# QX2000

The QX2000 IP PBX supports offices with up to 2,000 users. Any number of required FXS, FXO, ISDN BRI, E1 and T1 analog or digital ports can be easily added by interconnecting with Epygi QXFXO4, QXISDN4, QXE1T1 and QXFXS24 Gateways. It can connect to the PSTN using Gateways or directly with SIP trunks through an ITSP. In addition, the QX2000 can support up to 300 concurrent calls.

| IP phones | 200 |
|---|---|
| Additional IP phones with keys | 1,800 |
| Total IP phones | 2,000 |
| Concurrent calls | 300 |
| Ethernet LAN port | 1 |
| Ethernet backup | 1 |

**Interconnection with QX Gateways**

| GATEWAYS | Recommended Number (max) |
|---|---|
| QXFXO4 | 32 |
| QXISDN4 | 32 |
| QXE1T1 | 10 (E1 mode), 13 (T1 mode) |
| QXFXS24 | 80 |

# FEATURES

## Telephony

PBX Features
- Auto Attendant with standard and customizable scenarios
- 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, paging, intercom
- Distinctive ringing
- Speed dial
- Many Extension Ringing
- Receptionist
- Call hunting
- Call back from Auto Attendant
- Hold music
- Call history
- 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 plans (call routing), time of day routing
- Scheduling, Day/Night Switching
- Alarm
- Dial & Announce (D&A)
- Class of Service
- Call queue
- Calling Cost Control*
- Redundancy*
- Automatic Call Distribution (ACD)*
- Epygi ACD Console (EAC)*
- Call Recording (152 ports)*
- Barge-In*
- Conference Server*
  Audio (288 ports)/Video (104 ports)
- Auto Dialer application support*
- iQall Mobile Toggling*

PC-Based Applications
- Desktop Communication Console (DCC)*
- 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
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
- 200 IP phones by default
- Up to 1,800 additional IP phones may be added with feature keys
- All IP phones can be connected 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 2,400 Auto Attendants can be added
Virtual extensions:
Up to 2,400 virtual extensions can be added**

System Capacity
- Up to 300 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
- SIP Intrusion Detection System (SIP IDS)
- 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 and WAN (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*
- Extension status watching (with DCC)
- 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)

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

---

\* Requires a software license key
\*\* The total number of extensions used for IP phones, Auto Attendants and virtual extensions can not exceed 2,400.

Tel: (+1) 972.692.1166
Web: www.epygi.com
E-mail: sales@epygi.com