



Call Display Restrictions

The Call Display Restrictions feature allows you to choose the information that will display for calling and/or connected lines, depending on the parties who are involved in the call. By using specific configuration settings in Cisco Unified CallManager, you can choose to present or restrict the display information for each call.

For example, in a hotel environment, you may want to see the display information for calls that are made between a guest room and the front desk; however, for calls between guest rooms, you would not want the call information to display on either phone. The Call Display Restrictions feature enables this functionality.

This chapter provides the following information about using the Call Display Restrictions feature in Cisco Unified CallManager:

- [Introducing Call Display Restrictions, page 17-1](#)
- [System Requirements for Call Display Restrictions, page 17-3](#)
- [Scenarios for Using Call Display Restrictions, page 17-3](#)
- [Interactions, page 17-3](#)
- [Configuring Call Display Restrictions, page 17-5](#)
- [Related Topics, page 17-12](#)

Introducing Call Display Restrictions

The Call Display Restrictions feature works within a Cisco Unified CallManager cluster that is running Cisco Unified CallManager 5.0. To enable Call Display Restrictions, you must configure the following parameters:

Translation Pattern Parameters

- Calling Line ID Presentation
- Connected Line ID Presentation

Phone Configuration/User Device Profile Parameter:

- Ignore Presentation Indicators (internal calls only)

The combination of these settings allows you to determine whether the display information for each call is allowed or restricted.

This section includes the following topics:

- [Overview of Call Display Restrictions, page 17-2](#)
- [Enabling Call Display Restrictions, page 17-2](#)

Overview of Call Display Restrictions

Call Display Restrictions allow you to selectively display or restrict calling and/or connected line display information. A hotel environment, which might have the following needs, frequently requires this functionality:

- For calls between a guest room and the front desk, both the room and the front desk should see the call information display of each other.
- For calls between guest rooms, the rooms should not see the call information display of each other.
- For calls between guest rooms and other hotel extensions (such as the club house), only the rooms should see the call information display.
- For external calls from the public switched telephone network (PSTN) to the front desk or guest rooms, the call information of the caller should not display if the display settings are restricted.
- For all calls to the front desk, the call information of internal calls should display.

Enabling Call Display Restrictions

The basis for the functionality of the Call Display Restrictions feature is calls being routed through different translation patterns before the calls are extended to the actual device. Users then dial the appropriate translation pattern numbers to achieve the display restrictions.

Translation Pattern Configuration

To enable Call Display Restrictions, configure translation patterns with different levels of display restrictions by choosing the appropriate option for the calling line ID presentation and the connected line ID presentation parameters.

See the [“Configuring the Translation Pattern Parameters” section on page 17-6](#) for additional information about these parameters.



Tip

You must configure partitions and calling search spaces, along with translation patterns. For more information about these configurations, refer to the [Translation Pattern Configuration](#) chapter in the *Cisco Unified CallManager Administration Guide*.

Phone Configuration/User Device Profile Configuration

Next, enable the “Ignore Presentation Indicators (internal calls only)” parameter to ignore any presentation restriction that is received for internal calls and to ensure that the device will display the call information of the remote party.

See the [“Configuring the Phone Configuration” section on page 17-7](#) for more information about this setting.

(For users who log in to phones that are enabled for Extension Mobility, configure this setting from the Cisco Unified CallManager Administration User Device Profile window as well. For more information about interactions with Extension Mobility, see the [“Extension Mobility” section on page 17-4](#).)

System Requirements for Call Display Restrictions

The following software components support Call Display Restrictions:

- Cisco Unified CallManager 5.0

The following Cisco SIP and SCCP IP Phones, software-based devices, and desktop applications support Call Display Restrictions:

- Cisco Unified IP Phones (Models 7902, 7905, 7910, 7911, 7912, 7920, 7940, 7941, 7960, 7961, 7970, 7971)
- H.323 clients (such as Microsoft NetMeeting devices)
- CTI ports (virtual devices that software-based applications use)
- Cisco IP Communicator

Scenarios for Using Call Display Restrictions

The following scenarios provide examples for using Call Display Restrictions:

- Front Desk calls Room-1—Both phones display the call information of each other.
- Front Desk calls Room-1, and Front Desk transfers the call to Room-2—The final connected parties, Room-1 and Room-2, cannot see the call information display of each other.
- External (PSTN) calls the Front Desk—The Front Desk honors the display settings of the external caller.
- External (PSTN) calls Room-1—Room-1 honors the presentation of the external caller; the external caller cannot see the call information display of Room-1.
- Room-1 calls Front Desk—Both phones display the call information of each other.
- Room-1 calls Room-2—Neither phone can see the call information display of the other.
- Room-1 calls Front Desk, and Front Desk transfers the call to Room-2—The final connected parties, Room-1 and Room-2, cannot see the call information display of each other.
- Room-1 calls Front Desk-1, and Front Desk-1 transfers the call to Front Desk-2—The final connected parties, Room-1 and Front Desk-2, can see the call information display of each other.
- Room-1 calls Room-2, and Room-2 transfers the call to Front Desk—Room-1 and Front Desk see the call information display of each other.
- Club House calls Room-1—Club House cannot display the call information; Room-1 can see the call information display.
- All parties in a conference call—All phones see “To Conference” for the call information display.

Interactions

The following sections describe how the Call Display Restrictions feature interacts with Cisco Unified CallManager applications and call processing:

- [Call Park, page 17-4](#)
- [Conference List, page 17-4](#)

- [Conference and Voice Mail, page 17-4](#)
- [Extension Mobility, page 17-4](#)

Call Park

When the Call Display Restrictions feature is used with Call Park, you must configure an associated translation pattern for each individual call park number to preserve the Call Display Restrictions feature; you cannot configure a single translation pattern to cover a range of call park numbers.

Consider the following scenario as an example:

1. The system administrator creates a call park range of 77x and places it in a partition called P_ParkRange. (The phones in the guest rooms can see the P_ParkRange partition is made visible to the phones in the guest rooms by inclusion of it in the calling search space of the phones (CSS_FromRoom..))
2. The administrator configures a separate translation pattern for each call park directory number and configures the display settings to Restricted. (In the current scenario, the administrator creates translations patterns for 770, 771, 772...779.)



Note For the Call Display Restrictions feature to work correctly, the administrator must configure separate translation patterns and not a single translation pattern for a range of numbers (such as 77x or 77[0-9]).

3. Room-1 calls Room-2.
4. Room-2 answers the call, and Room-1 parks the call.
5. When Room-1 retrieves the call, Room-2 does not see Room-1's call information display.

See the [“Call Park” section on page 9-1](#) for additional information about using the Call Park feature.

Conference List

When you use Call Display Restrictions, you restrict the display information for the list of participants in a conference. For more information about conference lists, refer to the [“Phone Features”](#) section in the [Cisco Unified IP Phones](#) chapter in the *Cisco Unified CallManager System Guide*.

Conference and Voice Mail

When Call Display Restrictions are used with features such as conference and voice mail, the call information display on the phones reflects that status. For example, when the conference feature is invoked, the call information display shows “To Conference.” When voice mail is accessed by choosing the “Messages” button, the call information display shows “To Voicemail.”

Extension Mobility

To use Call Display Restrictions with Extension Mobility, you enable the “Ignore Presentation Indicators (internal calls only)” parameter in both the Cisco Unified CallManager Administration Phone Configuration window and the Cisco Unified CallManager Administration User Device Profile window.

When you enable Call Display Restrictions with Extension Mobility, the presentation or restriction of the call information depends on the line profile that is associated with the user who is logged in to the device. That is, the configuration that is entered in the user device profile (associated with the user) overrides the configuration that is entered in the phone configuration (of the phone that is enabled for Extension Mobility).

Configuring Call Display Restrictions

To use Call Display Restrictions, make sure that you perform the following Cisco Unified CallManager configurations:

- Configure partitions and calling search spaces before you add a translation pattern.
- Configure translation patterns with different levels of display restrictions.
- Check the “Ignore Presentation Restriction (internal calls only)” check box to ensure that the call information display for internal calls is always visible.
- Configure individual, associated translation patterns for each individual Call Park directory number, to work with the Call Park feature.

This section contains the following topics:

- [Call Display Restrictions Configuration Checklist, page 17-5](#)
- [Configuring the Translation Pattern Parameters, page 17-6](#)
- [Configuring the Phone Configuration, page 17-7](#)
- [Sample Configurations, page 17-8](#)

Call Display Restrictions Configuration Checklist

[Table 17-1](#) provides a checklist to configure Call Display Restrictions.

Table 17-1 Call Display Restrictions Configuration Checklist

Configuration Steps		Related procedures and topics
Step 1	Configure partitions for rooms, front desk, club, and the PSTN. See the “Partitions” section on page 17-8 .	Configuring a Partition , <i>Cisco Unified CallManager Administration Guide</i>
Step 2	Configure call park directory numbers or define a range of call park directory numbers. Configure translation patterns for each call park directory number for call park retrieval from rooms. See the “Call Park” section on page 17-11 .	Configuring a Call Park Number , <i>Cisco Unified CallManager Features and Services Guide</i>
Step 3	Configure a partition for call park directory numbers to make the partition available only to users who have the partition in their calling search space. See the “Partitions” section on page 17-8 and the “Call Park” section on page 17-11 .	Configuring a Partition , <i>Cisco Unified CallManager Administration Guide</i>
Step 4	Configure calling search spaces for rooms, front desk, club, the PSTN, and room park range (for Call Park). See the “Calling Search Spaces” section on page 17-8 .	Calling Search Space Configuration , <i>Cisco Unified CallManager Administration Guide</i>

Table 17-1 Call Display Restrictions Configuration Checklist (continued)

Configuration Steps		Related procedures and topics
Step 5	Configure the phones for the rooms, front desk, club, and the gateway for the PSTN. See the “ Devices and Gateways ” section on page 17-9.	Cisco Unified IP Phone Configuration , <i>Cisco Unified CallManager Administration Guide</i> Device Profile Configuration , <i>Cisco Unified CallManager Administration Guide</i>
Step 6	Configure translation patterns and route patterns. See the “ Translation Patterns ” section on page 17-9.	Translation Pattern Configuration , <i>Cisco Unified CallManager Administration Guide</i> Understanding Route Plans , <i>Cisco Unified CallManager System Guide</i>

Configuring the Translation Pattern Parameters

Configure the following parameters from the Cisco Unified CallManager Administration Translation Pattern Configuration window.



Tip

For outgoing calls, the translation pattern setting at the terminating end can override the originating Cisco Unified CallManager cluster settings.

Calling Line ID Presentation

Cisco Unified CallManager uses calling line ID presentation as a supplementary service to allow or restrict the originating caller's phone number on a call-by-call basis. Choose one of the following options to allow or restrict the display of the calling party's phone number on the called party's phone display for this translation pattern:

- Default—This option does not change the calling line ID presentation.
- Allowed—Cisco Unified CallManager allows the display of the calling number.
- Restricted—Cisco Unified CallManager blocks the display of the calling number.



Note

If the incoming call goes through a translation pattern or route pattern and the calling line ID presentation setting is allowed or restricted, the system modifies the calling line presentation with the translation or route pattern setting.

Connected Line ID Presentation

Cisco Unified CallManager uses connected line ID presentation as a supplementary service to allow or restrict the called party's phone number on a per-call basis. Choose one of the following options to allow or restrict the display of the connected party's phone number on the calling party's phone display for this translation pattern:

- Default—This option does not change the connected line ID presentation.
- Allowed—This option displays the connected party's phone number.
- Restricted—Cisco Unified CallManager blocks the display of the connected party's phone number.

**Note**

If the incoming call goes through a translation or route pattern and the connected line ID presentation field is set to allowed or restricted, the system modifies the connected line presentation indicator with the translation or route pattern setting.

Examples

- For calls that are made from one guest room to another, configure the calling line ID presentation and the connected line ID presentation to restricted to ensure that the call information does not display.
- For calls that are made from the front desk to a guest room, configure the calling line ID presentation to allowed and the connected line ID presentation to restricted to ensure both parties can see the call information.

**Tip**

For more information about calling party transformations and connected party transformations, refer to the [Understanding Route Plans](#) chapter in the *Cisco Unified CallManager System Guide*.

Configuring the Phone Configuration

To complete the configuration of the Call Display Restrictions feature, check the “Ignore Presentation Indicators (internal calls only)” check box from the Cisco Unified CallManager Administration Phone Configuration window.

For use with Extension Mobility, also configure this setting from the Cisco Unified CallManager Administration User Device Profile window.

When you set the “Ignore Presentation Indicators (internal calls only)” field,

- Cisco Unified CallManager always displays the remote party’s call information if the other party is internal.
- Cisco Unified CallManager does not display the remote party’s call information if the other party is external and the display presentation is restricted.

**Note**

Ensure the calling line ID presentation and the connected line ID presentation are configured with the “Ignore Presentation Indicators (internal calls only)” parameter for Cisco Unified CallManager to ignore the presentation settings of internal callers. For incoming external calls, the system maintains the received presentation indicators even if the “Ignore Presentation Indicators (internal calls only)” parameter is set.

Example

- For phones that are used at the hotel front desk, check the “Ignore Presentation Indicators (internal calls only)” check box, so the front desk can always see the call information display for internal calls.

**Tip**

For information about phone configurations, refer to the [Cisco Unified IP Phone Configuration](#) chapter in the *Cisco Unified CallManager Administration Guide*. For information about device profile configurations, refer to the [Device Profile Configuration](#) chapter in the *Cisco Unified CallManager Administration Guide*.

Sample Configurations

The following information provides sample configurations to enable the Call Display Restrictions feature and includes the following topics:

- [Partitions, page 17-8](#)
- [Calling Search Spaces, page 17-8](#)
- [Devices and Gateways, page 17-9](#)
- [Translation Patterns, page 17-9](#)
- [Call Park, page 17-11](#)

Partitions

From the Cisco Unified CallManager Administration Partition Configuration window, configure the following partitions:

- Insert a real partition P_Room
- Insert a real partition P_FrontDesk
- Insert a real partition P_Club
- Insert a real partition P_PSTN
- Insert a translation partition P_CallsFromRoomToRoom
- Insert a translation partition P_CallsFromRoomToFrontDesk
- Insert a translation partition P_CallsFromRoomToClub
- Insert a translation partition P_CallsFromRoomToPSTN
- Insert a translation partition P_CallsFromFrontDeskToRoom
- Insert a translation partition P_CallsFromFrontDeskToFrontDesk
- Insert a translation partition P_CallsFromFrontDeskToClub
- Insert a translation partition P_CallsFromFrontDeskToPSTN
- Insert a translation partition P_CallsFromPSTN
- Insert a translation partition P_CallsFromClubToRoom
- Insert a translation partition P_CallsFromClubToFrontDesk
- Insert a translation partition P_FrontDeskToParkNumber
- Insert a translation partition P_RoomToParkNumber
- Insert a translation partition P_ParkNumberRange

Calling Search Spaces

From the Cisco Unified CallManager Administration Calling Search Space Configuration window, configure the following calling search spaces:

- Insert a calling search space CSS_Room {P_Room}
- Insert a calling search space CSS_FrontDesk {P_FrontDesk}
- Insert a calling search space CSS_Club {P_Club}

- Insert a calling search space CSS_PSTN {P_PSTN}
- Insert a calling search space CSS_FromRoom
{ P_CallsFromRoomToFrontDesk, P_CallsFromRoomToRoom, P_CallsFromRoomToClub,
P_CallsFromRoomToPSTN, P_RoomToParkNumber, P_ParkNumberRange }
- Insert a calling search space CSS_FromFrontDesk
{ P_CallsFromFrontDeskToRoom, P_CallsFromFrontDeskToClub,
P_CallsFromFrontDeskToPSTN, P_CallsFromFrontDeskToFrontDesk }
- Insert a calling search space CSS_FromPSTN
{ P_CallsFromPSTN }
- Insert a calling search space CSS_FromClub
{ P_CallsFromClubToRoom, P_CallsFromClubToFrontDesk }
- Insert a calling search space CSS_RoomParkRange
{P_ParkNumberRange }

Devices and Gateways

From the Cisco Unified CallManager Administration Phone Configuration and from the Cisco Unified CallManager Administration Gateway Configuration windows, configure the following phones and configure the following gateway:

- Configure phone A (Room-1) with partition P_Room and device/line calling search space CSS_FromRoom
{ P_Phones, CSS_FromRoom } : 221/Room-1
- Configure phone B (Room-2) with partition P_Room and device/line calling search space CSS_FromRoom
{ P_Phones, CSS_FromRoom } : 222/Room-2
- Configure phone C (Front Desk-1) with partition P_FrontDesk and device/line calling search space CSS_FromFrontDesk and Ignore Presentation Indicators check box enabled
{ P_FrontDesk, CSS_FromFrontDesk, IgnorePresentationIndicators set } : 100/Reception
- Configure phone D (Front Desk-2) with partition P_FrontDesk and device/line calling search space CSS_FromFrontDesk and Ignore Presentation Indicators check box enabled
{ P_FrontDesk, CSS_FromFrontDesk, IgnorePresentationIndicators set } : 200/Reception
- Configure phone E (Club) with partition P_Club and calling search space CSS_FromClub
{ P_Club, CSS_FromClub } : 300/Club
- Configure PSTN Gateway E with route pattern P_PSTN and calling search space CSS_FromPSTN
{CSS_FromPSTN}, RoutePattern {P_PSTN}

Translation Patterns

From the Cisco Unified CallManager Administration Translation Pattern Configuration window, configure the following translation patterns:

- Insert a translation pattern TP1 as 1XX
Partition: P_CallsFromRoomToFrontDesk
CSS: CSS_FrontDesk
Calling Line ID Presentation and Calling Name Presentation: Restricted
Connected Line ID Presentation and Connected Name Presentation: Allowed
{P_CallsFromRoomToFrontDesk, CSS_FrontDesk, Calling Line/Name - Restricted, Connected Line/Name - Allowed}

- Insert a translation pattern TP2 as 2XX
 Partition: P_CallsFromRoomToRoom
 CSS: CSS_Room
 Calling Line ID Presentation and Calling Name Presentation: Restricted
 Connected Line ID Presentation and Connected Name Presentation: Restricted
 {P_CallsFromRoomToRoom, CSS_Room, Calling Line/Name - Restricted, Connected Line/Name - Restricted}
- Insert a translation pattern TP3 as 3XX
 Partition: P_CallsFromRoomToClub
 CSS: CSS_Club
 Calling Line ID Presentation and Calling Name Presentation: Restricted
 Connected Line ID Presentation and Connected Name Presentation: Allowed
 {P_CallsFromRoomToClub, CSS_Club, Calling Line/Name - Restricted, Connected Line/Name - Allowed}
- Insert a translation pattern TP4 as 9XXXXX with called party transform mask as XXX
 Partition: P_CallsFromRoomToPSTN
 CSS: CSS_PSTN
 Calling Line ID Presentation and Calling Name Presentation: Restricted
 Connected Line ID Presentation and Connected Name Presentation: Default
 {P_CallsFromRoomToPSTN, CSS_PSTN, Calling Line/Name - Restricted, Connected Line/Name - Default}
- Insert a route pattern RP5 as 9.XXXXXX with discard digits as predot (DDI : PreDot)
 Partition: P_CallsFromRoomToPSTN
 CSS: CSS_PSTN
 Calling Line ID Presentation and Calling Name Presentation: Restricted
 Connected Line ID Presentation and Connected Name Presentation: Default
 {P_CallsFromRoomToPSTN, CSS_PSTN, Calling Line/Name - Restricted, Connected Line/Name - Default}
- Insert a translation pattern TP6 as 2XX
 Partition: P_CallsFromFrontDeskToRoom
 CSS: CSS_Room
 Calling Line ID Presentation and Calling Name Presentation: Allowed
 Connected Line ID Presentation and Connected Name Presentation: Restricted
 {P_CallsFromFrontDeskToRoom, CSS_Room, Calling Line/Name - Allowed, Connected Line/Name - Restricted}
- Insert a translation pattern TP7 as 1XX
 Partition: P_CallsFromFrontDeskToFrontDesk
 CSS: CSS_FrontDesk
 Calling Line ID Presentation and Calling Name Presentation: Allowed
 Connected Line ID Presentation and Connected Name Presentation: Allowed
 {P_CallsFromFrontDeskToFrontDesk, CSS_FrontDesk, Calling Line/Name - Allowed, Connected Line/Name - Allowed}
- Insert a translation pattern TP8 as 3XX
 Partition: P_CallsFromFrontDeskToClub
 CSS: CSS_Club
 Calling Line ID Presentation and Calling Name Presentation: Allowed
 Connected Line ID Presentation and Connected Name Presentation: Allowed
 {P_CallsFromFrontDeskToClub, CSS_Club, Calling Line/Name - Allowed, Connected Line/Name - Allowed}

- Insert a translation pattern TP9 as 9XXXX
Partition: P_CallsFromFrontDeskToPSTN
CSS: CSS_PSTN
Calling Line ID Presentation and Calling Name Presentation: Allowed
Connected Line ID Presentation and Connected Name Presentation: Default
{P_CallsFromFrontDeskToPSTN, CSS_PSTN, Calling Line/Name - Allowed, Connected Line/Name - Default}
- Insert a route pattern RP10 as 9.XXXX with discard digits as predot
Partition: P_CallsFromFrontDeskToPSTN
CSS: CSS_PSTN
Calling Line ID Presentation and Calling Name Presentation: Restricted
Connected Line ID Presentation and Connected Name Presentation: Default
{P_CallsFromFrontDeskToPSTN, CSS_PSTN, Calling Line/Name - Restricted, Connected Line/Name - Default}
- Insert a translation pattern TP11 as 1XX
Partition: P_CallsFromClubToFrontDesk
CSS: CSS_FrontDesk
Calling Line ID Presentation and Calling Name Presentation: Allowed
Connected Line ID Presentation and Connected Name Presentation: Allowed
{P_CallsFromClubToFrontDesk, CSS_FrontDesk, Calling Line/Name - Allowed, Connected Line/Name - Allowed}
- Insert a translation pattern TP12 as 2XX
Partition: P_CallsFromClubToRoom
CSS: CSS_Room
Calling Line ID Presentation and Calling Name Presentation: Allowed
Connected Line ID Presentation and Connected Name Presentation: Restricted
{ P_CallsFromClubToRoom, CSS_Room, Calling Line/Name - Allowed, Connected Line/Name - Restricted}
- Insert a translation pattern TP13 as 1XX
Partition: P_CallsFromPSTN
CSS: CSS_FrontDesk
Calling Line ID Presentation and Calling Name Presentation: Restricted
Connected Line ID Presentation and Connected Name Presentation: Allowed
{ P_CallsFromPSTN, CSS_FrontDesk, Calling Line/Name - Restricted, Connected Line/Name - Allowed}

Call Park

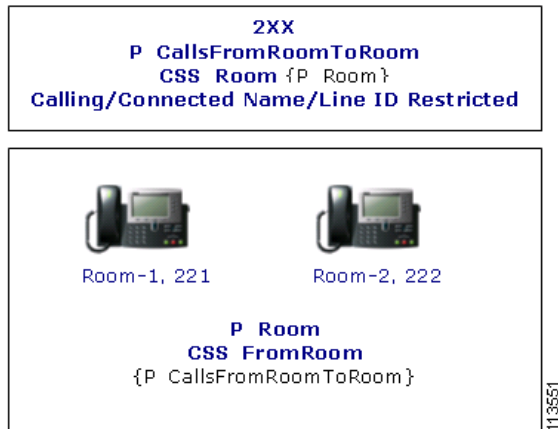
From the Cisco Unified CallManager Administration Call Park Configuration window, configure the following items for the Call Park feature:

- Insert a Call Park directory number 888X
Call Park Range: P_ParkNumberRange/888X
- Configure the translation patterns for the call park retrieval from room: TP (11-20): 8880 to 8889
Partition: P_RoomToParkNumber
CSS: CSS_RoomParkRange
Calling Line ID Presentation and Calling Name Presentation: Restricted
Connected Line ID Presentation and Connected Name Presentation: Restricted

Sample Call Flow

Figure 17-1 shows a graphic representation of a sample call flow, with a description of how the Call Display Restrictions feature works in this scenario.

Figure 17-1 Sample Call Flow



1. Room-1 calls Room-2 (directory number 222).
2. Room-1 has CSS_FromRoom, so Room-1 can access only phones that are in the P_CallsFromRoomToRoom partition.
3. The P_CallsFromRoomToRoom partition contains 2XX, but it does not contain directory number 222 (Room-2).
4. The call routes to translation pattern TP:2XX, which is configured to restrict display information.
5. The TP:2XX translation pattern can access the P_Room partition because it is configured with the CSS_Room calling search space.
6. The CSS_Room calling search space contains directory number 222 (Room-2).
7. The call connects to Room-2, but the TP:2XX translation pattern restricts the display information.

Related Topics

- [Translation Pattern Configuration](#), *Cisco Unified CallManager Administration Guide*
- [Cisco Unified IP Phone Configuration](#), *Cisco Unified CallManager Administration Guide*
- [Calling Search Space Configuration](#), *Cisco Unified CallManager Administration Guide*
- [Device Profile Configuration](#), *Cisco Unified CallManager Administration Guide*
- [Partition Configuration](#), *Cisco Unified CallManager Administration Guide*
- [Cisco Unified IP Phones](#), *Cisco Unified CallManager System Guide*
- [Phone Features](#), *Cisco Unified CallManager System Guide*

Additional Cisco Documentation

- *Cisco Unified CallManager Serviceability System Guide*
- *Cisco Unified CallManager Serviceability Administration Guide*
- *Cisco Unified IP Phone Administration Guide for Cisco Unified CallManager*
- Cisco Unified IP Phone user documentation and release notes (all models)

