



AudioCodes

**Application Note:
Configuring AudioCodes'
MP-10X 4-8 FXS Ports Media Gateway
to Operate With
Cisco's CallManager - MGCP Version**

Version 1

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US: AudioCodes Inc, 2890 Zanker Road, Suite # 200, San Jose, CA 95134.
Tel: 408-577-0488 - Fax: 408-577-0492

International: AudioCodes Ltd, 4 HaHoresh Street, PO Box 14, Yehud 56470, Israel.
Tel: +972-3-539 4000 - Fax: +972-3-539 4040

China: AudioCodes, # 2721, South Tower, Kerry Center
1 Gaung Hua Road, Chao Yang District, Beijing 100020, P.R.China
Tel: 86-10-8529-9706 - Fax: 86-10-8529-9707

Technical Support: support@audiocodes.com

Structure of this Manual

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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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For **Technical Support**, contact:

e-mail: <mailto:support@audiocodes.com>

In the US, fax 408-577-0492

In other countries, fax +972-3-539-4040

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1 Configuring MP-10x 4-8 FXS to Operate with Cisco's CallManager – MGCP version

1.1 Introduction

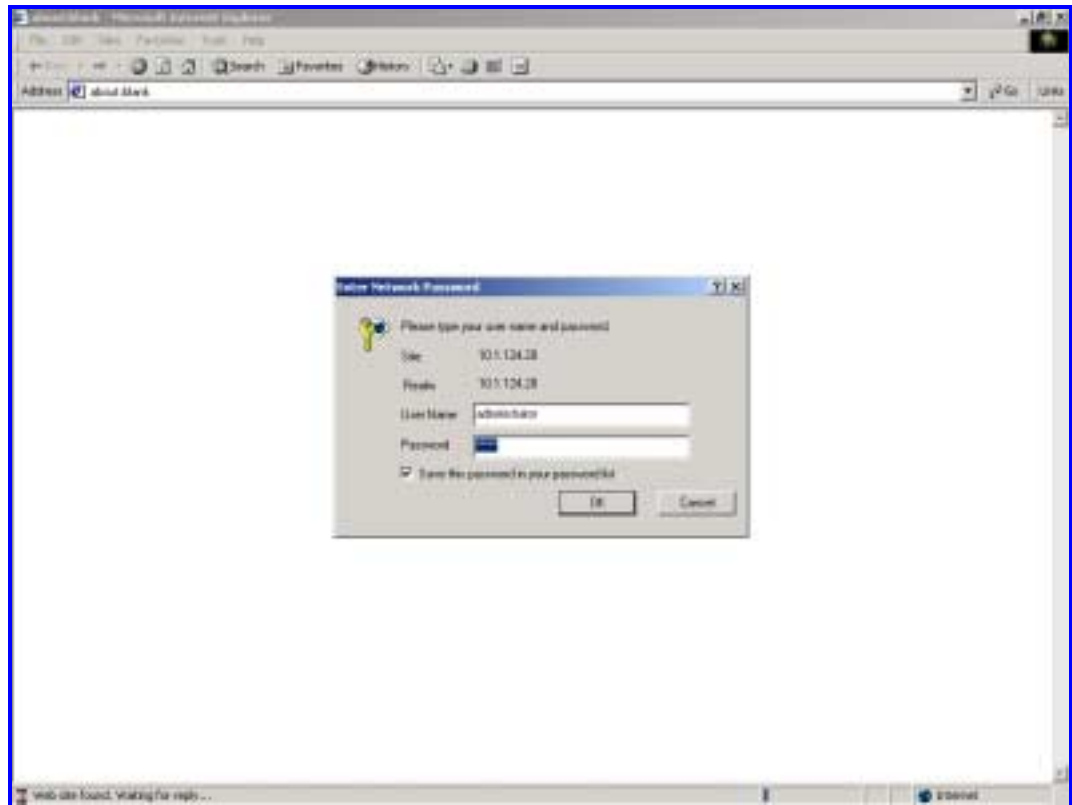
This **Application Note** describes:

1. How to configure AudioCodes' MP-10x 4-8 FXS ports to operate with Cisco's CallManager.
2. How to prepare the MP-10x 4-8 FXS with the correct *ini* file.

1.1.1 Step 1 – Accessing the Cisco CallManager (CCM)

➤ **To access the Cisco CallManager (CCM), take these 2 steps:**

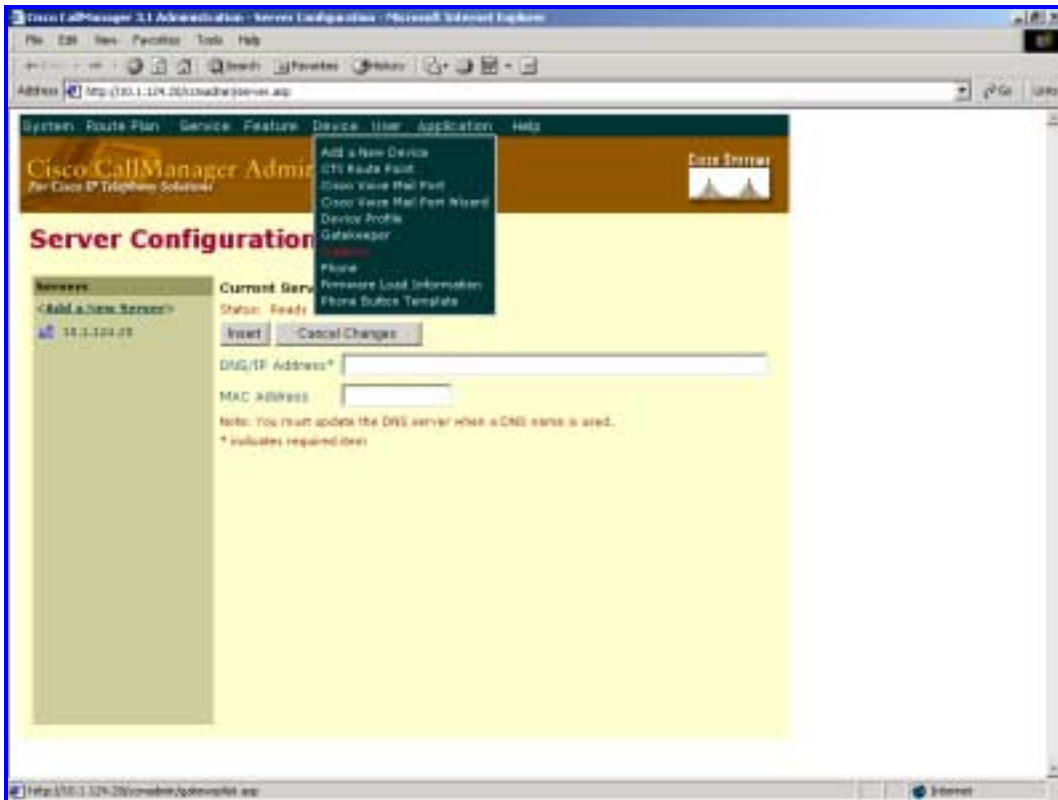
1. Browse the CCM using its IP address.
2. In the window that appears on the screen (see Figure 1 below), enter your User Name and Password, and click **OK**.

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 29 steps:
 1. Open the **Device** menu (see Figure 2) on the menu bar, and select the **Gateway** option:

Figure 2: Device Menu, Gateway Option



2. In the window that opens (see 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

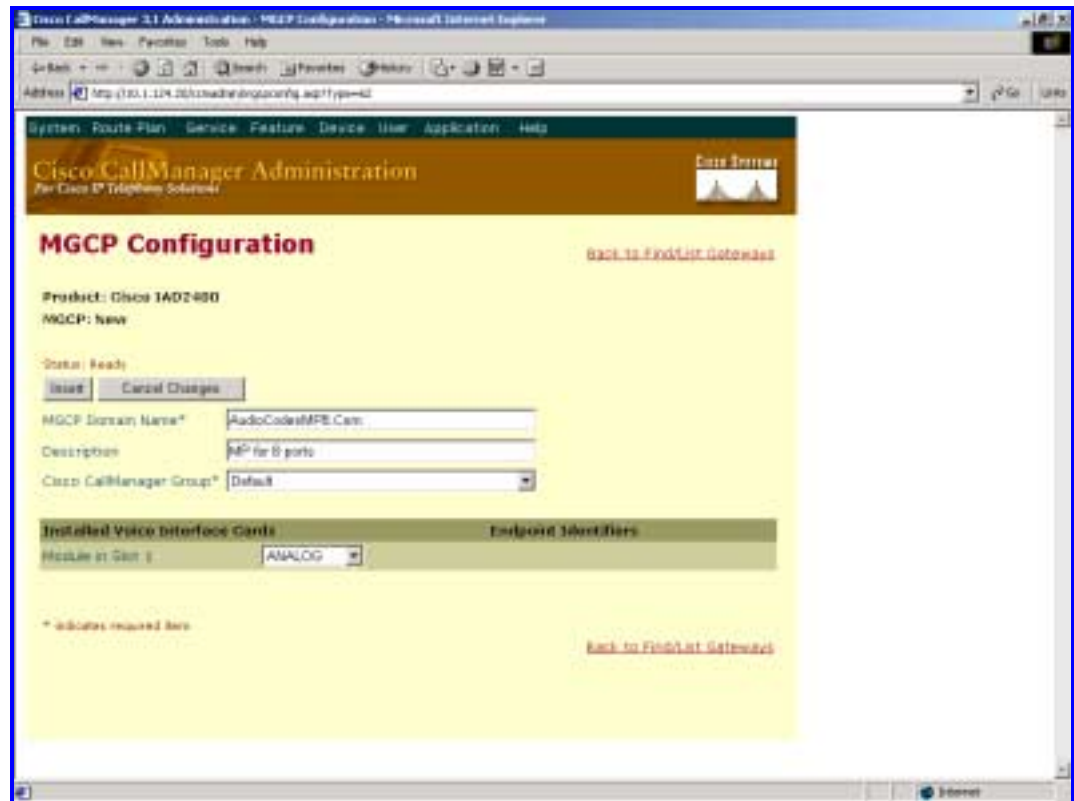

3. In the window that opens (see Figure 4 below), scroll in the **Gateway type** drop-down list and choose "Cisco IAD2400" – in order to define the MGCP gateway type.
4. Verify that the **Device Protocol** field updates automatically to "Not Required for MGCP" (see Figure 4 below).

Figure 4: Defining the Gateway Type



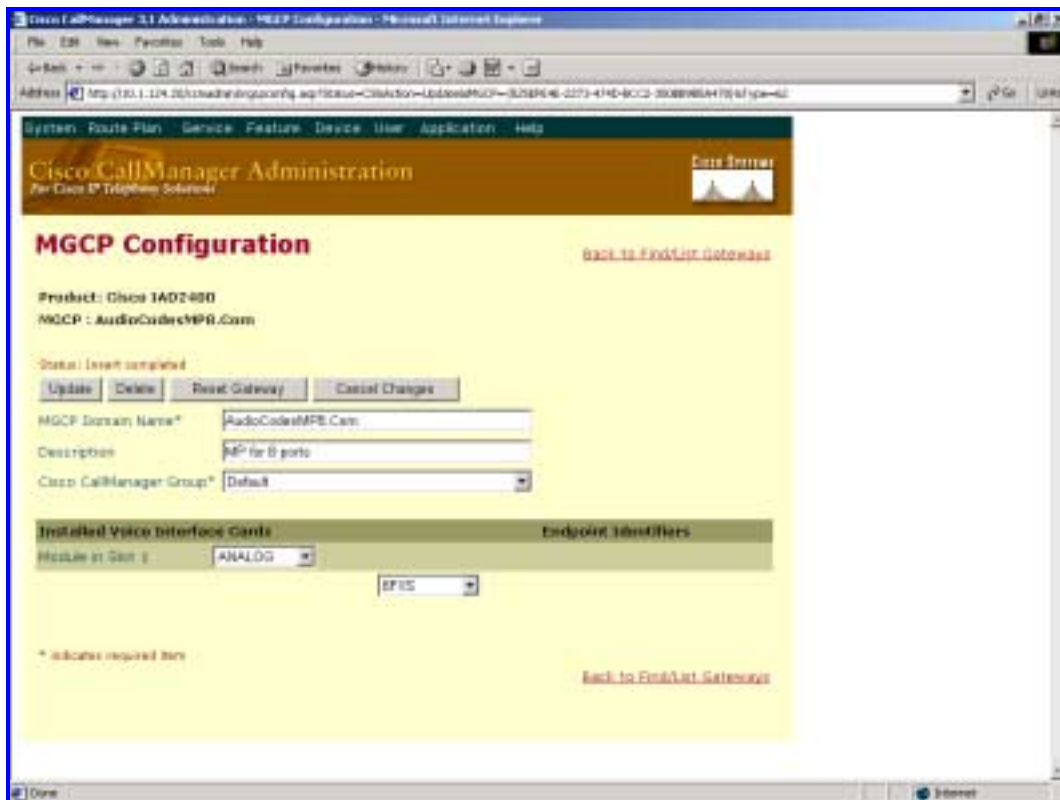
5. When you finish the definition, click the **Next** button (in Figure 4 above); the MGCP Configuration window appears in order to continue the definition (see Figure 5).
6. In the MGCP Configuration window (see Figure 5), fill the **MGCP Domain Name** field with a unique gateway name. The syntax of the gateway name must be: "gateway_name.Com" (e.g., AudioCodesMP8.Com).
7. For your own convenience, you can fill the **Description** field (see Figure 5).
8. In the **Cisco CallManager Group** field (see 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 **Module in Slot 1** field as "ANALOG" (see Figure 5).

Figure 5: MGCP Configuration (1)



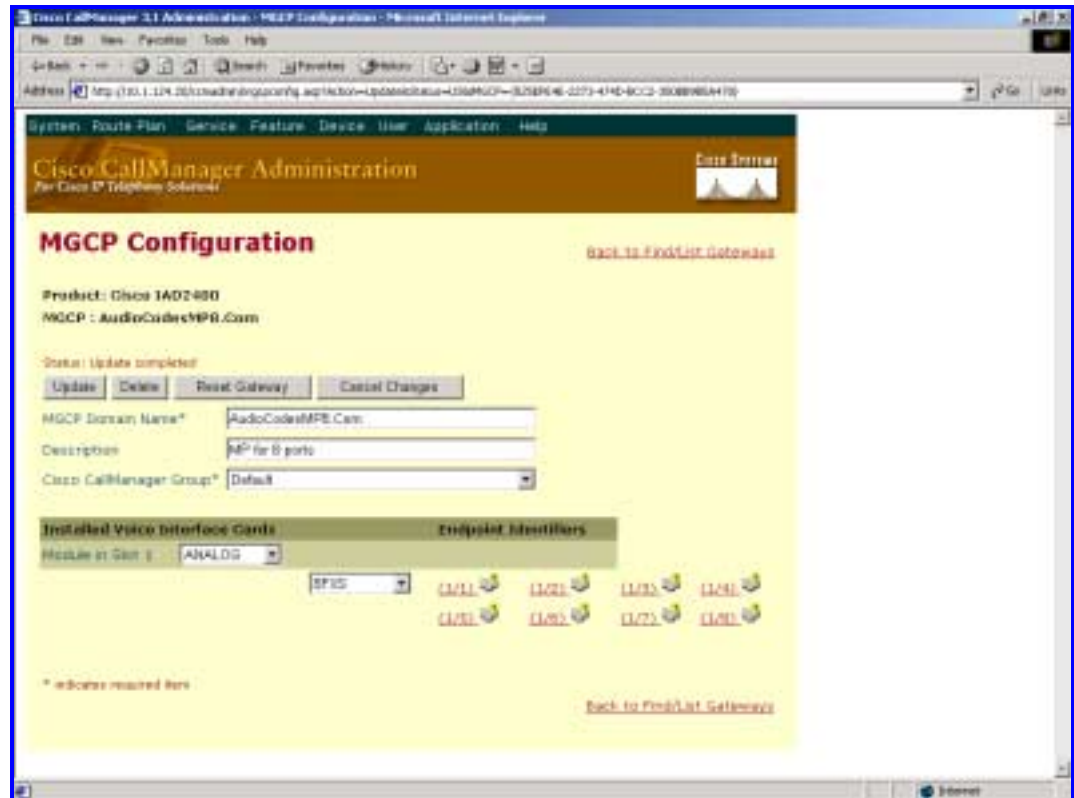
10. To update the last setting and to continue the definition, click on the **Insert** button (see Figure 5 above); the MGCP Configuration window refreshes.
11. In the refreshed window (see Figure 6), the **Module in Slot 1** field consists of sub-field, to define FXS with 8 ports in the gateway, scroll to and select option "8FXS".

Figure 6: MGCP Configuration (2)



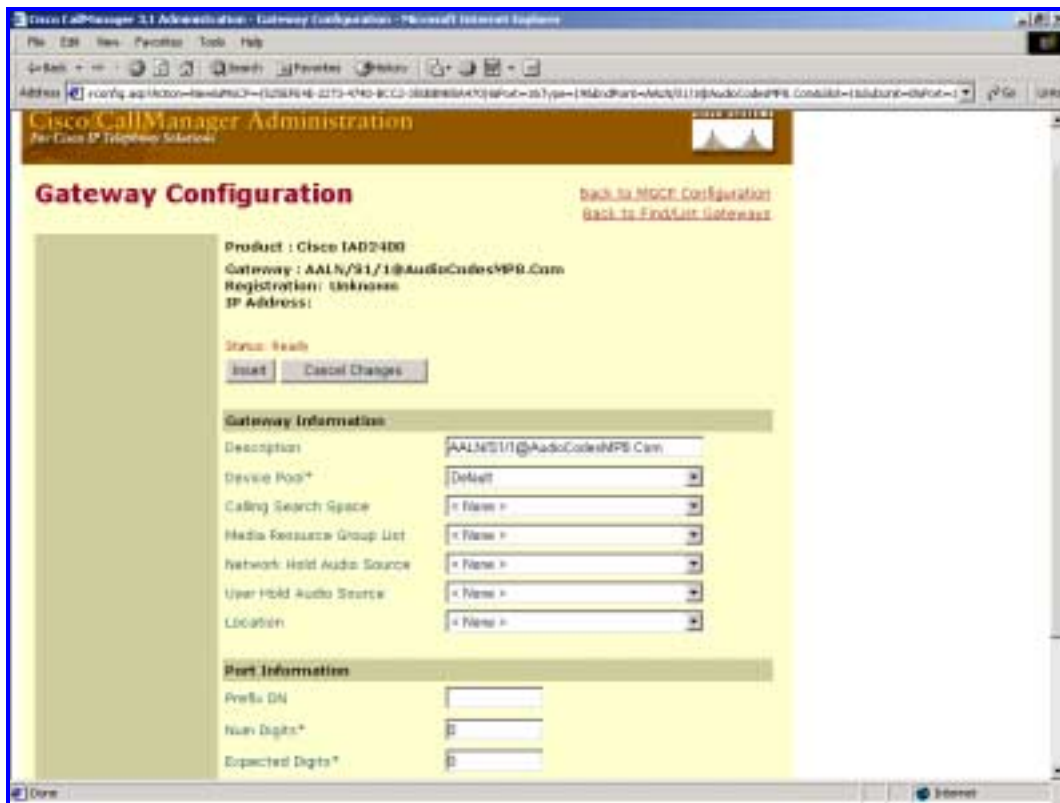
12. Click the **Update** button (see Figure 6 above); the MGCP Configuration window refreshes again (see Figure 7 below).
13. Notice in the refreshed window that eight Endpoint Identifiers appear as sub-definitions for Module in Slot 1. Click on the left Endpoint Identifier (1/1).

Figure 7: MGCP Configuration (3)

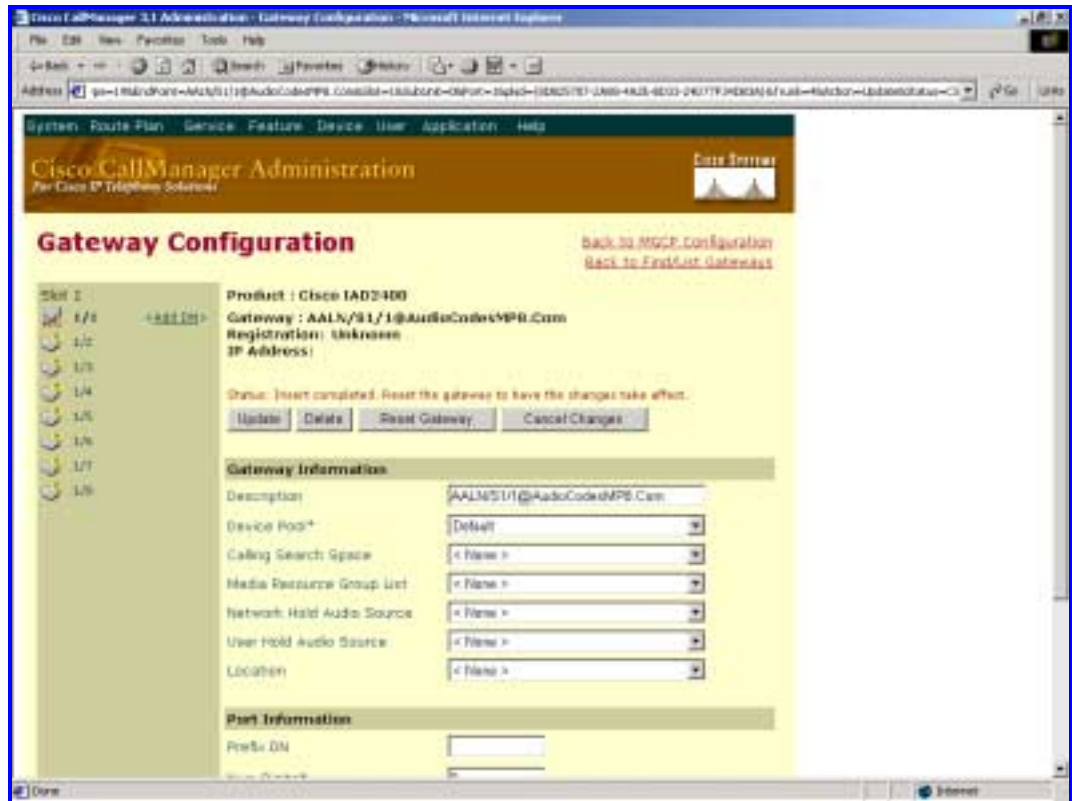


14. A new Gateway Configuration window opens (see Figure 8 below); notice that the **Description** field is already filled and that it contains the **MGCP Domain Name** that you defined in the previous instruction, Step 2 instruction 6 (e.g., *AALN/S1/1@AudioCodesMP8.Com*).
15. In the **Device Pool** field, select the "default" from the scroll window unless you're using another device pool.
16. Verify that both **Num Digits** and **Expected Digits** fields are "0".

Figure 8: Gateway Configuration



17. To update your setting, click on the **Insert** button (see Figure 8); the Gateway Configuration window refreshes (see Figure 9).

Figure 9: Gateway Configuration (1)


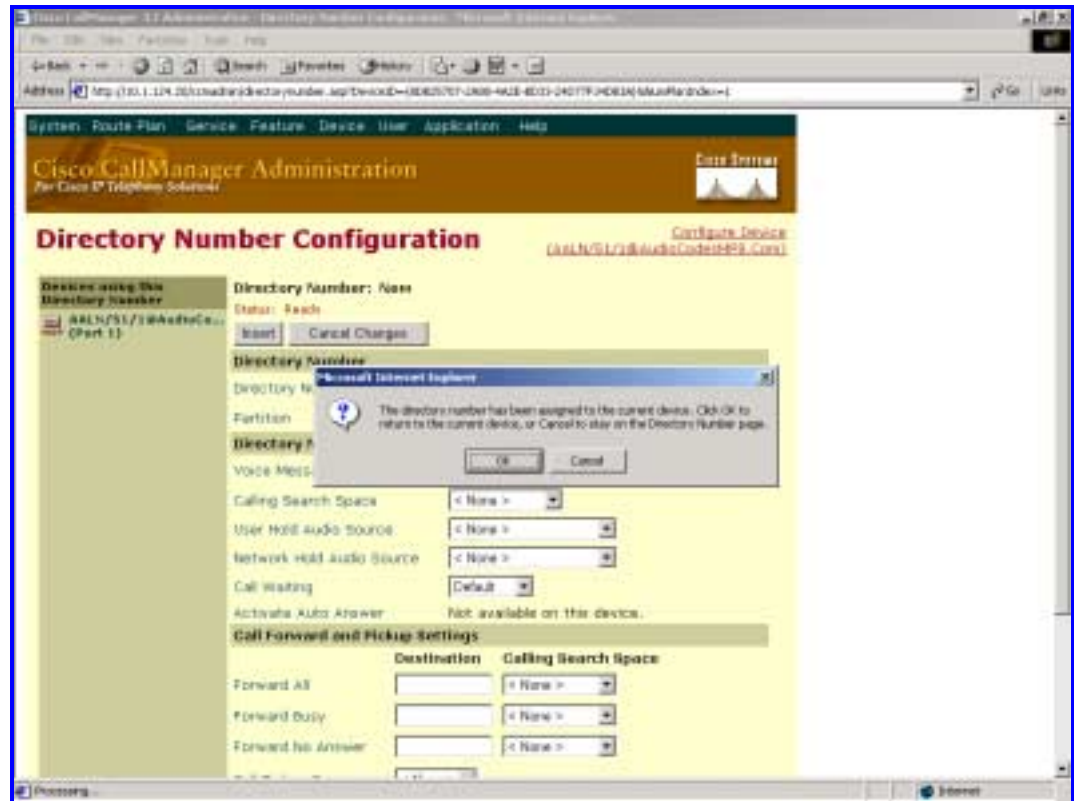
18. In the refreshed window (see Figure 9 above), notice that the sub-menu **Slot 1** appears on the left side and that there is an option to **<Add DN>** to port **1/1**. Click on it; a new window opens (see Figure 10 below).

Figure 10: Directory Number Configuration (1)



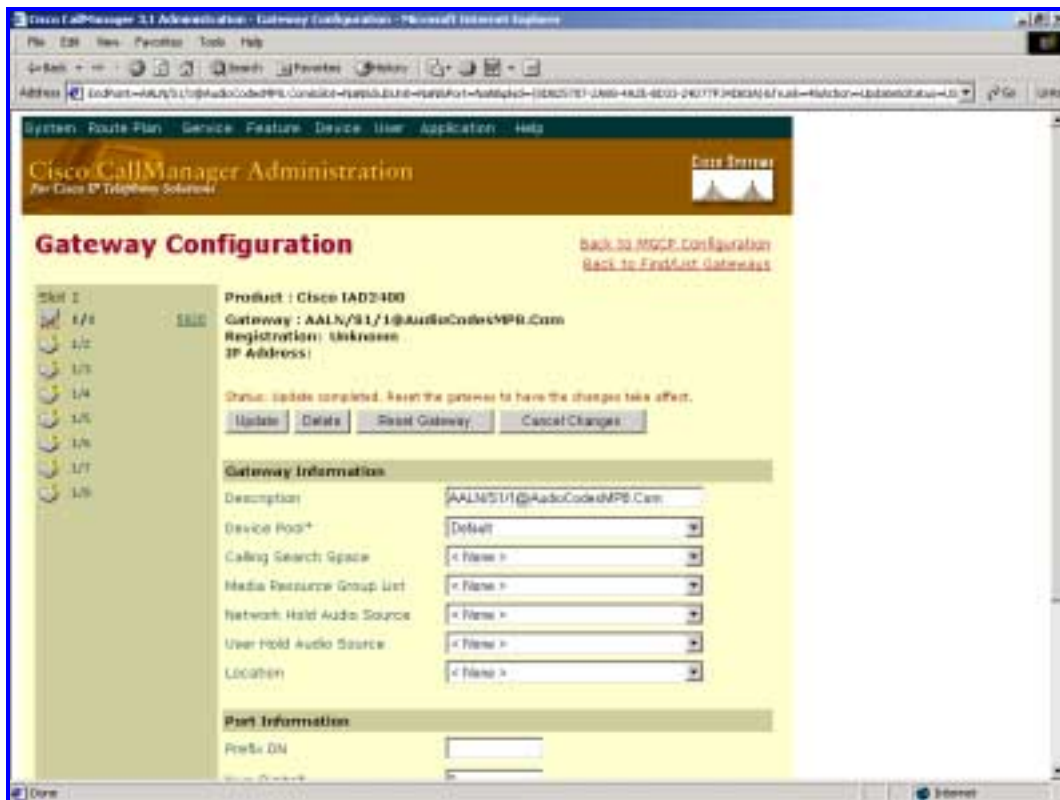
19. Fill the **Directory Number** field with the required unique directory number (e.g., 5020).
20. To update your setting, click the **Insert** button; the Directory Number Configuration window opens together with a Directory Number confirmation prompt (see Figure 11 below).

Figure 11: Directory Number Configuration (2)



21. Click **OK** in the Directory Number confirmation prompt; the Gateway Configuration window reappears (see Figure 12 below).
22. Notice in the refreshed window (see Figure 12 below) that the sub-menu **Slot 1** appears on the left side of the screen and port **1/1** is updated with the Directory Number that you set earlier (e.g., 5020). Click the **Update** button.

Figure 12: Gateway Configuration (2)



23. To set the other FXS ports (in the Gateway Configuration screen (2), Figure 12, above), click on the appropriate port number (for the second port, click on **1/2**; for the third port, click on **1/3**; etc.) in the sub-menu **Slot 1** on the left side of the screen; the Gateway Configuration window, as shown in Figure 8, reopens.
24. In this window (see Figure 8), repeat instructions 15 to 23 under step 2; note that you must refer to the port you just configured (for the 2nd port, refer to **1/2**; for the 3rd port, refer to **1/3**; etc.) instead of to **port 1/1**.
25. After finishing defining the second port, the Gateway Configuration window should be as shown in Figure 13 below.

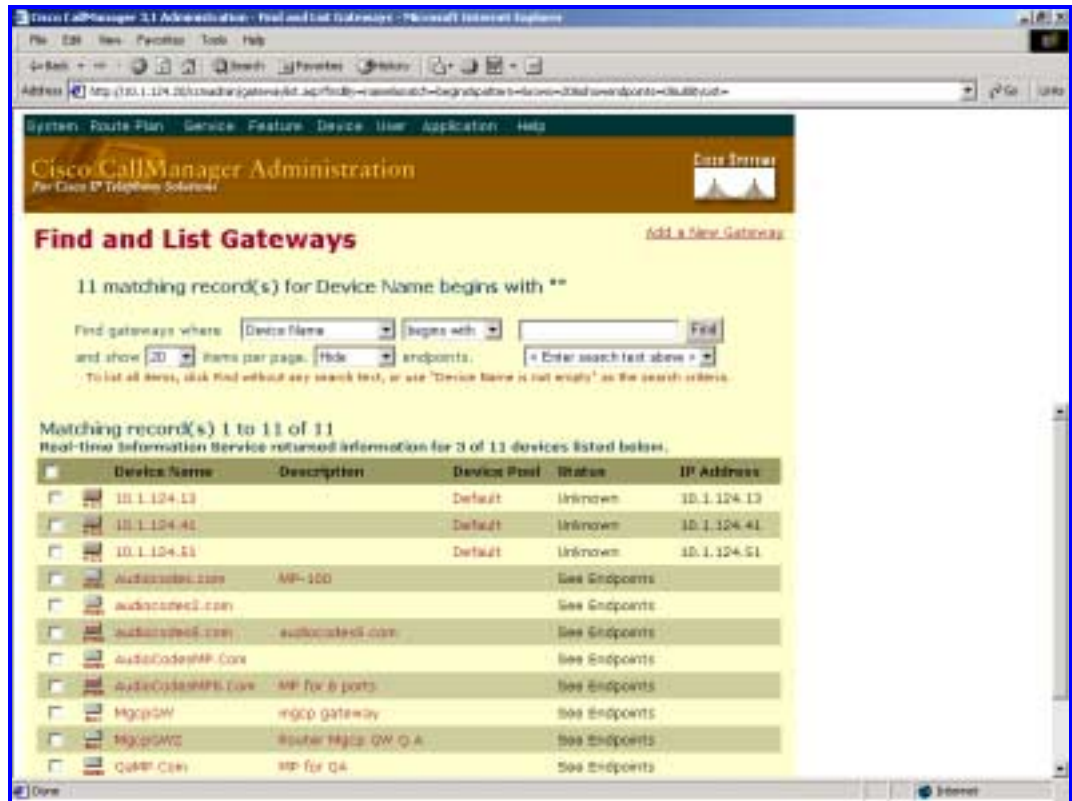
Figure 13: Gateway Configuration (3)


26. In the Gateway Configuration window (3) shown in Figure 13 above, click on the **Update** button; notice that the Gateway Configuration window contains the Directory Numbers of *all* ports (on the left side of the window under sub-menu **Slot 1**).
27. To view the new gateway, click on the link **Back to Find/List Gateways** located on the top right of the window; the **Find and List Gateways** window opens (see Figure 14 below):

Figure 14: Find and List Gateways (1)



28. Click on the **Find** button in the Find and List Gateways window (shown in Figure 14 above); a list containing your new gateway appears (see Figure 15 below):

Figure 15: Find and List Gateways (2)


29. In step 2, you have defined your gateway in the Cisco CallManager. To add other gateways, see step 3. If you do not wish to add other gateways, ignore step 3 and continue with step 4 in which you prepare the gateway itself to work with the CCM, including downloading the appropriate *ini* file.

1.1.3 Step 3 - Adding Gateway Devices in the CCM

➤ **To add additional MGCP gateway devices:**

1. Repeat step 2 (all instructions).
2. Notice the following definition:

* Step 2, instruction 6 – the gateway name should be a unique one.

- * Step 2, instruction 19 – the directory number should be a unique one.

1.1.4 Step 4 – Preparing the Gateway to Work with CCM

➤ To prepare the Gateway, take the following 3 steps:

1. Define the following parameters in the *ini* file that relate to configuring the MP to work with the CCM:

- * CallAgentIP = <IP address of the CCM>
- * MGControlProtocolType = 1
- * CallAgentPort = 2427 (See Notes on page 22.)
- * FaxTransportMode = 0 (In order to define transparent transfer mode)
- * UseT38orFRF11 = 1
- * BELLModemTransportType = 0
- * V21ModemTransportType = 0 (In order to define transparent transfer mode)
- * V22ModemTransportType = 0 (In order to define transparent transfer mode)
- * V23ModemTransportType = 0 (In order to define transparent transfer mode)
- * V32ModemTransportType = 0 (In order to define transparent transfer mode)
- * V34ModemTransportType = 0 (In order to define transparent transfer mode)
- * MGCPVersion = 'MGCP 0.1'
- * MGCPCompatibilityProfile = 4
- * UseBracketsWithGatewayName = 0
- * GatewayName = <the same as the definition in MGCP Domain Name field, see step 2 instruction 6> (e.g. 'AudioCodesMP8.Com')
- * EndPointName = <the same as the Description in the gateway description window that was filled automatically by the CCM as mentioned in step 2 instruction 14, but without the @ sign, the number before the @ sign and without the MGCP Domain Name defined in the previous parameter, GatewayName> (e.g., if the Description field where 'AALN/S1/1@AudioCodesMP8.Com' then the value in the EndPointName should be: 'AALN/S1/')
- * DTMFTransportType = 0
- * MGCPEndPointNumberingOffset = 1

2. After setting the *ini* file, save it in the directory in which the BOOTP application is configured.
3. Download the new version (including the *ini* file) you just configured. You can use the MP-100 Installation and User's Manual, Catalog Number: LTRT-00053, for help with the download procedure.

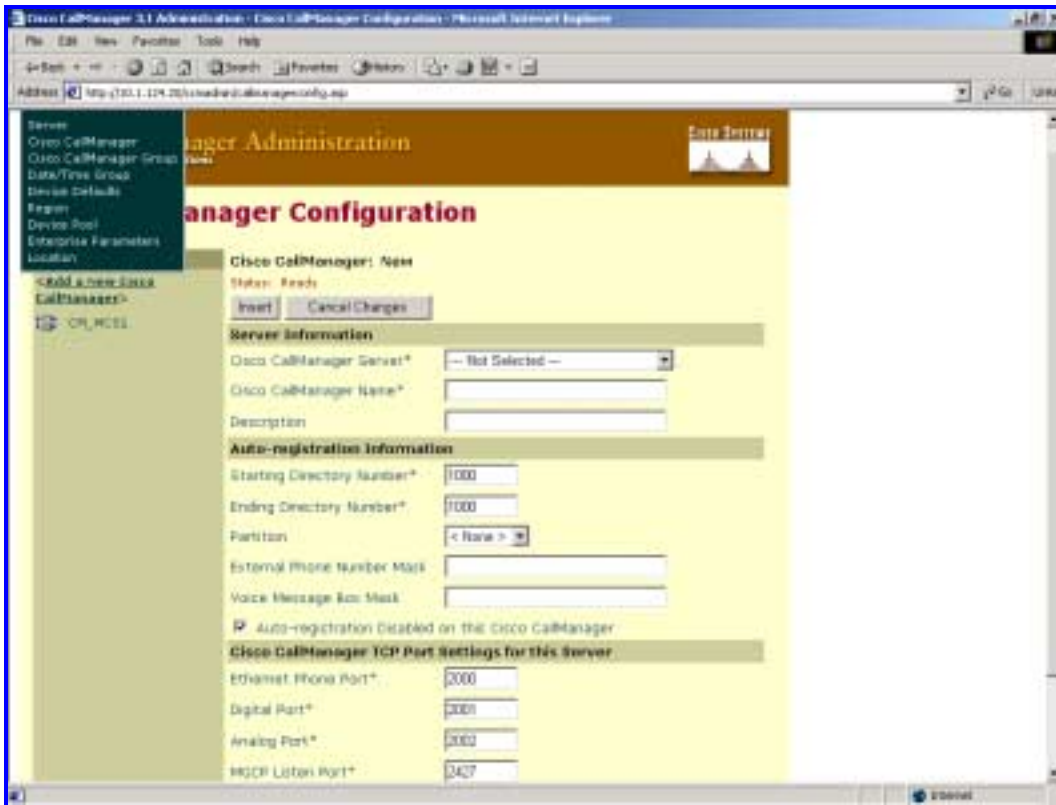
1.2 Limitations

1. Due to limitations of the Cisco Router in MGCP configuration, only Transparent Transfer mode succeeds when sending a fax or using a modem to communicate over the PSTN.

1.3 Notes

1. The MGCP port should match the one defined in the CCM.
2. To verify it, access the CCM as described in step 1.
3. Open the **System** menu in the upper main menu bar and select the **Cisco CallManager** option (see Figure 16 below).
4. Verify the value in the field **MGCP Listen Port**.

Figure 16: Verifying that MGCP Port Matches CCM Definition



US: AudioCodes Inc, 2890 Zanker Road, Suite # 200, San Jose, CA 95134.
Tel: 408-577-0488 - Fax: 408-577-0492

International: AudioCodes Ltd, 4 HaHoresh Street, PO Box 14, Yehud 56470, Israel.
Tel: +972-3-539 4000 - Fax: +972-3-539 4040

China: AudioCodes, # 2721, South Tower, Kerry Center
1 Gaung Hua Road, Chao Yang District, Beijing 100020, P.R.China
Tel: 86-10-8529-9706 - Fax: 86-10-8529-9707

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