



## Cisco CallManager Services Issues

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This chapter covers the solutions for the following most common issues related to Cisco CallManager services:

- [Conference Bridge Issues](#)
- [Transcoding Issues](#)
- [MTP Resource Issues](#)

### Conference Bridge Issues

#### Symptom

**Error Message** No Conference Bridge Available

#### Probable Cause

This could indicate either a software or a hardware problem.

## Corrective Action

### Procedure

- Step 1** Check to see whether you have any available software or hardware Conference Bridge resources registered with Cisco CallManager.
- Step 2** Use either Microsoft Performance or the Admin Serviceability Tool to check the number of Unicast AvailableConferences.



**Note** Cisco CallManager Release 3.1 uses different names for counters and objects. Refer to the *Cisco CallManager Serviceability Administration Guide* for more information.

The Cisco IP Voice Media Streaming application performs the conference bridge function. One software installation of Cisco IP Voice Media Streaming will support 16 Unicast Available Conferences (3 people/conference), as shown in the following trace.



**Note** The number of supported devices may vary with different Cisco CallManager releases. Refer to the Release 3.1 documentation at the following location:  
[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_callmg/3\\_1/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/3_1/index.htm)

```
10:59:29.951 Cisco CallManager|UnicastBridgeControl -
wait_capabilities_StationCapRes - Device= CFB_kirribilli - Registered
- ConfBridges= 16, Streams= 48, tcpHandle=4f12738
10:59:29.951 Cisco CallManager|UnicastBridgeManager -
UnicastBridgeRegistrationReq - Device Registration Complete for Name=
Xoø ô%ø - DeviceType= 50, ResourcesAvailable= 16, deviceTblIndex= 0
```

One E1 port (WS-X6608-E1 card contains 8x E1 ports) provides five Unicast Available Conferences (max conference size = 6), as shown in the following trace.

```
11:14:05.390 Cisco CallManager|UnicastBridgeControl -
wait_capabilities_StationCapRes - Device= CFB00107B000FB0 - Registered
- ConfBridges= 5, Streams= 16, tcpHandle=4f19d64
11:14:05.480 Cisco CallManager|UnicastBridgeManager -
UnicastBridgeRegistrationReq - Device Registration Complete for Name=
Xoø ô%ø - DeviceType= 51, ResourcesAvailable= 5, deviceTblIndex= 0
```

The following hardware trace on the Cisco Catalyst 6000 8 Port Voice T1/E1 and Services Module indicates that the E1 port 4/1 in the card has registered as a Conference Bridge with Cisco CallManager.

```
greece-sup (enable) sh port 4/1
Port Name Status Vlan Duplex Speed Type
-----
4/1 enabled 1 full -Conf Bridge

Port DHCP MAC-Address IP-Address Subnet-Mask
-----
4/1 disable 00-10-7b-00-0f-b0 10.200.72.31 255.255.255.0

Port Call-Manager(s) DHCP-Server TFTP-Server Gateway
-----
4/1 10.200.72.25 - 10.200.72.25 -

Port DNS-Server(s) Domain
-----
4/1 - 0.0.0.0

Port CallManagerState DSP-Type
-----
4/1 registered C549

Port NoiseRegen NonLinearProcessing
-----
4/1 disabled disabled
```

- Step 3** Check the maximum number of users that are configured in your ad hoc or meet-me conference to determine whether the problem occurred because this number was exceeded.

## Transcoding Issues

### Symptom

You have installed a hardware transcoder in the Cisco Catalyst 6000 8 Port Voice T1/E1 and Services Module, and it does not work as expected (you cannot make calls between two users with no common codec).

## Probable Cause

You may not have any available transcoder resources registered with Cisco CallManager (must be hardware).

## Corrective Action

Use Microsoft Performance or the Admin Serviceability Tool to check the number of MediaTermPointsAvailable that are available.



### Note

Cisco CallManager Release 3.1 uses different names for counters and objects. Refer to the *Cisco CallManager Serviceability Administration Guide* for more information.

One E1 port (WS-X6608-E1 card contains 8x E1 ports) provides transcoder/MTP resources for 16 calls, as shown in the following trace.



### Note

The number of supported devices may vary with different Cisco CallManager releases. Refer to the Release 3.1 documentation at the following location: [http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_callmg/3\\_1/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/3_1/index.htm)

```
11:51:09.939 Cisco CallManager|MediaTerminationPointControl -
Capabilities Received - Device= MTP00107B000FB1 - Registered -
Supports 16 calls
```

The following hardware trace on the Cisco Catalyst 6000 8 Port Voice T1/E1 and Services Module indicates that the E1 port 4/2 in the card has registered as an MTP/transcoder with Cisco CallManager.

```
greece-sup (enable) sh port 4/2
Port  Name                Status      Vlan      Duplex  Speed  Type
-----
 4/2                enabled    1         full    -      MTP

Port    DHCP    MAC-Address      IP-Address      Subnet-Mask
-----
 4/2    disable 00-10-7b-00-0f-b1 10.200.72.32    255.255.255.0

Port    Call-Manager(s)  DHCP-Server      TFTP-Server      Gateway
-----
 4/2    10.200.72.25    -                 10.200.72.25    -
```

```

Port      DNS-Server(s)      Domain
-----
4/2      -                  0.0.0.0

Port      CallManagerState  DSP-Type
-----
4/2      registered        C549

Port      NoiseRegen        NonLinearProcessing
-----
4/2      disabled          disabled

```

**Note**

You cannot configure the same E1 port for both Conference Bridge and Transcoder/MTP

To make a call between two devices that are using a low bit rate code (such as G.729 and G.723) that do not support the same codec, you need a transcoder resource.

Assume Cisco CallManager has been configured such that the codec between Region1 and Region2 is G.729. The following scenarios apply:

- If caller on Phone A initiates a call, Cisco CallManager realizes it is a Cisco IP Phone 7960, which supports G.729. After the digits have been collected, the Cisco CallManager determines that the call is destined for User D who is in Region2. Because the destination device also supports G.729, the call gets set up, and the audio flows directly between Phone A and Phone D.
- If a caller on Phone B, who has a Cisco IP Phone 12SP+, initiates a call to Phone D, this time the Cisco CallManager would realize that the originating phone only supports G.723 or G.711. Cisco CallManager would need to allocate a transcoding resource so audio would flow as G.711 between Phone B and the transcoder but as G.729 between the transcoder and Phone D. If no transcoder were available, Phone D would ring, but as soon as the call was answered, the call would disconnect.
- If a user on Phone B calls Phone F, which is a Cisco IP Phone 12SP+, the two phones would actually use G.723, even though G.729 is configured as the codec to use between the regions. G.723 gets used because both endpoints support it, and it uses less bandwidth than G.729.

# MTP Resource Issues

## Symptom

A call gets established, but supplementary services are not available.

## Probable Cause

An MTP resource problem could provide the source of the transcoding problem if a call is established, but supplementary services are not available on an H.323 device that does not support H323v2.

## Corrective Action

### Procedure

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- Step 1** Determine whether you have any available software or hardware MTP resources registered with Cisco CallManager.
- Step 2** Use Microsoft Performance or the Admin Serviceability Tool to check the number of MediaTermPointsAvailable.



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**Note** Cisco CallManager Release 3.1 uses different names for counters and objects. Refer to the *Cisco CallManager Serviceability Administration Guide* for more information.

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Using MTP to support supplementary services with H.323 devices that do not support H.323v2 allows one MTP software application to support 24 calls as shown in the following trace.



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**Note** The number of supported devices may vary with different Cisco CallManager releases. Refer to the Release 3.1 documentation at the following location:  
[http://www.cisco.com/univercd/cc/td/doc/product/voice/c\\_callmg/3\\_1/index.htm](http://www.cisco.com/univercd/cc/td/doc/product/voice/c_callmg/3_1/index.htm)

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```
10:12:19.161 Cisco CallManager|MediaTerminationPointControl -
Capabilities Received - Device= MTP_kirribilli. - Registered -
Supports 24 calls
```

One E1 port (WS-X6608-E1 card contains 8x E1 ports) provides MTP resources for 16 calls, as shown in the following trace.

```
11:51:09.939 Cisco CallManager|MediaTerminationPointControl -
Capabilities Received - Device= MTP00107B000FB1 - Registered -
Supports 16 calls
```

The following hardware trace from the Cisco Catalyst 6000 8 Port Voice T1/E1 and Services Module indicates that the E1 port 4/2 in the card has registered as an MTP/transcoder with Cisco CallManager.

```
greece-sup (enable) sh port 4/2
Port Name Status Vlan Duplex Speed Type
-----
4/2 enabled 1 full - MTP

Port DHCP MAC-Address IP-Address Subnet-Mask
-----
4/2 disable 00-10-7b-00-0f-b1 10.200.72.32 255.255.255.0

Port Call-Manager(s) DHCP-Server TFTP-Server Gateway
-----
4/2 10.200.72.25 - 10.200.72.25 -

Port DNS-Server(s) Domain
-----
4/2 - 0.0.0.0

Port CallManagerState DSP-Type
-----
4/2 registered C549

Port NoiseRegen NonLinearProcessing
-----
4/2 disabled disabled
```

**Step 3** In the Gateway Configuration screen of Cisco CallManager Administration, check to see whether the **Media Termination Point Required** check box is checked.

**Step 4** Verify that Cisco CallManager has allocated the required number of MTP devices. From the SDI file:

```
15:22:23.848 Cisco CallManager|MediaManager(40) started
```

```
15:22:23.848 Cisco CallManager|MediaManager - wait_AuConnectRequest
15:22:23.848 Cisco CallManager|MediaManager - wait_AuConnectRequest -
Transcoder Enabled
15:22:23.848 Cisco CallManager|MediaManager - wait_AuConnectRequest -
party1(16777357), party2(16777358), proxies=1, connections=2, current
proxies=0
15:22:23.848 Cisco CallManager|MediaManager - wait_AuConnectRequest -
proxy connections
15:22:23.848 Cisco CallManager|MediaManager - wait_AuConnectRequest -
allocating MTP(ci=16777359)
15:22:23.848 Cisco CallManager|MediaManager -
wait_AllocateMtpResourceRes
15:22:23.848 Cisco CallManager|MediaManager -
wait_AllocateMtpResourceRes - start 2 connections
15:22:23.848 Cisco CallManager|MediaManager -
wait_AllocateMtpResourceRes - creating connection between
party1(16777357) and party2(16777359)
15:22:23.848 Cisco CallManager|MediaManager -
wait_AllocateMtpResourceRes - creating connection between
party1(16777358) and party2(16777359)
15:22:23.848 Cisco CallManager|MediaCoordinator -
wait_MediaCoordinatorAddResource - CI=16777359 count=1
15:22:23.848 Cisco CallManager|MediaCoordinator -
wait_MediaCoordinatorAddResource - CI=16777359 count=2
```

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