CHAPTER 43

Gateway Template

You can use Cisco Unified CallManager Bulk Administration (BAT) to configure some Cisco gateways and ports in the Cisco Unified CallManager database in batches, rather than to add each gateway and port individually.

The following topics provide information and procedures for these tasks:

Adding Cisco Gateways

You can use BAT to add the Cisco gateways to the Cisco Unified CallManager database.

Before adding the VG200 gateways, you must first configure the gateway by using the Cisco IOS software command line interface (CLI). For gateway configuration procedures and commands, refer to the configuration documentation that is supplied with the gateway.

When using BAT to add the Cisco VG200 gateways to the Cisco Unified CallManager database, you can configure the following types of trunks or ports:

- Foreign Exchange Station (FXS) ports for analog devices
- Foreign Exchange Office (FXO) for loopstart or groundstart trunks
- T1 Primary Rate Interface (PRI) trunks for ISDN services in North America—Currently available only for Cisco VG200 gateways
- E1 Primary Rate Interface (PRI) trunks for ISDN services in Europe—Currently available only for Cisco VG200 gateways.
- Digital Access T1 protocol trunks

To add Cisco VG200 gateways to Cisco Unified CallManager, perform the following tasks:

1. Create a Cisco VG200 gateway template to define common values for a set of gateways and ports. See the "Creating a Cisco VG200 Gateway Template" section on page 43-4.

2. Create a CSV data file to define individual values for each gateway and port that you want to add. See the "Creating CSV Data Files for Cisco VG200 Gateways" section on page 44-1.
3. Insert gateways and ports in the Cisco Unified CallManager database. See the "Inserting Gateways to Cisco Unified CallManager" section on page 44-4.

To insert Cisco Catalyst 6000 (FXS) gateway and ports to Cisco Unified CallManager, you must perform the following tasks:

1. Create a Cisco Catalyst 6000 (FXS) gateway template. See the "Creating a Cisco Catalyst 6000 (FXS) Gateway Template" section on page 43-8
2. To define common values for a set of FXS ports, create a Cisco Catalyst 6000 (FXS) ports template. See the "Field descriptions for FXS/FXO Port Configuration" section on page 43-13.
3. To define individual values for the FXS ports that you want to add, create a CSV data file. See the Creating the CSV Data File for Cisco Catalyst 6000 (FXS) Ports, page 44-3.
4. To insert the FXS ports in the Cisco Unified CallManager database, see the "Inserting Gateways to Cisco Unified CallManager" section on page 44-4.

Before using BAT to add the FXS ports for the analog interface modules, you must install the Cisco Catalyst 6000 gateway by performing these tasks:

1. Configure the gateway by using Cisco IOS software command line interface. See the documentation that was supplied with your gateway for configuration instructions.
2. Use Cisco Unified CallManager Administration to add the Cisco Catalyst 6000 gateway in the Cisco Unified CallManager database. In Cisco Unified CallManager Administration, choose **Device > Gateway** and click **Add New**. Choose the Cisco Catalyst 6000 24 Port FXS Gateway and device protocol and then click **Next**. For more information, refer to the *Cisco Unified CallManager Administration Guide*.

You can use BAT to add FXS ports on the Cisco Catalyst 6000 (FXS) analog interface modules for analog devices. You must configure a Gateway Directory Number template to associate with these FXS ports and a Catalyst 6000 (FXS) ports template before adding these ports to the Cisco Unified CallManager database.

Additional Topics

See the "Related Topics" section on page 43-36.

Finding a Gateway Template

Because you might have several gateway templates, Cisco Unified CallManager lets you locate specific template on the basis of specific criteria. Use the following procedure to locate templates.

Note During your work in a browser session, your find/list search preferences are stored in the cookies on the client machine. If you navigate to other menu items and return to this menu item, or if you close the browser and then reopen a new browser window, your Cisco Unified CallManager search preferences are retained until you modify your search.

Procedure

Step 1 Choose **Bulk Administration > Gateways > Gateway Template**.

The Find and List Gateway window displays.

Step 2 From the first Find Gateways where drop-down list box, choose one of the following criteria:

- Name
- Description
- DN/Route Pattern
- Calling Search Space
- Device Pool
- Route Group Name
- Device Type

Step 3 From the second Find Gateways where drop-down list box, choose one of the following criteria:

- begins with
- contains
- is exactly
- ends with
- is empty
- is not empty

Step 4 Specify the appropriate search text, if applicable.

Tip To find all gateways that are registered in the database, click **Find** without entering any search text.

Step 5 Choose **Show** from the third drop-down list box to show the end points associated with gateways, and click **Find**.

A list of discovered templates displays by:

- Device Name
- Description
- Device Pool
- Status
- IP Address

Step 6 From the list of records, click the device name that matches your search criteria.

The Gateway Configuration window displays.

Additional Information

See the "Related Topics" section on page 43-36

Adding or Editing a Gateway Template

Use the following procedure to create a new VG200 or Cisco Catalyst 6000 (FXS) Ports template:

Procedure

Step 1 Choose **Bulk Administration > Gateways > Gateway Template**. The Find and List Gateway Template window displays.

- To edit an existing gateway template, see the "Finding a Gateway Template" section on page 43-2 and select the gateway you want to edit.

  See "Field Descriptions for VG200 Gateway Template" section on page 43-9 and "Field Descriptions for Cisco Catalyst 24 Port FXS Gateway Template" section on page 43-10.
- To add a new gateway, click **Add New**. The Add a New Gateway window displays.

Step 2 Complete one of the following procedures:

- To create a VG200 template, see the "Creating a Cisco VG200 Gateway Template" section on page 43-4.
- To create Cisco Catalyst 6000 (FXS) Ports template, see "Creating a Cisco Catalyst 6000 (FXS) Gateway Template" section on page 43-8.

Creating a Cisco VG200 Gateway Template

You must create a Cisco VG200 template and then add endpoint identifiers for the network modules.

You must use a BAT template to configure the following endpoint identifiers:

- Foreign Exchange Station (FXS) ports
- Foreign Exchange Office (FXO) trunks
- T1 PRI trunks
- E1 PRI trunks
- T1 CAS trunks

Before You Begin

Use the following procedure to add a VG200 Gateway template.

Procedure

Step 1 Choose **Bulk Administration > Gateways > Gateway Template.**

The Find and List Gateway window displays.

Step 2 Click **Add New**. The Add a New Gateway window displays.

Step 3 From the Gateway Type drop-down list box, choose Cisco VG200 and click **Next**. The Gateway Configuration window displays.

Step 4 Enter values for all the fields. See "Field Descriptions for VG200 Gateway Template" section on page 43-9:

Step 5 Click **Save**. When the insert completes, a new field displays on the pane.

Step 6 In the Subunit field(s), choose the appropriate type for each subunit field:

- VIC-2FXS—Foreign Exchange Station (FXS) voice interface card

- VIC-2FXO—Foreign Exchange Office (FXO) voice interface card
- VWIC-1MFT-T1—Voice WAN interface card with one endpoint for T1 CAS or T1 PRI
- VWIC-2MFT-T1—Voice WAN interface card with two endpoints for T1 CAS or T1 PRI
- VWIC-1MFT-E1—Voice WAN interface card with one endpoint for E1 PRI
- VWIC-2MFT-E1—Voice WAN interface card with two endpoints for E1 PRI

Step 7 Click **Save**. When the Status indicates that the update completed, the endpoint identifiers display as links to the right of the subunit drop-down list boxes.

Step 8 Click an endpoint identifier (for example, 1/0/0) to configure device protocol information and add ports for the installed types of VICs.

For detailed instructions, see the following procedures:

- Adding FXS Ports to VG200 Gateway Template, page 43-5
- Adding FXO Ports to an VG200 Gateway Template, page 43-6
- Adding Digital Access T1 (T1-CAS) Ports to an VG200 Gateway Template, page 43-7
- Adding a T1 PRI or E1 PRI Device to an VG200 Gateway Template, page 43-7

Step 9 To reset the gateway and apply the changes, click **Reset**.

Step 10 Continue configuring endpoint information and ports as needed.

Adding Ports to a VG200 Gateway Template

The device protocols and port types that can be configured on VG200 gateways vary by the type of installed voice interface cards. This section contains the following procedures:

- Adding FXS Ports to VG200 Gateway Template, page 43-5
- Adding FXO Ports to an VG200 Gateway Template, page 43-6
- Adding Digital Access T1 (T1-CAS) Ports to an VG200 Gateway Template, page 43-7
- Adding a T1 PRI or E1 PRI Device to an VG200 Gateway Template, page 43-7

Adding FXS Ports to VG200 Gateway Template

You can use Foreign Exchange Station (FXS) ports to connect to any POTS device. Use this procedure to add FXS ports on a VG200 gateway template.

Before You Begin

You must add an VG200 gateway template before configuring ports. See the "Creating a Cisco VG200 Gateway Template" section on page 43-4 for instructions.

Procedure

Step 1 To find the gateway template to which you want to add FXS ports, see "Finding a Gateway Template" section on page 43-2

Step 2 From the Gateway Template Configuration window, click the endpoint identifier for the FXS VIC that you want to configure.

The window refreshes and displays the Gateway Template Configuration window with the end-point icons.

Step 3 Enter the appropriate **Gateway Information** and **Port Information** settings. See the following sections for details about these fields:

- Field descriptions for FXS/FXO Port Configuration, page 43-13
- POTS Port Configuration Settings, page 43-33

Step 4 Click **Save**.

Note After you insert a POTS port, the window refreshes and displays the POTS port information at the bottom of the window. An **Add a new DN** link displays in the Directory Number Information area in the left panel.

Step 5 Click **Add a new DN** to add directory numbers to the POTS port or, if you configured another type of port, go to Step 7.

Note See "Adding or Updating Lines in a BAT Template" section on page 3-4 for information about adding and configuring DNs.

Step 6 To return to the main VG200 Gateway Template Configuration window for the gateway to which you just added the ports, choose **Back to MGCP Configuration** in the Related Links drop-down list box and click **Go**.

Step 7 To reset the gateway and apply the changes, click **Reset**.

Step 8 Repeat Step 2 through Step 6 to add additional FXS ports.

Additional Information

See the "Related Topics" section on page 43-36.

Adding FXO Ports to an VG200 Gateway Template

You can use Foreign Exchange Office (FXO) ports for connecting to a central office or PBX. Use this procedure to add and configure FXO ports for loop start or ground start on an VG200 gateway template.

Note Cisco Unified CallManager assumes all loop-start trunks lack positive disconnect supervision. Configure trunks with positive disconnect supervision as ground start, so active calls can be maintained during a Cisco Unified CallManager server failover.

Before You Begin

You must add a VG200 gateway template before configuring ports. See the "Creating a Cisco VG200 Gateway Template" section on page 43-4 for instructions.

Procedure

Step 1 To find the gateway template to which you want to add FXS ports, see "Finding a Gateway Template" section on page 43-2

Step 2 From the Gateway Configuration window, click the endpoint identifiers of the FXO port that you want to configure.

Step 3 From the Port Type drop-down list box, choose either **Ground Start** or **Loop Start**.

Note You must choose the same port type for both endpoint identifiers of the VIC-2FXO port. If you choose different port types, a message displays.

Step 4 Enter the appropriate **Gateway Configuration** and **Port Information** settings described in "Field descriptions for FXS/FXO Port Configuration" section on page 43-13

Step 5 Click **Save**.

Step 6 To return to the main VG200 gateway configuration window for the gateway to which you just added the ports, choose **Back to MGCP Configuration** in the Related Links drop-down list box and click **Go**.

Step 7 To reset the gateway and apply the changes, click **Reset**.

Step 8 To add more FXO ports, repeat Step 2 though Step 5.

Additional Information

See the "Related Topics" section on page 43-36.

Adding Digital Access T1 (T1-CAS) Ports to an VG200 Gateway Template

Use this procedure to add Digital Access T1 (T1-CAS) ports to an VG200 gateway.

Step 1 To find the gateway template to which you want to add FXS ports, see "Finding a Gateway Template" section on page 43-2

Step 2 From the Gateway Configuration window, click the endpoint identifier of the Digital Access T1 (T1-CAS) port that you want to configure.

In the Device Protocol drop-down list box that displays, choose **Digital Access T1** and click **Next**.

Step 3 Enter the appropriate Gateway Configuration settings. See the "Field Descriptions for Digital Access T1 Trunks on a Cisco VG200 Gateway Template" section on page 43-16 for details.

Step 4 Click **Save**.

Step 5 To reset the gateway and apply the changes, click **Reset**.

Step 6 See the "Port Configuration Settings" section on page 43-32 for the appropriate settings for the port type that you choose.

Additional Information

See the "Related Topics" section on page 43-36.

Adding a T1 PRI or E1 PRI Device to an VG200 Gateway Template

Step 1 To find the gateway template to which you want to add FXS ports, see "Finding a Gateway Template" section on page 43-2

Step 2 From the Gateway Configuration window, click the endpoint identifier of the T1 PRI or E1 PRI port that you want to configure.

Step 3 Configure the T1 PRI or E1 PRI device protocol settings. See the "Field Descriptions for T1 PRI or E1 PRI Trunks on a Cisco VG200 Gateway Template" section on page 43-19 for detailed field descriptions.

Step 4 Click **Save**.

Step 5 To reset the gateway and apply the changes, click **Reset**.

Additional Information

See the "Related Topics" section on page 43-36.

Creating a Cisco Catalyst 6000 (FXS) Gateway Template

To create a Cisco Catalyst 6000 FXS gateway template, use this procedure. You must complete all fields unless otherwise noted.

Step 1 Choose **Bulk Administration > Gateways > Gateway Template.**

The Find and List Gateway window displays.

Step 2 Click **Add New**. The Add a New Gateway window displays.

Step 3 From the Gateway Type drop-down list box, choose Cisco Catalyst 6000 24 Port FXS Gateway. The Gateway Configuration window displays.

Step 4 In the Template Name field, enter a unique name for this template.

Step 5 Enter the settings for the fields. See the "Field Descriptions for Cisco Catalyst 24 Port FXS Gateway Template" section on page 43-10 for more information.

Step 6 Click **Save**.

Step 7 Click **Add a New Port**.

A port configuration dialog opens in a separate window.

Step 8 From the drop-down list box, choose **POTS** as the port type depending on the gateway model that you are configuring."Field Descriptions for T1 PRI or E1 PRI Trunks on a Cisco VG200 Gateway Template" section on page 43-19

Step 9 Enter the appropriate port configuration settings as described in the "POTS Port Configuration Settings" section on page 43-33.

Step 10 Click **Save.**

If you have inserted POTS ports, the window refreshes and displays the POTS port in the list on the left side of the window. An **Add DN** link displays to the right of the new port.

Step 11 To add a directory numbers to an FXS port, click **Add DN**.

For information about adding and configuring directory numbers, see the "Adding or Updating Lines in a BAT Template" section on page 3-4 and the.

Step 12 Click **Save**. When the Status indicates that the update completed, the template displays on the Find and List Gateways window. To go back to the Find and List window, choose **Back to Find and List** from the **Related Links** drop-down list box in the top, right corner of the window.

Additional Topics

See the "Related Topics" section on page 43-36.

Gateway Configuration Settings

See the following sections for tables that list detailed descriptions for all gateway configuration fields:

- Field Descriptions for VG200 Gateway Template, page 43-9
- Field Descriptions for Cisco Catalyst 24 Port FXS Gateway Template, page 43-10
- Field descriptions for FXS/FXO Port Configuration, page 43-13
- Field Descriptions for Digital Access T1 Trunks on a Cisco VG200 Gateway Template, page 43-16
- Field Descriptions for T1 PRI or E1 PRI Trunks on a Cisco VG200 Gateway Template, page 43-19

For detailed information about port configuration settings, see the "Port Configuration Settings" section on page 43-32.

Field Descriptions for VG200 Gateway Template

Table 43-1 provides detailed descriptions for VG200 gateway template configuration settings. For related procedures, see the "Related Topics" section on page 43-36.

Table 43-1 VG200 Gateway Configuration Settings

Field	Description
Template Name	Enter a name of up to 64 characters that identifies the Cisco VG200 gateway template.
Description	Enter a description that clarifies the purpose of the device.
Cisco Unified CallManager Group	From the drop-down list box, choose a Cisco Unified CallManager redundancy group. A Cisco Unified CallManager redundancy group includes a prioritized list of up to three Cisco Unified CallManagers. The first Cisco Unified CallManager in the list serves as the primary Cisco Unified CallManager. If the primary Cisco Unified CallManager is not available or fails, the gateway attempts to connect with the next Cisco Unified CallManager in the list and so on.
Configured Slots, VICs, and Endpoints **Note** You must specify the beginning port number for some VICs. For example, if the VIC in Subunit 0 begins at 0 and has two ports (0 and 1), the VIC in Subunit 1 must begin at a port number greater than 1 and have two ports (2 and 3 or 4 and 5). **Note** VG200 gateway has only one slot.	

Table 43-1 VG200 Gateway Configuration Settings (continued)

Field	Description
Module in Slot 1	For the available slot on the VG200 gateway, choose from the following type of modules: • NM-1V—Network Module-1Voice has one voice interface card (VIC) in Sub-Unit 0 for FXS or FXO. • NM-2V—Network Module-2Voice has two VICs, one in Sub-Unit 0 and one in Sub-Unit 1 for either FXS or FXO. • NM-HDV—Network Module-High Density Voice has one VIC in Sub-Unit 0 either for T1 CAS or T1 PRI, or for E1 PRI. • None—No network modules are installed.
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice. To view field descriptions and help for product-specific configuration items, click the "**i**" information icon to the right of the **Product Specific Configuration** heading to display help in a popup dialog box. If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.

Field Descriptions for Cisco Catalyst 24 Port FXS Gateway Template

Table 43-2 lists configuration settings for Cisco Catalyst 6000 24 port FXS Gateway template. For related procedures, see the "Related Topics" section on page 43-36.

Table 43-2 Cisco Catalyst 6000 24 Port FXS Gateway Configuration Settings

Field	Description
Description	Enter the purpose of the device.
Device Pool	From the drop-down list box, choose the appropriate device pool. The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, from among the available media resources according to the priority order that a Media Resource Group List defines.

Table 43-2 Cisco Catalyst 6000 24 Port FXS Gateway Configuration Settings (continued)

Field	Description
Calling Search Space	From the drop-down list box, choose the appropriate calling search space. The calling search space specifies a collection of partitions that are searched to determine how a collected (originating) number should be routed. You can configure the number of calling search spaces that display in this drop-down list box by using the Max List Box Items enterprise parameter. If more calling search spaces exist than the Max List Box Items enterprise parameter specifies, the ellipsis button (**...**) displays next to the drop-down list box. Click the **...** button to display the Select Calling Search Space window. Enter a partial calling search space name in the **List items where Name contains** field. Click the desired calling search space name in the list of calling search spaces that displays in the **Select item to use** box and click **OK**. **Note** To set the maximum list box items, choose **System > Enterprise Parameters** and choose **Unified CMAdmin Parameters**.
AAR Calling Search Space	Choose the appropriate calling search space for the device to use when it performs automated alternate routing (AAR). The AAR calling search space specifies the collection of route partitions that are searched to determine how to route a collected (originating) number that is otherwise blocked due to insufficient bandwidth.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth that is available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth that this device consumes.
AAR Group	Choose the automated alternate routing (AAR) group for this device. The AAR group provides the prefix digits that are used to route calls that are otherwise blocked due to insufficient bandwidth. An AAR group setting of None specifies that no rerouting of blocked calls will be attempted.
Network Locale	From the drop-down list box, choose the locale that is associated with the gateway. The network locale identifies a set of detailed information to support the hardware in a specific location. The network locale contains a definition of the tones and cadences that the device uses in a specific geographic area. **Note** Choose only a network locale that is already installed and supported by the associated devices. The list contains all available network locales for this setting, but not all are necessarily installed. If the device is associated with a network locale that it does not support in the firmware, the device will fail to come up.

Table 43-2 Cisco Catalyst 6000 24 Port FXS Gateway Configuration Settings (continued)

Field	Description
Port Selection Order	Choose the order in which ports are chosen. If you are not sure which port order to use, choose TOP_DOWN: • TOP_DOWN—Selects ports in descending order, from port 1 to port 8. • BOTTOM_UP—Selects ports in ascending order, from port 8 to port 1.
Load Information	Enter the appropriate firmware load information for the gateway. The values that you enter here override the default values for this gateway.
Transmit UTF-8 for Calling Party Name	This device uses the user locale setting of the device's device pool to determine whether to send unicode and whether to translate received unicode information. For the sending device, if you check this check box and the user locale setting in the device's device pool matches the terminating phone's user locale, the device sends unicode. If the user locale settings do not match, the device sends ASCII. The receiving device translates incoming unicode characters based on the user locale setting of the sending device's device pool. If the user locale setting matches the terminating phone's user locale, the phone displays the characters. **Note** The phone may display junk characters if the two ends of the trunk configure user locales that do not belong to the same language group.
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	From the drop-down list box, choose an MLPP domain to associate with this device. If you leave the value <*None*>, this device inherits its MLPP domain from the value that was set for the device's device pool. If the device pool does not have an MLPP Domain setting, this device inherits its MLPP Domain from the value that was set for the MLPP Domain Identifier enterprise parameter.
MLPP Indication	This device type does not have this setting.
MLPP Preemption	This setting does not have this device type.

Table 43-2 Cisco Catalyst 6000 24 Port FXS Gateway Configuration Settings (continued)

Field	Description
Product-Specific Configuration	
Model-specific configuration fields that the gateway manufacturer defines	The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice. To view field descriptions and help for product-specific configuration items, click the "**i**" information icon to the right of the **Product Specific Configuration** heading to display help in a popup dialog box. If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.

Field descriptions for FXS/FXO Port Configuration

Table 43-3 provides detailed descriptions for FXS/FXO port configuration settings. For related procedures, see the "Related Topics" section on page 43-36.

For the VG200 gateway, not all switch emulation types support the network side. How you configure the gateway switch type determines whether you may or may not be able to set network side.

Table 43-3 FXS/FXO Port Configuration Settings

Field	Description
Device Information	
End-Point Name	For VG200 gateways, this display-only field contains a string that Cisco Unified CallManager generates that uniquely identifies the VG200 analog interface.
Description	Enter a description that clarifies the purpose of the device.
Device Pool	From the drop-down list box, choose the appropriate device pool. The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto registration of devices.
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, from among the available media resources according to the priority order that is defined in a Media Resource Group List.

Table 43-3 FXS/FXO Port Configuration Settings (continued)

Field	Description
Calling Search Space	From the drop-down list box, choose the appropriate calling search space. A calling search space comprises a collection of route partitions that are searched to determine how a collected (originating) number should be routed. You can configure the number of calling search spaces that display in this drop-down list box by using the Max List Box Items enterprise parameter. If more calling search spaces exist than the Max List Box Items enterprise parameter specifies, the ellipsis button (**...**) displays next to the drop-down list box. Click the **...** button to display the Select Calling Search Space window. Enter a partial calling search space name in the **List items where Name contains** field. Click the desired calling search space name in the list of calling search spaces that displays in the **Select item to use** box and click **OK**. **Note** To set the maximum list box items, choose **System > Enterprise Parameters** and enter a value for Max List Box Items in the Unified CMAdmin Parameters pane.
AAR Calling Search Space	Choose the appropriate calling search space for the device to use when it performs automated alternate routing (AAR). The AAR calling search space specifies the collection of route partitions that are searched to determine how to route a collected (originating) number that is otherwise blocked due to insufficient bandwidth.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth that is available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth that this device consumes.
AAR Group	Choose the automated alternate routing (AAR) group for this device. The AAR group provides the prefix digits that are used to route calls that are otherwise blocked due to insufficient bandwidth. An AAR group setting of None specifies that no rerouting of blocked calls will be attempted.
Network Locale	From the drop-down list box, choose the locale that is associated with the gateway. The network locale identifies a set of detailed information to support the hardware in a specific location. The network locale contains a definition of the tones and cadences that the device uses in a specific geographic area. **Note** Choose only a network locale that is already installed and that the associated devices support. The list contains all available network locales for this setting, but not all are necessarily installed. If the device is associated with a network locale that it does not support in the firmware, the device will fail to come up.

Table 43-3 FXS/FXO Port Configuration Settings (continued)

Field	Description
Transmit UTF-8 for Calling Party Name	This device uses the user locale setting of the device's device pool to determine whether to send Unicode and whether to translate received Unicode information. For the sending device, if you check this check box and the user locale setting in the device's device pool matches the terminating phone's user locale, the device sends Unicode. If the user locale settings do not match, the device sends ASCII. The receiving device translates incoming Unicode characters based on the user locale setting of the sending device's device pool. If the user locale setting matches the terminating phone's user locale, the phone displays the characters. **Note** The phone may display junk characters if the two ends of the trunk configure user locales that do not belong to the same language group.
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	From the drop-down list box, choose an MLPP domain to associate with this device. If you leave the value <*None*>, this device inherits its MLPP domain from the value set for the device's device pool. If the device pool does not have an MLPP Domain setting, this device inherits its MLPP Domain from the value set for the MLPP Domain Identifier enterprise parameter.
Port Information (POTS)	
Port Direction	Choose the direction of calls that are passing through this port: • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Bothways—Use for inbound and outbound calls (default).
Prefix DN (for FXS ports)	Enter the prefix digits that are appended to the digits that this trunk receives on incoming calls. The Cisco Unified CallManager adds prefix digits after first truncating the number in accordance with the Num Digits setting.
Num Digits (for FXS ports)	Enter the number of significant digits to collect, from 0 to 32. Cisco Unified CallManager counts significant digits from the right (last digit) of the number called. Use this field for the processing of incoming calls and to indicate the number of digits starting from the last digit of the called number that is used to route calls coming into the PRI span. See Prefix DN.
Expected Digits (for FXS ports)	Enter the number of digits that are expected on the inbound side of the trunk. For this rarely used field, leave zero as the default value if you are unsure.

Table 43-3 FXS/FXO Port Configuration Settings (continued)

Field	Description
SMDI Port Number (0-4096)	Use this field for analog access ports that connect to a voice-messaging system. Set the SMDI Port Number equal to the actual port number on the voice-messaging system to which the analog access port connects. **Note** Voice-mail logical ports typically must match physical ports for the voice-messaging system to operate correctly.
Unattended Port	Check this check box to indicate an unattended port on this device.
Port Information (Loop Start and Ground Start) (for FXO ports)	
Port Direction	Choose the direction of calls that pass through this port: • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Both Ways—Use for inbound and outbound calls.
Attendant DN	Enter the directory number to which you want incoming calls routed; for example, zero or a directory number for an attendant.
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice. To view field descriptions and help for product-specific configuration items, click the "**i**" information icon to the right of the **Product Specific Configuration** heading to display help in a popup dialog box. If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.

Field Descriptions for Digital Access T1 Trunks on a Cisco VG200 Gateway Template

Table 43-4 provides detailed field descriptions for adding or updating values for the T1 CAS trunks on a Cisco VG200 gateway.

Some fields display the values that were configured in Cisco Unified CallManager Administration.

In the BAT user interface, field names that have an asterisk require an entry. Consider an entry in fields without an asterisk as optional.

For related procedures, see the "Related Topics" section on page 43-36.

Table 43-4 Digital Access T1 (T1-CAS) Configuration Settings

Field	Description
End-Point Name	For VG200 gateways, this display-only field contains a string that Cisco Unified CallManager generates that uniquely identifies the VG200 digital interface. For example: S1/DS1-0@VG200-2 S1 indicates slot 1, DS1-0 designates the digital interface, and @VG200-2 designates the VG200 template name.
Description	Enter a description that clarifies the purpose of the device.
Device Pool	From the drop-down list box, choose the appropriate device pool. The device pool specifies a collection of properties for this device including CallManager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.
Call Classification	This parameter determines whether an incoming call that is using this gateway is considered off the network (OffNet) or on the network (OnNet). When the Call Classification field is configured as Use System Default, the setting of the Cisco Unified CallManager clusterwide service parameter, Call Classification, determines whether the gateway is OnNet or OffNet. This field provides an OnNet or OffNet alerting tone when the call is OnNet or OffNet, respectively.
Media Resource Group List	This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, from among the available media resources according to the priority order that is defined in a Media Resource List.
Calling Search Space	From the drop-down list box, choose the appropriate calling search space. A calling search space designates a collection of route partitions that are searched to determine how a collected (originating) number should be routed. You can configure the number of calling search spaces that display in this drop-down list box by using the Max List Box Items enterprise parameter. If more calling search spaces exist than the Max List Box Items enterprise parameter specifies, the ellipsis button (**...**) displays next to the drop-down list box. Click the **...** button to display the Select Calling Search Space window. Enter a partial calling search space name in the **List items where Name contains** field. Click the desired calling search space name in the list of calling search spaces that displays in the **Select item to use** box and click **OK**. **Note** To set the maximum list box items, choose **System > Enterprise Parameters** and choose **Unified CMAdmin Parameters**.

Table 43-4 Digital Access T1 (T1-CAS) Configuration Settings (continued)

Field	Description
AAR Calling Search Space	Choose the appropriate calling search space for the device to use when automated alternate routing (AAR) is performed. The AAR calling search space specifies the collection of route partitions that are searched to determine how to route a collected (originating) number that is otherwise blocked due to insufficient bandwidth.
Location	Choose the appropriate location for this device. The location specifies the total bandwidth that is available for calls to and from this location. A location setting of None means that the locations feature does not keep track of the bandwidth that this device consumes.
AAR Group	Choose the automated alternate routing (AAR) group for this device. The AAR group provides the prefix digits that are used to route calls that are otherwise blocked due to insufficient bandwidth. An AAR group setting of None specifies that no rerouting of blocked calls will be attempted.
MLPP Domain	From the drop-down list box, choose an MLPP domain to associate with this device. If you leave the value <*None*>, this device inherits its MLPP domain from the value that was set for the device's device pool. If the device pool does not have an MLPP Domain setting, this device inherits its MLPP Domain from the value that was set for the MLPP Domain Identifier enterprise parameter.
Handle DTMF Precedence Signals	Check this box to enable this gateway to interpret special DTMF signals as MLPP precedence levels.
Load Information	Enter the appropriate firmware load information for the gateway. The values that you enter here override the default values for this gateway.
Port Selection Order	Choose the order in which channels or ports are allocated for outbound calls from first (lowest number port) to last (highest number port) or from last to first. Valid entries include TOP_DOWN (first to last) or BOTTOM_UP (last to first). If you are not sure which port order to use, choose TOP_DOWN.
Digit Sending	Choose one of the following digit sending types for out-dialing: • DTMF—Dual-tone multifrequency. Normal touchtone dialing • MF—Multifrequency • PULSE—Pulse (rotary) dialing

Table 43-4 Digital Access T1 (T1-CAS) Configuration Settings (continued)

Field	Description
Network Locale	From the drop-down list box, choose the locale that is associated with the gateway. The network locale identifies a set of detailed information to support the hardware in a specific location. The network locale contains a definition of the tones and cadences that the device uses in a specific geographic area. **Note** Choose only a network locale that is already installed and supported by the associated devices. The list contains all available network locales for this setting, but not all are necessarily installed. If the device is associated with a network locale that it does not support in the firmware, the device will fail to come up.
SMDI Base Port	Enter the first SMDI port number of the T1 span. If you set this parameter to a nonzero value and this gateway belongs to an unknown type of route list, route group, or route list, hunting does not continue past this span.
Product-Specific Configuration	
Model-specific configuration fields that the gateway manufacturer defines	The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice. To view field descriptions and help for product-specific configuration items, click the "**i**" information icon to the right of the **Product Specific Configuration** heading to display help in a popup dialog box. If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.

Additional Topics

See the "Related Topics" section on page 43-36.

Field Descriptions for T1 PRI or E1 PRI Trunks on a Cisco VG200 Gateway Template

Table 43-5 provides field descriptions for adding or updating values for T1 PRI or E1 PRI trunks on a Cisco VG200 gateway.

Some fields display the values that were configured in Cisco Unified CallManager Administration.

In the BAT user interface, field names that have an asterisk require an entry. Consider an entry in fields without an asterisk as optional.

For related procedures, see the "Related Topics" section on page 43-36.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks

Field	Description
Device Information	
Endpoint Name	For VG200 gateways, this display-only field contains a string that is generated by Cisco Unified CallManager that uniquely identifies the VG200 endpoint. For example: S1/DS1-0@VG200-2 S1 indicates slot 1, DS1-0 designates the digital interface, and @VG200-2 designates the VG200 domain name.
Description	Enter a description for the end-point that you are configuring.
Device Pool	Choose the device pool for this group of gateways/ports. A device pool defines sets of common characteristics for devices, such as region, date/time group, Cisco Unified CallManager group, and calling search space for auto-registration.
Call Classification	From the drop-down list box, choose an option to configure the device as on net, off net, or system default. If you chose 'Use System Default' at the device level, the system uses the value of the service parameter to determine whether the device is internal (on net) or external (off net).
Network Locale	Choose the network locale that you want to associate with this gateway. The Network Locale comprises a set of tones and cadences that Cisco gateways and phones use when communicating with the PSTN and other networks in a specific geographical area.
Media Resource Group List	Choose the media resource group list (MRGL) for this group of gateways/ports. An MRGL specifies a list of prioritized media resource groups. An application can choose required media resources from among the available ones according to the priority order that is defined in the MRGL.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Location	Choose the location for this group of gateways/ports. A location indicates the remote location that is accessed by using restricted bandwidth connections.
AAR Group	Choose the automated alternate routing (AAR) group for this device. The AAR group provides the prefix digits that are used to route calls that are otherwise blocked due to insufficient bandwidth. An AAR group setting of None specifies that no rerouting of blocked calls will be attempted.
Load Information	Enter the appropriate load information for the custom software for gateway. The values that you enter here override the default values for this gateway. To use the default load, leave this field blank.
Transmit UTF-8 for Calling Party Name	This device uses the user locale setting of the device's device pool to determine whether to send Unicode and whether to translate received Unicode information. For the sending device, if you check this check box and the user locale setting in the device's device pool matches the terminating phone's user locale, the device sends Unicode. If the user locale settings do not match, the device sends ASCII. The receiving device translates incoming Unicode characters based on the user locale setting of the sending device's device pool. If the user locale setting matches the terminating phone's user locale, the phone displays the characters. The phone may display junk characters if the two ends of the trunk configure user locales that do not belong to the same language group.
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain (e.g., "0000FF")	Enter a hexadecimal value for the MLPP domain that is associated with this device. Ensure that the value is blank or a value between 0 and FFFFFF.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Interface Information	
PRI Protocol Type	Choose the communications protocol for the span: For E1 PRI spans, you have these options: • PRI AUSTRALIAN—Australian ISDN • PRI EURO—European ISDN • PRI ISO QSIG E1—European inter-PBX signaling protocol For T1 PRI spans you have several options, depending on the carrier or switch: • PRI 4ESS —AT&T interexchange carrier, Lucent Definity switch • PRI 5E8 Custom—Cisco Unified IP Phone, Nortel Meridian switch, Lucent Definity switches • PRI 5E8 Teleos—Madge Teleos box • PRI 5E8 Intecom—Intecom PBX • PRI5E9—AT&T family local exchange switch or carrier • PRI NI2—Sprint local exchange switch or carrier • PRI DMS-100—Sprint local exchange switch or carrier • PRI DMS-250—MCI and Sprint local exchange switch or carrier • PRI ETSI SC—European local exchange carrier on T1; also, Japanese local exchange. • PRI ISO QSIG T1—Inter-PBX signaling protocol
Protocol Side	Choose the appropriate protocol side. This setting specifies whether the gateway connects to a Central Office/Network device or to a User device. Make sure that the two ends of the PRI connection use opposite settings. For example, if you connect to a PBX and the PBX uses User as its protocol side, choose Network for this device. Typically, use User for Central Office (CO) connections.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Channel Selection Order	Choose the order in which channels or ports are enabled from first (lowest number port) to last (highest number port) or from last to first. Valid entries include TOP_DOWN (last to first) or BOTTOM_UP (first to last). If you are not sure which port order to use, choose TOP_DOWN. The default specifies BOTTOM_UP.
Channel IE Type	Choose one of the following values to specify whether channel selection is presented as a channel map or a slot map: • Number—B-channel usage always presents a channel map format. • Slotmap—B-channel usage always presents a slotmap format. • Use Number When 1B—Channel usage presents a channel map for one B-channel but presents a slotmap if more than one B-channel exists. This represents the default value.
PUnified CMType	Specify the digital encoding format. Choose one of the following formats: • a-law: Use for Europe and the rest of the world. • mu-law: Use for North America, Hong Kong, Taiwan, and Japan.
Delay for First Restart	For this optional field, enter the rate, in 1/8-second increments, at which the spans are brought in service. The delay occurs when many PRI spans are enabled on a system and the Inhibit Restarts at PRI Initialization check box is unchecked. The default value specifies 32. For example, set the first five cards to 0 and set the next five cards to 16. (Wait 2 seconds before bringing them in service.)
Delay Between Restarts	Enter the time, in 1/8-second increments, between restarts. The delay occurs when a PRI RESTART is sent if the Inhibit Restarts check box is unchecked. The default value specifies 4.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Inhibit Restarts at PRI Initialization	A restart message confirms the status of the ports on a PRI span. If RESTARTS are not sent, Cisco Unified CallManager assumes that the ports are in service. By default, the box gets checked. When the D-channel successfully connects with another PRI trunk D-channel, it sends restarts when this box is unchecked.
Enable Status Poll	Check the check box to enable the Cisco Unified CallManager advanced service parameter, Change B-Channel Maintenance Status. This service parameter allows you to take individual B-channels out of service while the B-channels are active. Uncheck this check box to disable the service parameter Change B-Channel Maintenance Status. Default leaves this field unchecked.
Unattended Ports	Check this check box to indicate an unattended port on this device.
Call Routing Information - Inbound Calls	
Significant Digits	This field represents the number of final digits that a PRI span should retain on inbound calls. A trunk with significant digits enabled truncates all but the final few digits of the address that is provided on an inbound call. Enable or disable this check box depending on whether you want to collect significant digits: • If you do not check the check box, Cisco Unified CallManager does not truncate the inbound number. • If you check the check box, you also need to choose the number of significant digits to collect. By default, the box remains checked.
Calling Search Space	Choose the calling search space for this group of phones/ports. A calling search space specifies the collection of Route Partitions that are searched to determine how a dialed number should be routed.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
AAR Calling Search Space	Choose the appropriate calling search space for the device to use when it performs automated alternate routing (AAR). The AAR calling search space specifies the collection of route partitions that are searched to determine how to route a collected (originating) number that is otherwise blocked due to insufficient bandwidth.
Prefix DN	For this optional field, enter the prefix digits that are appended to the digits that this trunk receives on incoming calls. Cisco Unified CallManager adds prefix digits after first truncating the number in accordance with the Num Digits setting.
Call Routing Information - Outbound Calls	
Calling Line ID Presentation	Choose whether you want the Cisco Unified CallManager to transmit or block the caller's phone number. Choose *Default* if you do not want to change calling line ID presentation. Choose *Allowed* if you want Cisco Unified CallManager to send "Calling Line ID Allowed." Choose *Restricted* if you want Cisco Unified CallManager to send "Calling Line ID Restricted."
Calling Party Selection	Any outbound call on a gateway can send directory number information. Choose which directory number is sent: • Originator—Send the directory number of the calling device. This number serves as the default value. • First Redirect Number—Send the directory number of the redirecting device. • Last Redirect Number—Send the directory number of the last device that redirected the call.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Calling Party IE Number Type Unknown	Choose the format for the type of number in calling party directory numbers. Cisco Unified CallManager sets the calling directory number (DN) type. Cisco recommends that you do not change the default value unless you have advanced experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco Unified CallManager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs that are using routing as a non-national type number. Choose one of the following options: • CallManager—The Cisco Unified CallManager sets the directory number type. This option represents the default value. • International—Use when you are dialing outside the dialing plan for your country. • National—Use when you are dialing within the dialing plan for your country. • Unknown—This option specifies that the dialing plan is unknown.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Called Party IE Number Type Unknown	Choose the format for the type of number in called party directory numbers. Cisco Unified CallManager sets the called directory number (DN) type. Cisco recommends that you do not change the default value unless you have extensive experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco Unified CallManager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs that use routing as a non-national type number. Choose one of the following options: • CallManager—For the default setting, the Cisco Unified CallManager sets the directory number type. • International—Use when you are dialing outside the dialing plan for your country. • National—Use when you are dialing within the dialing plan for your country. • Unknown—This option specifies that the dialing plan is unknown.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Called Numbering Plan	Choose the format for the numbering plan in called party directory numbers. Cisco Unified CallManager sets the called DN numbering plan. Cisco recommends that you do not change the default value unless you have extensive experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco Unified CallManager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs that are using routing as a non-national type number. Choose one of the following options: • CallManager—For the default setting, the Cisco Unified CallManager sets the Numbering Plan in the directory number. • ISDN—Use when you are dialing outside the dialing plan for your country. • National Standard—Use when you are dialing within the dialing plan for your country. • Private—Use when you are dialing within a private network. • Unknown—This option specifies that the dialing plan is unknown.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Calling Numbering Plan	Choose the format for the numbering plan in calling party directory numbers. Cisco Unified CallManager sets the calling DN numbering plan. Cisco recommends that you do not change the default value unless you have extensive experience with dialing plans, such as NANP or the European dialing plan. You may need to change the default in Europe because Cisco Unified CallManager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs that are using routing as a non-national type number. Choose one of the following options: • CallManager—For the default setting, the Cisco Unified CallManager sets the Numbering Plan in the directory number. • ISDN—Use when you are dialing outside the dialing plan for your country. • National Standard—Use when you are dialing within the dialing plan for your country. • Private—Use when you are dialing within a private network. • Unknown—This option specifies that the dialing plan is unknown.
Number of Digits to Strip	Choose the number of digits, from 0 to 32, to strip on outbound calls. The default value specifies 0. For example, 8889725551234 is dialed; the number of digits to strip is 3. In this example, Cisco Unified CallManager strips 888 from the outbound number.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Caller ID DN	Enter the pattern, from 0 to 24 digits, that you want to use for caller ID. For example, in North America • 555XXXX = Variable caller ID, where X equals an extension number. The CO appends the number with the area code if you do not specify it. • 5555000 = Fixed caller ID, for when you want the Corporate number to be sent instead of the exact extension from which the call is placed. The CO appends the number with the area code if you do not specify it.
SMDI Base Port	Enter the first SMDI port number of the T1 span.
PRI Protocol Type Specific Information	
Display IE Delivery	For this optional field, check the check box to enable delivery of the display information element (IE) in SETUP and CONNECT messages for the calling and called party name delivery service. By default, the box remains unchecked.
Redirecting Number IE Delivery—Outbound	For this optional field, check the check box to include the Redirecting Number IE in the SETUP message to indicate the first redirecting number and the redirecting reason of the call when a call is forwarded. By default, the box remains unchecked. This setting applies to the SETUP message only on all protocols for digital access gateways.
Redirecting Number IE Delivery—Inbound	For this optional field, check the check box to include the Redirecting Number IE in the SETUP message to indicate the first redirecting number and the redirecting reason of the call when a call is forwarded. By default, the box remains unchecked. This setting applies to the SETUP message only on all protocols for digital access gateways.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Send Extra Leading Character in Display IE	Check this check box to include a special leading character byte (non ASCII, nondisplayable) in the DisplayIE field. Uncheck this check box to exclude this character byte from the DisplayIE field. This check box only applies to the DMS-100 protocol and the DMS-250 protocol. Default leaves this setting disabled (unchecked).
Setup of Non-ISDN Progress Indicator IE Enable	For this optional field, you may need to specify a value in this field to force ringback on some PBXs. The default specifies unchecked. Check this check box only if users are not receiving ringback tones on outbound calls. When this setting is enabled, Cisco Unified CallManager sends Q.931 setup messages out digital (that is, non-H.323) gateways with the Progress Indicator field set to non-ISDN. This message notifies the destination device that the Cisco Unified CallManager gateway is non-ISDN and that the destination device should play inband ringback. This problem usually associates with Cisco Unified CallManagers that connect to PBXs through digital gateways.
MCDN Channel Number Extension Bit Set to Zero	This field applies to DMS-100 protocol only. Check the check box to indicate that an Interface Identifier is present. By default, the box remains unchecked.
Send Calling Name in Facility IE	This field applies to DMS-100 protocol only. Enter the value that you obtained from the PBX provider. Valid values range from 0 to 255.
Interface Identifier Present	This field applies to DMS-100 protocol only. Check the check box to indicate that an Interface Identifier is present. By default, the box remains unchecked.
Interface Identifier Value	This field applies to DMS-100 protocol only. Enter the value that you obtained from the PBX provider. Valid values range from 0 to 255.

Table 43-5 Field Descriptions for T1 PRI or E1 PRI Trunks (continued)

Field	Description
Connected Line ID Presentation	Choose whether you want the Cisco Unified CallManager to allow or block the connected party's phone number. Choose *Default* if you do not want to change the connected line ID presentation. Choose *Allowed* if you want Cisco Unified CallManager to send "Connected Line ID Allowed." Choose *Restricted* if you want Cisco Unified CallManager to send "Connected Line ID Restricted."
UUIE Configuration	
Passing Precedence Level Through UUIE	Check this check box to enable passing MLPP information through the PRI 4ESS UUIE field. This box is used for working along with DRSN switch. The system makes this check box available only if the PRI Protocol Type value of PRI 4ESS is specified for this gateway. The default value specifies unchecked.
Security Access Level	Enter the value for the security access level. Valid values include 00 through 99. The system makes this field available only if the Passing Precedence Level Through UUIE check box is checked. The default value specifies 2.
Product-Specific Configuration	
The gateway manufacturer specifies the model-specific fields under product-specific configuration. To view field descriptions and help for product-specific configuration items, click the **i** information icon to the right of the **Product Specific Configuration** heading to display help in a popup window. If you need more information, refer to the documentation for the specific gateway that you are configuring.	

Port Configuration Settings

See the following sections for tables that list detailed descriptions for all port type configuration fields:

- POTS Port Configuration Settings, page 43-33
- Field Descriptions for E & M Ports for Digital Access T1, page 43-34

For detailed information about gateway configuration settings, see the Gateway Configuration Settings, page 43-9.

Additional Topics

See the "Related Topics" section on page 43-36.

POTS Port Configuration Settings

Table 43-6 describes the POTS port configuration settings. For related procedures, see the "Related Topics" section on page 43-36.

Table 43-6 POTS Port Configuration Settings

Field	Description
Port Type	From the Port Type drop-down list box, choose **POTS**.
Beginning Port Number Ending Port Number	Choose whether you want to add and configure all available ports, a single port, or a range of ports by setting values for the **Beginning Port Number** and **Ending Port Number** fields: • To specify a range of ports, choose appropriate values for **Beginning Port Number** and **Ending Port Number**. • To create a single port, choose the same number in the **Beginning Port Number** and **Ending Port Number** fields. • To add all available ports, choose **All Ports** for both the **Beginning Port Number** and **Ending Port Number** fields.
Port Direction	Choose the direction of calls that pass through this port: • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Bothways—Use for inbound and outbound calls (default).
Audio Signal Adjustment into IP Network	This field specifies the gain or loss that is applied to the received audio signal relative to the port application type. **Note** Improper gain setting may cause audio echo. Use caution when you are adjusting this setting.
Audio Signal Adjustment from IP Network	This field specifies the gain or loss that is applied to the transmitted audio signal relative to the port application type. **Note** Improper gain setting may cause audio echo. Use caution when you are adjusting this setting.
Prefix DN	Enter the prefix digits that are appended to the digits that this trunk receives on incoming calls. The Cisco Unified CallManager adds prefix digits after it truncates the number in accordance with the Num Digits setting.
Num Digits	Enter the number of significant digits to collect, from 0 to 32. Cisco Unified CallManager counts significant digits from the right (last digit) of the number that is called. Use this field for the processing of incoming calls and to indicate the number of digits starting from the last digit of the called number that are used to route calls that are coming into the PRI span. See Prefix DN.

Table 43-6 POTS Port Configuration Settings (continued)

Field	Description
Expected Digits	Enter the number of digits that are expected on the inbound side of the trunk. For this rarely used field, leave zero as the default value if you are unsure.
Call Restart Timer (1000-5000 ms)	Call Restart Timer (1000-5000 ms); ms indicates time in milliseconds.
Offhook Validation Timer (100-1000 ms)	Offhook Validation Timer (100-1000 ms); ms indicates time in milliseconds.
Onhook Validation Timer (100-1000 ms)	Onhook Validation Timer (100-1000 ms); ms indicates time in milliseconds.
Hookflash Timer (100-1500 ms)	Hookflash Timer (100-1500 ms); ms indicates time in milliseconds.
SMDI Port Number (0-4096)	Use this field for analog access ports that connect to a voice-messaging system. Set the SMDI Port Number equal to the actual port number on the voice-messaging system to which the analog access port connects. **Note** Voice-mail logical ports typically must match physical ports for the voice-messaging system to operate correctly.
Product-Specific Configuration	
Model-specific configuration fields that the gateway manufacturer defines	The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice. To view field descriptions and help for product-specific configuration items, click the "**i**" information icon to the right of the **Product Specific Configuration** heading to display help in a popup dialog box. If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.

Additional Information

See the "Related Topics" section on page 43-36.

Field Descriptions for E & M Ports for Digital Access T1

Use the following field descriptions when you are adding or updating values for E&M ports for the T1 CAS trunks on a Cisco VG200 gateway.

Some fields display the values that were configured in Cisco Unified CallManager Administration.

In the BAT user interface, field names that have an asterisk require an entry. Consider an entry in fields without an asterisk as optional.

Table 43-7 describes the E & M port configuration settings. For related procedures, see the "Related Topics" section on page 43-36.

Table 43-7 E & M Port Configuration Settings

Field	Description
Port Type	From the Port Type drop-down list box, choose **EANDM**.
Beginning Port Number Ending Port Number	Choose whether you want to add and configure all available ports, a single port, or a range of ports by setting values for the **Beginning Port Number** and **Ending Port Number** fields: • To specify a range of ports, choose appropriate values for **Beginning Port Number** and **Ending Port Number**. • To create a single port, choose the same number in the **Beginning Port Number** and **Ending Port Number** fields. • To add all available ports, choose **All Ports** for both the **Beginning Port Number** and **Ending Port Number** fields.
Port Details	
Port Direction	Choose the direction of calls that pass through this port: • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Both Ways—Use for inbound and outbound calls.
Calling Party Selection	Any outbound call on a gateway can send directory number information. Choose which directory number is sent: • Originator—Send the directory number of the calling device. • First Redirect Number—Send the directory number of the redirecting device. • Last Redirect Number—Send the directory number of the last device to redirect the call. • First Redirect Number (External)—Send the directory number of the first redirecting device with the external phone mask applied. • Last Redirect Number (External)—Send the directory number of the last redirecting device with the external phone mask applied.
Caller ID Type	This description will be provided in Release 5.0(2) of Cisco Unified CallManager Administration.
Caller ID DN	Enter the pattern that you want to use for calling line ID, from 0 to 24 digits. For example, in North America: • 555XXXX = Variable calling line ID, where X equals an extension number. The CO appends the number with the area code if you do not specify it. • 5555000 = Fixed calling line ID, where you want the Corporate number to be sent instead of the exact extension from which the call is placed. The CO appends the number with the area code if you do not specify it.

Table 43-7 E & M Port Configuration Settings (continued)

Field	Description
Prefix DN	Enter the prefix digits that are appended to the called party number on incoming calls. The Cisco Unified CallManager adds prefix digits after first truncating the number in accordance with the Num Digits setting.
Num Digits	Choose the number of significant digits to collect, from 0 to 32. Cisco Unified CallManager counts significant digits from the right (last digit) of the number that is called. Use this field if you check the Sig Digits check box. Use this field for the processing of incoming calls and to indicate the number of digits starting from the last digit of the called number that are used to route calls that are coming into the PRI span. See Prefix DN and Sig Digits.
Expected Digits	Enter the number of digits that are expected on the inbound side of the trunk. If you are unsure, leave zero as the default value for this rarely used field.
Unattended Port	Check this check box to indicate an unattended port on this device.
Product-Specific Configuration	
Model-specific configuration fields that the gateway manufacturer defines	The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice. To view field descriptions and help for product-specific configuration items, click the "**i**" information icon to the right of the **Product Specific Configuration** heading to display help in a popup dialog box. If you need more information, refer to the documentation for the specific gateway that you are configuring or contact the manufacturer.

Related Topics

- Adding Cisco Gateways, page 43-1
- Finding a Gateway Template, page 43-2
- Adding or Editing a Gateway Template, page 43-3
- Gateway Configuration Settings, page 43-9
- Port Configuration Settings, page 43-32
- Deleting Cisco Gateways, page 45-1
- Generating Reports for Cisco Gateways, page 46-1