



Salesforce.com: Salesforce Spring '08

# Salesforce Spring '08 Release Notes



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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 new merge fields you can use in formulas to improved icons for greater usability to additional fields that are available in standard reports.






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

## Summary of Spring '08 Features and Impact on Salesforce Users

Spring '08 includes features that will immediately impact all Salesforce users when the release occurs. You may want to communicate these changes to the users in your organization before the release so that they are prepared for any changes that might affect them. Other features require direct action by a Salesforce administrator before your users can benefit from the new functionality.

The following table summarizes the Spring '08 features and whether they will have an immediate impact on users:

Feature	Automatically visible to all users. No setup required.	Not automatically visible. Feature is enabled but requires some setup.	Contact salesforce.com to enable this feature.
<a href="#">Salesforce for Google Apps</a>			
<a href="#">General Availability of Salesforce Content</a>			
<a href="#">General Availability of Salesforce Ideas</a>			
<a href="#">Partner Portal</a>			
<a href="#">Scheduling Dashboards to Refresh</a>			
<a href="#">Account Team and Sales Team Member Enhancements</a>	 Users must now click a <b>Display Access</b> button to display the team member's entire sharing access.		

Feature	Automatically visible to all users. No setup required.	Not automatically visible. Feature is enabled but requires some setup.	Contact salesforce.com to enable this feature.
Drag-and-Drop Editing on Calendar Views			
Spell Checker for Activities			
Home Page Hover Links for Events			
Default Email Notifications on Tasks	 <p>If administrators previously enabled the Send Notification Email checkbox on task page layouts, the new option Make this the default setting will display when users select or deselect the Send Notification Email checkbox as they create and edit tasks.</p>		
Redesigned Calendar View Headers	 <p>At the top of calendar views, users will see a new layout of their familiar icons and links.</p>		
Campaign Enhancements	 <p>On the opportunity detail page, users can now see the campaign which generated the opportunity for opportunities created directly from contacts that participated in a campaign.</p>		
Person Accounts for the Customer Portal	 <p>Users with the "Edit Self-Service Users" permission can click an <b>Enable Customer Portal User</b> button on</p>		

Feature	Automatically visible to all users. No setup required.	Not automatically visible. Feature is enabled but requires some setup.	Contact salesforce.com to enable this feature.
	person accounts to enable them for your Customer Portal.		
Forecasting Enhancements			
Lead Conversion with Validation Rules and Triggers			 Existing customers must contact salesforce.com to enable this feature.  For customers that sign up a new organization after Spring '08, this feature is automatically enabled.
Opportunity Roll-Up Summary Fields on Accounts			
21 Digit Summaries on Reports	 Summary fields on existing reports now display up to 21 digits for greater accuracy.		
Comprehensive Record Reporting via Custom Report Types (Outer Joins)			
Salesforce to Salesforce Enhancements			
Visualforce Enhancements			
Apex Enhancements			
Force.com Web Services API 12.0		  When you access the Spring '08 API, changing an account or opportunity owner does not revoke sharing access to any pre-existing account or sales team members. In previous API versions, such changes removed	

Feature	Automatically visible to all users. No setup required.	Not automatically visible. Feature is enabled but requires some setup.	Contact salesforce.com to enable this feature.
		sharing access for each respective account team or sales team.	
Apex Generally Available in Enterprise Edition and New Apex Sandbox			
Metadata API			
Force.com IDE			
Apex Email Services Enhancements and General Availability	 Email services created prior to Spring '08 will no longer work because of changes to the implementation of the <code>InboundEmail</code> handlers in the Inbound Email Object.		
Hierarchy Visibility Override—Controlling Sharing Access Using Hierarchies			
Mobile Custom Views			
Salesforce Mobile Support for Person Accounts	 Mobile users in organizations that have enabled person accounts can immediately access them from their wireless devices unless the administrator has set up a data filter in the mobile configurations that excludes person accounts.		
Salesforce Mobile Enhanced Data Filtering			
AppExchange Package Upload and Install Enhancements	 Users can now upload packages with dependencies. During upload, Salesforce lists		



Feature	Automatically visible to all users. No setup required.	Not automatically visible. Feature is enabled but requires some setup.	Contact salesforce.com to enable this feature.
	the dependencies on the Show Dependency page. During install, Salesforce verifies all requirements are met.		
Custom Button Enhancements			
Custom List View Enhancements			
Deleted Custom Fields Automatic Cleanup	 Any fields that you deleted after the Summer '07 release will be permanently deleted 45 days after the Spring '08 release. If you do not want them to be permanently deleted, undelete them within 45 days. This change affects all Salesforce Editions.		
Dynamic Approval Routing			
Email Deliverability Testing			
Email to Salesforce			
Force.com Connect Offline Enhancements			
Formula and Validation Rule Enhancements			
Inline Editing Supported for the Console	 If you have enabled inline editing, the ability to use it on the console is automatic.		
Search Enhancements for Accented Characters	 This enhancement only applies to new records, or existing records that are saved after the		

Feature	Automatically visible to all users. No setup required.	Not automatically visible. Feature is enabled but requires some setup.	Contact salesforce.com to enable this feature.
	Spring '08 release goes live for your instance.		
Security Enhancements	 Although this security feature is automatically enabled and requires no setup, it does not affect your users' ability to export report data or user list view data, nor does it alter the user experience.		
Setup Menu Restructuring	 Users with access to the Setup options under the <b>Build, Develop, Exchange,</b> and <b>Integrate</b> folders immediately see the new names for these folders.		
Special Date Values Supported for All English Locale Types			
Email-to-Case Workflow			
Workflow Rule Criteria for Converted Leads			

# SALESFORCE APPLICATIONS

## Salesforce for Google Apps

Available in: **All Editions**

Google Apps™ is a suite of on-demand communication and collaboration services hosted by Google and designed for business users. Salesforce integrates key Google Apps services and provides several AppExchange apps that enhance and customize Google-related functionality. Your organization can create a free-of-charge Google Apps Standard Edition account and enable Salesforce for Google Apps, or purchase the Salesforce for Google Apps Supported feature that includes a Google Apps Premier Edition account and Premier Edition licenses for your users.

The following services for Google Apps are integrated with Salesforce and require a simple activation by a Salesforce administrator:

### Add Google Docs to Salesforce

Google Docs™ allows you to create on-demand documents, spreadsheets, and presentations, edit them in your browser, and work together in real time with other collaborators. When the Add Google Docs to Salesforce service is activated, you can:

- Use the Google Docs, Notes, & Attachments or Google Docs & Attachments related list on any Salesforce record to create, edit, or view Google docs and associate them to a record.
- Share a Google doc with any Google Apps user in your organization.
- Associate Google docs with Salesforce records even when you are not working in Salesforce by using the **Add Google Doc to Salesforce** browser button.

### Google Docs Tab

When the Google Docs tab is activated, you can use it to conveniently access the Docs home page for your Google Apps account without leaving Salesforce. The Google Docs tab hosts your Docs home page, which is a list of all Google documents, spreadsheets, and presentations that you created or that other users have shared with you. If the Add Google Docs to Salesforce service is also activated, you can create a Google doc from the Google Docs tab and associate that doc to any Salesforce record with the click of a button.

### Gmail to Salesforce

Gmail™ is a Web-based email application that operates on all standard browsers and can be used with your company's domain. Use Gmail to Salesforce to automatically log emails you send from your Gmail account as activities on lead and contact records in Salesforce.

### Gmail Buttons and Links

Gmail Buttons and Links adds **Gmail** links next to email fields on all records, and adds **Compose Gmail** buttons in Activity History related lists on leads and contacts. When you click a Gmail link or the **Compose Gmail** button, Salesforce automatically logs you into your Gmail account and automatically populates the **To** field. If Gmail to Salesforce is activated, Salesforce also populates the **BCC** field with your Email to Salesforce address.

### Google Talk Sidebar Component

Google Talk™ is Google's instant-messaging tool. When the Google Talk Sidebar Component is activated in Salesforce, Google Talk displays below the sidebar search fields where it can be toggled on, off, or

expanded into its own window. You can also log a chat record as an activity on a Salesforce lead or contact record.

### Implementation Tips

- For detailed information about Google Apps, refer to [Google's online help](#).
- Google Apps in Salesforce is available for Google business accounts but not consumer accounts. You can identify a consumer account by the "gmail.com" domain in an email address; for example, *myname@gmail.com* is a consumer account. The Google Apps domain you set up in Salesforce must be the domain you registered with Google for your organization; for example, *mycompany.com* is a business rather than consumer account.
- After creating a Google Apps account for your organization, create Google Apps accounts for your Salesforce users by clicking **Export to Google Apps** from **Setup > Manage Users > Users**.
- Notify users of their Google Apps usernames and passwords.
- Notify users about the changes they will see in Salesforce when Google Apps services are activated. For example, activating the Google Talk Sidebar Component adds Google Talk to the sidebar for all users in your organization.
- To view all the Google apps available on the AppExchange, visit [www.salesforce.com/appexchange/](http://www.salesforce.com/appexchange/).
- By default, Google Apps users on your organization's domain can share Google docs with Google Apps accounts outside your domain. The control panel for your Google Apps account contains sharing settings that enable you to restrict document sharing to within your domain.
- When the **Add Google Docs to Salesforce** service is deactivated, Google docs cannot be accessed from Salesforce records. All Google docs are permanently removed from the Recycle Bin of each user in Salesforce when Google Docs is disabled. If the **Add Google Docs to Salesforce** service is reactivated within 30 days, Google docs that were associated with Salesforce records before the deactivation are restored to their previous location.
- Customer Portal and Partner Portal users can associate an existing Google doc to a Salesforce record, but they cannot create new Google docs from within a Salesforce record or use the **Add Google Doc to Salesforce** browser button.
- Customer Portal and Partner Portal users cannot access the Gmail Buttons and Links or Google Talk Sidebar Component services.
- If your organization purchased the Salesforce for Google Apps Supported feature, see "Getting Started With Salesforce for Google Apps Supported" in the Salesforce online help.

### Best Practices

- Test your Google Apps integration using a sandbox or Developer Edition organization.
- Manage Google Apps users as you would Salesforce users. For example, if you deactivate a Salesforce user, also deactivate his or her Google Apps account in the control panel for your organization's Google Apps account. For information about administering your organization's Google Apps account, refer to [Google's online help](#).
- To locate a Google doc quickly in Salesforce, search for the doc using Sidebar Search.
- If Google Talk is in the sidebar, refreshing a Salesforce page causes Google Talk to momentarily disconnect and reconnect. Recommend to your users that they open Google Talk in its own window if they want to have longer chats.

## Getting Started with Google Apps in Salesforce

### Step 1: Creating a Google Apps Account

Create a Google Apps account for your organization using one of the following methods:

- On the **Setup > Google Apps > Settings** page, click **Sign Up** to launch the account-creation page on the Google website. You are prompted to register your organization's domain name or purchase a new domain name from Google. A domain is the portion of a website's URL that follows the "www." Follow Google's steps to configure your new or existing domain and set up your Google Apps account.

- If your organization purchased the Salesforce for Google Apps Supported feature, click **Setup** ► **Google Apps** ► **Premier Setup** to create a new Google Apps Premier Edition account or upgrade your existing Standard Edition account to Premier Edition. For details, see "Getting Started With Salesforce for Google Apps Supported" in the Salesforce online help.



**Note:** Google Apps in Salesforce supports Google Apps business accounts but not consumer accounts. You can identify a consumer account by the "gmail.com" domain in an email address; for example, *myname@gmail.com* is a consumer account. The Google Apps domain you set up in Salesforce must be the domain you registered with Google for your organization; for example, *mycompany.com* is a business rather than consumer account.

## Step 2: Configuring Google Apps Domain Settings

1. On the **Setup** ► **Google Apps** ► **Settings** page in Salesforce, click **Edit**.
2. Choose a user for the `Google Apps Administrative Contact` field. This person is the point of contact for Google Apps users in your organization; specifically, if a user cannot access a Google Apps service, he or she is directed to contact the `Google Apps Administrative Contact`. The `Google Apps Administrative Contact` does not need to be the same person who is registered as your organization's Google Apps administrator with Google, but only the Google Apps administrator can create new Google Apps users on your domain.
3. Enter the `Google Apps Domain` that you registered with Google. For example, if your company's URL is `http://www.acme.com` and you created a Google Apps account for the `acme.com` domain, enter `acme.com` in the `Google Apps Domain` field.
4. Click **Save**.

## Step 3: Activating Google Apps Services

1. In the `Activate Google Apps Services` section on the **Setup** ► **Google Apps** ► **Settings** page, locate the Google Apps service(s) that you want to activate.
2. Click **Edit** or **Install** to activate a service. In the `Action` column, **Edit** corresponds to Google Apps services that are already integrated in Salesforce, and **Install** corresponds to uninstalled AppExchange apps. Integrated Google Apps services include:
  - Add Google Doc to Salesforce
  - Google Docs Tab
  - Gmail to Salesforce
  - Gmail Buttons and Links
  - Google Talk Sidebar Component

For descriptions of the Google-related AppExchange apps, visit [www.salesforce.com/appexchange/](http://www.salesforce.com/appexchange/).

## Step 4: Creating Google Apps Users

Activating Google Apps services in Salesforce makes the services visible to all users in your organization, but a user cannot access a service unless he or she has a Google Apps account on your organization's domain. The Google Apps administrator registered with Google can create these additional accounts. For more information, see "Creating Google Apps Accounts" in the Salesforce online help.

## Google Docs

### Activating the Add Google Docs to Salesforce Service

To activate or deactivate Google Docs in Salesforce:

1. Click **Setup** ► **Google Apps** ► **Settings**.
2. Click **Edit** next to the `Add Google Docs to Salesforce` option in the `Activate Google Apps Services` list.

3. Select or deselect the `Active` checkbox.
4. If you are activating the Add Google Docs to Salesforce service, read the Terms of Use and select the checkbox indicating you agree to the Terms of Use.
5. Click **Save**.

When the Add Google Docs to Salesforce service is enabled, the Notes and Attachments related list on accounts, assets, contacts, contracts, leads, opportunities, products, and custom objects is renamed Google Docs, Notes, & Attachments, and the Attachments related list on cases, solutions, and campaigns is renamed Google Docs & Attachments. From both related lists, users can create, edit, or view Google docs and associate them with Salesforce records.

## Activating the Google Docs Tab

The Google Docs tab in Salesforce hosts the Docs home page for each user's Google Apps account, allowing users to view and manage all their Google docs from within Salesforce. If the Add Google Doc to Salesforce service is also activated, users can install a browser button that enables them to easily associate Google docs with Salesforce records from the Google Docs tab.

To activate or deactivate the Google Docs tab in Salesforce:

1. Click **Setup** ► **Google Apps** ► **Settings**.
2. Click **Edit** next to the Google Docs Tab option in the Activate Google Apps Services list.
3. Select or deselect the `Active` checkbox.
4. If you are activating the Google Docs tab, read the Terms of Use and select the checkbox indicating you agree to the Terms of Use.
5. Click **Save**.

## Installing the Google Docs Browser Button

A browser button is an applet, or small computer application, that provides one-click functionality similar to a bookmark. The **Add Google Doc to Salesforce** browser button allows you to associate a Google doc with several Salesforce records at once, even when you are not working in Salesforce. To use this browser button, the Add Google Doc to Salesforce service must be enabled and you must install the browser button in your browser.

To access the **Add Google Doc to Salesforce** browser button:

1. Display any record in Salesforce that has a Google Docs, Notes, & Attachments or Google Docs & Attachments related list on the record detail page.
2. Choose **Add Existing** from the **Add Google Doc** drop-down button in the Google Docs, Notes, & Attachments or Google Docs & Attachments related list. If the related list contains a Google doc, you can also click **Edit** next to the Google doc.
3. Click **Get the browser button** at the bottom of the page.

If you use more than one type of browser, for example Microsoft® Internet Explorer and Mozilla® Firefox, install the browser button in each browser. The instructions for installing the browser button depend on your browser. In Firefox, drag the browser button to your Bookmarks Toolbar. In Apple® Safari, drag the browser button to your Bookmark Bar. In Internet Explorer:



**Note:** The instructions may vary slightly based on your version of Internet Explorer.

1. Right-click the browser button and choose **Add to Favorites...** from the Add Google Doc to Salesforce page.
2. Save the browser button in the Links folder and click **Add**.
3. In your browser menu bar, click **View** ► **Toolbars** and ensure that the Links toolbar is visible.
4. Close and restart your browser. The browser button displays in your Links toolbar.



**Note:** If you change your personal language setting in Salesforce and want to change the language on the browser button also, delete and reinstall the browser button.

## Associating Google Docs to Salesforce Records

Salesforce offers three methods for associating Google docs to Salesforce records:

- You can create a new Google doc from any detail page. The doc is automatically associated to the record and is visible to anyone with access to both the record and the Google doc.
- You can associate an existing Google doc to any Salesforce record. An existing Google doc is one that you already have access to on your Google Apps account but is not already associated with the record you are viewing.
- You can create a Google doc from the Docs home page in your Google Apps account and associate the doc to one or more Salesforce records using the **Add Google Doc to Salesforce** browser button.

### Adding New Google Docs to a Salesforce Record

1. Display the record you want linked to the new Google doc.
2. On the Google Docs, Notes, & Attachments related list or the Google Docs & Attachments related list, click **Add Google Doc** and choose **New Document**, **New Spreadsheet**, or **New Presentation**.
3. Enter a name and click **Create Google Doc**. You can begin editing your doc; it is automatically associated with the selected record.



**Tip:** While you have your Google doc open, remember to share it with other Google Apps users in your organization. Only users with access to the Google doc in their Google Apps account can view the doc from the record detail page.

### Adding Existing Google Docs to a Salesforce Record

1. Display the record you want to associate with the Google doc.
2. On the Google Docs, Notes, & Attachments or Google Docs & Attachments related list, click **Add Google Doc** and choose **Add Existing**.
3. Enter a **Name** for the Google doc and its **URL**.
4. Click **Save**.

### Adding Google Docs to Multiple Salesforce Records

The Docs home page in your Google Apps account lists all the Google docs you have created with your Google Apps account or that other users have shared with your account. You can access the Docs home page by logging into your Google Apps account and navigating to the Docs home page.



**Tip:** As a shortcut, you can display the Docs home page in Salesforce if the Google Docs tab is enabled.

If the **Add Google Doc to Salesforce** browser button is installed in your browser, create a Google doc and click the browser button. To associate the Google doc with multiple Salesforce records:

1. Open a Google doc.
2. Click the **Add Google Doc to Salesforce** browser button.
3. In the **Add Google Doc To** field, enter your search criteria for the Salesforce record.
4. Select an object type from the drop-down list and click **Search**.
5. Optionally, filter your search results with the **Limit to items I own** checkbox.

6. In the search results, select one or more records and click **Add Google Doc to Selected Records**. You can also click any of the fields in the search-results list to view more information about the record(s).

## Gmail

Gmail™ (also called Google Mail) is a free Web-based email service from Google that operates on all standard browsers and can be used with your company's domain.

### Gmail to Salesforce

Gmail to Salesforce allows you to automatically log emails you send from your Gmail account as activities on lead and contact records in Salesforce.

Gmail to Salesforce is based on the Email to Salesforce feature. To activate Gmail to Salesforce for your organization, follow the instructions in "Enabling Email to Salesforce" in the Salesforce online help. To configure your personal Gmail to Salesforce setup, follow the instructions in "Using My Email to Salesforce Address" in the Salesforce online help.

### Gmail Buttons and Links

Gmail Buttons and Links adds **Gmail** links next to email fields on all records, and adds **Compose Gmail** buttons in Activity History related lists on leads and contacts. When you click a Gmail link or the **Compose Gmail** button, Salesforce automatically logs you into your Gmail account and automatically populates the **To** field. If Gmail to Salesforce is activated, Salesforce also populates the **BCC** field with your Email to Salesforce address.

To activate Gmail Buttons and Links:

1. Click **Setup** ► **Google Apps** ► **Settings**.
2. In the Activate Google Apps Services list, click **Edit** next to Gmail Buttons and Links.
3. Select the **Active** checkbox to activate Gmail Buttons and Links for your organization.
4. Select the **Gmail Links** checkbox to add **Gmail** links next to all email fields (except email fields on pages under **Setup**).
5. Select the **Gmail Buttons** checkbox to add **Compose Gmail** buttons in Activity History related lists on leads and contacts.
6. Read the Terms of Use, and select the checkbox indicating you have read and agree to them.
7. Click **Save**.

## Google Talk

Google Talk™ is Google's instant-messaging tool. When the Google Talk Sidebar Component is activated in Salesforce, Google Talk displays below the sidebar search fields where it can be toggled on, off, or expanded into its own window. You can also log a chat record as an activity on a Salesforce lead or contact record.

### Activating Google Talk

To activate or deactivate Google Talk in Salesforce:

1. Click **Setup** ► **Google Apps** ► **Settings**.
2. Click **Edit** next to the Google Talk Sidebar Component option in the Activate Google Apps Services list.
3. Select or deselect the **Active** checkbox.
4. If you are activating the Google Talk Sidebar Component, read the Terms of Use and select the checkbox indicating you agree to the Terms of Use.
5. Click **Save**.

### Tips for Using Google Talk

- For information about using Google Talk, refer to [Google's online help](#).



- Google Talk appears in both standard and custom sidebar layouts on all tabs.
- Because Google Talk chats are automatically saved in Gmail, users with Email to Salesforce can log a Google Talk chat as an activity on a lead or contact. For more information see "Using Gmail in Salesforce" in the Salesforce online help.
- When Google Talk is in the sidebar, refreshing a Salesforce page causes Google Talk to momentarily disconnect and reconnect. For longer chats, open Google Talk in its own window by clicking **pop out** next to the Google Talk sidebar component.
- Google Talk is not available for Customer Portal or Partner Portal users.

## General Availability of Salesforce Content

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

With Spring '08, Salesforce Content is generally available to English-speaking users in Professional, Enterprise, and Unlimited Editions.

To customers who participated in the limited release of Salesforce Content, Spring '08 introduces the following enhancements:

### Featured Content

"Featuring" content enables authors and administrators to highlight specific content as particularly valuable to users. For example, a Competitive Intelligence Team that publishes many competitive articles about "Acme Corp" can mark the most important articles as "featured." When users search for content related to Acme Corp, the featured content displays at the top of search results and it is highlighted to visually distinguish it from other content in the search-result set. Featured content is also listed on the workspace overview and workspace detail pages for quick access.

### Multiple Content Types

Content types are the containers for custom fields; they determine which fields are available during the publishing process and how the fields display on the content details page. You can create multiple content types and assign a content field to any or all content types. For example, if sales and marketing users need to record different information about their content, you can create Sales and Marketing content types. If you create a `Related Campaign` lookup field and add it to the Marketing content type only, users who select the Sales content type during the upload process will not have the option to choose a campaign. After creating multiple content types, you can choose to restrict the content types that are available in a particular workspace. Users can filter their search results by content type to locate relevant content easily.

### Workspace Tagging Rules

In Salesforce Content, tags are descriptive labels that help classify and organize content. Contributors can assign tags to their files or Web links, thus enabling all workspace members to browse for content by tag. To encourage contributors to tag consistently, administrators now have the option of applying a tagging rule to a workspace. Three tagging rules are available: open, guided, and restricted. The open tagging rule allows contributors to assign any tag to their content. The guided tagging rule provides a list of suggested tags but also allows contributors to enter their own tags. The restricted tagging rule does not allow contributors to enter their own tags; in a restricted-tagging workspace, contributors can only choose from the list of suggested tags.

### Managing Salesforce Content Storage

You can now click **Setup** ► **Data Management** ► **Storage Usage** to view your current usage for all storage types, including Salesforce Content. Salesforce Content storage is allocated on a license count basis, with each license contributing 500 MB to the organization's total allotment. Administrators receive a warning email when their organization reaches 80% of its total Salesforce Content storage allowance. Additional storage can be purchased in 1 GB blocks.

**Search Enhancements**

Finding the information you need in Salesforce Content is easier than ever. Display options on the Content tab allow you to customize search results and then sort data by clicking the column headers. "Smart bars" on the Content and Workspaces tabs provide a graphical representation for the relative number of downloads, ratings, subscribers, and comments.

**Moving and Deleting Content**

Spring '08 offers greater flexibility in managing content. In addition to sharing content among workspaces, you can now move content from one home workspace to another. You can also permanently delete files from Salesforce Content. Like other deleted Salesforce records, deleted content is moved to your Recycle Bin.

## What is Salesforce Content?

With Salesforce Content you can organize, share, search, and manage content within your organization and across key areas of the Salesforce application. Content can include all file types, from traditional business documents such as Microsoft PowerPoint® presentations to audio files, video files, and Web pages.

**Overview**

Salesforce Content simplifies content management by incorporating user-friendly features into the following tasks:

**Organizing**

Rather than keep files in folders that make content difficult to find, Salesforce Content stores files in fully searchable file repositories known as workspaces. Administrators can create multiple workspaces based on any classification, such as department name, job function, or team, then configure user permissions within the workspace to balance content access with security. Authors assign descriptive labels called tags to help classify and organize content across workspaces. You can view a list of all files or Web links that belong to a particular tag or filter search results based on a tag or tags.

**Searching**

The powerful Salesforce Content search engine scans the entire body of the document as well as content properties such as the title, description, tags, categorization data, and author name. You can filter searches by featured content, file format, author, tags, workspaces, or custom fields and then view the results with various levels of detail, providing an easy way to find relevant content quickly. The "smart bar" graphic for downloads, comments, ratings, and subscribers allows you to compare documents within a search result set.

**Subscribing**

Once a file is located, subscribing to it ensures that you receive an email notification when new versions are published or changes are made to the file's properties. You can also subscribe to authors, tags, and workspaces, thus reducing the time spent searching for new or updated content. Notification emails will arrive real-time or once daily, depending on your preferences.

**Previewing**

In Salesforce Content you do not need to download a large document to determine if its content is relevant to you. The preview function provides document details at a glance, including document title, author, description, tags, workspaces, comments, votes, versions, subscribers, and downloads. If the document is a PowerPoint file, you can preview the first four pages.

**Contributing**

Uploading new or revised files in Salesforce Content is fast and easy. During the upload process you choose a workspace and content type for your file or Web link, write a description, assign one or more tags, and fill out any customized fields that help categorize and define your content. Version management does not require checking files in and out, rather, you simply upload a new version of the file and Salesforce

Content maintains a version list accessible from the content details page. You can download past versions of a file and read all reason-for-change comments that an author may have included with a new version.

### Reviewing Usage and Providing Feedback

Salesforce Content provides several methods for determining whether content is valuable to readers.

Voting thumbs up or thumbs down on a file or Web link and adding comments allow you to participate directly in content improvement. You can also see who has subscribed to a file or Web link and how many times it has been downloaded.

### Sharing Content in Salesforce

Salesforce Content is also integrated with leads, accounts, contacts, opportunities, cases, products, and custom objects. If Salesforce Content functionality is enabled on the Opportunity tab, for example, Salesforce Content uses the fields on the opportunity detail page to search for files that may be relevant to that opportunity. You can drill down in the search results as needed or run your own search and then attach one or more files to the opportunity. The most current version of the file will be available on the detail page for the life of the opportunity.

### Implementation Tips

- To implement Salesforce Content for your organization, see "Setting Up Salesforce Content" in the Salesforce online help.
- Before creating workspaces, review the files you plan to store in Salesforce Content to determine how many workspaces you need and what content belongs in each workspace. Users are given access to content based on workspace.
- If you have a large number of Salesforce Content users, create a public group and add the group to a workspace rather than adding users to the workspace individually.
- To enable Salesforce Content functionality for leads, accounts, contacts, opportunities, cases, products, or custom objects, add the Related Content related list to the appropriate page layout. For more information, see "Customizing Page Layouts" in the Salesforce online help.
- Salesforce Content is not available for Customer Portal and Partner Portal users.
- Testing Salesforce Content in sandboxes is not supported.

### Best Practices

- If you are using the Related Content related list on Salesforce objects, align your custom content fields with the standard and custom fields on the object to increase the accuracy of a "Find Content" search. Clicking the **Find Content** button on the related list matches content to the fields on the record and displays search results containing the related content.
- To ensure that content is classified consistently, define consistent tag names with your contributors. For example, by establishing tag names at the outset, you can avoid having tags such as "channel" and "channels" in the same workspace.
- Avoid using too many tags. The search engine helps users find specific content, whereas tags enable users to browse and subscribe. Therefore, excessive tagging creates unnecessary clutter.
- To highlight valuable content and make it easier to find, mark it as "featured" on the content details page. Featured content receives a higher priority than similar content in search results, and appears on the Workspaces tab for easy access. To feature content, users must have the `Feature Content` option checked in their workspace permission.

## Implementing Salesforce Content

### Setting Up Salesforce Content

User Permissions Needed	
To create, edit, or delete workspace permissions:	"Manage Content Permissions" OR "Manage Salesforce Content"
To create, edit, or delete content types:	"Manage Content Types" OR "Manage Salesforce Content"
To create content fields:	"Manage Content Properties" OR "Manage Salesforce Content"
To create workspaces:	"Create Workspaces" OR "Manage Salesforce Content"
To edit or delete workspaces:	"Manage Salesforce Content"

To set up Salesforce Content for your organization:

- To give a user access to Salesforce Content, assign that user a Salesforce Content user license. Click **Setup** ► **Manage Users** ► **Users** and click **Edit** next to the user's name. Select the `Salesforce Content User` checkbox and click **Save**.
- Verify that the profile assigned to Salesforce Content users has the Salesforce Content user permissions enabled.  
The user permissions include "Manage Salesforce Content," "Create Workspaces," "Manage Content Permissions," "Manage Content Properties," and "Manage Content Types." For more information about these user permissions, see "User Permissions on Profiles" in the Salesforce online help.
- Optionally, create a public group with a set of Salesforce Content users. You can save time later by assigning the group to a workspace rather than assigning several users to the same workspace individually. See "Creating and Editing Groups" in the Salesforce online help.
- Create one or more workspace permissions. Workspace permissions are the groups of privileges that determine user access within a workspace. Every user must be assigned a workspace permission before he or she can use a workspace. For more information, see "Managing Workspace Permissions" in the Salesforce online help.
- Use the New Workspace Wizard to create a workspace, add members to the workspace, and assign workspace permissions to the members. See "Creating Workspaces" in the Salesforce online help.
- Categorize and define your content:
  - Create content fields. These are custom fields that you assign to a content type. The default fields are `Description`, `Tags`, and `Title`. If you want to create a field named, for example, `Reviewed By`, your custom content field would be a picklist with the names of possible reviewers. See "Customizing Content Fields" in the Salesforce online help.
  - Create a custom content type or modify the General content type. Content types are the containers for custom fields; they determine which fields are available during the publishing process and how the fields display on the content details page. You can create multiple content types and assign a content field to any or all content types. For example, if sales

and marketing users need to record different information about their content, you can create Sales and Marketing content types. If you create a `Related Campaign` lookup field and add it to the Marketing content type only, users who select the Sales content type during the upload process will not have the option to choose a campaign.. See "Setting Content Types" in the Salesforce online help.

To customize Salesforce Content after initial configuration, such as adding new content fields or editing workspace permissions, see "Customizing Salesforce Content" in the Salesforce online help.



**Note:** Salesforce Content does not use general storage or complimentary document storage; complimentary document storage applies to the Documents tab only. Click **Setup** > **Data Management** > **Storage Usage** to view your current usage for all storage types, including Salesforce Content. Salesforce Content storage is allocated on a license count basis. Each license contributes 500 MB to the organization's total allotment. Administrators receive a warning email if their organization reaches 80% of its total Salesforce Content storage allowance. Additional storage can be purchased in 1 GB blocks. For more information, contact salesforce.com.

## Creating Workspace Permissions

User Permissions Needed	
To create workspace permissions:	"Manage Salesforce Content"
	OR
	"Manage Content Permissions"

To create a workspace permission in Salesforce Content, click **Setup** > **Customize** > **Salesforce Content** > **Workspace Permissions** and click **Add Workspace Permissions**.



**Tip:** For your first workspace permissions, consider creating "Viewer," "Author," and "Workspace Administrator" permissions. These three workspace permissions provide the different levels of workspace access required for most organizations. For the "Viewer" workspace permission, select the `View Comments` and `Add Comments` workspace privileges. For the "Author" workspace permission, select all workspace privileges except `Manage Workspace`. For the "Workspace Administrator" permission, select all workspace privileges.

1. Assign a name to the workspace permission.
2. Optionally, enter a description of the workspace permission. If your organization has several workspace permissions, consider describing each by its function or with a summary of its privileges. For example, for a "Marketing Reviewer" permission you might include a description that reads, "Reviews all content used in outbound marketing campaigns" or "This user can view and comment on documents."
3. In the Permissions section, select the checkboxes that correspond to the privileges you want to grant to users with this workspace permission.

Workspace Privilege	Description
Manage Workspace	Perform any action in the workspace. This privilege is required to edit the workspace's name and description, add or remove workspace members, or delete a workspace.  Creating a new workspace requires the "ManageSalesforce Content" or "Create Workspaces" user permissions.
Add Content	Publish new content to the workspace, upload new content versions, or restore archived (deleted) content. Content

Workspace Privilege	Description
	authors can also change any tags associated with their content and archive or delete their own content.
Add Content on Behalf of Others	Choose an author when publishing content in the workspace.
Archive Content	Archive and restore any content in the workspace.
Delete Content	Delete any content in the workspace. Authors can undelete their own content from the Recycle Bin.
Feature Content	Identify any content in the workspace as "featured."
View Comments	Read comments posted to any content in the workspace.
Add Comments	Post comments to any content in the workspace and view all comments in the workspace. Users can edit or delete their own comments.
Modify Comments	Edit or delete comments made to any content in the workspace.
Tag Content	Add tags when publishing content or editing content details in the workspace.

#### 4. Click **Save**.

## Setting Content Types

User Permissions Needed	
To create, edit, or delete content types:	"Manage Content Types"
	OR
	"Manage Salesforce Content"

Content types are the containers for custom fields in Salesforce Content; content types determine which fields are available during the publishing process and how the fields display on the content details page. If multiple content types are available in a workspace, users select a content type after uploading files or Web links.

To work with content types, click **Setup** ► **Customize** ► **Salesforce Content** ► **Content Types**. You can:

- Click **New** to create content types; see "Creating Content Types" in the Salesforce online help.
- Click **Edit** to edit content types; see "Editing Content Types" in the Salesforce online help.
- Click **Del** to delete a content type.
- Click **picklists** to modify the picklists on any content type. Picklists are customized selection lists that allow users to pick values from a predefined list of entries.

When editing a workspace, you can choose which content types are visible to workspace contributors. For more information, see "Restricting Content Types" in the Salesforce online help.

## Creating Workspaces

User Permissions Needed	
To create workspaces:	"Manage Salesforce Content" OR "Create Workspaces"
To add members to a workspace:	"Manage Salesforce Content" OR Manage Workspace checked in your workspace permission definition
To assign workspace permissions to members:	"Manage Salesforce Content" OR Manage Workspace checked in your workspace permission definition

Adding a new workspace in Salesforce Content includes creating the workspace name and description, adding members to the workspace, and assigning workspace permissions that determine each member's privileges within the workspace.

### Step 1: Creating a New Workspace

1. Click **New** in the My Workspaces section of the Workspaces tab home page.
2. Enter a name for the workspace. Each workspace in your organization must have a unique name.
3. Optionally, enter a description for the workspace.
4. Click the **Save and Add Members** button or, if you want to add members later, click the **Save and Close** button.

### Step 2: Adding Workspace Members

1. If you do not immediately see the member you want to add, enter keywords in the search box and click **Find**.
2. Select members from the Available Members box. Members can include individual Salesforce Content users or public groups containing Salesforce Content users.
3. Click **Add** to add the members to the workspace.
4. Click **Next**.

### Step 3: Assigning Workspace Permissions to Members

Select a workspace permission for each user or public group and click **Save**. For more information, see "Managing Workspace Permissions" in the Salesforce online help.

## Using Salesforce Content

### Uploading and Publishing Content

User Permissions Needed	
To upload and publish content:	Manage Workspaces checked in your workspace permission definition OR Add Content checked in your workspace permission definition

Clicking the Contribute tab displays the Contribute home page where you can upload, classify, and publish files and Web links in Salesforce Content. Uploaded content that you have not published to a Salesforce Content workspace appears in the Unpublished Content list. You can publish or delete content from this list, upload and publish new content, or upload new content and publish it later.

To classify and publish a file or Web link from the Unpublished Content list:

1. Click the name of the file or Web link that you want to publish.
2. Assign a title and description to your content.
3. Choose a workspace. This becomes the managing (home) workspace, meaning that the content can be shared to another workspace but only revised by a user with author permissions in the managing workspace.
4. If you want to publish the file or Web link on behalf of another author, choose that author from the drop-down list.
5. Tag your content. Your tagging permission depends on the tagging rule assigned to the workspace:
  - If the workspace does not have a tagging rule or if your administrator assigned the open tagging rule, you can enter tags in the **Tags** field. As you type a tag, Salesforce Content autosuggests tags based on your **My Recent Tags** list and the **Popular Tags** section on the **Workspaces** tab. The **My Recent Tags** list on the **Contribute** window shows the 20 tags you have used most recently. Click a tag to add it to the **Tags** field automatically.
  - If your administrator assigned the guided tagging rule, you can choose from the list of suggested tags or enter a new tag. Click a suggested tag to add it to the **Tags** field automatically.
  - If your administrator assigned the restricted tagging rule, you must choose from the list of suggested tags. When you select a tag it turns green.
6. If multiple content types are available, choose one from the drop-down list. The content type determines which custom fields appear for you to categorize and define your content.
7. After completing the custom fields, click **Publish**.

To upload, classify, and publish a new file or Web link:

1. Click **Upload a New Document** or **Add a Link to a Website**.
2. If you are uploading a file, browse to its location and select the file. You can preview PowerPoint or PDF files before continuing to the next step.
3. If you are publishing a Web link in Salesforce Content, type the complete URL of the Web page and click **Add**.

If you close the Contribute window after uploading content, the files or Web links appear in your Unpublished Content list until you publish or delete them.

4. Assign a title and description to your content.
5. Choose a workspace. This becomes the managing (home) workspace, meaning that the content can be shared to another workspace but only revised by a user with author permissions in the managing workspace.
6. If you want to publish the file or Web link on behalf of another author, choose that author from the drop-down list.



7. Tag your content. Your tagging permission depends on the tagging rule assigned to the workspace:
  - If the workspace does not have a tagging rule or if your administrator assigned the open tagging rule, you can enter tags in the `Tags` field. As you type a tag, Salesforce Content autosuggests tags based on your My Recent Tags list and the Popular Tags section on the Workspaces tab. The My Recent Tags list on the Contribute window shows the 20 tags you have used most recently. Click a tag to add it to the `Tags` field automatically.
  - If your administrator assigned the guided tagging rule, you can choose from the list of suggested tags or enter a new tag. Click a suggested tag to add it to the `Tags` field automatically.
  - If your administrator assigned the restricted tagging rule, you must choose from the list of suggested tags. When you select a tag it turns green.
8. If multiple content types are available, choose one from the drop-down list. The content type determines which custom fields appear for you to categorize and define your content.
9. After completing the custom fields, click **Publish**.

## Searching for Content

User Permissions Needed	
To search Salesforce Content:	Salesforce Content User checked in your personal information  AND  Member of the workspace

Clicking the Content tab displays files and Web links published in your Salesforce Content workspaces. The top twenty most recently modified files are listed by default. You can filter the list using the Filter Your Results sidebar.

To search for specific content:

1. From the Search drop-down list, restrict your search to a specific workspace or choose to search in all workspaces.
2. Enter your search term(s) and click **Go!**. Salesforce Content performs a full-text search of all documents in your workspace(s).
3. Optionally, in the Filter Your Results sidebar, filter your search results by file format, author, tag, workspaces, content type, or a custom field. The number in parentheses next to each filter type shows you how many matching files and Web links are in the search results.

The Content tab provides several options:

- Click **Display Options** to customize your content display by adding sortable columns for various content criteria. The "smart bar" graphic for downloads, comments, ratings, and subscribers allows you to compare files within a search result set.
- Select one or more files and click **Download** to create a zip file with your selected content.
- Hover over a file icon to see a snapshot of information about the specific file or Web link and options such as subscribing, voting, and downloading.
- Click the subscription icon next to the filename to toggle a subscription on or off. For more information, see "Viewing Content Subscriptions" in the Salesforce online help.
- Click the filename to view the content details page. The content details page provides all the available information about a file. For more information, see "Viewing and Editing Content Details" in the Salesforce online help.

## Displaying and Editing Workspaces

User Permissions Needed	
To edit a workspace:	"Manage Salesforce Content" OR Manage Workspaces checked in your workspace permission definition
To add or remove workspace members:	"Manage Salesforce Content" OR Manage Workspaces checked in your workspace permission definition

Once you have located a Salesforce Content workspace in the **My Workspaces** area of the Workspaces tab home page or on a content details page, click the workspace name to display detailed information.

The workspace title area provides quick links:

- Click **Edit** to change the workspace name or description.
- Click **Tagging Rules** to change the tagging method permitted in the workspace.
- Click **Content Types** to restrict the content types available to workspace contributors.
- Click **Delete** to delete an empty workspace. If you want to delete a workspace that contains content, you must first move the content to another workspace or delete it and empty the Recycle Bin.



**Note:** If your Recycle Bin is empty and you are unable to delete the workspace, another user's Recycle Bin may contain deleted content from the same workspace. A workspace cannot be deleted until all its content is permanently deleted or moved to another workspace.

- Click **View Content** to view search results showing all the content in the workspace.
- Click **Contribute** to upload and publish content in the workspace. If you do not have permission to author content, the **Contribute** link does not display.
- Click **View Archived Content** to view a list of archived content in the workspace. If you do not have the **Archive Content** or **Manage Workspaces** privilege in your workspace permission, the archived content list only contains content that you authored and archived, not content that other authors archived.

The workspace detail page contains the following sections:

### Members

This section lists all the Salesforce Content users who are members of the workspace. To limit the member list, enter a username and click **Filter**. You can filter by the beginning of a username but not the last name.

To add new members to the workspace:

1. Click **Add Members**.
2. If you do not immediately see the member you want to add, enter keywords in the search box and click **Find**.
3. Select members from the Available Members box. Members can include individual Salesforce Content users or public groups containing Salesforce Content users.
4. Click **Add** to add the members to the workspace.
5. Click **Next**.

6. Select a workspace permission for each user or public group and click **Save**.

To remove a member from the workspace, click **Remove**. To change a member's workspace permission, click **Edit** and choose a new workspace permission from the drop-down list.

### Featured Content

This section lists all the content in the workspace that has been marked as "featured." If no content has been featured, this section does not display. Featured content receives a higher priority than similar content in search results; for example, if 100 files contain the search criteria term `sales asset`, any featured files with that term will appear at the top of the search results list. To toggle a file or Web link's feature status on or off, go to its content details page.

### Top Content

This section includes lists that summarize content activity in your workspace. Within a list, click a file icon or title to open the associated content details page. In the Top Content section you can choose from the following categories:

- **Publication Date**—This content is sorted in descending order according to the most recent publication date. Choose the number of records you want to view from the accompanying drop-down list, or click the **Show All** button to list all the published files and Web links.
- **Num Downloads**—This content is sorted in descending order according to the highest number of downloads. The bar graphic indicates how one record compares to another. Choose the number of records you want to view from the accompanying drop-down list, or click the **Show All** button to list all the downloaded files and Web links.
- **Rating**—This content is sorted in descending order according to the highest number of thumbs-up votes. Green and red in the bar graphic represent positive and negative votes, respectively. Choose the number of records you want to view from the accompanying drop-down list, or click the **Show All** button to list all the files and Web links with votes.
- **Num Comments**—This content is sorted in descending order according to the highest number of viewer comments. The bar graphic indicates how one record compares to another. Choose the number of records you want to view from the accompanying drop-down list, or click the **Show All** button to list all the files and Web links with associated comments.

### Popular Tags

This "tag cloud" shows you how the content in your workspace has been labeled. Tags are descriptive terms assigned during upload or revision that help classify and organize content. Click a tag name to view search results containing all the files with that tag. The tag names increase in size within the tag cloud according to popularity, meaning that the largest tags have been assigned to the most files or Web links. You can choose to sort the tags alphabetically or by popularity. The tag cloud contains the 30 most popular tags.

### Recent Activity

This section is a snapshot of activity within your workspace. It shows the most recent files or Web links to receive comments, votes, or subscriptions. Featured content and newly published content are also included, but new versions of existing content, archived content, and deleted content do not appear in the Recent Activity section. Use the **Older** and **Newer** buttons to scroll through records. The Recent Activity section contains a maximum of 100 records.

### Most Active Contributors

This section shows the authors who have uploaded content into your workspace most frequently. The names increase in size according to activity, so the largest names are the authors who have contributed the most content.

## Viewing and Editing Content Details

User Permissions Needed	
To preview and download content:	Member of the workspace
To upload a new version:	Add Content checked in your workspace permission definition
To archive and restore content:	Archive Content checked in your workspace permission definition OR Author of the content
To permanently delete content:	Delete Content checked in your workspace permission definition
To view and edit comments:	Modify Comments checked in your workspace permission definition
To delete comments:	Delete Comments checked in your workspace permission definition
To tag content:	Tag Content checked in your workspace permission definition
To mark content as featured:	Feature Content checked in your workspace permission definition

Clicking a filename on the Workspaces, Content, or Subscriptions tabs opens the content details page, which is a central access point for information about a particular file or Web link in Salesforce Content.

The following options are available on the content details page depending on the type of content you are viewing and your workspace permissions:

- For Web links, click the **Open** button to open the Web page in a separate window. For files, click the **Download** button to open or save the file. If the file is a PowerPoint document, you can click the **Preview** subtab to view the first four pages before downloading the entire file.
- Click the **Edit Details** button to modify standard and custom fields.
- For files, click the **Add New Version** button to replace the file with a new version. The version option is not available for Web links.



**Note:** If the **Add New Version** button is grayed out, your organization has exceeded its Salesforce Content storage allowance and new content cannot be uploaded.

- Click the **Archive Content** button to remove the file or Web link from the workspace. Authors can archive and restore their own content regardless of workspace permissions.
- Click the **Delete Content** button to delete the file or Web link from Salesforce Content by moving it to the Recycle Bin. Authors can delete and undelete their own content regardless of workspace permissions.
- Click the thumbs up or thumbs down icon to vote for the file or Web link. To change your vote, click the opposite icon. After you cast a vote, the Recent Activity list on the Workspaces tab indicates whether you like or dislike the content.
- Click **Subscribed** or **Not Subscribed** to toggle your subscription on or off.
- Click the Comments subtab to view, add, edit, or delete comments for the file or link.

- Click the Versions subtab to view a list of all file versions and the reason-for-change statements provided by the authors.
- Click the Subscribers subtab to view a list of all Salesforce Content users subscribed to the file or Web link.
- Click the Downloads subtab to view a list of all Salesforce Content users who have downloaded the file.
- Click a tag name to view all the content associated with that tag. Click the arrow next to a tag and choose **Subscribe to Tag** to subscribe to all content with that tag or choose **Remove Tag** to remove the tag from the file or Web link.
- To add a new tag to the file or Web link, enter a tag name in the `Add Tags` field and click **Save**. As you type a tag, Salesforce Content autosuggests tags based on the tags in your My Recent Tags list in the Contribute window and the Popular Tags section on the Workspaces tab.



**Note:** If your administrator applied a workspace tagging rule, you may not be able to enter new tags. If the guided tagging rule is applied, you can click **Add Tags** and choose from the list of suggested tags or enter new tags. If the restricted workspace tagging rule is applied, you can click **Add Tags** and choose from the list of suggested tags, but you cannot enter your own tags.

- Click the author's name to see a list of the author's published content. Click the arrow next to the author's name and choose **Subscribe to Author** to subscribe to all content published by that author.
- Click **Feature** or **Don't Feature** to toggle the "feature" designation on or off. Featured content receives a higher priority than similar content in search results; for example, if 100 files contain the search criteria term `sales asset`, any featured files with that term will appear at the top of the search results list. Featured content is also listed on the workspace overview and workspace detail pages for quick access.
- Click a workspace name to view details about the workspace. Click the arrow next to the workspace name and choose **Subscribe to Workspace** to subscribe to all content in the workspace or **Show Workspace Content** to view a list of all files and Web links published to the workspace.
- Click the **Workspace Actions** button and choose **Move Content** to move the file to a different managing (or "home") workspace. Choose **Share to Another Workspace** to share content into additional workspaces without changing the managing workspace. Sharing or linking content to other workspaces enables members of those workspaces to find your content. If the managing workspace and shared workspace have different tagging rules, the most restrictive tagging rule applies. If you want to remove content from a workspace where the content is shared, click **Remove from Workspaces**. This option does not remove content from its managing workspace.

## Deleting, Archiving, and Restoring Content

User Permissions Needed	
To archive and restore any content in the workspace:	Archive Content checked in your workspace permission definition
To archive and restore content that you published:	Add Content checked in your workspace permission definition
To delete content:	Delete Content checked in your workspace permission definition

Salesforce Content offers two methods for removing content: archiving and deleting. Archiving a file removes it from its workspace but does not permanently delete the file from Salesforce Content. Once archived, a file cannot be downloaded and it does not appear in search results, but you can locate and restore the file if necessary. A deleted file, however, is permanently deleted from Salesforce Content when the Recycle Bin is emptied.

To archive or delete a file:

1. Click the filename on the Workspaces, Content, or Subscriptions tabs.
2. On the content details page, click **Archive Content** or **Delete Content**.



**Note:** Authors can always archive and restore their own content. Authors do not require the `Archive Content` workspace permission option.

To restore an archived file, open the file's content details page and click **Restore Content**. You can use any of the following methods to open the content details page for an archived file:

- Immediately after you archive a file, the content details page is returned.
- Follow a bookmark to the archived file.
- In the **Workspaces** tab, click a workspace name to open the workspace details page. Click the **View Archived Content** link to see a list of archived files on the **Content** tab. The **View Archived Content** link only displays if you have the `Archive Content`, `Add Content`, or `Manage Workspaces` privileges in your workspace permission. If you have the `Archive Content` or `Manage Workspaces` privileges, you will see a list of all archived content in the workspace, regardless of author. If you do not have those privileges but have the `Add Content` privilege, you will only see archived content that you authored and archived. Click the file you want to restore to open the content details page.

To restore a deleted file, click on the **Recycle Bin** link in any tab. Select the file and click **Undelete**.



**Note:** Archived and deleted files are automatically removed from subscription lists. Subscribers are not notified when content is archived or deleted.

## General Availability of Salesforce Ideas

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

With Spring '08, Salesforce Ideas is generally available in Professional, Enterprise, Unlimited, and Developer Editions. It is also available to users with these license types:

- Customer Portal
- Partner Portal
- Salesforce Platform
- Salesforce Platform One
- Content Only
- Ideas Only

To customers who participated in the limited release of Salesforce Ideas, Spring '08 introduces the following new capabilities:

- The **My Inbox** page lists the ideas you have participated in—either by posting an idea or commenting on an idea—that have received new comments since you last viewed the idea.
- The **Top All-Time** subtab lists the most-voted-for ideas of all time. This is in contrast to the **Popular Ideas** subtab, which lists "hot" ideas that are currently gaining popularity.
- The **Comments** subtab lists the ideas with the most recently added comments.
- The detail page of an idea includes a list of the last 100 users who voted for the idea.
- The data objects `Idea`, `IdeaComment`, and `Vote` are now accessible in the API. For more information, see the *Force.com Web Services API Developer's Guide* for API version 12.0, available with Spring '08 at [www.salesforce.com/apidoc](http://www.salesforce.com/apidoc).

### Implementation Tips

- To enable Salesforce Ideas for your organization:
  1. Click **Setup** ► **Customize** ► **Ideas** ► **Settings**.

2. Click **Edit**.
3. Select the `Enable Ideas` checkbox.
4. Click **Save**.

Enabling Salesforce Ideas immediately makes the Ideas app display in the AppExchange app menu. By default, the Ideas app includes the following tabs: Home, Contacts, Accounts, Ideas, Reports, and Dashboards. To access the page where you can customize the tabs in an app, click **Setup** > **Create** > **Apps**, then click **Edit** next to the appropriate app name.

- We recommend configuring the half-life of ideas to two days:
  1. Click **Setup** > **Customize** > **Ideas** > **Settings**.
  2. Enter 2 in the `Half-life (in Days)` field. The half-life setting controls how quickly older ideas are demoted on the Popular Ideas subtab.
  3. Click **Save**.
- Create categories that are relevant to your organization by clicking **Setup** > **Customize** > **Ideas** > **Fields** then editing the available picklist values in the `Category` field.
- As appropriate, modify user profiles to set the visibility of the Ideas standard app and the Ideas tab. For more information, see "Managing Profiles" in the Salesforce online help.
- If you plan to host a Salesforce Ideas community on your organization's Customer Portal or Partner Portal, refer to the following:
  - "Setting Up Your Customer Portal" in the Salesforce online help
  - [Salesforce Customer Portal Implementation Guide](#)
  - "About Partner Relationship Management" in the Salesforce online help

### Best Practices

- Distribute the following PDF tip sheet to your users to familiarize them with the capabilities of Salesforce Ideas: [Tips & Hints for Salesforce Ideas](#)

## Setting Up and Using Salesforce Ideas

### About Ideas

User Permissions Needed	
To view the Ideas tab:	"Read" on ideas
To view and vote for ideas:	"Read" on ideas
To create ideas and add comments to ideas:	"Create" on ideas
To edit ideas and edit comments on ideas:	"Edit" on ideas

Salesforce Ideas is a community of users who post, vote for, and comment on ideas. Consider it an online suggestion box that includes discussions and popularity rankings for any subject.



**Tip:** Salesforce.com offers its own Salesforce Ideas community for Salesforce users to submit product feedback and suggest new features. To visit, go to <http://ideas.salesforce.com>.

## Ideas Terminology

The following terminology is used for Salesforce Ideas:

### Category

Administrators can define categories so ideas can be organized into logical groups for easier browsing. A `View Category` drop-down list displays on the Ideas tab, and a `Category` picklist is available when creating an idea. For example, if your Salesforce Ideas community has the focus "Improvements to our clothing line," then you might set up categories such as "Shirts," "Jackets," and "Slacks." Each organization has one common set of categories for all of its communities.

### Comment

Comments are plain text responses to posted ideas that enable discussions about the ideas. On the Ideas tab, the Comments subtab lists the comments that have most recently been submitted. On the detail page of an idea, comments are sorted in chronological order from oldest to newest.

### Community

A community is an implementation of Salesforce Ideas, with its own focus, ideas, and registered users. Enterprise and Unlimited Edition organizations can have two communities: one for Salesforce users located internally within Salesforce, and a second for portal users located on an appropriately configured Customer Portal or Partner Portal. Professional Edition organizations can have only one internal community. For more information, see "Managing Salesforce Ideas Communities" in the Salesforce online help.

### Half-life

The half-life setting determines how quickly old ideas drop in ranking on the Popular Ideas subtab, to make room for ideas with more recent votes. A shorter half-life moves older ideas down the page faster than a longer half-life. This setting affects all communities in your organization. For information on customizing the half-life, see "Customizing Salesforce Ideas Settings" in the Salesforce online help.

### Idea

Ideas are suggestions written in plain text. For example, if the focus of a particular Salesforce Ideas community is "Ideas for car features," an appropriate idea for that community might have the title "Insulated cup holders that keep your beverage hot or cold." Or, if the focus of a particular Salesforce Ideas community is "Ideas for our company's employee benefits," an appropriate idea for that community might have the title "On-site day care." Currently, ideas do not support markup, such as HTML or images.

### Inbox

Your inbox tracks the ideas you have participated in—either by posting an idea or adding a comment to an idea—that have received new comments since you last viewed the idea. For more information, see "Using Your Ideas Inbox" in the Salesforce online help.

### Point

A point is a unit of measurement that represents the popularity of an idea. Each vote for an idea is worth ten points. An idea's total number of points displays next to its **Vote** button.

### Popular

On the Popular Ideas subtab, ideas are sorted by an internal calculation that reflects the age of an idea's votes. Regardless of an idea's static total number of points, ideas with newer votes display higher on the page than ideas with older votes. This allows you to browse ideas that have most recently gained popularity, with less precedence given to long-established ideas that were voted on in the past. For more information on how ideas move down the page, see "Point" in the Salesforce online help and "Half-life" in the Salesforce online help.



**Portal**

If your organization has a Customer Portal or Partner Portal, you can add the Ideas tab to either or both portals so that portal users can participate in their own Salesforce Ideas community. Ideas can be posted either internally for Salesforce users or externally for portal users who have access to a Customer Portal or Partner Portal. This distinction is exclusive; you can only publish an idea to one or the other. From within Salesforce, you can switch views between internally posted ideas and ideas published to a portal: Click the **Internal** and **Portal** links below the colored header bar on the Ideas tab.

For more information about the Customer Portal, see "Setting Up Your Customer Portal" in the Salesforce online help. For more information about the Partner Portal, see "About Partner Relationship Management" in the Salesforce online help.

**Top All-Time**

On the Top All-Time subtab, ideas are sorted from most number of points to fewest. This allows you to see the most popular ideas in the history of your Salesforce Ideas community.

**Vote**

If you agree with or like an idea, click the **Vote** button to vote for it. Each vote adds ten points to an idea. You cannot vote for the same idea more than once. Note that when you post an idea, your vote is automatically added when you save the new idea. For more information on points, see "Point" in the Salesforce online help.

## Customizing Salesforce Ideas Settings

User Permissions Needed	
To customize Salesforce Ideas settings:	"Customize Application"

To manage organization-wide settings for Salesforce Ideas:

1. Click **Setup** ► **Customize** ► **Ideas** ► **Settings**.
2. Click **Edit**.
3. Use the `Enable Ideas` checkbox to enable or disable Salesforce Ideas for your organization.

Enabling Salesforce Ideas immediately makes the Ideas app display in the AppExchange app menu. By default, the Ideas app includes the following tabs: Home, Contacts, Accounts, Ideas, Reports, and Dashboards. To access the page where you can customize the tabs in an app, click **Setup** ► **Create** ► **Apps**, then click **Edit** next to the appropriate app name. Disabling Salesforce Ideas removes the Ideas app as well as any instances of the Ideas tab included in other apps.

4. In the `Half-Life (in Days)` field, enter a number of days.

The half-life setting determines how quickly old ideas drop in ranking on the Popular Ideas subtab, to make room for ideas with more recent votes. A shorter half-life moves older ideas down the page faster than a longer half-life.

5. Click **Save**.

## Customizing Salesforce Ideas Categories

User Permissions Needed	
To customize Salesforce Ideas categories:	"Customize Application"

Administrators can define categories so ideas can be organized into logical groups for easier browsing. A `View Category` drop-down list displays on the Ideas tab, and a `Category` picklist is available when creating an idea.

Categories are configured in a picklist field on the ideas object. For general information on changing picklist fields, see "Updating Picklists" in the Salesforce online help.

To customize your organization's idea categories:

1. Click **Setup** ► **Customize** ► **Ideas** ► **Fields**.
2. Click **Edit** next to the Category field.
3. On the picklist edit page, perform the following tasks as appropriate:
  - To add new values, click **New**.
  - To rename an existing value or set it as the default value, click **Edit**.
  - To remove an existing value, click **Del**.
  - To change the sequence of values in the picklist, click **Reorder**.
  - To replace all occurrences of an existing value (including blank values) with an alternate value, click **Replace**.

## Setting Up Idea Reports

User Permissions Needed	
To create or update custom report types:	"Manage Custom Report Types"

As an administrator, you can create custom report types so users can run and create custom reports about ideas, idea comments, and votes. Custom report types are the only way to make idea reports available for your users—Salesforce does not provide sample idea reports or a standard report folder for ideas.

To create a folder of idea reports for your users:

1. Create a custom report type for idea objects. For details, see "Setting Up Custom Report Types" in the Salesforce online help.
2. Create a new public folder for idea reports. This step requires the "Manage Public Reports" permission. For details, see "Creating and Editing Folders" in the Salesforce online help.
3. Using your custom report type, create one or more new custom reports for ideas. Assign the reports to the new idea reports folder you created. For details, see "Creating a Custom Report" in the Salesforce online help.

After completing these steps, a folder of idea reports will be available to your users on the Reports home page.

## Posting Ideas

User Permissions Needed	
To view the Ideas tab:	"Read" on ideas
To view and vote for ideas:	"Read" on ideas
To create ideas and add comments to ideas:	"Create" on ideas
To edit ideas and edit comments on ideas:	"Edit" on ideas



**Note:** To avoid entering a duplicate idea, first use the search box in the sidebar to search for existing ideas that match your idea. For more information, see "Searching for Ideas" in the Salesforce online help. If no existing ideas match your idea, then proceed with the following procedure.

Posting a new idea is quick and easy:

1. On the Ideas tab, click **Post Idea**. Alternatively, select **Idea** from the `Create New` drop-down list in the sidebar.
2. Enter a title for your idea no longer than 255 characters.
3. In the description area, enter the details of your idea. Note that you must enter plain text—HTML or other markup is not allowed.
4. Choose a category for your idea.
5. If your organization has a second Salesforce Ideas community for portal users who have access to a Customer Portal or Partner Portal, choose the appropriate option for the `Published In` field.

Ideas can be posted either internally for Salesforce users or externally for portal users who have access to a Customer Portal or Partner Portal. This distinction is exclusive; you can only publish an idea to one or the other. From within Salesforce, you can switch views between internally posted ideas and ideas published to a portal: Click the **Internal** and **Portal** links below the colored header bar on the Ideas tab. The `Published In` field is only available in the internal Salesforce application.

6. Click **Post**.

Your new idea displays at the top of the Recent Ideas subtab, and your vote is automatically applied to the idea. Each vote is always worth 10 points.



**Tip:** Use the following writing tips to make your idea easier for others to read and understand:

- Use complete sentences.
- Be as concise and direct as possible.
- Check your spelling and punctuation.

## Editing Ideas

If you have the "edit" permission on ideas, you can edit the details of an existing idea:

1. On the Ideas tab, click the title of an idea.
2. Click **Edit**.
3. Modify the title, description and other details of the idea as appropriate.
4. Click **Apply** to save your work.

Editing an idea's details does not include editing the comments on an idea. For information on how to edit the comments on an idea, see "Commenting on Ideas" in the Salesforce online help.

## Viewing Ideas

User Permissions Needed	
To view the Ideas tab:	"Read" on ideas
To view and vote for ideas:	"Read" on ideas
To create ideas and add comments to ideas:	"Create" on ideas
To edit ideas and edit comments on ideas:	"Edit" on ideas

The following sections describe how to view ideas:

- Accessing the Ideas Tab in Salesforce
- Accessing the Ideas Tab in a Portal
- Browsing Popular Ideas

- Browsing Recent Ideas
- Viewing the Details of an Idea

### Accessing the Ideas Tab in Salesforce

In Salesforce, the Ideas tab is available by default in the Ideas app. To switch to the Ideas app, select **Ideas** from the AppExchange app menu in the top right corner of every Salesforce page.

Note that your administrator may have customized your profile to also display the Ideas tab in other apps. Also, your administrator may have renamed the Ideas tab to an alternate tab name.

For information on how to personalize your available tabs to meet your needs, see "Customizing Your Display" in the Salesforce online help.



**Tip:** Ideas can be posted either internally for Salesforce users or externally for portal users who have access to a Customer Portal or Partner Portal. This distinction is exclusive; you can only publish an idea to one or the other. From within Salesforce, you can switch views between internally posted ideas and ideas published to a portal: Click the **Internal** and **Portal** links below the colored header bar on the Ideas tab.

### Accessing the Ideas Tab in a Portal

If your organization has portal users who have access to a Customer Portal or Partner Portal, your portal's administrator can display the Ideas tab on either type of portal. The ideas that display in a portal are either created through a portal or are created internally in Salesforce and published for display in a portal.

### Browsing Popular Ideas

On the Popular Ideas subtab, ideas are sorted by an internal calculation that reflects the age of an idea's votes. Regardless of an idea's static total number of points, ideas with newer votes display higher on the page than ideas with older votes. This allows you to browse ideas that have most recently gained popularity, with less precedence given to long-established ideas that were voted on in the past.

### Browsing Recent Ideas

The Recent Ideas subtab lists the ideas that have most recently been submitted. Newer ideas display above older ideas.

### Browsing Top Ideas of All Time

The Top All-Time subtab lists the ideas with the most votes. The difference between the Top All-Time subtab and the Popular Ideas subtab is that the Top All-Time subtab displays the top ideas of all time by number of votes, whereas the Popular Ideas subtab uses an algorithm to display the ideas that have received the most recent votes.

### Browsing Ideas by Category

Administrators can define categories so ideas can be organized into logical groups for easier browsing. A `View Category` drop-down list displays on the Ideas tab, and a `Category` picklist is available when creating an idea.

To browse ideas by category, select a category from the `View Category` drop-down list. Alternatively, click the category link at the bottom of the idea description, next to the alias of the user who posted the idea.

### Viewing the Details of an Idea

Click the title of an idea to open the detail page of that idea. The detail page of an idea includes the following sections:

- The details of the idea, including its full text and number of points (each vote is worth ten points)
- All comments that have been submitted for the idea
- An area for adding a new comment

- A list of the last 100 users who have voted for the idea, sorted left to right from most recent vote to oldest vote



**Tip:** Go to your inbox to view new comments on ideas that you have posted or commented on. For more information, see "Using Your Ideas Inbox" in the Salesforce online help.

## Voting for Ideas

User Permissions Needed	
To view the Ideas tab:	"Read" on ideas
To view and vote for ideas:	"Read" on ideas
To create ideas and add comments to ideas:	"Create" on ideas
To edit ideas and edit comments on ideas:	"Edit" on ideas

### Voting Overview

If you agree with or like an idea, click the **Vote** button to vote for it. Each vote adds ten points to an idea. You cannot vote for the same idea more than once. Note that when you post an idea, your vote is automatically added when you save the new idea.

A point is a unit of measurement that represents the popularity of an idea. Each vote for an idea is worth ten points. An idea's total number of points displays next to its **Vote** button.

### Adding Your Vote to an Idea

To add your vote to an idea:

1. On the Ideas tab, locate an idea you want to vote for.
2. Click the **Vote** button next to the idea. Ten points are added to the idea, and the button name changes to "Voted" so that you cannot vote for the same idea again. In addition, your user alias displays at the bottom of the idea's detail page to track that your vote was made.



**Note:** When you post a new idea, Salesforce automatically adds your vote to the idea.

## Commenting on Ideas

User Permissions Needed	
To view the Ideas tab:	"Read" on ideas
To view and vote for ideas:	"Read" on ideas
To create ideas and add comments to ideas:	"Create" on ideas
To edit ideas and edit comments on ideas:	"Edit" on ideas

Comments are plain text responses to posted ideas that enable discussions about the ideas. On the Ideas tab, the Comments subtab lists the comments that have most recently been submitted. On the detail page of an idea, comments are sorted in chronological order from oldest to newest.

### Adding Comments to Ideas

Add comments to ideas to share your thoughts and opinions with other community members:

1. On the Ideas tab, locate an idea on which you want to add a comment.
2. Click either the title of the idea or the **Comments** link below the idea description.
3. On the detail page for the idea, type your comments into the text entry area in the Add Your Comment section. You can enter up to 4,000 characters. Note that comments must be entered in plain text—HTML or other kinds of markup are not allowed.
4. Click **Post** to submit your comment.

Your newly added comment displays in the Comments related list on the idea detail page.

### Editing Comments on Ideas

To edit a comment that you have submitted on an idea:

1. On the detail page of the idea, click **Edit** next to your comment.
2. Modify your comment as desired.
3. Click **Apply** to save your work.

### Deleting Comments on Ideas

Deleting comments on ideas requires the "delete" permission on ideas.

1. On the detail page of the idea, click **Del** next to your comment.
2. Click **OK**.

### Viewing Recently Posted Comments

To view the comments that have most recently been posted in your Salesforce Ideas community, click the Comments subtab. Click the text of a comment to view the detail page of the appropriate idea.

On the Comments subtab:

- Comments are listed in chronological order from newest to oldest.
- The title of the idea on which the comment was posted displays above the comment.
- The alias of the user who posted the comment displays next to the comment text.
- The total number of comments on the idea displays in brackets below the comment text. For example, `Comments [20]` indicates that the idea has twenty comments.

## Using Your Ideas Inbox

User Permissions Needed	
To view the Ideas tab:	"Read" on ideas
To view and vote for ideas:	"Read" on ideas
To create ideas and add comments to ideas:	"Create" on ideas
To edit ideas and edit comments on ideas:	"Edit" on ideas

Your inbox tracks the ideas you have participated in—either by posting an idea or adding a comment to an idea—that have received new comments since you last viewed the idea. To use your inbox:

1. On the Ideas tab, click the **My Inbox** link.



**Tip:** The Inbox link displays the number of ideas in your inbox in parentheses. For example, **My Inbox (5)** indicates that five ideas you have participated in have received new comments since you last viewed the idea. **My Inbox (0)** indicates that no ideas you have participated in have received new comments since you last viewed the idea.

2. Optionally, choose a value from the `View Category` drop-down list to change the category displayed.
3. Click the title of an idea to view the idea's details.
4. Click **Previous Page** and **Next Page** as appropriate to view the different pages of your inbox.
5. To leave your inbox, click the Ideas tab.

## Searching for Ideas

User Permissions Needed	
To view the Ideas tab:	"Read" on ideas
To view and vote for ideas:	"Read" on ideas
To create ideas and add comments to ideas:	"Create" on ideas
To edit ideas and edit comments on ideas:	"Edit" on ideas

You can search for ideas using either sidebar search or advanced search. For an overview of these search methods, see "About Search" in the Salesforce online help. For tips on performing searches, see "Search Tips" in the Salesforce online help.



**Note:** Sidebar search includes only the titles of ideas. However, advanced search also includes idea descriptions and the comments that have been posted on ideas.

For general information on understanding search results, see "Viewing Search Results" in the Salesforce online help.

## Deleting Ideas

User Permissions Needed	
To delete ideas and comments:	"Delete" on ideas

To delete an idea:

1. Click the name of an idea to open the detail page.
2. Click the **Delete** button.
3. Click **OK**.

The idea and its comments are moved to the Recycle Bin. Note that undeleting an idea from the Recycle Bin also restores the idea's comments and votes.

## Partner Portal

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

With Spring '08, Salesforce customers can leverage the power of the Partner Portal to extend the benefits of a CRM system to their indirect sales channels through a simple and easy-to-use portal. Partner Portal allows companies to track a consolidated sales forecast and manage pipeline dashboards across internal sales groups and external partner sales groups. With Partner Portal, it is easy to collaborate with strategic partners through co-marketing and joint selling programs.

The new capabilities delivered with the Salesforce partner portal include:

### **Support for S-Controls, Web Tabs, and Custom Links**

Provide your partner users with a rich interactive user experience by leveraging s-controls, web-tabs and custom links in the Partner Portal.

### **Tasks on Partner Portal Home page**

Provides partner users with a consolidated list of all their tasks on the Partner Portal home page. Partner users no longer need to click into every lead, opportunity, or custom object to see the tasks they need to complete—they can see them the moment they log in.

### **Self-Service Password Reset**

Reduce the administrative burden on your channel managers or partner operations by allowing partners to reset their own passwords.

### **Printer Friendly View**

Partner users can print a record in a printer friendly format, allowing them to take the details with them when they aren't connected.

## About the Partner Portal

### About the Partner Portal

Partner relationship management (PRM) allows companies that sell through indirect sales channels to maximize the return on their channel investments and increase channel revenues. With partner relationship management, organizations can manage, track, and forecast their channel business alongside their direct sales business. It also helps partners sell more effectively, close more business, and achieve greater profits.

Empowering your partners with your Salesforce data can help you sell more without spending more. However, you want to control the information your partners can access, and you want your partners to work within an application that uses your company's branding. You can accomplish this by granting your partners access to a Salesforce partner portal.

A portal allows partner users to log in to Salesforce through a separate website than your non-partner users. Partner users can only see the data that you have made available to them. Furthermore, partner users can only manipulate data if you give them the appropriate user permissions.

The following Salesforce features are key to partner relationship management:

#### **Partner accounts**

Partner accounts are accounts that a channel manager uses to manage partner organizations, partner users, and activities.



### Partner users

Partner users are Salesforce users with limited capabilities. They are associated with a particular partner account, have limited access to your organization's data, and log in via a partner portal.

There are three license types available for partner users: Bronze (Basic) Partner, Silver (Standard) Partner, and Gold (Strategic) Partner. The license type controls the amount of additional organization storage per license as well as which features the partner user can access on the portal.

	Bronze Partner License Type	Silver Partner License Type	Gold Partner License Type
Storage per license	None	2 MB	5 MB
Documents	Yes	Yes	Yes
My Account Profile	Yes	Yes	Yes
Leads	No	Yes	Yes
Custom Objects	No	Yes	Yes
Approvals	No	Yes	Yes
Accounts	No	No	Yes
Opportunities	No	No	Yes

Your organization may also have users with a Partner license which is no longer available from salesforce.com. The Partner license has all of the functionality of the Strategic Partner License Type, but includes 20 MB of storage per user. For more information on storage limits, see "Monitoring Resources" in the Salesforce online help. For more information on user license types, see "Viewing User License Types" in the Salesforce online help.

### Channel managers

Channel managers are the internal users that manage your partners.

### Partner portals

Partner portals allow partner users to log in to Salesforce through a web portal rather than through salesforce.com. You can customize the web portal to show your branding, and you can configure it to meet your functional and security needs. You can also have multiple portals to meet your different requirements for working with partners.

## Setting Up Your Partner Portal

User Permissions Needed	
To set up a Partner Portal:	"Customize Application"

To set up your Partner Portal:

1. Enable the Partner Portal.
2. Create one or more portals.

For each portal:

- a. Configure the settings and communication templates.
- b. Customize the fonts and colors.

- c. Customize the available tabs and tab order.
3. Create partner profiles.

For each partner profile:

- a. Customize page layouts. For more information, see "Setting Page Layouts" in the Salesforce online help.
- b. Customize list views. For more information, see "Creating Custom List Views" in the Salesforce online help.

Partner Portal users can automatically see any list view with visibility settings marked `This view is accessible by all users`. We recommend that you create specific list views on all objects accessible to portal users, and then assign portal users to only the list views you want them to view.

- c. Customize search layouts. For more information, see "Customizing Search Layouts" in the Salesforce online help.

The search layouts in your Salesforce organization are the same search layouts used in your Partner Portal. Verify that search layouts on objects accessible to portal users only include fields you want them to view in search results.

4. Assign partner profiles to Partner Portals.
5. Enable login on each Partner Portal.
6. Create partner users.

## Enabling the Partner Portal

User Permissions Needed	
To enable the Partner Portal:	"Customize Application"

To enable the Partner Portal:

1. Click **Setup** ► **Customize** ► **Partners** ► **Settings**.
2. Click **Edit**.
3. Select the `Enable Partner Portal` checkbox.
4. Click **Save**.

After you enable the Partner Portal for your organization, you can then create one or more Partner Portals to satisfy the various business needs of your customers. To create Partner Portals, see [Creating Partner Portals](#).

When you enable the Partner Portal, the following items are automatically added to your organization:

### The Partner User profile.

You can assign Partner Portal users to profiles cloned from this profile. Each cloned profile must deselect the `API Only User` administrative permission. If that option is selected, the users with the profile will not be able to log in to the Partner Portal.

### The Enable As Partner button on account records.

Allows you to create a partner account. See [Creating Partner Accounts](#) for more information on creating partner accounts.

### The Enable Partner Portal User and View Partner Portal User buttons on contact records.

Allows you to create a new partner user or view existing partner users. See [Creating Partner Users](#) for more information on creating partner accounts.

### The "All Partner Portal Users" and "All Internal Users" groups along with the "Roles and Internal Subordinates" sharing rule category.

The "All Partner Portal Users" group automatically contains all Partner Portal users in your organization; the "All Internal Users" group automatically contains all Salesforce users in your organization; the "Roles

and Internal Subordinates" sharing rule category allows you to create sharing rules in which you can choose specific Salesforce users in your organization by role plus all of the users in roles below that role, excluding any Partner Portal and PRM portal roles. You can use these groups and sharing rule category to easily create sharing rules that grant all of your Partner Portal or Salesforce users access to specific data.



**Note:** After you enable the Partner Portal, you cannot disable it. However, you can prevent users from logging into your Partner Portal. For more information, see Partner Portal Configuration.



## Creating Partner Portals

User Permissions Needed	
To create Partner Portals:	"Customize Application"

After you have enabled the Salesforce Partner Portal, you can create Partner Portals to satisfy the various business needs of your customers.

To create a Partner Portal:

1. Click **Setup** ► **Customize** ► **Partners** ► **Settings**.
2. Click **New**.
3. Set the following options:





Setting	Description
Name	Name of the Partner Portal as displayed on the portal's detail and edit pages, as well as the Partner Portal Setup page. The name of the Partner Portal is not displayed on portal pages, but it does display in the browser title bar.
Description	A description of the Partner Portal as displayed on the portal's detail and edit pages. The description of the Partner Portal is not displayed in the portal.
Login Enabled	<p>Allows users to log in to the Partner Portal.</p> <p>We recommend that you do not select this checkbox until you have completed configured your portal.</p> <p> <b>Note:</b> When you enable the Partner Portal, the default portal will be set as <code>Login Enabled</code>.</p>
Administrator	<p>Click the lookup icon () to choose a default administrator for your Partner Portal. All email notifications regarding users who self-register for your Partner Portal will be sent to this Salesforce user.</p> <p>Notifications include information about registration errors and any other issues self-registering customers may experience, such as inadvertently entering duplicate email addresses, creating duplicate contact records, and exceeding your organization's user license limit.</p>

Setting	Description
	When choosing an administrator for your Partner Portal, you can only select users that have the "Manage Partners" user permission. Furthermore, you cannot deactivate a user selected as a portal administrator. For more information, see "Deactivating Users" in the Salesforce online help.

Portal Default Settings	
Setting	Description
Logout URL	The URL of the Web page that displays when users log out of the Partner Portal, for example, "http://www.acme.com." If a logout URL is not specified, portal users return to the login page when they log out.
Show Action Confirmation	Allows users to view confirmation messages after they complete an action in the Partner Portal. For example, after a user creates a lead in your Partner Portal, he or she views the message: "Lead has been created" if this setting has been enabled.  Confirmation messages may help users clearly understand actions they have completed in your Partner Portal.

Email Notification Settings	
Setting	Description
From Email Address	The email address from which all Partner Portal communication templates are sent, for example, "support@acme.com." Salesforce sends the emails automatically, but they appear to portal users as if they were sent from this email address. If a portal user responds to a communication template, the response is sent to this address.
From Email Name	The name associated with the "From" Email Address, for example, "Acme Partner Support."
New User Template	The email template used to send a username and initial password to all newly-enabled Partner Portal users. By default, a sample template is automatically selected for you. To create your own template or modify the sample, see "Managing Email Templates" in the Salesforce online help. This template must be marked as Available for Use.
New Password Template	The email template used to send a new password to existing Partner Portal users when you reset their passwords.
Lost Password Template	The email template used to send a new password to existing Partner Portal users when they reset their own passwords by clicking <b>Forgot your password?</b> on the login page of the Partner Portal.

Email Notification Settings	
Setting	Description
Change Owner to Portal User Template	The email template used to send a notification to Partner Portal users when they become the new owner of a record in the portal.

Look and Feel	
Setting	Description
Header	<p>A text or HTML file that allows you to incorporate your organization's branding into the header of your Partner Portal. Click the lookup icon () to choose a file that has been uploaded to a publicly accessible folder on the Documents tab.</p> <p>The files you include in the <code>Header</code> and <code>Footer</code> lookup fields can have a combined size of up to 10 KB.</p> <p>We recommend that you do not add a header <i>and</i> a logo to your portal because they may not display properly together.</p> <p>You can position the logout link anywhere on the header by using the HTML tag: "<code>&lt;a href="/secur/logout.jsp"&gt;Logout&lt;/a&gt;</code>".</p>
Footer	<p>A text or HTML file that allows you to incorporate your organization's branding into the footer of your Partner Portal. Click the lookup icon () to choose a file that has been uploaded to a publicly accessible folder on the Documents tab.</p> <p>The files you include in the <code>Header</code> and <code>Footer</code> lookup fields can have a combined size of up to 10 KB.</p>
Logo	<p>An image file that allows you to incorporate your organization's branding into the top left header of your Partner Portal. Click the lookup icon () to choose a file that has been uploaded to a publicly accessible folder on the Documents tab and marked as an <code>Externally Available Image</code>.</p> <p>The file you include in the <code>Logo</code> lookup field can be up to 20 KB.</p> <p>We recommend that you do not add a header <i>and</i> a logo to your portal because they may not display properly together.</p>
Login Message	<p>A text or HTML file that allows you to incorporate your organization's branding into the header of the login page, forgot password page, and change password page of your Partner Portal. Click the lookup icon () to choose a file that has been uploaded to a publicly accessible folder on the Documents tab.</p>

Look and Feel	
Setting	Description
	The file you include in the <code>Login Message</code> lookup field can be up to 2 KB.

4. Click **Save**.



**Note:** Contact [salesforce.com](https://salesforce.com) for information about the number of Partner Portals you can activate for your organization.

## Partner Portal Configuration

User Permissions Needed	
To configure a Partner Portal:	"Customize Application"

Once you have created a Partner Portal, you can customize it to meet your business needs. By customizing your Partner Portal, you can satisfy the needs of your various channels. For example, you can create a "Gold Partner Portal" that includes more functionality than a "Silver Partner Portal."

To customize your Partner Portal

1. Click **Setup** ► **Customize** ► **Partners** ► **Settings**.
2. Click the name of the portal you wish to customize.
3. Configure the portal settings and communication templates.
4. Configure the fonts and colors used on the portal.
5. Configure the available tabs for the portal.
6. Assign partner profiles to the portal.

## Scheduling Dashboards to Refresh

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

With Spring '08, you no longer have to wonder when a dashboard refresh has finished. Now, you can specify when a dashboard should refresh, and upon completion, Salesforce will send you an email notification that includes the refreshed dashboard. You can also send the notification to particular users and groups so they too can view the refreshed dashboard in an email.

### Implementation Tips

- Add the "Schedule Dashboards" permission to the profiles of users who should be allowed to schedule dashboard refreshes for your organization. By default, the "Schedule Dashboards" permission is enabled in the System Administrator profile.
- Your organization is limited to no more than 200 scheduled dashboard refreshes. Unlimited Edition users can schedule up to two dashboard refreshes an hour per day, whereas Enterprise Edition users can schedule up to one dashboard refresh an hour per day.
- Dashboard components that include s-controls may not display in dashboard refresh notifications. Users must log in to Salesforce to view s-control data displayed in real-time.

- Dashboards refresh in the time zone of the user who schedules the refresh. For example, if the `Time Zone` field on your user record is set to Pacific Standard Time, and you schedule a dashboard to refresh every day at 2:00 PM, then the dashboard will refresh every day at 2:00 PM Pacific Standard Time.
- If you schedule a dashboard to refresh on a specific day of every month, the dashboard will only refresh on months that have that specific day. For example, if you schedule a dashboard to refresh on the 31st day of every month, then the dashboard will only refresh on months that have 31 days. If you want a dashboard to refresh on the last day of every month, choose last from the `On day of every month` drop-down list.
- To send a dashboard refresh notification to other users, the dashboard must be in a public folder with access granted to others. This is because other users cannot access dashboards in your personal folders.
- The dashboard refresh runs within an hour of the time you select in the `Preferred Start Time` drop-down list. For example, if you select 2:00 PM as your preferred start time, the dashboard may refresh any time in between 2:00 PM or 2:59 PM, depending on how many other dashboards are scheduled to refresh at that time.
- Dashboard refresh notifications may not display properly in Outlook 2007.
- Dashboards will not refresh as scheduled if the user in the `Running User` field does not have access to the folder in which the dashboard is stored.

### Best Practices

- Inform users that after they receive dashboard refresh notifications in their email clients, they can view the notifications when the email clients are not connected to the Internet.
- Instruct users to click any dashboard component in a dashboard notification to view the report the dashboard component represents. Users must log in to Salesforce to view the report the dashboard component represents.
- Click **Delete** on scheduled dashboard refreshes you no longer use so that you do not reach the 200 scheduled dashboard refresh limit for your organization.

## About Scheduling a Dashboard Refresh

### Scheduling a Dashboard Refresh

User Permissions Needed	
To schedule and email a dashboard refresh:	"Schedule Dashboards"
To delete the schedule to refresh a dashboard:	"Modify All Data"

You can schedule an existing dashboard to refresh daily, weekly, or monthly so that you can work in Salesforce without having to wait for the most recent data to refresh. Furthermore, after a refresh completes you can send an email notification to yourself and other users that includes the dashboard in HTML format. In email applications that do not support HTML, the notification displays text that includes a link to the dashboard in Salesforce. Users can view the dashboard after they log in.

To schedule a dashboard refresh:

1. On the Dashboards tab, select a dashboard from the `View Dashboard` drop-down list.
2. Click **Refresh** and choose **Schedule Refresh...** from the drop-down button.

The user in the `Running User` field determines the dashboard's level of access to data. This bypasses all security settings, giving all users who can view the dashboard access to data they might not be able to see otherwise. For more information, see "Creating and Editing Dashboard Properties" in the Salesforce online help.

3. Select a notification setting to send an email when the dashboard refresh finishes:

- Click **Me** to send an email that includes the refreshed dashboard to the email address specified on your Salesforce user record.
- Click **Others . . .** to send an email that includes the refreshed dashboard to additional users. You can only send dashboard refresh notifications to email addresses included on Salesforce user records.

#### 4. Schedule the dashboard refresh:

- In the **Frequency** field, select the frequency at which the dashboard refreshes. When you click the **Daily**, **Weekly**, or **Monthly** fields, more options display that allow you to refine frequency criteria.
- In the **Start** and **End** fields, specify the dates during which you wish to schedule dashboard refreshes.
- In the **Preferred Start Time** drop-down list, click the **Find available options...** link to choose a preferred start time for the dashboard refresh.

Your preferred start time may not be available if other users have already selected that time to refresh a dashboard.

#### 5. Click **Save** to schedule the dashboard refresh.

To delete a scheduled dashboard refresh:

1. Select the dashboard that has a scheduled refresh you want to delete from the **View Dashboard** drop-down list on the **Dashboards** tab.
2. Click **Refresh** and choose **Schedule Refresh...** from the drop-down button
3. Click **Delete**.

The scheduled refresh is permanently deleted and *not* sent to the Recycle Bin.



**Tip:** Optionally, users with the "Schedule Dashboards" and "View Setup and Configuration" permissions can view all the dashboards scheduled to refresh for your organization in the scheduled jobs queue. To view the scheduled jobs queue, click **Setup** ► **Monitoring** ► **Scheduled Jobs**.

You can perform the following actions in the scheduled jobs queue next to a specific dashboard refresh:

- Click **Edit** to update the notification and frequency settings of all instances of the scheduled dashboard refresh.
- Click **Del** to permanently delete all instances of the scheduled dashboard refresh.

### Tips on Scheduling a Dashboard Refresh

Consider the following when scheduling a dashboard refresh:

- Your organization is limited to no more than 200 scheduled dashboard refreshes. Unlimited Edition users can schedule up to two dashboard refreshes an hour per day, whereas Enterprise Edition users can schedule up to one dashboard refresh an hour per day.
- Dashboards refresh in the time zone of the user who schedules the refresh. For example, if the **Time Zone** field on your user record is set to Pacific Standard Time, and you schedule a dashboard to refresh every day at 2:00 PM, then the dashboard will refresh every day at 2:00 PM Pacific Standard Time.
- If you schedule a dashboard to refresh on a specific day of every month, the dashboard will only refresh on months that have that specific day. For example, if you schedule a dashboard to refresh on the 31st day of every month, then the dashboard will only refresh on months that have 31 days. If you want a dashboard to refresh on the last day of every month, choose **last** from the **On day of every month** drop-down list.
- The dashboard refresh runs within an hour of the time you select in the **Preferred Start Time** drop-down list. For example, if you select 2:00 PM as your preferred start time, the dashboard may refresh any time in between 2:00 PM or 2:59 PM, depending on how many other dashboards are scheduled to refresh at that time.
- Dashboards will not refresh as scheduled if the user in the **Running User** field does not have access to the folder in which the dashboard is stored. For more information, see "Managing Folders" in the Salesforce online help.



### Tips on Dashboard Refresh Notifications

Consider the following when scheduling dashboard refresh notifications:

- Dashboard refresh notifications may not display properly in Outlook 2007.
- In HTML-formatted dashboard refresh notifications, users can click the name of the dashboard to log in to Salesforce and view the dashboard directly.
- To send a dashboard refresh notification to other users, the dashboard must be in a public folder with access granted to others. This is because other users cannot access dashboards in your personal folders. To add a dashboard to a public folder, see "Creating and Editing Dashboard Properties" in the Salesforce online help.
- Users can click any dashboard component in a dashboard refresh notification to view the report the dashboard component represents. To view the report that a table or metric dashboard component represents, users must click the name of the first column on the table or the metric label. Note that users must log in to Salesforce to view the report the dashboard component represents.
- Dashboard components that include s-controls may not display in dashboard refresh notifications. Users must log in to Salesforce to view s-control data displayed in real-time.
- After users receive dashboard refresh notifications in their email clients, they view the notifications when the email clients are not connected to the Internet.

## Additional Salesforce Application Enhancements

### Account Team and Sales Team Member Enhancements

The Account Team and Sales Team related lists previously displayed the sharing access specified for each team member when added to the team as granted by the account team or sales team. That sharing access is no longer displayed by default. Instead, you can click a **Display Access** button to display the team member's entire sharing access, regardless of how it is acquired. For example, a sharing rule may give a team member greater access than you specified when adding the team member. This enhancement is available in Enterprise, Unlimited, and Developer Editions.

### Activities Enhancements

Spring '08 includes enhancements to tasks and events for all Salesforce Editions:

#### Drag-and-Drop Editing on Calendar Views

Drag-and-drop editing is now available on single user daily and weekly calendar views. Reschedule an appointment by dragging an item on your calendar to a different time. For best results, place your mouse cursor over the subject line of the event before dragging it. If the item is a recurring event (🔄), only the single occurrence that you drag is changed, not the entire series.

Administrators can enable this functionality for their organizations by clicking **Setup** > **Customize** > **User Interface** and selecting the `Enable Drag-and-Drop Editing on Calendar Views` checkbox. Note the following:

- Calendar views may load less quickly when this checkbox is enabled.
- Drag-and-drop editing is not available for calendar views in the console.

#### Spell Checker for Activities

In Spring '08, users can spell-check events and tasks while creating or editing them. This functionality is the same as the existing spell checker for emails, cases, and solutions: Click the **Check Spelling** button at the top of the page to run the spell checker in a popup window.

This functionality must be enabled by an administrator by clicking **Setup** > **Customize** > **Activities** > **Activity Settings** and selecting the `Enable Spell Checker on Tasks and Events` checkbox.

### Home Page Hover Links for Events

On the home page, users can mouse-over calendar events to view the details of the event in an overlay. Administrators can control whether this functionality is available for their organizations by clicking **Setup** > **Customize** > **User Interface** and selecting or deselecting the `Enable Home Page Hover Links for Events` checkbox.

### Default Email Notifications on Tasks

When a user creates or edits a task, he or she can now set a personal default for whether or not a notification email is sent to a task's assignee. This option displays when the user selects or deselects the `Send Notification Email` checkbox. To save the current state of the checkbox as the personal default, select `Make this the default setting`.

Administrators can show or hide the `Send Notification Email` checkbox by editing the page layouts for tasks. Administrators can also set an organization-wide default that controls whether the `Send Notification Email` checkbox is selected by default. However, a user's personal preference for defaulting the state of the checkbox takes precedence over the organization-wide setting.

### Redesigned Calendar View Headers

The headers across the top of daily, weekly, and monthly calendar views have been redesigned for easier navigation and more efficient use of space. All previously available icons and links still display, but in new positions on the page.

## Campaign Enhancements

Previously, only opportunities that were created from leads automatically showed their associated campaigns. Now with Spring '08, when an opportunity is created directly from a contact, the opportunity is associated with the campaign most recently added to the contact regardless of the campaign start and end dates. If campaign sharing is enabled, the user sees the most recent campaign to which he or she has access.

Campaigns are available in Enterprise, Unlimited, and Developer Editions, and available for an additional cost in Professional Edition.

## Person Accounts for the Customer Portal

Now, users with the "Edit Self-Service Users" permission can give person accounts access to your Customer Portal. To enable a person account:

1. Click **Enable Customer Portal User** from the detail page of a person account.
2. Verify the general information and locale settings for the person account.
3. Select a portal user license for the user.
4. Click `Generate new password and notify user immediately` to email a Customer Portal username and password to the customer.
5. Click **Save**.

Consider the following when enabling the Customer Portal for person accounts:

- You cannot delete a person account enabled to use a Customer Portal.
- You cannot import person accounts to be automatically enabled to use a Customer Portal. For more information on importing person accounts, see "Import My Person Accounts" in the Salesforce online help.
- Person account users cannot self-register for a Customer Portal. When person account users self-register for a Customer Portal, they receive an email notification that instructs them to contact the portal administrator. For more information, see "Enabling Customer Portal Login and Settings" in the Salesforce online help.
- You cannot merge person accounts enabled to use a Customer Portal.

Person Accounts are available in the Customer Portal with Enterprise and Unlimited Editions.

## Forecasting Enhancements

Spring '08 includes forecasting enhancements for Professional, Enterprise, Unlimited, and Developer Editions:

### Customizable Forecast Category Values

Now, you can rename opportunity forecast categories to match your business processes. For example, you can rename the default forecast category name from “Best Case” to “Upside.” Your forecast category names display in reports, opportunity detail and edit pages, opportunity searches, and opportunity list views. You can then group or filter your pipeline reports by that term, trigger workflow rules by it, and have the new value appear in email templates.

As with other custom and standard fields, you can access the merge field for `Forecast Category` in email templates, validation rules, and other places that allow merge fields. The `Forecast Category` merge field value is now available as `ForecastCategoryName`. As an example, you may want to generate a workflow alert where the email references the `Opportunity Name`, `Owner`, `Amount`, and `Forecast Category` fields. The merge fields may be used as such to create the subject line:

```
Auto-Alert: {{{ID:Opportunity.ForecastCategoryName}}
{{{ID:Opportunity.Amount}} - {{{ID:Opportunity.Name}}} (Owner:
{{{ID:Opportunity.OwnerFullName}}})
```

The resulting email subject line is "Auto-Alert: Upside \$12.00 – Fugacious (Owner: Bob Jones)."

Creating custom forecast categories also allows you to customize the translation of your forecast categories. If your organization uses translation workbench, you can customize the translated values of each of the forecast category values your organization uses. For more information, see "Entering Translated Terms" in the Salesforce online help.

### Additions to the Setup Audit Trail

The following forecast actions are now added to the setup audit trail:

- Enabling forecast sharing
- Disabling forecast sharing
- Allowing a forecast manager to share his forecast
- Disallowing a forecast manager from sharing his forecast
- Enabling a user for forecasting
- Changing forecast revenue settings
- Changing forecast quantity settings
- Changing forecast period settings
- Changing forecast date settings
- Changing forecast type settings

### Forecast Totals on Forecast Detail Pages

The forecast detail page now includes the total for the forecast items.

### New Option for Forecast Summary Default View

The **Default Product Family** drop-down list now includes the `--All--` option. To change this option, click **Setup > Customize > Forecasts > Settings**. For more information, see "Defining Customizable Forecast Settings" in the Salesforce online help.

## Lead Conversion with Validation Rules and Triggers

By default, customers who sign up for a new organization after the launch of the Spring '08 release (in February 2008) are enabled with new lead conversion functionality that respects validation rules and Apex triggers.

The functionality is controlled by the `Enforce Validation and Triggers from Lead Convert` checkbox on the Lead Settings page at **Setup > Customize > Leads > Settings**. When selected, it enables the following operations when you convert leads:

- Enforcement of universally required custom fields.
- Enforcement of validation rules.
- Workflow actions on leads such as field updates, automatic task assignments, and transfers.
- Execution of Apex before triggers that fire before the insertion of accounts, contacts, or opportunities. In addition, execution of Apex before triggers that fire before the update of accounts or contacts.

Optionally, administrators of newly-signed-up organizations can deselect the checkbox to opt out of the new lead conversion functionality and use the lead conversion functionality offered prior to the Spring '08 release.

Existing organizations who signed up prior to the Spring '08 release will not see a change in lead conversion behavior or the new checkbox. Such organizations can contact [salesforce.com](http://salesforce.com) to request the new lead conversion functionality.

This lead conversion enhancement is available in Group, Professional, Enterprise, Unlimited, and Developer Editions.

### Opportunity Roll-Up Summary Fields on Accounts

The custom field type introduced in the Summer '07 release, roll-up summary field, has been extended to include support for the standard relationship between accounts and opportunities. This provides easier access to aggregated opportunity information directly from an account record without running a report. For information on roll-up summary field behavior, see "About Roll-Up Summary Fields" in the Salesforce online help. Roll-up summary fields are available in all Editions.

## Report Enhancements

### 21-Digit Summaries

Now, summary fields on tabular, summary, and matrix reports can display up to 21 digits for greater accuracy. Summary fields of 21 digits will display precisely, but more than 21 digits may not be precise. This is available in all Salesforce Editions.

### Comprehensive Record Reporting via Custom Report Types (Outer Joins)

Now, you can define custom report types so that users can run reports that display results from an object with or without its related objects. For example, you can build a custom report type so that users can run reports on cases with or without solutions. Such a report allows users to see which cases were closed with solutions, and which were not.

To choose the object relationships that display on reports created from custom report types:

1. Click **Setup > Create > Report Types** to display the All Custom Report Types page.
2. Select the name of a custom report type.
3. Click **Edit** on the Object Relationships section.
4. If you want users to run reports on object A with object B, then select the `Each "A" record must have at least one related "B" record` field. For example, choose this field if you want users to run reports on accounts that have contacts. If you want users to run reports on object A with or without object B, then select the `"A" records may or may not have related "B" records` field. For example, choose this field if you want users to run reports on accounts that may or may not have contacts. Note that these field names automatically update to include the letter that represents each object on the Edit Custom Report Type page.

Note the following about selecting a may-or-may-not association:

- If you select that object A may or may not have object B, then all subsequent objects automatically include the may-or-may-not association on the custom report type. For example, if accounts are the primary object and contacts are the secondary object, and you choose that accounts may or

may not have contacts, then any tertiary and quaternary objects included on the custom report type default to may-or-may-not associations.

- Blank fields display on report results for object B when object A does not have object B. For example, if a user runs a report on accounts with or without contacts, then contact fields display as blank for accounts without contacts.
- On reports where object A may or may not have object B, you cannot use the OR condition to filter across multiple objects on the Select Criteria page of the report wizard. For example, if you enter filter criteria `Account Name starts with M OR Contact First Name starts with M`, an error message displays informing you that your filter criteria is incorrect. For more information, see "Entering Filter Criteria" in the Salesforce online help.
- The `Rows to Display` drop-down list on the Select Criteria page of the report wizard only displays fields from the primary object on reports created from custom report types where object A may or may not have object B. For example, in an accounts with or without contacts report, only fields from accounts display in the `Rows to Display` drop-down list. Furthermore, the `Rows to Display` drop-down list does not display fields from objects after a may-or-may-not association on custom report types. For example, in an accounts with contacts with or without cases report, only fields from accounts and contacts will display in the `Rows to Display` drop-down list. Also, existing reports may not run or disregard the `Rows to Display` drop-down list if they were created from custom report types where object associations changed from object A with object B to object A with or without object B. For more information, see "Limit Report Results" in the Salesforce online help.

5. Click **Save**.

Custom report types are available in Professional, Enterprise, Unlimited, and Developer Editions.

### **Salesforce to Salesforce Enhancements**

As an administrator, you can build custom report types so users can run and create custom reports about connections. For more information on custom report types, see "What is a Custom Report Type?" in the Salesforce online help.

### **Salesforce Call Center Enhancements**

Now, Salesforce Call Center does not include objects that do not support activities in call logs. Previously, Salesforce Call Center displayed incomplete call logs for objects that did not support activities.

# FORCE.COM PLATFORM

## Visualforce Enhancements

Available in **Developer** Edition as part of the Visualforce developer preview program

The Spring '08 release includes several new features that improve the capabilities of Visualforce. These include:

- [Custom Components](#)
- [The <apex:pageBlockList> Component](#)
- [The <apex:actionFunction> Component](#)
- [The <apex:flash> Component](#)
- [Controller Class Security](#)
- [Additional Visualforce Enhancements](#)

### Custom Components

In the Spring '08 release, developers can now build custom components to augment the library of standard, prebuilt component tags, such as <apex:relatedList> and <apex:dataTable>.

A custom component encapsulates a common design pattern that can be reused in one or more Visualforce pages. For example, suppose you want to create a photo album using Visualforce pages. Each photo in the album has its own border color, and a text caption that displays beneath it. Rather than repeating the Visualforce markup required for displaying every photo in the album, you can define a custom component named `singlePhoto` that has attributes for image, border color, and caption, and then uses those attributes to display the image on the page. Once defined, every Visualforce page in your organization can leverage the `singlePhoto` custom component in the same way as a page can leverage standard components such as <apex:dataTable> or <apex:relatedList>.

Unlike page templates, which also enable developers to reuse markup, custom components provide more power and flexibility because:

- Custom components allow developers to define attributes that can be passed in to each component. The value of an attribute can then change the way the markup is displayed on the final page, and the controller-based logic that executes for that instance of the component. This behavior differs from that templates, which do not have a way of passing information from the page that uses a template to the template's definition itself.
- Custom component descriptions are displayed in the application's component reference dialog alongside standard component descriptions. Template descriptions, on the other hand, can only be referenced through the Setup area of Salesforce because they are defined as pages.

All markup for a custom component is defined within an <apex:component> tag. This tag must be the top-level tag in a custom component definition. For example:

```
<apex:component>
  <b>
    <apex:outputText value="This is my custom component."/>
  </b>
</apex:component>
```

The body of an `<apex:component>` tag is the markup that is added to a standard Visualforce page whenever the component is included. For example, the following Visualforce page uses the component defined above (in this example, the component above was saved with the name `myComponent`):

```
<apex:page standardController="Account">
  This is my <i>page</i>. <br/>
  <c:myComponent/>
</apex:page>
```

It results in the following output:

```
This is my page.
This is my custom component.
```

Apart from standard Visualforce markup, the body of an `<apex:component>` tag can also specify the attributes that can be passed in to the custom component when it is used in a Visualforce page.

Attributes are defined with the `<apex:attribute>` tag. For example, the following custom component definition specifies two required attributes named `value` and `borderColor`. The values for these attributes are referenced in the custom component definition with `{! }` syntax:

```
<apex:component>
  <!-- Attribute Definitions -->
  <apex:attribute name="myValue" description="This is the value for the component."
    type="String" required="true"/>
  <apex:attribute name="borderColor" description="This is color for the border."
    type="String" required="true"/>

  <!-- Custom Component Definition -->
  <h1 style="border:{!borderColor}"/>
    <apex:outputText value="{!myValue}"/>
  </h1>
</apex:component>
```

To reference this component in a Visualforce page, you can use the following markup:

```
<c:myComponent myValue="My value" borderColor="red" />
```

Similar to standard Visualforce pages, custom components can be associated with a controller written in Apex. You can use the controller to perform additional logic before returning the component's markup to the associated page. However, unlike page controllers, custom component controllers cannot directly access the Force.com database by executing SOQL or SOSL queries or DML operations. Instead, custom component controllers can only access data that is passed into the custom component with attributes. Any database operations that are required by a custom component must be executed by the controller or controller extensions associated with the Visualforce page on which the custom component appears.

To define a custom component:

1. In Salesforce click **Setup** ► **Develop** ► **Components**.
2. Click **New**.
3. In the **Label** text box, enter the text that should be used to identify the custom component in Setup tools.
4. In the **Name** text box, enter the text that should identify this custom component in Visualforce markup. This name must only contain alphanumeric characters, start with a letter, and be unique from all other components in your organization.
5. In the **Description** text box, enter a text description of the custom component. This description appears in the component reference with other standard component descriptions as soon as you click **Save**.
6. In the **Body** text box, enter Visualforce markup for the custom component definition. A single component can hold up to 1 MB of text, or approximately 1,000,000 characters.

7. Click **Save** to save your changes and view the custom component's detail screen, or click **Quick Save** to save your changes and continue editing your component. Your Visualforce markup must be valid before you can save your component.

### The `<apex:pageBlockList>` Component

An `<apex:pageBlockList>` component displays a list of data, similar to the way a list of data is displayed in a standard Salesforce page. The `<apex:pageBlockList>` component must be a child of either an `<apex:pageBlock>` or `<apex:pageBlockSection>`.

Like an `<apex:dataTable>` component, an `<apex:pageBlockList>` is defined by iterating over a set of data, displaying information about one item of data per row. The body of the `<apex:pageBlockList>` component tag contains one or more `<apex:column>` components that specify what information should be displayed for each item of data.

Unlike the `<apex:dataTable>` component, the default styling for `<apex:pageBlockList>` matches standard Salesforce styles. Any additional styles specified with `<apex:pageBlockList>` attributes override the standard Salesforce styling.

Note that if you specify an sObject field as the `value` attribute of an `<apex:column>` in an `<apex:pageBlockList>` component, the associated label for that field is used as the column header by default. To override this behavior, use the `headerValue` attribute on the column, or the column's `headerFacet`.

The following markup shows an example of a Visualforce page that uses `<apex:pageBlockList>`:

```
<!-- Page: -->
<apex:page standardController="Account">
  <apex:pageBlock title="My Content">
    <apex:pageBlockList value="{!account.Contacts}" var="item">
      <apex:column value="{!item.name}"/>
    </apex:pageBlockList>
  </apex:pageBlock>
</apex:page>
```

### The `<apex:actionFunction>` Component

An `<apex:actionFunction>` component provides support for invoking controller action methods directly from JavaScript code using an AJAX request. Unlike the `<apex:actionSupport>` component, which only provides support for invoking controller action methods from other Visualforce components, `<apex:actionFunction>` defines a new JavaScript function which can then be called from within a block of JavaScript code. An `<apex:actionFunction>` component must be a child of an `<apex:form>` component.

The following markup shows an example of a Visualforce page that uses `<apex:actionFunction>`:

```
<!-- Page: -->
<apex:page controller="exampleCon">
  <apex:form>
    <apex:actionFunction name="sayHello" action="{!sayHello}" rerender="out" status="myStatus"/>
  </apex:form>
  <apex:outputPanel id="out">
    <apex:outputText value="Hello ">
      <apex:actionStatus startText="requesting..." id="myStatus">
        <apex:facet name="stop">{!username}</apex:facet>
      </apex:actionStatus>
    </apex:outputPanel>
    <script>window.setTimeout(sayHello,2000)</script>
  </apex:page>
```

The following Apex class is the controller for the page above:

```
/** Controller */
public class exampleCon {
  String uname;
```



```

public String getUsername() {
    return uname;
}

public PageReference sayHello() {
    uname = UserInfo.getName();
    return null;
}
}

```

### The <apex:flash> Component

An <apex:flash> component allows you to display a Flash movie from within a Visualforce page.

### Controller Class Security

With Spring '08 you can now specify whether a user can execute methods in a custom controller or controller extension class based on the user's profile.



**Note:** If you have installed a managed package in your organization, you can set security only for the Apex classes in that package that are declared as `global`, or for classes that contain methods declared as `webservice`.

If a user has the "Author Apex" permission enabled in his or her profile, the user has access to all Apex classes in the associated organization, regardless of the security setting for individual classes.

Permission for an Apex class is checked at the top level only. For example, if class A calls class B, and a user profile has access only to class A but not class B, the user can still successfully execute the code in class A. Likewise, if a Visualforce page uses a custom component with an associated controller, security is only checked for the controller associated with the page. The controller associated with the custom component executes regardless of permissions.

To set Apex class security from the class list page:

1. Click **Setup** ► **Develop** ► **Apex Classes**.
2. Next to the name of the class that you want to restrict, click **Security**.
3. Select the profiles that you want to enable from the Available Profiles list and click **Add**.
4. Select the profiles that you want to disable from the Enabled Profiles list and click **Remove**.
5. Click **Save**.

To set Apex class security from the profile detail page:

1. Click **Setup** ► **Manage Users** ► **Profiles**.
2. Click the name of the profile you want to modify.
3. In the Enabled Apex Class Access related list, click **Edit**.
4. Select the Apex classes that you want to enable from the Available Apex Classes list and click **Add**.
5. Select the Apex classes that you want to disable from the Enabled Apex Classes list and click **Remove**.
6. Click **Save**.

### Additional Visualforce Enhancements

The following enhancements have also been added to Visualforce with Spring '08:

#### Links on output fields

The <apex:outputField> component now displays the values of lookup, URL, and email fields as links rather than plain text.

#### Help links in page blocks

The <apex:pageBlock> component now supports an online help link with the following new attributes:

- `helpUrl`—The URL of a Web page that provides help for the page block. When this value is specified, a help link appears in the upper right corner of the page block. The user can click this link to get to the provided help.
- `helpTitle`—The text that displays when a user hovers the mouse over the help link for the page block. This attribute only has an effect if a value for `helpUrl` is also specified.

### Custom help for fields

If the Salesforce page header is displayed, the `<apex:inputField>` and `<apex:outputField>` components now display custom help if it is defined for the field in Setup. Additionally, the `<apex:pageBlockSectionItem>` component now includes a `helptext` attribute that allows you to mimic custom field help behavior on non-Salesforce fields. Custom help does not display if the `showHeader` attribute is set to `false` on the `<apex:page>` tag.

Note that if you do not want to display the custom help associated with a Salesforce field, use `<apex:inputField>` and `<apex:outputField>` in the body of an `<apex:pageBlockSectionItem>` component, and do not specify a value for the `helptext` attribute. No help is displayed on fields within that component unless a value is specified for `helptext`.

### Custom header, footer, and body text on table columns

The `<apex:column>` component now supports custom header, footer, and body text with the following new attributes and facets:

- `footerValue`—The text that should be displayed in the column footer. If you specify a value for this attribute, you cannot use the column's `footer` facet.
- `headerValue`—The text that should be displayed in the column header. If you specify a value for this attribute, you cannot use the column's `header` facet. Note also that specifying a value for this attribute overrides the default header label that appears if you use an `<apex:inputField>` or `<apex:outputField>` component in the column body.
- `value`—The text that should be displayed in every cell of the column, other than its header and footer cells. If you specify a value for this attribute, you cannot add any content between the column's opening and closing tags.
- `footer facet`—The components that appear in the footer cell for the column. Note that the order in which a `footer` facet appears in the body of an `<apex:column>` component does not matter, because any facet with `name="footer"` will control the appearance of the final cell in the column. If you use a `footer` facet, you cannot specify a value for the column's `footerValue` attribute.
- `header facet`—The components that appear in the header cell for the column. Note that the order in which a `header` facet appears in the body of an `<apex:column>` component does not matter, because any facet with `name="header"` will control the appearance of the first cell in the column. If you use a `header` facet, you cannot specify a value for the column's `headerValue` attribute. Note also that specifying a value for this facet overrides the default header label that appears if you use an `<apex:inputField>` or `<apex:outputField>` in the column body.

### Custom columns on related lists

An `<apex:relatedList>` component in a Visualforce page now displays all columns that are specified in the related list layout in Setup. In previous releases, only the `Name` field was displayed, regardless of the columns specified in the related list layout.

### Renamed `<alias>` component

The `<apex:alias>` component is now named `<apex:variable>`.

A Visualforce page that was defined with one or more `<apex:alias>` components will continue to display properly in this release, but when the page definition is opened for editing the platform will automatically convert all instances of `<apex:alias>` to `<apex:variable>`. New page definitions must use `<apex:variable>` to compile properly.

**Renamed `StandardController` class method**

The `getSubject` method on the Apex `StandardController` class is now named `getRecord` to match the Force.com API. Existing controllers that use `getSubject` will continue to function properly during this release, but may not compile in future releases.

Refer to the [Visualforce Developer's Guide](#) for complete information about Visualforce.

## Apex Enhancements

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

Apex includes the following enhancements in Spring '08:

**Apex in AppExchange Packages**

With Spring '08 comes the ability to include your Apex scripts in a package that you can then upload to the AppExchange. Note that when you upload an AppExchange package that contains Apex, the same testing guidelines apply as if you were deploying your code. That is:

- 75% of your Apex scripts are covered by unit tests, and all of those test complete successfully.

Note that when deploying to a production organization, every unit test in your organization namespace is executed.

- Every trigger has some test coverage.
- All classes and triggers compile successfully.

In addition, salesforce.com recommends that any AppExchange package that contains Apex be a managed package. Managed packages receive a unique namespace. This namespace is automatically prepended to your script class names, methods, variables, and so on, which helps prevent duplicate names in the installer's organization.

**Available in Enterprise Edition**

Apex is now generally available in Enterprise Edition.

**Business Accounts and Person Accounts**

If your organization has enabled person accounts, you have two different kinds of accounts: business accounts and person accounts. If your script creates a new account using `name`, a business account is created. If the script uses `lastName`, a person account is created.

**Debug Logging**

You can specify greater granularity when you generate a debug log. Instead of a single debug log level, there is a log category for specifying the type of information to be logged, such as `Workflow` or `Apex` scripts, as well as a log level, for specifying the amount of information to be logged for an Apex script.

**Decimal to Double Conversion**

Prior to Spring '08, it was possible to implicitly convert a `Decimal` value to a `Double` value. As of Spring '08, implicit `Decimal` to `Double` conversion is no longer allowed for argument types of methods. However, code compiled in releases prior to Spring '08 still allow this conversion. In addition, implicit `Decimal` to `Double` conversion is still enabled for assignment of values.

**Deprecated Keywords `commit`, `rollback`, and `package`**

As of Spring '08, the `commit` and `rollback` keywords are no longer supported. You must rewrite your Apex scripts to use the database `savepoint` and `rollback` methods instead.

In addition, packages are no longer allowed. All packages must be rewritten as classes for Spring '08.

### Enhanced User Interface

The Salesforce user interface for editing Apex scripts has been enhanced to include line numbers and color coding to distinguish different elements, such as comments, keywords, literal strings, and so on.

### New Arguments, Methods

The `sObject clone` method now allows you to specify whether you want a shallow copy or a deep copy of the object.

The following math functions have been added:

- Long `abs(decimal)`
- Double `acos(Double)`
- Double `asin(Double)`
- Double `atan(Double)`
- Double `atan2(Double, Double)`
- Double `cbrt(Double)`
- Double `cosh(Double)`
- Double `cos(Double)`
- Double `rint(Double)`
- Double `round(decimal)`
- Double `sin(Double)`
- Double `sinh(Double)`
- Double `signum(Double)`
- Double `tan(Double)`
- Double `tanh(Double)`

### Show Dependencies

As part of managing your Apex classes and triggers, you can now review the dependencies for that script, that is, the objects and other items that are referenced in the script and must exist for the script to be valid. This includes such things as standard and custom fields, standard and custom objects, and organization-wide settings such as multicurrency or territory management. To review dependencies, click **Show Dependencies** when viewing the detail page for a class or trigger. This information can be very useful before deploying your code or adding it to an AppExchange package.

### Support for Salesforce Object Search Language (SOSL) Queries

You can now use SOSL queries in Apex classes and anonymous blocks. Similar to SOQL query syntax, a SOSL query must be placed in brackets (`[ ]`) to return values, and can reference Apex script variables and expressions if they are preceded by a colon (`:`). SOSL statements evaluate to a list of lists of `sObjects`, where each list contains the search results for a particular `sObject` type. The result lists are always returned in the same order as they were specified in the SOSL query.

Note that the syntax of the `FIND` clause in Apex differs from the syntax of the `FIND` clause in the Force.com Web Services API:

- In Apex, the value of the `FIND` clause is demarcated with single quotes. For example:

```
FIND 'map*' IN ALL FIELDS RETURNING Account (id, name), Contact,
Opportunity, Lead
```

- In the Force.com API, the value of the `FIND` clause is demarcated with braces. For example:

```
FIND {map*} IN ALL FIELDS RETURNING Account (id, name), Contact,
Opportunity, Lead
```

A new system method, `Test.setFixedSearchResults`, enables you to specify a set of fixed search results when executing a SOSL query in a test method. If fixed search results are not specified with `Test.setFixedSearchResults`, SOSL queries in test methods do not return any records.

Classes and anonymously executed Apex scripts can execute up to 20 SOSL queries. A single SOSL query return up to 200 records.

#### **transient Keyword**

The `transient` keyword was added for use with Visualforce pages. It enables you to specify a method for a field that will not be included in the view state of a page.

In addition, several entries are automatically marked as transient, such as `Savepoints` and `PageReferences`.

#### **XMLStreamWriter Class**

Methods in the new `XMLStreamWriter` class enable you to write to an XML document from Apex.

Refer to the [Apex Developer's Guide](#) for complete information about Apex.

## Force.com Web Services API 12.0

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

The Force.com Web Services API and related toolkits have been improved for Spring '08:

- In previous versions of the Force.com Web Services API, changing an account owner removed sharing access for each account team member. In addition, changing an opportunity owner removed each sales team member and their sharing access to the record. In version 12.0 of the Force.com Web Services API, changing an account or opportunity owner does not revoke sharing access to any pre-existing account or sales team members.
- Status codes are now documented. See [Force.com Web Services API Developer's Guide](#) for a list of status codes, the probable cause of the error that generated the status code, and suggested solutions.
- Sessions will only expire if the session has been inactive for a predetermined time. The period of activity before session expiration can be configured at **Setup > Security Controls**. Your session will stay valid as long as you continue to use your session.

For complete details about Force.com Web Services API 12.0 enhancements, visit the detailed "What's New in Web Services API Spring '08" on developer.force.com at [https://wiki.apexdevnet.com/index.php/Web\\_Services\\_API](https://wiki.apexdevnet.com/index.php/Web_Services_API).

## Force.com Developer Tools

Spring '08 includes the following tools and enhancements designed specifically for developers building applications on the Force.com platform.

### **Apex Generally Available in Enterprise Edition and New Apex Sandbox**

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

Starting in patch release in January 2008, Apex is now generally available in Enterprise Edition. In addition, all Enterprise and Unlimited Edition organizations now include a small configuration-only sandbox for testing Apex code. To avoid confusion, the Quick Copy sandbox name has changed to Configuration Only. The following sandbox types are now available:

- Apex - Copies up to 10 MB, configuration only.
- Full Copy - Copies your entire production organization and all of its data.

- Configuration Only - Copies up to 500 MB, configuration only. This was previously called a Quick Copy sandbox.

To see your sandbox list, click **Setup > Data Management > Sandbox**. For more information, see "Managing Your Apex Sandboxes" in the Salesforce online help.

## Metadata API

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

Use the metadata API to manage setup and customization information for your organizations:

- Work with setup configuration as XML metadata files
- Migrate configuration changes between organizations
- Create your own tools for managing organization and application metadata

You can modify metadata in *test* organizations on Developer Edition or Sandbox, and then deploy tested changes to *production* organizations on Enterprise Edition or Unlimited Editions. You can also create scripts to populate a new organization with your custom objects, custom fields, Apex classes, Apex triggers, Visualforce pages, and other components.

Two kinds of metadata calls are available for use:

- Asynchronous metadata API calls `create()`, `update()`, and `delete()` which act upon the metadata objects in a manner similar to the way synchronous API calls act upon objects. Use these calls with the utility call `checkstatus()`.
- Declarative or file-based metadata API calls `deploy()` and `retrieve()`, which act upon packages. Packages contain a `.zip` file that holds components in a set of folders, and a manifest file named `package.xml`.



**Note:** An object must be visible in the organization for the API metadata to act on it. Apex classes, Apex triggers, and Visualforce pages may be visible in Enterprise Edition with Power Pack.

In addition to the components previously available in the Developer Preview, you can now work with custom buttons, links, and email templates and letterhead.

For complete details about Force.com Web Services Metadata API 12.0, visit the detailed "What's New in Web Services API Spring '08" on developer.force.com at [https://wiki.apexdevnet.com/index.php/Web\\_Services\\_API](https://wiki.apexdevnet.com/index.php/Web_Services_API).

The documentation will be available in a new location when version 12.0 is released:  
[www.salesforce.com/us/developer/docs/api\\_meta/index.htm](http://www.salesforce.com/us/developer/docs/api_meta/index.htm).

## Force.com IDE

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

Spring '08 includes the developer preview of the Force.com IDE. While the previously released Apex Toolkit for Eclipse allowed you to edit classes, triggers, and s-controls in Eclipse, the new Force.com IDE allows you to create, update, and delete many more components exposed in the API. The Force.com IDE contains the following enhancements:

- A customized Force.com perspective in Eclipse.
- XML insight in the code editor.
- Support for new component types provided through the API. in the Winter '08 release, including custom objects, fields, record types, tabs, applications, profiles and more.

For complete details about the Force.com IDE, visit the Force.com IDE main page at [wiki.apexdevnet.com/index.php/Force.com\\_Toolkit\\_for\\_Eclipse](http://wiki.apexdevnet.com/index.php/Force.com_Toolkit_for_Eclipse).

# Apex Email Services Enhancements and General Availability

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

With Spring '08, Apex email services are now generally available with Enterprise, Unlimited, and Developer Editions. In addition, Apex email services have been enhanced since the Winter '08 developer preview release. The implementation of the `InboundEmail` handlers in the Inbound Email Object has changed as well.

## Implementation Tips

- Before creating Apex email services, create Apex classes that implement the `Messaging.InboundEmailHandler` interface.
- To create Apex classes for processing email, you must have the "Author Apex" permission.
- Salesforce limits the total number of messages that all email services combined can process daily. Messages that exceed this limit are bounced, discarded, or queued for processing the next day, depending on how you configure the failure response settings for each email service. Salesforce calculates the limit by multiplying the number of user licenses by 1,000.
- Each email service has one or more Salesforce-generated email addresses to which users can send messages for processing. An email service only processes messages it receives at one of its addresses.
- Salesforce calculates the limit by multiplying the number of user licenses by 1,000.
- If you configure an email service and its email service address to only accept messages from authorized senders, note that the email service only processes messages from senders who are authorized to use both the email service and its address.

## Best Practices

- Request that your users keep the email service addresses confidential.

## About Apex Email Services

### What are Email Services?

User Permissions Needed	
To configure Apex email services and email service addresses:	"Modify All Data"
To create Apex classes:	"Author Apex"

Email services are automated processes that use Apex classes to process the contents, headers, and attachments of inbound email. For example, you can create an email service that automatically creates contact records based on contact information in messages.

Each email service has one or more Salesforce-generated email addresses to which users can send messages for processing. An email service only processes messages it receives at one of its addresses.

To use email services, click **Setup** ► **Develop** ► **Email Services**.

- Click **New Email Service** to define a new email service.
- Select an existing email service to view its configuration, activate or deactivate it, and view or specify addresses for that email service.

- Click **Edit** to make changes to an existing email service.
- Click **Del** to delete an email service.



**Note:** You cannot delete an active email service.

When defining email services, note the following:

- Salesforce limits the total number of messages that all email services combined can process daily. Messages that exceed this limit are bounced, discarded, or queued for processing the next day, depending on how you configure the failure response settings for each email service. Salesforce calculates the limit by multiplying the number of user licenses by 1,000.
- Email service addresses that you create in your sandbox cannot be copied to your production organization.

## Defining Email Services

User Permissions Needed	
To configure Apex email services and email service addresses:	"Modify All Data"
To create Apex classes:	"Author Apex"

To define an email service:

1. Click **Setup** ► **Develop** ► **Email Services**.
2. Click **New Email Service**, or click **Edit** to change an existing email service.
3. Specify the name of the email service.
4. Choose the Apex class you want this email service to use to process messages. The Apex class you choose must implement the `Messaging.InboundEmailHandler` interface. For example:

```
global class CreateTaskEmailExample implements Messaging.InboundEmailHandler {
}
```

For information on the `InboundEmail` object, see "Using the InboundEmail Object" in the Salesforce online help

5. Choose the types of attachments you want the email service to accept. The options are:

### None

The email service accepts the message but discards any attachment.

### Text Attachments Only

The email service only accepts the following types of attachments:

- Attachments with a Multipurpose Internet Mail Extension (MIME) type of `text`.
- Attachments with a MIME type of `application/octet-stream` and a filename that ends with either a `.vcf` or `.vcs` extension. These are saved as `text/x-vcard` and `text/calendar` MIME types, respectively.

Messages with attachments other than these types are accepted, but the attachments are discarded.

### Binary Attachments Only

The email service only accepts binary attachments, such as image, audio, application, and video files.



**Note:**



Messages with attachments that are not binary are accepted, but the attachments are discarded.

## All

The email service accepts any type of attachment.



**Note:** An email service can only process attachments if you configure the email service to accept attachments and use an Apex class that processes the types of attachments the email service accepts.

Also, note that email services cannot accept inline attachments, such as graphics inserted in email messages.

- Optionally, select the `Authenticate Senders` checkbox to configure the email service to verify the legitimacy of the sending server before processing a message. The email service uses the following authentication protocols to verify the sender's legitimacy:

- SPF
- SenderId
- DomainKeys
- DKIM

If the sending server passes at least one of these protocols and does not fail any, the email service accepts the email. If the server fails a protocol or does not support any of the protocols, the email service performs the action specified in the `Unauthenticated Sender Action` failure response setting.



**Tip:** Before selecting the `Authenticate Senders` checkbox, ensure that the senders that you expect to use the email service support at least one of the authentication protocols listed above. For information on these authentication protocols, see the following websites:

- <http://www.openspf.org>
- <http://www.microsoft.com/mscorp/safety/technologies/senderid/default.aspx>
- <http://www.dkim.org>

- Optionally, configure this email service only to accept messages from certain senders by listing their email addresses and domains in the `Accept Email From` textbox. Separate multiple entries with commas. For example: `george@mycompany.com, yahoo.com, gmail.com`. If the `Accept Email From` textbox has a value and the email service receives a message from an unlisted email address or domain, the email service performs the action specified in the `Unauthorized Sender Action` failure response setting.

Leave this field blank if you want the email service to receive email from any email address.



**Note:** You can also authorize email addresses and domains at the email service address-level. See "Defining Email Service Addresses" in the Salesforce online help.

If both the email service and email service address are configured to only accept messages from certain senders, the email service only processes messages from senders that are listed in the `Accept Email From` textboxes on both the email service and the email service address.

- Select the `Active` checkbox if you want the email service to be activated when you click `Save`.
- Configure the failure response settings, which determine how the email service responds if an attempt to access this email service fails for the following reasons:

### Over Email Rate Limit Action

Determines what the email service does with messages if the total number of messages processed by all email services combined has reached the daily limit for your organization. Salesforce calculates the limit by multiplying the number of user licenses by 1,000.

### Deactivated Email Address Action

Determines what the email service does with messages received at an email address that is inactive.

**Deactivated Email Service Action**

Determines what the email service does with messages it receives when the email service itself is inactive.

**Unauthenticated Sender Action**

Determines what the email service does with messages that fail or do not support any of the authentication protocols if the `Authenticate Senders` checkbox is selected.

**Unauthorized Sender Action**

Determines what the email service does with messages received from senders who are not listed in the `Accept From Email` textbox on either the email service or email service address.

The failure response options are:

**Bounce Message**

The email service returns the message to the sender with a notification that explains why the message was rejected.

**Discard Message**

The email service deletes the message without notifying the sender.

**Requeue Message (Over Email Rate Limit Action Only)**

The email service queues the message for processing in the next 24 hours. If the message is not processed within 24 hours, the email service returns the message to the sender with a notification that explains why the message was rejected.

10. Click `Save` to save your changes, or `Save` and `New Email Address` to create email addresses for this email service, as described in "Defining Email Service Addresses" in the Salesforce online help.

## Defining Email Service Addresses

User Permissions Needed	
To configure Apex email services and email service addresses:	"Modify All Data"
To create Apex classes:	"Author Apex"

To define an email service address:

1. Click **Setup** ► **Develop** ► **Email Services**.
2. Choose the email service for which you want to define an address.
3. Click **New Email Address**, or click **Edit** to change the configuration for an existing email service address.
4. In the `Email Address` field, enter the local-part of the email service address. Salesforce generates a unique domain-part for each email service address to ensure that no two email service addresses are identical. The generated domain-part appears to the right of the `Email Address` field.



**Tip:** For the local-part of a Salesforce email address, all alphanumeric characters are valid, plus the following special characters: `!#$%&'*/=?^_+~}{|~`. For the domain-part of a Salesforce email address, only alphanumeric characters are valid, as well as hyphen (`-`). The dot character (`.`) is also valid in both the local-part and domain-part as long as it is not the first or last character.

Salesforce email addresses are case-insensitive.

5. Select the `Active` checkbox if you want the email service address to be activated when you click `Save`.
6. Choose the `Context User`. The email service assumes the permissions of the context user when processing the messages this address receives. For example, if the email service is configured to modify contact records upon receiving updated contact information, the email service only modifies a record if the context user has permission to edit the record.



**Important:** Choose a context user that has permission to execute the Apex class that the email service is configured to use.

- Optionally, configure this email service address to only accept messages from certain senders by listing their email addresses and domains in the `Accept Email From` textbox. Separate multiple entries with commas. For example: `george@mycompany.com, yahoo.com, gmail.com`. If the `Accept Email From` textbox has a value and the email service receives a message from an unlisted email address or domain, the email service performs the action specified in the `Unauthorized Sender Action` failure response setting.

Leave this field blank if you want the email service to receive email from any email address.



**Note:**

If both the email service and email service address are configured to only accept messages from certain senders, the email service only processes messages from senders that are listed in the `Accept Email From` textboxes on both the email service and the email service address.

- Click `Save` to save your changes, or `Save` and `New` to define another inbound email address for this email service.

## Using the InboundEmail Object

For every email the Apex email service domain receives, Salesforce creates a separate `InboundEmail` object that contains the contents and attachments of that email. You can use Apex classes that implement the `Messaging.InboundEmailHandler` interface to handle an inbound email message. Using the `handleInboundEmail` method in that class, you can access an `InboundEmail` object to retrieve the contents, headers, and attachments of inbound email messages, as well as perform many functions.



**Note:** For information on the Apex email service, see "What are Email Services?" in the Salesforce online help.

### Example

The following is an example of how you can look up a contact based on the inbound email address and create a new task.

```
global class CreateTaskEmailExample implements Messaging.InboundEmailHandler {
    global Messaging.InboundEmailResult handleInboundEmail(Messaging.InboundEmail email,
        Messaging.InboundEnvelope env) {

        // Create an inboundEmailResult object for returning the result of the Apex Email Service
        Messaging.InboundEmailResult result = new Messaging.InboundEmailResult();

        String myPlainText= '';
        // Add the email plain text into the local variable
        myPlainText = email.plainTextBody;

        // New Task object to be created
        Task[] newTask = new Task[0];

        // Try to lookup any contacts based on the email from address
        // If there is more than 1 contact with the same email address,
        // an exception will be thrown and the catch statement will be called.
        try {
```

```

Contact vCon = [Select Id, Name, Email
                From Contact
                Where Email = :email.fromAddress
                Limit 1];

// Add a new Task to the contact record we just found above.
newTask.add(new Task(Description = myPlainText,
                    Priority = 'Normal',
                    Status = 'Inbound Email',
                    Subject = email.subject,
                    IsReminderSet = true,
                    ReminderDateTime = System.now()+1,
                    WhoId = vCon.Id));

// Insert the new Task
insert newTask;

System.debug('New Task Object: ' + newTask );

}
// If an exception occurs when the query accesses
// the contact record, a QueryException is called.
// The exception is written to the Apex debug log.
catch (QueryException e) {
    System.debug('Query Issue: ' + e);
}

// Set the result to true. No need to send an email back to the user
// with an error message

    result.success = true;

// Return the result for the Apex Email Service
return result;

}
}

```

### InboundEmail Object

An InboundEmail object has the following fields.

Name	Type	Description
binaryAttachments	InboundEmail.BinaryAttachment[]	A list of binary attachments received with the email, if any Examples of binary attachments include image, audio, application, and video files.
ccAddresses	String[]	A list of carbon copy (CC) addresses, if any
fromAddress	String	The email address that appears in the From field
fromName	String	The name that appears in the From field, if any
headers	InboundEmail.Header[]	A list of the RFC 2822 headers in the email, including: <ul style="list-style-type: none"> <li>• Recieved from</li> <li>• Custom headers</li> <li>• Message-ID</li> <li>• Date</li> </ul>

Name	Type	Description
htmlBody	String	The HTML version of the email, if specified by the sender
plainTextBody	String	The plain text version of the email, if specified by the sender
replyTo	String	The email address that appears in the reply-to header If there is no reply-to header, this field is identical to the <code>fromAddress</code> field.
subject	String	The subject line of the email, if any
textAttachments	InboundEmail.TextAttachment	A list of text attachments received with the email, if any The text attachments can be any of the following: <ul style="list-style-type: none"> <li>• Attachments with a Multipurpose Internet Mail Extension (MIME) type of <code>text</code></li> <li>• Attachments with a MIME type of <code>application/octet-stream</code> and a filename that ends with either a <code>.vcf</code> or <code>.vcs</code> extension. These are saved as <code>text/x-vcard</code> and <code>text/calendar</code> MIME types, respectively.</li> </ul>
toAddresses	String[]	The email address that appears in the To field

### InboundEmail.Header Object

An InboundEmail object stores RFC 2822 email header information in an InboundEmail.Header object with the following fields.

Name	Type	Description
name	String	The name of the header parameter, such as "Date" or "Message-ID"
value	String	The value of the header

### InboundEmail.BinaryAttachment Object

An InboundEmail object stores binary attachments in an InboundEmail.BinaryAttachment object.

Examples of binary attachments include image, audio, application, and video files.

An InboundEmail.BinaryAttachment object has the following fields.

Name	Type	Description
body	Blob	The body of the attachment
fileName	String	The name of the attached file
mimeTypeSubType	String	The primary and sub MIME-type

### InboundEmail.TextAttachment Object

An InboundEmail object stores text attachments in an InboundEmail.TextAttachment object.

The text attachments can be any of the following:

- Attachments with a Multipurpose Internet Mail Extension (MIME) type of `text`
- Attachments with a MIME type of `application/octet-stream` and a filename that ends with either a `.vcf` or `.vcs` extension. These are saved as `text/x-vcard` and `text/calendar` MIME types, respectively.

An `InboundEmail.TextAttachment` object has the following fields.

Name	Type	Description
<code>body</code>	String	The body of the attachment
<code>charset</code>	String	The original character set of the body field. The body is re-encoded as UTF-8 as input to the Apex method.
<code>fileName</code>	String	The name of the attached file
<code>mimeTypeSubType</code>	String	The primary and sub MIME-type

### InboundEmailResult Object

The `InboundEmailResult` object is used to return the result of the email service. If this object is null, the result is assumed to be successful. The `InboundEmailResult` object has the following fields.

Name	Type	Description
<code>success</code>	Boolean	A value that indicates whether the email was successfully processed.  If false, Salesforce rejects the inbound email and sends a reply email to the original sender containing the message specified in the <code>Message</code> field.
<code>message</code>	String	A message that Salesforce returns in the body of a reply email if the <code>Success</code> field is false.  For example, this message could inform the sender that the request could not be processed and provide an explanation.  If the <code>InboundEmailResult</code> object is null or the <code>Success</code> field is true, no message is returned to the sender.

### InboundEnvelope Object

The `InboundEnvelope` object stores the envelope information associated with the inbound email, and has the following fields:

Name	Type	Description
<code>toAddress</code>	String	The name that appears in the <code>To</code> field of the envelope, if any
<code>fromAddress</code>	String	The name that appears in the <code>From</code> field of the envelope, if any

# Email to Salesforce

Available in: **All Editions**

If you use a company-provided or third-party email account, use Email to Salesforce to save messages as email activities on lead and contact records in Salesforce. When composing, forwarding, or replying to email, simply enter your Email to Salesforce address in the **BCC** field. Salesforce receives a copy of the email and searches the **To** and **CC** fields for the email addresses of your leads and contacts. If any leads or contacts are found, Salesforce saves the email as an activity on the appropriate record.

You can also save a message as an email activity without sending or resending it to another person. Simply forward the email with your Email to Salesforce address in the **To** field. Be sure that there are no other email address in the **To**, **CC**, and **BCC** fields. Salesforce receives a copy of the email and searches the first **From**, **To**, and **CC** fields in the forwarded email for the email addresses of your leads and contacts. If any leads or contacts are found, Salesforce saves the email as an activity on the appropriate record.

## Implementation Tips

- Email to Salesforce does not accept email attachments; however, the filenames of the email attachments are listed in the email activity.
- Email to Salesforce can create a maximum of 50 email activities for each email it receives.

## Best Practices

- Instruct users to keep their Email to Salesforce addresses confidential.
- If you use Gmail, see "Using Gmail in Salesforce" in the Salesforce online help to learn about the additional Gmail features that Salesforce offers.

## Enabling Email to Salesforce

To enable Email to Salesforce for your organization:

1. Click **Setup** ► **Email Administration** ► **Email to Salesforce** ► **Edit**.
2. Select the **Active** checkbox.
3. Optionally, select the **Advanced Email Security Settings** checkbox to configure Email to Salesforce to verify the legitimacy of the sending server before processing a message. Email to Salesforce uses the following authentication protocols to verify the sender's legitimacy:
  - SPF
  - SenderId
  - DomainKeys

If the sending server passes at least one of these protocols and does not fail any, Email to Salesforce accepts the email. If the server fails a protocol or does not support any of the protocols, Email to Salesforce ignores the email.



**Tip:** Before selecting the **Advanced Email Security Settings** checkbox, ensure that the senders you expect to use Email to Salesforce support at least one of the authentication protocols listed above. For information on these authentication protocols, see the following websites:

- <http://www.openspf.org>
- <http://www.microsoft.com/mscorp/safety/technologies/senderid/default.mspx>
- <http://www.dkim.org>

4. Click **Save**.
5. Optionally, click **Send Email Notification** to notify users that Email to Salesforce is activated.

After enabling Email to Salesforce, Salesforce creates a unique Email to Salesforce address for each user. Users can click **Setup** ► **Email** ► **My Email to Salesforce** to view their unique Email to Salesforce address and customize their settings. For more information, see "Using My Email to Salesforce Address" in the Salesforce online help.

### Using My Email to Salesforce Address

Before you can use your Email to Salesforce address, you must configure it as follows:

1. Click **Setup** ► **Email** ► **My Email to Salesforce** ► **Edit**.
2. In *My Email Addresses*, enter the third-party email addresses you use to send email concerning your leads and contacts. Separate multiple email addresses with commas.



**Important:** Your Email to Salesforce address only accepts email from addresses you list. If you do not list any email addresses, your Email to Salesforce address will not work.

3. Configure Email to Salesforce to add activities to leads, contacts, or both.
4. Configure what Email to Salesforce does upon receiving an email containing lead or contact information that matches duplicate records. Email to Salesforce can add the email activity to the duplicate record that has either the greatest number of activities or the earliest creation date.
5. Configure what Email to Salesforce does if no matching records are found. Email to Salesforce can either ignore the email or assign you a task to choose.
6. Click **Save**.

## Hierarchy Visibility Override—Controlling Sharing Access Using Hierarchies

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

A new sharing setting called *Grant Access Using Hierarchies* allows you to disable the default sharing access granted by your role and territory hierarchies. This option can be changed for custom objects that do not have their organization-wide default sharing setting set to *Controlled by Parent*.

### Implementation Tips

- Regardless of your organization's sharing settings, users can gain access to records they do not own through other means such as user permissions like "View All Data," sharing rules, or manual sharing of individual records.
- The *Grant Access Using Hierarchies* option is always selected on standard objects and is not editable.
- If you disable the *Grant Access Using Hierarchies* option, sharing with a role or territory and subordinates only shares with the users directly associated with the role or territory selected. Users in roles or territories above them in the hierarchies will not gain access.
- If your organization disables the *Grant Access Using Hierarchies* option, activities associated with a custom object are still visible to users above the activity's assignee in the role hierarchy.
- The *Grant Access Using Hierarchies* option affects which users gain access to data when something is shared with public groups, personal groups, queues, roles, or territories. For example, the **View All Users** option displays group members and people above them in the hierarchies when a record is shared with them using a sharing rule or manual sharing and the *Grant Access Using Hierarchies* option is selected. When the *Grant Access Using Hierarchies* option



is not selected, some users in these groups no longer have access. The following list covers the access reasons that depend on the `Grant Access Using Hierarchies` option.

**These reasons always gain access:**

- Group Member
- Queue Member
- Role Member
- Member of Subordinate Role
- Territory Member
- Member of Subordinate Territory

**These reasons only gain access when using hierarchies:**

- Manager of Group Member
- Manager of Queue Member
- Manager of Role
- Manager of Territory
- User Role Manager of Territory

**Best Practices**

- When you deselect `Grant Access Using Hierarchies`, notify users of the changes in report results that they can expect due to losing visibility of their subordinates' data. For example, selecting `My team's...` in the `View` drop-down list returns records owned by the user; it will not include records owned by their subordinates. To be included in this type of report view, records from subordinates must be explicitly shared with that user by some other means such as a sharing rule or a manual share. So, if no records are shared with you manually, the `My...` and `My team's...` options in the `View` drop-down list return the same results. However, choosing the `Activities with...` any custom object report type when creating a custom report returns activities assigned to you as well as your subordinates in the role hierarchy.

## About Controlling Sharing Access Using Hierarchies

### Controlling Access Using Hierarchies

User Permissions Needed
To change the <code>Grant Access Using Hierarchies</code> option: "Manage Users" AND "Customize Application"

Beyond setting the organization-wide sharing defaults for each object, your organization can specify whether users have access to the data owned by or shared with their subordinates in the hierarchy. For example, hierarchies like the role hierarchy or territory hierarchy automatically grant record access to users above the record owner in the hierarchy. The `Grant Access Using Hierarchies` option in the organization-wide defaults determines the access users have to records that they do not own, including records they do not have sharing access to but someone below them in the hierarchy does. By default, the `Grant Access Using Hierarchies` option is enabled for all objects, and it can only be changed for custom objects.

To control sharing access using hierarchies for any custom object, click **Setup** > **Security Controls** > **Sharing Settings** and **Edit** in the Organization Wide Defaults section. Deselect *Grant Access Using Hierarchies* if you want to prevent users from gaining automatic access to data owned by or shared with their subordinates in the hierarchies.

## Mobile Custom Views

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

Available for an additional cost in: **Professional** and **Enterprise** Editions

Spring '08 offers an exciting new feature for the management of mobile users. Now administrators can create mobile-friendly versions of custom views that are pushed to the mobile client application. In Salesforce Mobile, users can select standard views or the administrator-defined custom views.

### Implementation Tips

- Mobile views are set up by the administrator per mobile configuration. The views are available to all users assigned to the configuration, and administrators cannot restrict visibility to certain groups of users within the configuration. Each mobilized object in a mobile configuration can have up to ten custom views. For more information about mobile configurations, see "Managing Mobile Configurations" in the Salesforce online help.
- Mobile views cannot be filtered by All Records or My Records. The views apply to all records stored locally on the device, regardless of ownership; however, ownership filters can be applied using the additional fields in the search criteria.
- Mobile views do not support advanced filtering options.
- Mobile views are limited to a two-column display.
- Mobile views can be sorted in ascending or descending order by up to two fields.
- BlackBerry users can create custom views on their wireless devices, but they cannot edit or delete views created by the mobile administrator. Windows Mobile users cannot create custom views from their wireless devices.
- You cannot exclude a field from a mobile page layout if it has been used in a mobile custom view.
- Organizations using the legacy Sendia mobile console cannot import their existing mobile views from the old console to the Salesforce Mobile Administration Console. Customers migrating from the old console must recreate the views in Salesforce.

## About Mobile Custom Views

### Managing Mobile Custom Views

User Permissions Needed	
To view mobile devices and users:	"View Setup and Configuration"
To manage mobile custom views:	"Manage Mobile Configurations"

To manage the custom views for a mobile configuration, click **Setup** > **Mobile Administration** > **Mobile Configurations**, and then click the name of the mobile configuration. In the Mobile Views related list:

- To see a list of all your custom views, choose All Options in the Select an object drop-down list. You can also use the Select an object drop-down list to filter the views by object type.

- To create a new mobile view, select the object type from the Select an object drop-down list, and then click **New Mobile View**. See "Creating Mobile List Views" in the Salesforce online help.
- To make changes to a mobile custom view, click **Edit** next to a view name.
- To delete a mobile custom view, click **Del** next to a view name.
- To view details about a mobile custom view, click its name.

## Creating Mobile Custom Views

User Permissions Needed	
To view mobile devices and users:	"View Setup and Configuration"
To manage mobile custom views:	"Manage Mobile Configurations"

For each mobile configuration, you can define up to ten mobile custom views per object that are pushed to the devices of users assigned to the configuration. To create a mobile custom view:

1. Click **Setup** ► **Mobile Administration** ► **Mobile Configurations**, and then click the name of a mobile configuration. To learn how to set up a mobile configuration, see "Creating Mobile Configurations" in the Salesforce online help.
2. Scroll down to the Mobile Views related list.
3. Choose an object type from the Select an object drop-down list, and then click **New Mobile View**. Only objects included in the mobile configuration's data set appear in the drop-down list.
4. Enter the view name.

Because display space on mobile devices is limited, the maximum length of a mobile view name is 30 characters.

5. In the Specify Filter Criteria section, enter conditions that the selected items must match, for example, `Amount is greater than $100,000`.
  - a. Choose a field from the first drop-down list.
  - b. Choose an operator. For descriptions of each operator, see "Filter Operators" in the Salesforce online help.
  - c. In the third field, enter the value to match.

For tips on entering filter values, see "Tips for Entering Filter Criteria" in the Salesforce online help. You can also use special date values in your filter criteria.

- d. Select **Match All** if items in the mobile view should match all the criteria you entered. Select **Match Any** if items in the mobile view should match any of the criteria you entered.



**Note:** Mobile custom views do not support advanced filtering options.

6. In the Select Fields to Display section, select the fields to use as display columns.

The default fields are automatically selected. You can choose up to two different columns of data fields to display in your mobile custom view.

7. In the Define Sort Order section, optionally set a primary and secondary sort order for the view.
  - a. Select a field in the Order By drop-down list. You can sort by fields that have been excluded from the object's mobile page layout.
  - b. Set the sort order to Ascending or Descending.

8. Click **Save**.

# Additional Force.com Platform Enhancements

## AppExchange Package Upload and Install Enhancements

Previously, if a package had dependencies, the developer was prevented from uploading the package because there was no guarantee that the permission or preference would be enabled in the installer's organization. With Spring '08, Salesforce automatically detects package dependencies and lists them on the new Show Dependency page as part of the upload wizard.

You can also select additional requirements based on the contents of your package and the components your installers should have enabled. This allows packages that reference permissions or preferences like Business-to-Consumer or Salesforce-to-Salesforce to be uploaded. Dependency and requirement checks are performed during installation.

In the install wizard, Salesforce verifies these dependencies to ensure the installer has the required permissions or preferences enabled. If the installer's organization does not meet all requirements, Salesforce prevents them from installing the package.

In addition, once a package is installed with a dependency, the permission or preference can not be disabled while the package is installed in the organization. The package must be uninstalled before the permission or preference can be disabled.

For more information on dependencies, see Understanding Dependencies.

The AppExchange package enhancements are available in Group, Professional, Enterprise, Unlimited, and Developer Editions.

## Custom Button Enhancements

Spring '08 includes these custom button enhancements for all Salesforce Editions:

### Mass Action Buttons for Tag and Search Results

Custom list buttons are now available in search result layouts, which determine the data included in search layouts for tagging results. To add a custom button to a search layout, first create the custom button and give it a `List Button Display Type`. Next, add it your search result layout. In addition, you can use existing custom list buttons that you have already added to list views and related lists.

### Custom List Buttons Include Checkbox Option

Previously, custom list buttons automatically added a column of checkboxes to your list. Now, you can choose to hide these checkboxes by deselecting the `Display Checkboxes (for Multi-Record Selection)` option when you choose the `List Button Display Type` for a custom button. For example, you may want to hide the checkboxes if your custom list button does not require the user to select records such as one that quickly navigates the user to another page or adds a new record.

## Custom List View Enhancements

With Spring '08, the user interface for creating and editing custom list views has been improved for enhanced usability.

## Deleted Custom Fields Automatic Cleanup

In Summer '07, Salesforce began storing your deleted custom fields and their data until your organization permanently deleted them. This provided you the ability to undelete your fields along with their data. However, these deleted fields still count against the maximum number of custom fields allowed in your organization until they are permanently deleted. Now, Salesforce automatically deletes them permanently after 45 days.



**Important:** Any fields that you deleted after the Summer '07 release will be permanently deleted 45 days after the Spring '08 release. If you do not want them to be permanently deleted, undelete them within 45 days. This change affects all Salesforce Editions.

## Dynamic Approval Routing

Previously, you could configure approval processes with steps that assigned approval requests only to a specific user or queue, or to the user in the custom field selected for the entire approval process. With Spring '08, you can configure approval steps to use a new `Related User` option that assigns requests to a user specified in any user lookup field on the submitted record. Additionally, you can quickly populate user lookup fields through the user interface or a programming language like Apex. Because the user specified in the user lookup field can differ for each record entering the approval step, the `Related User` option gives you the power to dynamically assign approval requests.

Use dynamic approval routing to automate even the most complex matrix-based approvals. Matrix-based approvals require that the approval authority be based on a matrix of one or more criteria. For example, in the context of a job requisition process, an approver may be selected based on both the geographic region and the cost center of the job requisition record. With Apex, you can implement both data-driven and algorithmic routing rules.

Make your approval processes more dynamic to cover more business scenarios with fewer process definitions and enhance productivity and efficiency. For more information, see "Creating Approval Steps" in the Salesforce online help. Approval processes are available in Enterprise, Unlimited, and Developer Editions.

## Email Deliverability Testing

With Spring '08, you can simultaneously send test messages from all of the IP addresses Salesforce uses for sending email. This lets you ensure that your organization is not blocking any of these IP addresses, and that your users can receive all email sent from Salesforce. To send the test messages, click **Setup** ► **Security Controls** ► **Test Email Deliverability**. This enhancement is available in all Salesforce Editions.

## Force.com Connect Offline Enhancements

Force.com Connect Offline lets users work on their key deals anywhere, anytime. With Spring '08, Connect Offline includes the following enhancements:

- The look and feel of Connect Offline has been completely revamped to provide a more uniform experience.
- The Connect Offline login screen now features a **Remember Password** checkbox users can select to avoid having to enter their password every time they to log in.

To use these new enhancements, install the new version of Connect Offline as described in "Installing Connect Offline" in the Salesforce online help. You do not need to uninstall the older version.

## Formula and Validation Rule Enhancements

Spring '08 includes these formula enhancements for all Salesforce Editions:

### Increased Formula Size Limits 300%

Formulas were once limited to 1300 characters but can now contain up to 3900 characters, regardless of where you use them. The character limit includes spaces and return characters. For information on where you can use formulas, see "About Formulas" in the Salesforce online help.

### Functions Added - ISNUMBER, REGEX, and VLOOKUP

Use the following functions in your formulas:

- **ISNUMBER**: Determines if a text value is a number and returns TRUE if it is. Otherwise, it returns FALSE.
- **REGEX**: Compares a text field to a regular expression and returns TRUE if there is a match. Otherwise, it returns FALSE. A regular expression is a string used to describe a format of a string according to certain syntax rules.

NOT (  
OR (

```

    LEN (SSN__c) = 0,
    REGEX ( SSN__c , "[0-9]{3}-[0-9]{2}-[0-9]{4}")
  )
)

```

- **VLOOKUP:** Returns a value by looking up a related value on a custom object similar to the VLOOKUP() Excel function.

This example checks that a billing postal code is valid by looking up the first five characters of the value in a custom object called Zip\_Code\_\_c that contains a record for every valid zip code in the US. If the zip code is not found in the Zip\_Code\_\_c object or the billing state does not match the corresponding State\_Code\_\_c in the Zip\_Code\_\_c object, an error is displayed.

```

AND (
  LEN(BillingPostalCode) > 0,
  OR(BillingCountry = "USA",
    BillingCountry = "US"),
  VLOOKUP (
    $ObjectType.Zip_Code__c.Fields.State_Code__c,
    $ObjectType.Zip_Code__c.Fields.Name,
    LEFT (BillingPostalCode, 5)
  )
)
<> BillingState
)

```

The following table describes where these new functions are available:

Area	ISNUMBER	VLOOKUP	REGEX
<b>Formula Fields</b>	No	No	No
<b>Report Summary Formulas</b>	No	No	No
<b>Validation Rules</b>	Yes	Yes	Yes
<b>Default Values</b>	Yes	No	Yes
<b>Workflow Rule</b>	Yes	No	Yes
<b>Workflow Field Update</b>	Yes	No	Yes
<b>Approval Process</b>	Yes	No	Yes
<b>Approval Step</b>	Yes	No	Yes
<b>Escalation Rule</b>	Yes	No	Yes
<b>Assignment Rule</b>	Yes	No	Yes
<b>S-Control</b>	Yes	No	Yes
<b>Custom Button or Link</b>	Yes	No	Yes
<b>Visualforce Pages</b>	No	No	No

### Inline Editing Supported for the Console

In Winter '08, Salesforce introduced inline editing, which allows users to quickly change field values on a record's detail page. In Spring '08, inline editing support has been expanded to the console.

## Salesforce Mobile Enhancements

Spring '08 includes Salesforce Mobile enhancements for Unlimited Edition. (Salesforce Mobile is also available for an additional cost in Professional and Enterprise Editions.)

### Salesforce Mobile Support for Person Accounts

Spring '08 extends support for person accounts to the mobile solution. If person accounts are enabled in your organization, administrators can create mobile configurations that include or exclude person accounts, and users are able to work with person accounts in the mobile client application. The following table summarizes how person accounts in Salesforce Mobile differ from business accounts or have unique considerations:

Salesforce Functionality	Person Account Behavior
Mobile Configurations	<p>Mobile configurations that include the account object automatically deliver person accounts and business accounts to users' mobile devices. For more information about mobile configurations, see "Managing Mobile Configurations" in the Salesforce online help.</p> <p>Person accounts can be excluded from the configuration's data set using the criteria "Is Person Account equals False." To mobilize only person accounts, use the criteria "Is Person Account equals True." If a mobile configuration includes accounts but not contacts, users assigned to that configuration will see a Contacts tab in the mobile client application, and the tab will contain person accounts.</p>
Salesforce Mobile	<p>In some cases, Salesforce Mobile handles person accounts differently than Salesforce.</p> <p>In the BlackBerry client application:</p> <ul style="list-style-type: none"> <li>• Person accounts have a Contacts related list.</li> <li>• In search results, person accounts display under accounts and contacts.</li> <li>• When logging calls and emails, the Name field is not automatically populated with the person account; however, users can manually select the person account.</li> </ul> <p>In the Windows Mobile client application:</p> <ul style="list-style-type: none"> <li>• Person accounts have a Contacts related list.</li> </ul>

### Salesforce Mobile Enhanced Data Filtering

Spring '08 introduces enhanced record ownership filters for mobile configurations. Previously, administrators were limited to only one of the available filter options. To accommodate organizations with more complex mobile requirements, you can now add the same object data set a maximum of four times on the same hierarchy level and define a different ownership filter for each node. For example, a sales manager might want to synchronize his opportunities, opportunities owned by his subordinates, and opportunities for which he is a sales team member. In this case, you would add an opportunity data set

and select `User's Team's Records`, then add a second opportunity data set at the same level in the hierarchy and select `User's Sales Team's Records`. Note that objects with only one ownership filter option, such as `Case Comment`, cannot be added multiple times at the same level of the hierarchy.

For more information about filtering data in mobile configurations, see "Defining Data Sets" in the Salesforce online help.

### Search Enhancements for Accented Characters

With Spring '08, searches return records that contain accented characters even if the search term does not contain accented characters. For example, searches now return records containing the name José when either `Jose` or `José` is entered as the search term. In prior releases, searches did not return records containing the name José when `Jose` was entered as the search term. This enhancement is available in all Salesforce Editions.



**Note:** This enhancement only applies to new records, or existing records that are saved after the Spring '08 release goes live for your instance.

### Security Enhancements

With Spring '08, Salesforce has added an additional layer of security to prevent unauthorized exports of report data and user list view data, such as from malware or a phishing attack. This security feature takes advantage of browser cookies and proprietary salesforce.com code to help block such unauthorized access to your organization's data. This feature does not affect your users' ability to export report data or user list view data, nor does it alter the user experience. This enhancement is available in all Salesforce Editions.

### Setup Menu Restructuring

In Spring '08, some areas of the Setup menu have been reorganized to improve user navigation and ease-of-use. The changes are:

Previous Setup Option	New Setup Option
<b>Build</b> folder	<b>Create</b> folder
<b>Build</b> ► <b>Code</b>	<b>Develop</b> ► <b>Apex Classes</b>
<b>Build</b> ► <b>Pages</b>	<b>Develop</b> ► <b>Pages</b>
<b>Build</b> ► <b>S-Controls</b>	<b>Develop</b> ► <b>S-Controls</b>
<b>Customize</b> ► <b>Workflow &amp; Approvals</b>	<b>Create</b> ► <b>Workflow &amp; Approvals</b>
<b>Exchange</b> folder	Removed
<b>Exchange</b> ► <b>Installed Apps</b>	<b>View Installed Packages</b> folder
<b>Exchange</b> ► <b>Shared Apps</b>	<b>Create</b> ► <b>Packages</b>
<b>Integrate</b> folder	<b>Develop</b> folder

This enhancement is available in all Salesforce Editions.

### Special Date Values Supported for All English Locale Types

In previous releases, if your company's locale was English (United States), you could use special date values (such as "yesterday," "today," and "Monday") when entering dates. With Spring '08, you can use special date values if your company uses any type of English locale, such as English (Australia) and English (South Africa).



## Workflow Enhancements

### Email-to-Case Workflow

Now, organizations that have Email-to-Case enabled can create workflow rules for email messages so that emails automatically update fields on the cases with which they are associated. For example, you can create a workflow rule so that an email marked as `Is Incoming` automatically changes its case's `Status` from `Closed` to `New`.

To create such a workflow rule:

1. Click **Setup** > **Create** > **Workflow & Approvals** > **Workflow Rules** to access the workflow rules list page.
2. On the workflow rules list page, click **New Rule**.
3. Select `Email Message` in the `Select object` drop-down list.
4. Click **Next**.
5. Enter a rule name. Optionally, enter a description for the rule.
6. Select the evaluation criteria.
7. Choose `criteria are met`.
8. Enter the following criteria: `Email Message: Is Incoming equals True AND Case: Status equals Closed`.
9. Click **Add Workflow Action** and choose **New Field Update**.
10. Enter a name for your workflow field update. Optionally, enter a description for the workflow field update.
11. Select `Case` in the `Target Object` drop-down list.
12. Choose `Status` in the `Field to Update` drop-down list.
13. Select `New` in the `A specific value` field to specify the new field value.
14. Click **Save**.

Note the following when creating workflow rules for email messages that automatically update the fields on their associated cases:

- For more information about creating workflow rules, see "Creating Workflow Rules" in the Salesforce online help.
- Email-to-Case must be enabled to create workflow rules for email messages to update the fields on their associated cases.
- To insert case merge fields in the formula of a workflow rule, click **Insert Field** on the Rule Criteria section and choose `Email Message > Parent Case`.
- Note what is and is not triggered on cases when email messages update case fields:

Triggered	Not Triggered
Workflow rules	Assignment rules
Validation rules	Auto-response rules
Roll-up summary fields	
Escalation rules	
Apex triggers	

This enhancement is available in Enterprise, Unlimited, and Developer Editions.

**Workflow Rule Criteria for Converted Leads**

With Spring '08, the criteria Lead: Converted is now available in workflow rules. For more information on lead conversion enhancements in Spring' 08, see [Lead Conversion with Validation Rules and Triggers](#) on page 49.

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