





# QuadroM32x: The Enterprise IP PBX Solution

The QuadroM32x is designed to deliver greater IP Line capacity, reaching 192 registered extensions and 64 concurrent calls. Epygi's IP PBX continues to deliver all the features currently found on our existing Quadro line with the addition of some vital enterprise-grade tools.

Audio and Video Conferencing and Automatic Call Distribution are a few of the unique features to this product. Third party integration with Unified Multimedia Communications platforms is another key solution for large businesses.

Expanding the digital and analog trunking capacity of the QuadroM32x is simple using Epygi Quadro Gateways. Epygi's FXO 4, ISDN, and E1/T1 Gateways with the Quadro and QuadroM IP PBX line. This flexibility will allow our customers to satisfy any configuration need.

## Integrated Conference Server

Audio and Video Conferencing is a common feature used by today's large organizations. The QuadroM32x features an optional 64 person audio conference bridge with a vast array of built-in features. The presenter can mute participants, assign speakers and track overall activity. Regular participants can also view the active meeting and can indicate a request to speak during a muted session. This productivity enhancing tool is easily enabled using a software license key.

### Redundancy Options

The QuadroM32x also offers a built-in E1/T1 digital trunk interface. This link can be used as the primary interface or as a redundant link while utilizing an ITSP as the primary service. Redundant Ethernet links are also included for secondary failover networks or a voice DMZ. A secondary QuadroM32x can be added as a hot stand-by option for increased redundancy.

# What are Your VolP BENEFITS?

- Large Capacity
- Increased Reliability & Redundancy
- True Enterprise Grade Solution



## Telephony

**PBX** Features

Call blocking, Forwarding, Hold, Transfer Call relay, Call waiting, Caller

ID Detection Voice mail

Call park, Pickup, Paging, Intercom Multi-level auto attendant with Interactive Voice Response (IVR) and VoiceXMLv2

support

Voice mail with SMS notification

Distinctive ringing Speed dialing

Many extension ringing

Receptionist

Call hunting, Hiding Caller ID

Automated Call back from Auto

Attendant

Hold music

Call statistics

Do Not Disturb Unified messaging

3-way conferencing

Hotline service

T.38 fax, fax relay and clear channel fax

Unified Fax Messaging Busy auto-redial Directory assistance Dial plans (call routing)

Time of day routing

Call Queue Redundancy

Voice Mail profile

Automatic Call Distribution\* Call Recording (32 ports) 3

Barge-in \*

Audio (64 ports)/Video (16 ports)

Conference Server \*

\*Requires a software license key

Licensable PC-Based Applications Desktop Communication Console (DCC) Auto Dialer

Voice and Video 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 G.722 pass-through point-to-point HD call

Video Coding: H.263 and H.264 pass-through point-to-

point video call

VoIP Encryption: SRTP

VoIP Signaling

SIP, SIP/TLS

**DTMF** 

In band & out of band signaling support.

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)

Primary Rate ISDN (PRI) Signaling ITU-T: Q.921, Q.931 (DSS1), Q.951; ETSI ETS300 102 (NET5); ECMA-143-(QSIG); SR-NWT-002120 (NI2) NTT INS1500 for Japan PRI switch types: DSS1, NET5, QSIG, 5ESS NTT INS1500, DMS 100

CAS Signaling

CAS (MELČAS, ITU, ITU-T2, ITU-T: Q.400, Q.411, Q.421, Q.422, Q.440-Q.442, Q.450-Q.452, Q.454, Q.455, Q.457, Q.458, Q.460-Q.468, Q.470-Q.476 Types: Loop Start, Ground Start; E&M Delay Dial, E&M Wink Start, E&M Immediate Start, E&M FGD R2 DTMF, R2 compelled, R2 non-compelled, R2 compelled with ANI, R2 non-compelled with ANI; R2 Parameters for Brazil and Mexico etc.)

ANSI T1.403.02-199, T1.403.02a-2001

## Connectivity

Physical interfaces

Premise connections:

2 short-loop FXS ports (RJ-11)

1 LAN Ethernet 10/100 BASE T port (RJ45) 1 Ethernet 10/100 BASE T port (RJ45)

Uplink connections:

1 E1/T1 port to the Central Office (RJ45)

1 WAN Ethernet 10/100 BASE T (RJ45)

Phones

IP phones:

32 SIP phones by default

Up to 160 additional SIP phones may be

added with feature keys All SIP phones can be connected both

from LAN or WAN side

Plug-and-Play with select IP Phone manufactures

Analog phones:

2 Analog phones (or other analog devices) to connect via FXS ports

Auto Attendants and Virtual Extensions

Auto Attendants:

Up to 400 standard and custom AA can be registered

Virtual Extensions:

Up to 400 Virtual Extensions can be registered\*\*

\*\*The total number of extensions used for IP phones, Analog phones, AA and virtual extensions can not exceed 400 extensions.

System Capacity

Up to 64 simultaneous VoIP calls with external parties

Unlimited station to station calling for IP phones

Unlimited station to station calling for analog phones

30/24 PSTN calls via E1/T1 with external parties

External Storage Compact Flash

### Internet

STUN/NAT traversal (RFC 3489) IPSec VPN with DES, 3DES amnd 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 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 ISF with PAP/(MS)CHAP authentication IP DIFFSERV for QoS Virtual LAN (VLAN/IEEE 802.1Q) Mail client to send voice and fax messages as e-mail attachments (.wav and .tif) and system notifications DNS (DYNDNS) support with third party NAT/Router with port forwarding and port translation.

### Sustem

Management

Multilingual WEB interface accessible from LAN and WAN (HTTP/HTTPS) Password control

Remote diagnostics and software

upgrade

Auto-provisioning VoIP Carrier Wizard

Download/restore configuration Legible and editable configuration files Auto-configuration of IP phones via TFTP

and HTTP

SNMP Monitoring and Configuration Third Party Call Control (XML RPC and

Windows ActiveX interface) Reset button with factory reset option

Custom Language Pack

Diagnostics/Testing

LEDs: Busy, Info, Fault, LAN, WAN, Loop settings Remote testing

Billing and Statistic

Radius Client (RFCS: 2865, 2866), CDRs

## Environmental

Physical Dimensions

Rack-mountable devices:

Measurements: 19" x 7.56" x 1.77"

(48.0 x 19.2 x 4.5 cm)

Weight: 2.47 lbs.(1090 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

Telecom: TBR12/TBR13; AS/ACIF



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