



Music On Hold Configuration

The integrated Music On Hold feature provides the ability to place on-net and off-net users on hold with music streamed from a streaming source. This feature includes the following actions:

- End user hold
- Network hold, which includes transfer hold, conference hold, and park hold

Music On Hold configuration comprises configuration of Music On Hold audio sources and Music On Hold servers.

Use the following topics to configure Music On Hold:

- [Configuring Music On Hold Audio Sources, page 27-2](#)
- [Configuring Music On Hold Servers, page 27-12](#)

Related Topics

- [Chapter 28, “Media Resource Group Configuration”](#)
- [Chapter 29, “Media Resource Group List Configuration”](#)

Configuring Music On Hold Audio Sources

Use the following topics to configure Music On Hold audio sources:

- [Adding a Music On Hold Audio Source, page 27-2](#)
- [Updating a Music On Hold Audio Source, page 27-3](#)
- [Copying a Music On Hold Audio Source, page 27-4](#)
- [Deleting a Music On Hold Audio Source, page 27-6](#)
- [Configuring the Music On Hold Fixed Audio Source, page 27-7](#)
- [Music On Hold Audio Source Configuration Settings, page 27-9](#)

Related Topics

- [Configuring Music On Hold Servers, page 27-12](#)

Adding a Music On Hold Audio Source

Perform the following procedure to add a Music On Hold audio source.

Procedure

- Step 1** Choose **Service > Music On Hold**.
- The Music On Hold (MOH) Audio Source Configuration window displays. The MOH Audio Source: New (New) title displays with a *Status: Ready* indicator.
- Step 2** Choose <Add new MOH Audio Source> in the MOH Audio Sources list.
- Step 3** Enter the appropriate settings as described in [Table 27-2](#). At any point, click the **Cancel Changes** button to clear all input if necessary.

Step 4 Click **Insert**.

The Status changes from *Ready* to *Insert completed*. The MOH Audio Sources list now includes the new Music On Hold audio source.



Note The MOH Audio Source File Status window tells you about the MOH audio translation status for the added source.

Related Topics

- [Updating a Music On Hold Audio Source, page 27-3](#)
- [Copying a Music On Hold Audio Source, page 27-4](#)
- [Deleting a Music On Hold Audio Source, page 27-6](#)
- [Music On Hold Audio Source Configuration Settings, page 27-9](#)
- [Audio Sources for Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)

Updating a Music On Hold Audio Source

Perform the following procedure to update an existing Music On Hold audio source.



Note If a new version of an audio source file is available, you must perform this update procedure to use the new version.

Procedure

Step 1 Choose **Service > Music On Hold**.

The Music On Hold (MOH) Audio Source Configuration window displays. The MOH Audio Source: New (New) title displays with a *Status: Ready* indicator.

Step 2 From the MOH Audio Sources list, choose an existing Music On Hold audio source.

The MOH Audio Source title displays the name of the chosen Music On Hold Audio Source. The fields below the MOH Audio Source title display the previously defined values for this Music On Hold audio source.

- Step 3** Update the desired settings as described in [Table 27-2](#). At any point, click the **Cancel Changes** button to clear all new input and revert to the previous settings if necessary.
- Step 4** Click **Update**.
- Step 5** A message states that the changes take effect when streaming to the device is idle. Click **OK**.
- Step 6** Click the **Reset** button; to reset the device, click **OK**.
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Related Topics

- [Adding a Music On Hold Audio Source, page 27-2](#)
- [Copying a Music On Hold Audio Source, page 27-4](#)
- [Deleting a Music On Hold Audio Source, page 27-6](#)
- [Music On Hold Audio Source Configuration Settings, page 27-9](#)
- [Audio Sources for Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)

Copying a Music On Hold Audio Source

Perform the following procedure to copy an existing Music On Hold audio source.

Procedure

- Step 1** Choose **Service > Music On Hold**.
- The Music On Hold (MOH) Audio Source Configuration window displays. The MOH Audio Source: New (New) title displays with a *Status: Ready* indicator.
- Step 2** From the MOH Audio Sources list, choose an existing Music On Hold audio source.

The MOH Audio Source title displays the name of the chosen Music On Hold audio source. The fields below the MOH Audio Source title display the previously defined values for this Music On Hold audio source.

Step 3 Click the **Copy** button.

The MOH Audio Source title changes to indicate that a new MOH audio source is being added and is a copy of an existing MOH audio source.

Step 4 Update the desired settings as described in [Table 27-2](#). At any point, click the **Cancel Changes** button to clear all new input and revert to the previous settings if necessary.



Note You must change the MOH Audio Source Name to a unique name and choose a new MOH Audio Stream Number.

Step 5 Click **Update**.

The Status changes from *Ready* to *Insert completed*. The MOH Audio Sources list shows the new Music On Hold audio source as highlighted.

Related Topics

- [Adding a Music On Hold Audio Source, page 27-2](#)
- [Updating a Music On Hold Audio Source, page 27-3](#)
- [Deleting a Music On Hold Audio Source, page 27-6](#)
- [Music On Hold Audio Source Configuration Settings, page 27-9](#)
- [Audio Sources for Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)

Deleting a Music On Hold Audio Source

Perform the following procedure to delete an existing Music On Hold audio source.



Note You cannot delete an audio source that is used by a device pool or by an individual device.

Procedure

Step 1 Choose **Service > Music On Hold**.

The Music On Hold (MOH) Audio Source Configuration window displays. The Music On Hold Audio Source: New (New) title displays with a *Status: Ready* indicator.

Step 2 From the MOH Audio Sources list, choose an existing Music On Hold audio source.

The Music On Hold Audio Source title displays the name of the chosen Music On Hold audio source. The fields below the MOH Audio Source title display the previously defined values for this Music On Hold audio source.

Step 3 Click the **Delete** button.

A popup window displays the following warning:

You are about to permanently delete this Music On Hold Audio Source. This action cannot be undone.

Continue?

Step 4 Click **OK**.

The chosen Music On Hold audio source no longer appears on the MOH Audio Sources list. The Status changes from *Ready* to *Delete completed*.

Related Topics

- [Adding a Music On Hold Audio Source, page 27-2](#)
- [Updating a Music On Hold Audio Source, page 27-3](#)

- [Copying a Music On Hold Audio Source](#), page 27-4
- [Music On Hold Audio Source Configuration Settings](#), page 27-9
- [Audio Sources for Music On Hold](#), *Cisco CallManager System Guide*
- [Music On Hold Configuration Checklist](#), *Cisco CallManager System Guide*

Configuring the Music On Hold Fixed Audio Source

Perform the following procedure to configure the Music On Hold fixed audio source.

Procedure

Step 1 Choose **Service > Music On Hold**.

The Music On Hold (MOH) Audio Source Configuration window displays. The MOH Audio Source: New (New) title displays with a *Status: Ready* indicator.

Step 2 From the MOH Audio Sources list, choose the Fixed Audio Source.



Note The list always shows Fixed Audio Source as the last audio source in the list of MOH Audio Sources and always as audio source 51.

The Music On Hold (MOH) Fixed Audio Source Configuration window displays. The MOH Fixed Audio Source title displays with a *Status: Ready* indicator. The MOH Fixed Audio Source title displays the name of the Music On Hold Fixed Audio Source. The fields below the MOH Audio Source title display the previously defined values for the Music On Hold fixed audio source.

Step 3 Update the desired settings as described in [Table 27-1](#). At any point, click the **Cancel Changes** button to clear all new input and revert to the previous settings if necessary.

Table 27-1 Music On Hold Fixed Audio Source Configuration Settings

Field	Description
MOH Fixed Audio Source Information	
MOH Fixed Audio Source Name	Enter a unique name in this required field for the MOH fixed audio source. This name can comprise up to 50 characters. Valid characters include letters, numbers, spaces, dashes, dots (periods), and underscores.
MOH Fixed Audio Source Device	Enter the name for the audio device interface on a PC that is used to play the fixed audio source. Note The name must match exactly the device name of the device that is already installed.
Allow Multicasting	To specify that the MOH fixed audio source allows multicasting, check this check box. Note Changes to the multicast setting take effect immediately if at least one MOH server has already been configured for multicast. Otherwise, changes take effect only after you reset MOH servers by clicking the Reset MOH Servers button. If no MOH servers are configured for multicast, resetting has no effect.
MOH Server Reset Information	To reset all MOH Servers, click the Reset MOH Servers button. Cisco CallManager makes Music On Hold unavailable while the servers reset.

- Step 4** Click **Update** to update the Music On Hold fixed audio source or click **Delete** to disable the Music On Hold fixed audio source.

If you clicked **Update**, the Status changes from *Ready* to *Update completed*, and the MOH Audio Sources list shows the updated Music On Hold fixed audio source as highlighted. If you clicked **Delete**, the MOH Audio Sources list shows the MOH fixed audio source labeled as *(Disabled)*.

Related Topics

- [Adding a Music On Hold Audio Source, page 27-2](#)
- [Updating a Music On Hold Audio Source, page 27-3](#)
- [Copying a Music On Hold Audio Source, page 27-4](#)
- [Deleting a Music On Hold Audio Source, page 27-6](#)
- [Music On Hold Audio Source Configuration Settings, page 27-9](#)
- [Audio Sources for Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)

Music On Hold Audio Source Configuration Settings

Table 27-2 describes the configuration settings used for configuring Music On Hold Audio Sources.

Table 27-2 Music On Hold Audio Source Configuration Settings

Field	Description
MOH Audio Source Information	
MOH Audio Stream Number	Use this required field to choose the stream number for this MOH audio source. To do so, click the drop-down arrow and choose a value from the list displayed. For existing MOH audio sources, this value displays in the MOH Audio Source title.
MOH Audio Source File	Use this required field to choose the file for this MOH audio source. To do so, click the drop-down arrow and choose a value from the list displayed.

Table 27-2 Music On Hold Audio Source Configuration Settings (continued)

Field	Description
MOH Audio Source Name	Enter a unique name in this required field for the MOH audio source. This name can comprise up to 50 characters. Valid characters include letters, numbers, spaces, dashes, dots (periods), and underscores.
Play continuously (repeat)	To specify continuous play of this MOH audio source, check this check box. Note Cisco recommends checking this check box. If continuous play of an audio source is not specified, only the first party placed on hold, not additional parties, will receive the MOH audio source.
Allow Multicasting	To specify that this MOH audio source allows multicasting, check this check box.

Table 27-2 Music On Hold Audio Source Configuration Settings (continued)

Field	Description
MOH Audio Source File Status	<p><i>Display only.</i> This pane displays information about the source file for a chosen MOH audio source. For an MOH audio source, the following attributes display:</p> <ul style="list-style-type: none"> • Input File Name • Error Code • Error Text • Low Date Time • High Date Time • Output File List <ul style="list-style-type: none"> – ULAW wav file name and status – ALAW wav file name and status – G.729 wav file name and status – Wideband wav file name and status • Time MOH Audio Translation completed
MOH Server Reset Information	<p>To reset all MOH servers, click the Reset MOH Servers button.</p> <p>Note Cisco CallManager makes Music On Hold unavailable while the servers reset.</p>

Related Topics

- [Adding a Music On Hold Audio Source, page 27-2](#)
- [Updating a Music On Hold Audio Source, page 27-3](#)
- [Copying a Music On Hold Audio Source, page 27-4](#)
- [Audio Sources for Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)

Configuring Music On Hold Servers

Use the following topics to configure Music On Hold servers:

- [Adding a Music On Hold Server, page 27-12](#)
- [Updating a Music On Hold Server, page 27-13](#)
- [Copying a Music On Hold Server, page 27-14](#)
- [Deleting a Music On Hold Server, page 27-16](#)
- [Resetting a Music On Hold Server, page 27-17](#)
- [Music On Hold Server Configuration Settings, page 27-18](#)

For any Music On Hold server that you configure, you may trace the configuration of that server. Refer to the *Cisco CallManager Serviceability Administration Guide* for more information.

Related Topics

- [Configuring Music On Hold Audio Sources, page 27-2](#)
- *Cisco CallManager Serviceability Administration Guide*

Adding a Music On Hold Server

Perform the following procedure to add a Music On Hold server.

Procedure

- Step 1** Choose **Service > Music On Hold**.
The Music On Hold (MOH) Audio Source Configuration window displays.
- Step 2** Click **Configure Music On Hold Servers**.
The Music On Hold (MOH) Server Configuration window displays. The Music On Hold Server: New title displays with a *Status: Ready* indicator.
- Step 3** Choose <Add new Music On Hold Server> in the MOH Servers list.
- Step 4** Enter the appropriate settings as described in [Table 27-3](#). At any point, click the **Cancel Changes** button to clear all input if necessary.

Step 5 Click **Insert**.

The Status changes from *Ready* to *Insert completed*. The MOH Servers list now includes the new Music On Hold server.

Related Topics

- [Updating a Music On Hold Server, page 27-13](#)
- [Copying a Music On Hold Server, page 27-14](#)
- [Deleting a Music On Hold Server, page 27-16](#)
- [Resetting a Music On Hold Server, page 27-17](#)
- [Music On Hold Server Configuration Settings, page 27-18](#)
- [Understanding Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Server, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)
- [Cisco CallManager Serviceability Administration Guide](#)

Updating a Music On Hold Server

Perform the following procedure to update an existing Music On Hold server.

Procedure

Step 1 Choose **Service > Music On Hold**.

The Music On Hold (MOH) Audio Source Configuration window displays.

Step 2 Click **Configure Music On Hold Servers**.

The Music On Hold (MOH) Server Configuration window displays. The Music On Hold Server: New title displays with a *Status: Ready* indicator.

Step 3 Choose an existing Music On Hold server from the MOH Servers list.

The Music On Hold Server title displays the name of the chosen Music On Hold server. The fields below display the previously defined values for this Music On Hold server.

Step 4 Update the desired settings as described in [Table 27-3](#). At any point, click the **Cancel Changes** button to clear all new input and revert to the previous settings if necessary.

Step 5 Click **Update**.

The Status changes from *Ready* to *Update completed*. The MOH Servers list shows the updated Music On Hold server as highlighted.

Related Topics

- [Adding a Music On Hold Server, page 27-12](#)
- [Copying a Music On Hold Server, page 27-14](#)
- [Deleting a Music On Hold Server, page 27-16](#)
- [Resetting a Music On Hold Server, page 27-17](#)
- [Music On Hold Server Configuration Settings, page 27-18](#)
- [Understanding Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Server, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)
- [Cisco CallManager Serviceability Administration Guide](#)

Copying a Music On Hold Server

Perform the following procedure to copy an existing Music On Hold server.

Procedure

Step 1 Choose **Service > Music On Hold**.

The Music On Hold (MOH) Audio Source Configuration window displays.

Step 2 Click **Configure Music On Hold Servers**.

The Music On Hold (MOH) Server Configuration window displays. The Music On Hold Server: New title displays with a *Status: Ready* indicator.

- Step 3** Choose an existing Music On Hold server from the MOH Servers list.
- The Music On Hold Server title displays the name of the chosen Music On Hold server. The fields below the Music On Hold server title display the previously defined values for this Music On Hold server.
- Step 4** Click the **Copy** button.
- Step 5** Update the desired settings as described in [Table 27-3](#). At any point, click the **Cancel Changes** button to clear all new input and revert to the previous settings if necessary.



Note You must change at least the Music On Hold Server Name. You must also select a different server (node).

- Step 6** Click **Insert**.
- The Status changes from *Ready* to *Insert completed*. The MOH Servers list shows the new Music On Hold server as highlighted.
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Related Topics

- [Adding a Music On Hold Server, page 27-12](#)
- [Updating a Music On Hold Server, page 27-13](#)
- [Deleting a Music On Hold Server, page 27-16](#)
- [Resetting a Music On Hold Server, page 27-17](#)
- [Music On Hold Server Configuration Settings, page 27-18](#)
- [Understanding Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Server, Cisco CallManager System Guide](#)
- [Music On Hold Configuration Checklist, Cisco CallManager System Guide](#)
- [Cisco CallManager Serviceability Administration Guide](#)

Deleting a Music On Hold Server

Perform the following procedure to delete an existing Music On Hold server.



Note You must remove a Music On Hold server from any media resource groups that include the server before you can delete the Music On Hold server.

Procedure

Step 1 Choose **Service > Music On Hold**.

The Music On Hold (MOH) Audio Source Configuration window displays.

Step 2 Click **Configure Music On Hold Servers**.

The Music On Hold (MOH) Server Configuration window displays. The Music On Hold Server: New title displays with a *Status: Ready* indicator.

Step 3 Choose an existing Music On Hold server from the MOH Servers list.

The Music On Hold Server title displays the name of the chosen Music On Hold server. The fields below the Music On Hold server title display the previously defined values for this Music On Hold server.

Step 4 Click the **Delete** button.

A popup window displays the following warning:

You are about to permanently delete this Music On Hold Server. This action cannot be undone.

Continue?

Step 5 Click **OK**.

The chosen Music On Hold server no longer appears on the MOH Servers list. The Status changes from *Ready* to *Delete completed*.

Related Topics

- [Adding a Music On Hold Server, page 27-12](#)
- [Updating a Music On Hold Server, page 27-13](#)

- [Copying a Music On Hold Server](#), page 27-14
- [Resetting a Music On Hold Server](#), page 27-17
- [Music On Hold Server Configuration Settings](#), page 27-18
- [Understanding Music On Hold](#), *Cisco CallManager System Guide*
- [Music On Hold Server](#), *Cisco CallManager System Guide*
- [Music On Hold Configuration Checklist](#), *Cisco CallManager System Guide*
- *Cisco CallManager Serviceability Administration Guide*

Resetting a Music On Hold Server

Perform the following procedure to reset an existing Music On Hold server.

Procedure

- Step 1** Choose **Service > Music On Hold**.
- The Music On Hold (MOH) Audio Source Configuration window displays.
- Step 2** Click **Configure Music On Hold Servers**.
- The Music On Hold (MOH) Server Configuration window displays. The Music On Hold Server: New title displays with a *Status: Ready* indicator.
- Step 3** Choose an existing Music On Hold server from the MOH Servers list.
- The Music On Hold Server title displays the name of the chosen Music On Hold server. The fields below the Music On Hold server title display the previously defined values for this Music On Hold server.
- Step 4** Click the **Reset** button.
- A popup window displays the following warning:
- This will reset the MOH Server. Calls currently on Hold using this MOH Server will no longer hear the audio. Continue?
- Step 5** Click **OK**.
- A popup window displays the following message:
- The MOH Server is being reset.

Step 6 Click **OK**.

Cisco CallManager resets the chosen Music On Hold server. The MOH Servers list shows the reset Music On Hold server as highlighted.

Related Topics

- [Adding a Music On Hold Server, page 27-12](#)
- [Updating a Music On Hold Server, page 27-13](#)
- [Copying a Music On Hold Server, page 27-14](#)
- [Deleting a Music On Hold Server, page 27-16](#)
- [Music On Hold Server Configuration Settings, page 27-18](#)
- [Understanding Music On Hold, *Cisco CallManager System Guide*](#)
- [Music On Hold Server, *Cisco CallManager System Guide*](#)
- [Music On Hold Configuration Checklist, *Cisco CallManager System Guide*](#)
- [Cisco CallManager Serviceability Administration Guide](#)

Music On Hold Server Configuration Settings

[Table 27-3](#) describes the configuration settings used for configuring Music On Hold servers.

Table 27-3 Music On Hold Server Configuration Settings

Field	Description
Device Information	
Host Server	Use this required field to choose a host server for the Music On Hold server. To do so, click the drop-down arrow and choose a server from the list displayed. For existing Music On Hold servers, this field is display only.

Table 27-3 Music On Hold Server Configuration Settings (continued)

Field	Description
Music On Hold Server Name	Enter a unique name in this required field for the Music On Hold server. This name can comprise up to 15 characters. Valid characters include letters, numbers, spaces, dashes, dots (periods), and underscores.
Description	Enter a description for the Music On Hold server. This description can comprise up to 50 characters. Ensure Description does not contain ampersand (&), double quotes (“), brackets ([]), less than (<), greater than (>), or the percent sign (%).
Device Pool	Use this required field to choose a device pool for the Music On Hold server. To do so, click the drop-down arrow and choose a device pool from the list displayed.
Location	Choose the appropriate location for this MOH server. The location specifies the total bandwidth available for calls to and from this location. A location setting of <i>None</i> means that the locations feature does not keep track of the bandwidth consumed by this MOH server.
Maximum Half Duplex Streams	Enter a number in this required field for the maximum number of half-duplex streams that this Music On Hold server supports. Valid values range from 0 to 500.
Maximum Multicast Connections	Enter a number in this required field for the maximum number of multicast connections that this Music On Hold server supports. Valid values range from 0 to 999999.
Fixed Audio Source Device	Enter the device name of the fixed audio source device. This device serves as the per-server override used if the server has a special sound device installed.

Table 27-3 Music On Hold Server Configuration Settings (continued)

Field	Description
Run Flag	Use this required field to choose a run flag for the Music On Hold server. To do so, click the drop-down arrow and choose Yes or No .
Multicast Audio Source Information	
Enable Multicast Audio Sources on this MOH Server	<p>Check or uncheck this check box to enable or disable multicast of audio sources for this Music On Hold server.</p> <p>Note If this MOH server belongs to a multicast media resource group, a message asks you to enable multicast on this MOH server or to update the specified media resource group(s) either by removing this MOH server or by changing the multicast setting of each group listed.</p>
Base Multicast IP Address	<p>If multicast support is needed, enter the base multicast IP address in this field. Valid IP addresses for multicast range from 224.0.1.0 to 239.255.255.255.</p> <p>Note IP addresses between 224.0.1.0 and 238.255.255.255 fall in the reserved range of IP multicast addresses for public multicast applications. Use of such addresses may interfere with existing multicast applications on the Internet. Cisco strongly recommends using IP addresses in the range reserved for administratively controlled applications on private networks (239.1.1.1 - 239.255.255.255).</p> <p>Note Multicast by IP address is preferable in firewall situations.</p>

Table 27-3 Music On Hold Server Configuration Settings (continued)

Field	Description
Base Multicast Port Number	If multicast support is needed, enter the base multicast port number in this field. Valid multicast port numbers include even numbers that range from 16384 to 32767.
Increment Multicast on	Click Port Number to increment multicast on port number. Click IP Address to increment multicast on IP address.

Selected Multicast Audio Sources

Note Only audio sources for which the Allow Multicasting check box was checked appear in this listing.

No.	<i>Display only.</i> This field designates Music On Hold audio stream number associated with a particular multicast audio source. Only audio sources defined as allowing multicasting display.
Audio Source Name	<i>Display only.</i> This field designates name of audio source defined as allowing multicasting.
Max Hops	For each multicast audio source, enter the maximum number of router hops through which multicast packets should pass. Valid values range from 1 to 15. Note Using high values can lead to network saturation. This field is also known as <i>Time to Live</i> .

Related Topics

- [Adding a Music On Hold Server, page 27-12](#)
- [Updating a Music On Hold Server, page 27-13](#)
- [Copying a Music On Hold Server, page 27-14](#)
- [Resetting a Music On Hold Server, page 27-17](#)
- [Understanding Music On Hold, Cisco CallManager System Guide](#)
- [Music On Hold Server, Cisco CallManager System Guide](#)

- [Music On Hold Configuration Checklist](#), *Cisco CallManager System Guide*
- *Cisco CallManager Serviceability Administration Guide*