

Optimum Business Trunking and the Cisco Manager Express Version 8.5 Configuration Guide



Cisco v8.5



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1 Overview

The purpose of this configuration guide is to describe the steps needed to configure the Cisco PBX for proper operation Optimum Business Sip Trunking.

2 SIP Trunk Adaptor Set-up Instructions

These instructions describe the steps needed to configure the LAN side of the Optimum Business SIP Trunk Adaptor.

Step 1:

Log on to the Optimum Business SIP Trunk Adaptor

1. Connect a PC to port 4 of the Optimum Business SIP Trunk Adaptor, the silver device labeled Edgewater Networks, 4550 series.



- 2. Open a Web browser and go to IP Address http://10.10.200.1. A login box will appear.
- Enter login and password and click 'OK'. Login: pbxinstall Password: s1ptrunk



Step 2:

Click on the LAN Settings Link

1. Assign an IP Address to the LAN interface of the SIP Trunk Adaptor. The IP address must be on the same subnet as the IP PBX. This changes the address on port 1 of the Optimum Business SIP Trunk Adaptor.

Note: This will become your local SIP proxy IP address. No other IP addresses will be provided by Cablevision.

2. Optional: Specify a VLAN for your voice traffic. Click the 'Enable Voice VLAN Tagging' check box. The default VLAN ID is 100.

Note: VLAN 200 should not be used. It is dedicated to port 4 for management.



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3. Optional: Enable the DHCP server. This will allow the SIP Trunk Adaptor to act as a DHCP server, which will provide IP addresses to the voice network, and create a dedicated voice LAN, as per diagram 2.

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4. Click 'Submit'.



Diagram 1 SIP Trunk Adaptor for IP-PBXs

Using a connection from the customer's LAN, the SIP Trunk Adaptor's address can be a statically assigned private IP address. It may not be assigned a Public IP address.

Diagram 2 SIP Trunk Adaptor for IP-PBXs Example: Separate Voice and Data Networks Configuration



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Step 3:

Click on the SIP Trunk Configuration Link

- 1. Select your IP PBX make and model from the drop-down menu.
- 2. Specify how the IP PBX will register to the Optimum Business SIP Trunk Adaptor.
- 3. The Cablevision network only supports Inband DTMF. Click on the check box next to "Convert Inband DTMF" if you cannot configure your IP PBX to

ptimum.	SIP Trunk Configu	ration Heli
	Select your PBX:	Asterisk
Configuration Menu Customer <u>LAN Settings</u> <u>SIP Trunk</u> <u>Configuration</u>	 Passive connection u This address must be on t interface PBX Address: 	using the local, private IP address of the PBX he same subnet as the IP Address that is specified for the LAN
Diagnostics System	Active connection us	ing registration
	User Id:	secret
	Password:	
	Convert Inband DTMF:	
	Submit Reset	
	Status:	
	Trunk Status:	Not Registered
	DID's	
	5164939699 (Pilot number) 5164939768 5164939769 5164939795 5164939795 5164939841	201 101

send out Inband DTMF. The DTMF tone duration generated by the phones and/or PBX may need to be increased from their default setting. Some phones and/or PBX have a default setting between 180ms to 200ms. This setting is too low. The recommended setting is 600ms.

4. Click 'Submit'.

Step 4:

Diagnostics Link

You can make a test call directly from your phone or use the test call application under the Diagnostics link.

ontimum	Network Test Tools
optimoni	A network administrator may use the test tools on this page to verify connectivity of the System and trace the path of data throughout the
Configuration Menu • Customer • LAN Sattings .SIP Trunk	network. Outbound Call Test: This test will place a call to the provided telephone number and play a series of tones for 30 seconds.
Configuration Diagnostics System	Pilot Number: 516403000 Telephone Number:
	Inbound Call Test: When this test is enabled calls received for the pilot number are diverted to the internal Test UA for 13 minusci, after this alapsed time the test is automatically disabled, © Enabled Seam:
	Ping Test: IP Address to Ping: /Ping Reset.
	Traceroute Test: IP Address to Trace:

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Step 4 continued

Field	Description
Outbound Call Test TelephoneNumber	Specifies an outside phone number to which an outbound call will be initiated. The pilot telephone number of the SIP Trunk will be prepopulated.
Pilot Number	Displays the provisioned pilot number, which is used for outbound and inbound call tests.
Call	Initiates a call outbound to a telephone number entered or inbound to the pilot number displayed.
Inbound Call Test (radio button)	Indicates whether inbound test call will be enabled or disabled. If inbound test calls are enabled, calls made to the pilot number will be redirected to the test UA for fifteen minutes. When the pilot number is dialed, you will hear a test message play.
Submit	Enables or disables the inbound call test.
IP Address to Ping	Verifies basic connectivity to a networking device. Successful ping test results indicate that both physical and virtual path connections exist between the system and the test IP address.
Ping Button	Sends a ping to the IP address specified in the field "IP Address to Ping".
IP Address to Trace	Tracks the progress of a packet through the network. The packet can be tracked through the WAN or LAN interfaces of the adaptor.
Interface (radio button)	Indicates whether a packet will be tracked through the LAN or the WAN.
Traceroute Button	Initiates a traceroute to the specified IP address on either the LAN or the WAN.
Reset	Clears all fields and selections and allows you to enter new information. Reset applies to outbound call test, ping and traceroute.

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3 Additional Set-up Information

Systems

optimum.	System Help
Configuration Menu	Software Version: Version 11.6.14.1 Fri Jan 4 17:49:28 PST 2013
Customer <u>LAN Settings</u> SIP Trunk	Hostname: 5164939899
Configuration Diagnostics System	Model: EdgeMarc 4552
	Vendor:
	Cablevision
	LAN Interface MAC Address: A8:70:A5:00:D8:18
	Registration Status:
	The ALG feature is registered. View license key.
	System Date:
	02/29/2016 15:03:40 UTC
	Change Password:
	<u>pbxinstall</u>

FieldDescriptionPbxinstall LinkSelect to change the default password for the pbxinstall login ID.
Only the password can be changed. The login ID cannot be changed.

Password

optimum.	Set Password		<u>Help</u>		
-	Change the GUI password by filling in the fields below. The password must be between 6 and 8 characters in length.				
Configuration Menu • Customer • LAN Settings SIP Truck Configuration • Diagnostics • System	Username: Current Password: New Password: Confirm Password: Submit Reset	pbxinstall			

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Field	Description
Username	Specifies the username for which the password can be changed.
Current Password	Specifies the current password.
New Password	Specifies the new password.
Confirm Password	Confirms the new password.
Submit Applies the settings configured on this page.	
Reset	Clears all fields and selections and allows you to enter new information.

4 International Calling

Optimum Voice Business Trunking offers an optional International Calling Service for direct-dialed calls made from the Customer's business or from any phone via the Optimum Voice International Calling remote access number to destinations outside of the United States, Puerto Rico, Canada and the U.S. Virgin Islands at per minute rates. The Customer must login to the Optimum Business Account Center and activate the service on the Optimum Business Trunk Pilot telephone number to activate the service and manage the monthly International spending limit for the account.

Activating International calling on the Pilot TN will enable International calling for all Direct Inward Dial (DIDs) telephone numbers as well. Blocking International calling for one or more DIDs is managed by the customer directly from the PBX phone system configuration. To minimum the exposure to fraudulent calling, It is recommended to limit International calling capability to those DID's that require it and set up an account spending limit that reflects what is necessary to run the business.

It is the Customer (and/or the Customer Agent's) responsibility to properly secure the customer's PBX to prevent the PBX from being compromised and fraudulent calls from being made by unauthorized (internal or external) users. If fraudulent calls are detected, Cablevision reserves the right to disable International Calling until the PBX is properly secured by the customer.

5 PBX Configuration

The steps on the next pages describe the minimum configuration required to enable the CME PBX to use Optimum Business SIP Trunking for inbound and outbound calling. Please refer to the Cisco CME product documentation for more information on other advanced PBX features.

The configuration described here assumes that the PBX is already configured and operational with station side phones using assigned extensions or DIDs. This configuration is based on Cisco 2901, IOS version 15.1(3)T (c2900-universalk9-mz.SPA.151-3.T.bin) with built-in CME v8.5.

The Cisco 2901 came with two Etherent ports, GE 0/0 and GE 0/1, with GE 0/0 defaults to an IP address of 10.10.10.1/248. One of these two Ethernet ports and the Optimum Business SIP Trunk Adatpor's LAN port 1 should be in the same LAN segment. The GE 0/0 port and the Optimum Business SIP Trunk Adaptor's LAN port 1 have been assigned with IP addresses of 10.10.10.1/248 and 10.10.10.2/248 respectively. The GE 0/1 port has been assigned with an IP address of 192.168.0.1/24 and it will be used as the PBX's LAN port for communicating with the IP phones, as well as the DHCP server for the IP phones.

Before you can configure the CME PBX for SIP trunk services, you need to download and install the Cisco Configuration Professional (CCP) GUI on a Windows PC. As of this writing, CME 8.5 and CCP 2.4 are the latest software available. If you have a problem getting CCP 2.4 to work on your Windows PC, check the release notes (i.e.: certain versions of the Java Runtime Environment may require certain settings in order for CCP 2.4 to work). After CCP 2.4 has been successfully installed, connect the Windows PC to the 10.10.10.0/248 LAN segment and start the CCP GUI.



- 1. From the **"Select/Manage Community"** screen, enter the CME PBX info in the first entry of the devices to be discovered.
 - a. Enter the PBX's IP address in the **"IP Address/Hostname"** field.
 - b. Enter the username in the **"Username"** field.
 - c. Enter the password in the **"Password"** field.
 - d. Check the **checkbox** next to the password field.
 - e. Click the **"OK"** button.

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3. Click the **"Yes"** button.



4. CCP has discovered the CME PBX. Click the **"Configure"** button to start configuring the PBX.

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- 5. Navigate to **"Configure">"Interface Management"→"Interface and Connections"** to set up the GE 0/1 Ethernet port needed for the PBX to communicate with the IP phones.
 - a. Select the **"Edit Interface/Connection"** tab to make sure the GE 0/1 port is not in use.

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6. Select the **"Create Connection"** tab to set up the GE 0/1 Ethernet port, select the radio button for **"Ethernet LAN"** and then click the **"Create New Connection"** button.

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7. Click the "No" button from the "Enable AAA" screen.



8. Click the **"Next >"** button.

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9. Click the **"Next >"** button.



 Enter the IP address for the GE 0/1 port in the "IP address" field, enter the subnet mask in the "Subnet mask" field and then click the "Next >" button.

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 Select the radio button for "Yes" to enable the DHCP server and then click the "Next >" button.



 Enter the starting IP address in the "Starting IP" field, enter the ending IP address in the "Ending IP" field and then click the "Next >" button.

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 Enter a valid IP address for the DNS server in the "DNS Server1" field, leave other fields as default and then click the "Next >" button.



14. Click the "Finish" button.





16. Click the **"OK"** button.

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17. Navigate to "Configure">"Unified Communications">" Unified Communications Features" to make sure the radio button for "Cisco Unified Communications Manager Express" is selected. If not, select it and then click the "Apply" button.



- Navigate to "Configure">"Unified Communications">" Telephony Settings" to configure the general settings.
 - a. Select **"35 users"** from the drop-down list of the **"Maximum number of Phones"** field.
 - b. Enter the number of extensions needed in the **"Maximum Number of Extensions"** field.
 - c. Select the date format in the "Date Format" field.
 - d. Select the radio button for the "Time Format" field.
 - e. Select the IP address for the GE 0/1 port from the drop-down list of the **"Phone Registration Source IP Address"** field.
 - f. Enter **"9"** in the **"Secondary dial-tone digit"** field, leave other fields as default.
- Cisco Configuration Professional Application Help 🚹 Home 🔯 Configure 🌉 Monitor 🐕 🚱 🙆 Cisco Configuration Professional cisco ~ Configure > Unified Communications > Telephony Settings 0 10.10.10.1 + General Settings Cisco Communications Manager Express version: 8.5 > California Interface Management Maximum number of Phones *: 35 users 🛛 🔻 E Router > Carlo Security Maximum Number of Extensions *1 4 number (1-200) no default) The Unified Communications Unified Communications Features Date Format: mm-dd-yy 🔹 Telephony Settings Time Formati () 12 hour () 24 hour Advanced Telephony Settings Phone Registration Source IP Address *:

 192.168.0.1 (GigabitEthernet0/1) ► Digers, Phones and Extensions VoIP Settings Secondary dial-tone digit: 9 ▶ 📴 Trunks ▶ 🧰 Dial Plans ► 🚞 Telephony Fe Media Resources Unified Communications Security Audi SoftKeys Settings Enable FXO hook flash for softkey templates: // Flash File Management Configuration Editor Enable hunt group logout (Hlog) for softkey templates: Save Configuration to PC J Write to Startup Configu Telnet Reload Device · Indicates a mandatory field View Apply
- g. Click the "Apply" button.

19. Click the **"No"** button.



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- Navigate to "Configure">"Unified Communications"→"Advanced Telephony Settings" to configure the Web admin settings.
 - a. Select the **"System Config"** tab.
 - b. Enter the administrator's username in the **"System Username"** field.
 - c. Enter the password in the "System password" field.
 - d. Leave other fields as default and then click the "Apply" button.

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	Customer password:		
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- Navigate to "Configure">"Unified Communications">" Users, Phones and Extensions">"Extensions" to create extensions for routing inbound calls from the SIP trunk.
 - a. Select the "General" tab to create a new extension.
 - b. Enter a new extension in the "Primary number" field.
 - c. Enter a DID assigned for routing inbound calls to this extension in the **"Secondary number"** field.
 - d. Enter a descriptive name for displaying on the IP phone in the **"Name to be displayed on phone line"** field.
 - e. Enter a description in the "Description" field.
 - f. Select **"Do not register any number"** in the **"E.164** registration" field.
 - g. Leave other fields as default and then click the **"OK"** button.





- 25. Navigate to **"Configure">"Unified Communications">"Users, Phones and Extensions">"Phones"** to add IP phones.
 - a. Click the "Add" button and from the "Setup a new phone" screen:
 - b. Select **"7962"** from the drop-down list of the **"Type of phone"** field.
 - c. Enter the IP phone's MAC address in the "MAC address" field.
 - d. Leave other fields as default and then click the **"OK"** button.



26. Click the **"OK"** button.



27. Click the "Deliver" button.

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- 28. Navigate to **"Configure">"Unified Communications">"Users, Phones and Extensions">"User Settings"** to assign IP phones and extensions to users.
 - a. Click the **"Create"** button and select the **"User"** tab from the **"Create User"** screen.
 - b. Enter a user ID in the **"User ID"** field.
 - c. Leave other fields as default and then click the **"OK"** button.

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Select Community Member:	~	Configure >	Unified Co	mmunicatio	ns > Users,	Phones and	Extensions	s > User Se	ttings		
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Reload Device			1					UK	Cancel		
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- 29. Select the "Phone/Extensions" tab.
 - a. Assign the phone to the user by selecting the MAC address of the IP phone from the drop-down list of the **"Phone"** field.
 - b. Select "1" from the drop-down list of the "Phone Line" field.
 - c. Assign the extension to the user by selecting the extension from the **"Available Extensions"** box and then click the **">"** button.
 - d. Leave other fields as default and then click the **"OK"** button.

	iltor 🛛 😤 🊱 🙆 C	isco Configuratio	on Professiona	cisco
Select Community Member:	configure > Unified Communications > Users, Phone	s and Extensions > User Setti	ngs	
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🚰 Interface Management 🚰 Router 🎦 Security	User ID Correct the following error > Errors detected in Phone /	s: Extensions tab.		۲
Dunified Communications	Correct the areas highligh	ted below (mouse-over the hig	hlighted fields to see de	tails):
Advanced Telephony Settings Advanced Telephony Settings Comparison Compari	Phone *: ECC8.8211.30EF(Phone Line: 1 Line Type: Regular	7962)		
User Settings	Ring Behavior: Normal	· 28		
F 🛄 Trunks	Extensions			
▶ Dial Plans ▶ → Telephony Features Media Resources	Show All ▼ ♀ filter			
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30. Click the **"No"** button.



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Home Configure Monitor	. * 9	👌 🙆 🥹 Cisco Configuration Professional diudu
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	and the second second	- Save Current Configuration to PC
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		Save As
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- 32. Navigate to **"Configure">"Unified Communications">"VolP Settings"** and then click the **"Edit"** button to configure the VolP parameters.
 - a. Select the "General VolP Settings" tab, check the checkbox for "Allow SIP to SIP connection", leave the other fields as default and then click the "OK" button.





34. Select the "SIP Settings" tab, check the checkbox for "Use SIP 302 moved temporarily for call forwarding", uncheck the checkbox for "Use SIP Refer for call transfer", leave the other fields as default and then click the "OK" button.





36. Select the "H.323 Settings" tab,

- a. check the checkboxes for **"Use H.450.2 protocol for call transfer", "Use H.450.3 protocol for call forwarding" and "Use H.450.7 protocol for call MWI"**
- b. leave other fields as default and then click the "OK" button.





- 38. Navigate to **"Configure">"Unified Communications">"Trunks">"SIP Trunks"** to configure Optimum Business SIP Trunk Adaptor as the SIP service provider.
 - a. Click the "Edit" button, select "-- Generic --" from the drop-down list of the "SIP Service Provider" field and select the "General" tab.
 - b. Enter the **"Primary Server"** IP address. This is the IP address that was assigned to the Optimum SIP Trunk Adaptor's LAN interface. This address was configured in Step 2 in the Optimum Business SIP Trunk Set-Up Guide.
 - c. Enter the **"Registrar"** IP Address if you are configuring the PBX for SIP registration mode. This is the IP address that was assigned to the Optimum SIP Trunk Adaptor's LAN interface. This address was configured in Step 2 in the Optimum Business SIP Trunk Set-Up Guide. Leave this field blank if you are configuring the PBX for static IP mode.
 - d. Enter the **"Outbound Proxy"** IP address. This is the IP address that was assigned to the Optimum SIP Trunk Adaptor's LAN interface. This address was configured in Step 2 in the Optimum Business SIP Trunk Set-Up Guide.
 - e. Enter the PBX's GE 0/0 port's IP address in the **"SIP Domain** Name" field.
 - f. Enter a valid DNS IP address in the "DNS Service Address" field.
 - g. Enter the maximum number of concurrent calls allowed in the **"Maximum Number of Calls Allowed"** field.



h. Click the **"OK"** button.



Note: This step is needed only if you are configuring the PBX for SIP registration mode.

- Click the "Edit" button, select "-- Generic -- " from the drop-down list of the "SIP Service Provider" field and select the "Authentication" tab.
 - a. Click the **"Add"** button to set up the PBX to send SIP registration for the pilot DID. Note that the username and password must match what has been configured on the Optimum SIP Trunk Adaptor. This is step 3 in the Optimum Business Sip Trunk Set-Up Guide.
 - b. Enter the username in the **"Username"** field.
 - c. Enter the password in the "Password" field.
 - d. Enter the realm (if needed) in the **"Realm"** field.

e. Click the **"OK"** button.

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Home Configure Monitor	* 🚱 🖄 🥹	Cisco Configuration Professional	CISC
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Orlinda Communications Features Orlinghowy Sattings Orlinghowy S	Config General Authentication Advanced Prome Service Previder Authentication Enter credentia to enable SIP Digest authentication Dig Bit Digest Dig Bit Digest Dige	User Authentication Exter credentials to send a SIP registration message. User and the send a SIP registration message. EXTERNING AND ADDRESS AND ADDR	alm 69380
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	To finish SIP	Trunk configuration please do the follow	wing:	
		k on Dial Peer to complete SIP Trunk		
BAR STATE	Edit	Reset to default		

42. Navigate to "Configure">"View">"Running Configuration" to see if the DHCP server on GE 0/1 interface (IP address of 192.168.0.1/24 in this example) is set up to send "option 150" (TFTP server IP address) to the DHCP clients when the IP phones are restarted. If "option 150" is not in the "ip dhcp pool ccp-pool1" section, the IP phones would not be able to retrieve the files created for the IP phones by the PBX. To take care of this problem, enter the following CLI commands from the console:

cisco2901cme#configure terminal Enter configuration commands, one per line. End with CNTL/Z. cisco2901cme(config)#ip dhcp pool ccp-pool1 cisco2901cme(dhcp-config)#option 150 ip 192.168.0.1 cisco2901cme(dhcp-config)#exit cisco2901cme(config)#exit cisco2901cme#



- Navigate to "Configure">"Unified Communications">"Dial Plans"> "Codec Profiles" to group "g711alaw" and "g711ulaw" into the same codec class.
 - a. Click the **"Create"** button and from the **"Create Voice Class Codec"** screen:
 - b. Enter "1" in the "Voice Class Codec Number" field.
 - c. Select the **"g711alaw"** codec from the **"Available Codecs"** list and then click the **">"** button.
 - d. Select the "g711ulaw" codec from the "Available Codecs" list and then click the ">" button.
 - e. Click the **"OK"** button.





45. Navigate to "Configure">"View">"Running Configuration" to see if EdgeMarc's IP address is in the "ip address trusted list" under the "voice service voip" section. If it is not there, inbound SIP calls from EdgeMarc will be rejected by the PBX with a SIP "403/Forbidden" response. To take care of this problem, enter the following CLI commands from the console:

> cisco2901cme#configure terminal Enter configuration commands, one per line. End with CNTL/Z. cisco2901cme(config)#voice service voip cisco2901cme(conf-voi-serv)#ip address trusted list cisco2901cme(cfg-iptrust-list)#ipv4 10.10.10.2 cisco2901cme(cfg-iptrust-list)#exit cisco2901cme(conf-voi-serv)#exit cisco2901cme(config)#exit cisco2901cme#

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Select Community Member: «	Utilities > View > Running Configuration	
	Results of show running-config	
🗁 Interface Management	enrollment selfsigned	
Interface and Connections	subject-name cn=IOS-Self-Signed-Certificate-1493359325	
D Engrav/Wise	revocation-check none	
Kouter	crypto pki certificate chain TP-self-signed-1493359325	
Security	certificate self-signed 01	
Durified Communications	30820228 30820194 A0030201 02020101 300D0609 2A864886 F70D0101 04050030 21312520 2D060355 04031326 49455320 53656C66 2D536967 6665642D 43657274	
Unified Communications Fea	69666963 6174652D 31343933 33353933 3235301E 170D3131 30313036 32333038	
Telephony Settings	32365A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649	
Della la	4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D31 34393333 25292222 2520919E 200D0609 24964896 E20D0101 01050002 819D0020 81990291	
Advanced Telephony Setting:	81008155 C5648EA1 58D7021D EC689C96 0906ECF1 55754A8D 39258A51 26AD95AF	
▶ 🔁 Users, Phones and Extension	871EC284 305F3F1B 3D080D88 9681E4C6 5A558B52 03424CCF 1D81109C EC3912E2	
VoIP Settings	711251BD D21D4578 9A05739F 0EB15827 24A40208 F52C4F6D 61CFCCD7 65A3FEDB	
Trunks	110985/0 DF//F4A2 A11C1086 /2646/1A 2A832A93 EFADC65/ EADB29EA 024840E5 F0810203 010001A3 53305130 0F060355 1D130101 FF040530 030101FF 301F0603	
D SID Trucks	551D2304 18301680 14016241 952D6B17 0141F72F AD918BFD 5BB1DC09 D7301D06	
_ SIF Hunks	03551D0E 04160414 01624195 2D6B1701 41F72FAD 9188FD5B B1DC09D7 300D0609	
V Diai Plans	24064606 F7000101 04050005 010100F 31010E B0 500E450 0E4570 E5107EF6 54104457 515F4804 F74AC1EC 9541A78F 230F7108 268CA478 D786518F 149A1F1A 587CB358	
POTS	35085597 0303864A C332F668 A7443042 E0B11FAD 8A5867EF F0924E19 7372613E	
VoIP	7290F662 42E8B22E 385F05C3 B179BE4A E04C1E26 58551FE3 D177DBAA FEAA82E1	
Translation Rules and Pro	8229C854 /D5FF685 D3E/8892 E1094A	
Calling Restrictions	voice-card 0	
Codec Profiles		
Telephony Features	voice service voip	
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Second Se	codec preference 1 g711alaw	
IOS Show Commands	codec preference 2 g/11ulaw	
// Defeuilt Dules		

46. Navigate to **"Configure">"Unified Communications">"Dial Plans">"VolP"** to complete SIP trunk configuration for Dial Peer. Note that the first Dial Peer entry was automatically created for incoming calls by the PBX when SIP trunk was configured.

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Select Community Member: ((10.10.10.1)	Configure > Unified	d Communications	> Dial Plans > \	VoIP			(
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▶ 🚰 Users, Phones and Extension							
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View	() (

- 47. Select the Dial Peer number 1 entry, click the "Edit" button and then select the "General" tab to change some parameters and leave Dial Peer Number 1 for incoming calls only.
 - a. Select **"g711ulaw"** from the drop-down list of the **"Codec"** field for now as selection for **"Voice Class Codec"** is not yet available.
 - b. Select **"rtp-nte"** from the drop-down list of the **"DTMF Relay Type"** field. This allows the PBX to relay outbound DTMF with RFC-2833 DTMF. Note that, for inbound DTMF, the PBX will recognize RFC-2833 DTMF only.
 - http://127.0.0.1:8600/Counterpoint/CPMain.html?rand=31404 Windows Internet Explorer Application Help Cisco Configuration Professional 🚹 Home 🔯 Configure 🔜 Monitor 😵 🊱 🙆 CISCO Configure > Unified Communications > Dial Plans > VoIP | 1 rows retrieved | Description
 Destination
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 Dial Peer Tag Remote Site sip-server 🥥 🗙 EditVoIP Dial Peer General Digit Manipulation Calling Restrictions Dial Peer Number *: 1 *** Incoming call to - -- Generic -- - SIP Trunk *** (1-64 Characters) Description : Priority : Priority 0

 SIP Trunk Remote Site : Trunks Destination Number : π Incoming Called Number : Answer Address : Shutdown Dial Peer : No
 Yes Protocol : ○ H.323 ● SIP Codec : g711ulaw
 Voice Class Codec
 v DTMF Relay Type : rtp-nte 🛛 🔻 Voice Activity Detection With Voice Activity Detection enabled, only speech voice data packets are sent over the network, and silence voice data packets are dropped optimizing the network bandwidth usage. ✓ Enable Voice Activity Detection - OView Indicates a mandatory field OK Cancel
- c. Leave other fields as default and then click the "OK" button.

http://127.0.0.1:8600/Counterpoint/CPMain.html?rand=31404 - V	Vindows Internet Explorer	
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Select Community Member:	Unified Communications > 1	Dial Plans > VoIP
		1 rows retrieved
Dial Peer	T EditVoIP Dial Peer	@ x
	General Digit	Manipulation Calling Restrictions
	Dial Peer Number	the second se
	Description :	*** Incoming call to Generic SIP Trunk *** (1-64 Characters)
	Dringiby 1	Discha a
	Priority 1	Phoney 0
	Remote Site :	SIP Trunk
🕨 🧰 Users, Phones and Extensions		
	Destination Num	Deliver Configuration to Device
	Incoming Called	•••••••••••••••••••••••••••••••••••••••
	Answer Address	Following commands will be applied to the device's running configuration.
	And the Address	
	Shutdown Dial P	no shutdown
		dtmf-relay rtp-nte
	Protocol :	codec g711ulaw
	Codec :	exit
	DTME Relay Tue	
	Dime Kalay Typ	
	- Voice Activity	
	With Voice Act	
	voice data pac	
	🗹 Enable Voi	Running configuration will be lost unless it is saved to start up configuration.
		Save Current Configuration to PC
	_	Save the configuration displayed above to your PC.
	• Indicates a manda	Save As
	_	
		Deliver Cancel

49. Select the **Dial Peer number 1 entry**

- a. Click the "Edit" button and then select the "General" tab again to choose the Voice Class Codec that includes both "g711ulaw" and "g711alaw".
- b. Select the radio button for the "Voice Class Codec".
- c. Select **"1"** from the drop-down list of the **"Voice Class Codec"** field and then click the **"OK"** button.

Home Configure Mo	nitor	* 😚	<u>e</u> 0		Cisco Configuration Professional
Select Community Member:	«	Configure > Unified Con	nmunications > Dia	l Plans > VoIP	
					1 rows retrieve
Disterface Management		Dial Peer Tag	De	1	the second s
D Interface and Connections			EditvoliP Dial	Peer	nardhaet Cubillorg Boothing
P EnergyWise		1			
Router			General	Digit Manipulation	Calling Restrictions
Security			1		
Unified Communications			Dial Pee	r Number *1	3
Durified Communications Features			Descripti	on I	*** Incoming call to ··· Generic ··· SIP Trunk *** (1-64 Characters)
P Telephony Settings			Priority :		Priority 0
Advanced Telephony Settings				614 c	
b Users, Phones and Extensions			Kemote	pite I	SIP Trunk
D VoID Settings					
Toucka			Destinat	ion Number :	
D SIP Tounks			Incomin	g Called Number :	
T Dial Plans			Annual A	ddenn i	
ID POTS			Polane P		
La Volle			Shutdow	n Dial Peer I	No Yes
Translation Bules and Profiles					
Calling Restrictions			Protocol	1	() H.323 () SIP
Coder Profiles			Coder		O attulant a O Voice Class Coder
b Telephony Features	4		Codec		Garrane Conte Class Codec
Media Resources			DTMF Re	lay Type :	rtp-nte v
			- Voice	Activity Detection	
lities				ales Anticia Detection of	abled web second value data and also and also and also a data and
Configuration Editor	-		voice	data packets are dropped	abled, only speech voice data packets are sent over the network, and silence I optimizing the network bandwidth usage.
Save Configuration to PC			En En	able Voice Activity Detection	on
Write to Startup Configuration					
Teinet					
Reload Device	E	Create Edit.			
C View			* Indicates	a mandatory field	

Application Help				
Home Configure	onitor	1 * 😏		Cisco Configuration Professional
Select Community Member:	«	Configure > Unified C	ommuni	mications > Dial Plans > Vo1P
				1 rows retrieve
		Dial Peer Tag	De	EdiaVo10 Dial Deer
				General Digit Manipulation Calling Restrictions
				Rid Dear Norther To
				Uisi Peer Number -1
				Description : *** Incoming call to Generic SIP Trunk *** (1-64 Characters)
				Priority 0 +
				Remote Site :
				O See Mark
				Deliver Conferentias In Device
				Destination Num
				Incoming Called
				Answer Address
				dial-peer voice 1 voip
				voice-class codec 1
				exit
				Protocol :
				Codec :
				DTMF Relay Type
				Voice Activity
				With Voice Act
				voice data per Running configuration will be lost unless it is saved to start up configuration.
				Enable Voi Save Current Configuration to PC
				Save the configuration displayed above to your PC

51. Navigate to **"Configure">"Unified Communications">"Dial Plans">"VolP"** to create a second Dial Peer for SIP trunk for outgoing calls only.

- a. Click the **"Create"** button and then select the **"General"** tab.
- b. Enter a description in the "Description" field.
- c. Enter **"9T"** (9 followed any numbers) in the **"Destination Number"** field.
- d. Select the radio button for **"Voice Class Codec"** for the **"Codec"** field.
- e. Select "1" from the drop-down list of the "Voice Class Codec" field.
- f. Select **"rtp-nte"** from the drop-down list of the **"DTMF Relay Type"** field. This allows the PBX to relay outbound DTMF with RFC-2833 DTMF. Note that, for inbound DTMF, the PBX will recognize RFC-2833 DTMF only.
- g. Leave other fields as default and then click the **"OK"** button.

		A 0			
Home Configure Monito	······································		0	Cisco Configuratio	n Professional CISC
Select Community Member:					
10.10.10.1	configure > onine	d communications	> Dial Platis > VolP		
					1 rows retrieved
Dinterface Management	Dial Peer Tag	Description	CreateVoIP Dial Peer	initial Translation Problem	
Interface and Connections	1	*** Incomin			
EnergyWise			General Digit Maninulation	Calling Restrictions	
Router			deneral separately sep		
Security			Dial Peer Number *:	2	
Duified Communications			Description :	Outgoing call to SIP trunk	(1-64 Characters)
Unified Communications Features			Distance		
Telephony Settings			Priority 1	Priority 0	
Advanced Telephony Settings			Remote Site :	0	SIP Trunk
Users, Phones and Extensions					
VolP settings			Destination Number :	9T	
C SID Toucles			Incoming Called Number :		
T Dial Plans			Answer Address (
IN POTS			Chutdana Dial Gana a	0.0.0	
VoIP			Shutoomi biai Peer I	• No Ves	
Translation Rules and Profiles					
Calling Restrictions			Protocol :	○ H.323 ● SIP	
Codec Profiles			Codec :	0 g729r8 + 0	Voice Class Codec 1 🔹
F Telephony Features			DTMF Relay Type :	rtp-nte	•
Media Resources			Voice Activity Detection		
lities			increased increased and	101 10 10 10 10 10 10 10 10 10 10 10 10	210 00 00 10 0
Configuration Editor			With Voice Activity Detection en and silence voice data packets	abled, only speech voice data p are dropped optimizing the net	ackets are sent over the network, work bandwidth usage.
PSave Configuration to PC			Enable Voice Activity Detecti	ion	
// Write to Startup Configuration					
// Teinet					
PReload Device	Create		* Indicates a mandatory field		
Ciview .			indicates a mandatory neid		

http://127.0.0.1:8600/Counterpoint/CPMain.ht	ml?rand=	31404 - Windows Inte	rnet Explorer	Manual Real And	And Designed	
Application Help						
Home Configure	onitor	1 * 😔	≜ 0		Cisco Configuration Profe	essional dinin cisco
Select Community Member:	*	Configure > Unified	Communications	> Dial Plans > VoIP		
						1 rows retrieved
		Dial Peer Tag	Description	CreateVoIP Dial Peer		
				Coursel Digit Maginglatic	Colling Restrictions	
				General Digit Hampblack	Calling Restrictions	
				Dial Peer Number *:	2	
				Description		aractors)
				Description :	Outgoing call to SIP trunk (1-64 Chi	(racters)
				Priority :	Priority 0 🛛	
				Remote Site :) • si	P Trunk
				Dest Deliver Configuration	to Device	0
					De .	
				Following command	s will be applied to the device's running configu	ration.
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				Shute no shutdown	orp	
				description Outgoi	ng call to SIP trunk	
				preference 0		
				session protocol si	server inv2	
				Code dtmf-relay rtp-nte		
				DTMF vad	1	
				- Ve		
				an		
				Running configurati	on will be lost unless it is saved to start up conf	iguration.
				- Save Current Co	nfiguration to PC	
				Save the configura	ation displayed above to your PC.	
				Save As		
				Indicat		
						Deliver Cancel

 Navigate to "Configure">"Unified Communications">"Dial Plans">"Translation Rules and Profiles" to create an outbound rule for removing SIP trunk access code before dialing.

a. Select the **"Translation Rules"** tab and click the **"Create"** button.

- b. Enter "1" in the "Translation Rule Number" field.
- c. Click the "Add Rule" button.
- d. Enter "/^9\(.*\)/" in the "Match Pattern" field to match a string of numbers starting with a "9".
- e. Enter "/\1/" in the "**Replace Pattern**" field to replace the matched numbers with the same numbers without the leading "9" digit.
- f. Click the **"OK"** button.

Application Help					
Anne Configure Monito	- 🛛 🛠 🎨		Cisco Configu	ration Professional	CISC
Extent Community Humbury					cise
10.10.10.1 *	Configure > Unified Com	munications > Dial Plans	Translation Rules and Profil	les	
	Translation Rules	Translation Profiles			
r 🛅 Interface Management					
Interface and Connections				0 10 40 44	retrieved
D EnergyWise	Translation Rule 1	iumber	Rules		
Router					
E Security					
Unified Communications					
Unified Communications Features		Create Translation Rule		3 😳 😧	
Telephony Settings		-		and a second second	
Advanced Telephony Settings		Translation Kule Numb	er *: 1	(Numbers 1-214/48364/)	
> 🔤 Users, Phones and Extensions					
VoIP Settings		Note: To re-order rule:	, drag and drop the rule in th	ne table	
🔻 🗁 Trunks		Match Pattern	Replace Pattern		
SIP Trunks		/^9\(.*\)/	/\1/		
v 🔁 Dial Plans				Add Bule	
POTS					
VotP				Delete Rule	
Translation Rules and Profiles					
Calling Restrictions					
Di Coder Dudiles		• Indicates a mandato	ry field		
Itilities					
Configuration Editor				OK Cancel	
/ Save Configuration to PC					
Write to Startup Configuration					
// Tainat	Create				



55. Navigate to "Configure">"Unified Communications">"Dial Plans">"Translation Rules and Profiles" to create a Translation Profile to hold the Translation Rule for the called number.

- a. Select the **"Translation Profiles"** tab and click the **"Create"** button.
- b. Enter a descriptive name in the **"Translation Profile Name"** field.
- c. Select **"1"** (Translation Rule #1) in the **"Called number Rule"** field.
- d. Leave other fields as default and then click the **"OK"** button.

Home Configure	onitor	e 😏 🖻		Cisco Config	guration Pro	fessional CISC
Select Community Member:	Configure 3	> Unified Commu	nications > Dial Plans > T	ranslation Rules and Pro	files	
	Trans	lation Rules	Translation Profiles			
Interface Management	* Pri					0 rows retrieved
EnergyWise	Trai Nan	Islation Profile	Called Number Rule	Calling Number Rule	Redirect Called Number Rule	Redirect Target Number Rule
Router						
Delinified Communications						
Dunified Communications Features						
Telephony Settings						
Advanced Telephony Settings		c	reate Translation Profile			🥝 🗙
Users, Phones and Extensions		- F				
VoIP Settings			Translation Profile Name	*1	SIP_Trunk_Rules	(1 - 31 characters)
Trunks			Called number Rule:		1 -	
SIP Trunks			Calling number Rule:		None T	
🔻 🚞 Dial Plans			Redirect Called number 8	tules	Nega	
POTS	-				Hone +	
VoIP			Redirect transfer-to/forwa	ird-final Number Rule:	None v	
Translation Rules and Profiles			 Indicates a mandatory 	field		
Calling Restrictions	*					OK Cancel
A Coolinuation Editor						
A Save Configuration to PC						
Write to Startup Configuration						
// Telnet	Cri	eate Edit.				

56. Click the **"Deliver"** button.



 Navigate to "Configure">"Unified Communications">"Dial Plans">"Translation Rules and Profiles" to create outbound rules for configuring caller ID.

Home Configure	Ionitor	l 😤 🊱 🖉		Cisco Configuration Profession	al ului CISC
Select Community Member:	« c	onfigure > Unified Commu Translation Rules	nications > Dial Plans > T Translation Profiles	Translation Rules and Profiles	
interface Management	-	Qisiter		110	ows retrieved 1
Interface and Connections		7 Pitter		14	ons retrieved [
EnergyWise		Mansiation Rule Num	uer .	Match Dattern: (CR)(\$\)/ Replace Dattern:	01/
Router				mattin Patterns / "P((-')/ Replace Patterns	/ \A/
Security					
Durified Communications					
D Talashasu Cattions					
D Advanced Telephony Settings	8				
Advanced Telephony Seconds					
D VoID Settings					
Trunks					
SIP Trunks					
T Dial Plans					
POTS					
VoIP					
Translation Rules and Profiles					
Calling Restrictions					
	•				
lities					
Configuration Editor	-				
Save Configuration to PC					
Write to Startup Configuration		Create Edit.	Delete		
	100	Curcin Luit.			

- a. Select the "Translation Rules" tab and click the "Create" button.
- b. Enter "2" in the "Translation Rule Number" field.
- c. Click the **"Add Rule"** button.
- d. Enter "/^30[1-3]/" in the "Match Pattern" field to match all the extensions starting with a "3", "301", "302" and "303".
- e. Enter "/6316769580/" in the "Replace Pattern" field to replace each extension with the pilot DID. Note that this example is for SIP registration mode where only the pilot DID can be used as the caller ID. For static IP mode where each extension may use its assigned DID as the caller ID, different translation rules will be needed for mapping all the extensions with different caller ID. For example, to map extension "303" with caller ID of "6316769582", set the "Match Pattern" to "/^303/" and set the "Replace Pattern" to "/6316769582/".
- f. Click the **"OK"** button.

A Home Configure Monitor	1 * *	0	Cisco Config	uration Professional	ahal
			cibeo coning	urururur	CISCO
Select Community Member:	Configure > Unified Corr	munications > Dial Plans >	Translation Rules and Prof	les	
	Translation Rules	Translation Profiles			
r 🎦 Interface Management				[1 mm	rational I
Interface and Connections	Prose .				reviewen (
EnergyWise	Translation Rule I	tumber	Rules		
🖌 🧰 Router	.1.		Match Patte	ern: /~91(.*1)/ Replace Pattern: /1	
F 🔤 Security					
r 🛅 Unified Communications					
Unified Communications Features		Create Translation Rule		🥝 x	
Telephony Settings					
Advanced Telephony Settings		Translation Rule Numb	ar *: 2	(Numbers 1-2147483647)	
▶ 🚰 Users, Phones and Extensions					
VoIP Settings		Note: To re-order rules	drag and drop the rule in t	he table	
V 🗁 Trunks		Hard Dates	Destan Detter		
SIP Trunks		Match Pattern	Keplace Pattern	_	
V 🛅 Dial Plans		1 20[1 2]/	105107055007		
POTS				Add Rule	
VolP				Delete Rule	
Translation Rules and Profiles					
Calling Restrictions					
A Configuration Editor		- Indicates a mandator	упеіа		
J Save Configuration to PC				OK Cancel	
2 Write to Startup Configuration					
// Tainet	Create				
4					



59. Navigate to "Configure">"Unified Communications">"Dial Plans">"Translation Rules and Profiles" and select the "Translation Profiles" tab to add Translation Rule #2 for the calling number to the same Translation Profile.

Home Orfigure Monitor] 🛠 🎨 🖉	0	Cisco Config	guration Pro	fessional cisc
Select Community Member:	Configure > Unified Commo	nications > Dial Plans > 1	franslation Rules and Pro	files	
	Translation Rules	Translation Profiles			
r 🗁 Interface Management	Pilter				1 rows retrieved
Interface and Connections	Translation Profile	Called Number Rule	Calling Number Rule	Redirect Called	Redirect Target
Router	SIP Trunk Rules	1		THUR I THUR	
Security	on_nonceres				
Duified Communications					
Unified Communications Features					
Telephony Settings					
Advanced Telephony Settings					
Disers, Phones and Extensions					
VoIP Settings					
v 🗁 Trunks					
SIP Trunks					
v 🗁 Dial Plans					
POTS					
VoIP					
Translation Rules and Profiles					
Calling Restrictions					
Codec Profiles					
🕨 📴 Telephony Features					
Media Resources					
Itilities					
/ Configuration Editor					
J Save Configuration to PC					
Write to Startup Configuration					
/ Telnet					
/ Reload Device	Create Edit	Delete			
Covier V					

a. Select the Translation Profile and then click the **"Edit"** button.

Application Help					
Home Configure Monitor	r 😵 🍕 🦉	0	Cisco Config	guration Pro	fessional cisco
Select Community Member:	Configure > Unified Commun	iications > Dial Plans > T	ranslation Rules and Pro	files	
	Translation Rules	ranslation Profiles			
Interface Management					1 rows retrieved
Interface and Connections EnergyWise	Translation Profile	Called Number Rule	Calling Number Rule	Redirect Called	Redirect Target
Router	Name			Number Rule	Number Rule
Security	SIP_Trunk_Rules	1			
a security					
Durited Communications					
Unified Communications Features					
Telephony Settings					
Advanced Telephony Settings					
Gai Users, Phones and Extensions	Ed	it Translation Profile		N	🥝 🗙
VoIP Settings				PØ.	
🔻 🚞 Trunks	1	ranslation Profile Name	*i (5IP_Trunk_Rules	(1 - 31 characters)
SIP Trunks		alled number Rule:	-	1 -	_
🔻 🚞 Dial Plans			<u> </u>	* · ·	
POTS		alling number Rule:		None v	
VoIP	,	edirect Called number R	ule:	None v	
Translation Rules and Profiles		adjust transfer to /form	definal Number Pular		
Calling Restrictions				none +	
D Coder Profiles		Indicates a mandatory f	held		
h 🗖 Telephony Features					OK Cancel
D Media Resources				l	
	_				
ities					
Configuration Editor					
Save Configuration to PC					
Write to Startup Configuration					
Telnet					
PReload Device	Create Edit	. Delete			

b. Select "2" (Translation Rule #2) in the "Calling number Rule" field.c. Click the "OK" button.

A Home Configure Monitor		0	Cisco Confi	uration Pro	fessional ulu
			cisco conni	guración Pro	CISC
Select Community Member:	Configure > Unified Commu	nications > Dial Plans > 1	franslation Rules and Pro	files	
	Translation Rules	Translation Profiles			
Interface Management					1 rows retrieved
EnergyWise	Translation Profile Name	Called Number Rule	Calling Number Rule	Redirect Called	Redirect Target Number Rule
🚰 Router	SIP_Trunk_Rules	1			
Security					
Durified Communications					
Unified Communications Features					
Telephony Settings					
Advanced Telephony Settings					
▶ 🚰 Users, Phones and Extensions	E	dit Translation Profile			2 x 😧
VoIP Settings					
🔻 🚞 Trunks		Translation Profile Name	•	SIP_Trunk_Rules	(1 - 31 characters)
SIP Trunks		Called number Bules	6	• [-]	
🔻 🚞 Dial Plans					
POTS		Calling number Rule:	l	2 🔻	
VoIP		Redirect Called number R	ule:	None 🔻	
Translation Rules and Profiles		Redirect transfer-to/forwa	rd-final Number Rule:	None v	13
Calling Restrictions		• Indicator a mandatory	field		
Codec Profiles		Indicates a mandatory	nero -		
▶ 🔄 Telephony Features				(OK Cancel
Media Resources					
lities					
P Configuration Editor					
/ Save Configuration to PC					
/ Write to Startup Configuration					
// Telnet					
	Create Edit.	Delete			
// Reload Device					



61. Navigate to **"Configure">"Unified Communications">"Dial Plans"> "VolP"** to apply the Translation Profile and its Translation Rules to the outbound calls.

Home Configure Monitor	* 📀	· 🖄 📀		Cisco Cor	nfiguration	Profession	al cisco
Select Community Member: ((Configure > Unified	Communications > I	Dial Plans > VoII	P			
	Pilter						2 rows retrieved
Interface Management	Dial Peer Tag	Description	Destination Numbers	Incoming Called Numbers	Translation Profile Outgoing	Translation Profile Incoming	Remote Site
Interface and Connections	1	*** Incoming cal		.т			sip-server
EnergyWise	2	Outgoing call to S	97				sip-server
Router							
Security							
Unified Communications							
Unified Communications Features							
Telephony Settings							
Advanced Telephony Settings							
Users, Phones and Extensions							
VoIP Settings							
Y C Trunks							
SIP Trunks							
V Dial Plans							
POTS							
Translation Rules and Profiles							
D Cades Profiles							
h Talaphony Festures							
Media Resources							
ities 💌							
P Configuration Editor							
/ Save Configuration to PC							
/ Write to Startup Configuration							
// Telnet							
PReload Device							
	Create	Edit Delete					

- a. Select the Dial Peer #2 (**"Outgoing calls to SIP trunk"**) and then click the **"Edit"** button.
- b. Select the **"Digit Manipulation"** tab from the **"EditVoIP Dial Peer"** screen.
- c. Select the translation profile ("SIP_Trunk_Rules") from the dropdown list of the "Translation Profile for Outgoing Calls" field.
- d. Click the **"OK"** button.

Home Configure Mo	nitor	1 😤 🚱	🖻 🥝		Cisco Co	nfiguration	Profession	
Select Community Member:	«	Configure > Unifig	d Communications	Dial Blanc > VolD				
10.10.10.1		configure > online	a communications 2	Dial Fians > TOTP				
								2 rows retrieve
Dinterface Management		Dial Peer Tag	Description	Destination	Incoming Called	Translation Profile Outgoing	Translation	Remote Site
Interface and Connections		1	*** Incoming a	all	T	Profile Outgoing	Prome incoming	sip-server
EnergyWise		2	Outgoing call to	S1 9T				sip-server
🚘 Router								
Security								
Durified Communications				_				0
Unified Communications Features				EditVoIP Dial P	eer			w x
Telephony Settings								
Advanced Telephony Settings				General	Digit Manipulation	Calling Restrict	ions	
▶ 🚞 Users, Phones and Extensions								
VoIP Settings				Translatio	n Profile for Outgoing	Calls : SIP	_Trunk_Rules	•
🔻 🚞 Trunks				Translatio	n Profile for Incoming	Calls : Sel	ect .	-
SIP Trunks								
🔻 🚞 Dial Plans				• Indicates a	mandatory field			
POTS				_		6		_
VoIP							OK Can	cel
Translation Rules and Profiles								
Calling Restrictions								
Codec Profiles								
Telephony Features								
Media Resources	Ŧ							
ilities								
Configuration Editor	*							
Save Configuration to PC								
JWrite to Startup Configuration								
PTelnet								
JP Reload Device		(
Aller	w.	Create	Edit Delete					

Application Help							
Home Configure Monitor) 🐮 🚱			Cisco Co	nfiguration	Profession	nal cisco
Select Community Member:	Configure > Unified	f Communications > I	Dial Plans > VoIP				
							2 rows retrieved
	Dial Peer Tag	Description	Destination	Incoming Called	Translation	Translation	Remote Site
				T			
			Education and a				0 4
			Entrolp Dial Pe	ier .			~ ^
			General	Digit Manipulation	Calling Restricti	ions	
			Translation	Profile for Outgoing	Calls : SIP	_Trunk_Rules v	
			Translation	Profile for Incoming	Calls : Sele	ct v	
							-
			Deliver Configurati	on to Device			9
			Following comma	inds will be applied to	the device's runnin	g configuration.	
			dial-peer voice	2 voip			
		_	translation-prof	ile outgoing SIP_Trur tc 1	ik_Rules		
			excit				
		1					
			Rupping configur	ation will be lost uple	es it is equal to sta	rt up configuration	
			Kunning Configur	autori vili de lost unit	as it is seved to sta	te up comiguration.	
			Save Current	configuration to PC			
			Save the config	uration displayed ab	ove to your PC.		
		Edit Delete	Save As				

63. Navigate to "Configure">"View">"Running Configuration" to see if the "transfer-pattern 9T" and "transfer-system full-consult" commands are set up under the "telephony-service" section. If these commands are not there, you cannot dial the "9" access code to transfer a LAN-to-WAN call to another WAN phone. To take care of this problem, enter the following CLI commands from the console:

cisco2901cme#configure terminal Enter configuration commands, one per line. End with CNTL/Z. cisco2901cme(config)#telephony-service cisco2901cme(config-telephony)#transfer-pattern 9T cisco2901cme(config-telephony)#transfer-system full-consult cisco2901cme(config-telephony)#exit cisco2901cme(config)#exit cisco2901cme(config)#exit



Note: The Cablevision network only supports inband DTMF tones. The Cisco CME PBX only supports out-of-band DTMF tones. In order for the Cisco CME PBX to operate correctly with the Cablevision network, the Optimum SIP Trunk Adaptor must be configured to convert out-of-band DTMF tones sent by the Cisco CME PBX to inband DTMF tone.

- 64. To enable this conversion, log into the Optimum SIP Trunk Adaptor using the login and password specified in the Optimum SIP Trunk Adaptor Set-Up Guide.
 - a. On the SIP Trunk Configuration page, you must check the **"Convert Inband DTMF"** checkbox.
 - b. Click the **"Submit"** button to update this setting.

optimum.	SIP Trunk Configurati	on Help
Configuration	Select your PBX:	Asterisk
Configuration Menu Customer LAN Settings SID Trunk Configuration Diagnostics System	 Passive connection using This address must be on the si- interface PBX Address: Active connection using in User Id: Password: Convert Inband DTMF: Submit Reset 	g the local, private IP address of the PBX ame subnet as the IP Address that is specified for the LAN registration secret
	Status:	
	Trunk Status:	Not Registered
	DID'S 5164339899 (Pilot number) 5164339769 5164339765 5164339795 516433841	