Configure Interactive Voice Response

Interactive Voice Response Overview

The Interactive Voice Response (IVR) device enables Cisco Unified Communications Manager to play prerecorded feature announcements (.wav files) to devices such as Cisco Unified IP Phones and Gateways. These announcements play on devices that use features which require IVR announcements, like Conference Now.

When you add a node, an IVR device is automatically added to that node. The IVR device remains inactive until the Cisco IP Voice Media Streaming Application service is activated on that node.

An IVR supports 48 simultaneous callers by default. You can change the number of IVR callers using the Cisco IP Voice Media Streaming Application service parameter. However, we recommend that you do not exceed 48 IVR callers on a node. You can configure the number of callers for IVR based on expected simultaneous calls to IVR for joining Conference Now.

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Caution   Do not activate the IVR device on Cisco Unified Communications Manager nodes that have a high call-processing load.

Default IVR Announcements and Tones

Cisco Unified Communications Manager automatically provides a set of prerecorded Interactive Voice Response (IVR) announcements when you activate the Cisco IP Media Streaming Application service. You can replace the default prerecorded IVR announcements. An announcement is played for the following conditions:

Table 1: Prerecorded IVR Announcements

Announcement	Condition
ConferenceNowAccessCodeFailed Announcement	Plays when an attendee enters the wrong access code to join Conference Now after exceeding the maximum number of attempts.
ConferenceNowAccessCodeInvalid Announcement	Plays when an attendee enters the wrong access code.
ConferenceNowCFBFailed Announcement	Plays when the conference bridge capacity limit is exceeded while initiating Conference Now.
ConferenceNowEnterAccessCode Announcement	Plays when an attendee joins Conference Now and the host sets an attendee access code.
ConferenceNowEnterPIN Announcement	Plays when a host or attendee tries to join a meeting.
ConferenceNowFailedPIN Announcement	Plays after the host exceeds the maximum number of attempts to enter a correct PIN.
ConferenceNowGreeting Announcement	Plays a greeting prompt for Conference Now.
ConferenceNowInvalidPIN Announcement	Plays when the host enters a wrong PIN.
ConferenceNowNumberFailed Announcement	Plays when a host or attendee enters the wrong meeting number after exceeding the maximum number of attempts.
ConferenceNowNumberInvalid Announcement	Plays when a host or attendee enters a wrong meeting number.

Interactive Voice Response Restrictions

Feature	Restriction
Load Balancing	The Interactive Voice Response (IVR) uses Real-Time Protocol (RTP) streams through a common media device driver. This device driver is also used by other software media devices provided by the Cisco IP Voice Media Streaming Application services such as Music On Hold (MOH), Software Media Termination Point (MTP), Software Conference Bridge (CFB), and Annunciator. Configuring a larger call volume affects the system performance. This also impacts call processing if the Call Manager service is active on the same server node.
DTMF Digits	The IVR supports only Out-Of-Band (OOB) DTMF digit collection method. If there is a DTMF capability mismatch between the calling device and the IVR, an MTP will be allocated.

Feature	Restriction
Codecs	The IVR only supports codec G.711 (a-law and mu-law), G.729, and Wide Band 256k. If there is a codec mismatch between the calling device and the IVR, a transcoder will be allocated.

Interactive Voice Response Configuration Task Flow

Procedure

	Command or Action	Purpose
Step 1	Activate the Interactive Voice Response, on page 3	Activate the Cisco IP Voice Media Streaming Application service on the node to activate the IVR for that node. Activate only one Cisco IP Voice Media Streaming Application service for each IVR device in the cluster.
Step 2	Required: View List of Media Resource Groups That Have IVR, on page 4	Add the IVR to media resource groups and lists to manage your media resources using Cisco Unified Communications Manager Administration.
Step 3	(Optional) Change the Default Number of Media Streams	You can change the default number of media streams for an IVR.

Activate the Interactive Voice Response

Activate one or more Cisco IP Voice Media Streaming Application service for each node to have Interactive Voice Response (IVR) device registered in the cluster.

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Caution   Do not activate the IVR on Cisco Unified Communications Manager nodes that have a high call-processing load.

Procedure

Step 1   From the Cisco Unified 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 the **Cisco IP Voice Media Streaming Application** check box, and then click **Save**.

View List of Media Resource Groups That Have IVR

Procedure

Step 1	From Cisco Unified CM Administration, choose **Media Resources** > **Interactive Voice Response (IVR)**. The **Find and List Interactive Voice Response (IVR)** window is displayed.
Step 2	From the **Find and List Interactive Voice Response (IVR) where** window, click **Find**. A list of IVRs that are available on Cisco Unified Communications Manager is displayed.
Step 3	Choose the IVR on which you want to see the associated list of media resource groups.
Step 4	Choose **Dependency Records** from the **Related Links** drop-down list and click **Go**.

If the dependency records are not enabled for the system, the **Dependency Records Summary** window displays a message.

IVR Settings

Field	Description
Server	Displays the preconfigured server (servers are added at installation), by default.
Name	Designates the name that is used when the device registers with the Cisco Unified Communications Manager. Enter a name of up to 15 alphanumeric characters (you can use periods, dashes, and underscores).
Description	Enter a description of up to 128 alphanumeric characters (you can use periods, dashes, and underscores). Default uses the server name, which includes the prefix IVR_.
Device Pool	Choose Default or choose a device pool from the drop-down list of configured device pools.
Location	Use locations to implement call admission control (CAC) in a centralized call-processing system. CAC allows you to regulate audio quality and video availability by limiting the bandwidth that is available for audio and video calls over links between locations. The location specifies the total bandwidth that is available for calls to and from this location. From the drop-down list, choose the appropriate location for this IVR. A location setting of Hub_None means that the locations feature does not keep track of the bandwidth that this IVR consumes. A location setting of Phantom specifies a location that enables successful CAC across intercluster trunks that use H.323 protocol or SIP. To configure a new location, use the **System** > **Location** menu option. For details on setting up a location-based CAC across intercluster trunks, see the *System Configuration Guide for Cisco Unified Communications Manager* .

Field	Description
Use Trusted Relay Point	From the drop-down list, enable or disable whether Unified Communications Manager inserts a trusted relay point (TRP) device with this media endpoint. Choose one of the following values: • Off—Choose this value to disable the use of a TRP with this device. • On—Choose this value to enable the use of a TRP with this device. A Trusted Relay Point (TRP) device designates an MTP or transcoder device that is labeled as Trusted Relay Point. Unified Communications Manager places the TRP closest to the associated endpoint device if more than one resource is needed for the endpoint (for example, a transcoder or RSVPAgent). If both TRP and MTP are required for the endpoint, TRP gets used as the required MTP. If both TRP and RSVPAgent are needed for the endpoint, Unified Communications Manager searches for an RSVPAgent that can also be used as a TRP. If both TRP and transcoder are needed for the endpoint, Cisco Unified Communications Manager searches for a transcoder that is also designated as a TRP.

Change IVR Parameters

Procedure

Step 1 From Cisco Unified Communications Manager Administration, choose **System** > **Service Parameters**. The **Service Parameters Configuration** window appears.

Step 2 Select the server and then select the service called Cisco IP Voice Media Streaming App. The **Service Parameter Configuration** window appears.

Step 3 Enter the number of simultaneous media streams in the **Call Count** field of the **Interactive Voice Response (IVR) Parameters** section, and then click **Save**.

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