



Quadro^{CS}

The Conference Server



Manual I:
Installation Guide
for QuadroCS, SW-Version 3.1.x

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The Epygi Quadro has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which is found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the aforementioned measures.

Electrical Safety Advisory

To reduce the risk of damaging power surges, we recommend you install a quality AC surge suppressor in the AC outlet from which the Quadro is powered.

Industry Canada Statement

This product meets the applicable Industry Canada technical specifications.

Safety Information

Before using the Quadro, please review and ensure the following safety instructions are adhered to:

- To prevent fire or shock hazard, do not expose your Quadro to rain or moisture.
- To avoid electrical shock, do not open the Quadro. Refer servicing to qualified personnel only.
- Never install wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specified for wet locations.
- Never touch un-insulated telephone wire or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying cable or telephone lines.
- Avoid using your Quadro during an electrical storm.
- Do not use your Quadro or telephone to report a gas leak in the vicinity of the leak.
- An electrical outlet should be as close as possible to the unit and easily accessible.

Emergency Services

The Quadro SIP Services are intended to function as a secondary telephone service. These services are made available through the Internet and therefore are dependent upon a constant source of electricity and network availability. In the event of a power outage, the Quadro SIP Service will automatically be disabled. User understands that in the event of a power or network outage, the Quadro SIP Service will not support 911 emergency services and further that such services will only be available via the user's regular telephone line not connected to the Quadro. User further acknowledges that any interruption in the supply or delivery of electricity or network availability is beyond Epygi's control and that Epygi shall have no responsibility for losses arising from such interruption.

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Manual II: see Administrator's Guide

Describes detailed all the menus available for administrators only

Manual III: see Moderator's Guide

Describes detailed all the menus available for moderators and further, it includes all the call codes at a glance

About This Installation Guide

This Installation Guide explains the installation and basic configuration of the QuadroCS Conference Server. It gives step-by-step instructions to connect the device properly to the Internet and to attach a PC for administration and configuration. It also describes the basic configuration of a conference.

[Step 1: Installing the QuadroCS](#) explains connection of cables and devices to the QuadroCS.

[Step 2: Configuring the QuadroCS](#) describes the configuration steps necessary to integrate the QuadroCS into your network environment.

Please Note: The QuadroCS configuration described in this Installation Guide explains basic networking configurations. For more complex network environments, please refer to the QuadroCS Administrator's Manual.

[Step 3: Registering on Epygi's Technical Support](#)

Before a QuadroCS conference can be registered on the Epygi SIP server, you must be registered with Epygi Technical Support. This section shows you how to gain access to the Epygi Technical Support Center and the Epygi SIP Server. If no SIP registration is needed, skip to Step 5.

[Step 4: Registering a Conference on Epygi's SIP Server](#) explains how to register a SIP conference.

[Step 5: Configuring a Conference on the QuadroCS](#) describes how a conference is set up on the QuadroCS

[Appendix: PC DHCP Settings](#) explains how to configure your PC to access the QuadroCS configuration GUI.

[Appendix: Changing the Admin Password](#) explains how to change the default administrator password.

Requirements

- One 120/240 VAC power outlet in close proximity to the Quadro.
- One RJ-45 Ethernet 10/100 broadband Internet connection.
- One CAT 5 Ethernet cable with an RJ-45 connector to connect to the Quadro LAN port
- One PC with a 10Mbps or a 10/100 Mbit/s Ethernet card or adapter installed.
- TCP/IP network protocol installed on each PC.
- For optimal results, Internet Explorer 5.5 or higher, or Netscape Navigator 4.7 or higher are recommended.

Please Note: The QuadroCS is shipped with one straight RJ-45 CAT 5 cable. If the LAN connector of the QuadroCS is to be connected to a hub or switch, a crossover cable may be required.

Hardware Overview

QuadroCS Rear Panel

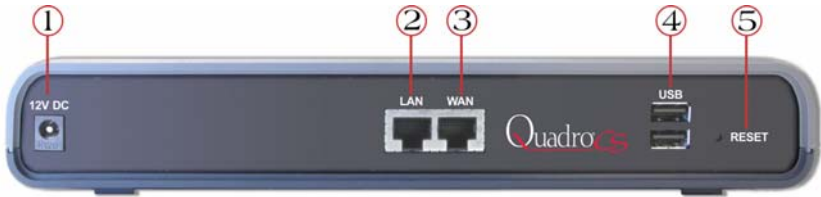


Fig. I-1: QuadroCS Rear Panels

- 1 Power socket. **Use only the power adapter delivered with the QuadroCS.**
- 2 RJ-45 socket to attach the Local Area Network (LAN) via an Ethernet CAT 5 cable. If a PC is connected directly to this socket, a straight cable is used. If an Ethernet hub, router or switch is used, a crossover cable may be required.
- 3 RJ-45 socket to attach the Internet Uplink (WAN) via an Ethernet CAT 5 cable.
- 4 The USB socket enables connectivity of USB flash memory providing additional storage space for recorded conferences. Refer to the Administrator Manual for supported devices.
- 5 The Reset button may be used in two ways: (1) to initiate a normal reset, (2) or a factory reset. A normal reset is executed by pressing the Reset button with a paper clip for an instant.

Pressing the reset button and holding it down for 7 seconds or more will execute a factory reset. This will restore the factory defaults and clear all settings including the IP address and the administration password you entered.

Please Note: A Factory Reset forces the default LAN IP address of 172.30.0.1 and default administrator password of 19.

QuadroCS Front Panel LEDs



Fig. I-2:QuadroCS Front Panel LEDs

1	Busy green Status of CPU	off: No power on or blinking: Normal activity
2	Info yellow System information	on: device is booting off: no information blinking: an event occurred, details specified in the System Event section of the Management interface
3	Fault red System status	on device is booting/ error off: no error blinking: system unusable
4	USB green Status of the USB interface	on: USB memory device installed correctly off: No USB memory device found
5	LAN green Status of the LAN interface	on: link ok off: no link flickering: traffic on the link
6	WAN green Status of the WAN interface	on: link ok off: no link flickering: traffic on the link
7	green	not used
8	green	not used

LED Indication during a firmware update

A firmware update is indicated by the red (**Fault**) and yellow (**Info**) LED. Both will blink simultaneously for about five minutes while the firmware is updated. The QuadroCS will then re-boot automatically showing the boot LED sequence.

LED Indication during a boot sequence

A boot sequence is indicated as follows: The red **Fault** LED will glow for a few seconds, then the yellow **Info** LED will glow for another four or five minutes while the green **Busy** LED is blinking. Once the **Info** LED is off, the boot sequence has been completed successfully.

Step 1: Installing the QuadroCS

Networking Overview

To establish a connection between the Internet and your local area network (LAN), a separate access router is needed. The Quadro products are an excellent choice for this function. The QuadroCS can serve as an access router for a single PC used during configuration, but it is not recommended to be used as the primary Internet access router for your company's LAN. The QuadroCS has one LAN port that can be connected to Ethernet hubs and switches on the LAN allowing more devices to reach the QuadroCS for configuration.

Every device within an IP network requires a unique IP address to identify itself. Since the QuadroCS connects to both the LAN and the WAN, it has to be part of both networks, and must have two IP addresses: one for the WAN side and one for the LAN side. The QuadroCS's integrated firewall/NAT functionality will hide the LAN IP address from the WAN (Internet) side.

There are two ways of assigning an IP address: statically or dynamically. The Quadro CS can be configured with a static IP address on the WAN interface. You also can use a DHCP server-assigned IP address on the WAN side.

Please Note: A DHCP client is a piece of software that requests an IP address from a DHCP server. A DHCP server assigns on request a unique IP address to a device. The Quadro, like many routers, acts as a DHCP client on its WAN interface and as a DHCP server on its LAN interface.

The QuadroCS must be visible to the Internet to receive and send VoIP calls. When the QuadroCS is placed in a private network, typically behind existing routers, it will by default attempt to pass through the NAT of this router with its STUN (Simple Traversal of UDP over NAT) feature. STUN will work without user configuration with the majority of the basic routers. In some scenarios, port forwarding on the router is required to make the QuadroCS accessible to other Quadro devices and the Epygi SIP Server on the Internet. The recommended configuration option is to connect the QuadroCS directly to the Internet eliminating the need to traverse the local NAT firewall.

WAN Connection Options

- **QuadroCS behind a router, which is connected to a cable or DSL modem.**

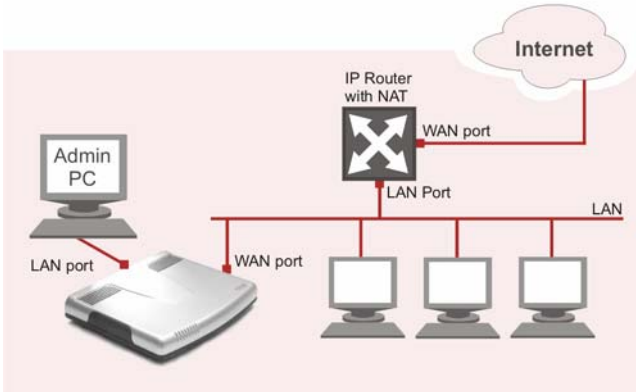


Fig. I-3: Configuration: QuadroCS behind a router

In this configuration, the IP router typically acts as a DHCP server for the LAN and assigns the IP addresses to the PCs and other devices. The Quadro can be connected through its WAN port directly to one of the router's LAN ports and will get an IP address from the router. By default, the Quadro acts as a DHCP client on the WAN port.

Please Note: Since Quadro uses STUN by default, it will work with most basic routers without any further configuration.

Please Note: Initially, the Admin PC must be connected to the QuadroCS's LAN port to access Web Management of the QuadroCS. Later, this PC can be moved to the router's LAN. The QuadroCS Web Management can be accessed from any PC in the router LAN after the Quadro firewall is disabled.

- **QuadroCS connected directly to the Internet**

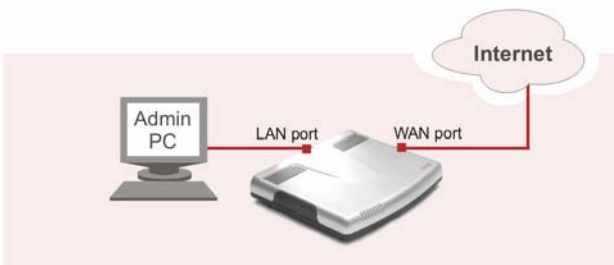


Fig. I-4: Configuration: QuadroCS connected directly to the Internet

Connecting the Hardware

- **QuadroCS behind a router**

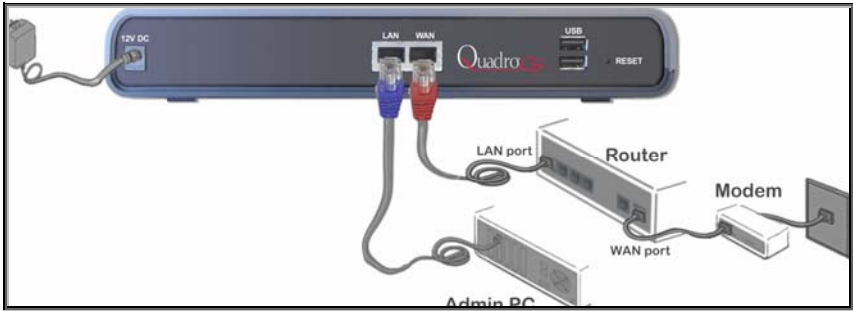


Fig. I-5: Installation: QuadroCS behind a router

- **QuadroCS directly connected to the Internet**

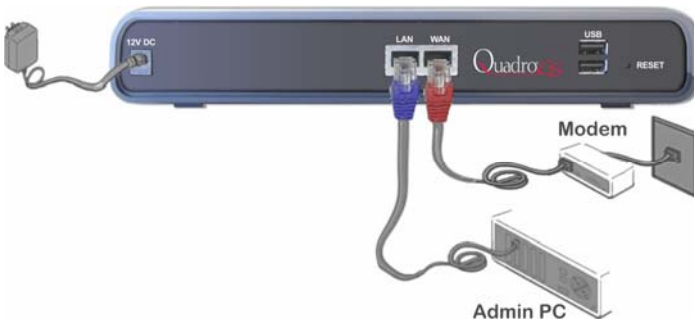


Fig. I-6: Installation: QuadroCS directly connected to the Internet

- Verify the product package contents are complete. Refer to the contents sheet included in the packaging to determine if all the items were shipped in the box.
- Before you connect the hardware, make sure that all devices are powered off.
- Connect the Ethernet port on your PC via a straight CAT 5 cable with an RJ-45 connector to the LAN socket of the Quadro. If a hub or switch is connected between the QuadroCS and your PC, use a crossover cable from the LAN interface of the QuadroCS to the hub/switch.
- Connect the WAN port of the QuadroCS to the Internet service.
- Connect the power adapter to the POWER port on the QuadroCS's rear panel and plug the power adapter into a power outlet. Only use the original power adapter and plug it into a power strip with surge protection or to a UPS if available.

The red LED (Fault) will glow for several seconds followed by the yellow LED (Info), which will glow for several minutes. As soon as Info is off, the QuadroCS is operational. Power up any PC on the LAN side.

Please Note: The PC must be configured for DHCP to receive an IP address directly from the QuadroCS. Refer to the first Appendix for instructions on how to set up a PC for DHCP operation.

- Check the LEDs: The green Busy LED must glow continuously. The green LAN and WAN LEDs will blink when cables are connected to these ports and all devices are powered up. If the green LAN and WAN LEDs do not blink, verify cabling and ensure that all devices are powered up.

Please Note: CAT 5 cables can be faulty without visual indication. The LAN and WAN LEDs verify that the Ethernet connection is established between the end points. If these LEDs are not illuminated, there is a connection problem between the QuadroCS and the other device. Some hubs, switches and routers will require the use of crossover cables.

Step 2: Configuring the QuadroCS

The QuadroCS does not require further network configuration in two cases:

- **The QuadroCS is connected behind a basic router that is compatible with the QuadroCS's implementation of STUN**
- **The QuadroCS is connected directly to the Internet and your ISP supports DHCP.** There are no other router devices between the QuadroCS and the DSL or cable modem and you get the IP address assigned automatically by the ISP.

Your QuadroCS is now connected properly to the Internet. You may customize the following settings

- **LAN Settings** - if you want to enter a unique name for the QuadroCS
- **Regional Settings** it is important that you properly configure your country and time zone settings.
- **WAN IP Settings**
If your WAN uplink is static IP or DHCP you will need to know whether DHCP is supported or not.
If DHCP is not supported, you need to know the WAN IP address, the subnet mask, the IP address of the default gateway and the IP address of the Domain Name Server (DNS).
Your ISP should have provided you with this information when you installed your Internet access. Otherwise, you will need to contact your ISP to request it.
- **Firewall** - if your QuadroCS is connected behind a router, disable the QuadroCS's firewall to make it easily accessible for management.

To customize the settings, connect a PC to the QuadroCS's LAN port, log in and complete the Basic Configuration as described in step 2.1 and 2.2.

Step 2.1: Logging in to QuadroCS

- Start a browser (MS Internet Explorer, Netscape, Opera) on a PC connected to the LAN port.
- Enter **http://172.30.0.1** (QuadroCS's default LAN IP address) into the address field.
- The **Login** page of the QuadroCS will be displayed (see picture below).



Fig. I-7: Login page

Enter **admin** as the Username and **19** as the Password to log in as the administrator. Once you log in, you will enter into the QuadroCS Conference Server Menu.

Please Note: If you enter a wrong password and/or username five times, the device will be unavailable for login for five minutes.

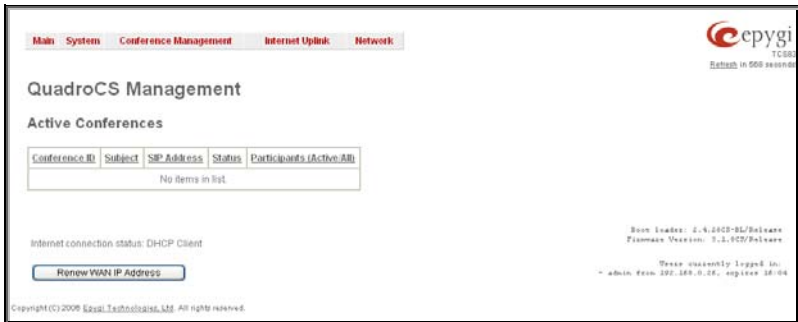


Fig. I-8:Conference Server Management page

Step 2.2: System Configuration Wizard

Select the **System Configuration Wizard** from the **System** menu. The **System Configuration Wizard** is a tool for the administrator to define the Quadro's Local Area Network settings and to specify regional configuration settings to make Quadro operational in its LAN. **The System Configuration Wizard must be run upon Quadro first startup.**

For the basic configuration, some pages in this wizard may be skipped and left default for the basic configuration.

Please Note: It is strongly recommended that factory default settings are left unchanged if their meanings are not completely understandable to the party administering the Quadro.

System Configuration

The first page of System Configuration Wizard shows all items to be configured. Click the **Next** button to start. Enter into the **Host Name** field the unique name (top right corner, under Epygi logo) for the Quadro device.

For a basic configuration, the **LAN IP address** does not need to be changed, but if you must change it (for example, to integrate the device into an existing LAN), record the new LAN IP address and have it handy. You'll need it for subsequent access to Quadro's management.

Please Note: The **Host Name** is very useful when many Quadro's are part of a network and one administrator has remote access to all of them. All Quadro pages show the host-name on the top right corner under Epygi logo.

The screenshot shows the 'System Configuration Wizard' interface. At the top, there are navigation tabs: 'Main', 'System', 'Conference Management', 'Internet Upload', and 'Network'. The 'System' tab is selected. The Epygi logo is in the top right corner. The main content area is titled 'System Configuration Wizard' and contains a section for 'System Configuration'. This section includes a 'Host Name' field with the value 'CB18'. Below it is the 'LAN IP Configuration' section, which has two rows: 'IP Address' with values 172, 30, 18, 1 and an 'IP-Clipboard' button; and 'Subnet Mask' with values 255, 255, 255, 0 and an 'IP-Clipboard' button. At the bottom of the form are four buttons: 'Previous', 'Next', 'Cancel', and 'Help'. A small copyright notice is visible at the very bottom of the window.

Fig. I-9: System Configuration page

Clicking **Next** shows the page **DHCP Settings for the LAN Interface**.

DHCP Settings for the LAN Interface

If the DHCP server is enabled, the Quadro will automatically assign dynamic IP addresses to the stations connected to its LAN port.

If you didn't change the default LAN IP address of the Quadro, you also may leave the default values for the **IP Address Range**. Make sure your connected LAN devices belong to the same network as the LAN port of your Quadro.

Please Note: Make sure there is only one DHCP server on the LAN, otherwise, unpredictable network behavior can occur.

The screenshot shows the 'System Configuration Wizard' interface for 'DHCP Settings for the LAN interface'. At the top, there are navigation tabs: 'Main', 'System', 'Conference Management', 'Internet Uplink', and 'Network'. The 'epygi' logo is in the top right. The main content area has a title 'DHCP Settings for the LAN interface' and a checked checkbox for 'Enable DHCP Server'. Below this, the 'IP Address Range' is set from '172.30.93.100' to '172.30.93.254', with 'IP-Clipboard' buttons next to each field. The 'WINS Server' is set to '0.0.0.0' with an 'IP-Clipboard' button. At the bottom, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Help'. A small copyright notice 'Copyright (C) 2008 Epygi Technologies, Ltd. All rights reserved.' is visible at the very bottom of the page.

Fig. I-10: DHCP Settings for the LAN Interface page

Click on **Next** to display the **Regional Settings** page.

Regional Settings

If your Quadro is located outside of the United States, it is important to properly configure your line connections to the PSTN in your location.

The screenshot shows the 'System Configuration Wizard' interface for 'Regional Settings and Preferences'. At the top, there are navigation tabs: 'Main', 'System', 'Conference Management', 'Internet Uplink', and 'Network'. The 'epygi' logo is in the top right. The main content area has a title 'Regional Settings and Preferences'. It includes a dropdown for 'Your locale (location)' set to 'US', a dropdown for 'Timezone' set to 'US/Central', and a section 'Choose OUI theme' with two radio buttons: 'Plain' (selected) and 'Dynamic'. At the bottom, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Help'. A small copyright notice 'Copyright (C) 2008 Epygi Technologies, Ltd. All rights reserved.' is visible at the very bottom of the page.

Fig. I-11: Regional Settings page

Proper configuration of Regional Settings is important for the functionality of the voice subsystem. The Regional Settings determine the proper telephony parameters on the LINE (ISDN) and PHONE ports of the Quadro for the specified country. Select the country where the Quadro is located. If you do not find your country in the list, pick the closest in your timezone.

The Quadro obtains the correct time automatically over the Internet from a time server. If you are not located in the US/Central standard time zone, you will need to change the **Timezone** to your region.

Click on **Next** to display the **Summary Page**.

Finishing the System Configuration Wizard

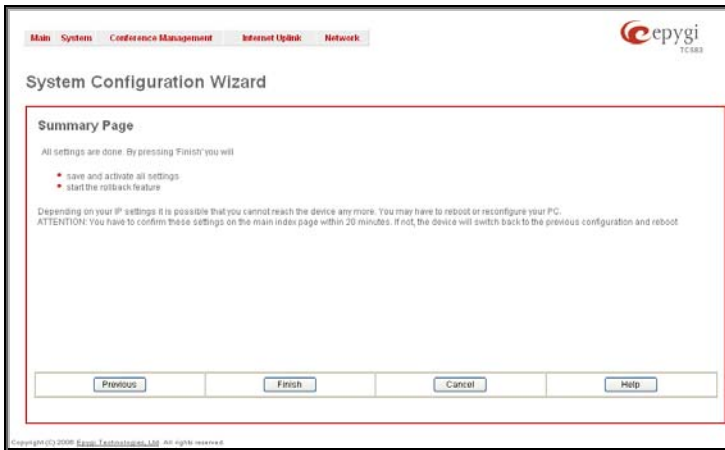


Fig. I-12: System Configuration Wizard finishing page

Click on **Finish** to complete the System Configuration Wizard. The Quadro will then stop internal functions and apply the changes made in the Wizard.

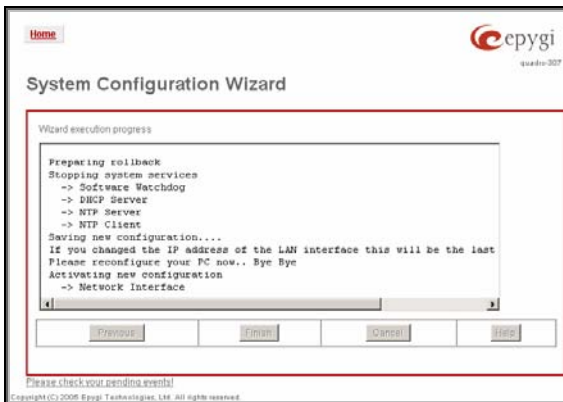


Fig. I-13: Wizard Execution Progress page

After this is complete, the Quadro will reply with the **Confirm Settings** page requesting confirmation of the changes. Press on **OK** to confirm the settings.

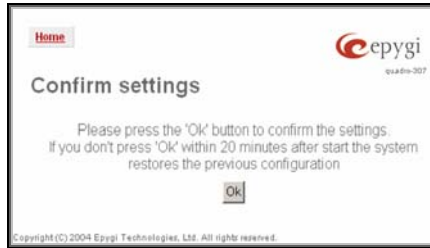


Fig. I-14: Confirm Settings page

Please Note: you must confirm the settings within 20 minutes, otherwise the device will **revert back to the previous configuration and reboot.**

Please Note: If you do not use DHCP for your LAN and you have changed your LAN settings, make sure that the IP address of the PC connected to Quadro is still within the specified IP address range, otherwise your PC may not establish a connection to Quadro.

If you changed the network configuration of the LAN, restart your LAN connection to receive a new IP address from the new network. Then you can access the Web Management of the Quadro on the new IP address you've assigned to the Quadro.

Step 2.3: Internet Configuration Wizard

Open the **Internet Configuration Wizard** by selecting the corresponding menu item on the **System** menu. The **Internet Configuration Wizard** is a tool for the administrator to configure the WAN settings and to adjust Quadro's connectivity in the global network. It must be run if Quadro is desired to be connected to the Internet.

The page **Getting Started** will be displayed:

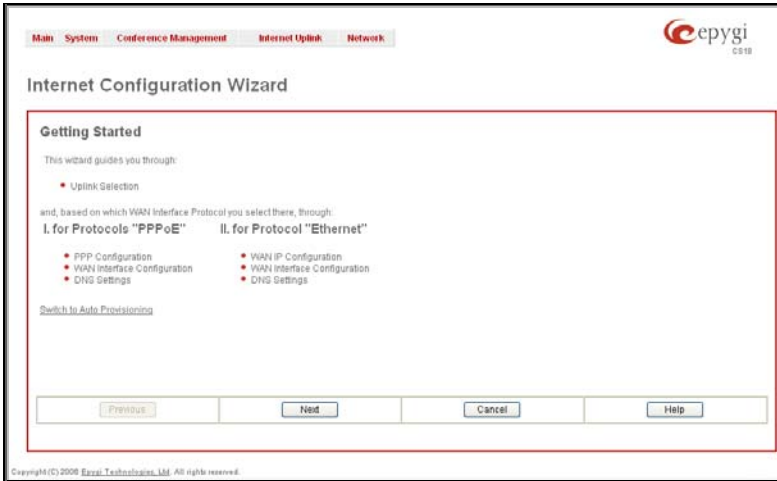


Fig. I-15: Internet Configuration Wizard

This first page of the **Internet Configuration Wizard** is for informational purposes only and lists the items to be configured. Click on the **Next** button for the **Uplink Configuration** page.

Before configuring the WAN port to the Internet, you need to get the following information from your internet service provider:

- Bandwidth - how much is available upstream and downstream?
- WAN IP Configuration - is DHCP supported? If yes, no more information is needed. If DHCP is not supported, the following data is needed: the WAN IP address, the subnet mask, the IP address of the standard gateway and the IP address of the Domain Name Server (DNS).
- MAC address - needed when the ISP requires a specific MAC address for the WAN.

Additionally, for Point-to-Point Protocol over Ethernet (PPPoE) WAN interface, you need to get the following information from your internet service provider:

- PPP Configuration - does your ISP use a dynamic or fixed WAN IP address? If the WAN IP address is dynamic, no more information is needed. If the WAN IP address is fixed, you will have to enter it.
- Authentication - does your ISP require authentication? If authentication is required, information about the corresponding method (PAP, CHAP or MSCHAP) is needed including the username and password of the PPPoE account.

This information will be needed to be inserted in the Internet Configuration Wizard.

Uplink Configuration

Select the desired WAN Interface Protocol and enter the **WAN Interface Bandwidth** to assure the quality of IP calls.

The screenshot shows the 'Internet Configuration Wizard' interface. At the top, there are navigation tabs: 'Main', 'System', 'Conference Management', 'Internet Uplink', and 'Network'. The 'Internet Uplink' tab is active. The main content area is titled 'Uplink Configuration'. Under 'WAN Interface Protocol', there are two radio buttons: 'PPPoE' (which is selected and highlighted with a red box) and 'Ethernet'. To the right, under 'WAN Interface Bandwidth', there are three input fields: 'Upstream' with the value '10000', 'Downstream' with the value '10000', and 'Min Data Rate' with the value '0'. Each input field has a unit indicator '(kb/s) (max. 10000)' or '(kb/s)'. At the bottom of the form, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Help'. A copyright notice 'Copyright (C) 2006 Epygi Technologies, Ltd. All rights reserved.' is visible at the very bottom of the window.

Fig. I-16: Uplink Configuration

If the available bandwidth is used to the point where the quality of an additional IP call would suffer, then new IP calls are rejected.

The bandwidth provided by your ISP must be specified for both **Upstream** and **Downstream** fields. The default entry in both fields is **10000**, the maximum bandwidth of the 10 MB uplink module. For basic DSL and cable modem service in the United States, typical values are **300** for Upstream and **1500** for Downstream.

The **Min Data Rate** text field is used to specify the amount of bandwidth reserved for data applications. The value entered here needs to be smaller than the value specified for **Upstream Bandwidth**.

Specify the **WAN Interface Protocol** by choosing between available WAN interface protocols: **PPPoE** (Point to Point over Ethernet) and **Ethernet**. Use Ethernet for DHCP or static IP.

For **Ethernet**, clicking **Next** will display the **WAN IP Configuration** page. If **PPPoE** is the selected WAN Interface Protocol, the next page will be [PPP Settings](#).

WAN IP Configuration

Your Internet Service Provider (ISP) should provide this information.

- **Assign automatically via DHCP** - The parameters are set automatically by the ISP. This is common with cable modem and DSL service.
- **Assign Manually** requires the administrator to enter the external **IP Address**, the corresponding **Subnet Mask**, and the IP address of the **Standard Gateway**. This is common when you have a static IP address with your ISP.

The screenshot shows the 'WAN IP Configuration' page within the 'Internet Configuration Wizard'. The page has a navigation bar at the top with 'Main', 'System', 'Conference Management', 'Internet UpLink', and 'Network'. The epygi CS18 logo is in the top right. The main content area is titled 'WAN IP Configuration' and contains the following elements:

- A sub-header: 'IP configuration of the WAN interface'
- Two radio button options:
 - Assign automatically via DHCP
 - Assign manually
- Form fields for manual configuration:
 - IP Address: 192 | 168 | 04 | 18 (with an IP-Clipboard button)
 - Subnet Mask: 255 | 255 | 255 | 0 (with an IP-Clipboard button)
 - Default Gateway: 192 | 168 | 04 | 5 (with an IP-Clipboard button)
- Navigation buttons at the bottom: Previous, Next, Cancel, and Help.

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Fig. I-17: WAN IP Configuration page

Click on **Next** to display the **WAN Interface Configuration** page.

PPP Settings

Enter the IP address of the PPTP server into the **PPTP Server** text field.

Choose the encryption for the traffic over the PPTP interface from the **Encryption** drop down list.

The screenshot shows the 'Internet Configuration Wizard' window with the 'PPP Settings' tab selected. The 'Authentication Settings' section includes a 'User name' field with 'quadro' and a 'User password' field with masked characters. The 'Dial behaviour' section has two radio buttons: 'Dial manually' and 'Always connected'. The 'IP Address Assignment' section has two radio buttons: 'Dynamic IP Address' and 'Fixed IP Address'. The 'Fixed IP Address' field is populated with '192.168.75.77' and has an 'IP-Clipboard' button next to it. A 'Keep connection alive' checkbox is checked. At the bottom, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Help'.

Fig. I-18: PPP/PPTP Configuration page

Authentication Settings require the Username and the Password used for the authentication on the ISP server.

Dial Behavior radio buttons:

- **Dial Manually** - if this radio button is activated, a button will be displayed in the main management window that serves to switch the Internet connection on/off. When accessing the Internet, every station of the connected LAN has to connect to Quadro first.
- **Always connected** - Quadro stays in the always connected mode. This will allow Quadro always remain online in the network.

The **IP Address Assignment** field is used to specify the external IP address given to the Quadro. Usually it is a dynamic address but in some cases you may be given a static IP address.

If your ISP assigns a dynamic IP address, activate the **Dynamic IP Address** radio button, otherwise activate the **Fixed IP Address** radio button and enter the IP address you were assigned by your ISP.

Keep Connection alive checkbox enables keeping the connection alive by sending control packets dedicated for the link state verification.

Click the **Next** button to display the **WAN Interface Configuration** page.

WAN Interface Configuration

If your ISP requires a specific MAC address, (for example, for authentication), it can be entered on this page. The required MAC address can be entered into the **User defined** field. If a specific MAC address is not required, leave the default selection **This device** selected.

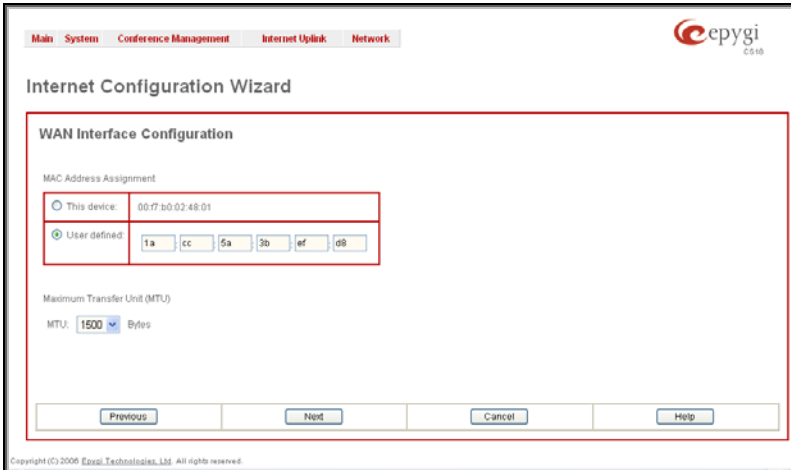


Fig. I-19: WAN Interface Configuration page

Use the **MTU** drop down list to select the maximum packet size on the Ethernet (in bytes). Click **Next** to display the **DNS Settings** page.

DNS Settings

For DNS, the selection is set to **Dynamically by Provider**. When using a static IP address, fixed values must be entered.

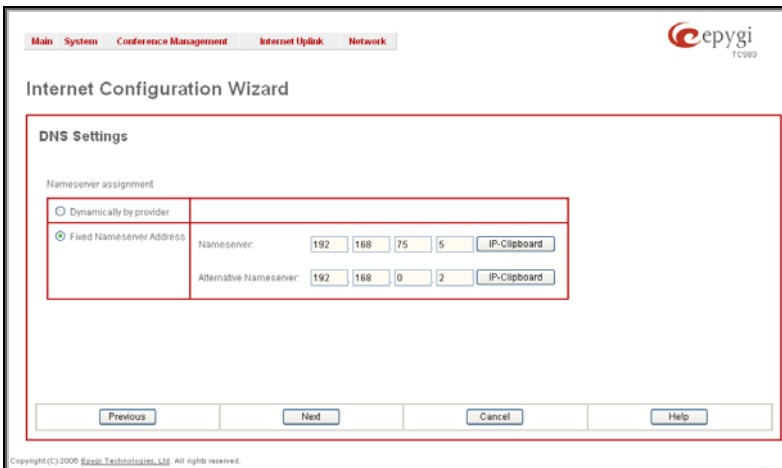


Fig. I-20: DNS Settings page

The Quadro will suggest the correct settings. If **Dynamically by Provider** is selected, the DNS server settings will be set automatically whenever a connection to the Internet is established.

If **Fixed Nameserver Address** is selected, manually enter the IP addresses provided by your ISP for the name server and the alternative name server.

Clicking **Next** shows the summary page of the Internet Configuration Wizard.

Finishing the Internet Configuration Wizard

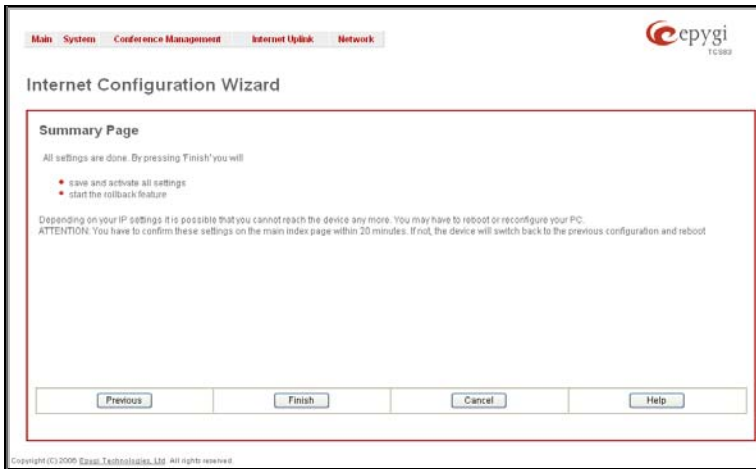


Fig. I-21: Internet Configuration Wizard Summary page

Click the **Finish** button to complete the Internet Configuration Wizard. The Quadro will then stop internal functions and apply the changes made in the Wizard. After this is complete, the Quadro will display the **Confirm Settings** page requesting confirmation of the changes. Press the **OK** button to confirm the settings.

Please Note: the settings should be confirmed within 20 minutes; otherwise, the device will **revert back to the previous configuration and reboot**.

Step 2.4: Firewall Configuration

By default, Firewall configuration on the QuadroCS has medium security, which denies any incoming traffic from the WAN except for voice traffic.

Disabling the firewall is only required to access the Quadro's management when the Quadro is connected behind a router. To disable the firewall, open **Firewall Configuration** from the **Internet Uplink** menu. Disable the firewall by deselecting the corresponding checkbox and save changes.

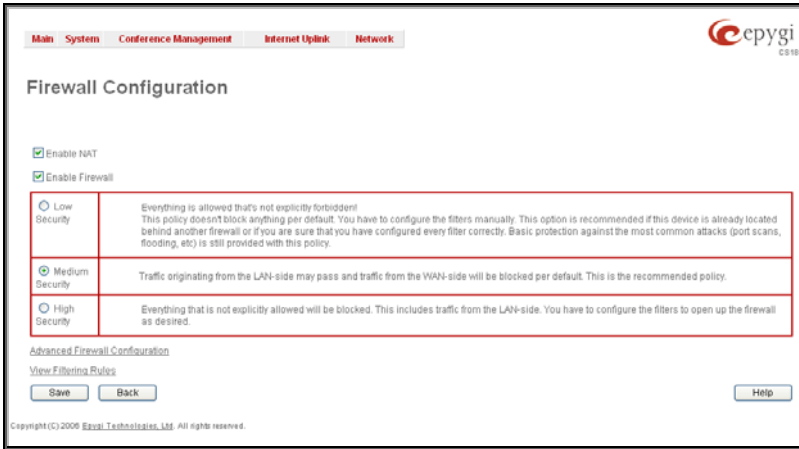


Fig. I-22: Firewall Configuration page

The Internet connection is properly configured now and you can start generating the first conference. If this conference will be registered on a SIP server, you have to do that first, as you will need the SIP Registration information to generate a conference on the QuadroCS.

As a default there is one conference that is pre-configured on the QuadroCS and the Epygi SIP server to register automatically.

If you want to use the Epygi SIP Server to register your conference, you have to register at Epygi Technical Support first (see next step below) to get a login to the Epygi SIP server. Then the conference may be registered (see step 4) and finally can be set up on the QuadroCS (see step 5).

If you do not require registration of your conference, skip to [Step 5: Configuring a Conference on QuadroCS](#).

Step 3: Registering on Epygi's Technical Support

It is recommended that you register your Quadro on the Epygi Technical Support web page. Registration will give you access to the Technical Support Database. There, you can send requests concerning technical problems as well as refer to the frequently asked questions. In addition, the technical support page allows users to download new firmware, manuals and other information. You can access the support section only if you are registered. Additionally, registration at Epygi's Technical Support web page gives you the username and password to login to the Epygi SIP Server.

To register, you need to know the serial number of your Quadro, which you will find on Quadro's bottom label and its purchase date. Next, open the Epygi home page (www.epygi.com), select **Support** and click on **Registration Form**. The online registration page will appear:

Complete all fields and record the **Login Name** and **Password** in a safe place. You will need it for the SIP server.

Please Note: In some cases the QuadroCS units will be shipped pre-configured from the factory with the Support login and password already set-up. In this case, an information sheet is included in the packaged contents indicating the username/password to access Epygi's online Support and the SIP Server.

* Required Information

Product Information ?

Serial Number: *

Purchase Location: *

Purchased From: *

Purchase Date: * (mm/dd/yyyy)

Login Information ?

Login Name: *

Password: *

Confirm Password: *

Customer Information ?

First Name: *

Last Name: *

Company: *

Email: *

Street: *

City: *

Country / State: *

Zip / Postal Code:

Phone 1:

Phone 2:

Fax:

Information Requested ?

New Software Version

New Product

New Security Issue

Maintenance Announcement

Fig. I-23: Online Registration page

Step 4: Registering a Conference on Epygi's SIP Server

You may login directly to Epygi's SIP Server, if you have already registered your QuadroCS at [Epygi's Technical Support Center](#). If you have not registered with Epygi Technical Support, you will not be able to login to the Epygi SIP Server.

Using the same login name and password you use for Epygi Support, login to the Epygi SIP Server at www.epygi.com under **SIP**, **Login here**.

Fig. I-24: SIP Services Login page

Read the **SIP Service Terms and Conditions** then accept them in order to proceed. The displayed page now welcomes you and allows you to **Subscribe a New Extension**.

Fig. I-25: SIP Services welcome page

The Epygi SIP Server handles conferences like a special extension. So Selecting **Subscribe a New Extension** leads you to a page where you can enter the conference information as shown below. The **Extension No.** is the eight digit SIP number assigned to your conference. The first five are fixed by the SIP Server and cannot be changed. The last three are user defined. Notice the check box to enable this extension to be shown in the Epygi **Public SIP Directory**.

Please Note: If you enable this extension to be shown in the Epygi **Public SIP Directory**, all information related to this extension will be published in the Public SIP Directory, which is accessible, by anyone on the Internet. To maintain privacy, do not check this box.

SIPVoice Public Directory | Your Extensions | Your Groups | Logout

Add new extension

Check here to make this entry available in the Epygi SIP phone directory:

Extension No. 30256-321

First Name Samantha

Last Name Donaldson

Location Seattle

Company OmniTec

Description Headquarters

email santha.donaldson@omnitec.com

Authentication password [masked]

Retype Password [masked]

Assign to groups: none joined

[Back without save](#)

Fig. I-26: SIP Services Add New Extension page

The **Authentication password** is used to validate the entry and must match the password entered on the Quadro at a later time. Make sure to record the name, Authentication Password and SIP extension number so you can enter them into the Quadro later.

Save will store the entered information and conclude the basic SIP registration. The following page will be displayed:

SIPVoice Public Directory | Your Extensions | Your Groups | Logout

Your extensions, Samantha Donaldson

EXT.#	STAT. ?	NAME	LOCATION	COMPANY	DESCRIPTION	EMAIL	PUB ?	GROUPS ?
edit 30256321	unreg.	Samantha Donaldson	Seattle	OmniTec, Ltd.	Headquarters	yes	-	delete

[Subscribe new extension](#) (You may subscribe 9 additional extensions.)

[View/Edit your groups and group membership](#)

Fig. I-27: SIP Services; Your Extension page

This table shows **unreg.** in the **Stat.** column. This entry will change to **reg.** as soon as the needed settings for the conference in the QuadroCS are complete and the conference successfully registers on the SIP Server.

Now that the SIP server knows about the conference, the conference may be set up in the QuadroCS. Once they are entered in the QuadroCS, they will be registered and can then be used.

Step 5: Configuring a Conference on the QuadroCS

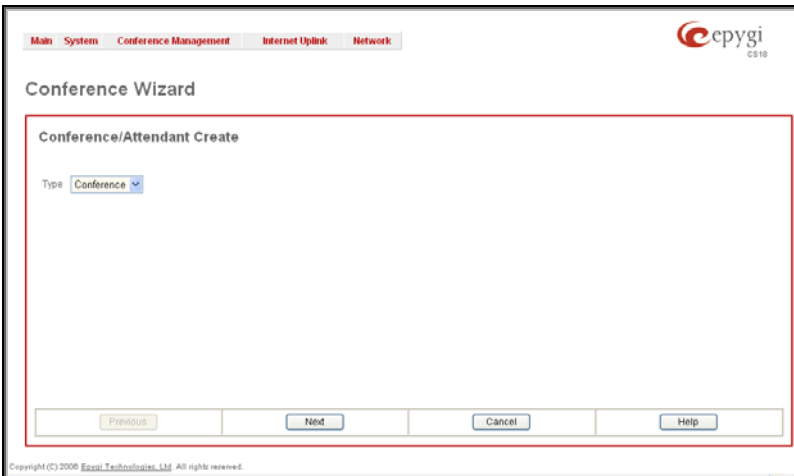
1. Open the **Conferences** page from the **Conference Management** menu.



Fig. I-28: Conferences page

2. Click **Add** to open the **Conference Wizard** to guide you through the basic settings needed to generate a new conference.

The first page of the **Conference Wizard** displays **Conference/Attendant Create** page.



3. Choose **Conference** from the **Type** drop down list.
4. Press **Next** to move forward to the second page of the **Conference Wizard**.

The second page of the **Conference Wizard** displays **Conference/Attendant Create** page.

The screenshot displays the 'Conference Wizard' interface with the following fields and options:

- Conference ID:** 12345
- Subject:** Management Conference
- Description:** To join management team
- Moderator Password:** [masked] Confirm: [masked]
- Participant Password:** [masked] Confirm: [masked]
- Max Duration (minute):** 120
- Percentage of System Memory:** 20
- Enable Routing Mode
- Leave Active

Navigation buttons: Previous, Next, Cancel, Help.

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Fig. I-29: Conference General Settings page

5. Fill in the following information on this page:

Conference ID is used to enter a unique ID for the call conference. This ID will be also used in Conference Server's Auto Attendant to reach the local conference. Digits allowed only. System prevents adding a conference starting with 0 digit.

Subject is an optional parameter where a brief subject of the conference can be entered.

Description is an optional parameter used to insert additional information about the conference.

Moderator Password can be entered to provide moderator access to the conference. It has to be entered twice for confirmation. The password inserted here will be used by the moderator to join the conference. The moderator can dial codes during the active conference as well as access conference specific GUI pages to control the conference (view/change conference properties, activate/deactivate it, start/stop/resume record, view conference statistics).

Participant Password can be entered to require a password for participant access to the conference. It has to be entered twice for confirmation. The password entered here should be used by the participant to join the conference. The participant can participate in the conference only according to the rights (speaker or listener) granted by the moderator. The participant also can access the conference specific GUI to view the conference properties and the other participants.

Max. Duration sets the conference to be limited to a maximum duration (in minutes). Leave the field empty for unlimited conference duration.

Percentage of System Memory is used to select the percentage of total QuadroCS's memory space that can be used for recording of this conference.

Enable Routing Mode checkbox enables direct access to the Quadro's internal routing tables when dialing out to a participant during a conference. When this checkbox is selected, any dialed number will be parsed through Call Routing Table (see Manual II - Administrator's Guide).

Leave Active checkbox will keep conference active, even if all participants have left it.

6. Press **Next** to move forward to the second page of the **Conference Wizard**.

The third page of the **Conference Wizard** displays **Conference SIP Registration Settings** page. The settings on this page need to be configured if the conference is dedicated to be registered on a SIP server (see [Step 4: Registering a Conference on Epygi's SIP Server](#)).

Fig. I-30: Conference SIP Registration Settings page

7. Fill in the following information on this page:

Registration User Name text field requires a user name for conference registration on the SIP server. The registration user name needs to be unique on the SIP server and is used to reach the conference over the SIP network.

Registration Password is the password for the registration on the SIP server. It must be confirmed in the **Confirm Registration Password** text field.

Registration SIP Server indicates the host address of the SIP server. The field is not limited regarding symbol usage and length. It can be either an IP address (ex: 192.168.0.26) or a host address (ex: sip.epygi.com).

Registration SIP Port indicates the host port number to connect to the SIP server. The SIP server port may only contain digit values. If the SIP server port is not specified, the QuadroCS will access the SIP server through the default port of 5060.

Registration on SIP Server enables the conference ID to be registered on the SIP server.

8. Press **Finish** to create a conference with the provided settings.

Please Note: You may also duplicate an existing conference using its common settings (like participants, scheduling options, SIP registration settings and other configuration settings). To do so, select a corresponding conference from the table and press **Duplicate** functional button. **Configuration Wizard** will start where common settings of the original conference will be already set up.

Appendix: PC DHCP Settings

The QuadroCS has a DHCP server on its LAN interface that provides DHCP IP addresses to devices connected to the LAN. This appendix describes how to configure Windows PCs for DHCP. The PC used to access the Quadro must meet the following conditions:

- TCP/IP network protocol must be installed.
- DHCP must be activated to request the IP address automatically.

Please Note: If your PC is already configured for DHCP, then simply power it on. Verify the LAN LED is lit. If not, check the cable connections.

Follow the instructions below to install TCP/IP and enable DHCP functionality:

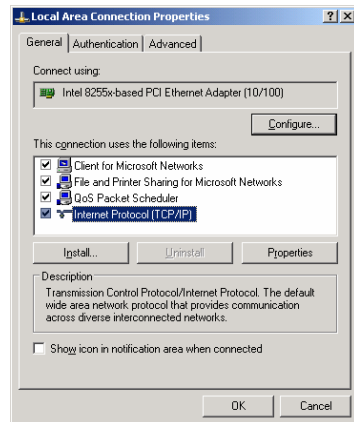
TCP/IP and DHCP under Windows 2000/Windows XP

Windows 2000 and Windows XP PCs with Ethernet cards or adapters normally are configured with a TCP/IP network connection by default. Nothing additional needs to be installed. To enable the DHCP functionality, you may have to modify the properties of TCP/IP:

1. Click the **Start** button. Choose **Settings**, then **Control Panel**.
2. Double-click on the **Network Connection** icon to open the corresponding window. Select **Local Area Connection** with the right mouse button and select **Properties**.



3. Highlight **Internet Protocol (TCP/IP)** and click **Properties**. The corresponding window will be displayed.



4. Select **Obtain an IP address automatically**, then click on **Advanced**.



5. You will see the entry **DHCP Enabled**.
6. Click **OK** three times to close all windows.



TCP/IP and DHCP under Windows 95/98/ME

1. Click the **Start** button. Choose **Settings**, then **Control Panel**.
2. Double-click on the **Network** icon to open your Network window. Select the **Configuration** tab.
3. Click **Add**.
4. Double-click on **Protocol**.
5. Highlight "Microsoft" under the list of manufacturers.
6. Find and double-click on **TCP/IP** in the list to the right.
7. The Network window will appear with the TCP/IP protocol now listed.
8. Highlight "TCP/IP" and click on **Properties**.
9. Select **Getting IP address automatically** to enable the DHCP functionality.
10. Click **OK**.
11. Windows will ask you to restart the PC. Click **Yes**.

The TCP/IP installation is now complete and the DHCP functionality is enabled.

Appendix: Changing the Admin Password

For security reasons, it is recommended that you change the default admin password. The username of the administrator (**admin**) cannot be changed.

To change the administrator password, go to the **System** menu, **User Rights Management**.



Fig. I-31: User Right Management page

Choose **admin** from the list and press the **Change Password** functional button from the **User Right Management** page toolbar.

The **Change Password** page will be displayed.

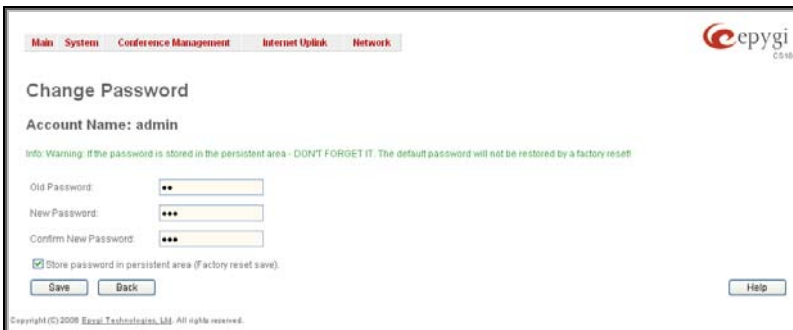


Fig. I-32: Change Password page

Enter the **Old Password** (19) and the **New Password** in both the **New Password** and **Confirm New Password** fields. Please note that only numeric digits may be entered here. Leave **Store password in persistent area (Factory reset save)** disabled.

Write down the password somewhere and keep it in a secure place. If the password is lost, a factory reset will be required on the unit (see Administrator's Guide, Hardware Overview). All settings are lost after a factory reset. After a factory reset the default password (19) will be restored.



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