



QXFXO4

The QXFXO4 Gateway is designed to add four additional outside PSTN lines to a corporate phone network when paired with an Epygi QX IP PBX. Integrating this product with any QX IP PBX allows the Gateway to then be managed through the IP PBX's GUI. The system includes a firewall and can be used to IP-enable a legacy analog PBX by connecting the FXO ports to FXS extensions.



FXO PSTN ports	4
Ethernet LAN port	1
Ethernet WAN port	1
Call Routing capable of modifying caller ID or time of day routing	
Firewall, VPN Router, Auto Attendant, Stacking Options, Failover	

FEATURES

Telephony

PBX Features

- Auto Attendant with standard and customizable scenarios
- Call blocking, unconditional call forwarding
- Call history
- G3 fax support: T.38 and clear channel fax
- Dial plans (call routing), time of day routing
- Gateway Hosted Survivability

PC-Based Applications

- QX-Quadro Configuration Console (QCC)
- Epygi Media Streamer (EMS)

Voice Features

Voice Coding:

- G.711, G.726 (16, 24, 32, 40 Kbps), G.729A, iLBC (13,33 kbit/s, 15,2 kbit/s); VAD, CNG, G.168 echo cancellation

VoIP Encryption:

SRTP

VoIP Signaling:

SIP v2, SIP/TLS

VoIP Data and Signaling Protocols

- ITU-T G.711, G.726, G.729 Annex A, G.168-2000, 2002, Q.23, Q.24; IETF RFC 3951- iLBC; Telcordia (Bellcore) GR.506, GR.181; ETS_300 659_1,2,3; SIP, SIP/TLS (RFCs: 2246, 3261, 3263, 3265, 3311, 3323, 3428, 3515, 3578, 3581, 3842, 3856, 3863, 3891, 3892, 4028, 4235) SDP (RFC: 2327, 4568) RTP/SRTP (RFCs: 1889, 1890, 3389, 3550, 3551, 3555, 3711, 4733, 3952) Fax over IP (ITU-T: T4, T30, T38, V17, V21, V27 ter, V29)

POTS Signaling

- Loop start
- FSK and DTMF Caller ID support

Connectivity

Physical Interfaces

Premise connections:

- 1 LAN Ethernet 10/100 BASE-T port (RJ-45)

Uplink connections:

- 4 FXO ports to the central office (RJ11)
- 1 WAN Ethernet 100 BASE T (RJ45)

System Capacity

- 4 simultaneous IP-PSTN calls

Network

STUN/Network Address Translation (NAT) traversal (RFC 3489)

IPSec VPN with 3DES and AES encryption in tunnel mode (RFCs: 2402, 2406, 2409)

Automatic Internet Key Exchange (IKE) keying support

PPTP VPN, L2TP VPN

Firewall security via:

- Intrusion Detection System (IDS)
- Network Address Translation (NAT)
- Policy and service-based filtering

Stateful inspection firewall

SIP Intrusion Detection System (SIP IDS)

DHCP server on the LAN side

DHCP client on the WAN side

DNS server with forwarding functionality

Simple Network Time Protocol (SNTP)

server/client for computer clock synchronization

PPPoE connection to the ISP with

PAP/MS CHAP authentication

IP DIFFSERV for QoS

SIP tunneling

Virtual LAN (VLAN/IEEE 802.1Q)

DNS support with third party

NAT with port forwarding and translation

System

Management

- Operation modes: Master/Slave
- Easy interconnection with QX IP PBXs
- Web interface accessible from LAN and WAN (HTTP/HTTPS), the WAN management access can be switched off
- Password control
- User rights management
- Remote diagnostics and software upgrade
- Download/restore configuration
- Reset button with factory reset option
- Custom language pack
- System event notification via SMS/email
- Emergency recovery

Diagnostics/Testing

- System Status LED
- Remote testing
- FXO and network diagnostics
- Security diagnostics
- System logs, SIP IDS logs
- Call capture

Billing and Statistics

- Radius Client (RFCs: 2865, 2866), Call Detail Records (CDR)

Environmental

Physical Dimensions

Rack-mountable devices:

Measurements:

8.0" x 4.0" x 1.6" (20.5 x 10.5 x 4.0 cm)

Weight:

1.28 lbs. (580 g)

Conditions

Operating temperature:

41°F - 104°F (5°C - 40°C)

Storage temperature:

41°F - 140°F (5°C - 60°C)

Non-condensing humidity:

5% - 90%

Powering Options

- Input: 85-264VAC, 47-63Hz, AC
- Auxiliary output power: 12.0VDC, 0.6A (max)

Power Consumption

2.2W (idle), 5.6W (max)