



Configuring AudioCodes' MP-10x 4-8 FXS Ports Media Gateway for Operation with Cisco's CallManager – H.323 Version

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Abbreviations and Conventions

Each abbreviation, unless widely used, is spelled out in full when first used. Only industry-standard terms are used throughout this document.

In this document:

- GW refers to Gateway
- MP refers to AudioCodes MediaPack
- MG refers to AudioCodes Media Gateway
- CCM refers to Cisco's CallManager

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Notice

This Configuration Manual describes the steps to be taken when configuring AudioCodes' Media Gateways (MP-1xx devices) in Cisco's CallManager. Information contained in this document is believed to be accurate and reliable at the time of printing. However, due to ongoing product improvements and revisions, AudioCodes cannot guarantee accuracy of printed material after the Date Published nor can it accept responsibility for errors or omissions.

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1 Configuring MP-1xx FXS in Cisco CallManager – H.323 Version

1.1 Introduction

This Configuration Manual describes:

1. How to configure AudioCodes' MP -1xx FXS H323 in Cisco's CallManager without working with GateKeeper.
2. How to configure AudioCodes' MP -1xx FXS H323 in Cisco's CallManager working with GateKeeper.
3. How to configure AudioCodes' MP-1xx FXS H323 in Cisco's CallManager working with GateKeeper and configure the ports to work according to Annex D to send/receive T.38 real-time fax calls. Due to Cisco CallManager limitations that do not support T.38 (Annex D), the Cisco Router that works in this system configuration must support H323 Annex D.
4. How to Configure the Route Patterns for the MP-1xx FXS H323.
5. How to prepare the MP -1xx FXS H323 with the correct *ini* file.

Each configuration (in 1,2 and 3) involves common and uncommon procedures. Follow the procedures for each configuration, as described in Table 1:

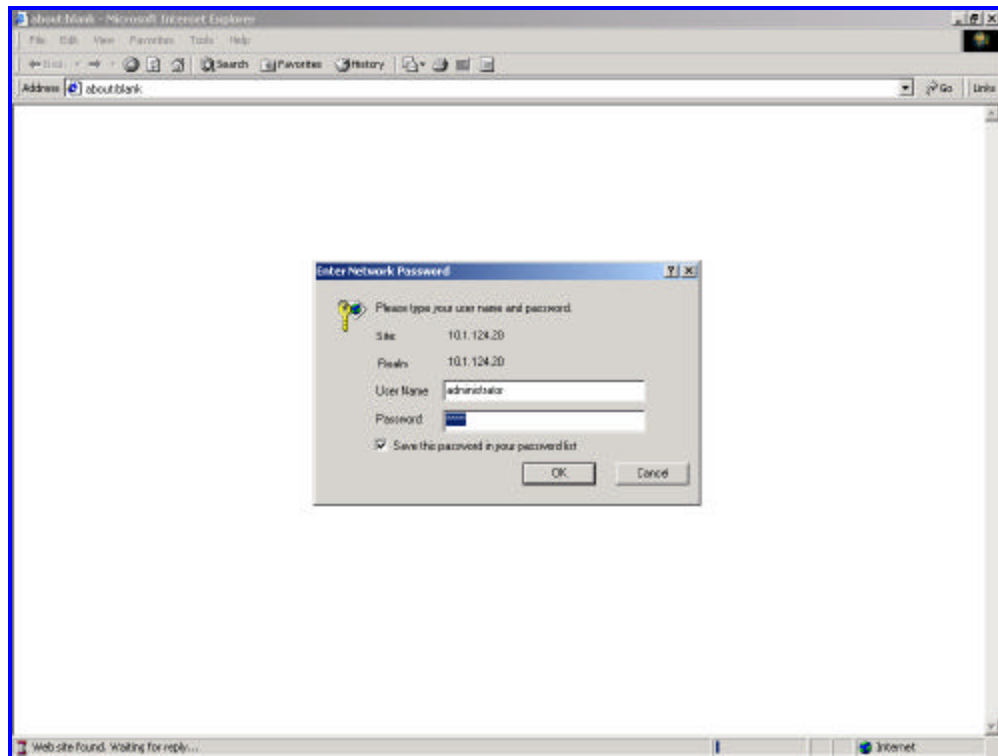
Table 1: Configuration Procedures

Configuration Mode	Required steps	Optional steps
Configure AudioCodes' MP-1xx FXS H323 in Cisco's CallManager without working with GateKeeper	1,2,3,5	
Configure AudioCodes' MP-1xx FXS H323 in Cisco's CallManager working with GateKeeper	1,2,4,6	
Configure AudioCodes' MP-1xx FXS H323 in Cisco's CallManager working with GateKeeper and configure the ports to work upon Annex D to send/receive Fax's calls	1,2,3,7	

1.1.1 Step 1 – Accessing the Cisco CallManager (CCM)

- To access the Cisco CallManager (CCM), take these 2 steps:
 1. Browse the CCM using its IP address.
 2. In the screen that opens (refer to Figure 1), enter your User Name and Password, and click **OK**.

Figure 1: Accessing Cisco CallManager

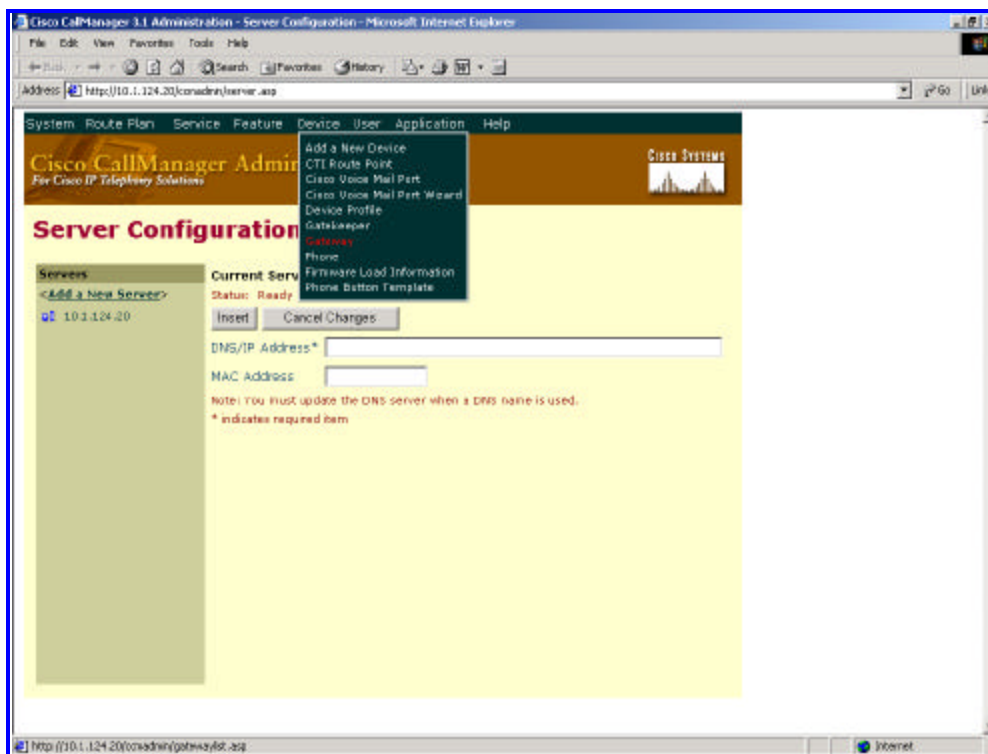


1.1.2 Step 2 – Adding a New Gateway Device in the CCM

- To Add a New Gateway Device in the CCM, take the following 14 steps:

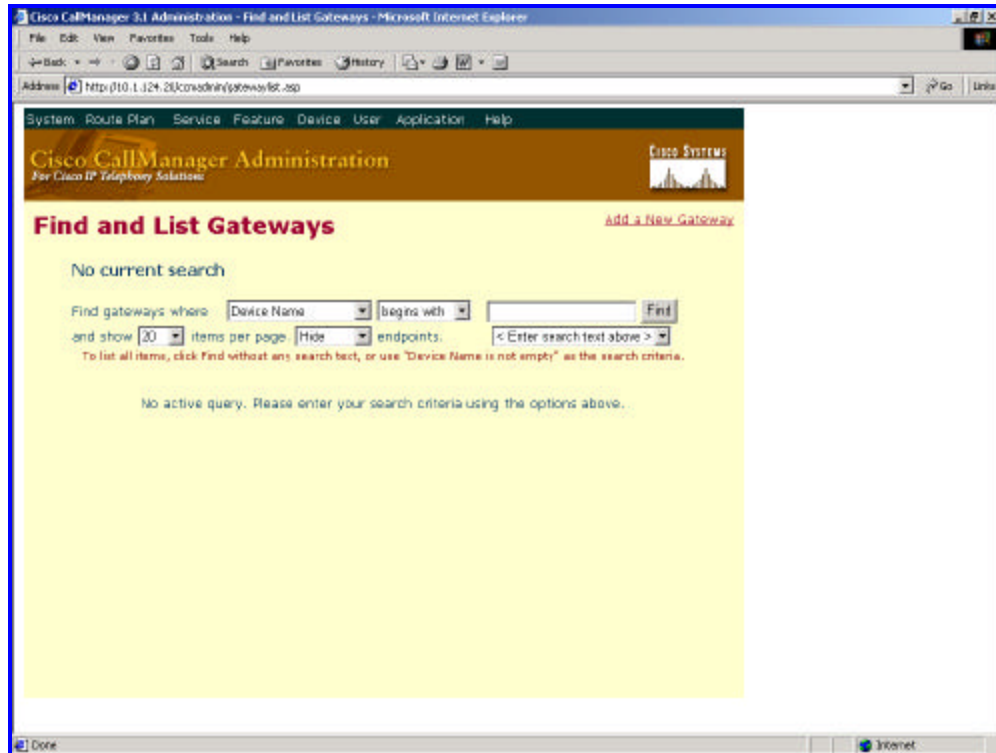
1. Open the **Device** menu in the upper main menu bar, and select the **Gateway** option (refer to Figure 2):

Figure 2: Device Menu, Gateway Option



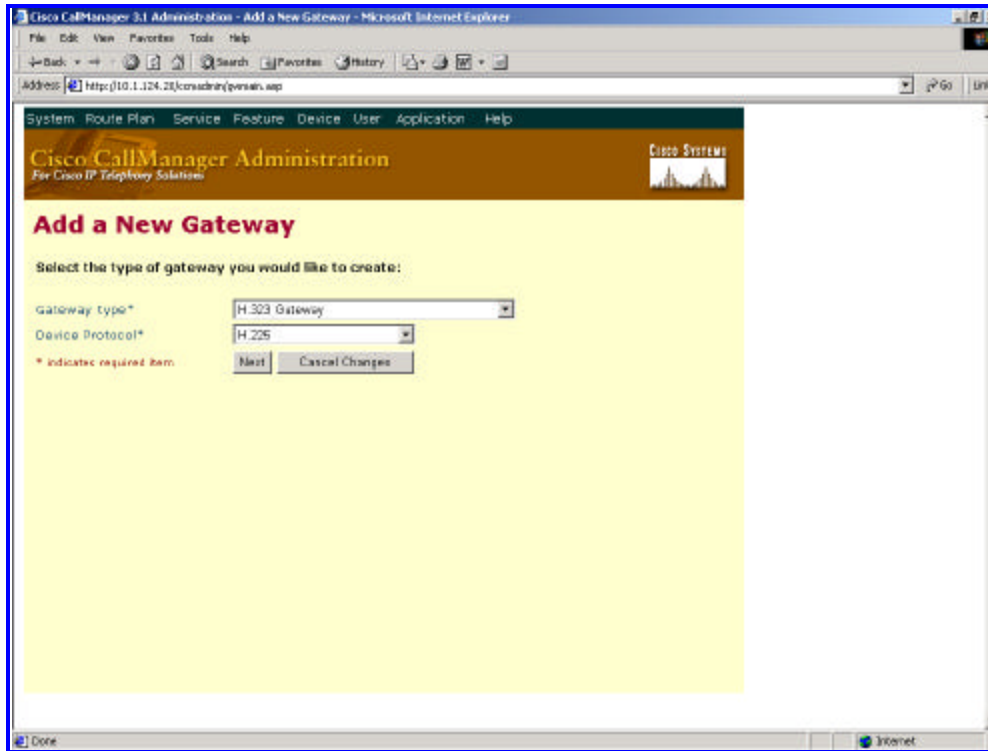
2. In the screen that opens (refer to Figure 3), click on the link **Add a New Gateway** located in the right corner under the upper main menu bar.

Figure 3: Adding a New Gateway



3. In the screen that opens (refer to Figure 4), scroll in the **Gateway type** drop-down list and choose "H.323 Gateway" – to define the H323 gateway type.
4. Verify that the **Device Protocol** field updates automatically to "H.225" (refer to Figure 4).

Figure 4: Defining the Gateway Type



5. When finishing defining, click the **Next** button (refer to Figure 4); the Gateway Configuration screen appears; continue defining (refer to Figure 5).
6. In the Gateway Configuration screen (refer to Figure 5), fill the **Device Name** field with a unique IP address of the gateway.
7. For your own convenience, you can fill the **Description** field (refer to Figure 5).
8. In the **Device Pool** field (refer to Figure 5), define the group to which the gateway belongs. In the event the gateway does not belong to any group, scroll to and select the "Default" option in the drop-down list.
9. Define the **Calling Party Selection** field as "Originator" (refer to Figure 5).
10. Define the **Presentation Bit** field as "Allowed" (refer to Figure 5).

11. The **Media Termination Point Required** check box defines whether the RTP stream will pass through the CM or not.

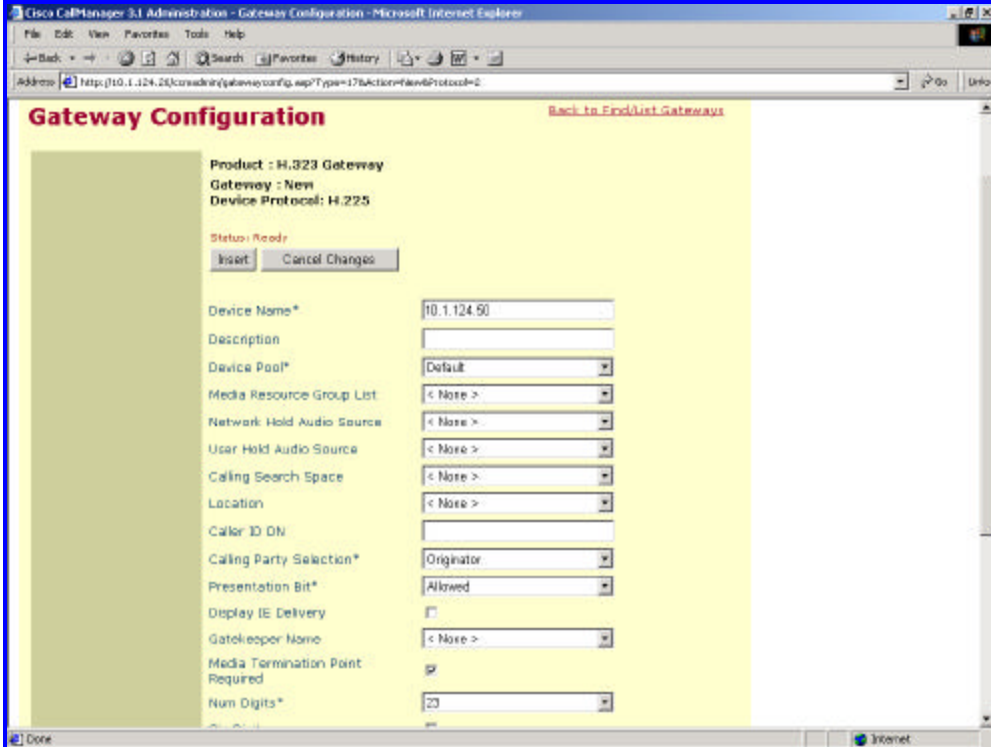
!!!!

To activate transfer calls, check the check box.

To activate FAX and Modem in Transparent or T.38 mode, uncheck the check box.

12. All the other fields should be left at default values, unless your local system configuration requirements differ else.

Figure 5: Gateway Configuration



The screenshot shows the 'Gateway Configuration' page in Cisco CallManager 3.1 Administration. The page title is 'Gateway Configuration' and it includes a 'Back to Find/List Gateways' link. The configuration details are as follows:

- Product: H.323 Gateway
- Gateway: New
- Device Protocol: H.225
- Status: Ready
- Buttons: Insert, Cancel Changes
- Device Name*: 10.1.124.50
- Description: (empty)
- Device Pool*: Default
- Media Resource Group List: <None >
- Network Hold Audio Source: <None >
- User Hold Audio Source: <None >
- Calling Search Space: <None >
- Location: <None >
- Caller ID DN: (empty)
- Calling Party Selection*: Originator
- Presentation Bit*: Allowed
- Display IE Delivery:
- Gatekeeper Name: <None >
- Media Termination Point Required:
- Num Digits*: 20

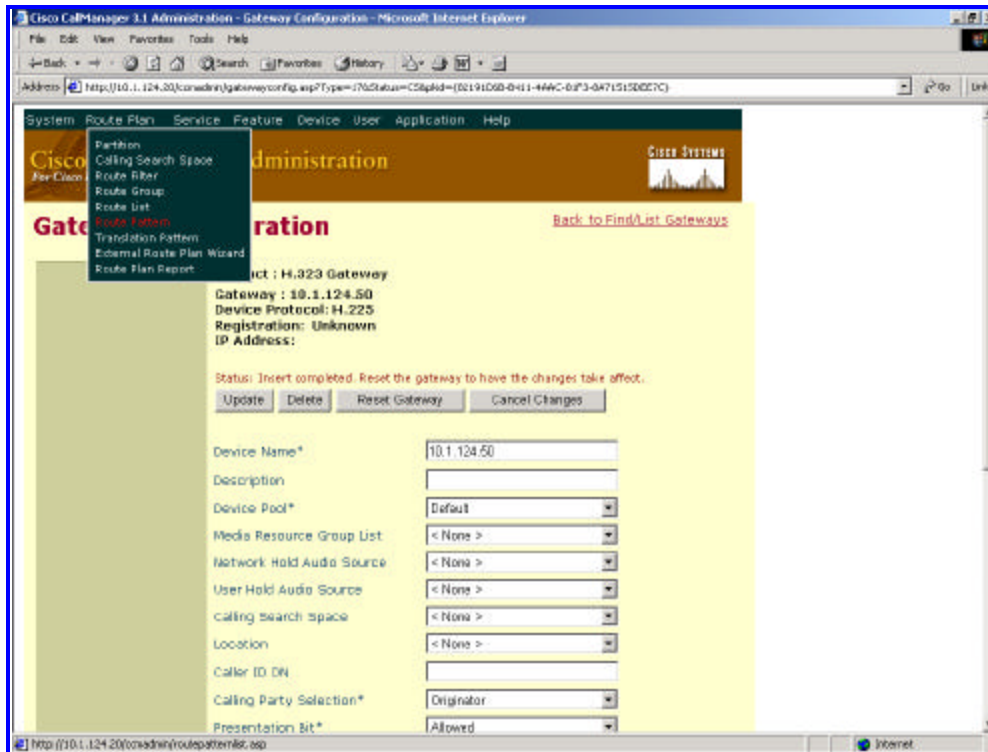
13. To update the last setting and to continue defining, click on the **Insert** button (refer to Figure 5); the Gateway Configuration screen refreshes.
14. The gateway is now configured; the other setting must now be configured.

1.1.3 Step 3 – Define the Route Patterns of the Gateway in the CCM

- To Define the Route Patterns of the Gateway, take the following 10 steps:

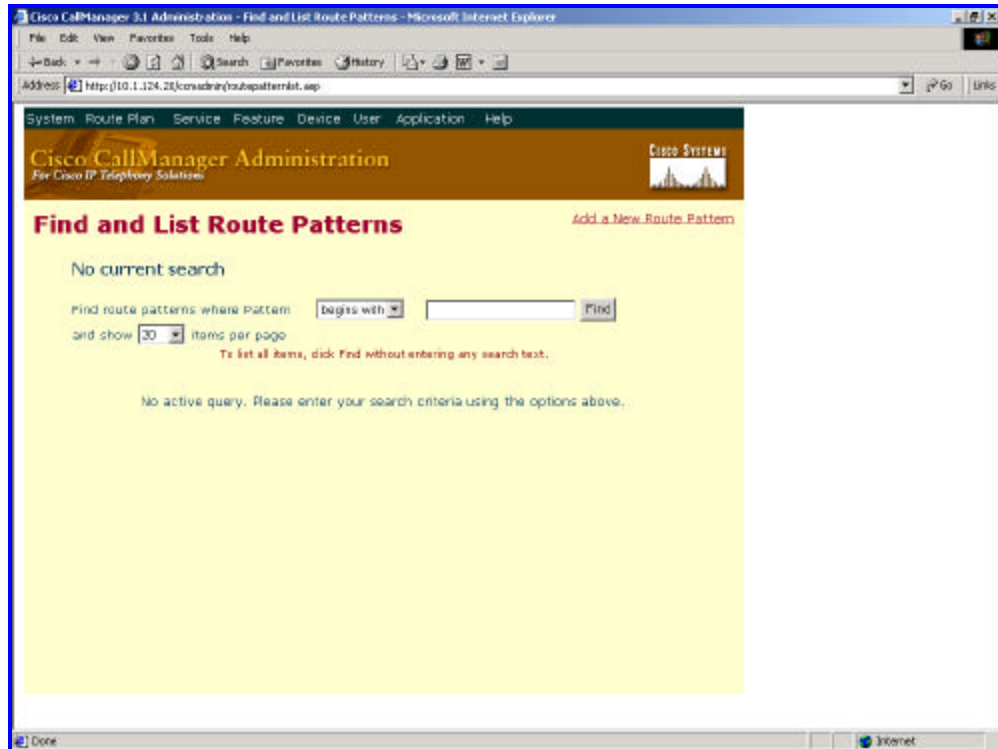
1. Open the **Route Plan** menu in the upper main menu bar, and select the **Route Pattern** option (refer to Figure 6):

Figure 6: Route Plan Menu, Route Pattern Option



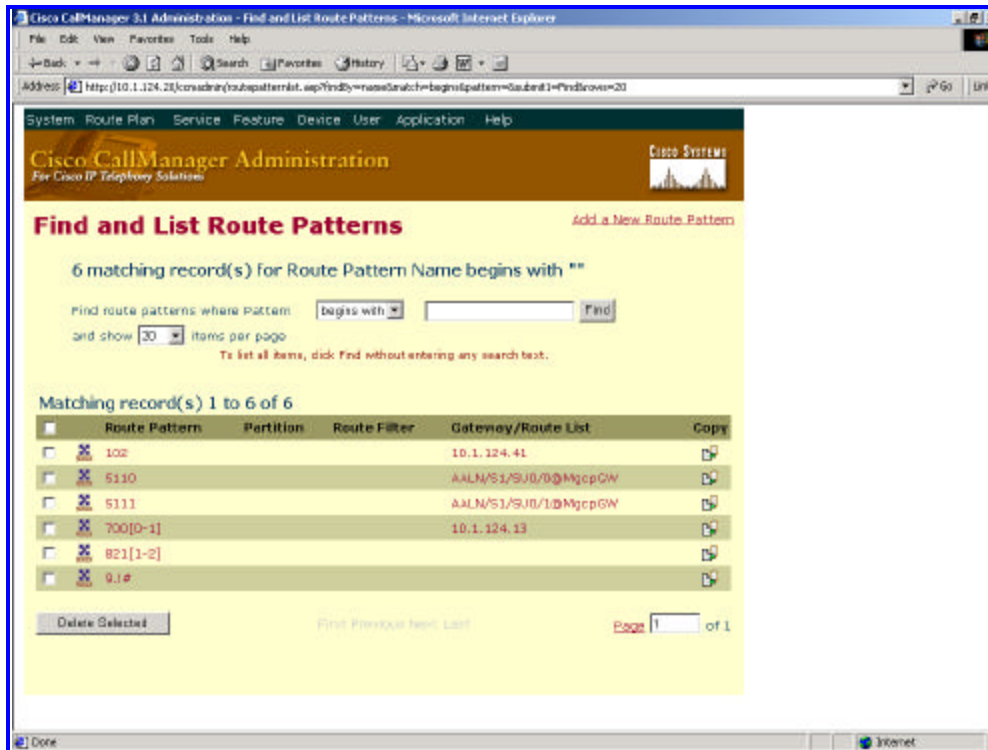
2. To view all the route patterns already configured in the CM, click on the **Find** button in the **Find and List Route Patterns** screen (refer to Figure 5) that opens:

Figure 7: Find and List Route Patterns (1)



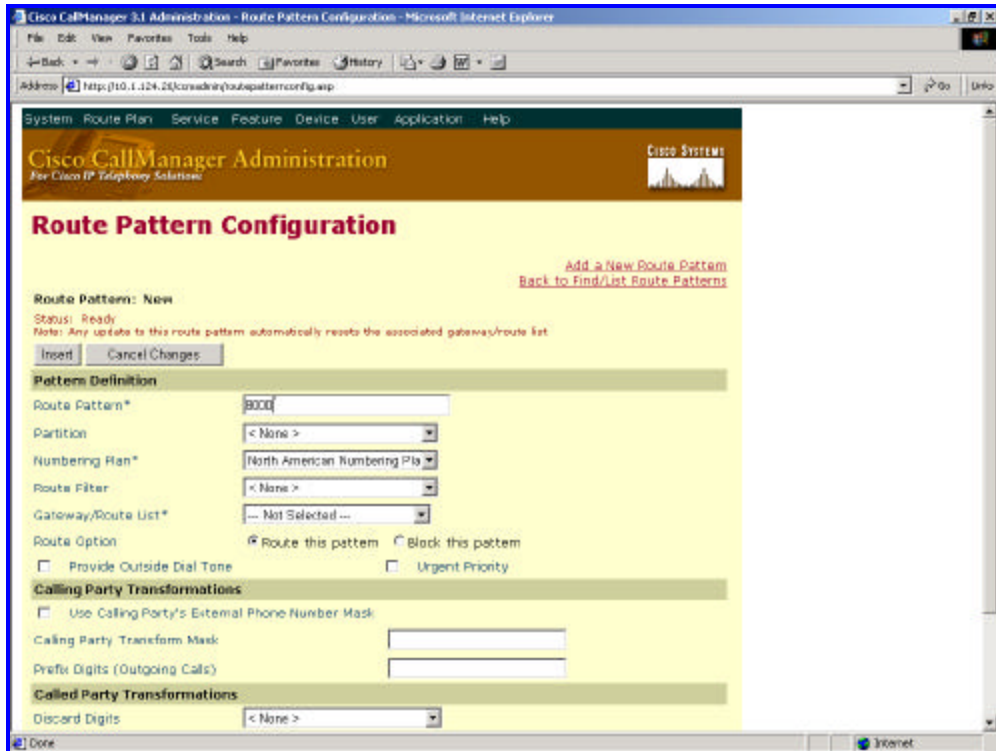
3. A list containing all the route patterns that are configured in the CM is displayed (refer to Figure 8):

Figure 8: Find and List Route Patterns (2)



4. Verify that the route pattern you'll configure does not already exist in the Route Patterns List.
5. In the **Find and List Route Patterns** screen (refer to Figure 8), click on the link **Add a New Route Pattern** located in the right corner under the upper main menu bar.

Figure 9: Route Pattern Configuration (3)



6. In the **Route Pattern Configuration** screen that opens (refer to Figure 9 above), enter the route pattern in the **route pattern** field, including numbers and wildcards (do not use spaces) of the gateway ports.

Refer to the “Route Pattern Wildcards and Special Characters” topic in the CM Help Menu for detailed information on wildcards.

7. Scroll in the **Gateway/Route List** drop-down list (refer to Figure 9) and choose the IP address of the gateway that you configured in Step 2, instruction 6.
8. Uncheck the check box **Provide Outside Dial Tone**.
9. To update the last setting of the route pattern, click the **Insert** button (refer to Figure 9).

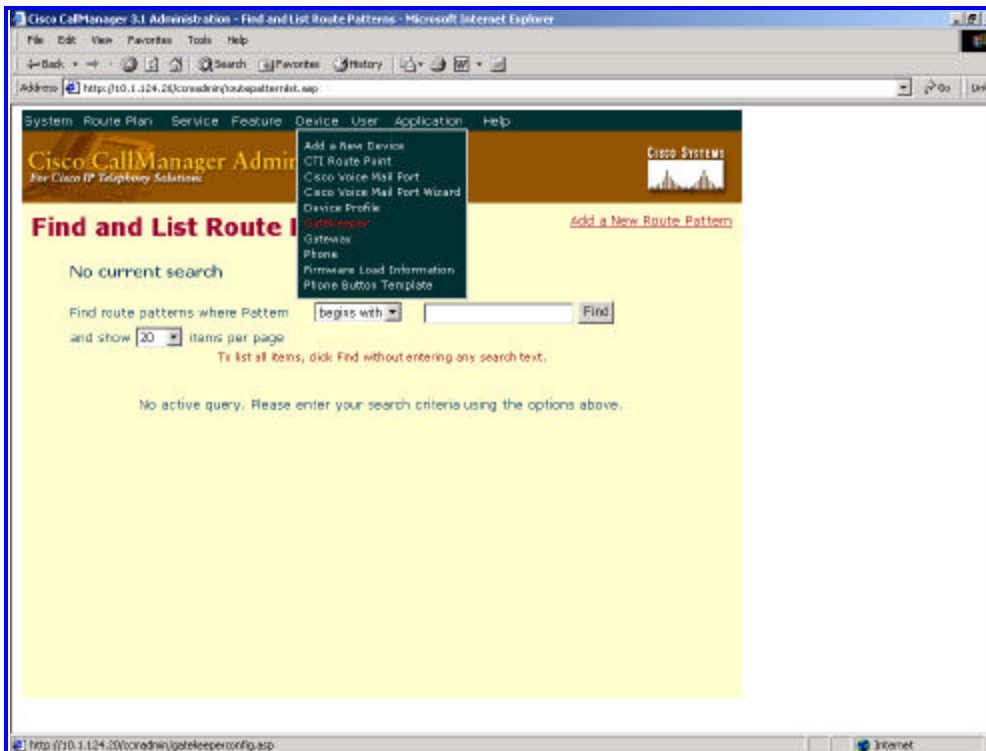
10. Add as many route patterns as the gateway supports by repeating instructions 5 to 8.

1.1.4 Step 4 – Define The GateKeeper in the CCM

➤ **To Define The GateKeeper, take the following 10 steps:**

1. Open the **Device** menu in the upper main menu bar, and select the **GateKeeper** option (refer to Figure 10):

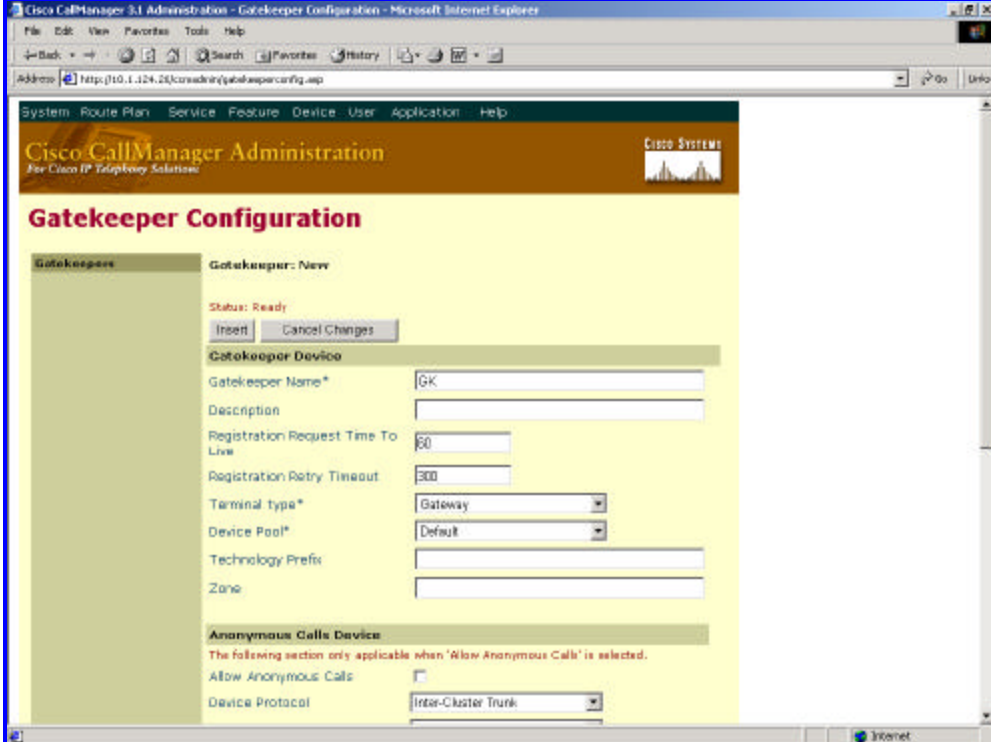
Figure 10: Device Menu, GateKeeper Option



2. In the screen that opens, Gatekeeper Configuration (refer to Figure 3), fill the **Gatekeeper Name** field with the IP address or DNS name of the gatekeeper.
3. For your own convenience, you can fill the **Description** field ().
4. In the **Terminal type** field (see Figure 5 below), define the type for all devices controlled by this gatekeeper – Gateway or Terminal.

5. In the **Device Pool** field (refer to Figure 11), define the group to which the gateway belongs. In the event the gateway does not belong to any group, scroll to and select the "Default" option in the drop-down list.
6. Fill the other fields of the gatekeeper configuration as required by the gatekeeper in your system.
7. After finishing, click the **Insert** button (refer to Figure 11) to update the last setting of the gatekeeper configuration.

Figure 11: GateKeeper Configuration



The screenshot shows the Cisco CallManager Administration web interface for Gatekeeper Configuration. The page title is "Gatekeeper Configuration". The main content area is titled "Gatekeeper: New" and includes the following fields and options:

- Status:** Ready
- Buttons:** Insert, Cancel Changes
- Gatekeeper Device Section:**
 - Gatekeeper Name*: GK
 - Description: [Empty]
 - Registration Request Time To Live: 60
 - Registration Retry Timeout: 300
 - Terminal type*: Gateway
 - Device Pool*: Default
 - Technology Prefix: [Empty]
 - Zone: [Empty]
- Anonymous Calls Device Section:**
 - The following section only applicable when 'Allow Anonymous Calls' is selected.
 - Allow Anonymous Calls:
 - Device Protocol: Inter-Cluster Trunk

1.1.5 Step 5 – Preparing the Gateway /NI/ File to Work with CCM without GateKeeper using Fax and Modem Transparent Calls

- To prepare the Gateway, take the following 4 steps:

1. Use Excel to define the following parameters in the *ini* file that relate to configuring the MP-1xx to work with the CCM:

General parameters

- * MaxDigits = <max number of dialed digits, ex. 4 for 8000 >
- * DefaultNumber = <default number which is attached for incoming calls
without phone number, ex. 8000>

Channel parameters

- * FaxTransportMode = 0
- * DTMFTransportType = 2
- * UseT38OrFrf11 = 1
- * BELLModemTransportType = 0
- * V21ModemTransportType = 0
- * V22ModemTransportType = 0
- * V23ModemTransportType = 0
- * V32ModemTransportType = 0
- * V34ModemTransportType = 0

H323gw

- * IsGatekeeperUsed = 0

Phone of each end point

- * Channel2Phone

Phones table

- * Ip* = 'IP address of the Cisco Call Manager'

2. Note that the list above describes only the parameters that must be configured for the current configuration. You may add or change other parameters as required, using the applicable AudioCodes Installation & User's Manual.
3. After setting the *ini* file, save it in the directory in which the BOOTP application is configured.
4. Download the new version (including the *ini* file) you just configured. You can use the applicable AudioCodes Installation & User's Manual and the H.323 User's Manual for help with the download procedure.

1.1.6 Step 6 – Preparing the Gateway *INI* file to Work with CCM with GateKeeper using Fax and Modem Transparent Calls

➤ To prepare the Gateway, take the following 4 steps:

1. Use Excel to define the following parameters in the *ini* file that relates to configuring the MP-1xx to work with the CCM:

General parameters

- * MaxDigits = <max number of dialed digits, ex. 4 for 8000 >
- * DefaultNumber = <default number which is attached for incoming calls
without phone number, ex. 8000>

Channel parameters

- * FaxTransportMode = 0
- * DTMFTransportType = 2
- * UseT38OrFrf11 = 1
- * BELLModemTransportType = 0
- * V21ModemTransportType = 0
- * V22ModemTransportType = 0
- * V23ModemTransportType = 0
- * V32ModemTransportType = 0
- * V34ModemTransportType = 0

H323gw

- * IsGatekeeperUsed = 1
- * GatekeeperIp = IP address of the Cisco Call Manager

Phone of each end point

- * Channel2Phone

2. Note that the list above describes only the parameters that must be configured in the current configuration. You may add or change other parameters as required, using the applicable AudioCodes User's Manual.
3. After setting the *ini* file, save it in the directory in which the BOOTP application is configured.

4. Download the new version (including the *ini* file) you just configured. You can use the applicable AudioCodes Installation & User's Manual and the H.323 User's Manual for help with the download procedure.

1.1.7 Step 7 – Preparing the Gateway *INI* file to Work with CCM with Gatekeeper using Fax Annex D and Modem Transparent Calls

➤ **To prepare the Gateway, take the following 4 steps:**

1. Use Excel to define the following parameters in the *ini* file that relate to configuring the MP-1xx to work with the CCM:

General parameters

- * MaxDigits = <max number of dialed digits, ex. 4 for 8000 >
- * DefaultNumber = <default number which is attached for incoming calls
without phone number, ex. 8000>

Channel parameters

- * DTMFTransportType = 2
- * UseT38OrFrf11 = 1
- * BELLModemTransportType = 0
- * V21ModemTransportType = 0
- * V22ModemTransportType = 0
- * V23ModemTransportType = 0
- * V32ModemTransportType = 0
- * V34ModemTransportType = 0
- * IsFaxUsed = 1

H323gw

- * IsGatekeeperUsed = 1
- * GatekeeperIp = IP address of the Cisco Call Manager

Fax

- * Choose for each channel his purpose.

Phone of each end point

- * Channel2Phone

2. Note that the above list only describes the parameters that must be configured in the current configuration. You may add or change other parameters as required, using the applicable AudioCodes Installation & User's Manual.
3. After setting the *ini* file, save it in the directory in which the BOOTP application is configured.
4. Download the new version (including the *ini* file) you just configured. You can use the applicable AudioCodes Installation & User's Manual and the H.323 User Manual for help with the download procedure.

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