



Gateway Setup

This chapter provides information about using Cisco Unified Communications Manager for working with and configuring Cisco gateways.

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About Gateway Setup

In the **Cisco Unified Communications Manager Administration** user interface, use the **Device > Gateway** menu path to configure gateways.

Cisco Unified Communications gateways enable Cisco Unified Communications Manager to communicate with non-IP telecommunications devices.

Gateway Reset

For instructions on how to reset a gateway, see the descriptions of the **Reset Selected** and **Reset** buttons.



Note Restarting or resetting an H.323 gateway does not physically restart/reset the gateway; it only reinitializes the configuration that was loaded by Cisco Unified Communications Manager. When you reset any other gateway type, Cisco Unified Communications Manager automatically drops the calls that are using the gateway. When you restart any other gateway type, Cisco Unified Communications Manager attempts to preserve the calls that are using the gateway.

Gateway Deletion

Gateways and ports use a variety of configuration information such as partitions, device pools, and directory numbers. Before updating or deleting gateways or ports, you can find configuration information about that gateway and port by using the Dependency Records link. To access the link, choose Dependency Records from the Related Links drop-down list and click **Go**.

If you try to delete a gateway that a route group is using, Cisco Unified Communications Manager displays a message. To find out which route groups are using the gateway, choose Dependency Records from the Related Links drop-down list in the **Gateway Configuration** window and click **Go**. If the dependency records are not enabled for the system, the dependency records summary window displays a message. Before deleting a gateway that is currently in use, you must perform either or both of the following tasks:

- Assign a different gateway to any route groups that are using the gateway that you want to delete.
- Delete the route groups that are using the gateway that you want to delete.



Note For each gateway type, the **Gateway Configuration** window displays either Device is trusted or Device is not trusted, along with a corresponding icon. The system determines whether the device is trusted, based on the device type. You cannot configure whether the device is trusted.

Cisco Unified Communications Gateway Settings

Cisco Unified Communications gateways enable Cisco Unified Communications Manager to communicate with non-IP telecommunications devices.



Note For each gateway type, the **Gateway Configuration** window displays either Device is trusted or Device is not trusted, along with a corresponding icon. The system determines whether the device is trusted, based on the device type. You cannot configure whether the device is trusted.

MGCP Gateway Settings

The following table provides detailed descriptions for MGCP gateway configuration settings.

Table 1: MGCP Gateway Configuration Settings

Field	Description
Gateway Details	

Field	Description
Domain Name	<p>Enter a name of up to 64 characters that identifies the Cisco MGCP gateway.</p> <p>Use the Domain Name Service (DNS) host name if it is configured to resolve correctly; otherwise, use the host name as defined on the Cisco MGCP gateway.</p> <p>If you are using the host name as it is configured on the IOS gateway, the name that you enter here must match exactly.</p> <p>For example, if the hostname is configured on the gateway to resolve to vg200-1 and the IP domain name is not configured, enter the hostname in this field (in this case, vg200-1).</p> <p>If the hostname is configured on the gateway as vg200-1 and the IP domain name is configured on the gateway as cisco.com, enter vg200-1.cisco.com in this field.</p>
Description	<p>Enter a description that clarifies the purpose of the device. The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), back-slash (\), or angle brackets (<>).</p>
Cisco Unified Communications Manager Group	<p>From the drop-down list, choose a Cisco Unified Communications Manager redundancy group.</p> <p>A Cisco Unified Communications Manager redundancy group includes a prioritized list of up to three Cisco Unified Communications Managers. The first Cisco Unified Communications Manager in the list serves as the primary Cisco Unified Communications Manager. If the primary Cisco Unified Communications Manager is not available or fails, the gateway attempts to connect with the next Cisco Unified Communications Manager in the list and so on.</p>
<p>Configured Slots, VICs, and Endpoints</p> <p>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).</p> <p>The correct number of slots displays for each model of MGCP gateway. (The VG200 gateway has only one slot.)</p> <p>To begin configuring ports on a module, select the module first; then, click Save.</p>	

Field	Description
Module in Slot 0 Module in Slot 1 Module in Slot 2 Module in Slot 3 (and so on)	<p>For each available slot on the MGCP gateway, choose the type of module that is installed; for example:</p> <ul style="list-style-type: none"> • NM-1V—Has one voice interface card (VIC) in Subunit 0 for FXS or FXO. When you use the VIC-2BRI-S/T-TE card with a NM-1V module, you can make two calls because the second BRI port is shut down. • NM-2V—Has two VICs, one in Subunit 0 and one in Subunit 1 for either FXS or FXO. When you use the VIC-2BRI-S/T-TE card with a NM-2V module, you can make four calls. If another VIC is in the second slot of the NM-2V, the second port on the VIC-2BRI-S/T-TE gets shut down. • NM-HDV—Has one VIC in Subunit 0 for either T1-CAS or T1-PRI, or E1-PRI. • NM-HDA—Has three VICs, one in Subunit 0, one in Subunit 1, and one in Subunit 2. • VWIC-SLOT—Has a slot for any of the following modules: VIC (FXS, FXO, or BRI), T1-CAS, T1-PRI, or E1-PRI. • AIM-VOICE-30—Has two VICs, one in Subunit 0 and one in Subunit 1 for T1-CAS, T1-PRI, or E1-PRI. • WS-X6600-24FXS—Has 24 FXS ports. • WS-X6600-6T1—Has six ports for T1 PRI or CAS. • WS-X6600-6E1—Has six ports for E1 PRI. • WS-SVC-CMM-MS—Has two port adapters, one for a T1 interface and one for an E1 interface for Europe and other countries. • None—Has no network modules installed. <p>If you configure the Cisco 881 or the Cisco 888/887/886 for MGCP in the Gateway Configuration window, choose the following options when you configure the subunits:</p> <p>For Cisco 881</p> <ul style="list-style-type: none"> • Subunit 1 - VIC3-4FXS-DID • Subunit 3 - VIC2-1FXO <p>For Cisco 888/887/886</p> <ul style="list-style-type: none"> • Subunit 1 - VIC3-4FXS-DID • Subunit 2 - VIC2-1BRI
Product-Specific Configuration	

Field	Description
Model-specific configuration fields defined by the gateway manufacturer	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

H.323 Gateway Settings



Note After a gateway is registered with Cisco Unified Communications Manager, gateway registration status may display in Cisco Unified Communications Manager Administration as unknown.

The following table lists configuration settings for H.323 gateways.

Table 2: H.323 Gateway Configuration Settings

Field	Description
Device Information	
Device Name	Enter a unique name that Cisco Unified Communications Manager uses to identify the device. Use either the IP address or the host name as the device name.
Description	Enter a description that clarifies the purpose of the device. The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), back-slash (\), or angle brackets (<>).
Device Pool	<p>From the drop-down list, choose the appropriate device pool.</p> <p>The device pool specifies a collection of properties for this device including Communications Manager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.</p>
Common Device Configuration	From the drop-down list, choose the common device configuration you want to use for this gateway. The common device configuration determines softkey template, MOH, and MLPP settings.

Field	Description
Call Classification	<p>This parameter determines whether an incoming call that is using this gateway is considered off the network (OffNet) or on the network (OnNet).</p> <p>When the Call Classification field is configured as Use System Default, the setting of the Cisco Unified Communications Manager clusterwide service parameter, Call Classification, determines whether the gateway is OnNet or OffNet.</p> <p>This field provides an OnNet or OffNet alerting tone when the call is OnNet or OffNet, respectively.</p>
Media Resource Group List	<p>This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, among the available media resources according to the priority order that a Media Resource Group List defines.</p>
Packet Capture Mode	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the H.323 gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i> .</p>
Packet Capture Duration	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the H.323 gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i> .</p>

Field	Description
Location	<p>Use locations to implement call admission control (CAC) in a centralized call-processing system. CAC enables you to regulate audio quality and video availability by limiting the amount of bandwidth that is available for audio and video calls over links between locations. The location specifies the total bandwidth that is available for calls to and from this location.</p> <p>From the drop-down list, choose the appropriate location for this device.</p> <p>A location setting of Hub_None means that the locations feature does not keep track of the bandwidth that this device consumes. A location setting of Phantom specifies a location that enables successful CAC across intercluster trunks that use H.323 protocol or SIP.</p> <p>To configure a new location, use the System > Location menu option.</p> <p>For an explanation of location-based CAC across intercluster trunks, see topics related to location configuration in the <i>Cisco Unified Communications Manager System Guide</i> .</p>
AAR Group	<p>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.</p>
Tunneled Protocol	<p>Choose the QSIG option if you want to use H.323 gateways to transport (tunnel) non-H.323 protocol information in H.323 signaling messages from Cisco Unified Communications Manager to other Annex M.1-compliant H.323 PINXs. QSIG tunneling supports the following features: Call Completion, Call Diversion, Call Transfer, Identification Services, Message Waiting Indication, and Path Replacement.</p> <p>Note See the <i>Cisco Unified Communications Manager Software Compatibility Matrix</i> for information about Annex M.1 feature compatibility with third-party vendor(s).</p>

Field	Description
QSIG Variant	<p>To display the options in the QSIG Variant drop-down list, choose QSIG from the Tunneled Protocol drop-down list.</p> <p>This parameter specifies the protocol profile that is sent in outbound QSIG facility information elements.</p> <p>From the drop-down list, choose one of the following options. Keep this parameter set to the default value unless a Cisco support engineer instructs otherwise.</p> <ul style="list-style-type: none"> • No Changes • Not Selected • ECMA—If the QSIG Variant is set to ECMA (Protocol Profile 0x91), ensure that the ASN.1 Rose OID Encoding service parameter is set to Use Global Value (ECMA). • ISO—(Default) If the QSIG Variant is set to ISO (Protocol Profile 0x9F), ensure that the ASN.1 Rose OID Encoding service parameter is set to either Use Local Value or Use Global Value (ISO). <p>For more information, see the following information:</p> <ul style="list-style-type: none"> • Be aware that the QSIG Variant can also be defined as a clusterwide parameter. • For information on QSIG support with Cisco Unified Communications Manager, see the <i>Cisco Unified Communications Manager System Guide</i>.

Field	Description
ASN.1 ROSE OID Encoding	<p>To display the options in the ASN.1 ROSE OID Encoding drop-down list, choose QSIG from the Tunneled Protocol drop-down list.</p> <p>This parameter specifies how to encode the Invoke Object ID (OID) for remote operations service element (ROSE) operations.</p> <p>From the drop-down list, choose one of the following options:</p> <ul style="list-style-type: none"> • No Changes. • Not Selected • Use Global Value (ISO)—Select this option only if the connected PBX does not support Local Value. • Use Global Value (ECMA)—Select this option only if the QSIG Variant service parameter is set to ECMA (Protocol Profile 0x91). • Use Local Value—(Default) Use this option that is supported by most telephony systems when the QSIG Variant service parameter is set to ISO (Protocol Profile 0x9F). <p>For more information, see the following information:</p> <ul style="list-style-type: none"> • Be aware that ASN.1 ROSE OID Encoding can also be defined as a clusterwide parameter. • For information on QSIG support with Cisco Unified Communications Manager, see the <i>Cisco Unified Communications Manager System Guide</i>.

Field	Description
Use Trusted Relay Point	<p>From the drop-down list, enable or disable whether Cisco Unified CM inserts a trusted relay point (TRP) device with this media endpoint. Choose one of the following values:</p> <ul style="list-style-type: none"> • Default—If you choose this value, the device uses the Use Trusted Relay Point setting from the common device configuration with which this device associates. • Off—Choose this value to disable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. • On—Choose this value to enable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. <p>A Trusted Relay Point (TRP) device designates an MTP or transcoder device that is labeled as Trusted Relay Point.</p> <p>Cisco Unified Communications Manager places the TRP closest to the associated endpoint device if more than one resource is needed for the endpoint (for example, a transcoder or RSVPAgent).</p> <p>If both TRP and MTP are required for the endpoint, TRP gets used as the required MTP. See the <i>Cisco Unified Communications Manager System Guide</i> for details of call behavior.</p> <p>If both TRP and RSVPAgent are needed for the endpoint, Cisco Unified Communications Manager first tries to find an RSVPAgent that can also be used as a TRP.</p> <p>If both TRP and transcoder are needed for the endpoint, Cisco Unified Communications Manager first tries to find a transcoder that is also designated as a TRP.</p> <p>See the <i>Cisco Unified Communications Manager System Guide</i> for a complete discussion of network virtualization and trusted relay points.</p>

Field	Description
Signaling Port	<p>This field applies only to H.323 devices. The value designates the H.225 signaling port that this device uses.</p> <p>Default value specifies 1720. Valid values range from 1 to 65535.</p>
Media Termination Point Required	<p>Check the check box if you want a Media Termination Point to implement features that H.323 does not support (such as hold and transfer).</p> <p>Use this check box only for H.323 clients and H.323 devices that do not support the H.245 Empty Capabilities Set message.</p> <p>If you check this check box to require an MTP and this device becomes the endpoint of a video call, the call will be audio only.</p>
Retry Video Call as Audio	<p>This check box applies only to video endpoints that receive a call.</p> <p>By default, the system checks this check box to specify that this device should immediately retry a video call as an audio call (if it cannot connect as a video call) before sending the call to call control for rerouting.</p> <p>If you uncheck this check box, a video call that fails to connect as video does not try to establish as an audio call. The call then fails to call control. Call control reroutes the call within the route/hunt list. If Automatic Alternate Routing (AAR) is configured and enabled, call control also reroutes the call between route/hunt lists.</p>
Wait for Far End H.245 Terminal Capability Set	<p>This field applies only to H.323 devices.</p> <p>By default, system checks this check box to specify that Cisco Unified Communications Manager needs to receive the far-end H.245 Terminal Capability Set before it sends its H.245 Terminal Capability Set. Unchecking this check box specifies that Cisco Unified Communications Manager should initiate capabilities exchange.</p> <p>Note Uncheck this check box to allow calls through H.320 gateways for ISDN calls to and from other H.323 and H.320 endpoints.</p>

Field	Description
Path Replacement Support	<p>This check box displays if you choose the QSIG option from the Tunneled Protocol drop-down list. This setting works with QSIG tunneling (Annex M.1) to ensure that non-H.323 information gets sent on the leg of the call that uses path replacement.</p> <p>Note The default setting leaves the check box unchecked. When you choose the QSIG Tunneled Protocol option, the system automatically checks the check box.</p>
Transmit UTF-8 for Calling Party Name	<p>If the Transmit UTF-8 for Calling Party Name is checked to set up the locale:</p> <ol style="list-style-type: none"> 1. The SIP Trunk attempts to obtain the locale from the device. 2. The SIP Trunk attempts to obtain the user locale from the Common Device Configuration. 3. The SIP trunk takes the user locale used for the Enterprise Parameters.
SRTP Allowed	<p>Check the SRTP Allowed check box if you want Cisco Unified Communications Manager to allow secure and nonsecure calls over the gateway.</p> <p>If you do not select this check box, Cisco Unified Communications Manager prevents SRTP negotiation with the gateway and uses RTP.</p> <p>When configuring a non-gatekeeper controlled intercluster trunk on Cisco Unified Communications Manager, if the SRTP Allowed checkbox is selected the Outbound FastStart setting cannot be enabled.</p> <p>Caution If you select this check box, Cisco strongly recommends that you configure IPsec, so you do not expose keys and other security-related information during call negotiations. If you do not configure IPsec correctly, signaling between Cisco Unified Communications Manager and the gateway is nonsecure.</p> <p>For more information on encryption for gateways, see the <i>Cisco Unified Communications Manager Security Guide</i>.</p>

Field	Description
H.235 Pass Through Allowed	<p>This feature allows Cisco Unified Communications Manager to transparently pass through the shared secret (Diffie-Hellman key) and other H.235 data between two H.235 endpoints, so the two endpoints can establish a secure media channel.</p> <p>To allow H.235 pass through, check the check box.</p>
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	<p>From the drop-down list, 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 pool of the device. 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.</p>
MLPP Indication	This device type does not have this setting.
Confidential Access Level	Select the appropriate CAL value from the drop-down list.
Call Routing Information - Inbound Calls	
Significant Digits	<p>Significant digits represent the number of final digits that are retained on inbound calls. Use for the processing of incoming calls and to indicate the number of digits that are used to route calls coming into the device.</p> <p>Choose the number of significant digits to collect, from 0 to 32. Cisco Unified Communications Manager counts significant digits from the right (last digit) of the number called.</p>

Field	Description
Calling Search Space	<p>From the drop-down list, choose the appropriate calling search space. A calling search space specifies the collection of Route Partitions that are searched to determine how a collected (originating) number should be routed.</p> <p>You can configure the number of calling search spaces that display in this drop-down list 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 Find button displays next to the drop-down list. Click the Find button to display the Find and List Calling Search Space window, then find and choose a calling search space name.</p> <p>Note To set the maximum list box items, choose System > Enterprise Parameters and choose CCMAAdmin Parameters.</p>
AAR Calling Search Space	<p>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.</p>
Prefix DN	<p>Enter the prefix digits that are appended to the called party number on incoming calls.</p> <p>Cisco Unified Communications Manager adds prefix digits after first truncating the number in accordance with the Significant Digits setting.</p> <p>You can enter the international escape character +.</p>
Redirecting Number IE Delivery—Inbound	<p>Check this check box to accept the Redirecting Number IE in the incoming SETUP message to the Cisco Unified Communications Manager. (The UUIE part of the SETUP message includes the Redirecting Number IE.)</p> <p>Uncheck the check box to exclude the Redirecting Number IE.</p> <p>You use Redirecting Number IE for voice-messaging integration only. If your configured voice-messaging system supports Redirecting Number IE, you should check the check box.</p>

Field	Description
Enable Inbound FastStart	<p>Check this check box to enable the H.323 FastStart call connections on incoming calls.</p> <p>By default, the check box remains unchecked for the H.323 gateway.</p> <p>For intercluster calls, you must check the Enable Inbound FastStart check box on Cisco Unified Communications Manager servers in other clusters for the outbound FastStart feature to work.</p> <p>Note If you updated Cisco Communications Manager 3.3(2) servers in other clusters with support patch B, do not enable inbound FastStart because 3.3(2)spB does not support the inbound FastStart feature over intercluster trunks.</p>
Connected Party Settings	
Connected Party Transformation CSS	<p>This setting is applicable only for inbound Calls. This setting allows you to transform the connected party number that Cisco Unified Communications Manager sends in another format, such as a DID or E.164 number. This setting is applicable while sending connected number for basic call as well as sending connected number after inbound call is redirected.</p> <p>Cisco Unified Communications Manager includes the transformed number in the Connected Number Information Element (IE) of CONNECT and NOTIFY messages. Make sure that the Connected Party Transformation CSS that you choose contains the connected party transformation pattern that you want to assign to this device.</p> <p>Note If you configure the Connected Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Connected Party Transformation CSS in a non-null partition that is not used for routing.</p>
Use Device Pool Connected Party Transformation CSS	<p>To use the Connected Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Connected Party Transformation CSS that you configured for this device in the Trunk Configuration window.</p>
Call Routing Information - Outbound Calls	

Field	Description
Calling Party Selection	<p>Any outbound call on a gateway can send directory number information. Choose which directory number is sent:</p> <ul style="list-style-type: none"> • 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.
Calling Party Presentation	<p>Choose whether you want the Cisco Unified Communications Manager to allow or restrict the display of the calling party phone number.</p> <p>Choose Default if you do not want to change calling line ID presentation. Choose Allowed if you want Cisco Unified Communications Manager to send “Calling Line ID Allowed” on outbound calls. Choose Restricted if you want Cisco Unified Communications Manager to send “Calling Line ID Restricted” on outbound calls.</p> <p>For more information about this field, see topics related to Calling Search Space configuration settings in the <i>Cisco Unified Communications Manager System Guide</i>.</p>

Field	Description
Called party IE Number Type Unknown	<p>Choose the format for the number type in called party directory numbers.</p> <p>Cisco Unified Communications Manager sets the called 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to a PBX that expects the called directory number to be encoded to a non-national type numbering plan.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none">• Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager sets the directory number type.• Unknown—This option specifies that the dialing plan is unknown.• National—Use when you are dialing within the dialing plan for your country.• International—Use when you are dialing outside the dialing plan for your country.• Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.

Field	Description
Calling party IE Number Type Unknown	<p>Choose the format for the number type in calling party directory numbers.</p> <p>Cisco Unified Communications Manager 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to a PBX that expects the calling directory number to be encoded to a non-national type numbering plan.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none">• Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager sets the directory number type.• Unknown—This option specifies that the dialing plan is unknown.• National—Use when you are dialing within the dialing plan for your country.• International—Use when you are dialing outside the dialing plan for your country.• Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.

Field	Description
Called Numbering Plan	<p>Choose the format for the numbering plan in called party directory numbers.</p> <p>Cisco Unified Communications Manager sets the called DN numbering plan. 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs by using routing as a non-national type number.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none">• Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager 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.

Field	Description
Calling Numbering Plan	<p>Choose the format for the numbering plan in calling party directory numbers.</p> <p>Cisco Unified Communications Manager sets the calling DN numbering plan. 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs by using routing as a non-national type number.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> • Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager 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.
Caller ID DN	<p>Enter the pattern that you want to use for calling line ID, from 0 to 24 digits.</p> <p>For example, in North America</p> <ul style="list-style-type: none"> • 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. Use 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. <p>You can also enter the international escape character +.</p>
Display IE Delivery	<p>Check the check box to enable delivery of the display IE in SETUP, CONNECT, and NOTIFY messages for the calling and called party name delivery service.</p>

Field	Description
Redirecting Party Transformation CSS	<p>This setting allows you to transform the redirecting party number on the device to another format such as DID or E164 format. Cisco Unified Communications Manager includes the transformed number in the Redirecting Number Information Element of H.323 setup message sent out of Cisco Unified Communications Manager. Make sure that the Redirecting Party Transformation CSS that you choose contains either the calling or called party transformation pattern that you want to assign to this H.323 gateway.</p> <p>Note If you configure the Redirecting Party Transformation CSS as None and also uncheck the Use Device Pool Redirecting Party CSS check box, the transformation does not match and does not get applied. Ensure that you configure the Redirecting Party Transformation CSS in a non-null partition that is not used for routing.</p>
Use Device Pool Redirecting Party CSS	<p>To use the Redirecting Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Redirecting Party Transformation CSS that you configured in the H.323 Gateway Configuration window.</p>
Redirecting Number IE Delivery—Outbound	<p>Check this check box to indicate the first redirecting number and the redirecting reason of the call when the call is forwarded. (The UIIE part of the outgoing SETUP message from the Cisco Unified Communications Manager includes the Redirecting Number IE.)</p> <p>Uncheck the check box to exclude the first redirecting number and the redirecting reason.</p> <p>You use Redirecting Number IE for voice-messaging integration only. If your configured voice-messaging system supports Redirecting Number IE, you should check the check box.</p>

Field	Description
Enable Outbound FastStart	<p>Check this check box to enable the H.323 FastStart feature on outgoing calls.</p> <p>By default, the check box remains unchecked for the H.323 gateway or trunk.</p> <p>Note When you check the Enable Outbound FastStart check box, you must set the Media Termination Point Required, Media Resource Group Lists, and Codec for Outbound FastStart.</p>
Codec For Outbound FastStart	<p>Use the drop-down list box to choose the codec for use with the H.323 device for an outbound FastStart call:</p> <ul style="list-style-type: none"> • G711 u-law 64K (default) • G711 a-law 64K • G723 • G729 • G729AnnexA • G729AnnexB • G729AnnexA-AnnexB <p>Note When you check the Enable Outbound FastStart check box, you must choose the codec for supporting outbound FastStart calls. You may need to click Save before choosing the Codec For Outbound FastStart.</p>
Called Party Transformation CSS	<p>This setting allows you to send transformed called party number in SETUP message for outgoing calls. Make sure that the Called Party Transformation CSS that you choose contains the called party transformation pattern that you want to assign to this device.</p> <p>Note If you configure the Called Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Called Party Transformation CSS in a non-null partition that is not used for routing.</p>

Field	Description
Use Device Pool Called Party Transformation CSS	To use the Called Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Called Party Transformation CSS that you configured in the H.323 Gateway Configuration window.
Calling Party Transformation CSS	<p>This setting allows you to send transformed calling party number in SETUP message for outgoing calls. Also when redirection occurs for outbound calls, this CSS will be used to transform the connected number sent from Cisco Unified Communications Manager side in outgoing NOTIFY messages. Make sure that the Calling Party Transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device.</p> <p>Note If you configure the Calling Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Calling Party Transformation Pattern in a non-null partition that is not used for routing.</p>
Use Device Pool Calling Party Transformation CSS	To use the Calling Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Calling Party Transformation CSS that you configured in the H.323 Gateway Configuration window.
Geolocation Configuration	

Field	Description
Geolocation	<p>From the drop-down list, choose a geolocation.</p> <p>You can choose the Unspecified geolocation, which designates that this device does not associate with a geolocation.</p> <p>You can also choose a geolocation that has been configured with the System > Geolocation Configuration menu option.</p> <p>For an explanation of geolocations, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i> .</p> <p>For an overview and details of how logical partitioning uses geolocations, see the <i>Cisco Unified Communications Manager Features and Services Guide</i> .</p>
Geolocation Filter	<p>From the drop-down list, choose a geolocation filter.</p> <p>If you leave the <None> setting, no geolocation filter gets applied for this device.</p> <p>You can also choose a geolocation filter that has been configured with the System > Geolocation Filter menu option.</p> <p>For an explanation of geolocation filters, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i> .</p> <p>For an overview and details of how logical partitioning uses geolocation filters, see the <i>Cisco Unified Communications Manager Features and Services Guide</i> .</p>
Incoming Calling Party Settings	
Clear Prefix Setting	To delete all prefixes for all calling party number types, click Clear Prefix Settings .
Default Prefix Setting	To enter the default value for all prefix fields at the same time, click Default Prefix Settings .

Field	Description
National Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use National for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use National for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of National type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the National Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of National calling party number type on the device. Make sure that the calling search space that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see topics related to</p>

Field	Description
	Calling Search Space configuration settings in the <i>Cisco Unified Communications Manager Features and Services Guide</i> .

Field	Description
International Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use International for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use International for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of International type before it applies the prefixes. • Use Device Pool CSS— Check this check box to use the calling search space for the International Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of International calling party number type on the device. Make sure that the calling party transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring</p>

Field	Description
	these settings, see topics related to Calling Search Space configuration settings in the <i>Cisco Unified Communications Manager Features and Services Guide</i> .

Field	Description
Subscriber Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use Subscriber for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use Subscriber for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). <p>If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of Subscriber type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Subscriber Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of Subscriber calling party number type on the device. Make sure that the CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see topics related to Calling Search Space configuration</p>

Field	Description
	settings in the <i>Cisco Unified Communications Manager Features and Services Guide</i> .

Field	Description
Unknown Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use Unknown for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use Unknown for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). <p>If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of Unknown type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Unknown Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of Unknown calling party number type on the device. Make sure that the calling party transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see topics related to</p>

Field	Description
	Calling Search Space configuration settings in the <i>Cisco Unified Communications Manager Features and Services Guide</i> .
<p>Incoming Called Party Settings</p> <p>The H.323 protocol does not support the international escape character +. To ensure the correct prefixes, including the +, get applied to inbound calls over H.323 gateways, configure the incoming called party settings; that is, configuring the incoming called party settings ensures that when an inbound call comes from a H.323 gateway, Cisco Unified Communications Manager transforms the called party number back to the value that was originally sent over the gateway.</p>	
Clear Prefix Settings	To delete all prefixes for all called party number types, click Clear Prefix Settings .
Default Prefix Settings	To enter the default value for all prefix fields at the same time, click Default Prefix Settings .

Field	Description
National Number	

Field	Description
	<p>Configure the following settings to transform incoming called party numbers that use National for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called party numbers that use National for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of National type before it applies the prefixes. • Use Device Pool CSS— Check this check box to use the calling search space for the National Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of National called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you

Field	Description
	want to assign to this device.

Field	Description
International Number	

Field	Description
	<p>Configure the following settings to transform incoming called party numbers that use International for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called party numbers that use International for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of International type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the International Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of International called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation

Field	Description
	pattern that you want to assign to this device.

Field	Description
Unknown Number	

Field	Description
	<p>Configure the following settings to transform incoming called party numbers that use Unknown for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called numbers that use Unknown for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields in these windows, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of Unknown type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Unknown Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of Unknown called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains

Field	Description
	the called party transformation pattern that you want to assign to this device.

Field	Description
Subscriber Number	

Field	Description
	<p>Configure the following settings to transform incoming called party numbers that use Subscriber for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called numbers that use Subscriber for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of Subscriber type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Subscriber Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of Subscriber called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation

Field	Description
	pattern that you want to assign to this device.

Analog Access Gateway Settings

The following table lists configuration settings for Analog Access gateways (Cisco Catalyst 6000 24 port FXS Gateway).

Table 3: Analog Access Gateway Configuration Settings

Field	Description
Device Information	
MAC Address	Enter MAC address of the gateway. The MAC address uniquely identifies the hardware device. You must enter a 12-hexadecimal character value.
Description	Enter the purpose of the device. The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), back-slash (\), or angle brackets (<>).
Device Pool	From the drop-down list, choose the appropriate device pool. The device pool specifies a collection of properties for this device including Communications Manager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.
Common Device Configuration	From the drop-down list, choose the common device configuration you want to use for this gateway. The common device configuration determines softkey template, MOH, and MLPP settings.
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.

Field	Description
Calling Search Space	<p>From the drop-down list, 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.</p> <p>You can configure the number of calling search spaces that display in this drop-down list 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 Find button displays next to the drop-down list. Click the Find button to display the Find and List Calling Search Space window, then find and choose a calling search space name.</p> <p>Note To set the maximum list box items, choose System > Enterprise Parameters and choose CCMAdmin Parameters.</p>
AAR Calling Search Space	<p>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.</p>
Location	<p>Use locations to implement call admission control (CAC) in a centralized call-processing system. CAC enables you to regulate audio quality and video availability by limiting the amount of bandwidth that is available for audio and video calls over links between locations. The location specifies the total bandwidth that is available for calls to and from this location.</p> <p>From the drop-down list, choose the appropriate location for this device.</p> <p>A location setting of Hub_None means that the locations feature does not keep track of the bandwidth that this device consumes. A location setting of Phantom specifies a location that enables successful CAC across intercluster trunks that use H.323 protocol or SIP.</p> <p>To configure a new location, use the System > Location menu option.</p> <p>For more details about locations, see the <i>Cisco Unified Communications Manager System Guide</i>.</p>

Field	Description
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	<p>From the drop-down list, 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.</p> <p>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.</p>

Field	Description
Use Trusted Relay Point	<p>From the drop-down list, enable or disable whether Cisco Unified Communications Manager inserts a trusted relay point (TRP) device with this media endpoint. Choose one of the following values:</p> <ul style="list-style-type: none"> • Default—If you choose this value, the device uses the Use Trusted Relay Point setting from the common device configuration with which this device associates. • Off—Choose this value to disable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. • On—Choose this value to enable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. <p>A Trusted Relay Point (TRP) device designates an MTP or transcoder device that is labeled as Trusted Relay Point.</p> <p>Cisco Unified Communications Manager places the TRP closest to the associated endpoint device if more than one resource is needed for the endpoint (for example, a transcoder or RSVPAgent).</p> <p>If both TRP and MTP are required for the endpoint, TRP gets used as the required MTP. See the <i>Cisco Unified Communications Manager System Guide</i> for details of call behavior.</p> <p>If both TRP and RSVPAgent are needed for the endpoint, Cisco Unified Communications Manager first tries to find an RSVPAgent that can also be used as a TRP.</p> <p>If both TRP and transcoder are needed for the endpoint, Cisco Unified Communications Manager first tries to find a transcoder that is also designated as a TRP.</p> <p>See the <i>Cisco Unified Communications Manager System Guide</i> for a complete discussion of network virtualization and trusted relay points.</p>

Field	Description
Port Selection Order	<p>Choose the order in which ports are chosen. If you are not sure which port order to use, choose Top Down:</p> <ul style="list-style-type: none"> • 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	<p>Enter the appropriate firmware load information for the gateway.</p> <p>The value that you enter here overrides the default firmware load for this gateway type.</p>
Transmit UTF-8 for Calling Party Name	<p>If the Transmit UTF-8 for Calling Party Name is checked to set up the locale:</p> <ol style="list-style-type: none"> 1. The SIP Trunk attempts to obtain the locale from the device. 2. The SIP Trunk attempts to obtain the user locale from the Common Device Configuration. 3. The SIP trunk takes the user locale used for the Enterprise Parameters.
Calling Party Transformation CSS	<p>This setting allows you to localize the calling party number on the device. Make sure that the Calling Party Transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device.</p> <p>Tip Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the Calling Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Calling Party Transformation Pattern in a non-null partition that is not used for routing.</p>
Use Device Pool Calling Party Transformation CSS	<p>To use the Calling Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Calling Party Transformation CSS that you configured in the Gateway Configuration window.</p>
Multilevel Precedence and Preemption (MLPP) Information	

Field	Description
MLPP Domain	From the drop-down list, 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 pool of the device. 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.
Product-Specific Configuration	
Model-specific configuration fields that the gateway manufacturer defines	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a popup dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>
Geolocation Configuration	
Geolocation	<p>From the drop-down list, choose a geolocation.</p> <p>You can choose the Unspecified geolocation, which designates that this device does not associate with a geolocation.</p> <p>You can also choose a geolocation that has been configured with the System > Geolocation Configuration menu option.</p> <p>For an explanation of geolocations, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocations, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Field	Description
Geolocation Filter	<p>From the drop-down list, choose a geolocation filter.</p> <p>If you leave the <None> setting, no geolocation filter gets applied for this device.</p> <p>You can also choose a geolocation filter that has been configured with the System > Geolocation Filter menu option.</p> <p>For an explanation of geolocation filters, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocation filters, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Cisco VG248 Gateway Settings

The following table lists configuration settings for the Cisco VG248 Gateways.

Table 4: Cisco VG248 Gateway Configuration Settings

Field	Description
MAC Address (Last 10 Characters)	<p>Enter the last 10 digits of the Media Access Control (MAC) address for the Cisco VG248.</p> <p>Only one MAC address exists for the Cisco VG248 Analog Phone Gateway, but Cisco Unified Communications Manager requires unique MAC addresses for all devices. When only 10 digits of the MAC address are entered, Cisco Unified Communications Manager can use the MAC address for the gateway and append additional information to it to create the MAC addresses for the VGC phones.</p> <p>The conversion of the MAC address for each device occurs by adding the two-digit port number to the end of the MAC address (to the right of the number) and adding VGC at the beginning of the MAC address.</p> <p>EXAMPLE MAC Address for the Cisco VG248 is 0039A44218 the MAC address for registered port 12 in Cisco Unified Communications Manager is VGC0039A4421812</p>
Description	<p>Cisco Unified Communications Manager automatically provides this information by adding VGCGW immediately in front of the MAC address.</p>

Field	Description
Load Information	Enter the firmware version for the Cisco VG248 that is being configured; otherwise, leave blank to use the default.
Configured Slots, VICs and Endpoints	
Note To begin configuring ports on a module, choose the module first; then, click Save .	
48_PORTS	From the list of endpoint identifiers, choose one of the ports to configure the VGC_Phone ports.

Cisco IOS SCCP Gateway Settings

The following table lists configuration settings for the Cisco IOS SCCP gateways.

Table 5: Cisco IOS SCCP Gateway Configuration Settings

Field	Description
MAC Address (last 10 Characters)	<p>Enter the last 10 digits of the Media Access Control (MAC) address for the gateway. Use the MAC address of the interface that the sccp local IOS command specifies on the gateway. Valid characters include the digits 0 through 9 and the uppercase characters A through F.</p> <p>The conversion of the MAC address for each device occurs by adding the three-digit mapping of the slot/subunit/port to the end of the MAC address (to the right of the number).</p> <p>EXAMPLEMAC Address for the gateway is 0006D7E5C7 The MAC address in Cisco Unified Communications Manager is0006D7E5C7281 where 281 is the three-digit mapping of the slot/subunit/port. The values 2,8 and 1 can be hex digits and each do not necessarily correspond to slot, subunit and port values.</p> <p>The system inserts the following two-character strings before the MAC address to indicate the phone device types:</p> <ul style="list-style-type: none"> • BR—BRI phone • AN—Analog phone <p>The system also inserts SKIGW for the gateway name.</p>

Field	Description
Description	Cisco Unified Communications Manager automatically provides this information by adding SKIGW immediately in front of the MAC address. You can override the description.
Cisco Unified Communications Manager Group	<p>From the drop-down list box, choose a Cisco Unified Communications Manager redundancy group.</p> <p>A Cisco Unified Communications Manager redundancy group includes a prioritized list of up to three Cisco Unified Communications Managers. The first Cisco Unified Communications Manager in the list serves as the primary Cisco Unified Communications Manager. If the primary Cisco Unified Communications Manager is not available or fails, the gateway attempts to connect with the next Cisco Unified Communications Manager in the list, and so on.</p>
<p>Configured Slots, VICS and Endpoints</p> <p>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), then 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).</p> <p>Note The correct number of slots displays for each model of SCCP gateway.</p> <p>Note To begin configuring ports on a module, select the module first; then, click Save.</p>	

Field	Description
Module in Slot 0 Module in Slot 1 Module in Slot 2 Module in Slot 3 (and so on)	<p>For each available slot on the chosen SCCP gateway, choose the type of module that is installed. The system supports the following modules:</p> <p>Network Modules (with VIC slots):</p> <ul style="list-style-type: none"> • NM-2V—Has two VICs, one in Subunit 0 and one in Subunit 1 for FXS-SCCP. • NM-HD-2V—Has two VIC slots, one in Subunit 0 and one in Subunit 1 for FXS-SCCP or for BRI-NT/TE-SCCP. • NM-HD-2VE—Has two VIC slots, one in Subunit 0 and one in Subunit 1 for FXS-SCCP or for BRI-NT/TE-SCCP <p>Network Modules (no VIC slots):</p> <ul style="list-style-type: none"> • NM-HDA-4FXS—Has 4 FXS directly without VIC and can be extended by up to two expansion modules EM-HDA-8FXS to support 16 FXS ports. • EM-HDA-8FXS—Expansion module for the NM-HDA-4FXS <p>Voice Interface Cards:</p> <ul style="list-style-type: none"> • VIC-2FXS • VIC-4FXS • VIC2-2FXS • VIC2-2BRI-NT/TE

Field	Description
	<p>At the slot level, these options exist:</p> <ul style="list-style-type: none"> • NM-2V—Two subunits with option VIC-2FXS-SCCP • NM-HD-2V—Two subunits with options VIC-4FXS-SCCP, VIC2-2FXS-SCCP, VIC2-2BRI-NT/TE-SCCP • NM-HD-2VE—Two subunits with options VIC-4FXS-SCCP, VIC2-2FXS-SCCP, VIC2-2BRI-NT/TE-SCCP • NM-HDA—Three subunits with options NM-HDA-4FXS-SCCP, EM-8FXS-EM0-SCCP, EM-8FXS-EM1-SCCP <p>In NM-HDA, these options do not represent true VICs. The VIC2-2BRI-NT/TE represents the only VIC for BRI phones that are running SCCP. VG224 GW differs from all others.</p> <p>The following option supports only one slot:</p> <ul style="list-style-type: none"> • ANALOG—One subunit option 24FXS-SCCP (supports 24 FXS ports) <p>The option None means that no network modules are installed.</p>
Product Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

Port Setup

Tables that list detailed descriptions for all port type configuration fields are provided.

FXS/FXO Port Settings

The following table provides detailed descriptions for FXS/FXO port configuration settings.



Note 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 6: FXS/FXO Port Configuration Settings

Field	Description
Device Information	
Description	<p>Cisco Unified Communications Manager generates a string that uniquely identifies the analog MGCP description.</p> <p>For example: AALN/S0/SU1/1@domain.com</p> <p>You can edit this field.</p>
Device Pool	<p>From the drop-down list, choose the appropriate device pool.</p> <p>The device pool specifies a collection of properties for this device including Communications Manager Group, Date and Time Group, Region, and Calling Search Space for auto registration of devices.</p>
Media Resource Group List	<p>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.</p>
Packet Capture Mode (for Cisco IOS MGCP gateways only)	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the Cisco Unified Communications Manager Security Guide.</p>
Packet Capture Duration (for Cisco IOS MGCP gateways only)	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the Cisco Unified Communications Manager Security Guide.</p>

Field	Description
Calling Search Space	<p>From the drop-down list, 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.</p> <p>You can configure the number of calling search spaces that display in this drop-down list 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 Find button displays next to the drop-down list. Click the Find button to display the Find and List Calling Search Space window, then find and choose a calling search space name.</p> <p>Note To set the maximum list box items, choose System > Enterprise Parameters and enter a value for Max List Box Items in the CCMAAdmin Parameters pane.</p>
AAR Calling Search Space	<p>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.</p>

Field	Description
Location	<p>Use locations to implement call admission control (CAC) in a centralized call-processing system. CAC enables you to regulate audio quality and video availability by limiting the amount of bandwidth that is available for audio and video calls over links between locations. The location specifies the total bandwidth that is available for calls to and from this location.</p> <p>From the drop-down list, choose the appropriate location for this device.</p> <p>A location setting of Hub_None means that the locations feature does not keep track of the bandwidth that this device consumes. A location setting of Phantom specifies a location that enables successful CAC across intercluster trunks that use H.323 protocol or SIP.</p> <p>To configure a new location, use the System > Location menu option.</p> <p>For an explanation of location-based CAC across intercluster trunks, see the <i>Cisco Unified Communications Manager System Guide</i>.</p>
AAR Group	<p>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.</p>
Network Locale	<p>From the drop-down list, 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.</p> <p>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.</p>

Field	Description
Use Trusted Relay Point	<p>From the drop-down list, enable or disable whether Cisco Unified Communications Manager inserts a trusted relay point (TRP) device with this media endpoint. Choose one of the following values:</p> <ul style="list-style-type: none"> • Default—If you choose this value, the device uses the Use Trusted Relay Point setting from the common device configuration with which this device associates. • Off—Choose this value to disable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. • On—Choose this value to enable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. <p>A Trusted Relay Point (TRP) device designates an MTP or transcoder device that is labeled as Trusted Relay Point.</p> <p>Cisco Unified Communications Manager places the TRP closest to the associated endpoint device if more than one resource is needed for the endpoint (for example, a transcoder or RSVPAgent).</p> <p>If both TRP and MTP are required for the endpoint, TRP gets used as the required MTP. See the <i>Cisco Unified Communications Manager System Guide</i> for details of call behavior.</p> <p>If both TRP and RSVPAgent are needed for the endpoint, Cisco Unified Communications Manager first tries to find an RSVPAgent that can also be used as a TRP.</p> <p>If both TRP and transcoder are needed for the endpoint, Cisco Unified Communications Manager first tries to find a transcoder that is also designated as a TRP.</p> <p>See the <i>Cisco Unified Communications Manager System Guide</i> for a complete discussion of network virtualization and trusted relay points.</p>

Field	Description
Geolocation	<p>From the drop-down list, choose a geolocation.</p> <p>You can choose the Unspecified geolocation, which designates that this device does not associate with a geolocation.</p> <p>You can also choose a geolocation that has been configured with the System > Geolocation Configuration menu option.</p> <p>For an explanation of geolocations, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocations, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>
Transmit UTF-8 for Calling Party Name	<p>If the Transmit UTF-8 for Calling Party Name is checked to set up the locale:</p> <ol style="list-style-type: none"> 1. The SIP Trunk attempts to obtain the locale from the device. 2. The SIP Trunk attempts to obtain the user locale from the Common Device Configuration. 3. The SIP trunk takes the user locale used for the Enterprise Parameters.
Enable Caller ID(for FXS ports)	<p>To enable caller ID on this port, check this check box. Caller ID enables the port to report caller ID information, which can display on the destination phone when an incoming call arrives.</p>
Ring Number(for FXS ports)	<p>Enter the number of rings after which the port will answer an incoming call. The valid values are 1 or 2 rings. The default value is 1 ring.</p>
Timing Guard-out	<p>Enter the timing guard-out value, in milliseconds. This setting is a time window after a call is disconnected that no outgoing call is allowed. The range of valid values is 300 ms to 3000 ms. The default value is 1000 ms. Caller ID support requires a value of 1000 ms or less.</p>

Field	Description
Calling Party Transformation CSS	<p>This setting allows you to localize the calling party number on the device. Make sure that the Calling Party Transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device.</p> <p>Tip Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the Calling Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Calling Party Transformation Pattern in a non-null partition that is not used for routing.</p>
Use Device Pool Calling Party Transformation CSS	<p>To use the Calling Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Calling Party Transformation CSS that you configured in the Gateway Configuration window.</p> <p>This settings displays for FXS ports, not FXO ports.</p>
Multilevel Precedence and Preemption (MLPP) Information	
MLPP Domain	<p>From the drop-down list, 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 pool for the device. 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.</p>

Field	Description
MLPP Indication	<p>Be aware that this setting is not available for all devices. If available, this setting specifies whether a device that can play precedence tones will use the capability when it places an MLPP precedence call.</p> <p>From the drop-down list, choose a setting to assign to this device from the following options:</p> <ul style="list-style-type: none"> • Default—This device inherits its MLPP indication setting from its device pool. • Off—This device does not handle nor process indication of an MLPP precedence call. • On—This device does handle and process indication of an MLPP precedence call. <p>Note Do not configure a device with the following combination of settings: MLPP Indication is set to Off or Default (when default is Off) while MLPP Preemption is set to Forceful.</p>
MLPP Preemption	<p>Be aware that this setting is not available for all devices. If available, this setting specifies whether a device that can preempt calls in progress will use the capability when it places an MLPP precedence call.</p> <p>From the drop-down list, choose a setting to assign to this device from the following options:</p> <ul style="list-style-type: none"> • Default—This device inherits its MLPP preemption setting from its device pool. • Disabled—This device does not allow preemption of lower precedence calls to take place when necessary for completion of higher precedence calls. • Forceful—This device allows preemption of lower precedence calls to take place when necessary for completion of higher precedence calls. <p>Note Do not configure a device with the following combination of settings: MLPP Indication is set to Off or Default (when default is Off) while MLPP Preemption is set to Forceful.</p>
Port Information (POTS)	

Field	Description
Port Direction	<p>Choose the direction of calls that are passing through this port:</p> <ul style="list-style-type: none"> • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Bothways—Use for inbound and outbound calls (default).
Prefix DN(for FXS ports)	<p>Enter the prefix digits that are appended to the digits that this trunk receives on incoming calls.</p> <p>Cisco Unified Communications Manager adds prefix digits after first truncating the number in accordance with the Num Digits setting.</p> <p>You can enter the international escape character +.</p>
Num Digits(for FXS ports)	<p>Enter the number of significant digits to collect, from 0 to 32.</p> <p>Cisco Unified Communications Manager counts significant digits from the right (last digit) of the number called.</p> <p>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.</p>
Expected Digits(for FXS ports)	<p>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.</p>
Unattended Port	<p>Check this check box to indicate an unattended port on this device.</p>
Product-Specific Configuration	
Model-specific configuration fields defined by the gateway manufacturer	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>
Geolocation Configuration	

Field	Description
Geolocation	<p>From the drop-down list, choose a geolocation.</p> <p>You can choose the Unspecified geolocation, which designates that this device does not associate with a geolocation.</p> <p>You can also choose a geolocation that has been configured with the System > Geolocation Configuration menu option.</p> <p>For an explanation of geolocations, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocations, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>
Geolocation Filter	<p>From the drop-down list, choose a geolocation filter.</p> <p>If you leave the <None> setting, no geolocation filter gets applied for this device.</p> <p>You can also choose a geolocation filter that has been configured with the System > Geolocation Filter menu option.</p> <p>For an explanation of geolocation filters, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocation filters, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>
Incoming Calling Party Settings	
Clear Prefix Settings	To delete all prefixes for all calling party number types, click Clear Prefix Settings.
Default Prefix Settings	To enter the default value for all prefix fields at the same time, click Default Prefix Settings.

Field	Description
Strip Digits	<p>Enter the number of preceding calling party number digits to remove. This value can also get configured by the device's device pool setting or the service parameter Incoming Calling Party Unknown Number Prefix – MGCP, depending on the port's Prefix setting.</p> <p>To configure the service parameter Incoming Calling Party Unknown Number Prefix – MGCP to strip digits, enter a value in the format prefix:stripdigits, where prefix is the digits to prepend and stripdigits is the number of digits to strip.</p>
Prefix	<p>Enter the digits to prepend to the stripped calling party number. If you enter Default, the Strip Digits and Prefix settings get configured by the device pool Prefix setting. If the device pool Prefix setting is also set to Default, the Strip Digits and Prefix settings get configured by the service parameter Incoming Calling Party Unknown Number Prefix – MGCP.</p>
Calling Search Space	<p>Select a calling search space (CSS) from the drop-down list that gets used to perform calling party number transformation. This setting can get overridden by the Use Devices Pool CSS field.</p>
Use Device Pool CSS	<p>Check this check box to use the device pool Unknown Number CSS to perform calling party number transformation. If this box is unchecked, the setting in the Calling Search Space field gets used.</p>

Digital Access PRI Port Settings

The following table provides detailed descriptions for Digital Access PRI port configuration settings.



Note To determine whether your gateway supports the QSIG protocol, see the gateway product documentation. For information about QSIG support with Cisco Unified Communications Manager, see topics related to gateway configuration in the *Cisco Unified Communications Manager System Guide*.

Table 7: Digital Access PRI Port Configuration Settings

Field	Description
Device Information	

Field	Description
Endpoint Name	<p>For MGCP gateways, this display-only field contains a string that is generated by Cisco Unified Communications Manager that uniquely identifies the MGCP endpoint.</p> <p>For example: S1/DS1-0@VG200-2</p> <p>S1 indicates slot 1, DS1-0 designates the digital interface, and @VG200-2 designates the MGCP domain name.</p>
MAC Address	<p>Enter MAC address of the gateway. The MAC address uniquely identifies the hardware device.</p> <p>You must enter a 12-hexadecimal character value.</p>
Description	<p>Enter a description that clarifies the purpose of the device. The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), back-slash (\), or angle brackets (<>).</p>
Device Pool	<p>From the drop-down list, choose the appropriate device pool.</p> <p>The device pool specifies a collection of properties for this device including Communications Manager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.</p>
Common Device Configuration	<p>From the drop-down list, choose the common device configuration you want to use for this gateway. The common device configuration determines softkey template, MOH, and MLPP settings.</p>
Call Classification	<p>This parameter determines whether an incoming call that is using this gateway is considered off the network (OffNet) or on the network (OnNet).</p> <p>When the Call Classification field is configured as Use System Default, the setting of the Cisco Unified Communications Manager clusterwide service parameter, Call Classification, determines whether the gateway is OnNet or OffNet.</p> <p>This field provides an OnNet or OffNet alerting tone when the call is OnNet or OffNet, respectively.</p>

Field	Description
Network Locale	<p>From the drop-down list, 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 are used by the device in a specific geographic area.</p> <p>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.</p>
Packet Capture Mode (for Cisco IOS MGCP gateways only)	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i>.</p>
Packet Capture Duration (for Cisco IOS MGCP gateways only)	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i>.</p>
Media Resource Group List	<p>This list provides a prioritized grouping of media resource groups. An application chooses the required media resource, such as a Music On Hold server, among the available media resources according to the priority order that is defined in a Media Resource List.</p>

Field	Description
Location	<p>Use locations to implement call admission control (CAC) in a centralized call-processing system. CAC enables you to regulate audio quality and video availability by limiting the amount of bandwidth that is available for audio and video calls over links between locations. The location specifies the total bandwidth that is available for calls to and from this location.</p> <p>From the drop-down list, choose the appropriate location for this device.</p> <p>A location setting of Hub_None means that the locations feature does not keep track of the bandwidth that this device consumes. A location setting of Phantom specifies a location that enables successful CAC across intercluster trunks that use H.323 protocol or SIP.</p> <p>To configure a new location, use the System > Location menu option.</p> <p>For an explanation of location-based CAC across intercluster trunks, see the <i>Cisco Unified Communications Manager System Guide</i>.</p>
AAR Group	<p>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.</p>
Load Information	<p>Enter the appropriate firmware load information for the gateway.</p> <p>The value that you enter here overrides the default firmware load for this gateway type.</p>

Field	Description
Use Trusted Relay Point	<p>From the drop-down list, enable or disable whether Cisco Unified Communications Manager inserts a trusted relay point (TRP) device with this media endpoint. Choose one of the following values:</p> <ul style="list-style-type: none"> • Default—If you choose this value, the device uses the Use Trusted Relay Point setting from the common device configuration with which this device associates. • Off—Choose this value to disable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. • On—Choose this value to enable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. <p>A Trusted Relay Point (TRP) device designates an MTP or transcoder device that is labeled as Trusted Relay Point.</p> <p>Cisco Unified Communications Manager places the TRP closest to the associated endpoint device if more than one resource is needed for the endpoint (for example, a transcoder or RSVPAgent).</p> <p>If both TRP and MTP are required for the endpoint, TRP gets used as the required MTP. See the <i>Cisco Unified Communications Manager System Guide</i> for details of call behavior.</p> <p>If both TRP and RSVPAgent are needed for the endpoint, Cisco Unified Communications Manager first tries to find an RSVPAgent that can also be used as a TRP.</p> <p>If both TRP and transcoder are needed for the endpoint, Cisco Unified Communications Manager first tries to find a transcoder that is also designated as a TRP.</p> <p>See the <i>Cisco Unified Communications Manager System Guide</i> for a complete discussion of network virtualization and trusted relay points.</p>

Field	Description
Route Class Signaling Enabled	<p>From the drop-down list, enable or disable route class signaling for the port. Choose one of the following values:</p> <ul style="list-style-type: none"> • Default—If you choose this value, the device uses the setting from the Route Class Signaling service parameter. • Off—Choose this value to enable route class signaling. This setting overrides the Route Class Signaling service parameter. • On—Choose this value to disable route class signaling. This setting overrides the Route Class Signaling service parameter. <p>Route class signaling communicates special routing or termination requirements to receiving devices. It must be enabled for the port to support the Hotline feature.</p>
Transmit UTF-8 for Calling Party Name	<p>If the Transmit UTF-8 for Calling Party Name is checked to set up the locale:</p> <ol style="list-style-type: none"> 1. The SIP Trunk attempts to obtain the locale from the device. 2. The SIP Trunk attempts to obtain the user locale from the Common Device Configuration. 3. The SIP trunk takes the user locale used for the Enterprise Parameters.
V150 (subset)	<p>Check this box to enable V.150 (subset) modem relay support on the gateways. IP-STEs currently use this feature to support end-to-end secure calls to an ISDN-STE. (Applies only to T1 PRI and T1 CAS.)</p> <p>Note This setting supports both V.150 and V.150.1 MER (Minimal Essential Requirements) modem relay functionality.</p> <p>The default value specifies unchecked.</p> <p>Warning The MDSTE package must also be enabled on the gateway via a CLI command for this check box to work properly. If you check this box without enabling the gateway, the MDSTE package can cause call attempt failures on the affected gateway trunk.</p>
Multilevel Precedence and Preemption (MLPP) Information	

Field	Description
MLPP Domain	<p>From the drop-down list, 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 is set for the device pool of the device. If the device pool does not have an MLPP Domain setting, this device inherits its MLPP Domain from the value that is set for the MLPP Domain Identifier enterprise parameter.</p>
MLPP Indication	<p>Be aware that this setting is not available for all devices. If available, this setting specifies whether a device that can play precedence tones will use the capability when it places an MLPP precedence call.</p> <p>From the drop-down list, choose a setting to assign to this device from the following options:</p> <ul style="list-style-type: none"> • Default—This device inherits its MLPP indication setting from its device pool. • Off—This device does not handle nor process indication of an MLPP precedence call. • On—This device does handle and process indication of an MLPP precedence call. <p>Note Do not configure a device with the following combination of settings: MLPP Indication is set to Off or Default (when default is Off) while MLPP Preemption is set to Forceful.</p>

Field	Description
MLPP Preemption	<p>Be aware that this setting is not available for all devices. If available, this setting specifies whether a device that can preempt calls in progress will use the capability when it places an MLPP precedence call.</p> <p>From the drop-down list, choose a setting to assign to this device from the following options:</p> <ul style="list-style-type: none"> • Default—This device inherits its MLPP preemption setting from its device pool. • Disabled—This device does not allow preemption of lower precedence calls to take place when necessary for completion of higher precedence calls. • Forceful—This device allows preemption of lower precedence calls to take place when necessary for completion of higher precedence calls. <p>Note Do not configure a device with the following combination of settings: MLPP Indication is set to Off or Default (when default is Off) while MLPP Preemption is set to Forceful.</p>
Interface Information	

Field	Description
PRI Protocol Type	<p>Choose the communications protocol for the span.</p> <p>T1 PRI spans provide several options, depending on the carrier or switch; for example:</p> <ul style="list-style-type: none"> • PRI 4ESS—AT&T Interexchange carrier • PRI 5E8—AT&T family 5ESS ISDN switch that runs in NI-1 or custom mode. • PRI 5E8 Custom—Cisco Unified IP Phone • PRI 5E9—AT&T family local exchange switch or carrier • PRI DMS—MCI family local exchange switch or carrier; Canadian local exchange carrier • PRI ETSI SC—European local exchange carrier on T1; also, Japanese, Taiwan, Korean, and Hong Kong local exchange. • PRI NI2—AT&T family local exchange switch or carrier <p>Note If you specify the PRI NI2 PRI protocol type, configure the Cisco IOS gateway with the following command: <code>isdn switch-type primary-ni</code></p> <ul style="list-style-type: none"> • PRI NTT—Japanese NTT exchange switch • PRI ISO QSIG T1—PBX T1 tie trunk using ISO QSIG • PRI ISO QSIG E1—PBX E1 tie trunk using ISO QSIG <p>Determine the switch to which you are connecting and the preferred protocol; for example:</p> <ul style="list-style-type: none"> • Nortel Meridian—DMS, 5E8 Custom • Lucent Definity—4ESS or 5E8 • Madge (Teleos) box—5E8 Teleos • Intecom PBX—5E8 Intecom

Field	Description
QSIG Variant	<p>To display the options in the QSIG Variant drop-down list, choose QSIG from the Tunneled Protocol drop-down list.</p> <p>This parameter specifies the protocol profile that is sent in outbound QSIG facility information elements.</p> <p>From the drop-down list, choose one of the following options. Keep this parameter set to the default value unless a Cisco support engineer instructs otherwise.</p> <ul style="list-style-type: none"> • No Changes • Not Selected • ECMA—If the QSIG Variant is set to ECMA (Protocol Profile 0x91), ensure the ASN.1 Rose OID Encoding service parameter is set to Use Global Value (ECMA). • ISO—(Default) If the QSIG Variant is set to ISO (Protocol Profile 0x9F), ensure the ASN.1 Rose OID Encoding service parameter is set to either Use Local Value or Use Global Value (ISO). <p>For more information, see the following information:</p> <ul style="list-style-type: none"> • Be aware that the QSIG Variant can also be defined as a clusterwide parameter. • For information on QSIG support with Cisco Unified Communications Manager, see the <i>Cisco Unified Communications Manager System Guide</i>.

Field	Description
ASN.1 ROSE OID Encoding	<p>To display the options in the ASN.1 ROSE OID Encoding drop-down list, choose QSIG from the Tunneled Protocol drop-down list.</p> <p>This parameter specifies how to encode the Invoke Object ID (OID) for remote operations service element (ROSE) operations.</p> <p>From the drop-down list, choose one of the following options:</p> <ul style="list-style-type: none"> • No Changes. • Not Selected • Use Global Value (ISO)—Select this option only if the connected PBX does not support Local Value. • Use Global Value (ECMA)—Select this option only if the QSIG Variant service parameter is set to ECMA (Protocol Profile 0x91). • Use Local Value—(Default) This option gets supported by most telephony systems and should be used when the QSIG Variant service parameter is set to ISO (Protocol Profile 0x9F). <p>For more information, see the following information:</p> <ul style="list-style-type: none"> • Be aware that ASN.1 ROSE OID Encoding can also be defined as a clusterwide parameter. • For information on QSIG support with Cisco Unified Communications Manager, see the <i>Cisco Unified Communications Manager System Guide</i>.
Protocol Side	<p>Choose the appropriate protocol side. This setting specifies whether the gateway connects to a Central Office/Network device or to a User device.</p> <p>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 this option for central office connections.</p>
Channel Selection Order	<p>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.</p> <p>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.</p>

Field	Description
Channel IE Type	<p>Choose one of the following values to specify whether channel selection is presented as a channel map or a slot map:</p> <ul style="list-style-type: none"> • Timeslot Number—B-channel usage always indicates actual timeslot map format (such as 1-15 and 17-31 for E1). • Slotmap—B-channel usage always indicates a slot map format. • Use Number When 1B—Channel usage indicates a channel map for one B-channel but indicates a slot map if more than one B-channel exists. • Continuous Number—Configures a continuous range of slot numbers (1-30) as the E1 logical channel number instead of the noncontinuous actual timeslot number (1-15 and 17-31).
PCM Type	<p>Specify the digital encoding format. Choose one of the following formats:</p> <ul style="list-style-type: none"> • a-law: Use for Europe and other countries, except North America, Hong Kong, Taiwan, and Japan. • mu-law: Use for North America, Hong Kong, Taiwan, and Japan.
Delay for first restart (1/8 sec ticks)	<p>Enter the rate 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. 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.)</p>
Delay between restarts (1/8 sec ticks)	<p>Enter the time between restarts. The delay occurs when a PRI RESTART gets sent if the Inhibit Restarts check box is unchecked.</p>
Inhibit restarts at PRI initialization	<p>A RESTART or SERVICE message confirms the status of the ports on a PRI span. If RESTART or SERVICE messages are not sent, Cisco Unified Communications Manager assumes the ports are in service.</p> <p>When the D-Channel successfully connects with another PRI D-Channel, it sends a RESTART or SERVICE message when this check box is unchecked.</p>

Field	Description
Enable status poll	<p>Check the check box to enable the Cisco Unified Communications Manager advanced service parameter, Change B-Channel Maintenance Status. This service parameter allows you to take individual B-channels out of service for an MGCP T1/E1 PRI gateway in real time.</p> <p>Uncheck this check box to disable the service parameter, Change B-Channel Maintenance Status.</p> <p>Note Default leaves this field unchecked.</p>
Unattended Port	<p>Check this check box to indicate an unattended port on this device.</p>
Enable G.Clear	<p>Check this box to enable G. Clear Codec support for MGCP T1 PRI gateways and SIP trunks. When you enable G. Clear Codec, echo cancellation and zero suppression for outbound calls get disabled.</p> <p>Note Fast Start and Media Termination Point Required options in Cisco Unified Communications Manager Administration do not work.</p> <p>To enable G. Clear Code support on SIP trunks between clusters, you must configure the SIP Clear Channel Data Route Class Label and SIP Route Class Naming Authority service parameters.</p> <p>If you have low bandwidth codec regions, you must enable the G. Clear Bandwidth Override service parameter.</p> <p>The following functionality does not support the G. Clear Codec:</p> <ul style="list-style-type: none"> • T1 and E1 CAS • H.323 Intercluster Trunks • SCCP devices • RSVP • Frame aligning individual DS-0 circuits
Call Routing Information - Inbound Calls	

Field	Description
Significant Digits	<p>Choose the number of significant digits to collect, from 0 to 32 or All. Cisco Unified Communications Manager counts significant digits from the right (last digit) of the number that is called. If you choose All, the Cisco Unified Communications Manager does not truncate the inbound number.</p> <p>EXAMPLE Digits received are 123456. Significant digits setting is 4. Digits translated are 3456.</p> <p>Use 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.</p>
Calling Search Space	<p>From the drop-down list, 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.</p> <p>You can configure the number of calling search spaces that display in this drop-down list 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 Find button displays next to the drop-down list. Click the Find button to display the Find and List Calling Search Space window, then find and choose a calling search space name.</p> <p>Note To set the maximum list box items, choose System > Enterprise Parameters and choose CCMAdmin Parameters.</p>
AAR Calling Search Space	<p>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.</p>
Prefix DN	<p>Enter the prefix digits that are appended to the digits that this gateway receives on incoming calls.</p> <p>The Cisco Unified Communications Manager adds prefix digits after first truncating the number in accordance with the Num Digits setting.</p> <p>You can enter the international escape character +.</p>

Field	Description
Call Routing Information - Outbound Calls	
Calling Party Presentation	<p>Choose whether you want the Cisco Unified Communications Manager to allow or restrict the display of the calling party phone number.</p> <p>Choose Default if you do not want to change calling line ID presentation. Choose Allowed if you want Cisco Unified Communications Manager to send “Calling Line ID Allowed” on outbound calls. Choose Restricted if you want Cisco Unified Communications Manager to send “Calling Line ID Restricted” on outbound calls.</p> <p>For more information about this field, see the <i>Cisco Unified Communications Manager System Guide</i>.</p>
Calling Party Selection	<p>Any outbound call on a gateway can send directory number information. Choose which directory number is sent:</p> <ul style="list-style-type: none"> • 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.

Field	Description
Called party IE number type unknown	<p>Choose the format for the number type in called party directory numbers.</p> <p>Cisco Unified Communications Manager sets the called 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to a PBX that expects the called directory number to be encoded to a non-national type numbering plan.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none">• Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager sets the directory number type.• Unknown—Use when the dialing plan is unknown.• National—Use when you are dialing within the dialing plan for your country.• International—Use when you are dialing outside the dialing plan for your country.• Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.

Field	Description
Calling party IE number type unknown	<p>Choose the format for the number type in calling party directory numbers.</p> <p>Cisco Unified Communications Manager 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to a PBX that expects the calling directory number to be encoded to a non-national type numbering plan.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none">• Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager sets the directory number type.• Unknown—Use when the dialing plan is unknown.• National—Use when you are dialing within the dialing plan for your country.• International—Use when you are dialing outside the dialing plan for your country.• Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.

Field	Description
Called Numbering Plan	<p>Choose the format for the numbering plan in called party directory numbers.</p> <p>Cisco Unified Communications Manager sets the called DN numbering plan. 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs by using routing as a non-national type number.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none">• Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager 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—Use when the dialing plan is unknown.

Field	Description
Calling Numbering Plan	<p>Choose the format for the numbering plan in calling party directory numbers.</p> <p>Cisco Unified Communications Manager sets the calling DN numbering plan. 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs by using routing as a non-national type number.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> • Cisco Unified Communications Manager—Use when the Cisco Unified Communications Manager 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—Use when the dialing plan is unknown.
Number of digits to strip	<p>Choose the number of digits to strip on outbound calls, from 0 to 32.</p> <p>For example, when 8889725551234 is dialed, and the number of digits to strip is 3, Cisco Unified Communications Manager strips 888 from the outbound number.</p>

Field	Description
Caller ID DN	<p>Enter the pattern that you want to use for calling line ID, from 0 to 24 digits.</p> <p>For example, in North America</p> <ul style="list-style-type: none"> • 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. <p>You can also enter the international escape character +.</p>
Called Party Transformation CSS	<p>This setting allows you to send transformed called party number in SETUP message for outgoing calls. Make sure that the Called Party Transformation CSS that you choose contains the called party transformation pattern that you want to assign to this device.</p> <p>Note If you configure the Called Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Called Party Transformation pattern in a non-null partition that is not used for routing.</p>
Use Device Pool Called Party Transformation CSS	<p>To use the Called Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Called Party Transformation CSS that you configured in the PRI Port Gateway Configuration window.</p>

Field	Description
Calling Party Transformation CSS	<p>This setting allows you to send transformed calling party number in SETUP message for outgoing calls. Also when redirection occurs for outbound calls, this CSS will be used to transform the connected number sent from Cisco Unified Communications Manager side in outgoing NOTIFY messages. [For PRI DMS - 100 and DMS - 200]. Make sure that the Calling Party Transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device.</p> <p>Note If you configure the Calling Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Calling Party Transformation Pattern in a non-null partition that is not used for routing.</p>
Use Device Pool Calling Party Transformation CSS	<p>To use the Calling Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Calling Party Transformation CSS that you configured in the PRI Port Gateway Configuration window.</p>
PRI Protocol Type Specific Information	
Display IE Delivery	<p>Check the check box to enable delivery of the display information element (IE) in SETUP and NOTIFY messages (for DMS protocol) for the calling and connected party name delivery service.</p>
Redirecting Number IE Delivery— Outbound	<p>Check this check box to indicate the first redirecting number and the redirecting reason of the call when the call is forwarded. (The UUIE part of the outgoing SETUP message from the Cisco Unified Communications Manager includes the Redirecting Number IE.)</p> <p>Uncheck the check box to exclude the first redirecting number and the redirecting reason.</p> <p>You use Redirecting Number IE for voice-messaging integration only. If your configured voice-messaging system supports Redirecting Number IE, you should check the check box.</p>

Field	Description
Redirecting Party Transformation CSS	<p>This setting allows you to transform the redirecting party number on the device to another format such as DID or E164 format. Cisco Unified Communications Manager includes the transformed number in the Redirecting Number Information Element of MGCP setup message sent out of Cisco Unified Communications Manager. Make sure that the Redirecting Party Transformation CSS that you choose contains either the calling or called party transformation pattern that you want to assign to this MGCP gateway.</p> <p>Note If you configure the Redirecting Party Transformation CSS as None and also uncheck the Use Device Pool Redirecting Party CSS check box, the transformation does not match and does not get applied. Ensure that you configure the Redirecting Party Transformation CSS in a non-null partition that is not used for routing.</p>
Use Device Pool Redirecting Party Transformation CSS	<p>To use the Redirecting Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Redirecting Party Transformation CSS that you configured in the MGCP Gateway Configuration window.</p>
Redirecting Number IE Delivery— Inbound	<p>Check this check box to accept the Redirecting Number IE in the incoming SETUP message to the Cisco Unified Communications Manager. (The UUIE part of the SETUP message includes the Redirecting Number IE.)</p> <p>Uncheck the check box to exclude the Redirecting Number IE.</p> <p>You use Redirecting Number IE for voice-messaging integration only. If your configured voice-messaging system supports Redirecting Number IE, you should check the check box.</p>

Field	Description
Send Extra Leading Character in Display IE	<p>Check this check box to include a special leading character byte (non ASCII, nondisplayable) in the DisplayIE field.</p> <p>Uncheck this check box to exclude this character byte from the Display IE field.</p> <p>This check box only applies to the DMS-100 protocol and the DMS-250 protocol.</p> <p>Default leaves this setting disabled (unchecked).</p>
Setup non-ISDN Progress Indicator IE Enable	<p>Default leaves this setting disabled (unchecked).</p> <p>Enable this setting only if users are not receiving ringback tones on outbound calls.</p> <p>When this setting is enabled, the Cisco Unified Communications Manager sends Q.931 Setup messages out digital (that is, non-H.323) gateways with the Progress Indicator field set to non-ISDN.</p> <p>This message notifies the destination device that the Cisco Unified Communications Manager gateway is non-ISDN and that the destination device should play in-band ringback.</p> <p>This problem usually associates with Cisco Unified Communications Managers that connect to PBXs through digital gateways.</p>
MCDN Channel Number Extension Bit Set to Zero	<p>To set the channel number extension bit to zero, check the check box. To set the extension bit to 1, uncheck the check box.</p> <p>This setting only applies to the DMS-100 protocol</p>
Send Calling Name in Facility IE	<p>Check the check box to send the calling name in the Facility IE field. By default, the Cisco Unified Communications Manager leaves the check box unchecked.</p> <p>Set this feature for a private network that has a PRI interface that is enabled for ISDN calling name delivery. When this check box is checked, the calling party name gets sent in the Facility IE of the SETUP or FACILITY message, so the name can display on the called party device.</p> <p>Set this feature for PRI trunks in a private network only. Do not set this feature for PRI trunks that are connected to the PSTN.</p> <p>Note This field applies to the NI2 protocol only.</p>

Field	Description
Interface Identifier Present	<p>Check the check box to indicate that an interface identifier is present. By default, the Cisco Unified Communications Manager leaves the check box unchecked.</p> <p>This setting only applies to the DMS-100 protocol for digital access gateways in the Channel Identification information element (IE) of the SETUP, CALL PROCEEDING, ALERTING, and CONNECT messages.</p>
Interface Identifier Value	<p>Enter the value that was obtained from the PBX provider.</p> <p>This field applies to only the DMS-100 protocol. Valid values range from 0 through 255.</p>
Connected Line ID Presentation (QSIG Inbound Call)	<p>Choose whether you want the Cisco Unified Communications Manager to allow or block the connected party phone number from displaying on an inbound caller phone.</p> <p>This field applies only to gateways that are using QSIG protocol. The gateway applies this setting for incoming calls only.</p> <p>Choose Default if you do not want to change the connected line ID presentation. Choose Allowed if you want Cisco Unified Communications Manager to send “Connected Line ID Allowed” to enable the connected party number to display for the calling party. Choose Restricted if you want Cisco Unified Communications Manager to send “Connected Line ID Restricted” to block the connected party number from displaying for the calling party.</p> <p>If a call that originates from an IP phone on Cisco Unified Communications Manager encounters a device, such as a trunk, gateway, or route pattern, that has the Connected Line ID Presentation set to Default, the presentation value is automatically set to Allowed.</p> <p>For more information about this field, see the <i>Cisco Unified Communications Manager System Guide</i>.</p>
Connected Party Settings	

Field	Description
Connected Party Transformation CSS	<p>This setting is applicable only for inbound Calls. This setting allows you to transform the connected party number sent from Cisco Unified Communications Manager in another format, such as a DID or E.164 number.</p> <p>Note You can configure a Connected Party Transformation CSS only when you select one of the following protocols that support Connected Number Information Element:</p> <ul style="list-style-type: none"> • For T1 PRI : <ul style="list-style-type: none"> • PRI DMS - 100 • PRI DMS - 250 • PRI ISO QSIG T1 • For E1 PRI : <ul style="list-style-type: none"> • PRI ISO QSIG E1 <p>For other protocol types, Connected Party Transformation CSS is grayed out.</p> <p>Using this setting, Cisco Unified Communications Manager includes transformed number in Connected Number Information Element (IE) of CONNECT message for basic call. For PRI DMS - 100 and DMS - 250 protocols , Cisco Unified Communications Manager includes transformed number in Connected Number Information Element (IE) of NOTIFY message for inbound calls after redirection. Make sure that the Connected Party Transformation CSS that you choose contains the connected party transformation pattern that you want to assign to this device.</p> <p>Note If you configure the Connected Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Connected Party Transformation CSS in a non-null partition that is not used for routing.</p>

Field	Description
Use Device Pool Connected Party Transformation CSS	To use the Connected Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Connected Party Transformation CSS that you configured for this device in the Trunk Configuration window.
UUIE Configuration	
Passing Precedence Level Through UUIE	<p>Check this check box to enable passing MLPP information through the PRI 4ESS UUIE field. The system uses this box for interworking with DRSN switch.</p> <p>The system makes this check box available only if the PRI Protocol Type value of PRI 4ESS is specified for this gateway.</p> <p>The default value specifies unchecked.</p>
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.
Incoming Calling Party Settings	
Clear Prefix Setting	To delete all prefixes for all calling party number types, click Clear Prefix Settings .
Default Prefix Setting	To enter the default value for all prefix fields at the same time, click Default Prefix Settings .

Field	Description
National Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use National for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use National for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of National type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the National Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of National calling party number type on the device. Make sure that the calling search space that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that</p>

Field	Description
	<p>is not used for routing.</p> <p>Tip For more information on configuring these settings, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Field	Description
International Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use International for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use International for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of International type before it applies the prefixes. • Use Device Pool CSS— Check this check box to use the calling search space for the International Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of International calling party number type on the device. Make sure that the calling party transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party</p>

Field	Description
	<p>transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Field	Description
Subscriber Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use Subscriber for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use Subscriber for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of Subscriber type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Subscriber Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of Subscriber calling party number type on the device. Make sure that the CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p>

Field	Description
	Tip For more information on configuring these settings, see the <i>Cisco Unified Communications Manager Features and Services Guide</i> .

Field	Description
Unknown Number	

Field	Description
	<p>Configure the following settings to globalize calling party numbers that use Unknown for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use Unknown for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). <p>Note If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of Unknown type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Unknown Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of Unknown calling party number type on the device. Make sure that the calling party transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that</p>

Field	Description
	is not used for routing. Tip For more information on configuring these settings, see the <i>Cisco Unified Communications Manager Features and Services Guide</i> .
Incoming Called Party Settings	
Clear Prefix Settings	To delete all prefixes for all called party number types, click Clear Prefix Settings .
Default Prefix Settings	To enter the default value for all prefix fields at the same time, click Default Prefix Settings .

Field	Description
National Number	<p>Configure the following settings to transform incoming called party numbers that use National for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called party numbers that use National for the Called Party Number Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager does not apply any prefix or strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of National type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the National Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of National called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you want to assign to this device.

Field	Description
International Number	<p>Configure the following settings to transform incoming called party numbers that use International for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called party numbers that use International for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager does not apply any prefix or strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of International type before it applies the prefixes. • Use Device Pool CSS— Check this check box to use the calling search space for the International Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of International called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you want to assign to this device.

Field	Description
Unknown Number	

Field	Description
	<p>Configure the following settings to transform incoming called party numbers that use Unknown for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called numbers that use Unknown for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <ul style="list-style-type: none"> Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager does not apply any prefix or strip digit functionality. Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields in these windows, do not enter the word, Default, in the Prefix field. • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of Unknown type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Unknown Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of Unknown called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you

Field	Description
	want to assign to this device.

Field	Description
Subscriber Number	

Field	Description
	<p>Configure the following settings to transform incoming called party numbers that use Subscriber for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called numbers that use Subscriber for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager does not apply any prefix or strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of Subscriber type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Subscriber Number field that is configured in the device pool that is applied to the device. • Calling Search Space— This setting allows you to transform the called party number of Subscriber called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you want to assign to

Field	Description
	this device.
Product-Specific Configuration	
Model-specific configuration fields that the gateway manufacturer defines	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>
Geolocation Configuration	
Geolocation	<p>From the drop-down list, choose a geolocation.</p> <p>You can choose the Unspecified geolocation, which designates that this device does not associate with a geolocation.</p> <p>You can also choose a geolocation that has been configured with the System > Geolocation Configuration menu option.</p> <p>For an explanation of geolocations, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocations, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Field	Description
Geolocation Filter	<p>From the drop-down list, choose a geolocation filter.</p> <p>If you leave the <None> setting, no geolocation filter gets applied for this device.</p> <p>You can also choose a geolocation filter that has been configured with the System > Geolocation Filter menu option.</p> <p>For an explanation of geolocation filters, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocation filters, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Digital Access T1 Port Settings

The following table provides detailed descriptions for Digital Access T1 port configuration settings.

Table 8: Digital Access T1 Port Configuration Settings

Field	Description
MAC Address (non-IOS gateway)	<p>Enter MAC address of the gateway. The MAC address uniquely identifies the hardware device.</p> <p>You must enter a 12-hexadecimal character value.</p>
Domain Name	<p>For MGCP gateways, this display-only field contains a string that Cisco Unified Communications Manager generates that uniquely identifies the MGCP digital interface.</p> <p>For example S1/DS1-0@VG200-2</p> <p>S1 indicates slot 1, DS1-0 designates the digital interface, and @VG200-2 designates the MGCP domain name.</p>
Note	Enter either a MAC address or a domain name, whichever applies.
Description	<p>Enter a description that clarifies the purpose of the device. The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), back-slash (\), or angle brackets (<>).</p>

Field	Description
Device Pool	<p>From the drop-down list, choose the appropriate device pool.</p> <p>The device pool specifies a collection of properties for this device including Communications Manager Group, Date/Time Group, Region, and Calling Search Space for auto-registration of devices.</p>
Common Device Configuration	<p>From the drop-down list, choose the common device configuration that you want to use for this gateway. The common device configuration determines softkey template, MOH, and MLPP settings.</p>
Call Classification	<p>This parameter determines whether an incoming call that is using this gateway is considered off the network (OffNet) or on the network (OnNet).</p> <p>When the Call Classification field is configured as Use System Default, the setting of the Cisco Unified Communications Manager clusterwide service parameter, Call Classification, determines whether the gateway is OnNet or OffNet.</p> <p>This field provides an OnNet or OffNet alerting tone when the call is OnNet or OffNet, respectively.</p>
Media Resource Group List	<p>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.</p>
Packet Capture Mode (for Cisco IOS MGCP gateways only)	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i>.</p>
Packet Capture Duration (for Cisco IOS MGCP gateways only)	<p>Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i>.</p>

Field	Description
Calling Search Space	<p>From the drop-down list, 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.</p> <p>You can configure the number of calling search spaces that display in this drop-down list 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 Find button displays next to the drop-down list. Click the Find button to display the Find and List Calling Search Space window, then find and choose a calling search space name.</p> <p>Note To set the maximum list box items, choose System > Enterprise Parameters and choose CCMAAdmin Parameters.</p>
AAR Calling Search Space	<p>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.</p>

Field	Description
Location	<p>Use locations to implement call admission control (CAC) in a centralized call-processing system. CAC enables you to regulate audio quality and video availability by limiting the amount of bandwidth that is available for audio and video calls over links between locations. The location specifies the total bandwidth that is available for calls to and from this location.</p> <p>From the drop-down list, choose the appropriate location for this device.</p> <p>A location setting of Hub_None means that the locations feature does not keep track of the bandwidth that this device consumes. A location setting of Phantom specifies a location that enables successful CAC across intercluster trunks that use H.323 protocol or SIP.</p> <p>To configure a new location, use the System > Location menu option.</p> <p>For an explanation of location-based CAC across intercluster trunks, see the <i>Cisco Unified Communications Manager System Guide</i>.</p>
AAR Group	<p>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.</p>
MLPP Domain	<p>From the drop-down list, 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 pool of the device. 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.</p>

Field	Description
MLPP Indication	<p>Some devices do not make this setting available. If available, this setting specifies whether a device that plays precedence tones will use the capability when it places an MLPP precedence call.</p> <p>From the drop-down list, choose a setting to assign to this device from the following options:</p> <ul style="list-style-type: none"> • Default—This device inherits its MLPP indication setting from its device pool. • Off—This device does not handle nor process indication of an MLPP precedence call. • On—This device does handle and process indication of an MLPP precedence call. <p>Note Do not configure a device with the following combination of settings: MLPP Indication is set to Off or Default (when default is Off) while MLPP Preemption is set to Forceful.</p>
MLPP Preemption	<p>Some devices do not make this setting available. If available, this setting specifies whether a device that is capable of preempting calls in progress will use the capability when it places an MLPP precedence call.</p> <p>From the drop-down list, choose a setting to assign to this device from the following options:</p> <ul style="list-style-type: none"> • Default—This device inherits its MLPP preemption setting from its device pool. • Disabled—This device does not allow preemption of lower precedence calls to take place when necessary for completion of higher precedence calls. • Forceful—This device allows preemption of lower precedence calls to take place when necessary for completion of higher precedence calls. <p>Note Do not configure a device with the following combination of settings: MLPP Indication is set to Off or Default (when default is Off) while MLPP Preemption is set to Forceful.</p>

Field	Description
Enable G. Clear Codec	<p>Check this box to enable G. Clear Codec support for MGCP T1 PRI gateways and SIP trunks. When you enable G. Clear Codec, echo cancellation and zero suppression for outbound calls get disabled.</p> <p>Note Fast Start and Media Termination Point Required options in Cisco Unified Communications Manager Administration do not work.</p> <p>To enable G. Clear Code support on SIP trunks between clusters, you must configure the SIP Clear Channel Data Route Class Label and SIP Route Class Naming Authority service parameters.</p> <p>If you have low bandwidth codec regions, you must enable the G. Clear Bandwidth Override service parameter.</p> <p>The following functionality does not support the G. Clear Codec:</p> <ul style="list-style-type: none"> • T1 and E1 CAS • H.323 Intercluster Trunks • SCCP devices • RSVP • Frame aligning individual DS-0 circuits
Handle DTMF Precedence Signals	<p>Check this box to enable this gateway to interpret special DTMF signals as MLPP precedence levels.</p>
Encode Voice Route Class	<p>Check this check box to encode voice route class for voice calls. Because voice is the default route class, it typically does not need explicit encoding. If this is disabled (the default setting), the port will not explicitly encode the voice route class. The voice route class (explicitly encoded or not) can get used by downstream devices to identify a call as voice.</p> <p>This parameter is available on MGCP T1/CAS gateway ports</p>
Load Information	<p>Enter the appropriate firmware load information for the gateway.</p> <p>The values that you enter here override the default values for this gateway.</p>

Field	Description
Port Selection Order	<p>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.</p> <p>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.</p>
Digit Sending	<p>Choose one of the following digit-sending types for out-dialing:</p> <ul style="list-style-type: none"> • DTMF—Dual-tone multifrequency. Normal touchtone dialing • MF—Multifrequency • PULSE—Pulse (rotary) dialing
Network Locale	<p>From the drop-down list, 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.</p> <p>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.</p>

Field	Description
Use Trusted Relay Point	<p>From the drop-down list, enable or disable whether Cisco Unified Communications Manager inserts a trusted relay point (TRP) device with this media endpoint. Choose one of the following values:</p> <ul style="list-style-type: none"> • Default—If you choose this value, the device uses the Use Trusted Relay Point setting from the common device configuration with which this device associates. • Off—Choose this value to disable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. • On—Choose this value to enable the use of a TRP with this device. This setting overrides the Use Trusted Relay Point setting in the common device configuration with which this device associates. <p>A Trusted Relay Point (TRP) device designates an MTP or transcoder device that is labeled as Trusted Relay Point.</p> <p>Cisco Unified Communications Manager places the TRP closest to the associated endpoint device if more than one resource is needed for the endpoint (for example, a transcoder or RSVPAgent).</p> <p>If both TRP and MTP are required for the endpoint, TRP gets used as the required MTP. See the <i>Cisco Unified Communications Manager System Guide</i> for details of call behavior.</p> <p>If both TRP and RSVPAgent are needed for the endpoint, Cisco Unified Communications Manager first tries to find an RSVPAgent that can also be used as a TRP.</p> <p>If both TRP and transcoder are needed for the endpoint, Cisco Unified Communications Manager first tries to find a transcoder that is also designated as a TRP.</p> <p>See the <i>Cisco Unified Communications Manager System Guide</i> for a complete discussion of network virtualization and trusted relay points.</p>

Field	Description
Route Class Signaling Enabled	<p>From the drop-down list, enable or disable route class signaling for the port. Choose one of the following values:</p> <ul style="list-style-type: none"> • Default—If you choose this value, the device uses the setting from the Route Class Signaling service parameter. • Off—Choose this value to enable route class signaling. This setting overrides the Route Class Signaling service parameter. • On—Choose this value to disable route class signaling. This setting overrides the Route Class Signaling service parameter. <p>Route class signaling communicates special routing or termination requirements to receiving devices. It must be enabled for the port to support the Hotline feature.</p>
V150 (subset)	<p>Check this box to enable V.150 (subset) modem relay support on the gateways. IP-STE's currently use this feature to support end-to-end secure calls to an ISDN-STE. (Applies only to T1 PRI and T1 CAS)</p> <p>Note This setting supports both V.150 and V.150.1 MER (Minimal Essential Requirements) modem relay functionality.</p> <p>The default value specifies unchecked.</p>
Product-Specific Configuration	
Model-specific configuration fields that the gateway manufacturer defines	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a popup dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>
Geolocation Configuration	

Field	Description
Geolocation	<p>From the drop-down list, choose a geolocation.</p> <p>You can choose the Unspecified geolocation, which designates that this device does not associate with a geolocation.</p> <p>You can also choose a geolocation that has been configured with the System > Geolocation Configuration menu option.</p> <p>For an explanation of geolocations, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocations, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>
Geolocation Filter	<p>From the drop-down list, choose a geolocation filter.</p> <p>If you leave the <None> setting, no geolocation filter gets applied for this device.</p> <p>You can also choose a geolocation filter that has been configured with the System > Geolocation Filter menu option.</p> <p>For an explanation of geolocation filters, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocation filters, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

BRI Port Settings

Table 9: BRI Port Configuration Settings

Field	Description
Device Information	

Field	Description
End-Point Name (MGCP gateways)	For MGCP gateways, this display-only field contains a string that Cisco Unified Communications Manager generates that uniquely identifies the MGCP endpoint. For example <code>BRI/S1/SU0/P0@SC3640.cisco.com</code> S1 indicates slot 1, SU0 indicates subunit 0, P0 indicates port 0, and @SC3640.cisco.com designates the MGCP domain name.
Description	Enter a description that clarifies the purpose of the device. The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), back-slash (\), or angle brackets (<>).
Device Pool	From the drop-down list, choose the appropriate device pool. For this device, the device pool specifies a collection of properties that includes Communications Manager Group, Date and Time Group, Region, and Calling Search Space for auto-registration of devices.
Common Device Configuration	From the drop-down list, choose the common device configuration you want to use for this gateway. The common device configuration determines softkey template, MOH, and MLPP settings.
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 Communications Manager 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.
Network Locale	From the drop-down list, 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 devices use in a specific geographic area.
Packet Capture Mode (for Cisco IOS MGCP gateways only)	Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i> .
Packet Capture Duration (for Cisco IOS MGCP gateways only)	Configure this field only when you need to troubleshoot encrypted signaling information for the Cisco IOS MGCP gateway. Configuring packet capturing may cause call-processing interruptions. For more information on this field, see the <i>Cisco Unified Communications Manager Security Guide</i> .
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 List defines.

Field	Description
Location	<p>Use locations to implement call admission control (CAC) in a centralized call-processing system. CAC enables you to regulate audio quality and video availability by limiting the amount of bandwidth that is available for audio and video calls over links between locations. The location specifies the total bandwidth that is available for calls to and from this location.</p> <p>From the drop-down list, choose the appropriate location for this device.</p> <p>A location setting of Hub_None means that the locations feature does not keep track of the bandwidth that this device consumes. A location setting of Phantom specifies a location that enables successful CAC across intercluster trunks that use H.323 protocol or SIP.</p> <p>To configure a new location, use the System > Location menu option.</p> <p>For an explanation of location-based CAC across intercluster trunks, see the <i>Cisco Unified Communications Manager System Guide</i>.</p>
AAR Group	<p>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.</p>
Interface Information	
BRI Protocol	<p>Choose the communications protocol for the span.</p> <p>BRI-NET3</p>
Protocol Side	<p>Choose the appropriate protocol side. This setting specifies whether the gateway connects to a Central Office/Network device or to a User device.</p> <p>Note BRI supports only the User side.</p>
Channel Selection Order	<p>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.</p> <p>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.</p>
PCM Type	<p>Specify the digital encoding format. Choose one of the following formats:</p> <ul style="list-style-type: none"> • a-law: Use for Europe and other countries, except North America, Hong Kong, Taiwan, and Japan. • mu-law: Use for North America, Hong Kong, Taiwan, and Japan.
Delay for First Restart (1/8 sec ticks)	<p>Enter the rate at which the spans are brought in service. The delay occurs when many BRI spans are enabled on a system and the Inhibit Restarts at BRI Initialization check box is unchecked. 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.)</p>
Delay Between Restarts (1/8 sec ticks)	<p>Enter the time between restarts. The delay occurs when a BRI RESTART gets sent if the Inhibit Restarts check box is unchecked.</p>

Field	Description
Inhibit Restarts at BRI Initialization	<p>A RESTART message confirms the status of the ports on a BRI span. If RESTART messages are not sent, Cisco Unified Communications Manager assumes that the ports are in service.</p> <p>When the data link successfully connects with another BRI data link, it sends a RESTART message when this check box is unchecked.</p>
Enable Status Poll	Check the check box to view the B-channel status in the debug window.
Unattended Port	Check this check box to indicate an unattended port on this device.
Enable G.Clear	<p>Check this box to enable G. Clear Codec support for MGCP BRI gateways and SIP trunks. When you enable G. Clear Codec, echo cancellation and zero suppression for outbound calls get disabled.</p> <p>Note Fast Start and Media Termination Point Required options in Cisco Unified Communications Manager Administration do not work.</p> <p>To enable G. Clear Code support on SIP trunks between clusters, you must configure the SIP Clear Channel Data Route Class Label and SIP Route Class Naming Authority service parameters.</p> <p>If you have low bandwidth codec regions, you must enable the G. Clear Bandwidth Override service parameter.</p> <p>The following functionality does not support the G. Clear Codec:</p> <ul style="list-style-type: none"> • T1 and E1 CAS • H.323 Intercluster Trunks • SCCP devices • RSVP • Frame aligning individual DS-0 circuits
Establish Datalink on First Call	<p>Cisco Unified Communications Manager establishes the data link to the gateway when the gateway registers with Cisco Unified Communications Manager.</p> <p>When you configure the gateway and switch to negotiate the TEI (terminal endpoint identifier) on the first call, you can check the check box to establish the data link on the first call.</p> <p>Note Default leaves the check box unchecked.</p>
Call Routing Information - Inbound Calls	

Field	Description
Significant Digits	<p>Choose the number of significant digits to collect, from 0 to 32 or All. Cisco Unified Communications Manager counts significant digits from the right (last digit) of the number called. If you choose All, the Cisco Unified Communications Manager does not truncate the inbound number.</p> <p>EXAMPLE Digits received are 123456. Significant digits setting is 4. Digits translated are 3456.</p> <p>Use 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 BRI span. See Prefix DN.</p>
Calling Search Space	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.
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.
Prefix DN	<p>Enter the prefix digits that are appended to the digits that this gateway receives on incoming calls.</p> <p>The Cisco Unified Communications Manager adds prefix digits after first truncating the number in accordance with the Num Digits setting.</p> <p>You can enter the international escape character + in this field.</p>
Call Routing Information - Outbound Calls	
Called Party Transformation CSS	<p>This setting allows you to localize the called party number on the device. Make sure that the Called Party Transformation CSS that you choose contains the called party transformation pattern that you want to assign to this device.</p> <p>Note If you configure the Called Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Called Party Transformation pattern in a non-null partition that is not used for routing.</p>
Use Device Pool Called Party Transformation CSS	To use the Called Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Called Party Transformation CSS that you configured in the PRI Port Gateway Configuration window.

Field	Description
Calling Party Transformation CSS	<p>This setting allows you to localize the calling party number on the device. Make sure that the Calling Party Transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device.</p> <p>Tip Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the Calling Party Transformation CSS as None, the transformation does not match and does not get applied. Ensure that you configure the Calling Party Transformation Pattern in a non-null partition that is not used for routing.</p>
Geolocation	<p>From the drop-down list, choose a geolocation.</p> <p>You can choose the Unspecified geolocation, which designates that this device does not associate with a geolocation.</p> <p>You can also choose a geolocation that has been configured with the System > Geolocation Configuration menu option.</p> <p>For an explanation of geolocations, including configuration details, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p> <p>For an overview and details of how logical partitioning uses geolocations, see the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>
Use Device Pool Calling Party Transformation CSS	<p>To use the Calling Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Calling Party Transformation CSS that you configured in the PRI Port Gateway Configuration window.</p>
Calling Party Presentation	<p>Choose whether you want the Cisco Unified Communications Manager to transmit or block caller ID.</p> <p>Choose Default if you do not want to change calling party presentation. Choose Allowed if you want Cisco Unified Communications Manager to send caller ID. Choose Restricted if you do not want Cisco Unified Communications Manager to send caller ID.</p>
Calling Party Selection	<p>Any outbound call on a gateway can send directory number information. Choose which directory number is sent:</p> <ul style="list-style-type: none"> • 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 Redirecting Party (External)—Send the directory number of the first redirecting device with the external phone mask applied. • Last Redirecting Party (External)—Send the directory number of the last redirecting device with the external phone mask applied.

Field	Description
Called party IE number type unknown	<p>Choose the format for the number type in called party directory numbers.</p> <p>Cisco Unified Communications Manager sets the called 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to a PBX that expects the called directory number to be encoded to a non-national numbering plan type.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> • Communications Manager—The Cisco Unified Communications Manager 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—The dialing plan is unknown. • Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.
Calling party IE number type unknown	<p>Choose the format for the number type in calling party directory numbers.</p> <p>Cisco Unified Communications Manager 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to a PBX that expects the calling directory number to be encoded to a non-national numbering plan type.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> • Communications Manager—The Cisco Unified Communications Manager 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—The dialing plan is unknown. • Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.

Field	Description
Called Numbering Plan	<p>Choose the format for the numbering plan in called party directory numbers.</p> <p>Cisco Unified Communications Manager sets the called DN numbering plan. 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs by using routing as a non-national type number.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> • Communications Manager—The Cisco Unified Communications Manager 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—The dialing plan is unknown. • Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.
Calling Numbering Plan	<p>Choose the format for the numbering plan in calling party directory numbers.</p> <p>Cisco Unified Communications Manager sets the calling DN numbering plan. 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 Communications Manager does not recognize European national dialing patterns. You can also change this setting when you are connecting to PBXs by using routing as a non-national type number.</p> <p>Choose one of the following options:</p> <ul style="list-style-type: none"> • Communications Manager—The Cisco Unified Communications Manager 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—The dialing plan is unknown. • Subscriber—Use when you are dialing a subscriber by using a shortened subscriber number.
Number of digits to strip	<p>Choose the number of digits to strip on outbound calls, from 0 to 32.</p> <p>For example, when 8889725551234 is dialed, and the number of digits to strip is 3, Cisco Unified Communications Manager strips 888 from the outbound number.</p>

Field	Description
Caller ID DN	<p>Enter the pattern that you want to use for caller ID, from 0 to 24 digits.</p> <p>For example, in North America</p> <ul style="list-style-type: none">• 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, 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. <p>You can also enter the international escape character +.</p>
Incoming Calling Party Settings	
Clear Prefix Setting	To delete all prefixes for all calling party number types, click Clear Prefix Settings .
Default Prefix Setting	To enter the default value for all prefix fields at the same time, click Default Prefix Settings .

Field	Description
National Number	<p>Configure the following settings to globalize calling party numbers that use National for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use National for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality. • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of National type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the National Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of National calling party number type on the device. Make sure that the calling search space that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see topics related to location configuration in the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Field	Description
International Number	<p>Configure the following settings to globalize calling party numbers that use International for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use International for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of International type before it applies the prefixes. • Use Device Pool CSS— Check this check box to use the calling search space for the International Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of International calling party number type on the device. Make sure that the calling party transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see topics related to location configuration in the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Field	Description
Subscriber Number	<p>Configure the following settings to globalize calling party numbers that use Subscriber for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use Subscriber for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). <p>If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of Subscriber type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Subscriber Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of Subscriber calling party number type on the device. Make sure that the CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see topics related to location configuration in the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>

Field	Description
Unknown Number	<p>Configure the following settings to globalize calling party numbers that use Unknown for the Calling Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to calling party numbers that use Unknown for the Calling Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). <p>If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming calling party prefix, which supports both the prefix and strip digit functionality.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits, up to the number 24, that you want Cisco Unified Communications Manager to strip from the calling party number of Unknown type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Unknown Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to globalize the calling party number of Unknown calling party number type on the device. Make sure that the calling party transformation CSS that you choose contains the calling party transformation pattern that you want to assign to this device. <p>Before the call occurs, the device must apply the transformation by using digit analysis. If you configure the CSS as None, the transformation does not match and does not get applied. Ensure that you configure the calling party transformation pattern in a non-null partition that is not used for routing.</p> <p>Tip For more information on configuring these settings, see topics related to configuring the incoming calling party settings for a device pool, gateway, or trunk in the <i>Cisco Unified Communications Manager Features and Services Guide</i>.</p>
Incoming Called Party Settings	
Clear Prefix Settings	To delete all prefixes for all called party number types, click Clear Prefix Settings .
Default Prefix Settings	To enter the default value for all prefix fields at the same time, click Default Prefix Settings .

Field	Description
National Number	<p>Configure the following settings to transform incoming called party numbers that use National for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called party numbers that use National for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of National type before it applies the prefixes. • Use Device Pool CSS— Check this check box to use the calling search space for the National Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of National called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you want to assign to this device.

Field	Description
International Number	<p>Configure the following settings to transform incoming called party numbers that use International for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called party numbers that use International for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of International type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the International Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of International called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you want to assign to this device.

Field	Description
Unknown Number	<p>Configure the following settings to transform incoming called party numbers that use Unknown for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called numbers that use Unknown for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields in these windows, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of Unknown type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Unknown Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of Unknown called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you want to assign to this device.

Field	Description
Subscriber Number	<p>Configure the following settings to transform incoming called party numbers that use Subscriber for the Called Party Number Type.</p> <ul style="list-style-type: none"> • Prefix—Cisco Unified Communications Manager applies the prefix that you enter in this field to called numbers that use Subscriber for the Called Party Numbering Type. You can enter up to 16 characters, which include digits, the international escape character (+), asterisk (*), or the pound sign (#). You can enter the word, Default, instead of entering a prefix. <p>Tip If the word, Default, displays in the Prefix field, you cannot configure the Strip Digits field. In this case, Cisco Unified Communications Manager takes the configuration for the Prefix and Strip Digits fields from the device pool that is applied to the device. If the word, Default, displays in the Prefix field in the Device Pool Configuration window, Cisco Unified Communications Manager applies the service parameter configuration for the incoming called party prefix, which supports both the prefix and strip digit functionality.</p> <p>Tip To configure the Strip Digits field, you must leave the Prefix field blank or enter a valid configuration in the Prefix field. To configure the Strip Digits fields, do not enter the word, Default, in the Prefix field.</p> <ul style="list-style-type: none"> • Strip Digits—Enter the number of digits that you want Cisco Unified Communications Manager to strip from the called party number of Subscriber type before it applies the prefixes. • Use Device Pool CSS—Check this check box to use the calling search space for the Subscriber Number field that is configured in the device pool that is applied to the device. • Calling Search Space—This setting allows you to transform the called party number of Subscriber called party number type on the device. If you choose None, no transformation occurs for the incoming called party number. Make sure that the calling search space that you choose contains the called party transformation pattern that you want to assign to this device.
BRI Protocol Type Specific Information	
Redirecting Number IE Delivery— Outbound	<p>Check this check box to indicate the first redirecting number and the redirecting reason of the call when the call is forwarded. (The UUIE part of the outgoing SETUP message from the Cisco Unified Communications Manager includes the Redirecting Number IE.)</p> <p>Uncheck the check box to exclude the first redirecting number and the redirecting reason.</p> <p>You use Redirecting Number IE for voice-messaging integration only. If your configured voice-messaging system supports Redirecting Number IE, you should check the check box.</p> <p>Note Default leaves the check box checked.</p>

Field	Description
Redirecting Party Transformation CSS	<p>This setting allows you to transform the redirecting party number on the device to another format such as DID or E164 format. Cisco Unified Communications Manager includes the transformed number in the Redirecting Number Information Element of MGCP setup message sent out of Cisco Unified Communications Manager. Make sure that the Redirecting Party Transformation CSS that you choose contains either the calling or called party transformation pattern that you want to assign to this MGCP gateway.</p> <p>Note If you configure the Redirecting Party Transformation CSS as None and also uncheck the Use Device Pool Redirecting Party CSS check box, the transformation does not match and does not get applied. Ensure that you configure the Redirecting Party Transformation CSS in a non-null partition that is not used for routing.</p>
Use Device Pool Redirecting Party Transformation CSS	<p>To use the Redirecting Party Transformation CSS that is configured in the device pool that is assigned to this device, check this check box. If you do not check this check box, the device uses the Redirecting Party Transformation CSS that you configured in the MGCP Gateway Configuration window.</p>
Redirecting Number IE Delivery— Inbound	<p>Check this check box to accept the Redirecting Number IE in the incoming SETUP message to the Cisco Unified Communications Manager. (The UUIE part of the SETUP message includes the Redirecting Number IE.)</p> <p>Uncheck the check box to exclude the Redirecting Number IE.</p> <p>You use Redirecting Number IE for voice-messaging integration only. If your configured voice-messaging system supports Redirecting Number IE, you should check the check box.</p> <p>Note Default leaves the check box checked.</p>
Setup non-ISDN Progress Indicator IE Enable	<p>Default leaves this setting disabled (unchecked).</p> <p>Enable this setting only if users are not receiving ringback tones on outbound calls.</p> <p>When this setting is enabled, the Cisco Unified Communications Manager sends Q.931 Setup messages out digital (that is, non-H.323) gateways with the Progress Indicator field set to non-ISDN.</p> <p>This message notifies the destination device that the Cisco Unified Communications Manager gateway is non-ISDN and that the destination device should play in-band ringback.</p> <p>This problem usually associates with Cisco Unified Communications Managers that connect to PBXs through digital gateways.</p>
Product-Specific Configuration	

Field	Description
Model-specific configuration fields that are defined by the gateway manufacturer	<p>The model-specific fields under product-specific configuration define the gateway manufacturer. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a popup dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

POTS Port Settings

Table 10: POTS Port Configuration Settings

Field	Description
Port Selection	
Port Type	For POTS ports, this field displays POTS.
Beginning Port Number Ending Port Number	<p>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:</p> <ul style="list-style-type: none"> • 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	<p>Choose the direction of calls that pass through this port:</p> <ul style="list-style-type: none"> • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Bothways—Use for inbound and outbound calls (default).

Field	Description
Audio Signal Adjustment into IP Network	<p>This field specifies the gain or loss that is applied to the received audio signal relative to the port application type.</p> <p>Note Improper gain setting may cause audio echo. Use caution when you are adjusting this setting.</p>
Audio Signal Adjustment from IP Network	<p>This field specifies the gain or loss that is applied to the transmitted audio signal relative to the port application type.</p> <p>Note Improper gain setting may cause audio echo. Use caution when you are adjusting this setting.</p>
Prefix DN	<p>Enter the prefix digits that are appended to the digits that this gateway receives on incoming calls.</p> <p>The Cisco Unified Communications Manager adds prefix digits after it truncates the number in accordance with the Num Digits setting.</p> <p>You can enter the international escape character +.</p>
Num Digits	<p>Enter the number of significant digits to collect, from 0 to 32.</p> <p>Cisco Unified Communications Manager counts significant digits from the right (last digit) of the number that is called.</p> <p>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.</p>
Expected Digits	<p>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.</p>
Call Restart Timer (1000-5000 ms)	<p>Call Restart Timer (1000-5000 ms); ms indicates time in milliseconds.</p>
Offhook Validation Timer (100-1000 ms)	<p>Offhook Validation Timer (100-1000 ms); ms indicates time in milliseconds.</p>
Onhook Validation Timer (100-1000 ms)	<p>Onhook Validation Timer (100-1000 ms); ms indicates time in milliseconds.</p>
Hookflash Timer (100-1500 ms)	<p>Hookflash Timer (100-1500 ms); ms indicates time in milliseconds.</p>

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

Loop-Start Port Settings

Table 11: Loop-Start Port Configuration Settings

Field	Description
Port Type	From the Port Type drop-down list, choose Loop Start.
Beginning Port Number Ending Port Number	<p>Choose whether you want to add and configure all available ports, a single port, or a range of ports by setting values for the Port Number and End Port Number fields:</p> <ul style="list-style-type: none"> • 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	<p>Choose the direction of calls that pass through this port:</p> <ul style="list-style-type: none"> • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Both Ways—Use for inbound and outbound calls.

Field	Description
Attendant DN	Enter the directory number to which you want incoming calls routed; for example, zero or a directory number for an attendant.
Unattended Port	Check this check box to indicate an unattended port on this device.
Product-Specific Configurations	
Model-specific configuration fields that the gateway manufacturer defines	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a popup dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

Ground-Start Port Settings

Table 12: Ground-Start Port Configuration Settings

Field	Description
Port Type	From the Port Type drop-down list, choose Ground Start.
Beginning Port Number Ending Port Number	<p>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:</p> <ul style="list-style-type: none"> • 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.

Field	Description
Port Direction	Choose the direction of calls that pass through this port: <ul style="list-style-type: none"> • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Both Ways—Use for inbound and outbound calls.
Attendant DN	Enter the number to which you want incoming calls to be routed; for example, zero or a directory number for an attendant.
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	<p>The gateway manufacturer specifies the model-specific fields under product-specific configuration. Because they are dynamically configured, they can change without notice.</p> <p>To view field descriptions and help for product-specific configuration items, click the “?” information icon to the right of the Product Specific Configuration heading to display help in a dialog box.</p> <p>If you need more information, see the documentation for the specific gateway that you are configuring or contact the manufacturer.</p>

E and M Port Settings

E & M (Ear and Mouth) ports allow connection for PBX trunk lines (tie lines). E & M designates a signaling technique for two-wire, four-wire, and six-wire telephone and trunk interfaces.

Table 13: E and M Port Configuration Settings

Field	Description
Port Type	From the Port Type drop-down list, choose EANDM.

Field	Description
Beginning Port Number Ending Port Number	<p>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:</p> <ul style="list-style-type: none"> • 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	<p>Choose the direction of calls that pass through this port:</p> <ul style="list-style-type: none"> • Inbound—Use for incoming calls only. • Outbound—Use for outgoing calls. • Both Ways—Use for inbound and outbound calls.
Calling Party Selection	<p>Any outbound call on a gateway can send directory number information. Choose which directory number is sent:</p> <ul style="list-style-type: none"> • 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	<p>Choose the caller ID type:</p> <ul style="list-style-type: none"> • ANI—Choose this type to use the Asynchronous Network Interface (ANI) caller ID type. • DNIS—Choose this type to use the Dialed Number Identification Service (DNIS) caller ID type.

Field	Description
Caller ID DN	<p>Enter the pattern that you want to use for calling line ID, from 0 to 24 digits.</p> <p>For example, in North America</p> <ul style="list-style-type: none"> • 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. <p>You can also enter the international escape character +.</p>
Prefix DN	<p>Enter the prefix digits that are appended to the called party number on incoming calls.</p> <p>The Cisco Unified Communications Manager adds prefix digits after first truncating the number in accordance with the Num Digits setting.</p> <p>You can enter the international escape character +.</p>
Num Digits	<p>Choose the number of significant digits to collect, from 0 to 32. Cisco Unified Communications Manager counts significant digits from the right (last digit) of the number that is called.</p> <p>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.</p>
Expected Digits	<p>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.</p>
Product-Specific Configuration	

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

Add Gateway to Cisco Unified Communications Manager

To enable Cisco Unified Communications Manager to manage IP telephony gateways in your network, you must first add each gateway to the Cisco Unified Communications Manager configuration database. The procedures, windows, and configuration settings for adding a gateway vary according to the gateway model that you are adding.

The following procedure describes how to add a new gateway in Cisco Unified Communications Manager.

Procedure

-
- Step 1** To display the **Find and List Gateways** window, choose **Device > Gateway**.
 - Step 2** Click the **Add New** button. The **Add a New Gateway** window displays.
 - Step 3** From the Gateway Type drop-down list, choose the gateway type that you want to add. The Device Protocol field may automatically get populated depending on gateway type that you choose.
 - Step 4** Click **Next**.
 - Step 5** In [Table 14: Gateways, on page 149](#), click the specific procedure for the gateway type that you are configuring. After you are in the correct procedure, start with the step where you enter the appropriate settings for that particular gateway type.
-

Gateway Addition Associated Procedures

The following table lists the procedure to add a gateway for each type of gateway that is supported.

Table 14: Gateways

Type of Gateway	Procedure to Add
Cisco Voice Gateway 200 (VG200) VG224 Gateway Cisco IOS 269X, 26XX, 362X, 364X, 366X, 3725, 3745 Gateways Cisco 2801, 2811, 2821, 2851, 3825, 3845 Gateways Cisco Catalyst 4000 Access Gateway Module Cisco Catalyst 4224 Voice Gateway Switch Communication Media Module Cisco IAD2400	Use the procedure to add a Cisco IOS MGCP gateway.
Cisco IOS 269X, 3725, 3745 Gateways	Use the procedure to add a Cisco IOS SCCP gateway.
Cisco Catalyst 6000 E1 VoIP Gateway Cisco Catalyst 6000 T1 VoIP Gateway	Use the procedure to add a Non-IOS MGCP gateway.
Other Cisco IOS Gateway that is configured in H.323 mode	Use the procedure to add a Cisco IOS H.323 gateway.
Cisco Catalyst 6000 24 Port FXS Gateway	Use the procedure to add an analog access gateway and ports.
Cisco VG248 Gateway	Use the procedure to add a Cisco VG248 analog phone gateway.

Add Cisco IOS MGCP Gateway

Use the following procedure to add and configure a Cisco IOS MGCP gateway to Cisco Unified Communications Manager. The following Cisco IOS gateways support MGCP:

- CiscoVG200 Voice Gateway
- VG224 Gateway
- Cisco IOS 362x, 364x, 366x Gateways
- Cisco IOS 3725 and 3745 Gateways
- Cisco IOS 26xx and 269x Gateways
- Cisco 2801, 2811, 2821, 2851, 3825, 3845 Gateways
- Cisco Catalyst 4000 Access Gateway Module
- Cisco Catalyst 4224 Voice Gateway Switch
- Communication Media Module
- Cisco IAD2400 gateways



Note Like other IOS MGCP gateways, MRP/ASI gateways may work with a Cisco Unified Communications Manager group that contains three Cisco Unified Communications Managers. ASI/MRP gateways testing occurs, however, with only one backup Cisco Unified Communications Manager.

Before you begin

Before configuring a Cisco IOS MGCP gateway for use with Cisco Unified Communications Manager, you must configure the gateway by using the Cisco IOS command-line interface (CLI). For procedures and commands that are required to perform this configuration, see the configuration documentation that is supplied with the gateway.

Procedure

Step 1 To display the **Find and List Gateways** window, choose **Device > Gateway**.

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

Step 3 From the Gateway Type drop-down list, choose one of the following MGCP gateways:

- a) Cisco VG200
- b) VG224
- c) Cisco 362X, 364X, 366X
- d) Cisco 3725 and 3745
- e) Cisco 26XX and 269X
- f) Cisco 2801, 2811, 2821, 2851, 3825, 3845
- g) Cisco Catalyst 4000 Access Gateway Module
- h) Cisco Catalyst 4224 Voice Gateway Switch
- i) Communication Media Module
- j) Cisco IAD2400

Note The Cisco Catalyst 6000 gateways also support MGCP but are configured differently.

Cisco IOS MGCP gateways support different device protocols for interfacing to the PSTN or other non-IP devices, depending on the gateway model and the type of installed network modules and voice interface cards (VICs). A subsequent web window provides configuration for these interfaces.

Step 4 Click **Next**.

Step 5 If a Protocol drop-down list displays, choose MGCP and click **Next**. Otherwise, skip to [Step 6, on page 150](#).

Step 6 The appropriate **Gateway Configuration** window displays.

Enter the appropriate settings and choose the type of network modules that are installed in each slot, as described in the [Table 1: MGCP Gateway Configuration Settings, on page 2](#), including any product-specific configuration settings.

Step 7 Click **Save**.

The **Gateway Configuration** window updates and displays drop-down lists with options for configuring the type of voice interface cards (VICs) in each subunit of each network module.

The available choices depend on the type of network modules that are configured in the **Gateway Configuration** window.

- Step 8** From the drop-down lists, choose the type of VICs that are installed in each subunit and click **Save**.
The window updates to add links for configuring endpoint information and ports for the chosen type of VICs.
- Step 9** Click an endpoint identifier (for example, 1/0/0) to configure device protocol information and add ports for the installed types of VICs.
See the related topics for links to the detailed instructions.
- Step 10** To reset the gateway and apply the changes, click **Reset**.
- Step 11** Continue configuring endpoint information and ports as needed.
- Step 12** After you finish configuring the endpoint and adding ports, you need to add the MGCP gateway device to a route group/route list or assign a route pattern to the gateway, so calls can be routed to the gateway.
- Note** You need to add the MGCP gateway to a route pattern only for outbound calling.
-

Add Ports to MGCP Gateway

The device protocols and port types that can be configured on MGCP gateways vary by the type of installed voice interface cards.

Add FXS Ports to MGCP Gateway

You can use Foreign Exchange Station (FXS) ports to connect to any POTS device. Use this procedure to configure FXS ports on an MGCP gateway.

Before you begin

You must add an MGCP gateway before configuring ports.

Procedure

- Step 1** To display the **Find and List Gateways** window, choose **Device > Gateway** or skip to [Step 4, on page 151](#) if you have already located the MGCP gateway to which you want to add FXS ports.
- Step 2** Enter the appropriate search criteria to locate the MGCP gateway to which you want to add FXS ports.
- Step 3** Click the name of the desired gateway to display its MGCP configuration settings and endpoint identifiers.
- Step 4** From the **Gateway Configuration** window, click the endpoint identifier for the FXS VIC that you want to configure.
The window refreshes and displays the **Gateway Configuration** window.
- Step 5** Enter the appropriate Gateway Information and Port Information settings. See the following for details about these fields:
- [FXS/FXO Port Settings , on page 58](#)
 - [POTS Port Settings , on page 141](#)

- Step 6** 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 below the new port.
- Step 7** Click **Add a new DN** to add directory numbers to the POTS port or, if you configured another type of port, go to [Step 9, on page 152](#).
- Step 8** To return to the main MGCP 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 and click **Go**.
- Step 9** To reset the gateway and apply the changes, click **Reset**.
- Step 10** Repeat [Step 4, on page 151](#) through [Step 8, on page 152](#) to add additional FXS ports.

Add FXO Ports To MGCP Gateway

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 MGCP gateway.



Note Cisco Unified Communications Manager 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 Communications Manager server failover.

Before you begin

You must add an MGCP gateway before configuring ports.

Procedure

- Step 1** To display the Find and List Gateways window, choose **Device > Gateway** or skip to [Step 4, on page 152](#) if you have already located the MGCP gateway to which you want to add FXO ports.
- Step 2** Enter the appropriate search criteria to locate the MGCP gateway to which you want to add FXO ports and click Find. The search results window displays.
- Step 3** Click the name of the desired gateway to display its MGCP configuration settings and endpoint identifiers.
- Step 4** From the MGCP Configuration window, click the endpoint identifiers of the FXO port that you want to configure.
- Step 5** 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 6** Enter the appropriate Gateway Configuration and Port Information settings. See the following for details about these fields:
- [FXS/FXO Port Settings , on page 58](#)
 - [Loop-Start Port Settings , on page 143](#)
 - [Ground-Start Port Settings , on page 144](#)

- Step 7** Click Save.
- Step 8** To return to the main MGCP 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 9** To reset the gateway and apply the changes, click Reset.
- Step 10** To add more FXO ports, repeat [Step 4, on page 152](#) though [Step 7, on page 153](#).
-

Add Digital Access T1 Ports to MGCP Gateway

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

Procedure

- Step 1** To display the Find and List Gateways window, choose **Device > Gateway** or skip to Step 4 if you have already located the MGCP gateway to which you want to add T1-CAS ports.
- Step 2** To locate the MGCP gateway to which you want to add a Digital Access T1 (T1-CAS) port, enter the appropriate search criteria.
- Step 3** To display its MGCP configuration settings and endpoint identifiers, click the name of the desired gateway.
- Step 4** 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.
- See the related topics for links to find the appropriate settings for the port type that you choose.
- Step 5** Enter the appropriate Gateway Configuration settings.
- See the [Table 8: Digital Access T1 Port Configuration Settings , on page 114](#) for details.
- Step 6** Click Save.
- Step 7** To reset the gateway and apply the changes, click Reset.
-

Add Digital Access PRI Device to MGCP Gateway

Procedure

- Step 1** To display the Find and List Gateways window, choose **Device > Gateway** or skip to [Step 4, on page 151](#) if you have already located the MGCP gateway to which you want to add a port.
- Step 2** To locate the MGCP gateway to which you want to add a T1 PRI or E1 PRI port, enter the appropriate search criteria.
- Step 3** To display the configuration information for the selected gateway, click the name of the desired gateway in the list.
- Step 4** From the Gateway Configuration window, click the endpoint identifier of the T1 PRI or E1 PRI port that you want to configure.
- Step 5** Configure the T1 PRI or E1 PRI device protocol settings. See the [Table 7: Digital Access PRI Port Configuration Settings , on page 68](#) for detailed field descriptions.

- Step 6** Click Save.
- Step 7** To reset the gateway and apply the changes, click Reset.
-

Add BRI Port to MGCP Gateway

The device protocols and port types that you can configure on MGCP gateways vary by the type of installed voice interface cards (VICs). This section contains the procedures for adding a BRI port to an MGCP gateway.

Procedure

- Step 1** To display the Find/List Gateways window, choose **Device > Gateway**, or if you have already located the MGCP gateway to which you want to add a port, skip to [Step 4, on page 152](#).
- Step 2** To locate the MGCP gateway to which you want to add a BRI port, enter the appropriate search criteria.
- Step 3** To display the configuration information for the chosen gateway, click the name of the desired gateway in the list.
- Step 4** From the MGCP Configuration window, click the endpoint identifier of the BRI port that you want to configure.
- Step 5** Configure the BRI device protocol settings. See the [Table 9: BRI Port Configuration Settings, on page 123](#) for detailed field descriptions.
- Step 6** Click Save.
- Step 7** To apply the changes, reset the gateway.
-

Add Cisco IOS SCCP Gateway

Use the following procedure to add and configure a Cisco IOS SCCP gateway to Cisco Unified Communications Manager. The following Cisco IOS gateways support SCCP:

- Cisco IOS 269xGateways
- Cisco IOS 3725 and 3745 Gateways
- Cisco VG224 Gateway

Before you begin

Configure a Cisco IOS SCCP gateway by adding the gateway first to Cisco Unified Communications Manager. Afterward, configure the gateway by using the Cisco IOS command-line interface (CLI). For procedures and commands that are required to perform this configuration, see the configuration documentation that is supplied with the gateway.

Procedure

- Step 1** Choose **Device > Gateway**.
- 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, choose one of the following SCCP gateways:
- Cisco IOS 269x
 - Cisco IOS 3725 and 3745
- Step 4** From the Protocol drop-down list, choose SCCP.
- Cisco IOS SCCP gateways support SCCP for interfacing to the PSTN or other non-IP devices, depending on the gateway model and the type of installed network modules and voice interface cards (VICs). A subsequent web window provides configuration for the interface.
- Step 5** Click **Next**.
- The **Gateway Configuration** window displays for this SCCP gateway.
- Step 6** Enter the appropriate settings and choose the type of network modules that are installed in each slot, as described in [Table 5: Cisco IOS SCCP Gateway Configuration Settings](#), on page 55, including any product-specific configuration settings.
- Step 7** Click **Save**.
- The **Gateway Configuration** window updates and displays drop-down lists with options for configuring the type of voice interface cards (VICs) in each subunit of each network module.
- The available choices depend on the type of network modules that are configured in the **Gateway Configuration** window.
- Step 8** From the drop-down lists, choose the type of VICs that are installed in each subunit and click **Save**.
- The window updates to add links for configuring endpoint information and ports for the chosen type of VICs.
- Step 9** Click an endpoint identifier (for example, 1/0/0) to configure device protocol information, add ports for the installed types of VICs, and add FXS/BRI port to a SCCP gateway. See the related topics for details of configuring the analog phones.
- Step 10** Reset the gateway to apply the changes.
- Step 11** Continue configuring endpoint information and ports as needed.
-

Add Non-IOS MGCP Gateway

Use the following procedure to add the following non-IOS Cisco MGCP gateways to Cisco Unified Communications Manager:

- Cisco Catalyst 6000 E1 VoIP Gateway
- Cisco Catalyst 6000 T1 VoIP Gateway

Procedure

- Step 1** To display the **Find and List Gateways** window, choose **Device > Gateway**.
- Step 2** Click the **Add New** button.
- The **Add a New Gateway** window displays.

- Step 3** From the Gateway Type drop-down list, choose one of the following digital gateways and click **Next**:
- Cisco Catalyst 6000 E1 VoIP Gateway
 - Cisco Catalyst 6000 T1 VoIP Gateway
- Step 4** From the drop-down list, choose the appropriate device protocol for the type of interfaces that you are configuring on the gateway. The available choices vary according to gateway model:
- Cisco Catalyst 6000 T1 VoIP Gateway—Choose either Digital Access PRI or Digital Access T1.
 - Cisco Catalyst 6000 E1 VoIP Gateway—The Digital Access PRI device protocol automatically gets chosen, and the Gateway Configuration window displays. Skip to [Step 6, on page 156](#).
- Step 5** Click **Next**.
- The **Gateway Configuration** window displays.
- Step 6** Enter the appropriate settings, depending on whether you are configuring a Digital Access PRI interface or a Digital Access T1 interface as described in following sections:
- [Digital Access PRI Port Settings , on page 68](#)
 - [Digital Access T1 Port Settings , on page 114](#)
- Step 7** Click **Save**.
- Step 8** If you are configuring a Digital Access T1 interface on a Catalyst 6000 T1 VoIP Gateway, in the Ports pane that displays on the left side of the window, click **Add a New Port** link to configure ports.
- Step 9** To reset the gateway and apply the changes, click **Reset**.
-

Add Cisco IOS H.323 Gateway

Perform the following procedures to add a Cisco IOS H.323 Gateway to Cisco Unified Communications Manager.



Note After a gateway is registered with Cisco Unified Communications Manager, gateway registration status may display in Cisco Unified Communications Manager Administration as unknown.

Before you begin

Before configuring a Cisco IOS H.323 gateway for use with Cisco Unified Communications Manager, you must configure the gateway by using the Cisco IOS command-line interface (CLI). Compared to MGCP gateways, H.323 gateways require more configuration on the gateway because the gateway must maintain the dial plan and route pattern. For procedures and commands that are required to perform this configuration, see the configuration documentation that is supplied with the gateway.

Procedure

- Step 1** To display the **Find and List Gateways** window, choose **Device > Gateway**.
- Step 2** Click the **Add New** button.
- The **Add a New Gateway** window displays.

- Step 3** From the Gateway Type drop-down list, choose H.323 Gateway.
 - Step 4** Click **Next**.
 - Step 5** Enter the appropriate settings as described in [Table 2: H.323 Gateway Configuration Settings, on page 5](#).
 - Step 6** Click **Save**.
 - Step 7** To reset the gateway and apply the changes, click **Reset**.
-

Add Analog Access Gateway and Ports

Perform the procedure in this section to add and configure ports for the Cisco Catalyst 6000 24 Port FXS Gateway.

Procedure

- Step 1** To display the **Find and List Gateways** window, choose **Device > Gateway**.
 - Step 2** Click the **Add New** button.
The **Add a New Gateway** window displays.
 - Step 3** From the Gateway type drop-down list, choose Cisco Catalyst 6000 24 Port FXS Gateway.
 - Step 4** Click **Next**.
The **Gateway Configuration** window displays.
 - Step 5** Enter the appropriate settings, as described in the [Table 3: Analog Access Gateway Configuration Settings, on page 48](#).
 - Step 6** Click **Save**.
 - Step 7** To add a port to this gateway, click the **Add a New Port** link in the Ports pane that displays on the left side of the window.
The **Port Configuration** window displays.
 - Step 8** From the drop-down list, choose POTS as the port type and click **Next**.
 - Step 9** Enter the appropriate port configuration settings as described in the [Table 10: POTS Port Configuration Settings, on page 141](#).
 - 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 a POTS port, click **Add DN**.
 - Step 12** After you finish adding POTS ports and configuring directory numbers for the POTS ports, you can return to the **Gateway Configuration** window. In the Related Links drop-down list, choose Configure Device and click **Go**.
 - Step 13** To apply the changes, click **Reset**.
-

Add Cisco VG248 Analog Phone Gateway

The Cisco VG248 Analog Phone Gateway, a standalone, rack-mounted, 48-FXS port product, allows on-premise analog telephones, fax machines, modems, voice-messaging systems, and speakerphones to register with one Cisco Unified Communications Manager cluster.

The Cisco VG248 connects to a Cisco Unified Communications Manager by using the Skinny Client Control Protocol to allow for enhanced features.

Cisco Unified Communications Manager recognizes the Cisco VG248 as a gateway device, called a “Cisco VG248 Gateway.” Additionally, Cisco Unified Communications Manager treats each of the 48 ports as an individual device, similar to a Cisco Unified IP Phone, called a “Cisco VGC Phone.”

Use the following procedure to add a Cisco VG248 Gateway and to add and configure ports to the gateway.

Procedure

- Step 1** To display the **Find and List Gateways** window, choose **Device > Gateway**.
- Step 2** Click the **Add New** button.
- The **Add a New Gateway** window displays.
- Step 3** From the Gateway type drop-down list, choose Cisco VG248 Gateway.
- Step 4** Click **Next**.
- The **Gateway Configuration** window displays.
- Step 5** Enter the appropriate settings, as described in the [Table 4: Cisco VG248 Gateway Configuration Settings , on page 54](#).
- Step 6** From the Configured Slots, VICs and Endpoints drop-down list, choose 48_PORTS.
- Step 7** Click **Save**.
- The ports 0 through 48 display in the Configured Slots, VICs, and Endpoints area.
- Step 8** Click a port.
- The Phone Configuration window displays and lists the phone model as Cisco VGCPhone. From the **Gateway Configuration** window, the MAC address automatically displays.
- Step 9** Enter the appropriate settings. See the related topics link to configuring speed-dial buttons or abbreviated dialing for more information.
- Step 10** Click **Save**.
- Step 11** To configure a directory number for the port, click the **Add a New DN** link that displays in the Association Information area on the left side of the window.
- The **Directory Number Configuration** window displays. For information about adding and configuring directory numbers, see the related topics.
- Step 12** To configure more ports for the gateway, from the Related Link drop-down list, choose the Back to Gateway link and click **Go**.
- The **Gateway Configuration** window displays. To configure the phone settings and directory numbers for additional ports, repeat [Step 8, on page 158](#) through [Step 11, on page 158](#).

When you configure port 1, the **Create all new ports like port 1** button displays at the top of the **Gateway Configuration** window. This button allows you to configure ports 2 through 48 with the same parameters and settings as port 1, but only if ports 2 through 48 are not configured.

Step 13 To apply the changes, click **Reset**.

Gateway and Port Modification

Using Cisco Unified Communications Manager, you can synchronize, as well as update gateways and ports for all gateway types.

Synchronize Gateway

To synchronize a gateway with the most recent configuration changes, perform the following procedure, which applies any outstanding configuration settings in the least-intrusive manner possible. (For example, a reset/restart may not be required on some affected devices.)

Procedure

- Step 1** Choose **Device > Gateway**.
The **Find and List Gateways** window displays.
- Step 2** Choose the search criteria to use.
- Step 3** Click **Find**.
The window displays a list of gateways that match the search criteria.
- Step 4** Check the check boxes next to the gateways that you want to synchronize. To choose all gateways in the window, check the check box in the matching records title bar.
- Step 5** Click **Apply Config to Selected**.
The **Apply Configuration Information** dialog box displays.
- Step 6** Click **OK**.
-

Update Gateways and Ports

Complete the following steps to update a gateway or reconfigure gateway ports from Cisco Unified Communications Manager.

Procedure

- Step 1** Choose **Device > Gateway**.
The **Find and List Gateways** window displays.

Step 2 To locate a specific gateway, enter search criteria.

Step 3 Click **Find**.

A list of discovered devices displays.

Step 4 Click the Device Name of the gateway that you want to update.

The **Gateway Configuration** window displays.

Step 5 Update the appropriate gateway or port settings as described in the related topics links.

To access gateway ports, click the icon of the gateway port or the MGCP endpoint link on the left side of the configuration window for the chosen gateway.

Step 6 Click **Save**.

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