



Salesforce.com: Winter '11

# License Management App 2.1 Administration and User Guide



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# Table of Contents

License Management App (LMA) Overview.....	2
Understanding License Management.....	2
Entity Relationship Diagram.....	3
LMA Terminology.....	3
Installing the LMA.....	5
Configuring the LMA.....	6
Associating a Package with Your LMO.....	8
License Defaults.....	8
LMA User Guide.....	10
About Leads.....	10
About Packages.....	10
About Package Versions.....	13
About Licenses.....	14
Best Practices.....	18
Frequently Asked Questions.....	19
Troubleshooting.....	20
Index.....	22

## License Management App (LMA) Overview

User Permissions Needed	
To configure the LMA:	System Administrator Profile
To edit licenses and packages:	“Read” AND “Edit”
To view licenses, packages, and package versions:	“Read”

The License Management App (LMA) helps developers and publishers apply licensing on their uploaded and registered Force.com AppExchange apps. Each time a customer or a prospective customer installs your managed package, a lead record and a license record are created in the LMA. By specifying defaults for these license records, you can apply licensing to control how many users in the customer organization can access your package, and for how long. Using the LMA, you can keep track of how many customers have installed a package and which version of the package they currently use. You can also use it to manage the leads associated with the licenses.



**Note:** The LMA is available in English only.

The LMA is developed by Salesforce.com and is available for free on AppExchange.

### See Also:

[Installing the LMA](#)

[Configuring the LMA](#)

[Associating a Package with Your LMO](#)

[Best Practices](#)

[Troubleshooting](#)

[LMA User Guide](#)

[Frequently Asked Questions](#)

## Understanding License Management

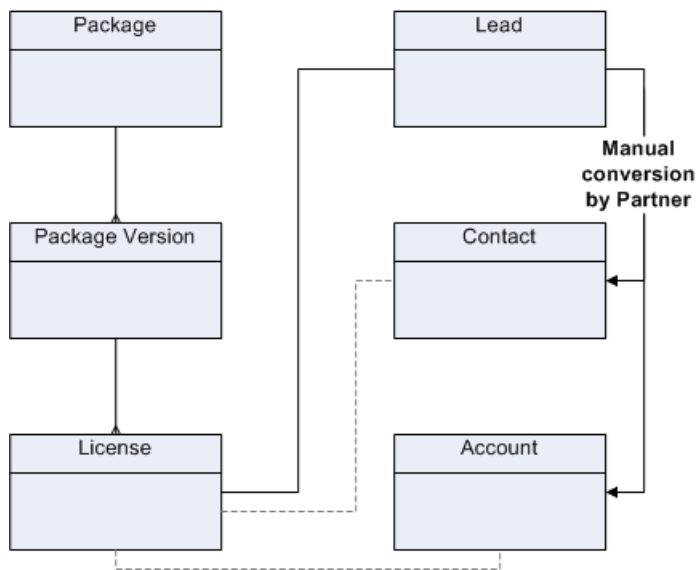
The license management process begins when someone installs an app from AppExchange. Salesforce.com automatically performs the following actions:

- Creates a license in the installer's organization. A copy of that license is stored in the Licenses tab of the LMA installed in your LMO.
- Updates the package version with the license information.
- Creates a lead with the installer's name, company, and email address. The lead source for installers is always Package Installation.

Use the LMA to manage licenses for managed packages. By modifying the license records, you can control how many users in the customer organization can access your package, and for how long.

## Entity Relationship Diagram

The LMA has three custom objects that directly and indirectly relate to standard Salesforce.com objects. See the entity relationship diagram below to understand how the custom objects relate to other objects.



- The package object is the root object for all information in the LMA.
- Each package can have multiple package versions. Package version has a master-detail relationship with the package object.
- Each package version can have multiple licenses. License has a lookup relationship with the package version object.
- Each license has a direct relationship with a single lead. License has a lookup relationship with the lead object.
- The lead can be manually converted into an account and contact. When that happens, the license record is automatically associated with the converted account and contact records. License has a lookup relationship with the account and contact objects.

## LMA Terminology

### Apps

A collection of Salesforce.com components such as tabs, reports, dashboards, Apex classes and triggers, etc., that addresses a specific business need. You store an app in a package to upload it to Force.com AppExchange.

### Developer

The developer of an app is the Salesforce.com user who created the app and its components. The developer of an app can be different than the [publisher](#) or they can be the same person.

**Installer**

The installer of an app is the person who installed the app from Force.com AppExchange into their Salesforce.com organization.

**Lead Manager**

The lead manager is the user responsible for following up on the leads that are automatically created when a managed package is installed. New leads are assigned to the license manager by default. The publisher (who owns the LMO) uses the lead manager to follow-up on customers who uninstall the managed packages.

**License**

An installation of a package by a Salesforce.com organization. Each license entry in the LMA represents an installation of a managed package.

**License Manager**

The license manager user is automatically created when an organization installs the LMA. A corresponding Package License Manager profile is also created. This user is the default owner for all packages managed using the LMA and all licenses created for those packages.

**License Management Organization (LMO)**

A license management organization is the Salesforce.com organization that you use to track all the Salesforce.com users who install your package. A license management organization must have the LMA installed. It automatically receives notification every time your package is installed or uninstalled so that you can easily notify users of upgrades. .

**Managed Package**

Managed packages are Force.com AppExchange packages that can be upgraded in the installer's organization. They differ from unmanaged packages in that some components are locked, allowing for the upgrade process. Unmanaged packages do not include locked components and can not be upgraded.

**Package**

The container for an app and its components. In the LMA, the term package refers only to managed packages. A package may contain zero, one, or many apps.

**Package License Manager**

The Package License Manager profile gives a single user, the license manager, full access to the LMA. You cannot edit this profile or assign it to any other users.

**Package Version**

A specific version of a managed package. A new version is created when the developer uploads the updated package from a developer organization.

**Publisher**

The publisher of an app is the Salesforce.com user or organization that published the app on Force.com AppExchange. After registering their app, publishers are required to register using their contact information.

## Installing the LMA

Before you install the LMA, you need to decide which organization is your License Management Organization (LMO). Because the LMA is an integral part of the sales, billing, and marketing of a managed package, putting the LMA in the wrong organization makes it difficult to manage licenses as a part of the sales and marketing process.

The LMA creates lead and license records when customers install a trial package. When they buy the package, those licenses are converted to paid licenses (either by site or based on a number of users). The LMA tracks who has installed a trial package, who is using it, how many licenses have been purchased, when it's up for renewal, etc. These are all important parts of the sales, billing, and marketing process ongoing in your production organization.

- If you already have a production Enterprise or Unlimited edition organization, that is the best choice for your LMO. If you don't have a production organization, we advise you to contact [salesforce.com](https://salesforce.com) and obtain one.
- If you have a Developer Edition organization that is being used to create a managed package, do *not* use this organization as your LMO. Ideally you should get an Enterprise edition organization, or you can sign up for another Developer Edition organization.
- If you install the LMA in a Developer Edition organization, use it only as your LMO and not for developing apps. While you can install the LMA in a Developer Edition organization, this is not advised.
- Once you begin to manage a package license out of a specific LMO, you can't move those licenses, leads, and other information to another organization.



**Caution:** Once you install the LMA, you cannot uninstall it. You must contact [Salesforce.com](https://Salesforce.com) Support if you want to uninstall the LMA.

To install the LMA:

1. Log into the organization you will use as your LMO.
2. In the drop-down menu in the upper right corner, choose **Add AppExchange Apps**.
3. In the search box, enter **LMA**.
4. Click License Management App.
5. Click **Get It Now**.
6. Follow the instructions and install the LMA in your production organization (not sandbox).

### See Also:

[Configuring the LMA](#)

## Configuring the LMA

User Permissions Needed	
To configure the LMA:	System Administrator Profile
To edit licenses and packages:	“Read” AND “Edit”
To view licenses, packages, and package versions:	“Read”

After installing the LMA, configure it as follows:

1. **Assign a Lead Manager.** It is critical that a user in your organization is the owner of all lead records created as a result of package installations.
2. Enable history tracking for the License object so that each time certain license fields change, the new values are captured, time stamped, and listed on the License History related list. This will enable you to track the upgrade history for an installer. We recommend that you also enable history tracking for the Package Version, Licensed Status, Licensed Seats, and Expiration Date fields. Additionally, enable the License History related list in the page layout.
3. Set the custom object permissions.
  - a. Licenses: most users in your organization do not need any permissions. Users who view licenses need the Read permission and users who modify license records need Read and Edit permissions.
  - b. Packages: only users who assign the lead manager need Edit permissions. Other users have either Read permissions or no permissions.
  - c. Package Versions: all users have Read permissions or no permissions, as there is no need to create, modify, or delete these records.



**Caution:** Users with the System Administrator Profile can create, modify, and delete records of all of these custom objects, as their profile includes the Modify All Data permission.

4. Set field-level security at the user profile level.
  - a. Licenses: settings depend on how you want to manage these fields for different users in your organization.
  - b. Packages: make all fields Read-Only. If you want users to edit the Lead Manager field, you can make this field editable.
  - c. Package Versions: make all fields Read-Only.
5. Assign the Read-Only License Layout to users in your organization that only need to view license records. Review the page layouts associated with license, package, and package version custom objects. You can create more page layouts to suit your organization's needs.
6. Disable standard buttons. The licenses, packages, and package versions managed in the LMA are different than most records in that they are created automatically by Force.com AppExchange. Additionally, licenses, packages, and package versions contain certain default values that should not be changed. For this reason, license, package, and package version records should not be modified or deleted. LMO users should simply view the licenses and associated lead, as well as view



what version the installer has downloaded. We recommend that you remove standard buttons from all page layouts that allow license managers to edit, delete, or clone LMA objects. To do this, make the following changes:

- Disable the **Edit**, **Delete**, and **Clone** buttons for the license and package version objects
- Disable the **Delete** and **Clone** buttons on the package object.
- Consider replacing the `Edit` button on the license object with a `Modify License` custom button, which would open a Visualforce page that provides a better user interface for editing license records.



**Note:** Do not disable the **Edit** button for the package object. You need to edit the package object to specify or change the lead manager. However, we recommend making all fields, with the exception of the `Lead Manager` field, read-only using field level security settings.

Though you can disable buttons using the page layout, you cannot remove all links and buttons that allow users to create new records, edit records, and delete records. Regardless, it is very important that users do not perform these actions. The LMA only supports licenses, packages, and package versions that were automatically created by AppExchange.

#### 7. Add related lists:

- Add the License History related list to the License page layout. License managers can use this list on the license detail page to view what versions of the package the installer has installed.
- Add the Licenses related list to the appropriate Lead page layouts. License managers can use this list on the lead detail page to view the licenses associated with a particular lead.
- Add the Licenses related list to the appropriate Account page layouts. Users can view this list and identify the licenses associated with a particular account.
- Add the Licenses related list to the appropriate Contact page layouts. Users can view this list and identify the licenses associated with a particular contact.

#### 8. Update the LMA documents in the Documentation tab as necessary for your organization.

## Associating a Package with Your LMO

To receive lead and license records from customer installs, you must associate your managed package with your [License Management Organization \(LMO\)](#), the Salesforce.com organization where the License Management App is installed.



**Caution:** Once you associate a package with an LMO, that package's leads and licenses must permanently be managed out of the LMO. You can't migrate licenses.

You can associate your managed package with your LMO on Force.com AppExchange.

1. Go to <http://www.appexchange.com>
2. Click the **Publishing** tab.
3. Enter the Developer Edition organization where you created the package.
4. Agree to the terms and conditions.
5. Fill in a brief profile; a name will suffice.
6. Click **Your Uploaded Packages** tab and find your package version.
7. Click the **Manage Licenses** link for the package version.
8. Click **Register**.
9. Specify the LMO by providing user credentials for that organization and specify the other default license parameters.
10. Click **Save**. It may take 30 minutes or longer for a package record to appear as associated with the LMO.



**Note:** All versions of a managed package are associated with the same LMO, therefore, the LMO is associated only once with the package. However, each version must be uploaded and registered to send lead and license records to your LMO.

## License Defaults

To set your default license for your managed package version, follow these steps:

1. To access the Default License Settings page, click **Manage Licenses** next to the managed package in the Publishing Home page.
2. If you have not associated this version of the package with an LMO and set the default license settings, the Register Your Uploaded Package page appears. You can click **Register** to register your uploaded package, or click **Cancel** to return to the Publishing tab. If a previous version of your package is associated with an LMO, when you register your uploaded package, the package is associated with the same LMO and the default license settings are initially set to the previous version's settings. You can override the default license settings, but you cannot change the LMO. If no previous version of your package has been associated with an LMO, you can select the LMO and set the default license settings.



**Note:** You must contact salesforce.com to change the LMO once one has been assigned. Log a case in the salesforce.com partner portal, or from your Developer Edition organization.

3. If no previous version of your package has been associated with an LMO, select an LMO. If a previous version has been associated with an LMO, that LMO displays.
4. Select whether your default license is a free trial or active. If your license is free, select active.

5. If you selected a free trial license, enter the length of the trial in number of whole days, up to 90. If you selected an active license, enter the license length in number of days. If your license is free or does not expire, select `License does not expire`.
6. Enter the number of seats associated with your default license, or select **License is site-wide** to offer the license to all users in the installer's organization.
7. Click **Save** to submit your changes. Click **Cancel** to return to the Publishing home page without saving your changes, including your LMO setting.

When a customer installs the package, these default values are used to set the `Status`, `Expiration Date`, and `Seats` fields on the license record in the LMA and in the installer's organization. If you want to update these values, you can modify this license record in the LMA.



**Note:** Default values are at the package version level, therefore, different versions of the same package may have different default values.

# LMA User Guide

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

User Permissions Needed	
To edit licenses and packages:	“Read” AND “Edit”
To view licenses, packages, and package versions:	“Read”

Use the License Management App (LMA) 2.1 to apply licensing to your managed package to control how many users in the installer's organization can access your package and for how long. Every time your package is installed, a lead record is created in the LMA. You can use this information to contact the prospect and try to convert the lead to a customer, or to tell them about updates to your applications.

## About Leads

When an installer installs a managed package, a lead is automatically created in the LMO. The lead contains the installer's name, company, and email address. The lead source defaults to `Package Installation`.

This information is important because it links the license to an actual Salesforce.com user that you can contact to notify about upgrades. If an installer uninstalls the package from his or her organization, a customer retention specialist for the developer's organization may want to contact the installer. Additionally, if there is an upgrade for a particular package, a license manager might want to mass email all installers with that package to let them know that an upgrade is available.

Each LMO should have a [lead manager](#) that is responsible for following up on all leads associated with licenses. When a new lead is created as a result of someone installing a package from Force.com AppExchange, the `Lead Owner` field on the lead record defaults to the [lead manager](#) specified for the package. If there is no lead manager specified for a package, the lead owner defaults to the `License Manager`.

## About Packages

Packages in the LMA refer to managed packages that have been uploaded to Force.com AppExchange. On AppExchange, these packages are referred to as apps, regardless of what components they contain. Each package has one or more package versions, for which there can be multiple licenses. A Developer Edition organization can only contain one managed package at a time, but an LMO can manage multiple packages from multiple developers.

Click the Packages tab to display all the packages that a user has recently viewed. To view all packages that the LMO manages, select `All` from the list view. You can click a package name to view details including release date, latest version, owner, and developer name.

## Package Details

From the Packages tab, click a package name to view package details. The package detail page contains information on the package, as well as relevant related lists. In the Package Version related list, you can see all the uploaded and registered package versions on Force.com AppExchange. The package version object has a master-detail relationship with package object.



**Important:** Do not edit, delete, clone, or create packages or package versions. Do not delete, clone, or create licenses. These records are automatically created and contain important information for tracking the licenses and packages in the License Management App. They cannot be repopulated.

Below are the attributes of a package:

Field	Description
Created By	Defaults to the license manager user.
Developer Name	The package developer's organization name.
Developer Org ID	The 18-character ID of the package developer's organization.
Last Modified By	The name of the user that last modified this record, as well as the date and time the record was updated.
Latest Version	The most recent uploaded and registered version of the package. The developer enters this information when uploading the package.
Lead Manager	The LMO user that automatically becomes the owner of the leads created as a result of package installation. <code>Lead Manager</code> is blank when the package record is created. If you don't assign a lead manager, the License Manager user becomes the owner of the leads.
Owner	Defaults to the license manager user. You can transfer ownership at any time to any user in the organization by clicking <b>Change</b> next to the current owner's name.
Package ID	The 18-character GUID (Globally Unique ID) that identifies the package.
Package Name	The name of the package, as specified by the developer.
Release Date	The date the developer uploaded this package to Force.com AppExchange.

## Editing Package Owners

User Permissions Needed	
To edit licenses and packages:	"Read" AND "Edit"

The package owner automatically defaults to the [License Manager](#) user. You can change the owner of a package at any time, provided you have the appropriate permissions..



**Note:** You can assign ownership to any user in your organization. Therefore, it is very important to ensure that the user to which you are transferring ownership has access to the LMA and the custom app, and has the appropriate user permissions.

To change the owner of a single package:

1. Click the Packages tab.
2. Select a package.
3. Click the **Change** link next to the owner.
4. Click the lookup icon and choose a new owner.
5. Optionally, check the **Send Notification Email** checkbox to email the current and new owners.
6. Click **Save**.

You can also transfer ownership for multiple packages to a single owner by viewing a specific package list view. To change the owner of more than one license:

1. Click the Packages tab.
2. Select a package list view.
3. Select the packages you want to change.
4. Click **Change Owner**.
5. Click the lookup icon and choose a new owner.
6. Optionally, check the **Send Notification Email** checkbox to email the current and new owners.
7. Click **Save**.

## Editing the Lead Manager for a Package

User Permissions Needed	
To edit licenses and packages:	“Read”
	AND
	“Edit”

When a new lead is created as a result of someone installing a package from Force.com AppExchange, the `Lead Owner` field on the lead record defaults to the `lead manager` specified for the package. If there is no lead manager specified for a package, the lead owner defaults to the `License Manager`.

To assign or change the lead manager for a package:

1. Select a package from the Packages tab.
2. Click **Edit**.
3. Click the lookup icon next to the `Lead Manager` field to search for a user.
4. Select a user.
5. Click **Save**.

## About Package Versions

Package versions are specific uploads of a package. A package version may contain updated or additional objects, representing an upgrade of a package. A package may also have a new version if the package was originally uploaded as “Managed - Beta” but has been changed to “Managed - Released.”

Licenses represent the package version a user has installed. All versions of a managed package are [associated with the same LMO](#). If you view the detail for a package version, you see a list of all licenses for installers that have installed that version.



**Note:** Do not edit, delete, clone, or create packages or package versions. Do not delete, clone, or create licenses. These records are automatically created and contain important information for tracking the licenses and packages in the License Management App. They cannot be repopulated.

## Package Version Details

You can access the package version detail page by clicking the package version name in the Licenses, Packages, or Package Versions tabs. In the Licenses related list, you can see all the licenses associated with this package version. The license object has a lookup relationship with package version object.



**Note:** Do not edit, delete, clone, or create packages or package versions. Do not delete, clone, or create licenses. These records are automatically created and contain important information for tracking the licenses and packages in the License Management App. They cannot be repopulated.

Below are the attributes of a package version:

Field	Description
Beta	An early version of a managed package that is uploaded to Force.com AppExchange for a sampling of your intended audience to test it.
Created By	Defaults to the license manager user.
Last Modified By	The name of the user that last modified this record, as well as the date and time the record was updated.
Package	The package for which this is a package version.
Package Version Name	The name of the package version, as specified by the developer during upload.
Release Date	The date this package version was uploaded to Force.com AppExchange by the developer.
Version	The version, as specified by the developer during upload to Force.com AppExchange.
Version ID	The 18-character ID of this package version.

## About Licenses

When an app is installed, Salesforce.com creates a license entry in the LMA. This license is directly related to the version of the package that the installer has installed. Click the Licenses tab to display all licenses that a user has recently viewed. To view all licenses for the packages that the LMO manages, select **All** from the drop-down list and click **Go!**



**Note:** Do not edit, delete, clone, or create packages or package versions. Do not delete, clone, or create licenses. These records are automatically created and contain important information for tracking the licenses and packages in the License Management App. They cannot be repopulated.

## License Details

From the License tab, you can click a license name to view details including status, package version, owner, and install date. Below are the attributes of a license.

Field	Description
Account	The account for a converted lead.
Contact	The contact for a converted lead.
Created By	Defaults to the license manager user.
Expiration Date	Displays the expiration date or <code>Does not expire</code> if the license does not expire. In versions 2.0 or higher, this value defaults to <code>Does not expire</code> .
Install Date	The date the package version was initially installed by the installer.
Last Modified By	The name of the user that last modified this record, as well as the date and time the record was updated.
Lead	The lead that the LMA automatically created when the app was installed. This lead represents the user who owns the license.  If the lead is converted into an opportunity, the lead name is retained but the lead record no longer exists. Therefore, if you click this link, a page displays indicating that the lead has been converted.
License Name	Represents an instance of a license. The license name is an auto-number that increments by one for each new license.
Licensed Seats	A formula field that displays the number of licenses or <code>Site License</code> . In versions 2.0 or higher, the value defaults to <code>Site License</code> .
License Status	Indicates the type of license. Available values are <code>Trial</code> , <code>Active</code> , <code>Suspended</code> , and <code>Uninstalled</code> .
License Type	Indicates whether the license is editable.
Owner	Defaults to the license manager user. You can transfer ownership at any time to any user in the organization by clicking <b>Change</b> next to the current owner's name.
Package Version	Links to the detail page for the package version that is the parent of this license.



Field	Description
Subscriber Org ID	A globally unique 15-character ID representing the installer's organization.
Used Licenses	<p>Displays the number of users in an organization who have a license to a package. (Read only)</p> <p>This field is blank if:</p> <ul style="list-style-type: none"> <li>A customer uninstalled the package</li> <li>Licensed Seats is set to <a href="#">Site License</a>. This is because all users in an organization implicitly have a license to the package when Licensed Seats is set to Site License.</li> </ul> <p>If you upgraded to version 2.1, you must add Used Licenses to the <a href="#">page layout</a>. Once your licenses are modified or created, the Used Licenses value is filled. To fill in the Used Licenses values to licenses created before upgrading to LMA 2.1, contact <a href="mailto:salesforce.com">salesforce.com</a> support.</p>

## Editing License Owners

User Permissions Needed	
To edit licenses and packages:	<p>“Read”</p> <p>AND</p> <p>“Edit”</p>

The license owner automatically defaults to the [License Manager](#) user. You can change the owner, provided you have the appropriate permissions. You can also transfer ownership for multiple licenses to a single owner by navigating to a specific license list view.



**Note:** You can assign ownership to any user in your organization. Therefore, it is very important to ensure that the user to which you are transferring ownership has access to the LMA and the custom app, and has the appropriate user permissions.

To change the owner of a license:

1. Click the Licenses tab.
2. Select a license.
3. Click the **Change** link next to the owner.
4. Click the lookup icon and choose a new owner.
5. Optionally, check the **Send Notification Email** checkbox to email the current and new owners.
6. Click **Save**.

To change the owner of more than one license:

1. Click the Licenses tab.
2. Select a license list view.

3. Select the licenses you want to change.
4. Click **Change Owner**.
5. Click the lookup icon and choose a new owner.
6. Optionally, check the **Send Notification Email** checkbox to email the current and new owners.
7. Click **Save**.

## Editing Licenses

User Permissions Needed	
To edit licenses and packages:	“Read”
	AND
	“Edit”

You can modify licenses for each installer. To modify a license:

1. Click the Licenses tab.
2. Select the appropriate license.
3. Click **Modify License**.




**Note:** If **Modify License** is not visible, check your page layout or contact your administrator.

4. Make the necessary changes to [editable fields](#).
5. Click **Save**.

## Editable License Fields

You can modify the following License fields.

Field	Description
Expiration	Enter the expiration date to identify the last day the installer can access the package under the license agreement, or check <b>Does not expire</b> if the license does not expire.
Seats	Enter a positive number to set the number of licenses or check <b>Site License</b> to make the package available to all users in the installer's organization. The value defaults to Site License.
Status	Use the drop-down list to set the license status. Available values are: <ul style="list-style-type: none"> <li>• <b>Trial:</b> In LMA 2.1, set to Trial to allow the installer to try out the package for up to 90 days. Once a trial license is converted to an active license, it cannot return to a trial license.</li> </ul>

Field	Description
	<ul style="list-style-type: none"><li>• <b>Active:</b> Set to Active to allow the installer to use your package according to your license agreement.</li><li>• <b>Suspended:</b> Set to Suspended to prohibit the installer from accessing the package. You may want to set a package to Suspended if a user fails to pay for the license.</li></ul> <p> <b>Note:</b> When the installer uninstalls the package, the status is set to Uninstalled. The license manager cannot set or change this status. Once the package is uninstalled the license becomes read only and is no longer editable. In LMA 2.1, the allowed status changes are:</p> <ul style="list-style-type: none"><li>• Trial to Active</li><li>• Active to Suspended</li><li>• Suspended to Active</li></ul>

# Best Practices

## Avoid mandatory fields

Do not create mandatory custom fields on lead, license, package and package version objects.

## Avoid before-create triggers and validation rules

Don't define `before-create` triggers or validation rules on lead, license, package, or package version objects.

## Make sure the lead user is a valid, active user

If that user leaves the company or is otherwise inactive it will block the lead and license creation.

## Track licenses

Create a lead list view filter for leads created by installed packages.

Set up [history tracking](#) for license fields.

## Send license expiration notifications

Create a workflow rule that automatically emails the sales representative or account manager before the license expires. To do this, create an email template for the notification. Then, create a workflow rule with a filter that specifies a time period (for example, month) before the `Expiration` date. Finally, associate the workflow rule with a workflow alert that sends an email to the appropriate team member or sales representative. You should configure the rule so that your sales representative and the customer have sufficient time to explore contract renewal options before the license expires. It is also a good idea to send emails to customers warning them of license expiration.

## Send upgrade notifications

Create an email template for notifying customers that an upgrade is available. The Leads tab in the LMA has a list of all customers.

## Use the API to find licensed users

You can use the `isCurrentUserLicensed` method to determine if a user has a license to a managed package. For more information, see the *Apex Developer's Guide*.

## Retain customers

If a customer uninstalls a package, the status of the license in the LMO changes to Uninstalled. Create a workflow rule that automatically emails a customer service representative when the package is no longer installed in that organization. To do this, create an email template for the notification. Then, create a workflow rule with a filter that specifies that the `License Status` equals "Uninstalled". Finally, associate the workflow rule with a workflow alert that sends an email to the appropriate team member or customer retention specialist.



**Caution:** Do not create workflow rules, triggers, or validation rules that require custom fields on the license or lead objects. Do not impose any conditions on updating or creating license or lead records. Doing so will block creation of the license or lead records by the LMA, resulting in the loss of data concerning the packages installed by your customers.

## See Also:

[Troubleshooting](#)

[Frequently Asked Questions](#)

## Frequently Asked Questions

### **Why aren't Lead and License records being created in my LMO?**

Your LMO hasn't been associated with your package, your package version hasn't been registered, there may be mandatory custom fields in lead, license, package, and package version custom objects, or `before_` triggers are preventing lead creation. For more information, see [Troubleshooting](#) on page 20.

### **Why can't I see the Modify License button?**

Ensure that you installed License Management App version 2.1 or higher.

### **A customer installed my package before I associated it with my LMO. How can I manage the license record?**

Ask the customer to install your package once again without uninstalling it.

### **How do I change my License Management Organization?**

Contact Salesforce.com Support. Note that license records in the current LMO do not move to the new LMO. They stay with the original LMO.

### **What happens when I decrease the number of licenses below the current number of licensed users?**

All users still have access until a system administrator in the installer's organization revokes the extra licenses.

### **See Also:**

[Troubleshooting](#)

# Troubleshooting

## Leads and licenses are not being created

When a subscriber installs my package, leads or licenses are not being created in the LMO. Usually this is caused by a misconfiguration of the organization where the LMA is installed. Here is a list of things to check:

### Did the subscriber really install the package?

AppExchange counts the installation when the user clicks "Get it now", but the installation may fail or be cancelled and the license won't be delivered unless the installation was completed.

### Is there a trigger on the lead or license object in the LMO?

There should never be a `before_create` or `before_update` trigger on a lead or license in the LMO. Try using `after_` triggers instead. Or try removing the trigger; if the trigger fails for some reason, it can block license creation.

### Is there a required custom field on the lead or license record?

If so remove the requirement; the LMA doesn't populate that required field, so it can block license or lead creation.

### Is the LMO Lead Manager user a valid, active user?

The Lead Manager (the owner of lead records) must be a valid, active user, if not, it will block license or lead creation.

### Is there a validation rule on the lead or license record?

Often these will block creation of the LMA lead or license records because that required field is not there.

### Is there a workflow rule on lead or licenses?

These might be preventing creation of the license. Try removing the workflow rule.

### Was the lead converted to an account?

When leads are converted to accounts, they are no longer leads.



**Note:** Licenses that were not delivered to an LMO will usually be re-delivered after a few days if the issue is solved in the above steps.

## A proxy user has deactivated

If a "proxy user has deactivated" message appears when editing a license in the LMO, a subscriber organization may be locked, deleted, or otherwise disabled. Check the following:

### Verify the organization is active

Check with the organization administrator to see if the organization is active or deleted. If the organization is deleted, delete the corresponding license record.

**Verify the package is installed**

Check with the organization administrator to see if the package is still installed. If the organization is locked or the package no longer installed, the license may not be updated. Have the subscriber reinstall the package.

**See Also:**

[Frequently Asked Questions](#)

# Index

## B

Best practices 18

## C

Configuration 6

## D

Defaults  
    setting 8

## E

Editions 5  
Editions supported 2  
Entity Relationships 3

## F

Frequently Asked Questions 19

## I

Installation 5

## L

Leads 10  
    editing lead manager 12  
License Management  
    overview 2

License Management App  
    terminology 3  
    use 10

License Management Organization  
    associating a managed package 8

License Owner  
    editing 15

Licenses 14  
    details 14  
    editable fields 16  
    editing 16  
    editing owner 15

## O

Overview 2

## P

Package  
    LMO association 8

Package Versions 13  
    details 13

Packages 10  
    details 11  
    editing lead manager 12  
    editing owner 11  
    versions 13

Permissions needed 2

## T

Terminology  
    License Management App 3  
Troubleshooting 20