



# Best Practices for Administrators

As your organization's administrator, you play a critical role in making Salesforce CRM a success. You'll work with stakeholders to define requirements, customize the application to satisfy business goals and appeal to users, set up reporting dashboards to keep managers happy, keep an eye on availability and performance, activate new features, answer user questions, and much more.

These best practices below are based on what we've learned from thousands of successful customers about how administrators can contribute to an organization's success. You may also want to check out the collection "Best Practices for Implementing Salesforce CRM" for additional best practices.



## Get the resources you need

- [Achieving outstanding CRM administration](#)
- [Get these must-have administrator tools](#)
- [How to get big results with a small budget](#)
- [Choose the right tools to customize and extend Salesforce CRM](#)



## How to make Salesforce CRM hum

- [6 steps to making the most of each release](#)
- [6 steps toward data quality](#)
- [Managing your Salesforce CRM storage](#)
- [Using data access design patterns](#)
- [3 tips to get unstuck when creating a formula](#)
- [Turbo-charge customer communications with email templates](#)
- [Bring cloud computing to your entire company with the AppExchange](#)

# Best practice

## Achieving outstanding CRM administration

Because salesforce.com takes care of many traditional administration tasks, system administration is easier than ever before. Setting up, customizing the application, training users, and “turning on” the new features that become available with each release—all are just a few clicks away. The person responsible for these tasks is your Salesforce CRM administrator. Because this person is one of the most important resources in making your implementation a success, it’s important to carefully choose your administrator and to continually invest in his or her professional development. You can also choose to have salesforce.com handle administrator tasks for you.

**Note:** Larger enterprise implementations often use a role called Business Analyst or Business Application Manager as well, particularly for planning the implementation and ensuring adoption once the solution is live. Although the most common customization tasks don’t require coding, you may want to consider using a professional developer for some custom development tasks, such as writing Force.com code (Apex), developing custom user interfaces with Force.com pages (Visualforce), or completing complex integration or data migration tasks.

In many ways, the administrator fills the role played by traditional IT departments: answering user questions, working with key stakeholders to determine requirements, customizing the application to appeal to users, setting up reporting and dashboards to keep managers happy, keeping an eye on availability and performance, activating the features in new releases, and much more. This paper will help you to make important choices when it comes to administering your Salesforce CRM application, including:

- Finding the right person(s)
- Investing in your administrator(s)
- Providing adequate staffing
- Getting help from salesforce.com

### Find the right administrator

Who would make an ideal Salesforce CRM administrator? Experience shows that successful administrators can come from a variety of backgrounds, including sales, sales operations, marketing, support, channel management, and IT. A technical background may be helpful, but is not necessary. What matters most is that your administrator is thoroughly familiar with the customization capabilities of the application and responsive to your users. Here are some qualities to look for in an administrator:

### Abstract

With software as a service (SaaS), system administration is much easier than with traditional on-premises software. Still, it’s critical that you fill the role of administrator—with one of your employees or by using salesforce.com’s services.

**By: Sylvia Lehen**

# Best practice

- A solid understanding of your business processes
- Knowledge of the organizational structure and culture to help build relationships with key groups
- Excellent communication, motivational, and presentation skills
- The desire to be the voice of the user in communicating with management
- Analytical skills to respond to requested changes and identify customizations

### Invest in your administrator

Investing in your administrator will do wonders for your Salesforce CRM solution. With an administrator who is thoroughly familiar with Salesforce CRM, you'll ensure that your data is safe, your users are productive, and you get the most from your solution.

Salesforce.com offers both self-paced training and classroom training for administrators. For a list of free, self-paced courses, go to [Salesforce.com Training & Certification](#). To ensure that your administrator is fully trained on all aspects of security, user management, data management, and the latest Salesforce CRM features, enroll your administrator in [Administration Essentials \(ADM201\)](#). The price of this course includes the cost of the certification that qualifies your administrators to become Salesforce.com Certified Administrators. For experienced administrators, salesforce.com offers the [Advanced Administration \(ADM301\)](#) course.

### Provide adequate staffing

The number of administrators (and, optionally, business analysts) required depends on the size of your business, the complexity of your implementation, the volume of user requests, and so on. One common approach for estimating the number of administrators you need is based on the number of users.

Number of users	Administration resources
1 – 30 users	< 1 full-time administrator
31 – 74 users	1+ full-time administrator
75 – 149 users	1 senior administrator; 1 junior administrator
140 – 499 users	1 business analyst, 2–4 administrators
500 – 750 users	1–2 business analysts, 2–4 administrators
> 750 users	Depends on a variety of factors

In addition to the user base, also consider the points below:

- In small businesses, the role of the administrator is not necessarily a full-time position. In the initial stages of the implementation, the role requires more concentrated time (about 50 percent). After go-live, managing Salesforce CRM day to day requires much less time (about 10–25 percent).
- If you have several business units that use Salesforce CRM solutions—such as sales, marketing, support, professional services, and so on—consider using separate administrators for each group, to spend between 50–100 percent of their time supporting their solutions.
- Another common practice for large implementations is to use “delegated administrators” for specific tasks such as managing users, managing custom objects, or building reports.

- If you operate in multiple geographic regions, consider using one administrator for each major region, such as North America, EMEA, and APAC. To decide how to classify regions, consider whether they have a distinct currency, language, business processes, and so on, and train your administrators in the multicurrency and multilanguage features. Also appoint a lead analyst or administrator who will coordinate the various regions.
- If you need customization beyond the metadata (click not code) capabilities of Salesforce CRM or want to develop new applications, you may also need a developer to create, test, and implement custom code.



#### For More Information

Contact your account executive to learn how we can help you accelerate your CRM success.

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## Get these must-have administrator tools

As a Salesforce CRM administrator, it's your job to keep Salesforce CRM humming, your data safe and clean, your users productive, and your managers happy with easy ways to monitor the business. And because Salesforce CRM is always growing and changing, it's important to keep up with new releases.

It's a challenging job, but there are lots of tools to help you in the following areas:

- Ensuring data quality
- Making yourself and your users productive
- Staying on top of releases
- Providing insight into your business

### Abstract

Salesforce CRM has dozens of tools to help administrators do their jobs. This document highlights the best.

By Nancye Michaelian

### Keep your data clean

According to industry analysts, maintaining data quality is an ongoing effort. But with Salesforce CRM, there are tools to help you out. Here's a summary of what you can do in 3 key areas related to data quality.

1. **Keep data clean** – Because data can be captured from different sources or entered manually, duplication is an ongoing challenge. Ask your reps to search for records before they create new ones to reduce data duplication. Standardize naming conventions for company names and addresses. For example, decide whether to use U.S.A., USA, or US. However, although you can reduce duplicate data, some duplication is inevitable. That's why we recommend you automate data cleansing with data cleansing tools, such as those on the AppExchange.
2. **Enforce data entry standards** – Use default values, define required fields, set up data validation rules, and define workflow field updates to make sure users enter the data you need, the way you need it. For example, you can create a data validation rule on an opportunity that ensures that the value for a custom discount field doesn't exceed a certain percentage. Click to find out more about data validation.
3. **Monitor data quality** – Set up dashboards to monitor the quality of the information users enter. For example, you can set up such dashboards to highlight when fields are left blank, to track overdue tasks, or to track when records are updated.

For more information about data quality, link to the Best Practice "[6 steps toward top data quality.](#)"

# Best practice

## Make everyone productive

As the administrator, there's a lot you can do to make everyone's job easier—including your own.

**Productivity tools for administrators** include resources you can use to efficiently manage users, processes, and tasks:

- **Import wizard** – Use these wizards to easily import comma-separated (CSV) data files—such as accounts, contacts, leads, solutions, and custom objects—into Salesforce CRM records. Use these wizards for imports or updates of less than 50,000 records.
- **Force.com data loader** – If you need to import more than 50,000 records, or if your data sets are complicated, use this tool. For example, if your sales territories change, you may need to transfer large data sets without limitations.
- **Workflow** – Automate your company's business processes with workflow actions such as email alerts, task updates, field updates, and outbound messaging.
- **Formula fields** – Use [custom formula fields](#) to create specific calculations tailored to specific business needs. For example, you can create a formula field on an opportunity that calculates the expected number of days left to the close date of that opportunity.
- **Public groups** – To simplify record sharing and synchronization, create groups of users that fit a particular role or share a territory.
- **Account/sales teams** – Create [account teams](#) that work together on an account and define each member's role. You can also create [sales teams](#) that work together on sales opportunities. A typical sales team might include an account manager, a sales representative, and a pre-sales consultant. With teams, you can see at a glance who's working on a specific account or opportunity.
- **Process visualizer** – Use this tool to get a visual representation of your approval process so everyone understands each part of the process at a glance.
- **Profile management** – Create lists of profiles and use them to compare profile settings, print profile lists, and make mass updates across multiple profiles.

**Productivity tools for end users** help them communicate more efficiently with customers and prospects, find information more easily, and access the application while they're on the road. Note that access to these tools depends on the user's profile.

- **Integration with Lotus Notes/Outlook** – Set up desktop integration so users don't have to switch applications when working with [Lotus Notes](#) and [Outlook](#). Individual users can download this tool without the administrator's help.
- **Email templates** – Set up [email templates](#) to enforce high-quality, standard communications—and to save your reps time and headaches. Both users and administrators can create templates.
- **Tagging** – Set up [tagging](#) to make finding information fast and intuitive.
- **Opportunity genius** – Enable this feature to help reps find opportunities that are similar to their deals and were closed successfully.

## Manage releases effectively

Three times a year, salesforce.com releases new features and functionality for all applications and the Force.com platform. It's up to you to decide which features you want to make available to your users. For each release, you'll find the following release-specific resources on the Community site:

- **Release Preview** – Get an overview of upcoming features.
- **Release Notes** – Get details about the new features.
- **Release Webinars** – Watch presentations about specific features.
- **Release training** – Check out the online training modules.
- **Tech Talk series** – When there's a new release, this series features product managers explaining the latest features. Plus, it's your chance to get any questions answered.

You may also have change requests to customize your app or to create new apps. For such requests, you have the following tools:

- Use the Metadata API to access to code and data schema. The Metadata API was designed to manage customizations and to build tools that can manage the metadata model, rather than the data itself. This tool is very helpful if you use the Force.com platform.
- Use the [Force.com IDE](#) to create, modify, test, and deploy powerful Force.com applications. The IDE provides a comfortable environment for programmers familiar with integrated development environments. Developers can code, compile, test, and deploy their code from within the IDE.
- Use the Force.com [sandbox](#) to create a snapshot of your production environment. With the sandbox, you can develop, test, and train without interrupting daily business activities on your production system.
- Use the [Code Share](#) directory to collaborate with other developers who build open-source apps.

## Give managers unprecedented insight into your business

To support your users and managers, put the information they need at their fingertips with reports and dashboards. Both are built on the analytics that are part of Salesforce CRM. You can also browse the [analytic applications](#) on the AppExchange.

To get started, talk to your managers to find out what they want to measure and what key performance indicators (KPIs) define success. For example, your managers may want to measure any or all of these metrics: number of leads, number of leads at a certain status, lead conversion rates, opportunities in the pipeline and forecast, or trending. When you define what metrics to highlight, it's important to have well-defined business objectives that support your company's vision.

You can display analytics as reports or dashboards. Reports typically summarize data in tables and help you get an overview of performance over time. Dashboards show important company metrics as graphics. Because this information is displayed in real time, dashboards are great for an immediate view of the current situation.

Get these must-have administrator tools



Salesforce.com provides a number of ready-made reports and dashboards. You can customize these or create your own. For more information or assistance, download and print the [Reports](#) and [Dashboard](#) tip sheets.



#### For More Information

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## How to get big results with a small budget

You want to get the most from all your assets, including your investment in Salesforce CRM. Because smaller businesses tend to have fewer resources and tighter budgets, doing more with less is crucial to survival and success. This paper describes just what you can do to make a big difference, including:

- Distributing marketing materials efficiently
- Using Salesforce CRM features to look bigger than you are
- Building self-service support centers and websites
- Getting your data clean—and keeping it that way
- Tracking your training efforts
- Extending Salesforce CRM with free apps

### Integrate with other applications

Don't let the word "integration" scare you. If you're thinking high costs and even higher complexity—relax, no more. Although integration once involved complex custom coding, you can now use plug-and-play middleware solutions to get many of the benefits of integration, including greater efficiencies, savings, and more satisfied customers. Salesforce.com even provides free middleware offerings.

What are the most popular apps that customers like you are integrating? The votes are in: it's accounting and marketing apps, in particular QuickBooks, Google AdWords, and Google Apps. Let's look at what's available to help you integrate your accounting and marketing apps.

### Common accounting integrations

QuickBooks is the top accounting application used by smaller businesses. By integrating with accounting and back-office systems, you can eliminate hours of duplicated invoice entry—and the associated errors. What's more, you'll be able to track all your sales transactions with salesforce.com's analytics and also synchronize inventory data.

Where integration was once expensive and technically complex, many integration scenarios are now very affordable and give you an almost immediate ROI.

- **[Boomi](#) Widget** – Buy, configure, and deploy an integration that maps Salesforce CRM "orders" to QuickBooks "invoices" in fewer than 15 minutes. Boomi QuickBooks Widget starts at \$65 a month per organization.
- **[Pervasive's DataSynch for QuickBooks](#)** – It's a turnkey solution you can install in 20 minutes. DataSynch synchronizes the product and order information between Salesforce CRM and QuickBooks, so your reps see a single "truth." This solution is available for \$75 a month.
- **[apatar on-demand](#)** – Use this open-source solution to keep your Salesforce CRM and QuickBooks users and developers on the same page—and your data synchronized. With this solution, you can run either one- or two-way synchronizations between Salesforce CRM accounts and QuickBooks.

#### Abstract

If you're a small or midsize business with around 20–500 users, the resources in this paper are for you.

With so many Salesforce CRM features and other free or low-cost solutions out there, the challenge is finding those that give you the biggest bang for the buck. Explore these solutions now to see how they fit into your business strategy.

By Jessica Cumin

# Best practice

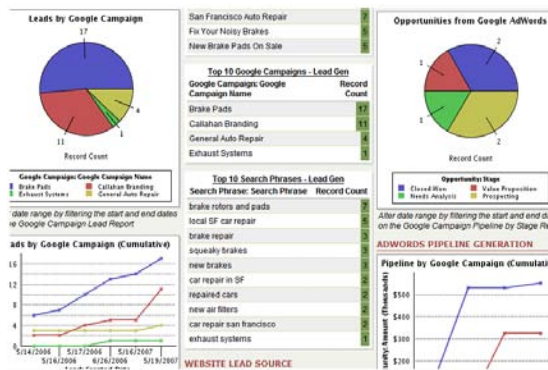
- **Avankia DB Synch for Salesforce & QuickBooks** – Want to map your Salesforce CRM accounts, contacts, products, and opportunities to QuickBooks customer, jobs, products and invoice, and estimates or SalesOrder objects? This product does it all. It's available in three editions—the Standard Edition is free.
- **Scribe for MS Dynamics (Great Plains)** – If you use Microsoft's accounting solutions, consider the following three solutions for real-time integration of customers, products, orders, and invoices. There's a promo for companies with fewer than 15 Salesforce CRM users for \$5,000. The promo for midsize companies, with 16–50 Salesforce CRM users, is \$7,500. There's also a promotion for large companies.

## Top marketing integrations

What's your company's top business objective? For many small businesses it's growing revenue by growing the customer base. Salesforce CRM's marketing functionality works with top partner applications to give you a competitive edge once available only to those with big marketing teams and inside sales reps.

When it comes to integrating marketing apps, Google AdWords is the hands-down winner. Search marketing is advertising's hottest trend—you definitely want to be in that game. For more information, check out the "[How to make the most of search engine marketing](#)" Best Practice document.

- **Google AdWords** – It's included with your Salesforce license! Use it to track the effectiveness of your Google campaigns and lead-generation campaigns from your website. You get complete visibility and control over your search engine marketing investment—all the way from keyword selection to the closed deal.



Many other apps can also make your marketing campaigns sing!

- **Faceconnector** – Successful business relationships are built on personal relationships. With Faceconnector, you can unleash the power of your personal network for the first time. This integration pulls Facebook profile information into your account, lead, and contact records in real time, so you can greatly expand available information about your contacts. Faceconnector is free.
- **Hoovers** – Boost your prospecting efforts by creating extensive, targeted lists that meet your specific criteria in Hoovers. Then simply import them into Salesforce CRM in seconds.
- **Jigsaw** – If you already use Jigsaw, why not get the free integration to use Jigsaw's contact information—complete with name, title, company, email, phone, and address—to complete or update your existing contact information in Salesforce CRM.
- **Timba Surveys** – Use this free, native Force.com Web survey application with our sites functionality to create surveys in minutes and then start collecting responses immediately, both inside and outside your organization.

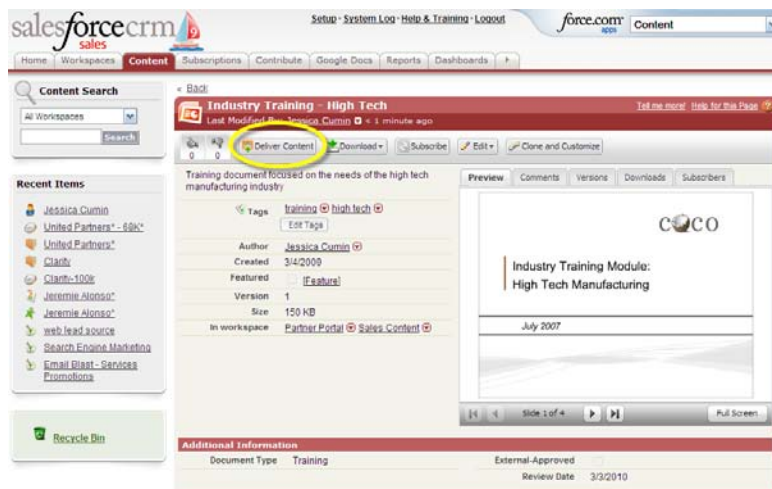
- **Unsubscribe Opt-Out** – Let prospects and customers unsubscribe easily with Force.com code that processes unsubscribe requests and updates the email opt-out flag. It's free.

### Distribute marketing materials efficiently

Let's say your marketing department wants to send out its 10MB marketing brochure to prospective customers via email. But many customer email servers reject documents of that size. What do you do?

With the content functionality of Salesforce CRM, you simply create a distribution link to the document and embed it in the email. The prospect clicks the link and either views or downloads the document. It's that simple to push large documents to anyone, both inside or outside your organization.

Note that you need to purchase content licenses only for those users who actually work with the content functionality, not for those who just view content via the distribution links.



### Look bigger with Salesforce CRM

Make the most of the blowfish effect: Let Salesforce CRM make you look bigger than you are. Because customers tend to find larger organizations more credible, take advantage of the many Salesforce CRM features that level the playing field. Explore what the following features can do for you:

- **Automated campaigns** – Use “drip marketing” and automated campaigns to put your marketing efforts on auto pilot—and watch your results take off. Use these features to send email alerts and track status based on your prospects’ attributes and to set up multi-wave drip campaigns. Automated campaigns are available to customers with Enterprise Edition. Take a look at the [Summer '10 Release Notes](#) for more information.
- **Email templates** – Leverage [email templates](#) for consistent messaging, driving company branding, and tracking delivery. Email templates are great for getting out key messages for different departments; for example, for sales reps responding to inquiries, product managers who want to communicate about their products, or marketing reps promoting regional events.
- **Web-to-lead** – Turn your website into a lead capture machine! Put an end to entering data twice and take advantage of multiple pages to capture leads. Plus, it's easy to set up—just generate the code for your Web master from Salesforce CRM.
- **Lead assignment & auto-response emails** – Route leads to specific reps, whether they're the most qualified, are in a particular region, or based on any other criteria you specify. Or simply route leads to the first available lead queue. You can also generate customized auto responses to quickly respond to leads. To a lead, an instant response screams customer focus!

## Build self-service communities and websites

Smaller organizations often don't have the resources to build and maintain 24/7 support centers or great websites. With salesforce.com's products, you can do both. Engage your customers with the free self-service portal and the sites functionality of the Force.com platform.

- **Self-service portal** – Match your corporate branding without scripting or programming, let your customers submit cases, and give them access to a collection of FAQs. Customers can also search for solutions, log new cases, and monitor existing cases around the clock. The result—lower service costs and more satisfied customers. The self-service portal is free. If you need additional features, check out the customer portal.
- **Force.com sites** – Build and run your website and other applications in our cloud. The number of available monthly page views depends on your edition (i.e., 250,000 monthly page views for Professional Edition, 500,000 for Enterprise Edition). You can buy additional page views when you need them.
- **CMSForce** – A Web content management system (CMS) native to Force.com. You don't need to be a developer to produce high-quality Web pages; just create and edit content pages with an easy-to-use WYSIWYG HTML editor. [CMSForce](#) is available on the [AppExchange](#).

Customers are building all kinds of content, including sites for e-commerce, recruiting, ticketing and scheduling, social networking, community management, and more. For example:

- **Jobsience**, a provider of human capital management applications, built an on-boarding app for new employees at Washington Regional Healthcare, a hospital client that hires hundreds of new employees every year.
- **Sofia Works**, which creates Force.com technology applications, built an on-demand boat reservations system for Marina VIP, bringing online booking to the boating world.

## Clean your data—and keep it clean

Accurate information and reports are the life blood of any effective sales force. Because bad data leads to misleading, incomplete, and confusing information, it lowers trust and undermines user adoption. Although your first line of defense is always preventing bad data, duplicates will still happen.

That's where the following apps come in. You can get them from the AppExchange; they're either free or available at a low cost.

- **[Dupe Eliminator](#)** – Use it to search duplicate records on any object (standard and custom). The app is so flexible that you can even specify search criteria by field. It's free.
- **[Duplicate Contact Blocker](#)** – Use this tool to prevent duplicates by specifying how duplicate contacts are defined, based on standard fields.
- **[Data quality dashboard](#)** – Track data quality for most standard objects—including leads, accounts, contacts, opportunities, activities, cases, contracts, and campaigns.
- **[Mass update wizard](#)** – Save mass update configurations and use them to store mass updates. It's free.
- **[Informatica Data Loader](#)** – Easily import and export Salesforce CRM data to and from your local databases and files. This tool includes automated scheduling and SQL database connectors, so that integration with Salesforce CRM is easy. And it's free.
- **[Dupe Alert](#)** – Make users accountable for duplicate records by flagging records as duplicates and asking URLs. Users are then asked to either merge, purge, or convert those records.

For more information about achieving and maintaining data quality, download the “[6 steps toward top data quality](#)” Best Practice document.

## Increase “face time” with your customers

No matter what your size, you want your sales reps out in the field, meeting with customers, and selling your product or service. The offline and mobile capabilities of Salesforce CRM make that easy—your reps can take all their CRM data with them and still pack light.



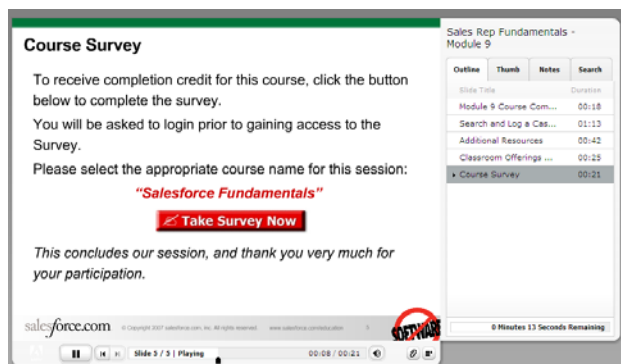
- **Mobile access** – Access your contacts, accounts, opportunities, and so on from your mobile device. You can choose between two versions; a full-function edit mode and a read-only mode (Mobile Lite) that also lets you create activities. Mobile Lite is free with Enterprise Edition and above.
- **Offline capabilities** – When you don’t have an Internet connection, you can use the offline functionality to work on your accounts, contacts, opportunities, products, leads, schedules, and activities—any time, no matter where you are. Offline capabilities are included with Enterprise Edition and above.
- **Outlook integration** – Access Salesforce CRM from your Microsoft Outlook desktop. And synchronize Salesforce CRM with your Outlook address books, calendars, and even emails to both get the big picture and to get more done. And, if you prefer working in Outlook, you can embed Salesforce CRM in your Outlook interface.

Want more? Check out the “[7 keys to mobile success](#)” Best Practice document.

## Track your training efforts

Research shows that customers who are trained by salesforce.com achieve a 52 percent higher adoption rate. Be sure to take advantage of the free training available from the Help & Training links in your application and on the [Salesforce.com Community](#) website.

But how do you know your users are actually completing the training? Ask your administrator to track course completion statistics with the Training Class History view (Setup | Manage Users | Training History). And ask your users to submit the online training feedback form to record their participation.



## Extend your CRM applications

To make a huge impact in your organization, add related or complementary applications and dramatically increase the value to your users—across departments and across your company.

If you don't have the time or budget to build your own apps, take advantage of the many **free** apps built by Force.com Labs—to extend CRM and to go beyond CRM altogether. For a taste of what's available, go to the [AppExchange](#) and test-drive the most popular of these apps today:

- [Professional services automation](#) – Manage projects, resources, and time & expenses for your professional services team.
- [Event Management](#) – Manage and track events, from planning through execution, in a collaborative environment.

Then review the table on the following page to explore additional popular and free apps.



Tops apps for Professional Edition	Top apps for Enterprise Edition
<p>1. <a href="#">VerticalResponse for AppExchange</a> Self-service email and direct mail solutions. Create custom mailing lists of any size, design professional sales &amp; marketing campaigns, and track post-launch statistics.</p>	<p><a href="#">Lead and Opportunity Management Dashboards</a> Install lead tracking and opportunity management dashboards instantly. These dashboards use standard fields and objects, so there's no need for configuration. It's a simple download.</p>
<p>2. <a href="#">Lead and Opportunity Management Dashboards</a> Install lead tracking and opportunity management dashboards instantly to your account. They use standard fields and objects, so there's no need for configuration. It's a simple download.</p>	<p><a href="#">Sales Quotes with Line Items</a> This updated package uses pages and Force.com code to implement the core logic to generate quote line items in PDF format.</p>
<p>3. <a href="#">Project and Issue Management</a> Use this simple framework for prioritizing and managing project logistics and resource allocation.</p>	<p><a href="#">Project and Issue Management</a> Use this simple framework for prioritizing and managing project logistics and resource allocation.</p>
<p>4. <a href="#">Appirio Calendar Sync for Salesforce and Google Apps</a> Keep your Salesforce calendar synchronized with your Google Calendar.</p>	<p><a href="#">Appirio Calendar Sync for Salesforce and Google Apps</a> Keep your Salesforce calendar synchronized with your Google Calendar.</p>
<p>5. <a href="#">SalesView</a> <b>Voted Best Sales Intelligence App of 2008!</b> Find sales opportunities in both internal and Web 2.0 sources such as Hoover's, D&amp;B, Reuters, Jigsaw, LinkedIn, Twitter, and Facebook. Give sales reps everything they need without leaving CRM!</p>	<p><a href="#">SalesView</a> <b>Voted Best Sales Intelligence App of 2008!</b> Find sales opportunities in both internal and Web 2.0 sources such as Hoover's, D&amp;B, Reuters, Jigsaw, LinkedIn, Twitter, and Facebook. Give sales reps everything they need without leaving CRM!</p>
<p>6. <a href="#">Professional Services Automation</a> Manage for your projects, resources, and time &amp; expenses for your professional services team. Increase project visibility. Know how you use resources and what your team's skills and experience. Streamline the collection of time &amp; expenses.</p>	<p><a href="#">Professional Services Automation</a> Manage for your projects, resources, and time &amp; expenses for your professional services team. Increase project visibility. Know how you use resources and what your team's skills and experience. Streamline the collection of time &amp; expenses.</p>
<p>7. <a href="#">Informatica On Demand Data Loader Service for Salesforce Integration</a> Easily import and export Salesforce CRM data between your local databases and files. Automated scheduling and SQL database connectors make integration a breeze.</p>	<p><a href="#">Informatica On Demand Data Loader Service for Salesforce Integration</a> Easily import and export Salesforce CRM data between your local databases and files. Automated scheduling and SQL database connectors make integration a breeze.</p>
<p>8. <a href="#">Faceconnector Facebook-Salesforce Integration (formerly Faceforce)</a> Pull Facebook profile and friend information into Salesforce CRM. To learn best practices and how real companies are succeeding with social media in sales &amp; marketing, check out our book at <a href="http://www.thefacebookera.com">www.thefacebookera.com</a></p>	<p><a href="#">Faceconnector Facebook-Salesforce Integration (formerly Faceforce)</a> Pull Facebook profile and friend information into Salesforce CRM. To learn best practices and how real companies are succeeding with social media in sales &amp; marketing, check out our book at <a href="http://www.thefacebookera.com">www.thefacebookera.com</a>.</p>
<p>9. <a href="#">Skype for Salesforce - Basic Edition 2.0</a> Get full Skype integration to your Salesforce CRM organization. Free unlimited license.</p>	<p><a href="#">Skype for Salesforce - Basic Edition 2.0</a> Get full Skype integration to your Salesforce CRM organization. Free unlimited license.</p>
<p>10. <a href="#">Maildrop</a> Email integration for Mac OSX has never been easier. Use Maildrop to create new cases and attach emails to contacts and leads right from the tools you use, both for Apple Mail and Microsoft Entourage.</p>	<p><a href="#">Services Project Manager</a> Manage your projects from a single location to put resources to best use.</p>



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# Choose the right tools to customize and extend Salesforce CRM

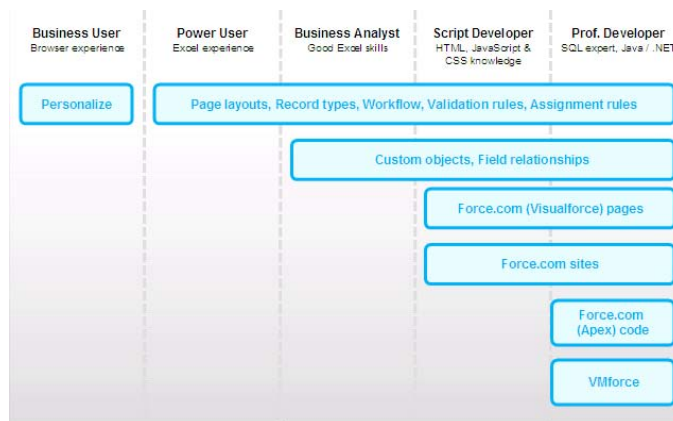
Salesforce CRM comes with an easy-to-use user interface, lots of features, a wide range of standard reports, and many ready-made extensions. But to get the most from your implementation, you'll want to customize your application so it works in a way that's right for your industry, your company, and your users.

For an individual user, that could mean tracking key accounts. For your company, it could mean changing the names of fields and tabs to reflect the terminology familiar to your users, creating custom reports that roll up information to suit your managers, or even creating new applications that extend the value of Salesforce CRM, such as a credit-checking application.

There are several ways to adapt your application so it meets your business needs exactly. Each approach requires different technologies—and different skills. Here are the three main approaches:

1. Out-of-the-box configuration
2. Pre-developed enhancements and applications
3. Custom enhancements and applications

The figure below gives an overview of available tools and the skills needed to use them.



**Note:** General availability for VMforce is planned for 2011.

## Approach #1: Use out-of-the-box configuration

Even non-technical users (with the appropriate permissions) can personalize the Salesforce CRM application, either for their own use or for everyone in the organization.

We call this approach “clicks, not code” because you can use it to configure various application building blocks—including the data model, the user interface, and the underlying business logic—without programming. For example, you can customize user interface components or use workflow tools to automate your business processes. And our security architecture already includes profiles with permissions, field-level security, sharing rules, and a role hierarchy.

Best practice



With these tools, you can quickly respond to changing business requirements without technical skills that may be in short supply. In general, we recommend using the configuration options before creating custom code. Even experienced programmers can work faster than when coding from scratch.

Below are some tips to keep your configuration manageable over time:

- **Limit the number of profiles** – Profiles determine the user permissions for available functionality, including the partner and the customer portals. By setting up different profiles for various user groups such as end users, support users, and administrators, you can efficiently control user access. However, we recommend you limit the number of profiles that must be maintained.
- **Limit the number of sharing rules** – Use sharing rules to make automatic access exceptions for specific groups defined by your organization-wide defaults; for example, to allow greater access for particular users. Because sharing rules depend on role definitions (as well as public groups and queues), they tend to change over time. Again, we recommend keeping sharing rules to a minimum to avoid ongoing maintenance.
- **Limit the number of custom fields** – Use custom fields to capture key information for your business. We recommend you carefully evaluate the need for any given field and its benefits to various groups. Having too many custom fields can confuse users and lead to maintenance headaches.
- **Limit the number of page layouts** – Page layouts can quickly grow out of control if not managed properly. Page layouts are useful for standardizing business across business units; therefore, be on the lookout for a large number of layouts—it can mean that units aren't using a standard process. The more layouts, the more work it is to respond to change requests.

“You can extend Salesforce CRM with hundreds of tools and custom applications available from the AppExchange.”

**Note:** Automation capabilities created with validation rules and assignment rules are generally kept in check by your process management's logical flow. Still, if you have a large numbers of automation rules you need to track how they influence each other.

To configure Salesforce CRM optimally, we recommend you train the users who'll have that responsibility. At the end of this paper, you'll find a list of training options.

## Approach #2: Use pre-developed enhancements and applications

In addition to configuring Salesforce CRM, you can extend the application with hundreds of tools and custom applications available from the AppExchange, salesforce.com's online marketplace for cloud-based applications. For example, Force.com Labs created free dashboards—for sales, marketing, adoption, and service & support—that provide real-time snapshots of your business.

These apps were built by salesforce.com, individual developers, and salesforce.com partners. All are pre-integrated with the Force.com platform and certified to be secure. Some of these apps are free; others are available for a fee.

Users can use the AppExchange to browse for, test-drive, and install applications with no or minimal effort. In essence, it's an easy way to get features to enhance your application or get new applications without having to build them. Partners can use the AppExchange to make the apps they develop available to thousands of salesforce.com customers.

Here are some of the advantages of using the AppExchange:

- **Get missing functionality** – Get features to enhance your application—or get new applications—without having to build them. Most apps are ready to go, although some might need a little tweaking.

- **Extend the business benefits of Salesforce CRM to more of your departments and employees** – Take advantage of specialized applications developed by the “long tail” of the software development world to address your business needs beyond sales and customer service.
- **Leverage the integration power of native Internet technologies** – Partners can use Web services and service-oriented architectures (SOAs) to deliver virtual application suites for various business requirements across industries. Such suites offer better modularity and easier integration than traditional suites.

So check out the AppExchange to see what applications are available before developing your own. When considering available applications, just keep a few limitations in mind:

- **“Unmanaged” packages can’t be upgraded** – The AppExchange includes both managed and unmanaged packages. Managed packages include support for all application components and can be upgraded. In contrast, unmanaged packages, which are usually free, can’t be upgraded. However, they’re useful as templates or basic building blocks for an application. They’re also a great way to learn how to build on the platform.
- **Beware of object limits** – Applications may include custom objects or tabs that exceed your edition’s object limit. Note that objects and tabs in “Aloha” apps don’t count toward the limit.
- **Beware of edition requirements** – An application may include features not available for your edition.

### Approach #3: Develop enhancements and applications

You can use the Force.com platform to develop, package, and instantly deploy applications, without any infrastructure. If you need an application that isn’t already on the AppExchange—or if you want to customize beyond the capabilities of the configuration tools—the development tools on the Force.com platform are right for you.

**Note:** A study performed by IDC compared time, cost, quality, and ROI of application development on the Force.com platform compared to traditional on-premises platforms. The study found that application development required 76 percent less time—and companies could reduce their 3-year TCO by 54 percent, saving \$560,000 per application. For details, see the IDC white paper [“Force.com Cloud Platform Drives Huge Time to Market and Cost Savings.”](#)

Custom development on Force.com is well suited for data and process-centric applications for individual departments or across an enterprise. You can quickly build applications based on the following types of requirements on Force.com:

- Relational data
- Forms
- Reporting and analytics
- Workflow and approvals
- Call scripts and multi-step page flows
- Audit and compliance
- Data security and sharing

The remainder of this paper describes the tools for custom development on Force.com:

- **Force.com pages (Visualforce)** for creating flexible user interfaces and navigation
- **Force.com sites** for running your Intranet, corporate websites, or syndicated content on other websites

- **Force.com code (Apex)** for adding custom business logic to system events such as button clicks and record updates as well as general programming tasks that require close integration with Force.com platform services
- **Java with VMforce** (planned for general availability in 2011) for any kind of programming task.

Click here to find out how to [get started](#) on Force.com.

### Developing custom user interfaces with Force.com pages (Visualforce)

With Force.com pages, you can create user interfaces (UIs) that look just like the standard Salesforce CRM user interface—or are completely different and unique to suit your company’s needs. For example, you can create user interfaces for mobile devices, wizards, other multi-step processes, or data-specific rules. This flexibility can greatly improve adoption and ease of use.

Force.com pages is a component-based UI framework that extends standard Web technologies such as HTML, JavaScript, and CSS with markup tags that represent coarse- or fine-grained user interface components, such as a field or a section of a page. Force.com pages gives you pixel-level control of the UI while making it easy to bind it to the business logic, data model, and other Force.com platform services. Force.com pages includes more than 60 built-in components plus tools for creating custom components.

You’ll need trained developers to use Force.com pages—both for developing the initial pages and for maintaining them—although anyone familiar with HTML may be able to fulfill standard requests.

Salesforce.com continues to enhance Force.com pages functionality. Note that, as of Winter ’11, some aspects of standard Salesforce CRM page layouts—such as inline field editing on detail pages—are not yet supported in Force.com pages.

### Developing data-driven websites with Force.com sites

With Force.com sites, you can create public websites and applications that integrate with your Salesforce organization, without requiring users to log in. As a result, you can display any information stored in Salesforce CRM on public websites.

Because any sites you build are hosted on Force.com servers, there is no data integration requirement. And because the sites are built natively with Force.com code, the application automatically validates any incoming data. You can also have users log in from your public site to a specialized portal, monitor bandwidth and request time usage for each site, track and display changes, and integrate with Google Analytics to track number of visits, page views, time spent on the site, and more. Click here for more information about [Force.com sites functionality](#).

For ideas on what you can develop with Force.com sites, visit the [Sites Gallery](#).

- **Create an ideas site** – Host a public forum for sharing and voting on topics related to your company or its products
- **Publish support FAQs** – Provide a public website where customers can search for solutions
- **Create a store locator tool** – Help customers find your stores in their areas
- **Publish an employee directory** – Add an employee directory to your company’s intranet that’s restricted by IP range
- **Create a recruiting website** – Post job openings and let visitors submit applications and resumes online
- **Publish a product catalog** – Display your company’s products—including model numbers, current prices, and product images—by pulling them dynamically from your data

As you work with Force.com sites, be aware of these considerations:

- Public access permission settings control what public users can do on each site. Be sure to take extra precautions when setting these permissions, including access to standard and custom objects.
- Use login settings to let users register for and log in to your portal from your public Force.com site. Note that self-registration is available only for customer portals, not for partner portals.
- During your organization's maintenance for major releases your sites will be unavailable.

### Developing custom business logic with Force.com code (Apex)

Force.com code is an object-oriented programming language with domain-specific classes and methods. It was designed to integrate tightly with the Force.com database layer and other platform services and to execute efficiently and safely in our multitenant cloud-based architecture.

Because Force.com code uses a familiar Java-like syntax, seasoned developers will get up to speed quickly. And because Force.com code supports the common stored procedure and database programming idioms, it's easy to write data-centric logic, such as triggers, that execute before or after records are inserted, updated, or deleted.

With Force.com code, you can:

- **Attach custom logic** to the fundamental database operations so that it executes whenever the operation executes, regardless of whether the operation originates in the UI or from the Web services API.
- **Modularize logic** into Force.com classes that can be called from other Force.com classes and triggers, to reuse and standardize code.
- **Expose Apex classes** as Web services that can be invoked from external systems, either publically or through secure access methods.
- **Create custom controller logic** that works in conjunction with Force.com pages to manage user interface behavior. For example, a Force.com controller can manage the flow from page to page in response to user input in a multi-step wizard.
- **Perform complex validations** across multiple objects. For example, if the user changes the stage on an opportunity, you can specify that the record must include line items, at least one contact role, and at least one quote before the record can be saved.
- **Create complex business processes** not supported by workflow. For example, when a user creates a lead record, you may want to check for duplicate leads. If you find dupes, you can prevent the record from being saved.
- **Create custom transactional logic** (database operations that affect multiple objects as a logical unit of work, not just with a single record or object). For example, if you build a custom work-order process, you may want to check that all child work orders are completed before updating the parent work order.
- **Perform long-running calculations** or business processes in an asynchronous or batch execution mode. These operations run in the Force.com service and can be initiated on demand or scheduled to run on a recurring basis through a job scheduler.
- **Integrate with external Web services** using intuitive frameworks such as XMLStream, HTTP Classes, and WSDL2Apex.
- **Develop and execute test methods** alongside your business logic that ensure your code continues to work as intended throughout the entire life cycle.

Because Force.com code runs natively within Force.com and is tightly integrated with the Force.com platform, dependency information is maintained to ensure integrity when you change setup and compatibility with all future Salesforce CRM upgrades. As you work with Force.com code, be aware of a set of “governor limits” on certain operations. These limits were designed to ensure efficient and safe operation in our multitenant architecture. Be sure to familiarize yourself with the recommended best practices for coding solutions that scale within these limits.

Click here to find out more about [Force.com code \(Apex\)](#).

## Develop Java with VMforce

In April 2010, salesforce.com and VMWare announced VMforce, a joint effort to enable Java and Spring-based applications to run on the Force.com cloud infrastructure. Planned for general availability in 2011, VMforce will let Java developers write Salesforce CRM extensions and custom applications using the popular Eclipse-based SpringSource Tool Suite (STS) development environment and then run them in the cloud.

VMforce will provide a rich set of APIs, services, and components to make it easy to access data in Force.com and leverage platform services ranging from full-text search, to analytics, to mobile access.

For customers with significant investments in Java software assets and development skills, VMforce will provide a compelling bridge that carries these investments forward while taking advantage of the capabilities of the Force.com cloud platform.

For more information, visit <http://www.vmforce.com/>

## Available resources

Salesforce.com provides training and consulting resources to customize and extend Salesforce CRM.

Check out the following **training options** for administrators and developers on configuration tools and Force.com development tools. There's free [virtual training](#) as well as the following comprehensive courses:

- [ADM201](#): Administration Essentials (5 days)
- [ADM301](#): Advanced Administration (5 days)
- [DEV401](#): Building Applications with Force.com (5 days)
- [DEV531](#): Introduction to Object-Oriented Programming with Force.com Code (Apex) (5 days)
- [DEV501](#): Force.com Code and Force.com Page Controllers (5 days)



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## 6 steps to making the most of each release

Each new season brings a new major release from salesforce.com, with dozens of new features for your business users—in sales, marketing, and customer service—as well as for the Force.com platform.

How do we decide which features to develop for each release? We listen to you, our customers. Our product managers are always on the lookout for your suggestions in Salesforce CRM's ideas community, which we use to capture product suggestions and to run the feature nomination process.

To make sure you don't miss out, we suggest you take a systematic approach when it comes to each release. As you'll find out in this document, we've got lots of resources to help.

### Abstract

Each new major release delivers new features requested by our user community.

Don't miss this opportunity to make your organization more effective and your users more productive—three times a year.

By Rita Jhaveri



Here are 6 steps to help you get the most from each release from salesforce.com:

### 1. Define and prioritize your business goals

Most companies define their goals when they implement Salesforce CRM. Each new release is an opportunity to revisit those goals and to decide if the new features will contribute to them. Of course, you can always request the features *you* want in Salesforce CRM's [ideas community](#).

### 2. Develop a process for dealing with releases

Every company is different—in size, available resources, and complexity of its applications. If you're a large organization, you may need a change management strategy for handling internal change requests and customizations in addition to the new releases from salesforce.com. For smaller companies, the information in this document describes how to find out about and take advantage of the new features in each seasonal release.

### 3. Find out about new features

Salesforce.com notifies each customer's administrator via email of upcoming releases. These emails give the date of the release and other information to help you plan. After the email, new release information will appear in several locations, including on the Community website.

The following resources will give you the key information you need:

# Best practice



- **Release Preview** – Get an overview of upcoming features.
- **Release Notes** – Get details about the new features.
- **Release Webinars** – Watch presentations about specific features.
- **Release training** – Check out the online training modules.
- **Tech Talk series** – Join the product managers as they walk you through the latest features. It's also your chance to also get any questions answered.

#### 4. Communicate with your end users

To get your users ready for any changes, make sure you communicate. Tell them what's in it for them, when the changes will happen, and how these changes will affect their daily work. Depending on the extent of those changes, you may also want to train your users.

Also, be sure to use this opportunity to ask your users what enhancements *they* want. Then take advantage of Salesforce CRM's ideas community to let us know.

#### 5. Configure and test-drive the new features

On the release date, many features will be automatically enabled; you'll have to choose to enable others. To be able to review the new features, explore what they can do for you, or train your users, you can either preview the new features in a **developer org** or with Force.com **sandbox**.

To test-drive:

- Request to enable new features on an existing **developer org**. If you don't yet have a developer org, sign up at the [developer site](#).
- Prior to the release, **sandbox orgs** will be upgraded. This upgrade is optional. Pay attention to the sandbox upgrade schedule that outlines which orgs will be updated and what to do if you don't want to use the new features. This schedule will be published on the Community website and you'll be notified via email. Click for [documentation about environments](#), including sandbox.

#### 6. Implement the features you chose

Depending on which features you chose, the implementation effort will vary. There are four options, which are summarized for all features in the Release Notes:

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



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## 6 steps toward top data quality

Industry analysts point the finger at bad data as one of the top three reasons why CRM projects fail. Because bad data leads to misleading, incomplete, and confusing information, it lowers adoption—another major reason why CRM projects fail.

Accurate information and reports are the life blood of an effective sales force. Without it, management doesn't have the data to make good decisions, sales reps don't have the tools to turn leads into customers, and the company will find it difficult to reconcile CRM data with data in other systems. The result? Lost opportunities and revenue, frustrated users and customers, and a lack of user adoption.

### Abstract

Don't let bad data undermine your Salesforce CRM project—or your success as a company. Get your data under control with the 6-step approach outlined in this paper.

By: Oliver Demuth

### How to boost data quality

To ensure consistently high data quality, you'll need to train your users, create and implement a data-quality process, and use available technologies to automate the process whenever possible. Here's a 6-step approach that's working for many of our customers.

#### Step 1: Profile your data

Data profiling is all about understanding your data. You should know where your data comes from: spreadsheets, backend systems, or sticky notes all over reps' desks. Take an inventory of your data that includes the following information:

- List your data sources and the names of the fields in which data is stored.
- Note any potential problems with your data. Do you have automated quality checks before a new record can be saved? Are all fields mapped correctly? For example, the information in the Company field in Microsoft applications usually belongs in the Account field in Salesforce CRM.
- In Salesforce CRM, make sure there's no duplicate information between objects (such as Accounts, Opportunities, and Contacts) and fields (such as State, City, and so on).

#### Step 2: Control your data

Data control is about achieving data accuracy *and* ensuring the right users have access to the right information, which also means blocking access, as needed. To control your data, you first need to "clean" it by removing duplicates and errors, and then set up processes and use technologies to keep it clean.

- Use automated routines or tools to clean your data. You'll find several of these tools on the [AppExchange](#).

# Best practice



- Prioritize your data cleanup effort. First, fix data that's highly visible and frequently used, such as addresses and emails. Fix business-specific information next, such as Opportunity types and stages. Finally, remove any duplicate fields; for example, don't repeat Account information in the Contact object.
- Get your users to fix their data. You can help by using Salesforce CRM's validation rules to alert users when data records are incomplete or don't conform to data-quality standards.
- Use exception reports and data-quality dashboards to remind users when their Accounts and Contacts are incorrect or incomplete. Scheduling a Dashboard Refresh and sending that information to managers is a great way to encourage compliance.

Another data-control challenge is making sure that data ownership and sharing works for your organizational structure.

- Review your profiles and role hierarchy and make sure the hierarchy, teams, and groups are kept up to date.
- Meet frequently with management to keep up with organizational changes.
- Define the Create, Read, Update, and Delete (CRUD) rights for each profile to ensure users can work with data, as needed.

### Step 3: Integrate your data

Most organizations have data in more than one system. Whenever there's duplicated data in several systems, it's easy for information to get out of synch. One way to avoid this problem is to integrate your systems so that updates in one system automatically update the others, resulting in a single source of "truth" and making it easier for end users to access information.

- Integration was once a huge headache. No more. Salesforce.com offers native connectors to Oracle and SAP systems for easy integration of customer-master records. And the Force.com API can be used for any integration scenario. There are also dozens of integration partners ready to help with any integration need.
- It's easy to learn about and access the Salesforce CRM data model with our [Web Services API Developers Guide](#).
- When designing your integration, evaluate your business applications to determine which one will serve as your system of record (or "master") for the synchronization process. The system of record can be a different system for different business processes.
- Integrate your order entry and fulfillment applications with Salesforce CRM for a 360-degree view of your customers.

### Step 4: Augment your data

To make your CRM system even more valuable, augment your data with information that will give your salespeople and managers an edge. For example, a number of third-party organizations such as Dun & Bradstreet and Hoover's provide valuable information your reps can use to prepare for sales calls. Also make the most of internal market intelligence, such as purchasing patterns or competitive analyses.

- To understand what data is valuable, survey your sales and marketing users to see what they want the most.
- Check the [AppExchange](#) to find partner solutions that can augment your data with external information.
- Get internal information about your customers' behavior and buying patterns. Then evaluate whether this information would be helpful to your reps.

### Step 5: Monitor your data

Achieving high-quality data isn't a one-shot effort, but requires ongoing vigilance. Establishing policies, processes, and tools for monitoring data is crucial to maintaining data quality.

- Define a centralized process for mass data loads and data-cleansing projects. Both the Force.com platform and the [AppExchange](#) have tools that can help with importing and cleansing data.
- Use Workflow, Validation Rules, and Force.com code (Apex) to enforce critical business processes.
- Create reports and dashboards to monitor data quality. Be sure to leverage free data-quality dashboards available on the [AppExchange](#). By making data quality widely visible, you help make it everyone's responsibility.

### Step 6: Assign ownership, train users, and commit to a data-quality process

Users need to know the importance of data integrity and how to do their part in any data-quality initiative. In training users, show them how data quality directly affects their work. It's also a good idea to assign ultimate responsibility for each region's data to a super user, geographic lead, or other business owner.

### The Bottom Line

Bad data is bad for business. Achieving and maintaining high-quality data requires vigilance, good processes, and a little help from technology—including the features in Salesforce CRM, tools from the Force.com platform, and solutions from our partners on the [AppExchange](#).



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## Managing your Salesforce CRM storage

As our customers' applications mature and grow more complex, so do their storage needs. As of the [Winter '09 release](#), storage options have increased substantially, as shown in the summary table below.

Your storage is split into two buckets: file storage and data storage. File storage holds attachments, anything in the Documents tab, and anything in the content library. Data storage holds everything else—all your records, including all tasks, activities, accounts, opportunities, custom object records, and so on.

In this document, you'll find out:

- About storage limits by edition
- How to view your storage usage
- How to make the most of your storage
- About AppExchange apps related to storage management

### Abstract

Understand your storage limits, learn to make the most of your storage, and find out about your options for expanding storage.

By Jason Suen & Nigel Young

### Storage limits by edition

The amount of storage for both files and data depends on your edition, as shown in the table below.

	Group Edition	Professional/Enterprise Edition	Unlimited Edition
<b>Data storage</b>	1GB across all users	20MB/user or 1GB minimum	120MB/user or 1GB minimum
<b>File storage</b>	1GB across all users	600MB/user or 1GB minimum	600MB/user or 1GB minimum

Many customers ask just how many records can be stored in 1GB. The answer is about 500,000 records. As announced at Dreamforce 2009, the content library functionality of Salesforce CRM will be made available to all customers, but (as of the publication of this document) it has not been determined whether additional storage will be made available as well.

### View your storage usage

Click *Setup / Administration Setup / Data Management / Storage Usage* to get a breakdown of your usage by object, user, and individual files. You'll also see the difference between file storage and data storage usage, as shown in the graphic on the next page.

<b>Administration Setup</b> Manage Users Company Profile Security Controls Communication Templates Translation Workbench Data Management Analytic Snapshots Import Accounts/Contacts Import Leads Import Solutions Import Custom Objects Data Export Storage Usage Mass Transfer Records Mass Delete Records Mass Transfer Approval Requests Start a New Trial Mass Update Addresses Sandbox Data Loader	<b>Overall Top Files by Storage Utilization</b>		
	<b>File Name</b>	<b>File Type</b>	<b>Storage</b>
	<a href="#">salesforce_callscripting_admin_guide.pdf</a>	Document	370 KB
	<a href="#">Self-Service Portal Files</a>	Document	333 KB
	<b>Current File Storage Usage</b>		
	<b>Record Type</b>	<b>Record Count</b>	<b>Storage</b>
	Documents	201	2.4 MB
	Attachments	4	284 KB
	<b>Top Users by Data Storage Usage</b>		
	<b>User</b>	<b>Storage</b>	<b>Percent</b>

## Strategies for making the most of your storage

You have several options for managing your data so you don't exceed your storage usage limits, including purchasing additional storage, using mass-delete tools or applications to delete records and attachments, and storing attachments locally.

### Purchase additional storage

You can purchase and immediately activate additional storage—data storage in 50MB and 500MB blocks; file storage in 1GB and 10GB blocks. Contact your account executive for additional information.

### Mass delete records

Which tools or applications you can use depends on the number of records you want to delete, the types of records to be deleted, and your edition of Salesforce CRM.

Examples of records you might want to mass delete include:

- Dead opportunities or opportunities with no activity in the past 12 months
- Unconverted leads with no activity in the past 12 months
- Accounts with no activity in the past 3 years
- Archived tasks and events older than 5 years
- Closed cases older than 5 years
- Expired solutions

**Note:** Before mass deleting with any of the following tools, we recommend that you **archive** a copy of the data to be deleted, in case you need to restore those records later. Also, always test mass deletions on a small sample of test records first.

We also recommend that you request a **weekly export of your data** for backup. This service is included with Enterprise and Unlimited Editions and is available for purchase with Professional Edition. Please contact your account executive for more information.

The following tools are available for mass deleting records:

- You can delete up to 250 records at a time, including accounts, leads, activities, contacts, cases, solutions, and products. Go to *Setup / Administration Setup / Data Management / Mass Delete Records*.

- For Enterprise and Unlimited Edition customers, there's a [free AppExchange tool](#) you can install into your Salesforce CRM org. This application adds custom buttons to list views so you can mass delete the objects mentioned above **plus** campaigns, opportunities, opportunity products, contracts, and assets.
- You can mass delete standard and custom object data using the [Excel Connector](#) (Professional, Enterprise, and Unlimited Editions) or the [Apex Data Loader](#) (Enterprise and Unlimited Editions). Both tools can be used to create extract files in Excel. You can sort and filter that file—typically by Date or Create Date—and use it to mass delete the records.
  - Because the Excel Connector has a limit of about 67K records per worksheet, you may need to use multiple worksheets.
  - The Apex Data Loader can delete up to 50,000 records at a time. You may need to use multiple extract files for very large data volumes.

**Note:** If you plan to extract and delete an extremely high volume of records (> 250,000), we suggest you request a data export and let salesforce.com generate the extract files for you.



*The Apex Data Loader's wizard helps guide you through a powerful mass data editing tool*

## Delete attachments

As with deleting records, your options depend on the size of your attachments and your edition.

- View your storage usage to see your largest attachments and drill down on those you want to delete. Go to *Setup / Administration Setup / Data Management / Storage Usage*.
- Enterprise and Unlimited Edition customers can download the [Attachment Manager](#) app from the AppExchange to view, sort, filter, and delete multiple attachments.
- Create lists with attachments with the Excel Connector and Apex Data Loader. These tools do not support the extraction of attachments, but you can use them to create lists of attachments to be deleted in bulk.

**Note:** You cannot use these tools to archive attachments to be deleted: We recommend the weekly export service to extract attachments for archiving.

## Store attachments locally

Consider storing files locally on your computer or in a network folder and creating a custom link that points to that folder or file. For example, you could create a custom link on the account page layout that points to the network folder in which account-related files are stored. Of course, the user needs the appropriate connectivity and authority to access your network while using Salesforce CRM.

### Need more options? Check out the AppExchange

You'll find additional options for increasing your storage on the AppExchange, ranging from cloud storage services to integrations between Salesforce CRM and your network drives. Check out the following options for cloud storage and network drives:

- **Appirio Cloud Storage** – Recommended for customers with high storage needs, this app lets you securely expand storage right from the Salesforce CRM interface by creating a link between Salesforce CRM and Amazon S3. There's also a [version](#) for Professional Edition customers.
- **S-Drive** – Another service that uses Amazon S3's secure cloud storage, this application creates storage space on secure, hosted servers that can be integrated with Salesforce CRM. This tool works with Professional, Enterprise, Unlimited, and Developer Editions.
- **External attachments** – With this app, you can easily attach and access attachments directly from records in Salesforce CRM. This free app is available for Enterprise and Unlimited Edition customers.
- **FTP Attachments** – Use this app to store attachments on your servers, including FTP, S3, and even hard disk. This tool, which also includes versioning capabilities, works with Professional, Enterprise, Unlimited, and Developer Editions.

## Using data access design patterns

Data access, or record sharing, is the process by which users can see records within a single object, such as the account object, or within child objects, such as the opportunity object. Data access also determines which records are returned in searches, displayed in views, and shown in reports.

The design process for all implementations, regardless of size or scope, starts with defining which records users are permitted to see. It's a crucial step because a CRM system is a tool for making operational the data you store about your business relationships. When users have access to the right data, they can work faster and more accurately. When they don't, they waste time trying to find important information—even worse, they see sensitive data not appropriate to their job function.

This document is an ideal starting point if you're implementing a large, enterprise-level system. Before you design, re-design, or implement Salesforce CRM, be sure you understand all your data access options.

### Abstract

Properly controlling access to sensitive information in your system is vital to CRM success. Start with this document to understand all your options for sharing settings, role hierarchy, sharing rules, and territory management.

By Tad Travis

### Design data access with clicks, not code

Salesforce CRM includes powerful, configurable functions for controlling access to records. Below are the 9 most important functions, listed in the order you should consider them during your design process. Please note: Your data management options depend on your edition of Salesforce CRM.

1. **Profile** – For each object, set users' read, create, edit, and delete permissions by controlling their profile assignment. To see records in an object, a user's profile must have at least read access.
2. **Record ownership** – Every record must be owned by a licensed salesforce.com user or by a queue (for cases).
3. **Sharing settings / organization-wide defaults** – Use these settings to define the data access model, which defaults to “always-on” rules for seeing records for each object.
4. **Role hierarchy** – Use the hierarchy to define your organization in a tree-like structure; it's essential to data access because it defines who can see data owned by other users.
5. **Grant access via hierarchies** – Enable default “always-on” rules for manager-level access to specific objects.
6. **Sharing rules** – In restricted access models, use to enable “always-on” exception rules for wider access by classes of users, for a specific object.
7. **Manual sharing** – Record owners can use manual sharing to give read and edit permissions to users who would not have access to the record otherwise.
8. **Account and sales teams** – An account team is a team of users that work together on a single account; a sales team is a group of users that work on a single opportunity.
9. **Territory management** – Use to provide access to account records depending on a user's assignment to one or more territories. This option is relevant to companies that maintain large, geographically dispersed sales teams and manage large account record volumes/

Best practice

Together, these functions define your data access model, described on the next page.

The functions are interdependent, meaning that when users retrieve records, each component is evaluated progressively, in real time. Each time a user queries the system, Salesforce CRM evaluates the meta-data rules underlying each component, returning only those records that meet the filtering criteria. For an excellent example of the how these rules are sequenced and evaluated, see the model in [Help and Training](#).

For detailed information on configurable profiles, org-wide defaults, the role hierarchy, and sharing rules settings, please see the Tips and Hints document in [Help and Training](#). This document will also help you understand the sequence of actions the system takes to determine real-time access to records.

You'll notice that reporting is not included in this list. Data access and reporting are two different things. You need to account for all record access components *before* you can build reports, otherwise users won't be able to see the appropriate records in their reports or views. Field-level settings are also not included in this list; however, more information on field-level security is available in [Help and Training](#).

The remainder of this document explores the most important design considerations for enterprise implementations: your data access model, sharing settings (default org-wide object defaults), the role hierarchy, sharing rules, and territory management.

### About data access models

Before configuring your system, it's a best practice describe your high-level data access requirements in the form of a data access model. The model is an abstraction, but it's a useful tool for describing what kinds of records certain classes of users can access. There are 3 types of data access models. Each model is defined by the default sharing model, which you configure with the organization-wide defaults and record ownership rules. Review these options to determine the best fit for your company.

Many other apps can also make your marketing campaigns sing!

1. **Private access model** – Users are prohibited from accessing most account, contact, opportunity, activity, and custom object records of other users, even in their departments. If you want these restrictions, a private model is best.

#### Requirements

You want to restrict access to accounts, contacts, opportunities, and cases among users who perform similar job functions. For example, reps in two different districts can't view each other's opportunities.

You plan to use the partner portal. A private model will prevent inadvertently exposing sensitive records to partner users.

You have large data volumes. A private model will help restrict the number of records returned in searches, views, and reports.

You plan to use territory management.

Not many large companies—except possibly financial services firms—use a fully private sharing model because it has a significant impact on the data returned in reports and searches. So consider all your business requirements before proceeding with this model.

2. **Public access model** – If you have no restrictions on accounts, contacts, opportunities, activities, cases, or custom object access, then a public model is best. This model results in immediate productivity improvements because it saves data retrieval time and makes it easier for colleagues to collaborate.
3. **Hybrid access model** – In this model, users have unlimited access to most standard objects, but are restricted from accessing records not directly related to their job functions. Most enterprise-level companies use a hybrid model.



If it's obvious that a public model meets your needs, then configure your per-object organization-wide defaults with either Public Read/Write or Public Read Only settings (see the next section for an explanation). But if you decide a private or hybrid model is appropriate for your organization, review all the configuration considerations below.

### Defining organization-wide defaults and record ownership

Your first step in setting a private or hybrid model is to configure your organization-wide defaults and record ownership rules. The organization-wide defaults specify the default, always-on level of access to a record. These defaults can be set separately for accounts (including assets and contracts), activities, contacts, campaigns, cases, leads, opportunities, calendars, price books, and custom objects. For most objects, organization-wide defaults can be set to Private, Public Read Only, or Public Read/Write. See [Sharing Model Fields](#) for your options.

Every record must be “owned” by a licensed salesforce.com user or a queue (for cases), as shown in these examples:

#### Account record

Account Owner	Wendy West <a href="#">[Change]</a>
Account Name	Universal Containers <a href="#">[View Hierarchy]</a>

#### Opportunity record

Opportunity Owner	Cindy Central <a href="#">[Change]</a>
Opportunity Name	Associated Supply Co. - 10K

#### Case record

Case Owner	Tier 2 Escalation Queue <a href="#">[Change]</a>
Case Number	00001176

Record ownership has two important implications on the data access model. First, it determines default read/write access, meaning that record owners can always read and edit records they own. Second, ownership also drives the default reporting functions on the account and opportunity reports.

How do these functions work together? Below is an example of a typical hybrid model.

Object	Sharing setting	Record owner	Explanation
Accounts	Public Read Only	Jessica Cho (CEO)	No record viewing restrictions
Contacts	Controlled by Parent	Wendy West (AE)	
Activities	Controlled by Parent	Wendy West (AE)	Activities public if associated with public object; otherwise, they're private
Opportunities	Private	Cindy Central (AE)	Accessible only to record owners and users above them in the role hierarchy
Cases	Public Read/Write/Transfer	Tier 2 Escalation Queue	Any user can view and edit cases
Business plan (child to account)	Private	Cindy Central (AE)	Accessible only to record owners and users above them in the role hierarchy

For a detailed definition of the sharing setting values, please see [Help and Training](#).

## Defining the role hierarchy

The role hierarchy is the third component of the data access model. It's as important as sharing rules for determining record access in private or hybrid models. Users are assigned to a branch in the role hierarchy to give them the proper default access to records owned by other users.

Users at any given level in the hierarchy can view, edit, and report on all data owned by or shared with users below them in the hierarchy, regardless of the organization's sharing model. This approach ensures that managers can always access the same data as their employees, regardless of the organization-wide default settings.

Your role hierarchy usually mirrors your sales organization structure or your support center structure, but it need not match your organization chart exactly. For examples of common role hierarchy design patterns, see the table below.

Example	Description
<pre> graph TD     CEO[CEO / Operations] --&gt; CFO[CFO]     CEO --&gt; COO[COO]     CEO --&gt; SVP[SVP, Customer Service &amp; Support]     CEO --&gt; VP[VP, International Sales]     CEO --&gt; VP2[VP, Marketing]     CEO --&gt; VP3[VP, North American Sales]     CEO --&gt; Director[Director, Direct Sales]     CFO --&gt; CS[Customer Support, International]     CFO --&gt; CSNA[Customer Support, North America]     CFO --&gt; IRS[Installation &amp; Repair Services]     SVP --&gt; SSM[SVP, Sales &amp; Marketing]     VP --&gt; MT[Marketing Team]     VP3 --&gt; DCS[Director, Channel Sales]     VP3 --&gt; CST[Channel Sales Team]     VP3 --&gt; DDS[Director, Direct Sales]     VP3 --&gt; EST[Eastern Sales Team]     VP3 --&gt; WST[Western Sales Team]           </pre>	<p>Operations users need access to all records, so they are assigned to the same node as the CEO. Users who need access to the greatest number of records, regardless of object, should be assigned to a role near the top of the hierarchy. This requirement often results in a role hierarchy that puts analysts above SVPs, but that's a perfectly acceptable design.</p> <p>Users in the CFO node own confidential records such as contracts and business development plans, so they have their own role node. These users can access private records owned by sales users via sharing rules.</p> <p>To grant the SVP Customer Service and Support access to all sales-related records, sales &amp; marketing roll up to customer service and support.</p> <p>Every user must be assigned to a role or his/her data will not display in opportunity reports, forecast roll-ups, and other displays based on roles.</p> <p>The sales organization uses both direct and indirect (channel) sales roles because each group submits independent sales forecasts.</p> <p>Representatives can only be assigned to a single regional sales team.</p> <p>Members of the East Team can view all the opportunities owned by users with the East role, but West Team users cannot view those roles, thanks to the role hierarchy.</p> <p>It's also common to create a separate role for each unique sales territory within each sales region.</p>

For additional configuration information about role hierarchy functions, see [Help and Training](#).

## Role hierarchy design considerations

Because the role hierarchy is so critical to your data access design, be sure to address the considerations in the following table before moving forward.

Research shows that customers who are trained by salesforce.com achieve a 52 percent higher adoption rate. Be sure to take advantage of the free training available from the Help & Training links in your application and on the [Salesforce.com Community](#) Web site.

Consideration	This means that....
Design trade-off: too much vs. too little abstraction	The greater the number of roles, the greater the change management burden. Too few roles and your reports don't have the right granularity or it will be more difficult to implement content workgroups. There is no mathematical function that calculates the right number of roles for your organization, so be prepared to develop your roles iteratively.
Customized forecasting hierarchy is cloned from the role hierarchy	If you plan to use customized forecasting, your role hierarchy should mirror your sales or support organization. Updates to your role hierarchy do not update your customized forecasting hierarchy.
When territory management (TM) is deployed, the role hierarchy and TM both govern record access	Users at the top of the role hierarchy will have access to accounts and opportunities, even if opportunities are private and access is proscribed by TM. In the case of overlapping rules, the most permissive setting wins.
Grant access using hierarchies is always enabled on all standard objects	In a private data access model, users at the top of the role hierarchy will have access to accounts and opportunities. By default, users in different branches of the hierarchy cannot see one another's opportunities.
Grant access using hierarchies must be enabled on all custom objects displayed in the customer or partner portals	This setting is necessary to prevent exposing sensitive records to portal users. Additionally, restrict access by portal users using new sharing rules that include the setting "roles and internal subordinates."
Exceptions to role hierarchy access	Use sharing

### Sharing: managing exceptions to the rules

If you set the organization-wide sharing defaults to Public Read Only or Private on some objects, you can define rules that give additional users access to records they do not own.

Sharing rules can only be used to grant *additional* access, not to restrict access to records beyond restrictions originally specified with the sharing model through organization-wide defaults. You can create sharing rules that are based on the record owner or on the record's field values.

To provide additional access, salesforce.com provides 4 classes of sharing functions to manage always-on and one-off exceptions to your private sharing model.

1. **Sharing rules** – You can use sharing rules to automatically grant selective record access to defined sets of users, based on record ownership or on the record's field values. You can define up to 100 owner-based sharing rules for each object. Sharing rules are ideal for granting broad types of access. Records owned by internal roles, territories, public groups, queues, and portal roles can be shared with internal roles, customers, or portal users. Sharing rules are also important for granting granular record access, where records owned by a specific role can be shared more broadly with internal roles.

**Note:** Sharing rule permissions depend on your edition. See [Help and Training](#) for additional information.

2. **Manual sharing** – Because it's often difficult to define every sharing rule users need, manual sharing is ideal for allowing one-off record access to classes of users who would not have access in any other way. Manual sharing isn't automated; record owners must manually share each record that requires wider access.

Sharing rules address the following typical scenario: An APAC sales representative owns the business relationship with an international manufacturer, which has subsidiary companies in the U.S. and Germany. A local U.S. representative finds a new opportunity with the U.S. subsidiary, which is required to get funding approval from the parent company. To drive the deal, the U.S.

representative grants read-write access on her opportunity to her APAC counterpart. For more information on configuring manual sharing, see [Help and Training](#).

3. **Account teams and sales Teams** – Account teams give users the freedom to set default account teams that include those employees who normally work together on an account. Users can automatically add default account teams to all accounts. Sales teams can do the same while working on opportunities.
4. **Apex managed sharing** – Apex managed sharing lets developers use Force.com code (Apex) to programmatically share custom objects. When you use Apex managed sharing to share a custom object, only users with the Modify All Data permission can add or change the sharing on the custom object's record. Also, the sharing access is maintained across record owner changes. For more information on Apex managed sharing, see the [Force.com Apex Code Developer's Guide](#).

You can use all these methods for the following sharing options: public groups, personal groups, users, roles, roles and subordinates, roles and internal subordinates, internal and portal subordinates, territories, and territories and subordinates. See [Help and Training](#) for definitions and usage recommendations.

### Sharing design considerations

Sharing rules makes it possible to be flexible when assigning record access; be sure to review the following considerations before adding sharing rules to your system.

Consideration	This means that....
Opportunity and case access when accounts are private	When sharing an opportunity or case, users must have at least read access to the associated account (unless you're sharing a case via a case team). If you also have privileges to share the account, users are automatically given read access to the account. If you don't have privileges to share the account, you must ask the account owner to give the users read access.
Contact access	Contact access is not available when the organization-wide default for contacts is set to Controlled by Parent.
Controlling access to associated child records	For sharing rules that specify access for associated object records, the given access level applies only to that sharing rule. For example, if an account sharing rule specifies Private as the access level for associated contacts, a user may still have access to associated contacts via other means, such as the <a href="#">organization-wide defaults</a> , the "Modify All Data" or "View All Data" <a href="#">administrative permission</a> , or the "Modify All" or "View All" <a href="#">object permission</a> .
Apex sharing reasons	If using Apex sharing reasons, select a reason for the share so users and administrators understand the source of the sharing. For more information about sharing reasons, see <a href="#">Creating Apex Sharing Reasons</a> .

### Territory Management: automate account access

Territory Management (TM) is the final component of the data access model. TM is designed to automate how large volumes of account records are assigned to users, thanks to declarative business rules triggered by account record attributes such as zip code, industry, revenue, or another custom field relevant to your business.

#### Why use TM?

With TM, you immediately gain these benefits:

- **Assign account records to territories with declarative business rules and explicit assignments** – Automate account record access to expand a private access model
- **Organization management** – Manage complex and frequently changing sales organization structures

- **Alignment and re-alignment** – Get support for transferring users between territories, with the option to retain opportunities
- **Forecasting** – Get multiple forecasts per user, based on territory membership
- **Reporting** – Gain the option to create territory-based sales reports

In addition to controlling access to accounts for users in each territory, you can control users' access to the opportunities and cases associated with those accounts, regardless of who owns the records. For more information, see [Territory Fields](#).

### Is TM right for you?

TM is not appropriate for everyone. Don't deploy TM unless your organization meets most of these requirements:

- **Automated assignment** – You need to mass-assign or automatically assign account records **using only account criteria** to expand a private sharing model
- **Re-organization** – Your organizational structure is complex or changes frequently
- **Alignment and re-alignment** – You need to automate the territory re-alignment (user-to-territory and territory-to-account) process and also maintain explicit territory-to-account alignment conditions
- **Forecasting** – You need to submit forecasts at the territory level, not at the user level
- **Reporting** – You need territory-specific reports, not user- or role-specific reports

Typical companies that implement TM already have a mature territory management process, as is often the case in the pharmaceutical, technology, and media industries. If your company doesn't have such a process, we recommend that you deploy TM only after you considered all its functions and are sure it meets your needs. For more help deciding whether TM is right for you, see this Best Practice: "[4 steps to deciding if Territory Management is right for you](#)."

In addition, TM only governs the assignment of accounts and the standard objects that have a master-detail relationship to accounts, opportunities, and contacts. For example, opportunities are included in TM, but leads and activities are not. That means that, if you have private records such as "Business Plan" that are children to accounts, access to those records is not automatically granted via territory associations.

Finally, TM can only be enabled in your instance if you have a full-copy sandbox. Contact Support if you're not certain whether you purchased or activated a sandbox.

Additional information is available in these resources:

- [Territory Management FAQ](#)
- [Tips & Hints for Working with Territories](#)
- [Deploying Territory Management](#)

## TM functional considerations

Once you enable TM it can't be disabled, so evaluate the following features before proceeding:

Feature	This means that....
Dynamic account-to-territory assignments	Drive re-alignments and new record assignments using declarative business rules, not code.
Explicit account-to-territory assignment	If you use "named accounts" ownership or have ownership rule exceptions, you can use TM to directly assign accounts to users via each user's association with a territory.
User-to-territory assignments	Assignments are explicitly declared in the TM system.
A user can be assigned to >1 territory	You can implement pods, overlays, and temporary territory coverage functions.
A territory can have >1 user	You can implement pods and shared territories.
Territory hierarchy granularity	The hierarchy is an exact re-creation of your sales organization.
Role hierarchy vs. territory hierarchy	If you implement TM, your territory hierarchy governs your default record access in a private sharing model, which means you can simplify your role hierarchy with fewer roles.  But territory management doesn't supersede the role hierarchy. The most permissive setting wins.
Account ownership	Account ownership doesn't have the same significance because TM determines default record access in a private sharing model. Most customers revert ownership to a single default record owner in this case.
Inheritance of opportunities	In some cases, opportunities automatically inherit the territory value assigned to the account.
Re-alignment modeling and "what-if" analysis	You cannot define more than one territory alignment, but assignments can be tested using the "Preview Account Assignment" function in sandbox.
API access	Territories are exposed to the API, so you can load territories from a .csv file. Additional API functions are included in <a href="#">Help &amp; Training</a> .

Lastly, because of the scope of this functionality and its impact on record access, we highly recommend that you consult with a TM expert from an implementation partner before proceeding.

## Summary: Best practices for designing your data access model

Because the record access model is so important, plan to spend sufficient time on analysis and design.

Below are several recommendations and best practices, gleaned from the most complex implementations.

- **Define your business requirements** – Every complex implementation has complex requirements. Create a list of the most important business needs, written as business requirements, as shown in the examples below.

### Requirements

Accounts owned by Americas Inside Sales Representatives must be accessible by all other Americas Direct Sales Representatives; otherwise the accounts are private to all other users.

Opportunities owned by Global Account Managers must be accessible to all Direct Sales Users.

Business Plan records are only editable by the owner of the record and managers above the owner in the role hierarchy.

Customer Service Representatives must be able to access all account and contact records, even if the account is owned by a user who is not in the CSR's region.

- **Define use cases** – Although use cases can be challenging to write, they are absolutely necessary to explain your conceptual data access model to others. Use cases are also important for getting user acceptance and for creating system testing scripts
- **Analyze your requirements and use cases** – After analyzing both, you can determine your data access model (private, public model) and whether you should deploy TM
- **Design your default object sharing settings** for each object in your system
- **Design sharing rules** – Determine which exception requirements can be satisfied with sharing rules versus one-off methods such as account teams or sharing
- **Design your territory hierarchy** – Include your sales organization structure and user-to-territory assignments
- **Design your territory assignment rules** for automated account-to-territory assignments

Use an iterative design and build process. Complex businesses typically have complex requirements and rules, so it's common to not get everything right the first time. Design iteratively, test as you go, and be prepared to make adjustments.

If you're already running your business in Salesforce CRM, you may need to make immediate changes to your access model. Despite the urgency, **never** test these changes in production to avoid inadvertently exposing private records to users.

If you have questions about other implementation best practices, please go to the [Salesforce.com Answers Community](#), where you can get input from other salesforce.com users



#### For More Information

Contact your account executive to learn how we can help you accelerate your CRM success.

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## 3 tips to get unstuck when creating a formula

If you can write a formula in Excel, you can write one in Salesforce. However, if you ever need help, here are 3 tips to help find a solution:

1. Check a reference
2. Write it down, then break it up
3. Ask the community

### Abstract

Salesforce administrators—Have you ever gotten stuck creating a formula? Here are 3 tips to help solve your problem.

By Terrence Hall

### Tip 1: Check a reference

The following references explain how to use formulas and give you ideas on how to get started:

- **Help and Training** – Click Help & Training on any Salesforce page and type in the formula function you want to use. You'll get a description of how to use the function as well as some examples.
- **[Formula cheat sheet](#)** – If you're not sure which formula function to use, print this two-page cheat sheet, which lists common functions in groupings.
- **[Useful validation rules](#)** – Don't reinvent the wheel, modify it. Look at examples of validation rules, ranging from ensuring valid postal codes to preventing reps from being too generous with discounts on quotes. When you find a validation rule you like, customize the formula to suit your needs.

### Tip 2: Write it down, then break it up

If your formula gets too complicated, start from the beginning and break up it up into smaller steps.

For example, let's say you want to assign a rating of Hot, Warm, or Cold to a lead, based on a score assigned by marketing. In addition, you want to display the rating as an image. To accomplish this task, you'll use IF and IMAGE functions for your formula.

1. First, start by using comment tags ( /\* \*/ ) to spell out the basics. Don't forget to add the date and your name for future reference.

# Best practice



Simple Formula | **Advanced Formula**

Insert Field | Insert Operator ▼

Lead Rating (Text) =

```
/* Display Image in the Lead Rating field based on Lead Scorecard.  
Show hot image when Lead Scorecard is >=8  
Show warm image when Lead Scorecard is 5-8  
Show cold image when Lead Scorecard is <=5  
T.Hall on 5-22-2010  
*/
```

Check Syntax

2. You'll use two IF statements in this formula. To get the first IF statement to work, use placeholders for the hot image and for the second IF statement. Then click Check Syntax to make sure there are no problems with your formula. If everything is OK, you'll get the message "No syntax errors in merge fields or functions"; if not, the message will explain the type of error.

Simple Formula | **Advanced Formula**

Insert Field | Insert Operator ▼

Lead Rating (Text) =

```
/* Display Image in the Lead Rating field based on Lead Scorecard.  
Show hot image when Lead Scorecard is >=8  
Show warm image when Lead Scorecard is 5-8  
Show cold image when Lead Scorecard is <=5  
T.Hall on 5-22-2010  
*/  
IF(Lead_Scorecard__c >=8, "Hot Image Goes Here", "Second IF Statement Goes Here")
```

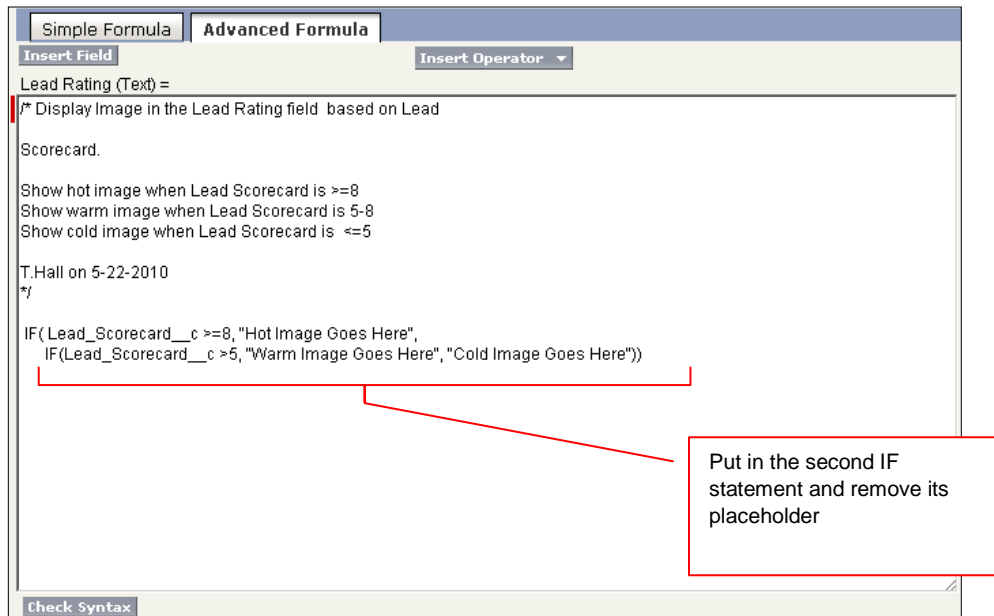
Check Syntax

Write your first IF statement.

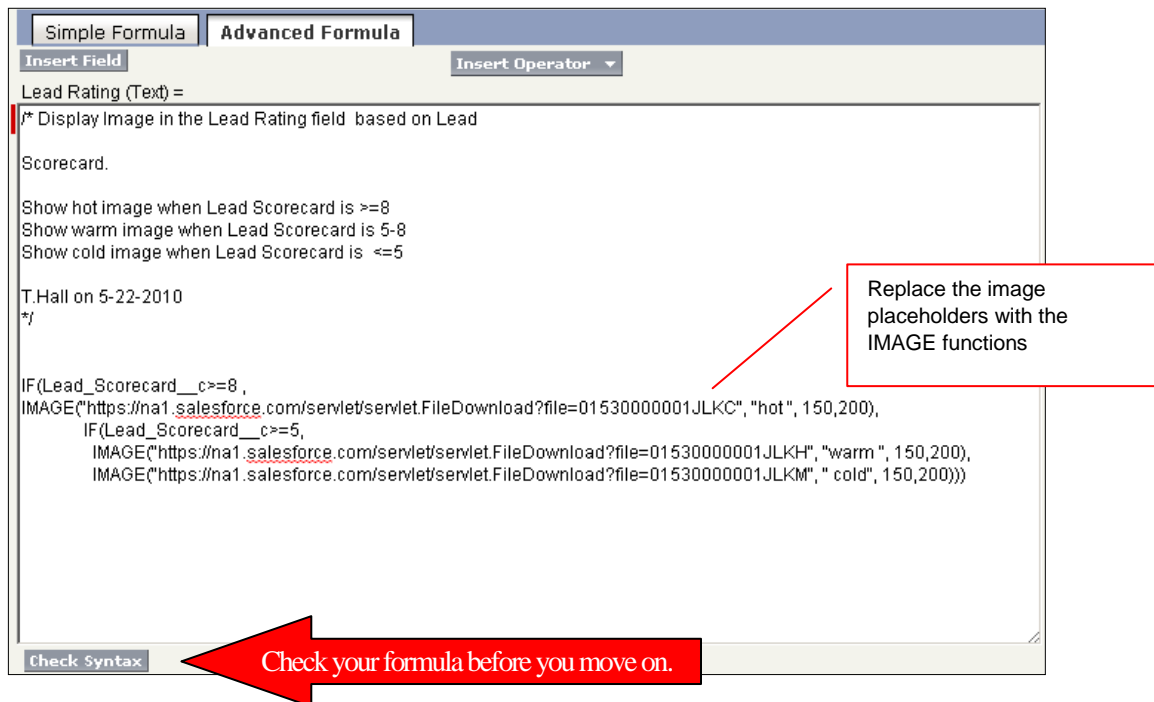
Use placeholders for the Hot image and second IF statements.

Check your formula before you move on.

- Once the first IF statement works, plug in the second IF statement, replacing the placeholder for “When not Hot.” Click Check Syntax again to check your work.



The formula works! Now all you have to do is add the IMAGE functions to display the graphics. Again, don't forget to check your formula by clicking Check Syntax.



## Turbo-charge customer communications with email templates

Following up with an email after meeting a prospect or customer is a basic courtesy—and a welcome chance to reinforce important points and keep the communications channel open. Of course, some reps are better at writing than others, and some would rather not write at all.

With email templates, you can make sure all your reps have high-quality, consistent responses to various situations at their fingertips. When reps use email templates with the Salesforce CRM Mass Email capabilities, they can easily communicate with their entire customer base. In addition, product managers can use email templates to communicate about new products and features, and marketing users can promote regional customer events and invite prospects to events such as Webinars. There's also a built-in dynamic tracking feature that lets you track which emails were opened, how many times, and when each recipient last opened the email. And finally, email templates reinforce your corporate look and feel and ensure that the messaging in all your communications is accurate and up to date.

You can create professional, high-impact HTML templates even without knowing HTML. With HTML expertise, you can create exactly the kind of email you want. And with the pages functionality of Force.com, you can even merge fields from multiple records or objects in the email.

### Abstract

Make your sales reps more productive, enforce your corporate look-and-feel, and ensure your messaging is always consistent and on point.

By: Oliver Demuth & Carman Chan

### Make the most of email templates

To help get the most out of email templates:

- Know the pros and cons of different types of email templates
- Ensure a consistent look and feel
- Leverage mass email for targeted communications
- Take advantage of tracking
- Protect templates from being changed by users
- Consider partner products for email marketing campaigns
- Keep templates organized

For detailed instructions on how to create email templates, go to [Help & Training](#).

# Best practice

## Choose your templates

Salesforce.com provides four types of email templates:

1. Text
2. HTML with letterhead
3. Custom HTML
4. Force.com pages (Visualforce)

The table below summarizes the advantages and disadvantages of each email template type.

Type of template	Pros	Cons
<b>Text</b>	Does not require Edit HTML permission Requires no HTML knowledge Few/no issues with email filters	No tracking for mass emails No customization or corporate branding No visual elements
<b>HTML with letterhead</b>	Tracking Consistent branding across organization Quick add targeted messaging	Requires Edit HTML permission Requires letterhead setup Limited customization May get caught in email filters
<b>Custom HTML</b>	Tracking Consistent branding across organization Fully customizable; you get exactly what you want	Requires Edit HTML permission Requires HTML knowledge May get caught in email filters
<b>Force.com pages (Visualforce)</b>	Makes it possible to merge fields from multiple records or objects	Requires Force.com pages/Force.com code experience Not available for mass emailing

## Ensure a consistent look and feel

You can ensure a consistent look and feel by creating a single letterhead to serve as the basis of all your HTML email templates. Your letterhead can define the following attributes of the header and footer of your HTML emails: background color, header properties (including logo), a top line, body colors, a middle line, footer properties, and a bottom line. The template itself determines the format of the email's main body. If your corporate identity changes frequently, simply changing your letterhead automatically changes all HTML templates based on the letterhead.

**Tip:** Keep the number of letterheads to a minimum. Multiple letterheads are useful for companies with multiple divisions that use different corporate brands or companies with logos in different languages. Most companies just need a single letterhead, however.

## Leverage mass email for targeted communications

Depending on your Salesforce CRM edition, users can send between 250 and 1,000 emails at a time, with just a few clicks of the mouse. Sales reps can leverage personal or corporate email templates to efficiently communicate with leads and contacts about new products, promotions, and upcoming events.

## Take advantage of tracking

Salesforce CRM lets you track emails, both at the level of an individual contact and for all accounts, including an overview of the exact date, time, and number of times your email was opened. If multiple emails are never opened, Salesforce CRM flags the contact so you can check whether he or she is still with the company.

## Protect your email templates

One of the benefits of using email templates is that you get a consistent look and feel and control over messaging, while still letting individual users personalize their emails. However, you may want to prevent users from changing sections of the template, such as pricing information, dates and locations, specific corporate disclaimers, policies and procedures, and of course logos and corporate branding.

## Consider partner products for marketing campaigns

The Salesforce CRM Mass Email capabilities make it possible to deliver 1,000 emails per organization per day. Although that's fine for individual reps, check out the partner products in the [Marketing](#) section of the AppExchange to create sophisticated email campaigns and other demanding projects. Here you'll find more full-featured apps for creating mailing lists of any size, tracking campaigns in progress, and getting post-campaign statistics to evaluate the effort.

## Keep templates organized

Keep your templates up to date and easily accessible. Make sure to keep public and personal templates separate.

- Ask users to place all self-created templates in a personal folder. Use the Clone button to copy public templates into a personal folder.
- Deactivate old templates by unchecking the Available for Use checkbox. Note that deleted email templates are not stored in the recycle bin, but are permanently deleted. If you think you may need these templates again, deactivate rather than delete them.



### For More Information

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## Bring cloud computing to your entire company with the AppExchange

Welcome to the AppExchange, the world's first marketplace for business applications that run in the cloud. It's been called the "eBay of business software" by *Forbes* magazine because it brings application sellers and buyers together.

If you're a developer or a company that builds cloud computing applications delivered as a service, the AppExchange lets you reach thousands of potential customers and benefit from salesforce.com's reach and resources. You can make any applications you create available on the AppExchange for free.

If you're a customer, you can use the AppExchange to expand the functionality of Salesforce CRM, with popular applications to integrate your campaigns with keyword marketing, email and direct mail solutions, and contract and proposal management, to name just a few. But that's not all. Many of the solutions on the AppExchange are enterprise-grade apps that go far beyond CRM. These applications bring the benefits of cloud computing to all departments in your company, including finance, HR, and IT. Many of these apps are free, others are fee-based. All of them give you the benefits of cloud computing.

### Abstract

With hundreds of applications—ranging from dashboards that extend Salesforce CRM to full-featured Financials applications—salesforce.com's AppExchange makes finding and deploying new applications fast, easy, and secure.

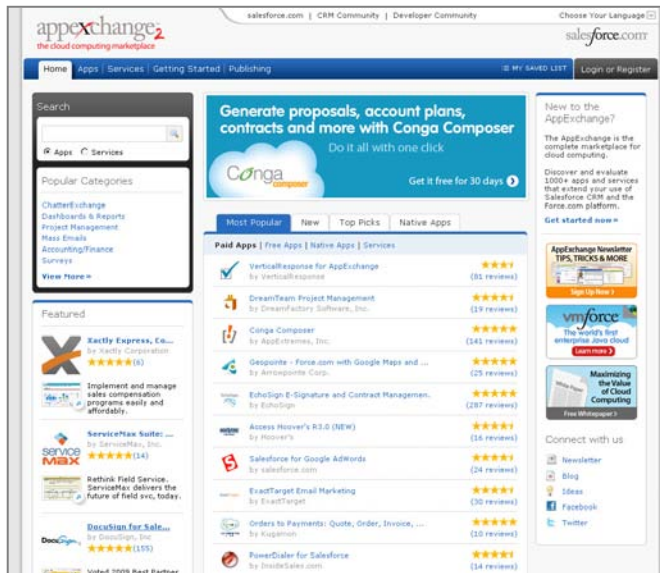
By: Sara Varni Bright

### What's different about the AppExchange?

To answer that question, consider the traditional process of selecting a new business application. First, you research available apps in publications and at trade shows. Then you narrow down the pool of potential vendors. You create an RFP, send it out, and evaluate the responses. You invite the short list of vendors to give demonstrations. You do a pilot and, with luck, the pilot is successful and you license the software and start the implementation process.

Compare that process to getting apps from the AppExchange, where everything you need to discover, evaluate, and test applications is in one place. You can compare available apps side by side. See what other customers say about them. Try them out. And then install them with a few clicks and you're ready to go. This paper describes the 5 steps to getting apps for your business needs.

# Best practice



## Step 1: Discover

The AppExchange makes it easy to find and evaluate applications. You can search for apps by keyword or browse various categories, including native apps built on the Force.com platform, the most popular apps, newly added apps, and apps our staff particularly likes. You can also save up to 3 apps to create a side-by-side summary of important features for easy comparison. Forget exactly how you found an app? The Recently Viewed Apps area makes it easy to find it again. Want more? The Apps tab further categorizes apps by type, industry, and other attributes such as whether the apps are free or fee based, how they rated, whether they're supported, and so on.

## Step 2: Evaluate

There are three steps to evaluating an app: finding out all you can about it, trying it yourself, and possibly getting advice.

The AppExchange makes the first two steps easy. First, you can display a summary of any app for important information at a glance. You can even display up to 3 summaries side by side for easy comparison. You can also play demos, view screenshots, get technical details, and read customer reviews to benefit from the experience of other customers. Then try it yourself—just click the Test Drive button. Finally, talk to your account executive or Customer Success Manager (CSM) to get their recommendations.

## Step 3: Customize

An important key to the success of any kind of application is user adoption. The key to user adoption, in turn, is making sure the application works the way your users do. Adjusting the application to the needs of your users typically requires changes to the user interface, such as deleting unnecessary fields, changing field names, or adding tabs.

Making such changes is easy with salesforce.com's point-and-click tools. One great thing about customizations: Unlike with traditional on-premises software, your customizations aren't lost during upgrades or new releases. Note that the same limits that apply to your edition—such as the number of custom objects you can have—apply to any apps you install from the AppExchange.



## Step 4: Integrate

Integration—making different applications work together and share data—has been one of the biggest challenges in IT. Because all apps on the AppExchange are pre-integrated with Salesforce CRM, there are no integration issues. Instead, your new apps simply work. What's more, just as with customizations, you'll never have to recode integrations with new releases.

## Step 5: Deploy

One of the benefits of the cloud is that deploying apps doesn't require a massive IT rollout, with the need to configure individual machines, upgrades, and versions. As with Salesforce CRM, the IT infrastructure is taken care of. And for apps that were built on and run on the Force.com platform, you also get the same performance and reliability.

In Salesforce CRM, every org is ready for apps from the AppExchange. Although anyone can try an AppExchange app, installation is limited to Salesforce CRM administrators, who are trained on the security aspects of deploying new applications. We suggest that you download apps to a production or sandbox environment before making them available to all users. We also recommend that you train your users on how to get the most from your new app.



### For More Information

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4. Test your formula by changing the lead scorecard on a lead. See whether the images change from Hot, Warm, and Cold when you put in a lead scorecard of 8, 6, and 4 respectively.

Lead

Karthik Nag

[Customize Page](#) | [Edit Layout](#) | [Printable View](#) | [Help for this Page](#)

[Add Tags](#)

[Open Activities \[0\]](#) | [Activity History \[0\]](#) | [Campaign History \[0\]](#) | [HTML Email Status \[0\]](#)

Lead Detail

[Edit](#) [Delete](#) [Convert](#) [Clone](#) [Find Duplicates](#)

Lead Owner	<a href="#">License Manager</a> <a href="#">Change</a>	Phone	(415) 555-1232
Name	Karthik Nag	Mobile	(415) 555-2222
Company	ZSL	Fax	
Title	CIO	Email	<a href="mailto:karthikn@zslmanf.com">karthikn@zslmanf.com</a>
Lead Source	Package Installation	Website	
Industry	Manufacturing	Lead Status	Open - Not Contacted
Annual Revenue		Rating	
Lead Scorecard	8	No. of Employees	

Lead Scorecard Image

Address

Product Interest

SIC Code

Number of Locations

Created By

Description

Current Generator(s)

Primary

Last Modified By

[Edit](#) [Delete](#) [Convert](#) [Clone](#) [Find Duplicates](#)

Edit the Lead Scorecard to 8, then 6, and finally to 4 to watch the images change.

### Tip 3: Ask the Community

If you find you need help in creating a formula and want another opinion, check out the [Force.com Discussion Board: Formulas & Validation Rules Discussion](#) to see if someone has had a similar problem. If not, become a member of the [developer community](#) and post a question of your own.



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## Summary

With the increases in storage, most customers will have plenty of room for their records and files. However, if you still need to expand your storage capabilities, this table summarizes your options:

	Professional Edition	Enterprise Edition/ Unlimited Edition	Additional cost?	Data volume
<b>GENERAL</b>				
Purchase additional storage	Yes	Yes	Yes	High
Weekly data export service (for archiving)	No	Yes	Yes	Any
<b>RECORDS</b>				
Manual deletions	Yes	Yes	No	Low
Mass-delete records	Yes	Yes	No	Medium
Mass-delete application	No	Yes	No	Medium
Mass deletions and archiving using Excel Connector	Yes	Yes	No	High
Mass deletions and archiving using Data Loader	No	Yes	No	High
<b>ATTACHMENTS</b>				
Manual deletions	Yes	Yes	No	Low
Mass deletions using Attachment Manager application	No	Yes	No	Medium
Mass deletions using Excel Connector	Yes	Yes	No	High
Mass deletions using Data Loader	No	Yes	No	High
Store locally/access via custom link	Yes	Yes	No	Medium/High
Document management applications on the AppExchange	Varies	Yes	Varies	Medium/High



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