

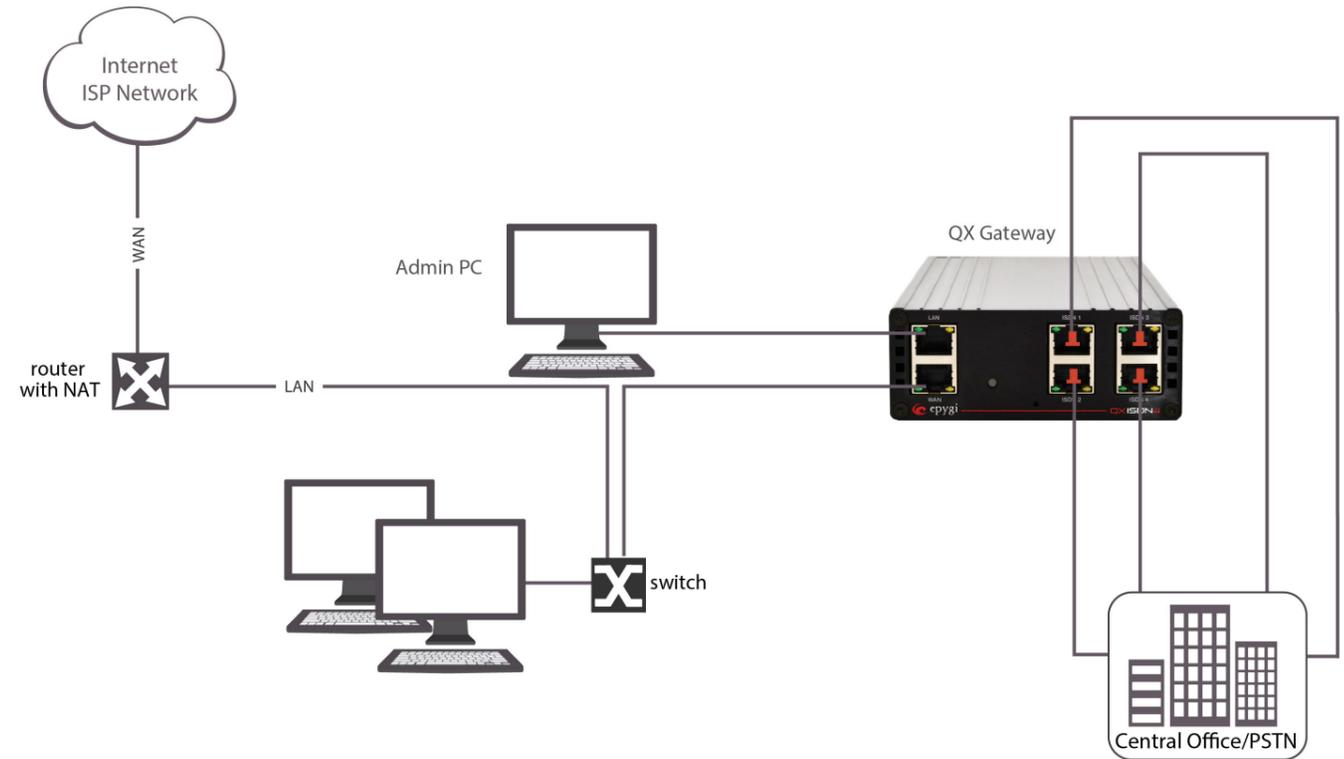
# Quick Installation Guide – Epygi QX Gateways

Thank you for choosing the Epygi QX Gateway.

This instruction guide briefly describes the installation, connection and basic configuration of the QX Gateway. This procedure will guide you through the installation of a QX Gateway system with some basic features enabled.

To configure advanced settings, please refer to the QX Gateways Administrator's Manual.

The content of this guide may be changed without notice. The most recent version of the installation guide can be downloaded from <http://support.epygi.com>. In addition, you can find more information about updates for the product, software and technical documentation at <http://www.epygi.com>.



## 1. Installing the QXISDN4/QXFXO4/QXE1T1 in Standalone Mode

1. Verify the product package contents are complete.
2. After removing the packing material and verifying the contents of the box, connect the Ethernet port on your PC to the Local Area Network (LAN) of the QX via an Ethernet switch.
3. Connect at least one of the QX line sockets (FXO, ISDN or E1T1) to a telephone service from the PSTN.
4. Connect the WAN port of the QX directly to the ISP network via your broadband access device.
5. Power the QX by connecting the power cable to a power strip with surge protection and a UPS.

## 2. QXISDN4/QXFXO4/QXE1T1/QXFXS24's Connector Panels

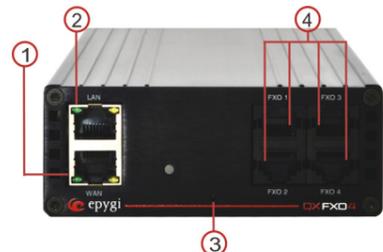
Attach the cables to the panel according to the following steps to connect the devices.

1. WAN RJ45 socket to attach the Internet Uplink (WAN) via an Ethernet CAT 5 cable.
2. LAN RJ45 socket to attach the LAN via an Ethernet CAT 5 cable. If a QX IP PBX or a PC is connected directly to this socket, a straight cable is used.
3. The reset button may be used in two ways: (1) to initiate a normal reset or (2) to carry out 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 three 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.

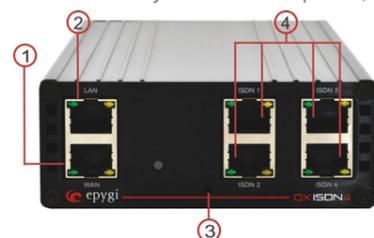
QXE1T1 Gateway's connector panel, front



QXFXO4 Gateway's connector panel, front



QXISDN4 Gateway's connector panel, front



QXFXS24 Gateway's connector panel, front



**Please note:** A factory reset forces the default LAN IP address of 172.28.0.1 (default username - admin and password - 19).

4. Line sockets to attach the FXO, ISDN and E1/T1 trunk to the QX Gateway depending on the model of the QX Gateway. For the QXFXS24, phone sockets with RJ11 connectors enable connectivity of regular analog telephones. These are Foreign Exchange Station (FXS) analog ports.
5. AUX PWR (DC Power – placed in the back panel of the QX Gateway) connects two units together. The first unit will power the second by using the 12V DC power connector.
6. AC Power (placed in the back panel of QX Gateway) supply socket to connect a power cable.

## 3. Logging In to the QX Gateway

1. Connect the admin PC directly to the QX's LAN port.
2. Assign the IP address 172.28.0.100 with the net mask 255.255.0.0 to the admin PC.
3. Type <http://172.28.0.1> into the address field of your web browser on the PC attached to the QX's LAN.

**The default access credentials:**  
Username: **admin**  
Password: **19**



## 4. QXISDN4/QXFXO4/QXE1T1 Configuration in Standalone Mode

The following configuration wizards are available for the basic configuration of QX Gateway devices:

1. From the **Setup – Basic Setup** menu, select **System (LAN)** and complete the wizard.

**Please note:** Upload a Language Pack from the **Setup – Language Pack** menu if you want to change the QX's default system language. Choose **System Language** field in the **Regional Settings and Preferences** page of the wizard is only present when the custom Language Pack is uploaded.

2. From the **Setup – Basic Setup** menu, select **Internet (WAN)** and complete the wizard.

## 5. QXISDN4/QXFXO4/QXE1T1 Configuration in Shared Mode

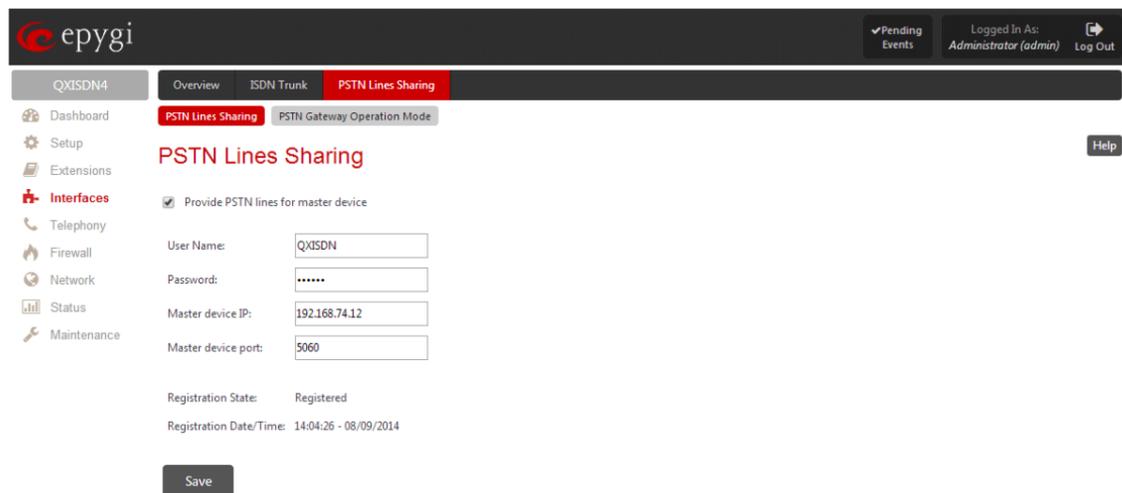
The only required configuration for sharing the FXO lines of the QXFXO4, ISDN and E1T1 trunks of the QXISDN4 and QXE1T1 Gateways to the QX IP PBX is the sharing mode configuration on both devices.

### 5.1 Sharing Mode Configuration on QX IP PBX

1. Go to the **Interfaces – PSTN Gateways** page and select the **Use PSTN Lines of the other device** checkbox. Press **Save** to apply changes.
2. Go to the **Authorization Parameters** page and configure authorized devices. On the opened page, insert the username and the password in the corresponding text fields. These authentication parameters should match on the QX IP PBX and the QX Gateway. Save the parameters.

### 5.2 Sharing Mode Configuration on QXISDN4/QXFXO4/ QXE1T1

1. Go to the **Interfaces – PSTN Lines Sharing** page and select the **Provide PSTN lines for master device** checkbox. Insert the username and the password in the corresponding text fields. These authentication parameters should match on both QXs.
2. Enter the IP address of the QX IP PBX into the **Master device IP** text field. Enter the SIP Port of the QX IP PBX into the **Master device port** text field. Save the inputs.



#### The results:

The configuration above will cause the corresponding FXO, ISDN or E1T1 trunks of the QX Gateway to be shared with the QX IP PBX.

ISDN/E1T1 trunks and additional FXO lines appear on the QX IP PBX **ISDN Trunk**, **E1T1 Trunk** and **FXO Settings** pages respectively.

A new routing rule is automatically added to the Call Routing Table on the QX IP PBX and the QX Gateway.

**FXO**, **ISDN Trunk** and **E1T1 Settings** pages become read-only on the QX Gateway.

#### How this configuration works:

When the QX IP PBX user dials 9 followed by a PSTN number (or 9+ # + PSTN number) and no FXO, ISDN or E1T1 line is available on the QX IP PBX (they are either unavailable, in use or disabled), the call will be routed to the QX Gateway and will go through the first available FXO, ISDN or E1T1 line port on the QXFXO4, QXISDN4 and QXE1T1 Gateways respectively. When an incoming call arrives to either of the FXO ports on the QXFXO4, the ISDN trunk on the QXISDN4 or E1T1 trunk on the QXE1T1 Gateway, it will be automatically routed to the Auto Attendant on the QX IP PBX (unless configured otherwise from the **FXO**, **ISDN Trunk** or **E1T1 Trunk** settings pages on the QX IP PBX).

## 6. QXFXS24 Configuration in Shared Mode

Connect the WAN port of the QXFXS24 to the LAN port of the QX IP PBX via a straight through Cat 5 cable with a RJ45 connector for the QXFXS24 Gateway configuration in shared mode. The QXFXS24 Gateway provides two ways for shared mode configuration:

1. **Plug-and-Play (PnP):** Factory reset the QXFXS24 by pressing and holding the Reset button on the device for at least three seconds. Once this is done, 24 inactive IP lines on the **Interfaces - IP Lines** page of the QX IP PBX are automatically configured.
2. **Auto-Configuration:** For auto configuration of the QXFXS24 Gateway on the QX IP PBX, go to the **Interfaces - IP Lines - FXS Gateways** page on the QX IP PBX where the new FXS Gateway should be defined.

Verify the configuration on the analog phone by dialing **\*74**.

## 7. Toll Fraud Security Warning

A SIP access router like the QX bridges the world of IP telephony/ Internet and the world of analog telephones (PSTN). A QX device that has not been properly configured may be exposed to toll fraud by unauthorized users to free long distance phone calls.

**QX products are very powerful communication devices. Please secure them.**

1. Protect your QX from unauthorized administrator access: Change your default administrator password (19) as soon as possible as all delivered QX devices have the same default. Never enable management access over the WAN (your Internet uplink) interface without good reason (for example if you need remote technical assistance). When doing so, make sure proper IP address ranges are allowed access.
2. When enabling Call Relay for an extension, use password authentication, so each user is challenged to provide the proper password before placing calls.
3. When using the QXs' Auto Attendants, be careful when sending dialed digits directly to the Call Routing Table. This is a powerful option, but care needs to be taken to prevent unauthorized access to entries such as the common 9\* entry to allow access to the PSTN.
4. Before changing the default values of the Call Routing Table, please familiarize yourself with the functionality. The Call Routing Table is very powerful, and you can allow incoming calls from any port to be sent to any other port. This can be abused by local PSTN users as well as IP users. Each Call Routing entry should be secured through the use of one of three available methods: (1) Filtering Option, (2) Authentication via Radius Server or (3) Locally Authenticated.
5. Make sure you have strong passwords on all entries on the QX.

## 8. Changing the Admin Password

For security reasons, it is recommended that you change the default admin password to protect the administrator's access to the QX's Web Management.

To change the administrator password, go to the **Maintenance - User Rights - Users** page.

## 9. Safety Information

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

- To prevent fire or shock hazard, do not expose your QX to rain or moisture.
- To avoid electrical shock, do not open the QX. 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 non-insulated telephone wire or terminal unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying cable or telephone lines.
- Avoid using your QX during an electrical storm.
- Do not use your QX 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.

### Electrical Safety Advisory

To reduce the risk of damaging power surges, we recommend you install an AC surge arrester in the AC outlet from which the QX is powered.

### Industry Canada Statement

This product meets the applicable Industry Canada technical specifications.

### Emergency Services

The use of VoIP telephony is made available through IP networks such as the Internet and is dependent upon a constant source of electricity, network availability and proper operation of the equipment. If a power outage, network disruption or equipment failure occurs, the VoIP telephony service could be disabled. User understands that in any of those events the QX may not be able to support 911 emergency services, and further, such services may only be available via the user's regular telephone line or mobile lines that are not connected to the QX. User further acknowledges that any interruption in the supply or delivery of electricity, network availability or equipment failure is beyond Epygi's control and Epygi shall have no responsibility for losses arising from such interruption.

### Certifications

#### European Union Notice

Products with the CE Marking comply with both the EMC Directive (2004/108/EC) and Low Voltage Directive (2006/95/EC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European norms (in brackets are equivalent international standards):

- EN55022 (CISPR 22) Electromagnetic Interference
- EN55024 (IEC61000-4-2,3,4,5,6,8,11) Electromagnetic Immunity
- EN61000-3-2 (IEC61000-3-2) Power Line Harmonics
- EN61000-3-3 (IEC61000-3-3) Power Line Flicker
- EN60950 (IEC950) Product Safety

For additional agency regulatory notices, consult with Epygi Technologies sales.

#### FCC Statement Class B (USA only)

This Class B digital apparatus 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 typical installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

#### Canadian Notice/Avis Canadien

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### Australia/New Zealand Notice

The above mentioned products comply with the requirements of the relevant ACMA Standards made under the Radiocommunications Act 1992 and the Telecommunications Act 1997. These Standards are referenced in notices made under section 182 of the Radiocommunications Act and 407 of the Telecommunications Act.

Evidence of compliance is demonstrated by test reports to the following applicable standards:

- AS/NZS 60950.1:2011
- AS/CA S002:2010 + Amendment 2012 No. 1
- AS/NZS CISPR 22:2009 + A1:2010 Class B rules