



## CHAPTER 42

# Managing Licenses in Cisco Unity Connection 8.x

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**Revised January 7, 2013**

See the following sections:

- [About License Files in Cisco Unity Connection 8.x](#), page 42-1
- [Obtaining and Installing a License File in Cisco Unity Connection 8.x](#), page 42-5
- [Viewing Reports for Licenses in Cisco Unity Connection 8.x](#), page 42-8
- [License Parameters for Cisco Unity Connection 8.x Features](#), page 42-9

## About License Files in Cisco Unity Connection 8.x

See the following sections:

- [License Files and MAC Addresses](#), page 42-1
- [Cisco Unity Connection Can Use Multiple Installed License Files](#), page 42-3
- [License Files Must Be Installed](#), page 42-4
- [Permanent, Time-Expiring, and Demonstration License Files](#), page 42-4
- [License Files and Cisco Unity Connection Clusters](#), page 42-4
- [License Files and Migrations from Cisco Unity](#), page 42-4
- [License Violations](#), page 42-5

## License Files and MAC Addresses

**Revised April 08, 2013**

See the applicable section:

- [License Files and MAC Addresses for Cisco Unity Connection Physical Servers](#), page 42-2
- [License Files and License MACs for Cisco Unity Connection Virtual Machines](#), page 42-2

## License Files and MAC Addresses for Cisco Unity Connection Physical Servers

Each license file for a physical Cisco Unity Connection server (except for the demonstration license file) is registered to the MAC address of the network interface card (NIC) on the Connection server. The license file for one server cannot be used on a second server (for example, because you want to replace the Connection server). You must obtain a replacement license file that is registered to the MAC address on the second server.

The license file can be registered to only one MAC address. If the Connection server has a dual NIC, you must either configure it for network fault tolerance, which assigns one MAC address to both NICs, or disable one of the NICs and use the MAC address for the other NIC.

When you order a license file for a dual NIC that has been configured for network fault tolerance, specify the virtual MAC address that applies to both NICs rather than the physical MAC address for either of the NICs. The license file is registered to the virtual MAC address, so the license will continue to be valid even if one of the NICs fails.

## License Files and License MACs for Cisco Unity Connection Virtual Machines

### Revised January 7, 2013

This text refers to the “license MAC” instead of to the “MAC address” because, as Clemens pointed out, the **show status** CLI command displays “License MAC,” not “MAC Address.” He’s concerned that referring to the value as a “MAC address” could be confusing for customers. SK, 4/2/10.

Each license file for a Cisco Unity Connection virtual machine (except for the demonstration license file) is registered to a license MAC value. This value is calculated to look like a MAC address based on the settings listed in [Table 42-1](#), but it is not a real MAC address.

If you change any of these settings, the existing licenses become invalid, and you must obtain replacement license files that are registered to the calculated license MAC value that is based on the new settings. The old licenses continue to work for a 30-day grace period. During the grace period, you can change the settings back to the original values to make your original licenses valid again. If you need more than 30 days of grace period, change your settings to the original values, then change them back to the new values that you want to use, and you will get another 30-day grace period.

If you do not reset the 30-day grace period by changing settings back to the original values, then Connection stops running. If you restart the server, Connection starts running again but stops after 24 hours. Each time you restart the server, Connection runs for another 24 hours until you either change the settings back to the original values or you install licenses based on the new license MAC value.

To display the license MAC on a Connection virtual machine, run the **show status** CLI command.

**Table 42-1** Settings Included in the License MAC, and Operations That Require a New License File

Setting	Operations That Change the Setting and Require a New License File
Time zone	Running the <b>set timezone</b> CLI command.
NTP server 1	In Cisco Unified Operating System Administration, navigating to the Settings > NTP Servers page and changing which server is the first server on the list.
NIC speed	Running the <b>set network nic eth0</b> CLI command with either the <b>auto</b> parameter (to enable or disable auto negotiation) or the <b>speed</b> parameter (to specify whether the speed of the Ethernet connection is 10 or 100 Mb/s).

**Table 42-1** Settings Included in the License MAC, and Operations That Require a New License File (continued)

Setting	Operations That Change the Setting and Require a New License File
Hostname	<p>Using the process documented in the “<a href="#">Renaming Cisco Unity Connection 8.x Servers</a>” chapter of the <i>Reconfiguration and Upgrade Guide for Cisco Unity Connection Release 8.x</i>, at <a href="http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/upgrade/guide/8xcucrux.html">http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/upgrade/guide/8xcucrux.html</a>.</p> <p> <b>Caution</b> If you change the hostname without following the documented process, Connection will stop functioning.</p>
IP address	<ul style="list-style-type: none"> <li>Using the <b>set network dhcp</b> CLI command to enable or disable DHCP.</li> <li>Using the process documented in the “<a href="#">Changing the IP Addresses of Cisco Unity Connection 8.x Servers</a>” chapter of the <i>Reconfiguration and Upgrade Guide for Cisco Unity Connection Release 8.x</i>, at <a href="http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/upgrade/guide/8xcucrux.html">http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/upgrade/guide/8xcucrux.html</a>.</li> </ul> <p> <b>Caution</b> If you change the IP address, IP mask, or gateway address without following the documented process, Connection will stop functioning.</p>
IP mask	
Gateway address	
Primary DNS	Running the <b>set network dns primary</b> CLI command.
SMTP server	<ul style="list-style-type: none"> <li>Running the <b>set SMTP</b> CLI command and adding, changing, or deleting the hostname of the SMTP server.</li> <li>In Cisco Unified Communications Operating System, navigating to the Settings &gt; SMTP page and adding, changing, or deleting the value of the Hostname or IP Address field.</li> </ul>
Certificate information (Organization, Unit, Location, State, Country)	Running the <b>set web-security</b> CLI command.

**Caution**

Changing any of the above settings on the publisher or subscriber server, invalidates the software license on the server and you must then re-host the license.

## Cisco Unity Connection Can Use Multiple Installed License Files

Multiple license files can be installed on a Cisco Unity Connection server. Each installed license file may enable one or more features. All of the installed license files combined enable the features that the customer wants.

Before a license file can be installed, it must be added to the Licenses page in Cisco Unity Connection Administration.

Note that if the Connection demonstration license is installed on the Connection server, it must be the only license file that is installed, even though you may have added other license files.

## License Files Must Be Installed

For license files to become effective, they must be installed after they are added to the Licenses page. For details on installing license files, see the [“To Install the License Files” procedure on page 42-7](#).

## Permanent, Time-Expiring, and Demonstration License Files

### Revised April 2010

The following types of license files are available:

- Permanent license files are registered either to the MAC address of the network interface card (NIC) on a Cisco Unity Connection physical server or to a license MAC value on a Connection virtual machine. These license files do not have an expiration date.
- Time-expiring license files are registered to the MAC address of the NIC on the Connection server. These license files have an expiration date. All of the features that are enabled by a time-expiring license file will be disabled after the expiration date.
- Demonstration license files are not registered to a MAC address. These license files do not have an expiration date and enable only a limited range of features (for example, a maximum of two voice messaging ports and ten users with voice mailboxes). A demonstration license file is included with every Connection server. If this license file is installed, it must be the only license file that is installed on the Connection server.

For information on obtaining and installing license files, see the [“Obtaining and Installing a License File in Cisco Unity Connection 8.x” section on page 42-5](#).

## License Files and Cisco Unity Connection Clusters

### Revised April 2010

When a Cisco Unity Connection cluster (high availability) is configured, two licenses are required because licenses are not replicated. The license that has the MAC address or license MAC of the publisher server must be installed on the publisher server. The license that has the MAC address or license MAC of the subscriber server must be installed on the subscriber server. For details on installing license files, see the [“To Install the License Files” procedure on page 42-7](#).



#### Note

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Either or both Connection servers in a cluster can be installed on virtual machines.

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The license on each server includes the parameter that sets the maximum number of voice messaging ports for that server. The license on only one server (typically the publisher server) includes all other applicable parameters (such as the maximum number of voice messaging users and voice message recordings longer than 30 seconds), which are enabled on both servers in the Connection cluster.

## License Files and Migrations from Cisco Unity

### Revised April 2010

Cisco Unity Connection can use Cisco Unity license files to enable Cisco Unity Connection features when migrating from Cisco Unity 4.x or later to Cisco Unity Connection.

Note that the Cisco Unity license files must have the MAC address of the server on which Cisco Unity Connection is installed or the license MAC of the virtual machine:

- If Connection is installed on the same server on which Cisco Unity was installed, you can install the Cisco Unity license files.
- If Connection is installed on a different server from which Cisco Unity was installed, you must have the Cisco Unity license files reissued with the MAC address of the new server.
- If Connection is installed on a virtual machine, you must have the Cisco Unity license files reissued with the license MAC of the virtual machine.

As shown in [Table 42-2](#), Cisco Unity licenses that enable any of the following features will be used for the corresponding Connection features when migrating from Cisco Unity.

**Table 42-2** Corresponding Licensed Features for Migrations from Cisco Unity

Cisco Unity Licensed Feature	Corresponding Cisco Unity Connection Licensed Feature
Subscribers	Users
Voice messaging ports	Voice messaging ports
Cisco Unity failover	Cisco Unity Connection cluster

For instructions on migrating from Cisco Unity 4.x or later to Cisco Unity Connection, see the “[Migrating from Cisco Unity 4.x or Later to Cisco Unity Connection 8.x](#)” chapter of the *Reconfiguration and Upgrade Guide for Cisco Unity Connection Release 8.x*, at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/upgrade/guide/8xcucrugx.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/upgrade/guide/8xcucrugx.html).

## License Violations

### Added April 2010

When a Cisco Unity Connection feature stops working, when Connection Administration displays an alert concerning a license violation, or when Connection stops functioning every 24 hours, one possible cause is a license violation. For information on troubleshooting license violations, see the “[Troubleshooting Licensing in Cisco Unity Connection 8.x](#)” chapter of the *Troubleshooting Guide for Cisco Unity Connection Release 8.x* at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/8x/troubleshooting/guide/8xcuctsgx.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/8x/troubleshooting/guide/8xcuctsgx.html).

## Obtaining and Installing a License File in Cisco Unity Connection 8.x

### Revised August 2011

License files, which enable the features purchased by the customer, are required for configuring a new Cisco Unity Connection system and for adding or changing licensed features. You obtain the license files by completing registration information on Cisco.com.



#### Note

When a Cisco Unity Connection cluster (high availability) is configured, two licenses are required. The license that has the MAC address or license MAC of the publisher server must be installed on the publisher server. The license that has the MAC address or license MAC of the subscriber server must be installed on the subscriber server.

Shortly after registration, Cisco emails the license files. The email from Cisco contains instructions on how to save and store the files.

The following information is required during registration:

- The MAC address (physical address) for the network interface card (NIC) in the Cisco Unity Connection physical server or the license MAC value calculated for a Connection virtual machine.
- The product authorization key (PAK), which appears on the sticker located on the back of the Cisco Unity Connection Application Software Media kit.

This section contains four procedures. Do one of the following two procedures:

- [To Get the MAC Address of a Cisco Unity Connection Physical Server, page 42-6](#)—Do this procedure if you are obtaining and installing license files for a physical server.
- [To Get the License MAC of a Cisco Unity Connection Virtual Machine, page 42-6](#)—Do this procedure if you are obtaining and installing license files for a virtual machine.

Then do the remaining two procedures in the order listed. For a Cisco Unity Connection cluster, you must do the procedures on each Connection server in the cluster.

- [To Register and Obtain the License Files, page 42-6](#)
- [To Install the License Files, page 42-7](#)

#### To Get the MAC Address of a Cisco Unity Connection Physical Server

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- Step 1** Sign in to Cisco Unified Communications Operating System Administration.
- Step 2** On the Show menu, select **Network**.
- Step 3** Write down the value for the MAC Address, excluding the hyphens (for example, if the physical address is 00-a1-b2-c3-d4-e5, record 00a1b2c3d4e5), or save it to a file that you can access during online registration.
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#### To Get the License MAC of a Cisco Unity Connection Virtual Machine

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- Step 1** On the Connection virtual machine, run the CLI command **show status**.  
The command will return a value like this:  
**License MAC : 78acc1573f20**
- Step 2** Write down the value for the license MAC, or save it to a file that you can access during online registration.
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#### To Register and Obtain the License Files

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- Step 1** Go to the software registration site at <http://www.cisco.com/go/license> (URLs are case sensitive; you may be required to sign in).
- Step 2** Enter the PAK and select **Submit**.
- Step 3** Follow the on-screen prompts.

**Step 4** You will receive an email with the Cisco Unity Connection license file.

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#### To Install the License Files

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**Step 1** If Cisco Unity Connection is not configured for a cluster, in Cisco Unity Connection Administration, expand **System Settings**, then select **Licenses**.

If a Connection cluster is configured, on the publisher server, in Cisco Unity Connection Administration, expand **System Settings**, then select **Licenses**.

**Step 2** On the Search License page, select **Add New**.

**Step 3** On the Add New License page, select **Browse**, and locate the new license file.

**Step 4** If Connection is not configured for a cluster, in the Choose File dialog box, double-click the name of the license file.

If a Connection cluster is configured, in the Choose File dialog box, double-click the name of the license file that has the MAC address of the publisher server.



**Caution** If you rename the license file, the filename can contain alphanumeric characters, hyphens, and underscores, but must start with an alphabetic character. Otherwise, the license file cannot be installed.

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**Step 5** On the Add New License page, select **Add**.

**Step 6** If you have more than one new license file, repeat [Step 2](#) through [Step 5](#) until you have added all of the new license files.

**Step 7** On the Licenses page, check the check boxes for the license files that you added in [Step 2](#) through [Step 5](#).

**Step 8** Select **Install Selected**.

**Step 9** If Connection is not configured for a cluster, skip the remaining steps.

If you are adding licensed features to a Connection cluster that is already installed and in use, skip the remaining steps.

If you are installing a new Connection cluster, on the subscriber server, in Cisco Unity Connection Administration, expand **System Settings**, then select **Licenses**.

**Step 10** On the Search License page, select **Add New**.

**Step 11** On the Add New License page, select **Browse**, and locate the new license file.

**Step 12** In the Choose File dialog box, double-click the name of the license file that has the MAC address of the subscriber server.



**Caution** If you rename the license file, the filename can contain alphanumeric characters, hyphens, and underscores, but must start with an alphabetic character. Otherwise, the license file cannot be installed.

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**Step 13** On the Add New License page, select **Add**.

**Step 14** If you have more than one new license file, repeat [Step 10](#) through [Step 13](#) until you have added all of the new license files.

**Step 15** On the Licenses page, check the check boxes for the license files that you added in [Step 10](#) through [Step 13](#).

**Step 16** Select **Install Selected**.



**Note** Beginning with Cisco Unity Connection 8.6(2), license filenames will be case insensitive and will be saved only in lower case letters.

## Viewing Reports for Licenses in Cisco Unity Connection 8.x

Cisco Unity Connection can display the following information about Connection licenses:

- **License Usage**—Shows the status of licensed features for the Connection server. For features that are licensed for a number of seats, the report displays the number of used and unused seats. See the [“Viewing the License Usage”](#) section on page 42-8.
- **License Expirations**—Shows the expiration dates, if any, for licensed features for the Connection server. A list of installed and uninstalled license files also appears on the report. See the [“Viewing the License Expirations”](#) section on page 42-8.

### Viewing the License Usage

Do the following procedure to view the license usage for the Cisco Unity Connection server.

#### To View the License Usage for Cisco Unity Connection

**Step 1** In Cisco Unity Connection Administration, expand **System Settings**, then select **Licenses**.

**Step 2** On the Licenses page, under License Count, the license usage for the Connection server appears.

### Viewing the License Expirations

Do the following procedure to view the license expirations for the Cisco Unity Connection server.

#### To View the License Expirations for Cisco Unity Connection

**Step 1** In Cisco Unity Connection Administration, expand **System Settings**, then select **Licenses**.

**Step 2** On the Licenses page, in the Status area, license expirations for the Connection server appear.

# License Parameters for Cisco Unity Connection 8.x Features

Revised November 16, 2010

Table 42-3 lists the license parameters that are used by license files and the Cisco Unity Connection features that the license parameters enable.

**Table 42-3** License Parameters for Cisco Unity Connection Features

License Parameter	Feature	Description
LicAdvancedUserMax	TTS and ASR (advanced) users	Sets the maximum number of users who can use voice recognition.
LicIMAPSubscribersMax	Users with IMAP access to voice messages or with single inbox ( <i>single inbox available in Connection 8.5 and later only</i> )	<p>Sets the maximum number of users who can use:</p> <ul style="list-style-type: none"> <li>• A third-party IMAP client to access voice messages.</li> <li>• The unified messaging feature “Synchronize Connection and Exchange Mailboxes (Single Inbox)” on the Unified Messaging &gt; Unified Messaging Services page and on the Users &gt; Users &gt; Unified Messaging Accounts page.</li> </ul> <p>For single inbox, the total number of users in classes of service for which single inbox is enabled must not exceed the licensed maximum. This applies regardless of the number of users in those classes of service who are configured to use single inbox. In addition, all users who are configured for single inbox must be in a class of service for which single inbox is enabled.</p>
LicMaxMsgRecLenIsLicensed	Voice message recordings longer than 30 seconds allowed	<p>Depending on whether the parameter is present in any of the installed license files, determines the maximum length of recorded messages:</p> <ul style="list-style-type: none"> <li>• If the parameter is not present in any of the installed license files (the License Usage report shows a value of “No”), the maximum message length is 30 seconds regardless of the settings in Cisco Unity Connection Administration.</li> <li>• If the parameter is present in any of the installed license files (the License Usage report shows a value of “Yes”), the maximum length for all messages is restricted by the Maximum Recording Time in Milliseconds field on the System Settings &gt; Advanced &gt; Telephony &gt; Telephony Configuration page.</li> </ul> <p>The following settings further restrict the maximum length depending on the origin of the call:</p> <ul style="list-style-type: none"> <li>– Message length from other users is restricted by the Message Length—Maximum Length field on the Class of Service &gt; Class of Service &gt; Edit Class of Service page.</li> <li>– Message length from unidentified callers is restricted by the Maximum Message Length field on the Users &gt; Users &gt; Edit Message Settings page.</li> </ul>
LicRealspeakSessionsMax	Text to Speech sessions	Sets the maximum number of simultaneous Text to Speech (TTS) sessions allowed on the Cisco Unity Connection server.
LicServerBackend	( <i>not used</i> )	This parameter may be present in a license file but does not affect the Cisco Unity Connection server.

Table 42-3 License Parameters for Cisco Unity Connection Features (continued)

License Parameter	Feature	Description
LicServerVoiceRec	(not used)	This parameter may be present in a license file but does not affect the Cisco Unity Connection server.
LicSubscribersMax	Users with voice mailboxes	Sets the maximum number of voice messaging users allowed in Cisco Unity Connection.
LicUCxnUpgrades	License files from previous releases allowed	Depending on whether the parameter is present in any of the installed license files, determines whether Cisco Unity Connection will use license files from an earlier version of Connection: <ul style="list-style-type: none"> <li>• If the parameter is not present in any of the installed license files (the License Usage report shows a value of “No”), license files from an earlier version of Connection cannot be used.</li> <li>• If the parameter is present in any of the installed license files (the License Usage report shows a value of “Yes”), license files from an earlier version of Connection can be used.</li> </ul>
LicUnityVoiceRecSessionsMax	Voice recognition sessions	Sets the maximum number of simultaneous voice recognition sessions (or ports) allowed on the Cisco Unity Connection server.
LicVMISubscribersMax	Connection Web Inbox (Connection 8.5 and later) or Messaging Inbox (Connection 8.0) users	Sets the maximum number of users who can be enabled to access the Connection Web Inbox (Connection 8.5 and later) or Messaging Inbox (Connection 8.0). There is no restriction on the number of users who can access the Web Inbox or Messaging Inbox at one time.
LicVoicePortsMax	Voice ports	Sets the maximum number of Cisco Unity Connection voice messaging ports that can be installed on the Connection server.
LicVPIMIsLicensed	VPIM Networking delivery locations allowed	Depending on whether the parameter is present in any of the installed license files, determines whether VPIM Networking is allowed: <ul style="list-style-type: none"> <li>• If the parameter is not present in any of the installed license files (the License Usage report shows a value of “No”), VPIM Networking is not allowed.</li> <li>• If the parameter is present in any of the installed license files (the License Usage report shows a value of “Yes”), VPIM Networking is allowed.</li> </ul>