



Autoregistration Configuration

Use autoregistration if you want Cisco Unified CallManager to assign directory numbers automatically to new phones as they connect to the IP telephony network.



Note

Cisco recommends you use autoregistration to add less than 100 phones to your network. To add more than 100 phones to your network, use the Bulk Administration Tool (BAT).

After a phone has auto-registered, you can move it to a new location and assign it to a different device pool without affecting its directory number.

This section covers the following topics:

- [Enabling Autoregistration, page 27-1](#)
- [Disabling Autoregistration, page 27-2](#)
- [Autoregistration Configuration Settings, page 27-3](#)
- [Reusing Autoregistration Numbers, page 27-4](#)

Enabling Autoregistration

This section describes how to enable autoregistration for new devices.



Caution

Cisco Unified CallManager disables autoregistration by default. Enabling autoregistration carries a security risk in that “rogue” phones can automatically register with Cisco Unified CallManager. You should enable autoregistration only for brief periods when you want to perform bulk phone adds.

Configuring mixed mode clusterwide security through the Cisco CTL Client automatically disables autoregistration. If you want to use autoregistration and you have configured security, you must change the clusterwide security mode to non-secure through the Cisco CTL Client.

Procedure

- Step 1** Choose **System** > Cisco Unified CallManager.
- Step 2** From the list of Cisco Unified CallManagers, choose the Cisco Unified CallManager that you want to enable for autoregistration.
- Step 3** Enter the appropriate Autoregistration Information, as described in [Table 27-1](#).

- Step 4** Click **Save** to save the changes in the database.
- Step 5** Repeat [Step 2](#) through [Step 4](#) for each Cisco Unified CallManager that you want to enable for autoregistration. You can designate only one primary Cisco Unified CallManager for autoregistration, but you can designate other Cisco Unified CallManagers as backups for purposes of autoregistration. See the “[Redundancy](#)” section in the *Cisco Unified CallManager System Guide*.
- Step 6** Choose **System > Cisco Unified CallManager Group**.
- Step 7** From the list of Cisco Unified CallManager groups, choose the group that is enabled for autoregistration. (In most systems, the name of this group is Default.) This group serves as the default Cisco Unified CallManager group for devices that auto-register. Make sure that the Selected list for this group contains the Cisco Unified CallManagers that you configured for autoregistration in [Step 2](#). The Cisco Unified CallManagers get selected in the order that they are listed in the Cisco Unified CallManager group.
- Step 8** If you made any changes to the group configuration, click **Save** to save the changes in the database.
- Step 9** Choose **System > Device Pool**.
- Step 10** From the list of device pools, choose one of the default device pools that are assigned in the Device Defaults (refer to the “[Device Defaults Configuration](#)” section on [page 72-1](#)). Cisco Unified CallManager assigns each auto-registered device to a default device pool based on the device type.
- Step 11** From the drop-down list box for Cisco Unified CallManager Group, choose the Cisco Unified CallManager group that you configured for autoregistration in [Step 7](#). This step assigns the default device pool to the default Cisco Unified CallManager group for autoregistration.
- Step 12** From the drop-down list box for Calling Search Space for Auto-Registration, choose the calling search space to assign to the devices in this device pool that auto-register with Cisco Unified CallManager. The calling search space specifies the route partitions that are used by the devices in the pool.
- Step 13** Click **Save** to save the device pool changes in the database.
- Step 14** Repeat [Step 10](#) through [Step 13](#) for each device pool that is listed in the Device Defaults.

Additional Information

See the “[Related Topics](#)” section on [page 27-5](#).

Disabling Autoregistration

This section describes how to disable autoregistration.

Procedure

- Step 1** Choose **System > Cisco Unified CallManager**.
- Step 2** From the Cisco Unified CallManager list, choose the Cisco Unified CallManager where you want to disable autoregistration.
- Step 3** Click the Auto-registration Disabled option to disable autoregistration for this Cisco Unified CallManager (when this box is checked, autoregistration is disabled).

**Note**

You can also disable autoregistration by setting the Starting Directory Number and Ending Directory Number to the same value.

- Step 4** Click **Save** to save the changes in the database.
- Step 5** Repeat [Step 2](#) through [Step 4](#) for each Cisco Unified CallManager where you want to disable autoregistration.

Additional Information

See the [“Related Topics” section on page 27-5](#).

Autoregistration Configuration Settings

[Table 27-1](#) describes the autoregistration configuration settings. For more information about related procedures, see the [“Related Topics” section on page 27-5](#).

Table 27-1 *Autoregistration Configuration Settings*

Field Name	Description
Starting Directory Number	Enter the first directory number to use for autoregistration of devices. Specifying a range of directory numbers in the Starting Directory Number and Ending Directory Number fields automatically enables autoregistration. Setting the starting and ending directory numbers to the same value disables autoregistration.
Ending Directory Number	Enter the last directory number to use for autoregistration of devices. Specifying a range of directory numbers in the Starting Directory Number and Ending Directory Number fields automatically enables autoregistration. Setting the starting and ending directory numbers to the same value disables autoregistration.
Partition	Choose the partition to which auto-registered directory numbers belong. If you are not using partitions, choose <None>. You must choose a valid directory number range for autoregistration before you can choose a partition and external phone number mask. The partition field resets if you disable autoregistration. If a large number of partitions exist, the ellipsis (...) button displays next to the drop-down list box. Click the ... button to display the Select Partition window. Enter a partial partition name in the List items where Name contains field. Click the desired partition name in the list of partitions that displays in the Select item to use box, and click OK.

Table 27-1 *Autoregistration Configuration Settings (continued)*

Field Name	Description
External Phone Number Mask	Specify the mask that is used to format caller ID information for external (outbound) calls that are made from the auto-registered devices. The mask can contain up to 50 characters. Enter the literal digits that you want to appear in the caller ID information and use Xs to represent the directory number of the auto-registered device. For example, if you specify a mask of 972813XXXX and enable the Use External Phone Number Mask option on the route pattern that is used to make the external call, an external call from extension 1234 displays a caller ID number of 9728131234. If you specify a mask of all literal digits (such as 9728135000) to represent a main attendant number, that literal number becomes the caller ID that displays for an external call from any auto-registered device.
Auto-registration Disabled on this Cisco Unified CallManager	Cisco Unified CallManager disables autoregistration by default to prevent unauthorized connections to the network. When autoregistration is disabled, you must configure the directory numbers manually whenever you add new devices to your network. • Uncheck the Auto-registration Disabled option to enable autoregistration for this Cisco Unified CallManager. • Check the Auto-registration Disabled option to disable autoregistration for this Cisco Unified CallManager. You can disable autoregistration by setting the Starting Directory Number and Ending Directory Number to the same value. If starting and ending directory numbers are specified when you disable autoregistration by checking this option, Cisco Unified CallManager sets the starting and ending directory numbers to the same value. The partition and external phone mask information fields also reset when you disable autoregistration.

Reusing Autoregistration Numbers

When you connect a new device to the network, Cisco Unified CallManager assigns the next available (unused) autoregistration directory number to that device. If you manually change the directory number of an auto-registered device, or if you delete that device from the database, Cisco Unified CallManager can reuse the autoregistration directory number of that device.

When a device attempts to auto-register, Cisco Unified CallManager searches the range of autoregistration numbers that you specified and tries to find the next available directory number to assign to the device. It begins the search with the next directory number in sequence after the last one that was assigned. If it reaches the ending directory number in the range, Cisco Unified CallManager continues to search from the starting directory number in the range.

You can use the following procedure to reset the range of autoregistration directory numbers and force Cisco Unified CallManager to search from the starting number in the range.

Procedure

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- Step 1** Choose **System** > Cisco Unified CallManager.
- Step 2** Choose the Cisco Unified CallManager where you want to reset autoregistration.
- Step 3** Write down the current settings for Starting Directory Number and Ending Directory Number.
- Step 4** Click **Auto-registration Disabled on this** Cisco Unified CallManager.



Caution New phones cannot auto-register while autoregistration is disabled.

- Step 5** Click **Save**.
- Step 6** Set the Starting Directory Number and Ending Directory Number to their previous values (or to new values, if desired).
- Step 7** Click **Save**.
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Additional Information

See the [“Related Topics”](#) section on page 27-5.

Related Topics

- [Enabling Autoregistration, page 27-1](#)
- [Disabling Autoregistration, page 27-2](#)
- [Autoregistration Configuration Settings, page 27-3](#)
- [Reusing Autoregistration Numbers, page 27-4](#)

