

Tech Bulletin 2011-004

IPitomy – Paetec SIP Provider Configuration

Description

This guide is intended to streamline the installation of Paetec SIP trunks in the IPitomy IP PBX.

Procedure – Add Provider

1. Navigate to the IPitomy IP PBX web interface as shown (usually 192.168.1.249/ippbx). (Your network may be different.) Under Providers select SIP Providers. The current Providers are listed—if this is the first, none will be listed here.

Add Provider

2. Select **Add Provider**
3. The screen at the right opens.
4. Input a name for this provider... we used "Paetec".
5. Match all of the fields as they are listed.
6. Your "HOST" may be different. It is provided by Paetec.
7. The Username and Secret are the Trunk Group ID provided by Paetec.
 - a. This number cannot be used in the DID number field... it is the lead (Pilot) number.
8. Input the Call Limit...based on the subscription. (Ours was "3")
9. Select a "Default Destination" from those available if so desired. If *None* is selected the destination of non-DID incoming calls on this carrier will route to the destination in Call Routing—Incoming.

Providers / SIP Providers

SIP Providers

- ▶ System
- ▼ Providers
- Hardware Trunks
- SIP Providers
- ▶ Destinations

Add Provider

Name	Action
ip400-130	

SIP Provider	
Name:	<input type="text" value="Paetec"/>
User Type:	<input type="text" value="peer"/>
DTMF Mode:	<input type="text" value="rfc2833"/>
RFC2833 Compensate:	<input type="text" value="Yes"/>
Host:	<input type="text" value="64.199.64.220"/>
Port:	<input checked="" type="radio"/> Default <input type="radio"/> Custom <input style="width: 100px;" type="text"/>
Register:	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Custom
Authentication:	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Custom <input style="width: 100px;" type="text"/>
Auth User:	<input checked="" type="radio"/> Default <input type="radio"/> Custom <input style="width: 100px;" type="text"/>
From User:	<input type="radio"/> Default <input checked="" type="radio"/> Custom <input style="width: 100px;" value="None"/>
From Domain:	<input checked="" type="radio"/> Default <input type="radio"/> Custom <input style="width: 100px;" type="text"/>
Realm:	<input checked="" type="radio"/> Default <input type="radio"/> Custom <input style="width: 100px;" type="text"/>
Outbound Proxy:	<input checked="" type="radio"/> Disabled <input type="radio"/> Enabled <input style="width: 100px;" type="text"/>
Username:	<input type="text" value="7133434377"/>
Secret:	<input type="text" value="7133434377"/>
Inbound Caller ID:	<input style="width: 100px;" type="text"/>
Outbound Caller ID Name:	<input type="text" value="IPitomy"/>
Outbound Caller ID Number:	<input style="width: 100px;" type="text"/>
Call Limit:	<input type="text" value="3"/>
Qualify:	<input type="text" value="30000"/>
Default Destination:	<input type="text" value="Menus"/> <input style="width: 50px;" type="text" value="Menu: Paul-Test"/> <input type="button" value="..."/>
Dial Prefix:	<input style="width: 100px;" type="text"/>
RTP Keep-alive:	<input style="width: 100px;" type="text"/>
Generate Ringing on outbound calls:	<input type="checkbox"/>

10. Check "Allow Outbound Caller to Transfer" ONLY if you wish for calls being placed over these trunks to be allowed to control the PBX.

TYPICALLY this is NOT checked!

11. Allow Call Recording is also optional.

12. Choose from the available CODECs and click **Add** to "Add" them.

Paetec's native CODEC is G.729. However they also support G.711u as a "fall-back".

13. Select each added CODEC and use the Up and Down buttons to position them to select the most desired first (top). Notice that the G.729 CODEC is on the top of our list... it will be the first CODEC protocol selected.

14. If there are DID (Direct Inward Dial) numbers to be assigned. Add these one at a time in the Phone Numbers field at the bottom.

a. Enter the number and then press the **Add** button.

b. Once added select that number and assign a destination using the drop-down.

Notice that the three test DID's we were assigned are listed in our table... we assigned the "7133434380" number to ring at extension 2233 using the Follow-Me Forward feature.

Note: It is not necessary to define the destination of the prime number (lead number) as this will follow the Default Destination OR Call Routing—Incoming destination if none is assigned here.

15. Don't forget to click **Save Changes**

if not saved, all the information on this page must be entered again.

Allow Outbound Caller to transfer:	<input type="checkbox"/>	Note: "Insecure" is a Protocol matching parameter and has nothing to do with this carriers security. (Set it to "Very")								
Allow Call Recording:	<input type="checkbox"/>									
Ext CID Override:	<input type="checkbox"/>									
Restrict CID Override:	<input type="checkbox"/>									
Can Reinvite:	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A									
Send Remote Party ID	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A									
Trust Remote Party ID:	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A									
Insecure:	Very									
Allow Codecs:										
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <div style="text-align: center; font-size: small;">Disabled</div> <div style="font-size: x-small;"> G.711 (alaw) G.723.1 G.726 iLBC Speex </div> </div> </td> <td style="width: 5%; border: none; text-align: center;"> <input type="button" value="Add"/> </td> <td style="width: 45%; border: none;"> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <div style="text-align: center; font-size: small;">Enabled</div> <div style="font-size: x-small;"> G.729 G.711 (ulaw) GSM </div> </div> </td> <td style="width: 10%; border: none; text-align: center;"> <input type="button" value="Up"/> <input type="button" value="Down"/> </td> </tr> <tr> <td colspan="2" style="border: none; text-align: center;"> <input type="button" value="Delete"/> </td> <td colspan="2" style="border: none;"></td> </tr> </table>			<div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <div style="text-align: center; font-size: small;">Disabled</div> <div style="font-size: x-small;"> G.711 (alaw) G.723.1 G.726 iLBC Speex </div> </div>	<input type="button" value="Add"/>	<div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <div style="text-align: center; font-size: small;">Enabled</div> <div style="font-size: x-small;"> G.729 G.711 (ulaw) GSM </div> </div>	<input type="button" value="Up"/> <input type="button" value="Down"/>	<input type="button" value="Delete"/>			
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<input type="button" value="Delete"/>										
Phone Numbers										
This section contains phone numbers, (sometimes called DIDs) associated with this provider.										
<table style="width: 100%; border: none;"> <tr> <td style="width: 40%; border: 1px solid gray; height: 40px;"></td> <td style="width: 20%; border: none;"> <div style="border: 1px solid gray; padding: 5px; font-size: x-small;"> 7133434378 7133434379 7133434380 </div> </td> <td style="width: 40%; border: none; text-align: right;"> <input type="button" value="Remove"/> </td> </tr> <tr> <td colspan="3" style="border: none; padding-top: 10px;"> <input type="button" value="Add"/> </td> </tr> </table>				<div style="border: 1px solid gray; padding: 5px; font-size: x-small;"> 7133434378 7133434379 7133434380 </div>	<input type="button" value="Remove"/>	<input type="button" value="Add"/>				
	<div style="border: 1px solid gray; padding: 5px; font-size: x-small;"> 7133434378 7133434379 7133434380 </div>	<input type="button" value="Remove"/>								
<input type="button" value="Add"/>										
Destination: Follow-Me: 2233		<input type="button" value="Set"/>								
<input type="button" value="Save Changes"/>										

Procedure—SIP (Global)

1. Navigate to the PBX Setup/SIP Setup page.

Note:

This is where “Global” settings are established. These settings are referenced whenever they are not specifically set in the SIP Provider definition—some are unique to this page and hence general to all SIP Providers.

2. The only item that we set in this area of system programming was the RTP Timeout. (In Advanced)
We set this to 120 seconds as a precaution to disconnect inactive calls with no voice traffic during a 2-minute period.

3. Don't forget to click

Save Changes

if not saved, the information on this page must be entered again.

The screenshot shows the 'SIP Setup' configuration page. On the left is a navigation menu with options: System, Providers, Destinations, Call Routing, PBX Setup (expanded to show General, Database, Voicemail, SIP, Prompts, Music On Hold, Feature Codes, Services), and Reporting. The main content area is titled 'SIP Networking Settings' and includes a section for 'Local Networks & Subnet M'. A table of settings is visible, with 'RTP Timeout' set to '120'. A yellow highlight is placed over the '120' value with the text 'RTP Timeout: 120'. Other settings include 'Relax Offer Handling' (Yes/No), 'RTP Keep-alive', 'RTP Timeout on Hold', and 'Trust Remote Party ID' (Yes/No/N/A). An 'Advanced' link is at the bottom.

Relax Offer Handling:	Yes <input type="radio"/> No <input type="radio"/>
RTP Keep-alive:	<input type="text"/>
RTP Timeout:	120
RTP Timeout on Hold:	<input type="text"/>
Trust Remote Party ID:	Yes <input type="radio"/> No <input type="radio"/> N/A <input type="radio"/>

External IP:

[Advanced](#)

Procedure—Call Routing-Outgoing


1. Navigate to the Call Routing/Outgoing page.
Note:
This is where user dialing strings are associated to trunks for use with what was dialed.
2. This may be an existing Outbound Route or new and specific for the trunk being added.
3. In this example the digits to be routed are those expected when calling international numbers.
...The dialed number will begin with "011" and then any digits...
In this digits-dialed-pattern Exact Length is set to "No".
4. Refer to the IPitomy 1100+ Manual for details on routing dialed digits.

<http://www.ipitomy.com/webrelease/IPitomy/IP1100+/IPitomy%20IP1100+%20Manual.pdf>

5. Notice that the added SIP Trunk (Provider) is now available for selection in the drop-down list.

6. Selected your added Provider (ours is Paetec) and clicked 

7. You must also click




before other changes to this trunk can be applied to the routing characteristics.

8. Notice that we placed this trunk at the top of the list for this dialing string. That means it will be selected first for calls placed with this digit string. (The trunks in "Boston" will be selected second.)

9. Here again reference the IPitomy 1100+ Manual for details on programming parameters.

10. When you're done, don't forget to click



...if not saved, the information on this page must be entered again.

Call Routing / Outgoing / Edit Outgoing Route

Edit Outgoing Route

<ul style="list-style-type: none"> ▶ System ▶ Providers ▶ Destinations ▼ Call Routing <ul style="list-style-type: none"> Incoming Outgoing Class Of Service ▶ PBX Setup ▶ Reporting 	<p>Edit Outbound Route</p> <p>Route Name <input type="text" value="Paetec"/></p> <p>Route Type <input type="text" value="Paetec"/></p> <hr/> <p>Start Pattern <input type="text" value="011X"/></p> <p>Digits <input type="text" value="4"/></p> <p>Exact Length <input type="text" value="No"/></p> <p>Subroute Digits <input type="text" value="0"/></p> <p>Subroute Offset <input type="text" value="0"/></p> <hr/> <p>Trunks: <input type="text" value="Paetec - Boston"/></p> <p style="text-align: right;">Strip Digits <input type="text" value="0"/></p> <p style="text-align: right;">Prefix Digits <input type="text"/></p> <p style="text-align: center;"> <input type="button" value="Up"/> <input type="button" value="Dn"/> <input type="button" value="Add"/> <input type="button" value="Delete"/> </p> <p style="text-align: right;"> <input type="text" value="Paetec"/> </p> <hr/> <p>Disable Ext CID Override <input type="text" value="no"/></p> <p>Force Use PSTN CID <input type="text" value="no"/></p> <p>Override Default CID(name) <input type="text" value="no"/></p> <p>Override CID Name <input type="text"/></p> <p>Override Default CID(number) <input type="text" value="no"/></p> <p>Override CID Number <input type="text"/></p> <p style="text-align: center;"><input type="button" value="Save Changes"/></p>
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Procedure—Class Of Service

- Navigate to the Call Routing/Class Of Service page.
Note:
This is where trunks are assigned as those allowed to be used by the various classes of service.
- ONLY if a NEW Outgoing Route was created is this step necessary. ...generally there are only a few Classes Of Service. In the picture below the test system COS "Paul Test" is shown. Notice that the newly created Outbound Route "Paetec" is listed here and selected from the drop-down list.
- Click **Add** to add this route to this COS.

Note:

This page does not have a **Save Changes** button.

ipitomy-main
Version: 4.0.7
IPitomy Testing
Logout | Apply Changes *Click Here*

Call Routing / Class Of Service

Class Of Service

- System
- Providers
- Destinations
- Call Routing
 - Incoming
 - Outgoing
 - Class Of Service
- PBX Setup
- Reporting

Class of Service: Paul Test

Paul Test **Rename**

Route	Action
Paetec	Add

Outbound Routes

Custom Routes

Procedure—Finalize

- When all changes are complete you MUST click **Apply Changes** to make the changes operational in the PBX.

Procedure—Test the Trunks

- At a telephone that is **registered** to the PBX, and a member of the **Class Of Service** programmed above, dial a number that matches the string input into **Call Routing—Outgoing**.
- This call should be connected using the SIP Provider you have just installed.

Congratulations! Your Paetec Trunks are now functional!

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