



## Class of Service Settings

### Overview: Class of Service Settings

A class of service (COS) defines limits and permissions for using Cisco Unity. For example, a COS:

- Controls access to the Cisco Unity Administrator and to features, such as text-to-speech e-mail or live reply.
- Controls how subscribers interact with Cisco Unity. For example, a COS dictates the maximum length of subscriber messages and greetings, whether subscribers can choose to be listed in directory assistance, and whether subscribers can send messages to a public distribution list.
- Specifies the restriction table used to control the phone numbers subscribers can use for fax delivery, message notification, call transfer, and other tasks.

A COS is specified in each subscriber template; thus, a subscriber is assigned to the COS which is specified in the template upon which the subscriber account is based.

### Predefined Classes of Service

Cisco Unity includes the following predefined classes of service, which you can modify but not delete.

<b>{Default Subscriber}</b>	Contains settings that are applicable to subscribers. By default, this COS is associated with the {Default Subscriber} template.
<b>{Default Administrator}</b>	Contains settings that are applicable to Cisco Unity administrators. By default, this COS has all the settings checked on the Subscribers > Class of Service > System Access Page.

See the following sections in this chapter for more information:

- [How a Class of Service Works, page 12-2](#)—This section explains how classes of service work.
- [Creating and Modifying Classes of Service, page 12-2](#)—This section contains procedures for creating and modifying classes of service, and for assigning and reassigning subscribers to a class of service.
- [Class of Service Profile Settings, page 12-4](#)—This section provides information about the settings on the Profile page.
- [Class of Service Subscriber Settings, page 12-4](#)—This section provides information about the settings on the Subscribers page.

- [Class of Service System Access Settings, page 12-5](#)—This section provides information about the settings on the System Access page.
- [Class of Service Call Transfer Settings, page 12-8](#)—This section provides information about the settings on the Call Transfer page.
- [Class of Service Messages Settings, page 12-9](#)—This section provides information about the settings on the Messages page.
- [Class of Service Greetings Settings, page 12-9](#)—This section provides information about the settings on the Greetings page.
- [Class of Service Features Settings, page 12-10](#)—This section provides information about the settings on the Features page.
- [Class of Service Restriction Table Settings, page 12-11](#)—This section provides information about the settings on the Restriction Tables page.

## How a Class of Service Works

A COS is specified in each subscriber template, and controls what subscribers can do in Cisco Unity. This means that when a subscriber wants to update call transfer settings, for example, the COS that is associated with the subscriber's account determines whether the subscriber can make the desired change. This is true whether the subscriber is logged onto Cisco Unity by phone, or is using the Cisco Unity Assistant.

On the other hand, when an administrator uses the Cisco Unity Administrator to change settings for the subscriber, Cisco Unity does not consider the limitations set by the subscriber COS. Instead, Cisco Unity considers the limitations set by the administrator COS before permitting the change. This allows an administrator, when necessary, to override the limitations of the COS of a particular subscriber.

## Creating and Modifying Classes of Service

You can modify the predefined classes of service, and you can create new ones by using the following procedures. Changes to the settings in a COS affect not only new members, but also existing members of the COS. COS settings cannot be changed in individual subscriber Cisco Unity accounts; however, a subscriber can be reassigned to a different COS at any time.

When a COS includes access to a feature that requires individual licenses, you can assign groups of subscribers to the COS only if enough licenses are available.

Note that you cannot delete a COS that has subscribers assigned to it without first reassigning the subscribers to another COS. To do so, see the last procedure in this section, [To assign or reassign subscribers to a class of service, page 12-3](#).



### Caution

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If you do not have at least one Windows domain account with membership in a COS that offers access to the Cisco Unity Administrator, you may lose the ability to administer Cisco Unity, and be required to reinstall. As a best practice, make sure that at least one account is associated with a subscriber account assigned to the Default Administrator COS.

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**To create a new class of service**

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- Step 1** In the Cisco Unity Administrator, go to any **Subscribers > Class of Service** page.
- Step 2** Click the **Add** icon.
- Step 3** In the Add a Class of Service dialog box, enter information as appropriate in the Name field.
- Step 4** Select **New Class of Service** or **Based on Existing Class of Service**. If you select Based on Existing Class of Service, select the appropriate class of service in the Based On field.
- Step 5** Click the **Add** button.
- Step 6** Enter settings for your new class of service, and then click the **Save** icon.
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**To modify a class of service**

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- Step 1** In the Cisco Unity Administrator, go to any **Subscribers > Class of Service** page.
- Step 2** Click the **Find** icon.
- Step 3** Double-click the COS that you want to modify.
- Step 4** Change settings as appropriate, and then click the **Save** icon.
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**To assign or reassign subscribers to a class of service**

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- Step 1** In the Cisco Unity Administrator, go to any **Subscribers > Class of Service** page.
- Step 2** Click the **Find** icon.
- Step 3** Double-click the name of the class of service to which subscribers are currently assigned.
- Step 4** Go to the **Subscribers > Class of Service > Subscribers** page.
- Step 5** Click **Assign** or **Reassign**, as appropriate.
- Step 6** Enter the name of a subscriber. You also can enter \* for a list of all subscribers, or enter one or more characters followed by \* to narrow your search.



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**Note** When you perform wildcard (\*) searches, Cisco Unity may take several minutes to display results in the Cisco Unity Administrator. This is particularly true if your site has a large number of subscribers (approximately 1000 users or more) and/or dozens of servers. For this reason, it is important that you narrow the scope of wildcard searches.

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- Step 7** Click **Find**.
- Step 8** From the list provided, select the names of the subscribers to be assigned or reassigned. To select more than one name, hold down the Ctrl or Shift key.
- Step 9** Perform one of the following actions, as appropriate:
- Click the **Assign** button.
  - Select the appropriate class of service, and then click the **Reassign** button.
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## Class of Service Profile Settings

Class of service profile settings specify whether subscribers can record their own voice names and change their directory listing status. You can also indicate whether subscribers assigned to a class of service use regular or enhanced phone security. For details on setting up enhanced phone security, see the “[Enhanced Phone Security](#)” chapter.

Use the following table to learn more about COS profile settings.

**Table 12-1** *Subscribers > Class of Service > Profile Page*

Field	Considerations
Name	<i>Display only.</i> This setting shows the name of the COS.
Subscribers Can Record Their Own Voice Name	Uncheck the box to prevent subscribers assigned to this COS from recording their own names (for example, if your organization has all names and greetings recorded in one voice).
Maximum Recorded Name Length in Seconds	Indicate the number of seconds after which Cisco Unity stops recording the name of a subscriber assigned to this COS.
Listing Subscribers in the Phone Directory	Indicate whether subscribers assigned to this COS can choose to be listed in directory assistance.  Directory assistance is the audio listing that subscribers and unidentified callers use to reach subscribers and to leave messages.
Phone Security	Indicate whether subscribers assigned to this COS use regular or enhanced phone security. Regular security requires subscribers to use passwords when logging on to Cisco Unity. Enhanced security adds RSA two-factor user authentication to regular security.  Note that this field is available only when RSA Two Factor is checked on the System > Configuration > Settings page.

## Class of Service Subscriber Settings

Class of service subscriber settings allow you to:

- View the total number of subscribers assigned to a COS.
- View a list of subscribers assigned to a COS.
- Reassign one or more subscribers to another COS.
- Assign one or more subscribers to the COS.

The number of subscribers assigned to a COS can be important if the members are given rights to a licensed feature. To confirm that the number of subscribers does not exceed the number of licenses, see the System > Licensing > License Counts page.

Use the following table to learn more about COS subscriber settings.

**Table 12-2** *Subscribers > Class of Service > Subscribers Page*

Field	Considerations
Total Subscribers Assigned to <Name of COS>	Select one of the following: <ul style="list-style-type: none"> <li>View—Display a list of subscribers who are members of the COS.</li> <li>Reassign—Reassign one or more subscribers to another COS.</li> <li>Assign—Add one or more subscribers to the COS.</li> </ul>
Type a <Name of COS> Subscriber to Find	Enter several characters of the name, and click Find. Or enter * to list all subscribers. Note that when you perform wildcard (*) searches, Cisco Unity may take several minutes to display results in the Cisco Unity Administrator. This is particularly true if your site has a large number of subscribers (approximately 1000 users or more) and/or dozens of servers. For this reason, it is important that you narrow the scope of wildcard searches.  When Assign is selected, Cisco Unity searches all subscribers in the organization. When View or Reassign is selected, the search is narrowed to subscribers assigned to the specified class of service.
Matching <Name of COS> Subscribers	A list of names that match the characters you entered in Type a <Name of COS> Subscriber to Find.  To select several nonsequential names at one time, hold down the Ctrl key while selecting.  To select several names in sequence, hold down the Shift key, select the first name in the sequence, and then select the last name in the sequence.

## Class of Service System Access Settings

Class of service system access settings specify which tasks, if any, subscribers—including other system administrators—can perform in the Cisco Unity Administrator. You can customize access to Cisco Unity in several ways. For example, you can deny access to the Cisco Unity Administrator, or to specific pages in the Cisco Unity Administrator, such as COS, subscriber, or distribution list pages.

When you deny access to specific pages in the Cisco Unity Administrator, the links for these pages are disabled for the subscriber. Alternatively, you can specify read, edit, add, or delete privileges for these pages, or can allow subscribers access to subscriber pages only for the purpose of unlocking subscriber accounts or changing subscriber passwords.

Note that a subscriber who has a disabled Active Directory account or who does not have a Windows domain account cannot access the Cisco Unity Administrator—even if the subscriber has the proper class of service privileges needed to access it. When you use either the Cisco Unity Bulk Import wizard or the Cisco Unity Administrator to create a subscriber who already has an Exchange mailbox, Cisco Unity does not enable an Active Directory account if it is disabled, nor does it create a Windows domain account for a user if one does not already exist.

As necessary, you can use GrantUnityAccess to associate a subscriber account with a Windows domain account, which will allow an administrator to access the Cisco Unity Administrator. You can also use GrantUnityAccess to grant one or more Windows domain accounts access to the Cisco Unity Administrator on one or more Cisco Unity servers without adding a new subscriber account for each one. For more details, see the [“About the Accounts that Can Be Used To Administer Cisco Unity”](#) section on page 2-10.

Use the following table to learn more about COS system access settings.

**Table 12-3** *Subscribers > Class of Service > System Access Page*

Field	Considerations
Cisco Unity Administrator Application Access	Check this box to give subscribers assigned to this COS access to the Cisco Unity Administrator. Use the check boxes below this setting to indicate the level of access.
Class of Service	<p>Select the appropriate settings for subscribers assigned to this COS:</p> <ul style="list-style-type: none"> <li>• Read—Check this box to give subscribers read-only access to the Subscribers &gt; Class of Service pages of the Cisco Unity Administrator.</li> <li>• Edit—Check this box to allow subscribers to edit Subscribers &gt; Class of Service pages of the Cisco Unity Administrator.</li> <li>• Add—Check this box to allow subscribers to edit Subscribers &gt; Class of Service pages of the Cisco Unity Administrator, and add new ones.</li> <li>• Delete—Check this box to allow subscribers to edit Subscribers &gt; Class of Service pages of the Cisco Unity Administrator, and delete them.</li> </ul> <p>These fields are unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Directory Handler	<p>Select the appropriate settings for subscribers assigned to this COS:</p> <ul style="list-style-type: none"> <li>• Read—Check this box to give subscribers read-only access to directory handler pages of the Cisco Unity Administrator.</li> <li>• Edit—Check this box to allow subscribers to edit directory handler pages of the Cisco Unity Administrator.</li> <li>• Add—Check this box to allow subscribers to edit directory handler pages and create new directory handlers by using the Cisco Unity Administrator.</li> <li>• Delete—Check this box to allow subscribers to edit directory handler pages and delete directory handlers by using the Cisco Unity Administrator.</li> </ul> <p>These fields are unavailable when the Cisco Unity Administrator Application Access check box is unchecked, or when the Can Unlock Subscriber Accounts and Change Passwords check box is checked.</p>
Subscribers	<p>Select the appropriate settings for subscribers assigned to this COS:</p> <ul style="list-style-type: none"> <li>• Read—Check this box to give subscribers read-only access to subscriber pages of the Cisco Unity Administrator.</li> <li>• Edit—Check this box to allow subscribers to edit subscriber pages of the Cisco Unity Administrator.</li> <li>• Add—Check this box to allow subscribers to edit subscriber pages and create new subscribers by using the Cisco Unity Administrator.</li> <li>• Delete—Check this box to allow subscribers to edit subscriber pages and delete subscribers by using the Cisco Unity Administrator.</li> </ul> <p>These fields are unavailable when the Cisco Unity Administrator Application Access check box is unchecked, or when the Can Unlock Subscriber Accounts and Change Passwords check box is checked.</p>

**Table 12-3** *Subscribers > Class of Service > System Access Page (continued)*

<b>Field</b>	<b>Considerations</b>
Can Unlock Subscriber Accounts and Change Passwords	<p>Check this box to allow subscribers assigned to this COS to edit the necessary fields on subscriber pages in order to unlock subscriber accounts, and to change subscriber passwords. For all other fields on the subscriber pages, read-only access is permitted.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked, or when the Subscribers Access Read, Edit, Add, or Delete boxes are checked.</p>
Public Distribution Lists	<p>Select the appropriate settings for subscribers assigned to this COS:</p> <ul style="list-style-type: none"> <li>• Read—Check this box to give subscribers read-only access to the public distribution lists pages of the Cisco Unity Administrator.</li> <li>• Edit—Check this box to allow subscribers to edit the public distribution lists pages of the Cisco Unity Administrator.</li> <li>• Add—Check this box to allow subscribers to edit the public distribution lists pages of the Cisco Unity Administrator, and to add new public distribution lists.</li> <li>• Delete—Check this box to allow subscribers to edit the public distribution lists pages of the Cisco Unity Administrator, and to delete public distribution lists.</li> </ul> <p>These fields are unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Schedules and Holidays	<p>Check this box to give subscribers assigned to this COS access to the System &gt; Schedules page and the System &gt; Holidays page of the Cisco Unity Administrator.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Restriction Tables Access	<p>Check this box to give subscribers assigned to this COS access to the Subscribers &gt; Class of Service &gt; Restriction Tables page of the Cisco Unity Administrator. Restriction tables limit the phone numbers that subscribers can enter for call transfer, message notification, and fax settings.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Routing Tables Access	<p>Check this box to give subscribers assigned to this COS access to the Call Management &gt; Call Routing pages of the Cisco Unity Administrator. Call routing tables control the treatment and destinations of incoming calls, based on factors such as trunk, port, and dialed number.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Call Handlers Access	<p>Check this box to give subscribers assigned to this COS access to the Call Management &gt; Call Handlers pages of the Cisco Unity Administrator.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Status Monitor Access	<p>Check this box to give subscribers assigned to this COS access to the Status Monitor. The Status Monitor shows real-time information about Cisco Unity.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>

**Table 12-3** *Subscribers > Class of Service > System Access Page (continued)*

Field	Considerations
Reports Access	<p>Check this box to give subscribers assigned to this COS access to the Reports pages of the Cisco Unity Administrator.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Network Access	<p>Check this box to give subscribers assigned to this COS access to the Network pages of the Cisco Unity Administrator.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Diagnostics Access	<p>Check this box to give subscribers assigned to this COS access to diagnostic tools on the System &gt; Tools &gt; Diagnostic Traces page.</p> <p>Inform subscribers assigned to the COS that running diagnostic traces can slow system performance. Typically, you run diagnostic traces only when troubleshooting a problem.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>
Technician Functions Access (Configuration, Licensing, Ports, and Integration Pages)	<p>Check this box to give subscribers assigned to this COS access to the System Settings pages of the Cisco Unity Administrator.</p> <p>Inform subscribers assigned to the COS to take care when making changes to the Configuration Settings, Ports, and Integration pages because incorrect settings can cause Cisco Unity to malfunction.</p> <p>Unavailable when the Cisco Unity Administrator Application Access check box is unchecked.</p>

## Class of Service Call Transfer Settings

Class of service call transfer settings specify whether subscribers can use the Cisco Unity Assistant to change call screening and call holding options. (Note that in version 3.1 and earlier, the Cisco Unity Assistant was known as the ActiveAssistant, or AA.)

Use the following table to learn more about COS call transfer settings.

**Table 12-4** *Subscribers > Class of Service > Transfer Page*

Field	Considerations
Subscribers Can Change Call Screening Options	<p>Check this box to give subscribers assigned to this COS the ability to change their own call screening options by using the Cisco Unity Assistant. Call screening options are listed under Gather Caller Information on the Subscribers &gt; Subscribers &gt; Call Transfer page.</p> <p>You may want to allow this option sparingly. Call screening increases the time necessary to transfer unidentified callers to an extension.</p>
Subscribers Can Change Call Holding Options	<p>Check this box to give subscribers assigned to this COS the ability to change their own call holding options by using the Cisco Unity Assistant. Call holding options are listed under If the Call Is Busy on the Subscribers &gt; Subscribers &gt; Call Transfer page.</p>

## Class of Service Messages Settings

Class of service messages settings specify the maximum length of messages, and whether subscribers can send messages to public distribution lists, how deleted messages are handled, and whether subscribers can use the live reply feature. When live reply is enabled, subscribers listening to messages by phone can reply to a subscriber message by pressing 4-4 to have Cisco Unity call the subscriber directly. (Subscribers using Optional Conversation 1 press 8-8 for live reply.) Cisco Unity dials the extension of the subscriber who left the message only when:

- The subscriber who left the message is homed on the same Cisco Unity server as the subscriber attempting to reply.
- The Transfer Incoming Calls to Subscriber's Phone setting for the subscriber who left the message is set to ring an extension or another number. (The Transfer Incoming Calls to Subscriber's Phone field is on the Subscribers > Subscribers > Call Transfer page in the Cisco Unity Administrator.) Cisco Unity plays the subscriber greeting or the Opening Greeting when the phone of the subscriber who left the message is busy or the subscriber does not answer.

Consider informing subscribers when you enable this feature, because even when it is enabled, the live reply option is not mentioned in the main Cisco Unity phone menus. It is mentioned in the Help menu for the Cisco Unity phone conversation, the *Cisco Unity User Guide*, and *Cisco Unity Phone Menus* card.

Use the following table to learn more about COS messages settings.

**Table 12-5 Subscribers > Class of Service > Messages Page**

Field	Considerations
Maximum Length of Message that Subscribers Can Record in Seconds	Select the length allowed to subscribers assigned to this COS for recording messages and conversations. The default setting is 300 (5 minutes), and the system maximum is 1200 (20 minutes).  The maximum recording length of messages left by unidentified callers is set on the Subscribers > Subscribers > Messages page.  If enabled, a warning tone will sound before the maximum message length is reached.
Subscribers Can Send Messages to Public Distribution Lists	Check this box to allow subscribers to send messages to public distribution lists.
Deleted Messages Are Copied to the Deleted Items Folder	Check this box to move deleted messages to the Deleted Items folder in Outlook when the subscriber deletes them by using the phone.
Subscribers Can Reply To Messages From Other Subscribers By Calling Them	Check this box to allow subscribers to use the live reply feature. When this box is checked, subscribers can press 4-4 after listening to a subscriber message, and Cisco Unity will call the subscriber who left the message. (Subscribers using Optional Conversation 1 can press 8-8 to use live reply.)  When this box is unchecked, live reply is disabled in the subscriber phone conversation.

## Class of Service Greetings Settings

The class of service greetings setting specifies the maximum length of greetings.

Use the following table to learn more about COS greetings settings.

**Table 12-6** *Subscribers > Class of Service > Greetings Page*

Field	Considerations
Maximum Greeting Length in Seconds	<p>Select the recording length allowed to subscribers assigned to this COS for recording greetings.</p> <p>The range is 1 to 999 seconds; the default is 90 seconds.</p> <p>If enabled, a warning tone will sound before the maximum greeting length is reached.</p>

## Class of Service Features Settings

Class of service features settings specify which Cisco Unity features the subscribers in this COS can use.

Note that when a COS includes access to an application that requires individual licenses, you can add subscribers to the COS only if enough licenses are available.

Use the following table to learn more about COS features settings.

**Table 12-7** *Subscribers > Class of Service > Features Page*

Field	Considerations
FaxMail	<p>Check this box to allow subscribers assigned to this COS to manage their fax messages over the phone, which includes having their fax and e-mail messages delivered to a fax machine. The permission granted by checking this box applies only to managing faxes over the phone. All subscribers, regardless of COS, can manage fax messages in their Inboxes.</p> <p>To allow subscribers assigned to this COS to have their e-mail messages delivered to a fax machine, you must select the check boxes for both Text-to-Speech E-Mail and for FaxMail.</p>
Text-to-Speech for E-Mail Messages	<p>Check this box to allow subscribers assigned to this COS to have their e-mail messages read to them by an e-mail reader over the phone.</p> <p>To allow subscribers to have their e-mail messages delivered to a fax machine, you must select both the check boxes for text-to-speech e-mail and for FaxMail.</p>
Cisco Unity Assistant	<p>Check this box to allow subscribers assigned to this COS to use the Cisco Unity Assistant. (Note that in version 3.1 and earlier, the Cisco Unity Assistant was known as the ActiveAssistant, or AA.)</p>
Cisco Unity Inbox (Visual Messaging Interface)	<p>Check this box to allow subscribers assigned to this COS to use the Cisco Unity Inbox, which is a licensed feature. Note that when you give a COS access to a licensed feature, it can be important to track the number of subscribers assigned to the COS.</p> <p>To confirm that the number of subscribers does not exceed the number of licenses, see the System &gt; Licensing &gt; License Counts page.</p> <p>(Note that in version 3.1 and earlier, the Cisco Unity Inbox was known as the Visual Messaging Interface, or VMI.)</p>

## Class of Service Restriction Table Settings

Class of service restriction table settings specify which restriction tables are used for message delivery, call transfer, and fax delivery for subscribers in this COS.

See the [“Overview: Restriction Tables” section on page 23-1](#) for more information about restriction tables.

Use the following table to learn more about COS restriction table settings.

**Table 12-8** *Subscribers > Class of Service > Restriction Tables Page*

Field	Considerations
Select a Restriction Table	<p>Select a restriction table for each of the following:</p> <ul style="list-style-type: none"> <li>• Outcalling—Select a restriction table to limit phone numbers that subscribers assigned to this COS can enter in message delivery settings. The table you select also restricts the subscriber extensions that Cisco Unity dials when the phone is selected as the recording and playback device for the Media Master.</li> <li>• Transfers—Select a restriction table to limit phone numbers that subscribers assigned to this COS can enter in call transfer settings.</li> <li>• Fax—Select a restriction table to limit phone numbers that subscribers assigned to this COS can enter in fax dialing settings.</li> </ul> <p>Note that when you click the View link for any of these tables, you leave the Subscribers &gt; Class of Service &gt; Restriction Tables page, and move to the Call Management &gt; Restriction Tables page.</p>

