

Quadro[®]FXS 16



QuadroFXS 16 the Voice over IP FXS Gateway

The QuadroFXS 16 port gateway is a modular approach to adding additional FXS lines (analog phones) to a corporate phone network that uses Epygi's Quadro IP PBXs. Multiple QuadroFXS 16 Gateways can be added to a Quadro IP PBX for additional analog phone support. Each device allows the use of 16 additional analog phones by converting the IP extensions of the IP PBX into analog ports without the complexity of using other FXS gateways resulting in a multi-vendor solution. An Epygi solution from end-to-end increases the overall reliability of a hybrid VoIP deployment and facilitates Plug-and-Play functionality.

Integration with IP PBX

This solution simply connects to the existing Ethernet network and communicates directly with the LAN interface of a Quadro IP PBX. Therefore, minimal configuration is needed to continue to support the current analog phones installed. The Quadro IP PBX will automatically use the new FXS ports and display the new extensions in Quadro IP PBX management GUI. The new analog lines can then be managed from the IP PBX interface without a need to now support multiple Quadro devices.

What are Your VoIP BENEFITS?

- Easy PnP installation
- Retain analog investment
- Reliable Epygi VoIP technology
- Single interface management

Telephony

Voice Features

Voice Coding G.711, G.726 (16, 24, 32, 40 Kbps), G.729, iLBC (13,33 kbit/s, 15,2 kbit/s);
 (ITU-T: G.711, G.729 Annex A; RFC 3951 : iLBC; IETF; ITU-T Q.23, Q.24, Bellcore GR.506, GR.181; ITU-T G.168-2000, 2002; ETS_300659_1,2,3;) VAD, CNG, G.168 echo cancellation

Bandwidth Requirements

Per call WAN bandwidth requirements for the following codecs (non-encrypted /VPN encrypted):

G.711a	20 msec	84 kbps/105 kbps
G.711u	20 msec	84 kbps/105 kbps
G.726-16	20 msec	37 kbps/59 kbps
G.726-24	20 msec	45 kbps/65 kbps
G.726-32	20 msec	52 kbps/74 kbps
G.726-40	20 msec	60 kbps/80 kbps
G.729a	20 msec	29 kbps/49 kbps
iLBC	30 msec	27 kbps/41 kbps

PBX Features

(Supported with Quadro IP PBX)

Call blocking, Forwarding, Hold, Transfer
 Call relay, Call waiting, Caller ID Detection
 Voice mail
 Call park, Pickup, Paging, Intercom
 Multilevel auto attendant with Interactive Voice Response (IVR) and VoiceXMLv2 support
 Voice mail with SMS notification
 Distinctive ringing
 Speed dialing
 Many extension ringing
 Call hunting, Hiding Caller ID
 Automated Call back from Auto Attendant
 Hold music
 Call statistics
 Do Not Disturb service
 Unified messaging
 3-way conferencing
 Hotline service
 Fax relay and clear channel fax
 Unified Fax Messaging
 Busy auto-redial
 Directory assistance
 Dial plans (call routing)
 Time of day routing
 Call Queue

Call Signaling

SIP on the WAN and LAN side
 (RFCs: 3261, 3263, 3265, 3311, 3323, 3324, 3325, 3428, 3515, 3578, 3581, 3725, 3891, 3892, 3842, 3856, 3863, 4028, 4235)
 SDP (RFC 2327)
 RTP (RFCs: 1889, 1890, 2833, 3389, 3550, 3551, 3555, draft-ietf-avt-rfc2833bis-05, draft-ietf-avt-rtp-ilbc-05), in band and out of band signaling support
 RTP Proxy

POTS Signaling

Loop start
 FSK and DTMF Caller ID support

Connectivity

System Capacity

16 calls via Quadro IP PBX

Premise Connections

16 short-loop FXS ports (RJ11)
 1 Ethernet 10/100BASE T port (RJ45)

Uplink Connection

1 Ethernet 10BASE T (RJ45)

Internet

STUN/NAT traversal (RFC 3489)
 IPSec VPN with DES, 3DES and AES encryption in tunnel mode (RFCs: 2402, 2406, 2409). Manual and automatic IKE key support
 PPTP VPN
 L2TP VPN
 Firewall security via:
 Intrusion Detection System
 NAT (Network Address Translation)
 Policy and service-based filtering
 Stateful inspection firewall
 DHCP client on the WAN side
 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
 NAT/Router with port forwarding and port translation

System

Management

Multilingual WEB interface accessible from LAN and WAN (HTTP/HTTPS)
 Password control
 Remote diagnostics and software upgrade
 Auto-provisioning
 PrnP with Quadro IP PBX
 Download/restore configuration
 Legible and editable configuration files
 SNMP Monitoring and Configuration
 Reset button with factory reset option
 Custom Language Pack

Diagnostics/Testing

LEDs: Busy, Info, Fault, LAN, WAN
 IP Call Quality Rating
 Remote testing and VoIP diagnostics
 Power-up diagnostics

Environmental

Physical Dimensions

Measurements: 19" x 7.56" x 1.77"
 (48.0 x 19.2 x 4.5 cm)
 Weight: 9.2 lbs. (4.18 kg)

Conditions

41°F - 104°F (5°C - 35°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
 Output 12.0 VDC; 3.5 A

Regulatory Compliance

Safety: UL 60950; CSA 22;
 EMC: FCC Part 15 Class A; EN55022 Class A, EN55024;
 Telecom: CTR21/TBR21

Certification:

For Canada, European Community, USA

