



Media Termination Point

A Media Termination Point (MTP) is invoked on behalf of H.323 endpoints involved in a call in order to enable supplementary call services. In some cases, H.323 gateways may require that calls use an MTP in order to enable supplementary call services, but normally, Cisco gateways do not.

MTP is a Cisco software application that installs on a server during the software installation process. During installation, the component is called the “IpVoiceMediaStreamer” and is common to both the MTP and Conference Bridge applications. Under Windows2000, the application runs as a service and is called “CiscoIpVoiceMediaStreamingApp”.

The MTP registers with its specified primary Cisco CallManager, and informs the Cisco CallManager about how many MTP resources it supports.



Note

Transcoders also provide the capabilities of an MTP in addition to their transcoding functions. You cannot have both Transcoders and MTPs registered with the same Cisco CallManager, at the same time. See the “Transcoder” section on page 33-1 for more information.

Each MTP is given a list of Cisco CallManagers, in priority order, to which it should attempt to register. The first Cisco CallManager in the list is its primary Cisco CallManager. If the primary Cisco CallManager fails, the MTP attempts to register with the next available Cisco CallManager in the list. Each MTP can register with only one Cisco CallManager at a time. An MTP always registers with its primary (or publisher) Cisco CallManager if that Cisco CallManager is available, and re-registers with the primary Cisco CallManager as soon as it

becomes available after a failure. The system may have multiple MTPs, each of which may be registered to one or many Cisco CallManagers depending on how your system is configured.

The Cisco CallManager controls MTP resources. Multiple MTPs may be registered with the same Cisco CallManager. When more than one MTP is registered with a given Cisco CallManager, that Cisco CallManager controls the set of resources for each of the MTPs. The MTPs may also be distributed across a networked system as desired.

For example, MTP application server 1 is configured for 48 MTP resources. The MTP application server 2 is configured for 24 resources. If both MTPs register with the same Cisco CallManager, that Cisco CallManager maintains both sets of resources for a total of 72 registered MTP resources.

When the Cisco CallManager determines that a call endpoint requires an MTP, it allocates an MTP resource from the MTP that has the most resources available. That MTP resource is inserted into the call on behalf of the endpoint. MTP resource use is invisible to both the users of the system, and the endpoint on whose behalf it was inserted. If an MTP resource is not available when it is needed, the call is connected without using an MTP resource, and supplementary services are not available on that call.

**Note**

Supplementary services are features, such as Call Hold, Call Transfer, Call Park, and Conferencing, that are otherwise not available when a call is routed to an H.323 endpoint.

Additional Information:

The following sections contains additional information about Media Termination Point (MTP):

- Important Information, page 30-3
- Call Failure/User Alert, page 30-4
- Transcoder, page 33-1

Related Procedures

The following list contains procedures related to the Media Termination Point (MTP):

- Adding a Media Termination Point, page 30-6

- Updating a Media Termination Point, page 30-7
- Deleting a Media Termination Point, page 30-9

Important Information

Consider the following information when planning your MTP configuration:

- Only one MTP application can be installed per server; however, to provide more MTP resources, you can install additional MTP applications on networked Windows NT servers. A single MTP provides a default of 48 MTP (user configurable) resources, depending on the speed of the network and the network interface card (NIC) card. For example, a 100 MB Network/NIC card can provide 48 MTP resources, while a 10 MB NIC card cannot.

For a 10 MB Network/NIC card, approximately 24 MTP resources can be provided, however, the exact number of MTP resources available depends on the amount of resources being consumed by other applications on that PC, the speed of the processor, network loading, and various other factors.

Consider the following formula to determine the approximate number of MTP applications needed for your system, assuming that your server can handle 48 MTP resources (you can substitute 48 for the correct number of MTP resources supported by your system):

$A \text{ plus } B \text{ divided by } 48 = \text{number of MTP applications needed } (A + B / 48 = \text{\# of MTP apps})$

where:

A represents the maximum number of simultaneous calls to H.323 endpoints that require an MTP

B represents the maximum number of simultaneous calls between Cisco Cisco CallManager clusters

If a remainder exists, add another MTP application.

- If one H.323 endpoint requires an MTP, it consumes one MTP resource, thus depending on the originating and terminating device type, more than one MTP resource might be consumed by a given call. The MTP resources assigned to the call are released when the call is terminated.

- Use Performance Monitor to monitor the usage of MTP resources. The Performance Monitor counter, Media TermPoints Out of Resources, increments for each H.323 call that has been connected without an MTP resource when one was required. This number can assist you in determining how many MTP resources are required for your callers, and whether you have adequate coverage.
- MTP system requirements are the same as Cisco CallManager system requirements.

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The following sections contains additional information about Media Termination Point (MTP):

- Media Termination Point, page 30-1
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Related Procedures

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Call Failure/User Alert

The following conditions can result in call failure or user alert:

- Although the MTP application can be installed on the same PC as the Cisco CallManager, we strongly recommend against this. If the MTP application is installed on the same PC as the Cisco CallManager, it can adversely affect the performance of the Cisco CallManager.
- When you configure the MTP, you are prompted to reset MTP before any changes can take effect. This does not result in disconnection of any calls connected to MTP resources, however. If you choose **Reset**, as soon as the MTP has no active calls, the changes take effect.

**Note**

When you make updates to the MTP and you choose **Restart**, all calls connected to the MTP go down at that time.

- If an MTP resource is not available during a call, the user might complain that the feature buttons on the phone did not work. This is an indication that either an MTP resource was not available, or that insufficient MTP resources were available. Check the Media TermPoints counters within the Cisco CallManager Performance Monitor to determine if calls have been connected without an MTP resource (the counter, Media TermPoints Out of Resources, displays the number of calls that have been connected without use of an MTP resource).

**Note**

MTP does not use region capability.

Additional Information:

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Adding a Media Termination Point

This section describes how to add a Media Termination Point (MTP).

Before You Begin

The following prerequisites must be met before proceeding with the steps:

- Servers must be configured
- Device pools must be configured



Note

Add only one Media Termination Point (MTP) device for each MTP application.

Procedure

- Step 1** Open Cisco CallManager Administration.
- Step 2** Click **Service > Media Termination Point**.
- Step 3** Enter a name for the MTP, up to 50 alphanumeric characters, in the Device Name field.
- Step 4** Enter any description for the MTP in the Device Description field.
- Step 5** Select a device pool from the drop down menu in the Device Pool field. The device pool specifies the list of Cisco CallManagers for this MTP.
- Step 6** Select the server on which the MTP will run in the Server Name field, from the drop-down menu.
- Step 7** Enter an endpoint count or keep the default number in the Full Duplex Streaming Endpoint Count field.
- Step 8** Enter the maximum number of seconds you want to allow calls or conferences to stay connected in the Orphan Stream Time Out field, or keep the default number.



Note

When a Cisco CallManager goes down, the calls and conferences that were on that Cisco CallManager are called orphans. The orphaned calls or conferences will stay up as long as the length of time you allocated for Orphan Stream Time Out.

- Step 9** Select **True** or **False** in the Run Flag field. (The Run Flag provides a way to disable functionality without removing devices.)
- Step 10** Click **Insert**. A message displays stating that the MTP device must be reset before the changes take affect.
- Step 11** Click **OK**. The page refreshes showing the specific information for the device you just created. The device should now appear in the list on the left side of the page.
- Step 12** Click **Reset Device** and follow the instructions in the Reset Device dialog box.
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Additional Information

The following list contains additional information related to this procedure:

- Media Termination Point, page 30-1
- Important Information, page 30-3
- Call Failure/User Alert, page 30-4
- Transcoder, page 33-1

Related Procedures

The following list contains other related procedures:

- Updating a Media Termination Point, page 30-7
- Deleting a Media Termination Point, page 30-9
- Configuring a Transcoder, page 33-3

Updating a Media Termination Point

This section describes how to update a Media Termination Point (MTP).

Before You Begin

The following prerequisites must be met before proceeding with the steps:

- Servers must be configured
- Device pools must be configured
- Media Termination Points must be configured

Procedure

- Step 1** Open Cisco CallManager Administration.
- Step 2** Click **Service> Media Termination Point**.
- Step 3** Select the MTP you want to update from the device list on the left side of the page. The page refreshes, showing the device you selected.
- Step 4** Make the desired changes to the MTP and click **Update**. A message displays stating that the MTP device must be reset before the changes will take effect.
- Step 5** Click **OK**. The page refreshes, showing the updated MTP.
- Step 6** Click **Reset Device** and follow the instructions in the Reset Device dialog box.



Note When you make updates to the MTP and you choose **Restart**, all calls connected to the MTP go down at that time.

- Step 7** Repeat steps 1-6 to update other MTPs.
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Additional Information

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- Transcoder, page 33-1

Related Procedures

The following list contains other related procedures:

- Adding a Media Termination Point, page 30-6
- Deleting a Media Termination Point, page 30-9

Deleting a Media Termination Point

This section describes how to delete a Media Termination Point (MTP).

Before You Begin

The following prerequisites must be met before proceeding with the steps:

- Servers must be configured
- Device pools must be configured
- Media Termination Points must be configured

Procedure

- Step 1** Open Cisco CallManager Administration
- Step 2** Click **Service > Media Termination Point**.
- Step 3** Select the MTP you want to delete from the device list on the left side of the page. The page refreshes, showing the device you selected.
- Step 4** Click **Delete**. A message displays verifying your delete request. There is no undo for this action.
- Step 5** Click **OK** to continue, or **Cancel** to cancel the deletion.
- The page refreshes again and the MTP you deleted should no longer appear in the device list.
- Step 6** Repeat steps 1-5 to delete another MTP.
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Additional Information

The following list contains additional information related to this procedure:

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