QX5000

The QX5000 is designed for offices of up to 5,000 users supporting up to 700 concurrent calls to/from external networks. Any number of required FXS, FXO, E1 and T1 analog or digital ports can be easily added by interconnecting with Epygi QXFXO4, QXE1T1, QXISDN4 and QXFXS24 Gateways. The QX5000 includes a firewall and SIP Intrusion Detection & Protection System for optimal security. It can connect to the PSTN using Gateways or directly with SIP trunks through an ITSP with no additional equipment.

Capabilities

IP phones	500
Additional IP phones with keys	4,500
Total IP phones	5,000
Concurrent calls	700
Ethernet LAN port	1
Ethernet backup	1

Interconnection with QX Gateways

GATEWAYS	Recommended Number (max)
QXFXO4	32
QXISDN4	32
QXE1T1	20 (E1 mode) 24 (T1 mode)
QXFXS24	100

FEATURES

Telephony

PBX Features
- Auto Attendant with standard and customizable scenarios and call history
- Call blocking, forwarding, hold, transfer, Call Relay and call waiting
- Caller ID detection and hiding caller ID
- Voicemail system
- Voicemail notification via SMS/email
- Caller ID-based voicemail profile
- Call park, call pickup, multicast paging, intercom
- Distinctive ringing
- Speed dial, global speed dialing
- Many Extension Ringing, Call hunting
- Receptionist
- Call Park with Paging
- Call Park on Auto Attendant
- Call back from Auto Attendant
- Emergency Call Alert
- Hold music
- Call history with archiving
- Do Not Disturb
- Global speed dial
- Find Me / Follow Me
- Unified Messaging
- Three-way conferencing
- G3 fax support: T.38 and clear channel fax
- Universal Extension Recordings
- Busy auto redial
- Directory assistance, Dial by Name
- Phone Book
- Dial plans (call routing), time of day routing
- Scheduling, Day/Night Switching
- Alarm
- Dial & Announce (D&A)
- Class of Service
- Call queue
- Hot Desking
- Parent-Child extension configuration
- Local Authentication for making call
- PIN code Barring
- Calling Cost Control*
- Redundancy*
- Automatic Call Distribution (ACD)*
- Epygi ACD Console (EAC)*
- Epygi Automatic Outbound Calling (AOC)*
- CRM Integration*
- Call Recording (320 ports)*
- Barge-In*
- Conference Server*
  - Audio (288 ports)/Video (104 ports)
- Auto Dialer application support*
- eQall Softphone*
- eQall SMS Messaging*
- eQall Receptionist Console*

PC-Based Applications
- QX-Quadro Configuration Console (QCC)
- Epygi Media Streamer (EMS)
- Epygi Hotel Console (EHC)*
- 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.722 and G.722.1 pass-through point-to-point HD call, OPUS

Video Coding:
- H.263, H.263+ and H.264 pass-through point-to-point video call

VoIP Encryption:
- SRTP

VoIP Signaling:
- SIP v2, SIP/TLS

DTMF:
- In band & out of band signaling support

VoIP Data and Signaling Protocols
- ITU-T G.711, G.726, G.729 Annex A;
- IETF RFC 3951- iLBC;
- 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)

Connectivity

Physical Interfaces
Network connections:
- 2 Ethernet 10/100/1000 BASE T (RJ45)

IP Phones
- 500 IP phones by default
- Up to 4,500 additional IP phones may be added with feature keys
- All IP phones can be connected both from LAN side or as remote extensions
- Auto provisioning support for all IP phones from selected manufacturers
- PnP configuration support for the most of IP phones from selected manufacturers
- Auto configuration using OpenVPN service for some of selected IP phones

Auto Attendants and virtual extensions
Auto Attendants:
- Up to 5,000 Auto Attendants can be added**
Virtual extensions:
- Up to 5,000 virtual extensions can be added**

System Capacity
- Up to 700 simultaneous VoIP calls with external parties
- Unlimited station-to-station calling for IP phones

Emergency Repair Boot-up Device
- DVD-ROM

Network

- STUN/Network Address Translation (NAT) traversal (RFC 3489)
- Firewall security via:
  - Policy and service-based filtering
  - Stateful inspection firewall
- Intrusion Detection & Protection System (IDS/IPS)
- DHCP server on the LAN side
- DNS server with forwarding functionality
- Simple Network Time Protocol (SNTP) server/client for computer clock synchronization
- IP DIFFSERV for QoS
- SIP tunneling
- Virtual LAN (VLAN/IEEE 802.1Q)

- Mail client to send voice and fax messages as email attachments (.wav and .tif/.pdf respectively) and system notifications
- DNS (DYNDNS) support with third party

System

Management
- Multilingual web interface accessible from LAN (HTTP/HTTPS)
- Password control
- User rights management
- Remote diagnostics and software upgrade
- 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 (3PCC) XML RPC*
- Custom language pack
- System event notification via SMS/email
- Emergency recovery

Diagnostics/Testing
- System logs
- Remote testing
- 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:
- 16.8" x 14" x 1.7" (42.6 x 35.6 x 4.3cm)
Weight:
- 15 lbs (6.8 kg)

Conditions
Operating temperature:
- 50°F - 95°F (10°C - 35°C)
Storage temperature:
- -31°F - 140°F (-35°C - 60°C)
Non-condensing humidity:
- 5% - 90%

Power Supply
- 100 - 240V, 50-60Hz, 4A (max)
- Hot plug power supplies with full redundancy option

Regulatory Compliance
- Power Supply Safety/EMC
- USA - UL listed, FCC
- Canada - CUL listed
- Germany - TUV Certified
- Europe/CE Mark
- EN 60950/IEC 60950-Compliant

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* Requires a software license key
** The total number of extensions used for IP phones, Auto Attendants and virtual extensions can not exceed 5,400.

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