



# Configure Annunciator

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## Annunciator Overview

An annunciator is an SCCP software devices that runs on Cisco Unified Communications Manager and which allows you to send prerecorded messages and tones to Cisco IP Phones and gateways. The annunciator is activated on a cluster node by turning on the Cisco IP Voice Media Streaming service on that node. Features such as MLPP, SIP trunks, IOS gateways, and software conference bridges rely on the annunciator to send the predefined message to the phone or gateway via a one-way media stream. In addition:

- Both IPv4 and IPV6 are supported. The annunciator is configured automatically in dual mode when the system's platform is configured for IPv6 and the IPv6 enterprise parameter is enabled.
- SRTP is supported

### Annunciator Scalability

By default, an annunciator supports 48 simultaneous media streams. You can add capacity by activating the annunciator on additional nodes or by changing the default number of annunciator media streams via the **Call Count** service parameter. However, it's not recommended to increase this value on a node unless the **Cisco CallManager** service is deactivated on that node.

If the annunciator runs on a dedicated subscriber node where the **Cisco CallManager** service does not run, the annunciator can support up to 255 simultaneous announcement streams. If the dedicated subscriber node meets the OVA virtual machine configuration for 10,000 users, the annunciator can support up to 400 simultaneous announcement streams.



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**Caution** We recommend that you do not activate the annunciator on Unified Communications Manager nodes that have a high call-processing load.

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### Annunciator with Conference Bridge

The Annunciator is available to a conference bridge under the following conditions:

- If the media resource group list that contains the annunciator is assigned to the device pool where the conference bridge exists.
- If the annunciator is configured as the default media resource.

The annunciator is not available to a conference bridge if the media resource group list is assigned directly to the device that controls the conference.

Each conference supports only one announcement. If the system requests another announcement while the current announcement is playing, the new announcement preempts the one that is playing.

## Default Annunciator Announcements and Tones

Cisco Unified Communications Manager automatically provides a set of prerecorded annunciator announcements when you activate the Cisco IP Media Streaming Application service. An announcement or a tone is played for the following conditions:

- Announcement — Played for devices that are configured for Cisco Multilevel Precedence and Preemption.
- Barge tone — Heard before a participant joins an ad hoc conference.
- Ring back tone — When you transfer a call over the PSTN through an IOS gateway, the annunciator plays the tone because the gateway cannot play the tone when the call is active.
- Ring back tone — When you transfer calls over an H.323 intercluster trunk, a tone is played.
- Ring back tone — When you transfer calls to the SIP client from a phone that is running SCCP, a tone is played.

You cannot change the default prerecorded annunciator announcements or add additional announcements. Localization of the announcement is supported if the Cisco Unified Communications Manager Locale Installer is installed and the locale settings are configured for the Cisco Unified IP Phone or device pool. For information about the Locale Installer and the files to install for user and (combined) network locales, see *Installing Cisco Unified Communications Manager*. To download the locale installer, see the support pages at [www.cisco.com](http://www.cisco.com).

**Table 1: Prerecorded Annunciator Announcements**

Condition	Announcement
An equal or higher precedence call is in progress.	Precedence access limitation has prevented the completion of your call. Please hang up and try again. This is a recording.
A precedence access limitation exists.	Precedence access limitation has prevented the completion of your call. Please hang up and try again. This is a recording.
Someone attempted an unauthorized precedence level.	The precedence used is not authorized for your line. Please use an authorized precedence or ask your operator for assistance. This is a recording.
The call appears busy, or the administrator did not configure the directory number for call waiting or preemption.	The number you have dialed is busy and not equipped for call waiting or preemption. Please hang up and try again. This is a recording.

Condition	Announcement
The system cannot complete the call.	Your call cannot be completed as dialed. Please consult your directory and call again or ask your operator for assistance. This is a recording.
A service interruption occurred.	A service disruption has prevented the completion of your call. In case of emergency call your operator. This is a recording.

The following table lists the tones that the annunciator supports.

**Table 2: Tone Description**

Type	Description
Busy tone	A busy tone is heard when the dialed number is busy.
Barge tone	A conference barge-in tone is heard before the participant joins an ad hoc conference.
Ring back tone	An alert tone is heard for the following scenarios: <ul style="list-style-type: none"> <li>• When you transfer a call over the PSTN through an IOS gateway.</li> <li>• When you transfer a call over an H.323 intercluster trunk.</li> <li>• When you transfer a call to the SIP client from an SCCP phone.</li> </ul>

## Annunciator Use With Conference Bridges

The Annunciator is available to a conference bridge under the following conditions:

- If the media resource group list that contains the annunciator is assigned to the device pool where the conference bridge exists.
- If the annunciator is configured as the default media resource.

The annunciator is not available to a conference bridge if the media resource group list is assigned directly to the device that controls the conference.

Each conference supports only one announcement. If the system requests another announcement while the current announcement is playing, the new announcement preempts the one that is playing.

## Annunciator Configuration Task Flow

### Procedure

	Command or Action	Purpose
Step 1	<a href="#">Activate the Annunciator, on page 4</a>	Activate the Cisco IP Voice Media Streaming Application service on the node to activate the annunciator for that node. Activate only one Cisco IP Voice Media Streaming Application

	Command or Action	Purpose
		service for each annunciator device in the cluster.
<b>Step 2</b>	Required: <a href="#">Media Resource Group Task Flow</a>	Add the annunciator to media resource groups and lists to manage your media resources using Cisco Unified Communications Manager Administration. You can see which media resource groups have annunciators from the <b>Dependency Records Summary</b> window.
<b>Step 3</b>	<a href="#">Configure Device Pools</a>	Add the media resource group that includes the annunciator to a device pool using Cisco Unified Communications Manager Administration. Repeat this step for each annunciator. Each annunciator must belong to a device pool.
<b>Step 4</b>	(Optional) <a href="#">Change the Default Number of Media Streams, on page 5</a>	You can change the default number of media streams for an annunciator.
<b>Step 5</b>	(Optional) <a href="#">Override the Annunciator Security Mode, on page 5</a>	When Cisco Unified Communications Manager is configured in a secured deployment, the media streaming between the annunciator and security enabled devices is automatically encrypted using the Secure Real-Time Protocol (SRTP). You can override the annunciator security settings so that media streamed from the secured annunciator is not encrypted.
<b>Step 6</b>	(Optional) <a href="#">View List of Media Resource Groups That Have Annunciators, on page 6</a>	You can see which media resource groups use the annunciator device.
<b>Step 7</b>	(Optional) <a href="#">Configure Annunciator for Conference Bridges, on page 6</a>	You can use the annunciator with conference bridges when the annunciator and conference bridge belong to the same device pool.

## Activate the Annunciator

Activate only one Cisco IP Voice Media Streaming Application service for each annunciator device in the cluster.



**Caution** We recommend that you do not activate the annunciator on Cisco Unified Communications Manager nodes that have a high call-processing load.

### Procedure

**Step 1** From the Serviceability GUI, choose **Tools > Activation**. The **Service Activation** window appears.

- Step 2** Select the node in the **Server** field and click **Go**.
- Step 3** Check **Cisco IP Voice Media Streaming Application**, and then click **Save**.
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#### What to do next

If you haven't yet set up your media resource group and assigned it to a device pool, [Media Resources Configuration Task Flow](#).

Otherwise, [Change the Default Number of Media Streams, on page 5](#).

## Change the Default Number of Media Streams

An annunciator supports 48 simultaneous media streams by default. You can change the default number of media streams using the annunciator service parameter; however, we recommend that you do not exceed 48 annunciator streams on a node.

#### Before you begin

[Activate the Annunciator, on page 4](#)

#### Procedure

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- Step 1** From Cisco Unified Communications Manager Administration, choose **System > Service Parameters**.
- Step 2** In the **Service Parameters Configuration** window, select the server and then select the service called Cisco IP Voice Media Streaming App.
- Step 3** In the **Service Parameter Configuration** window, enter the number of simultaneous media streams in the **Call Count** field of the **Annunciator (ANN) Parameters** section, and then click **Save**.

When you update the annunciator, the changes automatically occur when the annunciator is idle and no active announcements are playing.

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#### What to do next

[Override the Annunciator Security Mode, on page 5](#)

## Override the Annunciator Security Mode

When the enterprise parameter called Cluster Security Mode is set to 1 (mixed mode), annunciator devices are automatically enable for security. The annunciator registers as a secured SRTP device on Cisco Unified Communications Manager nodes that have Secure Real-Time Protocol (SRTP) enabled. A locked icon appears on SRTP capable devices. Announcements from a secured annunciator are encrypted if the receiving device is also SRTP capable; otherwise, unsecured announcements and tones are sent.

You can override the annunciator security mode using the service parameter called Make Annunciator Non-secure when Cluster Security is Mixed. When the annunciator security mode is overridden, an unencrypted announcement is played even if the receiving device is SRTP capable.

**Before you begin**

[Change the Default Number of Media Streams, on page 5](#)

**Procedure**

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- Step 1** Required: From Cisco Unified Communications Manager Administration, choose **System > Service Parameters**.
- Step 2** Select the node in the **Server** field.
- Step 3** Select **Cisco Unified IP Voice Media Streaming Application** in the **Service** field.
- Step 4** Set **Make Annunciator Non-secure when Cluster Security is Mixed** to **True**, and then click **Save**.
- Tip** Click **Advanced** if you do not see the **Make Annunciator Non-secure when Cluster Security is Mixed** parameter.
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**What to do next**

[View List of Media Resource Groups That Have Annunciators, on page 6](#)

## View List of Media Resource Groups That Have Annunciators

View the **Dependency Records Summary** window to see which media resource groups use the annunciator device.

**Before you begin**

[Override the Annunciator Security Mode, on page 5](#)

**Procedure**

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- Step 1** From Cisco Unified CM Administration, choose **Media Resources > Annunciator**.
- Step 2** Select the annunciator that is set up for your system.
- Step 3** From the **Related Links** drop-down list box, choose **Dependency Records** and click **Go**. The **Dependency Records Summary** window displays the media resource groups that use the annunciator device.
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**What to do next**

[Configure Annunciator for Conference Bridges, on page 6](#)

## Configure Annunciator for Conference Bridges

You can use the annunciator with conference bridges.

**Before you begin**

[View List of Media Resource Groups That Have Annunciators, on page 6](#)

**Procedure**

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- Step 1** Add the annunciator to a media resource group list.
- Step 2** Assign the media resource group list that contains the annunciator to the device pool of the conference bridge to make the annunciator available to all devices in the cluster.
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