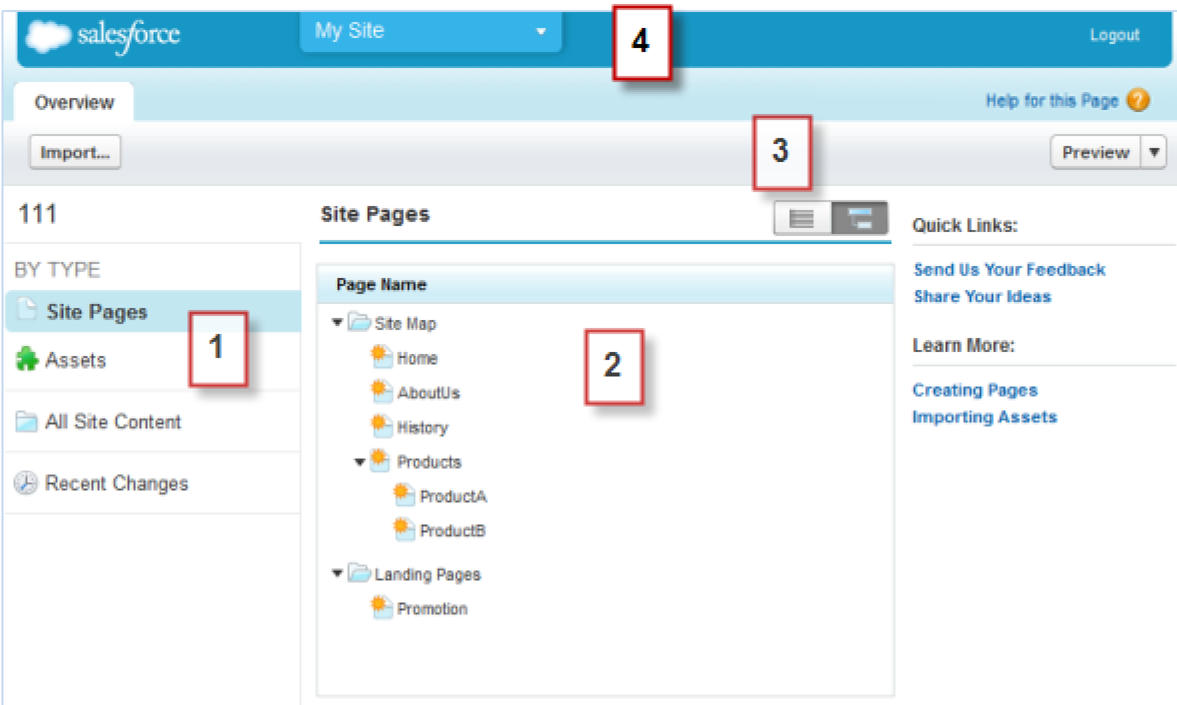
For publishers, who use the Overview tab to access and manage the site's components, and configure the site's properties:

- Site content is now grouped by type into several views.
- The **Site Properties** button has been moved and renamed. You can now set your site properties in the Site Configuration view.
- The **Manage Domains** button has also been moved. Now you can access Manage Domains under the Site Configuration view.



- Select a view (1) on the Overview tab to view its contents (2).
  - ◊ Site Pages—Create site pages, open and edit pages, access page options, and organize the site map. You can also switch between the default site map view ( ) and the list view ( ).
  - ◊ Page Templates—Create page templates to base your site pages on, open and edit existing templates, and access template options.
  - ◊ Style Sheets—Edit the site's style sheet or create new style sheets.
  - ◊ Assets—Import and manage assets, such as images and files.
  - ◊ All Site Content—Create folders to organize your site content. In this view, you can also create pages, templates, and style sheets, and import assets.
  - ◊ Recent Changes—View information about the most recently modified files.
  - ◊ Site Configuration—Configure site properties such as the site name, create URL redirects, and manage domain information.
- Use the toolbar (3) to:
  - ◊ Import assets, such as images and files.
  - ◊ Preview your site or generate an anonymous preview link to send to other users.
  - ◊ Publish your recent changes.
- Use the site's pull-down menu (4) to:
  - ◊ Open recently accessed sites.
  - ◊ Exit Siteforce Studio and return to Salesforce.
  - ◊ Create and open a new site. Only users with the "Manage Users" and "Customize Application" permissions and the `Siteforce Publisher User` field enabled on their user detail page can create and import sites.
  - ◊ Duplicate the site. Only users with the "Manage Users" and "Customize Application" permissions and the `Siteforce Publisher User` field enabled on their user detail page can duplicate sites.

For contributors, who access and edit the site's pages, site content is now grouped by type into several views.



- Select a view (1) on the Overview tab to view its contents (2).
  - ◊ Site Pages—View and edit pages, or create site pages, if available.
  - ◊ Assets—Import assets, such as images and files.
  - ◊ All Site Content—View all of the site's pages, images, and files.
  - ◊ Recent Changes—View information about the most recently modified files.
- Use the toolbar (3) to:
  - ◊ Import assets, such as images and files.
  - ◊ Preview the site in a browser window.
- Use the site's pull-down menu (4) to:
  - ◊ Open recently accessed sites.
  - ◊ Exit Siteforce Studio and return to Salesforce.

New `Navigation Name` Property

Previously, the name of an item in a navigation menu was controlled by the page's name. However, page names can't include spaces or special characters. Now, pages have a new `Navigation Name` property, which can include spaces and special characters, that controls the name of the page when it's included in a navigation menu. To change the name of an item in a navigation menu, open the associated page and update its `Navigation Name` field in the Properties pane. Your changes are reflected immediately in the menu.

Sites Tab Renamed

The Sites tab in the Siteforce app, which is where you access your sites, is now called Siteforce.

ISVFORCE

Enhanced Trialforce Branding—Generally Available

Spring '12 has significant enhancements for Trialforce branding. App developers using Trialforce to create new trials of their product can optionally set up a branded login site and system emails. By branding these areas with your company's look and feel, users of your application will be immersed in your brand from sign-up to login.

A Trialforce Branding page allows you to specify your login domain and login site.

- Login domains end with `.cloudforce.com`, so that if your company name is "mycompany," then your login domain will be `mycompany.cloudforce.com`.
- Your custom login site includes your text and company logo, and mobile-friendly versions of your login site as well.

Branded emails allow you to specify fields in system-generated emails so that your company name, address, and other pertinent details are used in email correspondence. You can create multiple branded email sets for different campaigns, customer bases, etc.

Note: To configure branding, you must be logged into a Trialforce Management Organization. To get your Trialforce Management Organization, log a case in the Salesforce Partner Portal.

Creating a Branded Login Page

Available in: **Developer** Edition

User Permissions Needed	
To define package branding:	"Package Branding"

To create a branded login page:

1. Click ***Your Name*** > **Setup** > **Trialforce** > **Branding** > **Login Site**.
2. Click **Set Up Login Site**.
3. Select a subdomain for your login site by providing a name in the field provided. Usually this is the name of your company.

   Note: Login domains end with `.cloudforce.com`, so that if your company name is "mycompany," then your login domain will be `mycompany.cloudforce.com`.

4. Check the availability of the domain and then accept the terms of use.
5. Click **Save and Launch Editor**.

6. Use the Login Brand Editor to change how your login page looks. For additional help using the editor, click **Help for this Page**.

Creating Branded Emails

Available in: **Developer** Edition

User Permissions Needed	
To define package branding:	"Package Branding"

To create a branded email set:

1. Click ***Your Name*** > **Setup** > **Trialforce** > **Branding** > **Email Sets**.
2. Click **New Email Set** or **Edit** next to an existing email set.
3. Fill in the fields with your company info.
4. In the Preview Emails area, click through the different types of generated emails and make sure they read correctly.
5. Click **Save**.
6. If you're ready to make these emails available to your Trialforce master organizations, click **Publish**. Otherwise your changes are saved and you can publish later.

Creating a Trialforce Master Organization

Available in: **Developer** Edition

User Permissions Needed	
To define package branding:	"Package Branding"

Using a Trialforce Management Organization, you can create a master organization to act as the basis for your trial. You can customize and brand a master organization so it serves as the basis for new organizations. A master organization can include installed packages.

To create a new master organization:

1. Click ***Your Name*** > **Setup** > **Trialforce** > **Master Organizations**.
2. Click **New**.
3. Enter a new username and email address for the administrator account.
4. Enter the master organization name and select the branding.
5. Click **Create**.

You can create multiple master organizations from a Trialforce Management Organization. This enables you to set up trials for different products, each with its own configuration and branding.

Creating a Trialforce Template

Available in: **Developer** Edition

User Permissions Needed	
To define package branding:	"Package Branding"

Once you have configured a master organization, you create an organization template inside it, which can be used to create new trials. You can create many templates from the same master organization.

To create a template from a Trialforce master organization:

1. In the master organization, click ***Your Name*** > **Setup** > **Trialforce**.
2. Click **New Organization Template**.
3. Specify a description of the template and whether to include data in the dialog that appears.
4. Click **Save**.

You will receive an email with the organization ID of the new template. You can use the ID to sign up trial organizations.

Note: You can only create a template if the master organization is less than 256 MB in size.

Each template has a status with one of the following values.

In Progress
: When a template is first created, it always has this status. It then automatically moves to either Success or Error status.

Success
: The template can be used to create new trial organizations.

Error
: The template cannot be used as something has gone wrong and additional debugging is required.

Deleted
: The template is longer available for use. Deleted templates are automatically removed during system updates.

Subscriber Support Console—Generally Available

Spring '12 has several enhancements for subscriber support. Using the Subscriber Support Console, you can easily access information about all your subscribers, such as which Salesforce Edition they are using and if they are over their limits.

Subscribers can also grant you login access to troubleshoot issues directly within the app. The Subscriber Support Console can be accessed in the License Management App (LMA) under the Subscribers tab.

Note: This feature is available to eligible salesforce.com partners. For more information on the Partner Program, including eligibility requirements, please visit us at www.salesforce.com/partners

Viewing Subscriber Details

The Subscriber Overview page, accessed by clicking the organization's name from the **Subscribers** tab of the LMA, provides detailed information about each subscriber organization. This can give you insight into how a customer is using your app and help you in troubleshooting problems.

Under Organization Details:

- The name and contact information is from the **Setup** > **Company Profile** > **Company Information** page in the subscriber's organization. This may differ from the information shown in your LMA lead, account, or contact records.
- Organization ID is a unique ID that identifies this customer's Salesforce organization.
- Instance determines which salesforce.com data center this customer's organization resides in. It also determines when the customer will get upgraded with a new version of Salesforce. See trust.salesforce.com during the release period to understand which version of Salesforce the customer is using.

The page also includes these related lists.

Limits

Information on the file space, data space, and number of API requests associated with this customer, as a percentage.

Login Access Granted

A list of users who have granted login access and the date when access will expire.

Packages and Licensing

A list of all packages installed in this organization and associated with this LMA. The list includes non-Aloha enabled packages. For each package, it shows the version of the app a customer is currently using, the total number of licenses provisioned to the subscriber and the number they've used. This information should match the license record for the subscriber in your LMA.

Requesting Login Access

Ask the user to go to **Setup** > **My Personal Information** > **Grant Login Access** to grant access. If the publisher is not listed on this page, it is for one of the following reasons:

- A system administrator disabled the ability for non-administrators to grant access.
- The user does not have a license for the package.
- The package is not Aloha enabled.
- The package is licensed to the entire organization. Only administrators with the "Manage Users" permission enabled on their profile can grant access.

Note: Access can only be granted for a limited amount of time, and the subscriber can revoke access at any time. Any changes you make while logged in as a subscriber are logged in the audit trail.

Logging in to Subscriber Organizations

User Permissions Needed	
To log in to subscriber organizations:	“Log in to Subscriber Organization”

To log in, once a user has granted you access:

1. In the License Management App (LMA), click the **Subscribers** tab.
2. To find a subscriber organization quickly, enter a subscriber name or organization ID in the search box and click **Search**.
3. Click the name of the subscriber organization.
4. On the Organization Details page, click **Login** next to a user's name. Note that you have the same permissions as the user you logged in as.
5. When you're finished troubleshooting, click ***Your Name*** > **Logout** to return to your organization.

Note: Only subscribers who have installed at least one managed package that is Aloha enabled and linked to your LMA will appear in this list. If none of your packages are Aloha enabled, then no subscribers will be listed.

Best Practices

- When you access a subscriber organization, you are logged out of your LMO (License Management Organization). You can set up a my domain so that you are not automatically logged out of your LMO when you log into a subscriber organization. To set up a my domain, click ***Your Name*** > **Setup** > **Company Profile** > **My Domain**.
- Be careful to allow only trusted support and engineering personnel to log into a subscriber's organization. Since this feature may include full read/write access to customer data and configurations, it's vital to your reputation to preserve their security.
- Control who has access by giving the “Log in to Subscriber Organization” user permission to specific support personnel, via a profile or permission set.

Troubleshooting in Subscriber Organizations

When logged in as a user in a subscriber's organization, you can generate Apex debug logs that contain the output from your managed packages. This includes logging that would normally not be exposed to the subscriber. Using this log information, you can troubleshoot issues that are specific to that subscriber organization.

1. Launch the Developer Console from ***Your Name*** > **Developer Console**.
2. Perform the operation and view the debug log with your output. If the user has access, setup up a Debug Log from **Setup** > **Monitoring** > **Debug Log**.

Note that subscribers will be unable to see the logs you set up or generate since they contain your Apex code unobfuscated. In addition, you can also view and edit data contained in protected custom settings from your managed packages when logged in as a user.

Package Installation Improvements

Spring '12 has the following enhancements for installing packages.

Running Tests on Package Installation

Starting with Spring '12, tests won't automatically run when a customer installs a package, regardless of when the package was created. If you want to run tests upon package installation, you must add the `@isTest(OnInstall=true)` annotation to all test classes or test methods that you want executed, and subsequently, package and release a new version of your app. Tests annotated to run during package installation must pass in order for the package installation to succeed. It is no longer possible to bypass a failing test during package installation. For more information, see `IsTest(OnInstall=true)` Annotation in the *Force.com Apex Code Developer's Guide*.

Enhanced Error Messages

If a package installation fails, the user installing the package will see a meaningful error message explaining the reason for the failure. For example, if the installation would cause the number of custom objects, tabs, or applications to exceed the allowed limit, the error message will specify the limit in question and provide information on how to increase it.

Modifying Custom Fields after a Package is Released

Available in: **Developer** Edition

User Permissions Needed	
To create packages:	“Create AppExchange Packages”

Starting with Spring ‘12, you can make changes to some properties of custom fields, such as the length of text fields or the precision of numeric fields, after a package is released. This feature enables greater flexibility in upgrading packages. However, it must be used with caution as some types of changes can lead to data loss or cause existing API or Apex requests to break.

The following changes are allowed to custom fields in a package, after it is released.

- The length of a text field can be increased or decreased. Reducing the length brings up a dialog warning of potential data loss.
- The number of digits to the left or right of the decimal point in a number field can be increased or decreased. Reducing the precision brings up a dialog warning of potential data loss.

- A required field can be made non-required and vice-versa. If a default value was required for a field, that restriction can be removed and vice-versa. Making a field required brings up a warning that existing API or Apex requests that do not supply a value for the field can result in an error.

New Apex Methods and Class for Package Versions

As a package developer, you can now obtain the version of a managed package simply by calling the `System.requestVersion` method without having to resort to the special dot-notation syntax used in `Package.Version.Request`. Also, you can use the new `System.Version` class methods to compare versions. The following are the new methods and classes that have been added:

- `System.requestVersion` method: Returns a two-part version that contains the major and minor version numbers of a package. Using this method, you can determine the version of an installed instance of your package from which the calling code is referencing your package. Based on the version that the calling code has, you can customize the behavior of your package code.
- `System.runAs(System.Version)` method: Changes the current package version to the package version specified in the argument.
- `System.Version` class: Contains methods to get the version of a managed package of a subscriber and to compare package versions.

Running a Post-Installation Apex Script—Pilot

Note: This feature is currently available through a pilot program. For information on enabling it for your organization, contact salesforce.com.

When creating a package, you can specify an Apex script to run automatically after the package is installed. This makes it possible to customize the package installation, based on details of the subscriber's organization. The script is invoked after tests have been run and licensing has been verified. Using a post-installation script is recommended only for making minor changes, for example, setting configuration values. It is possible for the script to schedule batch execution, but this would be insecure and is discouraged.

The post-installation script is invoked with default governor limits. It will run in the same transaction as the installation itself and is rolled back if the installation fails. Script failure will cause the installation to fail. Any errors in the script are reported directly to the user with a message guiding them to resolve the issue with the package publisher.

For simplicity, only one post-installation script is allowed. The script must be selected from a list of Apex classes that are members of the package. The contents of the script can be changed in a patch organization, but not the class. The class selection is available via the Metadata API.

DATABASE.COM

Schema Builder Enhancements—Beta

You asked for it! This enhancement is from an idea on the IdeaExchange.

Available in: All Editions

Note: This release contains a beta version of schema builder that is production-quality but has known limitations. Schema builder is not supported on Microsoft® Internet Explorer® version 6 or earlier.

New in Spring '12, you can now create new custom objects, custom fields, and relationships with schema builder. This eliminates the need to click from page to page to find the details of a master-detail relationship or to add a new custom field to an object in your schema. For example, if you're using schema builder to view the details of your schema, you can add a new custom object without leaving schema builder. The drag-and-drop interface lets you easily add a custom object or new field, and saves the layout of your schema any time you move an object.

Schema builder is enabled by default and lets you add the following to your schema:

- Custom Objects
- Lookup Relationships
- Master-Detail Relationships
- Fields of the following types:
  - Checkbox
  - Currency
  - Date
  - Date/Time
  - Email
  - Number
  - Percent
  - Phone
  - Text
  - Text Area
  - Long Text Area
  - Rich Text Area
  - URL

Working with Schema Builder

Available in: All Editions

User Permissions Needed	
To view objects in schema builder:	"Customize Application"

Note: This release contains a beta version of schema builder that is production-quality but has known limitations. Schema builder is not supported on Microsoft® Internet Explorer® version 6 or earlier.

You can access schema builder in three ways:

- Click ***Your Name*** > **Setup** > **Schema Builder**.
- Click ***Your Name*** > **Setup** > **Create** > **Objects**. Then in the custom objects page, click **Schema Builder**.
- Click ***Your Name*** > **Setup**. In the Quick Links box on the Force.com home page, click **Schema Builder**.

When working with schema builder:

- Click on an object and move it to any space on the canvas. Schema builder saves the layout of your schema any time you move an object.
- Click **Auto-Layout** to automatically sort the layout of the objects in your schema.

  Important: Once you click **Auto-Layout**, you can't undo it.

- Click **View Options** to:
  - ◊ **Display Element Names** if you prefer system names, or **Display Element Labels** if you prefer text values.
  - ◊ **Show/Hide Relationships**
  - ◊ **Show/Hide Legend**
- The **Elements** tab lets you drag and drop new custom objects and fields onto the canvas.
  - ◊ To create a new custom object, see Creating Objects with Schema Builder.
  - ◊ To create a new custom field, see Creating Fields with Schema Builder.
- The **Objects** tab lets you select objects to display on the canvas.
  - ◊ Click the drop-down list in the sidebar to filter your list of objects:
    - All Objects
    - Selected Objects
    - Standard Objects
    - Custom Objects
    - System Objects

Note: Objects created outside of schema builder, such as through an app or the API, don’t automatically display on the canvas. Select the checkbox for the object created outside schema builder to display it on the canvas.

- ◊ To search for an object, type its name in the **Quick Find...** box.
- ◊ Hover over an object in your list of objects and click to find it on the canvas.

- Hover over relationship lines to show relationship details such as lookup and master-detail relationships. Click the name of the object to find it on the canvas. You may want to hide relationships if your schema is taking too long to load.
- To view the details of a field in a new window, click the element name or label.
- Click to:
  - ◊ **Hide Object on Canvas**
  - ◊ **View Object** detail in a new window
  - ◊ **View Page Layouts** detail in a new window
- Click **Show More Fields** to display all the fields of an object.
- To zoom in, click . To zoom out, click .

  Note: You can't save the level of zoom when closing schema builder.

- To collapse the sidebar, click . To expand it, click .
- The map in the lower right corner shows the overall layout of your objects on the canvas. Click on the map to navigate the layout of your objects.
- To close the schema builder and save the layout of your objects, click **Close**.

Important: If your schema contains many objects and fields, it may cause long loading times. Click **Hide Relationships** to improve schema builder performance.

Creating Objects with Schema Builder

Available in: All Editions

User Permissions Needed	
To create new custom objects in schema builder:	"Customize Application"

Note: This release contains a beta version of schema builder that is production-quality but has known limitations. Schema builder is not supported on Microsoft® Internet Explorer® version 6 or earlier.

To create a new custom object with schema builder:

1. Click the **Elements** tab.
2. Click **Object** and drag it onto the canvas.
3. Enter information to define your object. See “Schema Builder Custom Object Definition” in the online help for a list of object definitions.
4. Click **Save**.

Creating Fields with Schema Builder

Available in: All Editions

User Permissions Needed	
To create new fields in schema builder:	"Customize Application"

Note: This release contains a beta version of schema builder that is production-quality but has known limitations. Schema builder is not supported on Microsoft® Internet Explorer® version 6 or earlier.

To create a new custom field with schema builder:

1. Click the **Elements** tab.
2. Click a field and drag it onto an object on the canvas. See “Schema Builder Custom Field Definition” in the online help for a list of available fields.
3. Enter a `Field Label`.

   The `Field Name` is automatically populated based on the field label you enter. This name can contain only underscores and alphanumeric characters, and must be unique in your organization. It must begin with a letter, not include spaces, not end with an underscore, and not contain two consecutive underscores.

   Ensure that both the custom field name and label are not identical to the name and label of any existing standard or custom field for that object. Identical values may result in unexpected behavior when you reference that name in a merge field.

   - If a standard field and custom field have matching names or labels, the merge field displays the value of the custom field.
   - If two custom fields have matching names or labels, the merge field may not display the value of the field you expect.

   For example, if you create a field label called `Email`, the field name automatically populates as `Email__c`. If you also have a standard field with the label `Email`, the merge field may not be able to distinguish between the standard and custom field names. Make both the custom field name and label unique by adding a character to each, such as `Email2` and `Email2__c`, respectively.
4. Enter a `Namespace Prefix`.
5. Enter a `Description` of the custom field.
6. Enter `Help Text` to detail the purpose and function of a custom field.
7. Enter a `Default Value` to automatically insert a value of a custom field when a new record is created.

8. Depending on the custom field type you choose, enter any remaining field attributes.
9. Click `Save`.

Platform Development Tools

Developer Console—Generally Available

Available in: **Unlimited**, **Developer**, **Enterprise**, and **Database.com** Editions

The Developer Console has a few changes and improvements in Spring '12. Most importantly, it is now opened by clicking ***Your Name*** > **Developer Console**. (Previously the menu item was **System Log**.)

Additional enhancements to the Developer Console in Spring '12 include:

Raw Debug Log Viewer

You can now directly view a "raw" log from the **Logs** tab of the Developer Console. Select a debug log and click **Open Raw Log**.

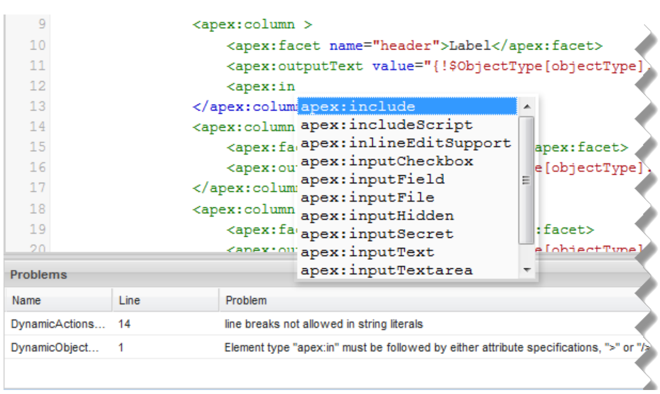
Previously if you wanted to view the raw unformatted version of a debug log in the Developer Console you had to switch back to the Old System Log. With this change, all features of the Old System Log are available in the Developer Console, and the Old System Log interface has been removed.

Visualforce Pages and Components

The **Repository** tab now allows you to browse and open Visualforce pages and components. Visualforce sources open in a Source Code view similar to that used for Apex classes and triggers, and can be edited and saved in the same way.

Visualforce Syntax Highlighting and Auto-Complete

Visualforce page and component source views have full syntax highlighting and support for auto-complete suggestions. Auto-complete works similarly to auto-complete in the Visualforce development mode footer: as you type a Visualforce component tag, a list of suggested completions appear.



Keep typing to filter the suggestions, press ENTER to select the top completion, or use the arrow keys or mouse to select a different completion. Auto-complete supports both Visualforce tags and tag attributes.

Packages Support

The **Repository** tab now allows you to browse and open the contents of packages you have created in your organization. You can see the complete contents of packages, and open the Apex classes and triggers, Visualforce pages and components, and custom objects contained in a package. Other package items, such as custom fields, validation rules, and so on, can be seen in the list, but not viewed in detail.

Heap Search

You can now search the contents of the heap in the new **Search** tab of the Heap Dump Inspector. Enter a value or heap address to search for and find all occurrences throughout the heap. Search matches partial symbol values, but addresses must be exact.

You can quickly search for a value in the heap by clicking the search icon () that appears to the right of the value when you hover over it in the State panel.

General Development Improvements

We've made a few changes that should improve your workflow while developing using the Developer Console. Most significantly, when validating your modified source views, all modified sources are validated together instead of individually. Changes that may be inconsistent with code on the server, but are consistent when taken together—such as what occurs during refactoring, and other common development tasks—will no longer report errors.

Also, if you save these changes using **Save All** they will be saved in one request, so you can save a collection of changes that would otherwise be blocked because separately they would be invalid.

To reflect this change in how validation is performed, the **Problems** panel is now globally available, allowing you to see compilation errors and other problems for all open source views.

The Developer Console will notice if a source view has been changed by another user since you opened it. If you haven't made any changes to it, the source view will be updated automatically. If you've made modifications, you'll see an alert that lets you know another user has made changes, with the option to update the source view to the latest version.

Caution: When you update to the latest version your changes will be overwritten. Copy your version out of the source view to preserve it. You can't save a modified source view if it has also been modified on the server. Instead, update to the latest version and integrate your modifications into the new version.

Finally, some simple workspace improvements:

- The Developer Console will now remember the open and collapsed state of various panels in the workspace, such as the Stack Trace, Source, and Execution Overview panels. This should make it easier and more worthwhile for you to configure a workspace that feels comfortable.
- The Developer Console will remember the line number you were on in source views, and remember your last executed code snippet in the Execute Anonymous box.

Security Enhancements

Available in: **All** Editions

Spring '12 introduces several new features that enhance security.

Single Sign-On Changes

Now when you save the Single Sign-On Settings page in a sandbox organization, if the Salesforce Login URL value was for a single instance, the value is reformatted. The reformatting will only happen once, but it will occur even if you made no changes to the page. Be sure to review the Salesforce Login URL value after you've saved the Single Sign-On Settings page.

New Password Complexity Option

The new `Must mix alpha, numeric, and special characters` password complexity option requires that the user must include at least one alphabetic character, one number, and one of the following characters `! # $ % - _ = + < >` in their password. Set the option from ***Your Name*** > **Setup** > **Security Controls** > **Password Policies**.

Increased Maximum Timeout Value

The maximum session timeout value has increased from 8 to 12 hours. This value is the amount of time that passes before a user is logged out due to inactivity.

Requiring a Secure Connection (HTTPS) Is Permanent

You can no longer disable HTTPS access to an organization. If you currently have the `Require secure connections (HTTPS)` setting disabled, and then enable it, you can only switch back to HTTP by contacting your salesforce.com representative. This option is set from ***Your Name*** > **Setup** > **Security Controls** > **Session Settings**.

Increased Service Provider Selection Availability

You can now set Service Providers from the Identity Provider page for any profile, including Force.com One App and Chatter Free profiles. Service Providers are set from ***Your Name*** > **Setup** > **Security Controls** > **Identity Provider**.

Encrypted Fields Available in Full-Copy Sandbox

Starting in Spring '12, a full-copy sandbox can include the encryption keys for encrypted fields. This means that if there are encrypted fields in your production organization, those fields are also available for viewing and use in a full-copy sandbox. Contact your salesforce.com representative to enable this feature.

Important: With this feature enabled, all users having a profile with "View Encrypted Data" in the full-copy sandbox can see the actual value of any encrypted field.

Social Sign-On

You can now enable users to log into your Salesforce organization, portal, or site using their login credentials from an external authentication service provider. Facebook, Janrain, and Salesforce are supported. Authentication providers for Social Sign-On are set from ***Your Name*** > **Setup** > **Identity** > **Auth. Providers**.

Network Access Column Changes

The obsolete ISP, Organization, and Geography columns have been removed from the page at ***Your Name*** > **Setup** > **Security Controls** > **Network Access**.

Sharing Enhancements

Criteria-Based Sharing Rules Enabled for Leads and Campaigns

Available in: **Professional**, **Enterprise**, **Unlimited**, **Developer**, and **Database.com** Editions

Leads and Campaigns are not available in **Database.com** Editions

You asked for it! This enhancement is from an idea on the IdeaExchange.

Starting in Spring ‘12, you can apply criteria-based sharing rules to leads and campaigns. You can create up to 50 criteria-based sharing rules per object.

Name Fields for Groups, Queues, Roles, and Territories

Groups, Queues, and Roles are available in: **Professional**, **Enterprise**, **Unlimited**, **Developer**, and **Database.com**

Territories available in: **Enterprise**, **Unlimited**, and **Developer** Editions

When you create a group, queue, role, or territory, you’ll add a label and entity name to support enhanced API access to the object. The label is the entity label as it appears on the user interface. The entity name is a unique name used to support API access to the object. You can customize the label and entity name from the UI or the Web Services API.

Name Fields for Sharing Rules

Available in: **Enterprise**, **Unlimited**, **Developer**, and **Database.com** Editions

User Permissions Needed	
To create sharing rules:	“Manage Users”

You asked for it! This enhancement is from an idea on the IdeaExchange.

When you create a sharing rule, you’ll add a label and rule name. The label is the sharing rule label as it appears on the user interface. The rule name is a unique name used to support API access to the object. For existing sharing rules, default values are set for both fields. To create or edit a sharing rule: Click ***Your Name*** > **Setup** > **Security Controls** > **Sharing Settings**. In the Sharing Rules section, click **New** or **Edit** next to the sharing rule you want to edit. Enter or change the sharing rule label and name.

Partner Super User Access

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

User Permissions Needed	
To create, edit, disable, or deactivate users:	“Manage Users”
To create contacts:	“Create” on contacts
To view contacts:	“Read” on contacts

Partner users can be assigned Partner Super User Access, which enables access to data owned by other partner users and partner super users of the same role or those below them in the portal account hierarchy. To enable super user access, on the contact detail page of a partner account, click **Work with Portal** and select **Enable Partner Super Access**.

Sharing Rule Components for Change Sets

Available in: **Enterprise**, **Unlimited**, **Free**, and **Database.com** Editions

Sharing rules can now be included as components in change sets, enabling you to send and receive sharing rule customizations between organizations. These components are:

- Account criteria based sharing rule
- Account owner sharing rule
- Account territory sharing rule
- Campaign criteria based sharing rule
- Campaign owner sharing rule
- Case criteria based sharing rule
- Case owner sharing rule
- Contact criteria based sharing rule
- Contact owner sharing rule
- Custom object criteria based sharing rule
- Custom object owner sharing rule
- Lead criteria based sharing rule
- Lead owner sharing rule
- Opportunity criteria based sharing rule
- Opportunity owner sharing rule

Apex Code Enhancements

Available in: **Unlimited**, **Developer**, **Enterprise**, and **Database.com** Editions

Apex includes the following enhancements in Spring '12. Refer to the *Force.com Apex Code Developer's Guide* for complete information about Apex.

The following enhancements are generally available:

Apex REST API

You can use Apex REST API to implement custom Web services in Apex and expose them through the REST API architecture.

The following changes have been made to Apex REST API:

- Apex REST automatically provides the REST request and response in your Apex REST methods via a static `RestContext` object. You no longer need to declare a `RestRequest` or `RestResponse` parameter in your method.
- User-defined types are now allowed as Apex REST parameter types.
- Apex REST methods are now supported in managed and unmanaged packages.
- Order of elements in the JSON or XML response data no longer has to match the Apex REST method parameter order.

See the *Force.com Apex Code Developer's Guide* for more details about the Apex REST API.

Higher Limit for Concurrently Scheduled Apex Classes

You asked for it! The limit increase for concurrently scheduled classes is from an idea on the IdeaExchange.

The limit for the total number of Apex classes that can be scheduled concurrently increased from 10 to 25. With this higher limit, you can now schedule more Apex jobs for execution.

Apex Triggers Enabled on the ContentDocument Object

You can now associate Apex triggers with the ContentDocument object. You can create Apex triggers for the ContentDocument object only through the Metadata API. Alternatively, you can create the triggers using the Force.com IDE or the Force.com Migration Tool, which make use of the Metadata API. For more information, see the:

- *Metadata API Developer's Guide*
- *Using the Force.com IDE to Deploy Apex* topic in the *Force.com Apex Code Developer's Guide*
- *Force.com Migration Tool Guide*

Isolation of Test Data in Unit Tests

Starting with Salesforce API version 24.0, test methods don't have access to pre-existing data in the organization, such as standard objects, custom objects, and custom settings data. They can only access data that they create. This lets you to write more robust unit tests by preventing any dependencies of tests on any existing data in the organization. By having every test create and access its own data, no test will fail because the data it depends on doesn't exist in the organization when the package is being deployed.

Objects that are used to manage your organization or metadata objects can still be accessed in your tests, such as:

- User
- Profile
- Organization
- RecordType
- ApexClass
- ApexTrigger
- ApexComponent
- ApexPage

This access restriction to test data applies to all code running in test context. For example, if a test method causes a trigger to execute and the test can't access organization data, the trigger won't be able to either.

Test code saved against Salesforce API version 23.0 or earlier continues to have access to all data in the organization and its data access is unchanged.

You can choose to open up access of a test class or a test method to enable access to all data in the organization by using the `IsTest(SeeAllData=true)` annotation. See New `IsTest(SeeAllData=true)` Annotation.

New `IsTest(SeeAllData=true)` Annotation

For Apex code saved using Salesforce API version 24.0 and later, use the `isTest(SeeAllData=true)` annotation to grant test classes and individual test methods access to all data in the organization, including pre-existing data that the test didn't create. Starting with Apex code saved using Salesforce API version 24.0, test methods don't have access by default to pre-existing data in the organization. However, test code saved against Salesforce API version 23.0 or earlier continues to have access to all data in the organization and its data access is unchanged. See Isolation of Test Data in Unit Tests.

If a test class is defined with the `isTest(SeeAllData=true)` annotation, this annotation applies to all its test methods whether the test methods are defined with the `@isTest` annotation or the `testmethod` keyword.

This example shows how to define a test class with the `isTest(SeeAllData=true)` annotation. All the test methods in this class have access to all data in the organization.

```
// All test methods in this class can access all data.
@isTest(SeeAllData=true)
public class TestDataAccessClass {

    // This test accesses an existing account.
    // It also creates and accesses a new test account.
    static testmethod void myTestMethod1() {
        // Query an existing account in the organization.
        Account a = [SELECT Id, Name FROM Account WHERE Name='Acme' LIMIT 1];
        System.assert(a != null);

        // Create a test account based on the queried account.
        Account testAccount = a.clone();
        testAccount.Name = 'Acme Test';
        insert testAccount;

        // Query the test account that was inserted.
        Account testAccount2 = [SELECT Id, Name FROM Account
                                WHERE Name='Acme Test' LIMIT 1];
        System.assert(testAccount2 != null);
    }


    // Like the previous method, this test method can also access all data
    // because the containing class is annotated with @isTest(SeeAllData=true).
    @isTest static void myTestMethod2() {
        // Can access all data in the organization.
   }

}
```

This second example shows how to apply the `isTest(SeeAllData=true)` annotation on a test method. Because the class that the test method is contained in isn't defined with this annotation, you have to apply this annotation on the test method to enable access to all data for that test method. The second test method doesn't have this annotation, so it can access only the data it creates in addition to objects that are used to manage your organization, such as users.

```
// This class contains test methods with different data access levels.
@isTest
private class ClassWithDifferentDataAccess {

    // Test method that has access to all data.
    @isTest(SeeAllData=true)
    static void testWithAllDataAccess() {
        // Can query all data in the organization.
    }

    // Test method that has access to only the data it creates
    // and organization setup and metadata objects.
    @isTest static void testWithOwnDataAccess() {
        // This method can still access the User object.
        // This query returns the first user object.
        User u = [SELECT UserName,Email FROM User LIMIT 1];
        System.debug('UserName: ' + u.UserName);
        System.debug('Email: ' + u.Email);

        // Can access the test account that is created here.
        Account a = new Account(Name='Test Account');
        insert a;
```

```
        // Access the account that was just created.
        Account insertedAcct = [SELECT Id,Name FROM Account
                                WHERE Name='Test Account'];
        System.assert(insertedAcct != null);
    }
}
```

Running Tests on Package Installation

Starting with Spring '12, tests won't automatically run when a customer installs a package, regardless of when the package was created. If you want to run tests upon package installation, you must add the `@isTest(OnInstall=true)` annotation to all test classes or test methods that you want executed, and subsequently, package and release a new version of your app. Tests annotated to run during package installation must pass in order for the package installation to succeed. It is no longer possible to bypass a failing test during package installation. For more information, see `IsTest(OnInstall=true)` Annotation in the *Force.com Apex Code Developer's Guide*.

New Package Version Methods and Class

As a package developer, you can now obtain the version of a managed package simply by calling the `System.requestVersion` method without having to resort to the special dot-notation syntax used in `Package.Version.Request`. Also, you can use the new `System.Version` class methods to compare versions. The following are the new methods and classes that have been added:

- `System.requestVersion` method: Returns a two-part version that contains the major and minor version numbers of a package. Using this method, you can determine the version of an installed instance of your package from which the calling code is referencing your package. Based on the version that the calling code has, you can customize the behavior of your package code.
- `System.runAs(System.Version)` method: Changes the current package version to the package version specified in the argument.
- `System.Version` class: Contains methods to get the version of a managed package of a subscriber and to compare package versions.

New isPermissionable Method for the Describe Field Result

In `Schema.DescribeFieldResult`, the `isPermissionable` method has been added. This method indicates whether field permissions can be specified for the field (`true`), or not (`false`).

Single Sign-On when Using Authentication Providers

Salesforce provides the ability to use an authentication provider, such as Facebook© or Janrain©, for single sign-on into Salesforce. To set up single sign-on, you must create a class that implements `Auth.RegistrationHandler`. Classes implementing the `Auth.RegistrationHandler` interface are specified as the `Registration Handler` in authorization provider definitions, and enable single sign-on into Salesforce portals and organizations from third-party services such as Facebook. Using information from the authentication providers, your class must perform the logic of creating and updating user data as appropriate, including any associated account and contact records.

Name	Arguments	Return Type	Description
`createUser`	ID *`portalId`* Auth.UserData *`userData`*	User	Returns a User object using the specified portal ID and user information from the third party, such as the username and email address. The *`portalID`* value may be null or an empty key if there is no portal configured with this provider.

Name	Arguments	Return Type	Description
`updateUser`	ID *userId* ID *portalId* Auth.UserData *userData*	Void	Updates the specified user's information. This method is called if the user has logged in before with the authorization provider and then logs in again, or if the user has gone through the link flow to link accounts. The `portalID` value may be null or an empty key if there is no portal configured with this provider.

The constructor for `Auth.UserData` has the following syntax:

```
Auth.UserData(String identifier,
              String firstName,
              String lastName,
              String fullName,
              String email,
              String link,
              String userName,
              String locale,
              String provider,
              String siteLoginUrl,
              Map<String, String> attributeMap)
```

After a user is authenticated using an authentication provider, the access token associated with that provider for this user can be obtained in Apex using the `Auth.AuthToken` Apex class. `Auth.AuthToken` provides a single method, `getAccessToken`, to obtain this access token. For more information about authentication providers, see "About External Authentication Providers" in the Salesforce online help.

Name	Arguments	Return Type	Description
`getAccessToken`	String *authProviderId* String *providerName*	String	Returns an access token for the current user using the specified 18-character identifier of an Auth. Provider object in your organization and the name of the provider, such as Salesforce or Facebook.

API Enhancements

Available in: **Enterprise**, **Unlimited**, **Developer**, and **Database.com** Editions

Spring '12 (API version 24.0) improvements:

Changes across the API layer:

- New and Changed Objects
    - ◊ Chatter API Objects
- SOQL Enhancements

Changes to individual APIs:

- SOAP Web Services API Enhancements
- REST API Enhancements
- Streaming API Enhancements
- Metadata API Enhancements

New and Changed Objects

Generally Available Enhancements

For information about new and changed Chatter objects, see Chatter API Objects on page 174.

New Objects

These objects have been added in API version 24.0.

- The UserRecordAccess object has been added to check users' access to a set of records.
- These objects provide access to additional permissions in permission sets.

Object	Description
FieldPermissions	Represents the enabled field permissions for the parent PermissionSet.
ObjectPermissions	Represents the enabled object permissions for the parent PermissionSet.

- These objects let you track items related to Chatter Answers:

Object	Description
QuestionReportAbuse	Represents a user-reported abuse on a Question in a Chatter Answers community.
QuestionSubscription	Represents a subscription for a user following a Question.
ReplyReportAbuse	Represents a user-reported abuse on a Reply in a Chatter Answers community.

- These objects let you customize Live Agent.

Object	Description
LiveChatButton	Represents a button that allows visitors to request chats with Live Agent users.
LiveChatDeployment	Represents the general settings for deploying Live Agent on a website.

Object	Description
LiveChatTranscript	This object is automatically created for each Live Agent chat session and stores information about the session.
LiveChatTranscriptEvent	Captures specific events that occur over the lifetime of a chat.
LiveChatTranscriptHistory	Represents changes to field values on a LiveChatTranscript object.
LiveChatTranscriptShare	Represents a sharing entry on a LiveChatTranscript object.
LiveChatUserConfig	Represents a setting that controls the console settings for Live Agent users.
LiveChatUserConfigProfile	Represents a join between LiveChatUserConfig and Profile.
LiveChatUserConfigUser	Represents a join between LiveChatUserConfig and User.
LiveChatVisitor	Represents a website visitor who has started or tried to start a chat session.
QuickText	This object stores a snippet of text that allows an agent to send a quick response to a customer in the Live Agent console.
QuickTextHistory	Represents changes to field values on a QuickText object.
QuickTextOwnerSharingRule	Represents a rule for sharing a QuickText object with users other than the owner.
QuickTextShare	Represents a sharing entry on a QuickText object.
Skill	Represents a category or group that Live Agent users can be assigned to.
SkillProfile	Represents a join between Skill and Profile.
SkillUser	Represents a join between Skill and User.

Changed Objects

The following objects have been changed in API version 24.0.

- The Account object now includes these fields.
  - ◊ `AccountSource`: The source of the account record. For example, `Advertisement`, `Data.com`, or `Trade Show`. The source is selected from a picklist of available values, which are set by an administrator. Each picklist value can have up to 40 characters.
  - ◊ `DataDotComCleanStatus`: Indicates the record's clean status as compared with Data.com. Values are: `Not Compared`, `In Sync`, `Reviewed`, `Different`, `Not Found`, or `Inactive`.
  - ◊ `DunsNumber`: The Data Universal Numbering System (D-U-N-S) number is a unique, nine-digit number assigned to every business location in the Dun & Bradstreet database that has a unique, separate, and distinct operation. D-U-N-S numbers are used by industries and organizations around the world as a global standard for business identification and tracking. Maximum size is 9 characters.

- ◊ `NaicsCode`: The six-digit North American Industry Classification System (NAICS) code is the standard used by business and government to classify business establishments into industries, according to their economic activity for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. Maximum size is 8 characters.
- ◊ `NaicsDesc`: A brief description of an organization's line of business, based on its NAICS code. Maximum size is 120 characters.
- ◊ `SicDesc`: A brief description of an organization's line of business, based on its SIC code. Maximum length is 80 characters.
- ◊ `Tradestyle`: A name, different from its legal name, that an organization may use for conducting business. Similar to "Doing business as" or "DBA". Maximum length is 255 characters.
- ◊ `YearStarted`: The date when an organization was legally established. Maximum length is 4 characters.

- The Case object now includes the `CommunityId` field, which lists the Community (Chatter Answers) associated with a case.
- The Community object now supports these calls:
  - ◊ `create()`
  - ◊ `delete()`
  - ◊ `describeLayout()`
  - ◊ `getDeleted()`
  - ◊ `getUpdated()`
  - ◊ `search()`
  - ◊ `undelete()`
  - ◊ `update()`
  - ◊ `upsert()`
- The ContentDocument object is updateable in Spring '12 and includes a new `ParentId` field which can be used to query and update a document's managing library. The `ParentId` field is set automatically when a ContentVersion is inserted via the API for the first time.
- The `IsArchived` field on the ContentDocument object is updateable in Spring '12 and can be used to archive or unarchive a document.
  - ◊ When `IsArchived` is set to `true`, the document is archived. Starting in Spring '12, archived documents are returned by the `queryAll()` call.
  - ◊ When `IsArchived` is set to `false`, the document is not archived.
- The Lead object now includes these fields.
  - ◊ `CompanyDunsNumber`: The Data Universal Numbering System (D-U-N-S) number is a unique, nine-digit number assigned to every business location in the Dun&Bradstreet database that has a unique, separate, and distinct operation. D-U-N-S numbers are used by industries and organizations around the world as a global standard for business identification and tracking. Maximum size is 9 characters..
  - ◊ `DataDotcomCleanStatus`: Indicates the record's clean status as compared with Data.com. Values are: `Not Compared`, `In Sync`, `Reviewed`, `Different`, `Not Found`, or `Inactive`.
- The Question object now includes the following fields:
  - ◊ `BestReplySelectedById`, which displays the ID of the user who selected the best answer to the question.
  - ◊ `MostReportAbusesOnReply`, which displays the most number of user-reported abuses on a reply associated with the question.
  - ◊ `NumReportAbuses`, which displays the number of user-reported abuses on the question.
  - ◊ `NumSubscriptions`, which displays the number of users following the question.

- ◊ `Origin`, which displays the source of the question, such as `Chatter Answers`.

- The Reply object now includes the `NumReportAbuses` field, which displays the number of user-reported abuses on the reply.
- The User object now includes the following fields to support Chatter:
  - ◊ `UserPermissionsChatterAnswersUser`, which indicates if a portal user has the Chatter Answers User feature license and is enabled to use Chatter Answers.
  - ◊ `UserPreferencesDisableAllFeedsEmail`
  - ◊ `UserPreferencesDisableBookmarkEmail`
  - ◊ `UserPreferencesDisableChangeCommentEmail`
  - ◊ `UserPreferencesDisableFollowersEmail`
  - ◊ `UserPreferencesDisableLaterCommentEmail`
  - ◊ `UserPreferencesDisableLikeEmail`
  - ◊ `UserPreferencesDisableMentionsPostEmail`
  - ◊ `UserPreferencesDisableProfilePostEmail`
  - ◊ `UserPreferencesDisableSharePostEmail`
  - ◊ `UserPreferencesDisCommentAfterLikeEmail`
  - ◊ `UserPreferencesDisMentionsCommentEmail`
  - ◊ `UserPreferencesDisableMessageEmail`
  - ◊ `UserPreferencesDisProfPostCommentEmail`

- The User object now includes the `IsPrmSuperUser` field for turning on super user access for a partner user. Contact salesforce.com to enable this field.
- These objects now include the `DeveloperName` and `Name` fields.
  - ◊ Group
  - ◊ Territory
  - ◊ UserRole
  - ◊ Queue

- These sharing rule objects now include the `DeveloperName` and `Name` fields.
  - ◊ AccountOwnerSharingRule
  - ◊ AccountTerritorySharingRule
  - ◊ CampaignOwnerSharingRule
  - ◊ CaseOwnerSharingRule
  - ◊ ContactOwnerSharingRule
  - ◊ LeadOwnerSharingRule
  - ◊ ServiceContractOwnerSharingRule
  - ◊ OpportunityOwnerSharingRule
  - ◊ [CustomObject]__OwnerSharingRule (where [CustomObject] represents the name of the custom object)

- The KnowledgeArticleVersion object now includes the following fields:
  - ◊ `ValidationStatus`, which shows whether the content of the article has been validated.
  - ◊ `VersionNumber`, which defines the number assigned to a version of an article.

- The CaseArticle object now includes the following fields:
  - ◊ `ArticleVersionNumber`, which is the number assigned to a version of an article.
  - ◊ `IsSharedByEmail`, which indicates that the article has been shared with the customer through an email.

Chatter API Objects

New Chatter Objects

These new objects have been added in API version 24.0.

Object	Description
QuestionSubscription	Represents a subscription for a user following a Question.

Changed Chatter Objects

These objects have been changed in API version 24.0.

- The ChatterActivity object, which represents Chatter activity statistics:
  - ◊ Now includes the number of likes received on comments in addition to likes received on posts.
  - ◊ No longer includes the Nillable property for the fields `CommentCount`, `CommentReceivedCount`, `LikeReceivedCount`, and `PostCount`.
- The ChatterMessage object now supports the `delete()` call and can be used to delete any user's Chatter messages; for example, for compliance purposes. After your organization is upgraded to Winter '12, ChatterMessage will support `delete()` in API version 23.0 as well as in version 24.0.
- Two new fields have been added to the FeedComment object so you can attach files to comments via the API:
  - ◊ `CommentType` is the type of comment. File attachments are of type `ContentComment`.
  - ◊ `RelatedRecordId` is the ID of the ContentVersion object associated with a `ContentComment`.

  Note: Prior to API version 24.0, a text entry was required on a comment. As of version 24.0, a text entry is optional if the `CommentType` is `ContentComment`—an uploaded file on a comment. If you have any Apex triggers associated with the FeedComment object, keep in mind that this change may affect the behavior of existing triggers.
- The CollaborationGroupMember object:
  - ◊ Supports the `update()` call.
  - ◊ Includes the Nillable property for the `NotificationFrequency` field.
  - ◊ Includes the `CollaborationRole` field, which represents the role of a member in a group. Group owners and managers can assign group members of their groups to `Member` or `Manager` roles.

SOQL Enhancements

Use the Salesforce Object Query Language (SOQL) to construct query strings used in Salesforce APIs. For a full description of the SOQL query syntax, see Salesforce Object Query Language (SOQL) in the *Web Services API Developer's Guide*.

Paging Using the `OFFSET` Clause — Developer Preview

Note: `OFFSET` is currently available as a Developer Preview. For more information on enabling `OFFSET` for your organization, contact Salesforce.com.

Use `OFFSET` to specify the starting row offset into the result set returned by your query. Using `OFFSET` is helpful for paging into large result sets, in scenarios where you need to quickly jump to a particular subset of the entire results. For example, the following SOQL query returns a result set that skips the first 100 rows of the full query results:

```
SELECT Name
FROM Merchandise__c
WHERE Price__c > 5.0
ORDER BY Name
LIMIT 50
OFFSET 100
```

SOAP Web Services API Enhancements

New and Changed Calls

Changed Calls

These calls have been changed in API version 24.0.

Call	Argument or Result Object	Field	Change	Description
`describeSObjects()`	DescribeSObjectResult	Field	`permissionable` property added	Indicates whether FieldPermissions can be specified for the field (`true`) or not (`false`).

Previous Versions

For links to documentation for previous versions of the API, see the What's New section of the relevant API or object reference document.

REST API Enhancements

The Force.com REST API leverages the simplified approach of REST to allow developers to more easily interact with other Web 2.0 applications such as Amazon.com AWS, Microsoft Azure, Google, Facebook, Twitter, and others:

- Interact with the application in a simplified way
- Integrate with third-party cloud systems and services
- Support mashup and Web 2.0 projects

If you need to move large amounts of data, use the Bulk API, which is built on RESTful principles, but is asynchronous and optimized for large data-loading tasks.

User Password Management

You can now securely access and manage user passwords using the new User Password methods in the Force.com REST API. For more information see the *Force.com REST API Developer's Guide*.

Streaming API Enhancements

Streaming API—Generally Available

Streaming API is now generally available. Use Streaming API to receive notifications for changes to data that match a SOQL query you define, in a secure and scalable way.

Notification Enhancements

PushTopic records have been enhanced to provide more flexibility when specifying which events and data changes generate notifications. Two new PushTopic fields provide the flexibility:

- `NotifyForOperations` specifies which record events generate a notification. Valid field values are:
  - ◊ `All` (default)
  - ◊ `Create`
  - ◊ `Update`
- `NotifyForFields` specifies how a new or updated record is evaluated against the PushTopic query. Valid field values are:
  - ◊ `All`
  - ◊ `Referenced` (default)
  - ◊ `Select`
  - ◊ `Where`

For existing PushTopics, the `NotifyForOperations` will default to `All` and the `NotifyForFields` will default to `Referenced`. For more information see, Event Notification Rules in the Force.com Streaming API Developer's Guide.

Existing Streaming API PushTopics may behave quite differently in this release. In previous versions, Streaming API generated notifications when a record was created or updated as long as the record matched the PushTopic query. If the query had a WHERE clause, then a notification was generated when a record was created or updated, the record matched the PushTopic query, and one of the fields referenced in the WHERE clause was modified. Now record events that trigger a notification are specified by the `NotifyForOperations` field.

In previous versions, Streaming API only evaluated the fields referenced in the WHERE clause. However, now the API evaluates fields in the SELECT clause, the WHERE clause, or both depending on what you set the `NotifyForFields` field to.

Server Polling Frequency

Streaming API polls the server for activity and issues the resulting notifications to the channel. The polling frequency has decreased from five to three seconds. The actual time may fluctuate depending on the overall server load.

Maximum Request Size

The maximum size of the HTTP request post body that the server can accept from the client is 32,768 bytes, for example, when you call the CometD `subscribe` or `connect` methods. If the request message exceeds this size, the following error is returned in the response: 413 Maximum Request Size Exceeded. To keep requests within the size limit, avoid sending multiple messages in a single request.

Metadata API Enhancements

New Metadata Types

These metadata types are new in Metadata API version 24.0.

Metadata Type	Description
Flow	Represents a valid definition of a flow.
Group	Represents a public group, which can have users, roles, and other groups.
Queue	Represents a holding area for items before they are processed.
Role	Represents a user role.
SharingRules	Represents a set of sharing rules that's used to share records with a set of users, based on rules that specify the access level to the role or group. You can't create a SharingRules component directly. Use the types that extend it: AccountSharingRules, CampaignSharingRules, CaseSharingRules, ContactSharingRules, LeadSharingRules, OpportunitySharingRules, AccountTerritorySharingRules, CustomObjectSharingRules
Territory	Represents a node in the Territory hierarchy.

Updated Metadata

These metadata fields have been added or changed in Metadata API version 24.0.

Metadata Type or Related Object	Field or Field Type	Change	Description
Dashboard	`DashboardFilters`	Updated	Renamed to reflect that dashboards can now have multiple filters. In API version 23.0, this field's name is DashboardFilter.
Dashboard	`DashboardFilterColumns`	Updated	Renamed to reflect that dashboards can now have multiple filters. In API version 23.0, this field's name is DashboardFilterColumn.
Dashboard	`DashboardFilterOptions`	Updated	Renamed to reflect that dashboard filters can have multiple options. In API version 23.0, this field's name is DashboardFilterOption.
Dashboard	`DashboardFilterOperation`	New	Defines the filter options available for dashboards.

Metadata Type or Related Object	Field or Field Type	Change	Description
Dashboard	`operator`	Updated	The `operator` field represents a filter option for a dashboard filter item. Values for `operator` are now defined by DashboardFilterOperation. Previously, `operator` was defined by FilterOperation. FilterOperation is now used for view and report filters only.
Dashboard	`values`	New	A new field on DashboardFilterOperation. Required. Used to define one or more values in the `Filter Options` area of the `Add Filter` dialog. Introduced to support a new operator ("between"), which takes two operands.
ListView (SharedTo)	`allCustomerPortalUsers`	New	A group containing all customer portal users.
ListView (SharedTo)	`allInternalUsers`	New	A group containing all internal users.
ListView (SharedTo)	`allPartnerUsers`	New	A group containing all partner portal users.
ListView (SharedTo)	`portalRole`	New	A list of groups with sharing access containing all users in a portal role.
ListView (SharedTo)	`portalRoleAndSubordinates`	New	A list of groups with sharing access containing all users in a portal role or those under that role.
ListView (SharedTo)	`queue`	New	A list of queues with sharing access. Applies only to lead, case, and CustomObject sharing rules.
Report	`block`	New	Represents each block in a joined report where every block can be of a different report type.
Report	`blockInfo`	New	Defines attributes for each block in a joined report.
Report	`ReportBucketField`	New	Defines a bucket field to be used in the report.
Report	`ReportCrossFilter`	New	Defines a cross filter's object, related object, and condition (WITH or WITHOUT). Available in Metadata API version 22.0 and higher.
Report	`reportType` (in ReportAggregate)	New	Required for joined reports. Specifies the `reportType` of the blocks to which the `aggregate` can be added.
Workflow	`reevaluateOnChange`	New	A new field on WorkflowFieldUpdate. When set to true, if the field update changes the field's value, all workflow rules on the associated object are re-evaluated. Any workflow rules whose criteria are met as a result of the field value change will be triggered.

Additional Database.com Enhancements

Field Updates for Encrypted Custom Fields

With Spring '12, we've expanded the reach of workflow field updates to include encrypted custom fields. Note, however, that if you try to use a formula to set an encrypted custom field's new value, the encrypted custom field isn't available in the formula editor as a resource.

Workflow Field Updates Can Retrigger Workflow Rules

We added a new checkbox option to workflow field updates that allows you to select whether you want a field update to trigger a re-evaluation of all workflow rules on the object.

Here's how it works:

- If the field update changes the field's value, all workflow rules on the associated object are re-evaluated. Any workflow rules whose criteria are met as a result of the field update will be triggered.
- If any of the triggered workflow rules result in another field update that's also enabled for workflow rule re-evaluation, a domino effect occurs, and more workflow rules can be re-evaluated as a result of the newly-triggered field update. This cascade of workflow rule re-evaluation and triggering can happen up to five times after the initial field update that started it.
- In a batch update, workflow is only retriggered on the entities where there is a change.
- Only workflow rules on the same object as the initial field update will be re-evaluated and triggered.
- Only workflow rules that didn't fire before will be retriggered.
- Cross-object workflow rules and time-based workflow rules aren't candidates for re-evaluation.
- Cross-object field updates that cause a field value to change don't trigger workflow rule re-evaluation on the associated object.

Sandbox Retention Policy

In Spring '12, we've updated our sandbox retention policy to optimize our server capacity and support growth of our sandbox infrastructure. Capacity can affect the performance, backup, and replication of your sandbox instances. These policies help ensure that sandboxes use capacity more efficiently.

Unactivated Sandboxes

New sandboxes that aren't activated within 30 days will be deleted. You'll get at least three notifications prior to scheduling the sandbox for deletion.

Locked Sandboxes

Sandboxes that have been locked for 30 days will be deleted. You'll get at least three notifications prior to scheduling the sandbox for deletion. Sandboxes become locked when all the licenses for that type of sandbox expire.

Note: Deletion of a sandbox doesn't terminate or change any of your sandbox subscriptions. If you have a sandbox subscription and your sandbox is deleted, your subscription remains in effect and you can create a new sandbox.

Help and Training Enhancements

Videos

Like to learn by watching? In Spring '12 we offer some great product demos for new and updated features:

- Introducing Joined Reports for Salesforce (3:19 minutes)
- Getting Started with Buckets (3 minutes)
- Overview of Dashboards (3:20 minutes)
- Using Smart Search (2:12 minutes)
- Sending Mass Email (4:31 minutes)

Tip Sheets and Implementation Guides

The following new or updated documents are now available:

- Two appendices have been added to the *ISVforce Guide*: one of which compares two ISVforce user licenses and the second of which compares three OEM user licenses.
- *Using Dashboard Filters*
- *Using Cross Filters in Reports*
- *What are Joined Reports?*
- *Using Bucket Fields*
- *Chatter Answers Implementation Guide*

Workbooks

The following new or updated workbooks are now available:

- *Cloud Flow Designer Workbook*—Introduces you to the creation of flows through a series of tutorials using the native-to-Salesforce, Cloud Flow Designer. By the end of this book, you'll have built three separate flows using increasingly complex elements, such as Record Lookup and Record Create, and used Apex to create a plug-in for a flow.

Developer Guides

The following new or updated developer documents are now available: