Quadro® FXO4

Quadro FXO 4: Gateway to the PSTN

The Quadro FXO 4 Gateway is a modular and cost-effective approach to adding four additional outside PSTN lines to a corporate phone network that utilizes either an Epygi Quadro IP PBX or a SIP-based PBX. It can also be used to IP-enable a legacy analog PBX connecting the FXO ports to FXS extensions. Each Quadro FXO 4 is a stand-alone, SIP-compliant gateway device that also includes a firewall, VPN capability and Auto Attendant for two-stage dialing. Uses include the addition of inbound lines, the balancing of outbound call volumes from a combination of analog and IP phones, fax lines, E911 emergency lines and individual direct dial numbers for each employee.

FXO Extensions for Quadro IP PBXs

Connected via Ethernet to the LAN interface of a Quadro IP PBX, the Quadro FXO 4 delivers four additional POTS lines for PSTN calls. The Quadro FXO 4 integration with any Quadro IP PBX is pure plug-and-play; the Quadro IP PBX will automatically use the new POTS ports and present them within its management system as additional FXO lines. These lines may be co-located with the IP PBX or located remotely as an "extension cord" to another office in another city or even another country. Multiple Quadro FXO 4 Gateways can be added to a Quadro IP PBX depending on how many additional lines are required. The simple configuration and superb voice quality makes the Quadro FXO 4 easy to deploy and manage.

Mini Point of Presence (POP)

The Quadro FXO 4 can be used as a stand-alone unit to act as a low-cost, mini Point of Presence (POP). In this configuration, you remove the IP PBX altogether by assigning VoIP network DID numbers from an ITSP directly to the Quadro FXO 4 lines. It truly is the lowest cost for creating a local presence anywhere on the globe.

What are Your VoIP BENEFITS?

- Cost-effective approach to add additional POTS lines
- IP-enable an analog PBX
- Ability to create local presence globally

epygi®
Manufactured in the USA

Telephony

PBX Features
- Multilevel auto attendant with Interactive Voice Response (IVR) and VoiceXMLv2 support
- Voice mail with SMS notification
- Directory assistance
- Call hunting, call blocking
- Call statistics
- Unified messaging
- T.38 fax, fax relay and clear channel fax
- Unified Fax Messaging
- Dial plans (call routing)
- Time of day routing

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, SIP/TLS

VoIP Data and Signaling Protocols
  ITU-T G711, G.726, G729 Annex A; IETF RFC 3951- iLBC; ITU-T Q.23, Q.24; Bellcore GR.506, GR.181; ITU-T G.168-2000, 2002; ETS_300659_1,2,3; SIP, SIPS/TLS (RFCs: 2246, 3261, 3263, 3265, 3311, 3323, 3324, 3325, 3428, 3515, 3578, 3581, 3725, 3842, 3856, 3863, 3891, 3892, 4028, 4235)
  SDP (RFC: 2327, 4568)
  RTP/SRTP (RFCs: 1889, 1890, 2833, 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 10BASE T (RJ45)

System Capacity
  4 simultaneous IP-PSTN calls

System

Management
  WEB interface accessible from LAN and WAN (HTTP/HTTPS), the WAN management access can be switched off
  Password control
  Remote diagnostics and software upgrade
  Downoad/restore configuration
  Reset button with factory reset option

Billing
Radius Client (RFCS: 2865, 2866)

Diagnostics/Testing
  LEDs: Busy, Info/Fault, FXO1, FXO2, FXO3, FXO4, LAN, WAN
  Remote testing and VoIP diagnostics
  Power-up diagnostics

Internet

STUN/NAT traversal (RFC 3489)
Firewall security via:
    NAT (Network Address Translation)
    Policy and service-based filtering
DHCP server on the LAN side
DHCP client on the WAN side
DNS server with forwarding functionality
SNTP (Simple Network Time Protocol) server/client for computer clock synchronization
PPPoE connection to the ISP with PAP/(MS)CHAP authentication
IP DIFFSERV for QoS
DNS support with third party
Port forwarding
Port translation

Environmental

Physical Dimensions
  Desktop devices, wall-mountable:
  Measurements: 7.41" x 6.24" x 1.77"
                   (19 x 16 x 4.5 cm)
  Weight: 13 ounces (360 g)

Conditions
  41°F - 104°F (5°C - 40°C) operating temperature
  41°F - 140°F (5°C - 60°C) storage temperature
  5% - 90% non-condensing humidity

Power Supply
  Input 100 - 240 VAC; 50/60 Hz; 0.5 A

Regulatory Compliance
  EMC: FCC Part 15 Class B; EN55022 Class B, EN55024;
  Telecom: CTR21/TBR21

Epygi Technologies, Ltd.
6900 Dallas Parkway, Suite 850
Plano, Texas 75024
Tel/Fax: (+1)972.692.1166
Web: www.epygi.com
E-mail: sales@epygi.com

Technical Data: Quadro FXO 4