



## **FIBERME Communications LLC.**

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Configuring FCM630A with FEG4301

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## OVERVIEW

This document describes basic configuration to interconnect FCM630A series and FEG4301. In this document, we are using FEG4301 as an example. This is typically applied to the scenario where users would like to add a FEG4301 as an external ISDN trunk.



**Warning:**

When using the IVR in FCM630A series, please be aware that if "Dial Trunk" option is turned on in IVR settings, the call into the IVR will be able to dial outbound call using FCM630A's trunk. The IVR's permission level will be used when making outbound calls in this case. Please select proper permission level for the IVR to control the outbound calls allowed via "Dial Trunk".

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# CONNECT FCM630A TO FEG4301 USING PEER SIP TRUNK

## Create IVR On FCM630A

On the FCM630A web GUI, create an IVR extension under **Call Features->IVR**.

In IVR settings, if "Dial Other Extensions" is enabled, the calls dialing into the FCM630A IVR will be able to reach the internal extensions registered to the FCM630A. Also, you can assign the "Key Pressing Event" to different destinations.

Create New IVR

**Basic Settings**    Key Pressing Events

* Name:	<input type="text" value="FEG4301_IVR"/>
* Extension:	<input type="text" value="7000"/>
Dial Trunk:	<input type="checkbox"/>
Auto Record:	<input type="checkbox"/>
Dial Other Extensions:	<input type="checkbox"/> All <input checked="" type="checkbox"/> Extension <input type="checkbox"/> Meeting <input type="checkbox"/> Call Queue <input type="checkbox"/> Ring Group <input type="checkbox"/> Paging/Intercom Groups <input type="checkbox"/> Voicemail Groups <input type="checkbox"/> Fax Extension <input type="checkbox"/> Dial By Name
* IVR Black/Whitelist:	<input type="text" value="Disable"/>
Replace Display Name:	<input type="checkbox"/>
Return to IVR Menu:	<input type="checkbox"/>
Alert-info:	<input type="text" value="None"/>
* Prompt:	<input type="text" value="welcome"/> <a href="#">Upload Audio File</a>
	<a href="#">Add Prompt</a> +
* Digit Timeout (s):	<input type="text" value="3"/>
* Response Timeout:	<input type="text" value="10"/>
* Response Timeout Prompt:	<input type="text" value="ivr-create-timeout"/> <a href="#">Upload Audio File</a>
* Invalid Input Prompt:	<input type="text" value="invalid"/> <a href="#">Upload Audio File</a>
* Response Timeout Prompt Repeats:	<input type="text" value="3"/>
* Invalid Input Prompt Repeats:	<input type="text" value="3"/>
Language:	<input type="text" value="Default"/>

Figure 1: Create IVR 7000 on the FCM630A



## Create Peer SIP TRUNK On FCM630A

On the FCM630A web GUI, create a peer SIP trunk under **Extension/Trunk ->VOIP Trunks**. In this example, the FEG4301 IP address is 192.168.99.237.

Create New SIP Trunk Cancel Save

If the host is not a numeric IP address, but the port number is present in the URI, the FCM performs an A or AAAA record lookup of the domain name. If a domain is configured without a port number, the FCM will do an SRV record lookup.

Type: Peer SIP Trunk

\* Provider Name: FEG4301

\* Host Name: 192.168.99.237

Transport: UDP

Keep Original CID:

Keep Trunk CID:

NAT:

Disable This Trunk:

TEL URI: Disabled

CallerID Number:

CallerID Name:

Figure 2: Create Peer SIP Trunk on the FCM630A

## Configure Outbound Rule on FCM630A

On the FCM630A web GUI, go to **Extension/Trunk ->Outbound Routes** to create a new outbound rule. This would allow the extension on the FCM630A to reach numbers in ISDN network via the peer SIP trunk we just configured.



Create New Outbound Rule Cancel Save

**General**

• Outbound Rule Name:

• Pattern:

PIN Groups:

Password:

Local Country Code:

Disable This Route:

Privilege Level:

Warning: Setting privilege level at "Disabled" will lead to this rule being usable only by a matched Source Caller ID.

PIN Groups with Privilege Level:

Auto Record:

Outbound Route CID:

**Enable Source Caller ID Whitelist**

Enable Source Caller ID Whitelist:

**Call Duration Limit**

Call Duration Limit:

**Main Trunk**

• Trunk:

Strip:

Prepend:

**Figure 3: Configure Outbound Rule on the FCM630A**

In this example pattern "91XXXXXXXXXX", 9 is the first dialing digit and it will be stripped off when the call goes out.

### Configure Inbound Rule on FCM630A

On the FCM630A web GUI, go to **Extension/Trunk ->Inbound Rules** to create a new inbound rule. Let's say that we have 30 numbers on the PRI starting from 1122334450 to 1122334479. In this example, we create the DID as **11223344XX** to receive calls through all the 30 numbers.



Figure 4 shows the 'Create New Inbound Rule' configuration page. The 'Trunks' field is set to 'SIPTrunks -- FEG4301'. The 'Pattern' field contains '11223344XX'. The 'Inbound Route Name' is 'FEG4301\_Inbound'. The 'Default Destination' is set to 'IVR' with a sub-selection of 'FEG4301\_IVR'. Other options like 'Disable This Route', 'Alert-info', 'Fax Detection', 'Block Collect Calls', 'Set CallerID Info', 'Inbound Multiple Mode', 'Seamless Transfer Whitelist', 'Ringback Tone', 'Auto Record', 'Prepend Trunk Name', and 'Enable Route-Level Inbound Mode' are all unchecked or set to 'None'.

**Figure 4: Configure Inbound Rule on FCM630A**

The default destination is configured to IVR. Ensure to select the proper extension for the IVR.

## Connect FEG4301 with FCM630A

1. On the FEG4301 web GUI, go to the **VoIP->SIP Trunk** page and click on **Add New** button. Then, enter the IP address of the FCM630A that you are peering with in Remote Address. In the following example, FCM630A has IP address 192.168.99.99.

Figure 5 shows the 'SIP Trunk' configuration page. The 'Remote Address' field is highlighted with a red box and contains the IP address '192.168.99.99'. Other fields include 'Index' (0), 'Description' (default), 'SIP Agent' (unchecked), 'Remote Port' (5060), 'Local Network Port' (LAN 1(192.168.99)), 'Local Sip Port' (5060), 'Display CODEC' (unchecked), 'Transport Protocol' (UDP), 'SRTP Mode' (RTP Prior), 'Outgoing Voice Resource' (64), and 'Incoming Voice Resource' (64).

**Figure 5: Connect FEG4301 with FCM630A: Remote Address**

2. Go to the **VoIP->SIP Trunk Group** page and click on **Add New** button. Then check on the trunk we've created.





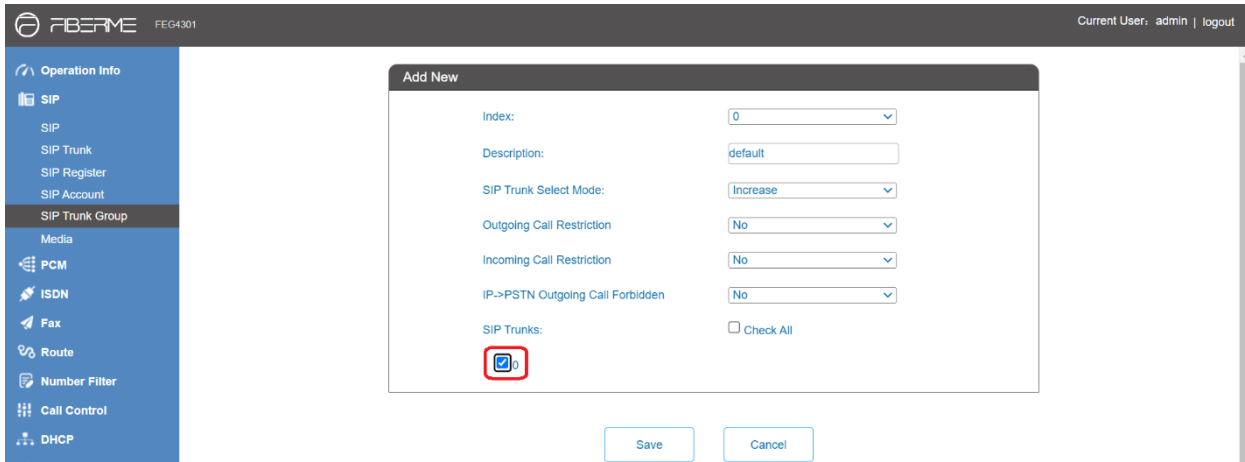


Figure 6: Connect FEG4301 with FCM630A: SIP Trunk Group

## Create PCM Trunk Group on FEG4301

1. On the FEG4301 web GUI, go to the **PCM->PCM Trunk Group** page and press “Add New”. Then, check mark on the PCM trunk.

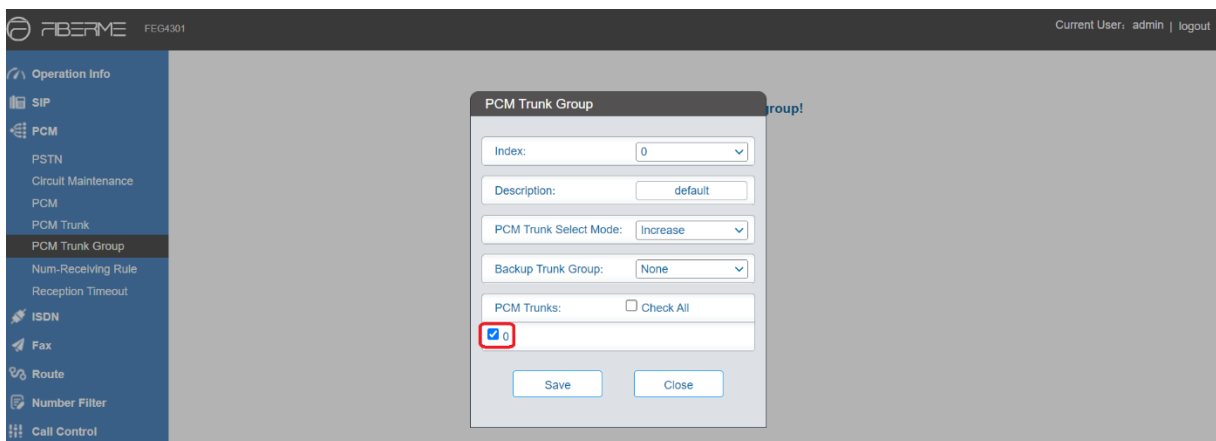


Figure 7: Create PCM Trunk Group on FEG4301



# FEG4301 CALL Routing

## Configure IP to PSTN on FEG4301

1. On the FEG4301 web GUI, go to the **Route-> IP->PSTN** page, Press “Add New”.

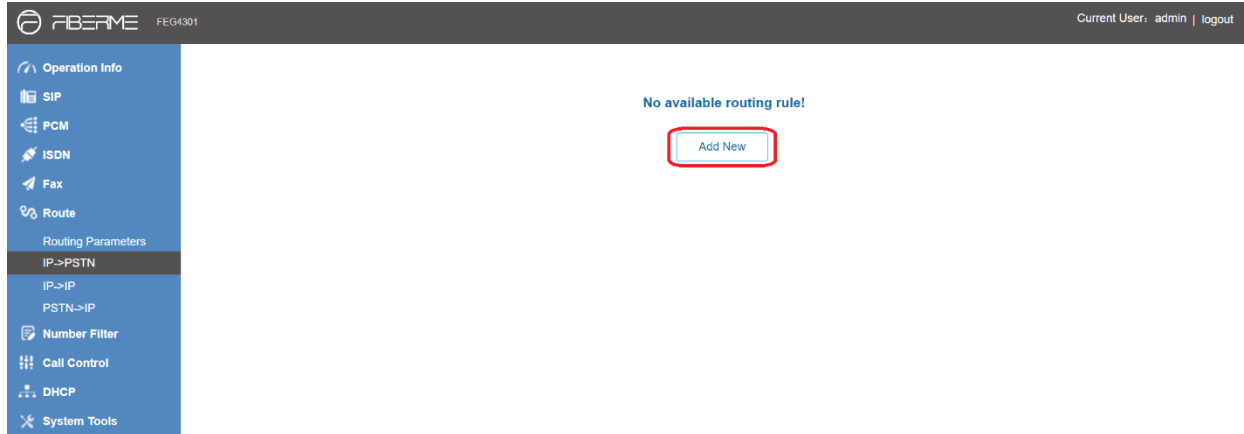


Figure 8: FEG4301 – IP to PSTN

2. Select the SIP Trunk Group in “Call Source” and the PCM Trunk Group in “Call Destination”.

The screenshot shows the 'IP->PSTN Routing Rule' configuration dialog box. It contains several fields: 'Index' (255), 'Call Source' (SIP Trunk Group [0]), 'CallerID Prefix' (\*), 'CalleeID Prefix' (\*), 'Call Destination' (PCM Trunk Group [0]), 'Number Filter' (none), and 'Description' (default). The 'Call Source' and 'Call Destination' dropdown menus are highlighted with red boxes. At the bottom are 'Save' and 'Close' buttons.

Figure 9: IP to PSTN Settings



## Configure PSTN to IP on FEG4301

1. On the FEG4301 web GUI, go to the **Route-> PSTN->IP** page, Press “Add New”.

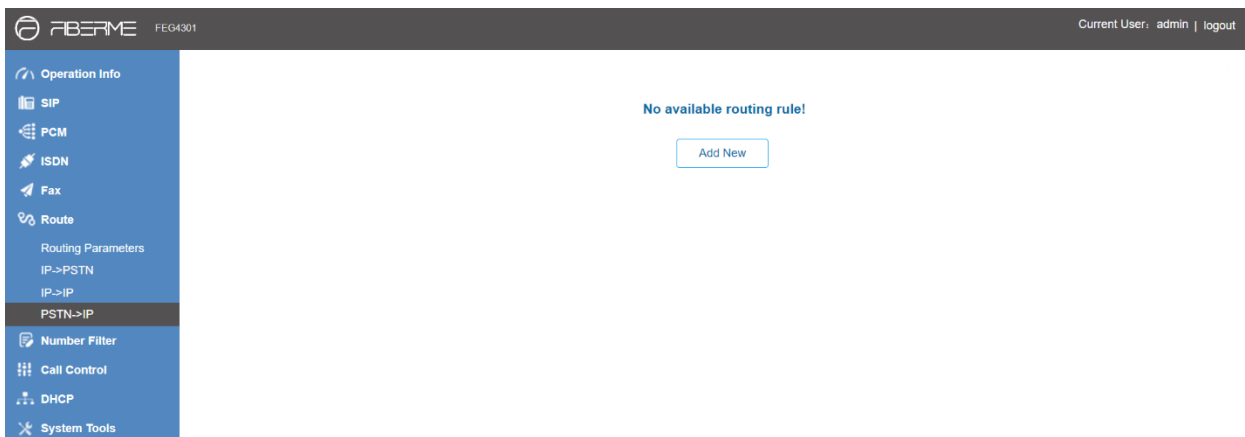


Figure 10: FEG4301 – PSTN to IP

2. Select the PCM Trunk Group in “Call Initiator” and the SIP Trunk Group in “Call Destination”.

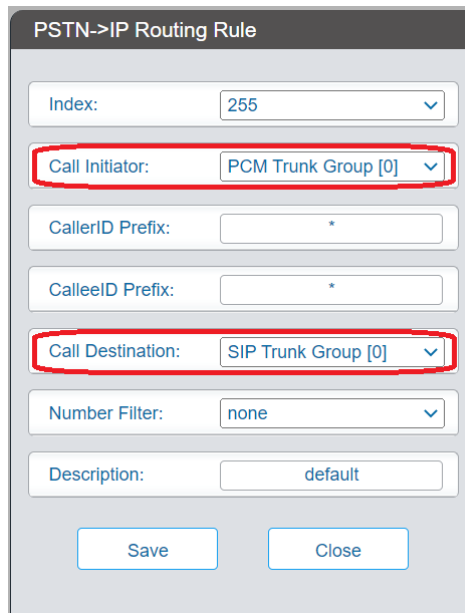
The screenshot shows a 'PSTN->IP Routing Rule' configuration window. It has several fields: 'Index' (255), 'Call Initiator' (PCM Trunk Group [0]), 'CallerID Prefix' (\*), 'CalleeID Prefix' (\*), 'Call Destination' (SIP Trunk Group [0]), 'Number Filter' (none), and 'Description' (default). The 'Call Initiator' and 'Call Destination' fields are highlighted with red rectangles. At the bottom, there are 'Save' and 'Close' buttons.

Figure 11: PSTN to IP Settings

