

Topic / Issue: Basic Quadro Configuration

Written By: Chris Pulsford

Configuring the LAN interface of the Quadro

The default IP address for Quadro IP PBX units is 172.30.0.1

Configure your local LAN IP address in your PC or Notebook to the same range as this IP.

(Suggest 172.30.0.5)

Then use Internet Explorer or Firefox to browse the Quadro IP PBX management interface.

By default the Administrators Username is admin and the Password is 19.

To configure the LAN interface of the Quadro, Select System Configuration Wizard from the System menu. This will open the System Configuration Wizard.

Give the Quadro a name, IP Address and Subnet Mask.

System Configuration Wizard

System Configuration

Host Name:

LAN IP Configuration:

IP Address:

Subnet Mask:

If you will use static IP addresses on your network, untick the Enable DHCP Server box. If you will use the Quadro as a DHCP server, specify the range of IP Addresses to be assigned.

System Configuration Wizard

DHCP Settings for the LAN Interface

Enable DHCP Server

IP Address Range: from to

WINS Server:

Select Australia from the list. This will apply the signalling settings used in the Australia telephone system. Select the Time zone. During Eastern Standard Time, this is GMT +10. During Daylight Savings this is GMT +11. This needs to be manually changed to switch between EST and Daylight savings.

System Configuration Wizard

Regional Settings and Preferences

Your locale (location):

Timezone:

Choose GUI theme

Plain

Dynamo

Set your Emergency Code to 000 for Australian emergency services. Set a PSTN Access Code to route calls over the PSTN. Selecting 0 will mean dialling 0 then the desired phone number.

System Configuration Wizard

Emergency Codes and PSTN Access Code Settings

Please enter all your Emergency Codes separated by commas and PSTN Access Code into following fields:

Emergency Codes:

PSTN Access Code:

Press Finish to save your settings. If you have changed the IP address on the Quadro then you will need to reset your IP address on your PC to match the new range then browse to the new address to continue.

System Configuration Wizard

Summary Page

All settings are done. By pressing 'Finish' you will

- save and activate all settings
- start the rollback feature

Depending on your IP settings it is possible that you cannot reach the device any more. You may have to reboot or reconfigure your PC.
ATTENTION: You have to confirm these settings on the main index page within 20 minutes. If not, the device will switch back to the previous configuration and reboot

Click on OK to confirm the new settings. If you don't click OK within 20 minutes, the Quadro will revert to its previous LAN interface settings.

[Home](#)

 **epygi**
quadro

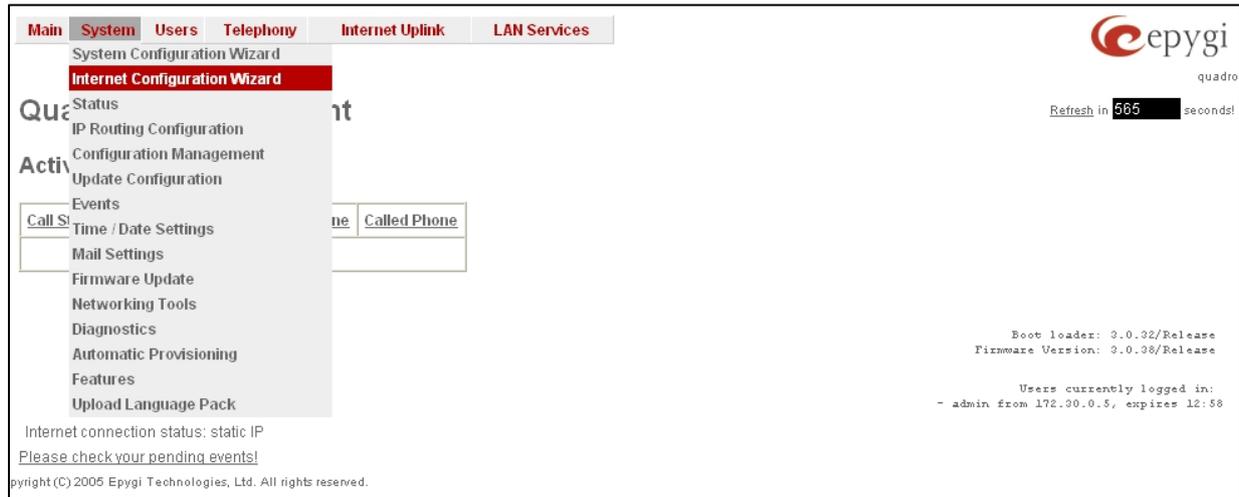
Confirm settings

Please press the 'Ok' button to confirm the settings.
If you don't press 'Ok' within 20 minutes after start the system restores the previous configuration

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Configuring the WAN interface of the Quadro

Select Internet Configuration Wizard from the System menu.



The screenshot shows the Quadro web interface. At the top, there are navigation tabs: Main, System, Users, Telephony, Internet Uplink, and LAN Services. The 'System' tab is active, and a dropdown menu is open, showing options like Status, IP Routing Configuration, Configuration Management, Update Configuration, Events, Time / Date Settings, Mail Settings, Firmware Update, Networking Tools, Diagnostics, Automatic Provisioning, Features, and Upload Language Pack. The 'Internet Configuration Wizard' option is highlighted in red. In the top right corner, the 'epygi' logo is visible, along with the text 'quadro' and a refresh timer set to 565 seconds. At the bottom right, there is system information: 'Boot loader: 3.0.32/Release', 'Firmware Version: 3.0.38/Release', and 'Users currently logged in: - admin from 172.30.0.5, expires 12:58'. At the bottom left, it says 'Internet connection status: static IP' and 'Please check your pending events!'. A copyright notice '(C) 2005 Epygi Technologies, Ltd. All rights reserved.' is at the very bottom.

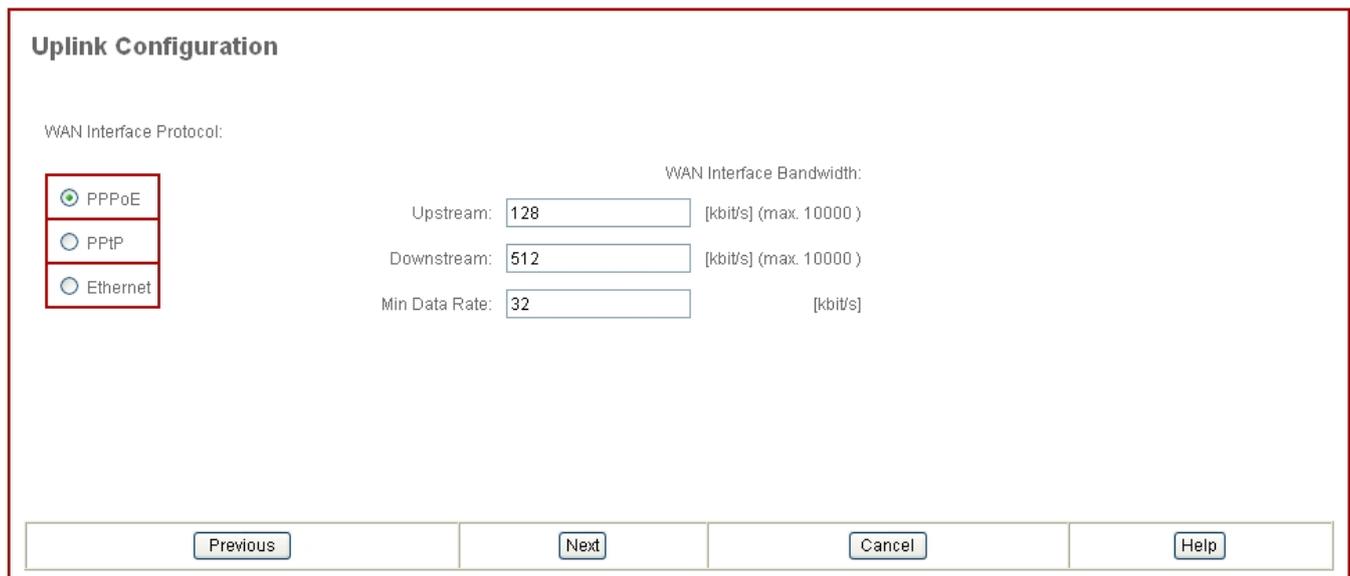
1. PPPoE mode Option

Select the protocol for the WAN interface. If you are connecting to the Internet via an ADSL modem, select PPPoE. If you are running the Quadro behind a router, select Ethernet mode (see next section). Set your Upstream and Downstream Bandwidth parameters according to your internet connection. Specify a Minimum Data Rate. The Quadro will provide basic Quality of Service (QoS) by prioritizing Voice traffic over Data traffic. Set a minimum data rate to ensure voice does not use all of the bandwidth, preventing data transfer.

Important:

Alloy recommend for ease of installation and best results that the Quadro IP PBX be used as the Internet Router. Any Modem / Routers installed with the Quadro should be configured as Modem only (Bridging). The Quadro IP PBX should have the public IP on its WAN interface not the modem.

Internet Configuration Wizard



The screenshot shows the 'Uplink Configuration' wizard screen. It has a title 'Uplink Configuration' and a subtitle 'WAN Interface Protocol:'. There are three radio button options: 'PPPoE' (selected), 'PPIP', and 'Ethernet'. To the right, there are input fields for 'WAN Interface Bandwidth:'. The 'Upstream' field is set to '128' [kbit/s] (max. 10000). The 'Downstream' field is set to '512' [kbit/s] (max. 10000). The 'Min Data Rate' field is set to '32' [kbit/s]. At the bottom, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

Enter the IP Address provided by your ISP if you have a static address, or leave Dynamic IP Address selected if your ISP uses dynamic addressing.

Internet Configuration Wizard

PPP Configuration

IP Address Assignment

<input checked="" type="radio"/> Dynamic IP Address	
<input type="radio"/> Fixed IP Address	Fixed IP Address: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="button" value="IP-Clipboard"/>

If your ISP has provided a MAC Address for authentication purposes, enter it here (this is not common) otherwise leave the default MAC address selected. You can select the packet size here if your Internet connection does not support the default maximum size.

Internet Configuration Wizard

WAN Interface Configuration

MAC Address Assignment

<input checked="" type="radio"/> This device:	00:09:bd:01:14:86
<input type="radio"/> User defined:	<input type="text"/> 00 <input type="text"/> 00 <input type="text"/> 8c <input type="text"/> 01 <input type="text"/> 05 <input type="text"/> d5

Maximum Transfer Unit (MTU)

MTU: Bytes

If your ISP provided static IP Addresses of DNS servers enter them here. If your ISP uses dynamic DNS Servers, select the Dynamically by provider option.

Internet Configuration Wizard

DNS Settings

Nameserver assignment

<input type="radio"/> Dynamically by provider	
<input checked="" type="radio"/> Fixed Nameserver Address	Nameserver: <input type="text" value="202"/> <input type="text" value="45"/> <input type="text" value="198"/> <input type="text" value="150"/> <input type="button" value="IP-Clipboard"/>
	Alternative Nameserver: <input type="text" value="203"/> <input type="text" value="35"/> <input type="text" value="26"/> <input type="text" value="154"/> <input type="button" value="IP-Clipboard"/>

Enter your account username and password supplied by your ISP.

Internet Configuration Wizard

ISP Authentication Settings

Authentication Settings:

User name:

User password:

Select Always Connected. To keep the connection alive by sending control packets to verify the link state, tick the **Keep Connection Alive** tickbox.

Internet Configuration Wizard

PPP Dial Settings

Dial behaviour

<input type="radio"/> Dial manually
<input checked="" type="radio"/> Always connected

Keep connection alive

Click finish to complete the configuration of the WAN interface

Internet Configuration Wizard

Summary Page

All settings are done. By pressing 'Finish' you will

- save and activate all settings
- start the rollback feature

Depending on your IP settings it is possible that you cannot reach the device any more. You may have to reboot or reconfigure your PC.
ATTENTION: You have to confirm these settings on the main index page within 20 minutes. If not, the device will switch back to the previous configuration and reboot

Click OK to confirm the settings. If you don't click OK within 20 minutes, the previous configuration is restored.

[Home](#)

Confirm settings

Please press the 'Ok' button to confirm the settings.
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2. Ethernet mode Option

Select Ethernet mode when running the Quadro behind a router. Set the Upstream / Downstream Bandwidth parameters according to your internet connection. Specify a Minimum Data Rate. The Quadro will provide basic Quality of Service (QoS) by prioritising Voice traffic over Data traffic. Set a minimum data rate to ensure voice does not use all of the bandwidth, preventing data transfer.

Internet Configuration Wizard

Uplink Configuration

WAN Interface Protocol:

PPPoE
 PPTP
 Ethernet

WAN Interface Bandwidth:

Upstream: [kbit/s] (max. 10000)
Downstream: [kbit/s] (max. 10000)
Min Data Rate: [kbit/s]

If your IP Address is provided dynamically by your Router (or server), leave this option selected, otherwise select Assign Manually and enter a static IP Address. Specify the LAN IP address of the Router as the Default Gateway.

Internet Configuration Wizard

WAN IP Configuration

IP configuration of the WAN interface

<input type="radio"/> Assign automatically via DHCP	
<input checked="" type="radio"/> Assign manually	IP Address: 203 63 28 211 <input type="button" value="IP-Clipboard"/>
	Subnet Mask: 255 255 255 0 <input type="button" value="IP-Clipboard"/>
	Default Gateway: 203 63 28 1 <input type="button" value="IP-Clipboard"/>

The MAC Address used on the Quadro WAN can be changed but normally would be left as default. You can select the packet size here if your Internet connection does not support the default maximum size.

Internet Configuration Wizard

WAN Interface Configuration

MAC Address Assignment

<input checked="" type="radio"/> This device:	00:09:bd:01:14:86
<input type="radio"/> User defined:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

Maximum Transfer Unit (MTU)

MTU: 1500 Bytes

Some networks will dynamically provide DNS information. If not enter them here.

Internet Configuration Wizard

DNS Settings

Nameserver assignment

<input type="radio"/> Dynamically by provider	
<input checked="" type="radio"/> Fixed Nameserver Address	Nameserver: 203 63 28 229 <input type="button" value="IP-Clipboard"/>
	Alternative Nameserver: 203 63 28 230 <input type="button" value="IP-Clipboard"/>

Click finish to complete the configuration of the WAN interface

Internet Configuration Wizard

Summary Page

All settings are done. By pressing 'Finish' you will

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- start the rollback feature

Depending on your IP settings it is possible that you cannot reach the device any more. You may have to reboot or reconfigure your PC.
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Important Information for Configuration behind existing Routers and Firewalls.

To achieve basic internet connectivity behind an Existing Router (NAT or Routing) you will need to expose several port ranges, and if in NAT mode Port Forward these to the Private WAN IP of the Quadro.

We have listed the basic ports required.
(for more complex configuration these may need to be expanded on)

Protocol	Port Range
TCP (SIP)	5060
UDP (SIP)	5060
UDP (STUN)	4569
UDP (STUN)	3478-3479
TCP (STUN)	3478-3479
UDP (RTP)	6000-6100

Status Information

Internet connection status: static IP
[Please check your pending events!](#)

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After configuring the LAN and WAN interfaces of the Quadro, you can check the status by selecting Status from the System menu.

This will tell you if the interfaces are connected. If both WAN and LAN are correctly configured and connected, there should be an entry for each in the Interfaces table.

Quadro Status - Network Status

[General Information](#) **Interfaces**

Network Status

[Lines Status](#)

[Memory Status](#)

[Hardware Status](#)

[SIP Registration Status](#)

Interface name	IP address	Subnet Mask	Properties	Monitor
LAN	172.30.0.1	255.255.0.0	MAC: 00-09-BD-01-14-85	Watch LAN
WAN	203.33.178.210	255.255.255.0	MAC: 00-09-BD-01-14-86	Watch WAN

Default Gateway: 203.33.178.131

DNS Server: 203.33.178.129

Alternative DNS Server: 203.33.178.130

Quadro Status - SIP Registration Status

[General Information](#)

[Network Status](#)

[Lines Status](#)

[Memory Status](#)

[Hardware Status](#)

SIP Registration Status

Extension	Reg. Name	Server	Registered	Registration Time
00	77078900	sip.epygi.com	Yes	28-Nov-2005 12:55:16
34	77078934	sip.epygi.com	Yes	28-Nov-2005 12:55:15
33	77078933	sip.epygi.com	Yes	28-Nov-2005 12:55:14
32	77078932	sip.epygi.com	Yes	28-Nov-2005 12:55:13
31	77078931	sip.epygi.com	Yes	28-Nov-2005 12:55:12
14	77078914	sip.epygi.com	Yes	28-Nov-2005 12:55:12
13	77078913	sip.epygi.com	Yes	28-Nov-2005 12:55:10
12	77078912	sip.epygi.com	Yes	28-Nov-2005 12:55:09
11	77078911	sip.epygi.com	Yes	28-Nov-2005 12:55:08

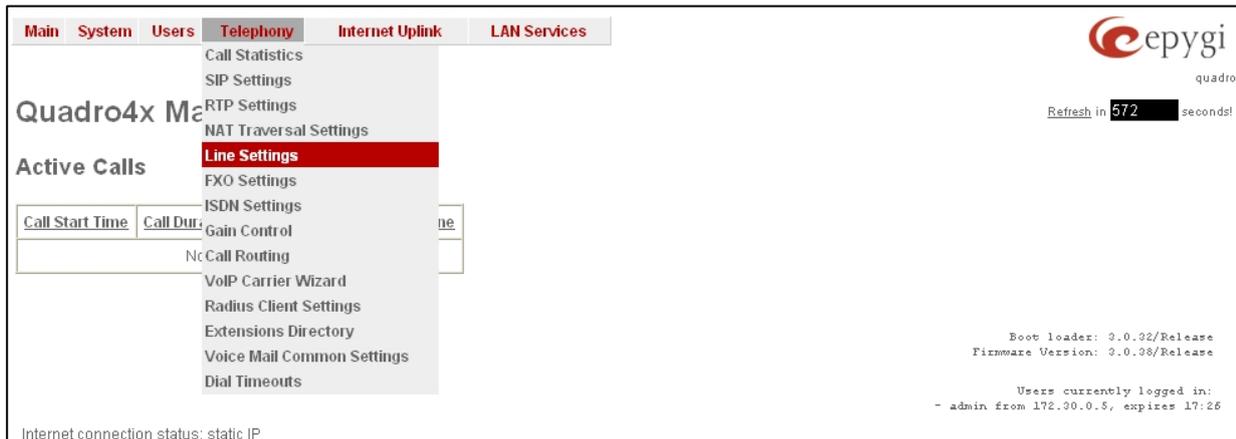
Detected connection type: Open Internet (external IP: 203.33.178.210:5060).

In the SIP Registration Status page, you can check that the Quadro is registered to the Epygi SIP Server. Once connected to the internet, this should be automatic. As ITSP accounts are created, the Quadro will automatically register with the SIP Servers of the ITSPs.

(Please allow a few minutes)

Configuring IP Lines

Select Line Settings from the Telephony menu.



The screenshot shows the Quadro4x Manager web interface. At the top, there are navigation tabs: Main, System, Users, Telephony (selected), Internet Uplink, and LAN Services. The 'Telephony' menu is open, showing options: Call Statistics, SIP Settings, RTP Settings, NAT Traversal Settings, Line Settings (highlighted in red), FXO Settings, ISDN Settings, Gain Control, No Call Routing, VoIP Carrier Wizard, Radius Client Settings, Extensions Directory, Voice Mail Common Settings, and Dial Timeouts. The main content area displays 'Quadro4x Manager' and 'Active Calls' with a table for call details. The top right corner features the 'epygi' logo and 'quadro' text, along with a 'Refresh in 572 seconds!' indicator. The bottom right corner shows system information: 'Boot loader: 3.0.32/Release', 'Firmware Version: 3.0.38/Release', and 'Users currently logged in: - admin from 192.30.0.5, expires 17:26'. The bottom left corner indicates 'Internet connection status: static IP'.

Analogue phones directly connected to the FXS (phone) ports on the Quadro should not need any configuration. Click on IP Line Settings to configure Lines for attached IP Phones. For each IP extension that will be used (Attached Extension column) the corresponding IP line must be enabled. Click on Line 1 to enable a line for Extension 31.

Line Settings

[Onboard Line Settings](#) [IP Line Settings](#)

<u>Available IP Lines</u>	<u>Attached Extension</u>	<u>Type</u>	<u>Details</u>
IP Line 1	31	Inactive	
IP Line 2	32	Inactive	
IP Line 3	33	Inactive	
IP Line 4	34	Inactive	
IP Line 5 (disabled)	35	Inactive	
IP Line 6 (disabled)	36	Inactive	

Select SIP phone to configure the line as attach to an IP phone supporting the SIP protocol. Set the Line appearance value to the number of calls that can be presented to the SIP phone. If greater than 1, simultaneous calls will be presented as Ring and not necessarily go to voice mail as a Busy.

IP Line Settings - IP Line 1

<input checked="" type="radio"/> Inactive	
<input type="radio"/> MGCP Phone	IP Address: <input type="text"/> . <input type="text"/> . <input type="text"/> . <input type="text"/> <input type="button" value="IP-Clipboard"/> Gateway Name: <input type="text"/> Endpoint Name: <input type="text" value="aaln/1"/>
<input type="radio"/> SIP Phone	Line Appearance: <input type="text" value="2"/> Username: <input type="text"/> <input type="button" value="SIP-Clipboard"/> Password: <input type="text" value="....."/>

The Username and Password is used to authenticate the IP phone or Soft-phone that connects to this Extension.

Configuring the Extensions

Select User Management and Extension Settings from the Users menu.

Main	System	Users	Telephony	Internet Uplink	LAN Services
User Management and Extension Settings					
Change Admin Password					
<h2>Quadro4x Management</h2>					
<h3>Active Calls</h3>					
<u>Call Start Time</u>	<u>Call Duration</u>	<u>Calling Phone</u>	<u>Called Phone</u>		
No items in list.					

Tick the box of the extension you want to configure and click Edit. Analogue extensions start at 11 and IP extensions start at 31.

User Management

[Add](#) [Edit](#) [Delete](#) [Select all](#) [Inverse Selection](#)

	Extension	Display Name	Attached Line	SIP Address	Percentage of System Memory	Call Relay	Codecs
	00	Attendant		77078900@sip.epygi.com:5060	3% (5 min 53 sec)		PCMU...
<input type="checkbox"/>	11		Line 1	77078911@sip.epygi.com:5060	4% (7 min 51 sec)	No	G726-32...
<input type="checkbox"/>	12		Line 2	77078912@sip.epygi.com:5060	4% (7 min 51 sec)	No	G726-32...
<input type="checkbox"/>	13		Line 3	77078913@sip.epygi.com:5060	4% (7 min 51 sec)	No	G726-32...
<input type="checkbox"/>	14		Line 4	77078914@sip.epygi.com:5060	4% (7 min 51 sec)	No	PCMU...
<input checked="" type="checkbox"/>	31	31	IP Line 1	77078931@sip.epygi.com:5060	4% (7 min 51 sec)	No	G726-32...
<input type="checkbox"/>	32	32	IP Line 2	77078932@sip.epygi.com:5060	4% (7 min 51 sec)	No	G726-32...
<input type="checkbox"/>	33	33	IP Line 3	77078933@sip.epygi.com:5060	4% (7 min 51 sec)	No	G726-32...
<input type="checkbox"/>	34	34	IP Line 4	77078934@sip.epygi.com:5060	4% (7 min 51 sec)	No	G726-32...

Give each extension that is to be used a display name. This is used to identify extensions in the management interface. The Password is used to restrict access to the users Voice Mail and other Extension Features.

User Management - Edit Entry

Extension Settings

Extension

Display Name

Password

Confirm Password

Attached Line ▼

Allow Call Relay

Use for Call Park

Configuration summary:

Once you have configured the above settings and attached an IP Phone. You should be able to:

- A) Make extension to extension calls
- B) Making and receiving SIP calls to/from other Quadro's via Epygi's SIP Server
- C) If a PSTN connection exists – Make and receive PSTN via the External Line Prefix
- D) Connect to the Epygi test service. (Dial 899 for Epygi in the United States)

Also Try:

- 1) Dial 00 for the Auto Attendant
- 2) Dial *0 for your Voice Mailbox
- 3) Dial *74 for IP line Settings

NOTE: For more in-depth configuration of Both Aastra and Snom IP phones, see Aastra and Snom "Configuration with Epygi IP PBX" support page.