



## System Configuration Overview

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For best results when configuring a complete Cisco IP telephony system, start with the system-level components and work toward the individual devices. For example, you have to configure the appropriate device pools, route lists, locations, and calling search spaces before you can use those components to configure phones and lines.

This chapter presents an overall flow, or order, for configuring the components of your Cisco IP telephony network. It covers the following topics:

- [Basic Configuration Flow, page 3-1](#)
- [Where to Find More Information, page 3-6](#)

## Basic Configuration Flow

[Table 3-1](#) lists the general steps that are involved in configuring a complete IP telephony system. If you are not using a particular feature or component, you can skip that step. You have some flexibility in the order for performing these configuration steps, and in some cases, you might have to alternate between steps or return to a given step several times to complete your configuration.

Table 3-1 Configuration Overview Checklist

Configuration Steps		Procedures and related topics
<b>Step 1</b>	Install the Cisco CallManager software on your servers. Designate the first server as the database publisher. Designate subsequent servers as database subscribers.	<i>Installing Cisco CallManager Release 4.0</i> <a href="#">Server Configuration, Cisco CallManager Administration Guide</a>
<b>Step 2</b>	Add services as required.	<i>Cisco CallManager Serviceability Administration Guide</i> <i>Cisco CallManager Serviceability System Guide</i>
<b>Step 3</b>	Configure system-level settings: <ul style="list-style-type: none"> <li>• Cisco CallManagers (Some Cisco CallManager-specific elements are required, such as enabling of auto-registration and establishing a starting directory number [DN].)</li> <li>• Cisco CallManager groups</li> <li>• Date/time groups</li> <li>• Regions</li> <li>• Softkey templates (Softkey templates represent a required field in device pool configuration, but they offer standard template options as well.)</li> <li>• Device defaults</li> <li>• Enterprise parameters</li> <li>• Locations</li> </ul>	<a href="#">System-Level Configuration Settings, page 5-1</a>

**Table 3-1 Configuration Overview Checklist (continued)**

Configuration Steps	Procedures and related topics
<p><b>Step 4</b> Design and configure your dialing plan:</p> <ul style="list-style-type: none"> <li>• AAR Group</li> <li>• Application Dial Rules (optional, used by Cisco IPMA and Cisco WebDialer)</li> <li>• Partitions</li> <li>• Calling search spaces</li> <li>• Route filters</li> <li>• Route groups and line groups</li> <li>• Route and hunt lists</li> <li>• Route patterns (If you want to assign route patterns to gateways, you need to create gateways prior to configuring the route pattern for those gateways.)</li> <li>• Translation patterns</li> </ul>	<p><a href="#">Partitions and Calling Search Spaces, page 13-1</a></p> <p><a href="#">Understanding Route Plans, page 14-1</a></p>
<p><b>Step 5</b> Configure media resources:</p> <ul style="list-style-type: none"> <li>• Conference bridges</li> <li>• Transcoders</li> <li>• Annunciator</li> <li>• Media termination points</li> <li>• Music on hold audio sources</li> <li>• Music on hold servers</li> <li>• Media resource groups</li> <li>• Media resource group lists</li> </ul>	<p><a href="#">Media Resource Management, page 18-1</a></p> <p><a href="#">Media Resource Group Configuration, Cisco CallManager Administration Guide</a></p>

Table 3-1 Configuration Overview Checklist (continued)

Configuration Steps	Procedures and related topics
<b>Step 6</b> Configure device pool settings: <ul style="list-style-type: none"> <li>• Cisco CallManager group</li> <li>• Date/Time group</li> <li>• Regions</li> <li>• Softkey template</li> <li>• SRST reference</li> </ul>	<a href="#">Device Pool Configuration</a> , <i>Cisco CallManager Administration Guide</i>
<b>Step 7</b> Install and configure one of the following voice-messaging systems: <ul style="list-style-type: none"> <li>• External (non-Cisco) voice-messaging system</li> <li>• Cisco Unity voice-messaging system</li> </ul>	<a href="#">SMDI Voice Mail Integration</a> , page 26-1 Administration documentation for Cisco Unity
<b>Step 8</b> Configure meet-me numbers/patterns.	<a href="#">Meet-Me Number/Pattern Configuration</a> , <i>Cisco CallManager Administration Guide</i>
<b>Step 9</b> Configure message-waiting numbers.	<a href="#">Message Waiting Configuration</a> , <i>Cisco CallManager Administration Guide</i>

Table 3-1 Configuration Overview Checklist (continued)

Configuration Steps	Procedures and related topics
<p><b>Step 10</b> Configure features:</p> <ul style="list-style-type: none"> <li>• Call park</li> <li>• Call pickup and group call pickup</li> <li>• Barge</li> <li>• Immediate Divert</li> <li>• Cisco IP phone services</li> <li>• Cisco CallManager Extension Mobility</li> <li>• Cisco CallManager Attendant Console</li> <li>• Cisco IP Manager Assistant</li> </ul>	<p><a href="#">Configuring Call Park, Cisco CallManager Features &amp; Services Guide</a></p> <p><a href="#">Call Pickup and Group Call Pickup, page 30-1</a></p> <p><a href="#">Configuring Barge and Privacy, Cisco CallManager Features &amp; Services Guide</a></p> <p><a href="#">Configuring Immediate Divert, Cisco CallManager Features &amp; Services Guide</a></p> <p><a href="#">Cisco IP Phone Services, page 31-1</a></p> <p><a href="#">Cisco CallManager Extension Mobility, Cisco CallManager Features and Services Guide</a></p> <p><a href="#">Cisco CallManager Attendant Console, page 33-1</a></p> <p><a href="#">Cisco IP Manager Assistant With Proxy Line Support, Cisco CallManager Features and Services Guide</a></p>
<p><b>Step 11</b> Install and configure the gateways.</p>	<p><a href="#">Understanding Cisco CallManager Voice Gateways, page 35-1</a></p>

Table 3-1 Configuration Overview Checklist (continued)

Configuration Steps	Procedures and related topics
<b>Step 12</b> Configure and install the phones; then, associate users with the phones. Also, configure phone button templates and softkey templates.	<a href="#">Cisco IP Phones, page 39-1</a> <a href="#">Managing User Directory Information, page 17-1</a> <a href="#">Phone Button Template Configuration, Cisco CallManager Administration Guide</a> <a href="#">Softkey Template Configuration, Cisco CallManager Administration Guide</a> Administration documentation for Cisco IP Phones
<b>Step 13</b> Enable computer telephony integration (CTI) application support; then, install and configure the desired CTI applications.	<a href="#">Computer Telephony Integration, page 41-1</a> Documentation provided with your application

## Where to Find More Information

### Related Topic

- See [Table 3-1](#).

### Additional Cisco Documentation

- *Installing Cisco CallManager Release 4.0*
- *Cisco CallManager Administration Guide*
- *Cisco CallManager Features and Services Guide*
- Administration documentation for Cisco IP Phones