



Auto-Registration

Auto-registration automatically assigns directory numbers to new devices as they connect to the IP telephony network. This section covers the following topics:

- [Understanding Auto-Registration, page 12-1](#)
- [Auto-Registration Configuration Checklist, page 12-3](#)
- [Where to Find More Information, page 12-4](#)

Understanding Auto-Registration

Use auto-registration if you want Cisco CallManager automatically to assign directory numbers to new phones when you plug these phones into your network. Cisco recommends you use auto-registration to add less than 100 phones to your network. To add more than 100 phones to your network, use the Bulk Administration Tool (BAT).

Cisco CallManager disables auto-registration by default to prevent unauthorized connections to your network. Do not enable auto-registration unless you know what your dial plan looks like, including calling search spaces and partitions.

**Caution**

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

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

Another strategy for preventing unauthorized phones from connecting to your network entails creating a Rogue device pool that allows only 911 (emergency) and 0 (operator) calls. This device pool allows phones to register but limits them to emergency and operator calls. This device pool prevents unauthorized access to phones that continuously boot in an attempt to register in your network.

When you enable auto-registration, you specify a range of directory numbers that Cisco CallManager can assign to new phones as they connect to your network. As new phones connect to the network, Cisco CallManager assigns the next available directory number in the specified range. After a directory number is assigned to an auto-registered phone, you can move the phone to a new location, and its directory number remains the same. If all the auto-registration directory numbers are consumed, no additional phones can auto-register with Cisco CallManager.

New phones auto-register with the primary Cisco CallManager in the Cisco CallManager group that has an enable Auto-Registration Cisco CallManager Group setting. That Cisco CallManager automatically assigns each auto-registered phone to a default device pool based on the device type (see the [“Device Defaults” section on page 5-4](#)). After a phone auto-registers, you can update its configuration and assign it to a different device pool and a different Cisco CallManager (see the [“Device Pools” section on page 5-9](#)).

Auto-Registration Configuration Checklist

Table 12-1 lists general steps and guidelines for using auto-registration.

Table 12-1 Auto-Registration Configuration Checklist

Configuration Steps	Procedures and related topics
<p>Step 1</p> <p>Configure only one Cisco CallManager in the cluster to use for auto-registration.</p> <p>Always enable or disable auto-registration on this Cisco CallManager only. If you want to shift the auto-registration function to another Cisco CallManager in the cluster, you must reconfigure the appropriate Cisco CallManagers, the Default Cisco CallManager Group, and, possibly, the default device pools.</p>	<p>Cisco CallManager Configuration, <i>Cisco CallManager Administration Guide</i></p>
<p>Step 2</p> <p>Configure the Default Cisco CallManager Group as the auto-registration group. Choose the auto-registration Cisco CallManager from Step 1 as the primary Cisco CallManager in this group.</p>	<p>Cisco CallManager Groups, page 5-1</p> <p>Cisco CallManager Group Configuration, <i>Cisco CallManager Administration Guide</i></p>
<p>Step 3</p> <p>Configure a calling search space specifically for auto-registration. For example, you can use the auto-registration calling search space to limit auto-registered phones to internal calls only.</p>	<p>Partitions and Calling Search Spaces, page 13-1</p> <p>Calling Search Space Configuration, <i>Cisco CallManager Administration Guide</i></p>
<p>Step 4</p> <p>Configure the Default device pool for auto-registration by assigning the Default Cisco CallManager Group and auto-registration calling search space to it. If you are configuring a separate default device pool for each device type, assign the Default Cisco CallManager Group and auto-registration calling search space to each of the default device pools.</p>	<p>System-Level Configuration Settings, page 5-1.</p> <p>Device Pool Configuration, <i>Cisco CallManager Administration Guide</i></p> <p>Device Defaults Configuration, <i>Cisco CallManager Administration Guide</i></p>

Table 12-1 Auto-Registration Configuration Checklist (continued)

Configuration Steps		Procedures and related topics
Step 5	Enable auto-registration only during brief periods when you want to install and auto-register new devices (preferably when overall system usage is at a minimum). During other periods, turn auto-registration off to prevent unauthorized devices from registering with Cisco CallManager.	Enabling Auto-Registration, Cisco CallManager Administration Guide Disabling Auto-Registration, Cisco CallManager Administration Guide
Step 6	Install the devices that you want to auto-register.	Refer to the installation instructions that come with your IP phones and gateways.
Step 7	Reconfigure the auto-registered devices and assign them to their permanent device pools.	Bulk Administration Tool User Guide Cisco IP Phone Configuration, Cisco CallManager Administration Guide Gateway Configuration, Cisco CallManager Administration Guide

Where to Find More Information

Related Topics

- [System-Level Configuration Settings, page 5-1](#)
- [Redundancy, page 7-1](#)
- [Cisco CallManager Configuration, Cisco CallManager Administration Guide](#)
- [Cisco CallManager Group Configuration, Cisco CallManager Administration Guide](#)
- [Device Pool Configuration, Cisco CallManager Administration Guide](#)

Additional Cisco Documentation

- [Bulk Administration Tool User Guide](#)