



QX20

The QX20 IP PBX is designed for offices with as many as 32 users. The QX20 can support up to 32 IP devices and 10 concurrent calls. SIP trunking allows for the QX20 to connect directly to an ITSP with no additional equipment. The QX20 includes a firewall and SIP Intrusion Detection for optimal security. E1, T1, FXO and FXS ports can easily be provided using the Epygi QX Gateways.

Capabilities

IP phones	12
Additional IP phones with keys	20
Total phones	32
Concurrent calls	6
Additional concurrent calls with keys	4
Ethernet LAN port (10/100/1000)	1
Ethernet WAN port (10/100/1000)	1
Audio In port	1
Audio Out port	1
SD slot	1

Interconnection *with* QX Gateways

GATEWAYS	Recommended Number (max)
QXFXO4	2
QXISDN4	1
QXE1T1	1
QXFXS24	1

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 Park with Paging
Call Park on Auto Attendant
Call back from Auto Attendant
Emergency Call Alert
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
Phone Book
Authorized Phones
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*
CRM Integration*
Call Recording (10 ports)*
Conference Server*
Audio (16 ports)/Video (8 ports)
iQall Advanced Features*
eQall Softphone*
eQall Receptionist Console*

PC-Based Application

Desktop Communication Console (DCC)*
QX-Quadro Configuration Console (QCC)
Epygi Media Streamer (EMS)

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 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,
G.168-2000, 2002, Q.23, Q.24;
IETF RFC 3951- iLBC;
Telcordia (Bellcore) GR.506, GR.181;
ETS_300_659_1,2,3;
SIP, SIP/TLS (RFCs: 2246, 3261, 3263,
3265, 3311, 3323, 3248, 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

Premise connections:

1 LAN Ethernet 10/100/1000 BASE-T
port (RJ-45)
1 Ethernet 10/100 BASE-T port
(RJ-45) for redundancy connection

Uplink connections:

1 WAN Ethernet 10/100/1000 BASE-T port
(RJ-45)

Audio port connections:

Line-in/line-out (line-in signal level - 0.5V
RMS, Line-out $R_{load} = 600\Omega$ to
10K Ω)

USB connections:

USB host, type A
USB OTG, mini type AB

IP Phones

12 IP phones by default
20 additional IP phones may be added
with feature keys
All IP phones can be connected both from
LAN or WAN 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 100 Auto Attendants can be added

Virtual extensions:

Up to 100 virtual extensions can be
added**

System Capacity

Up to 10 simultaneous VoIP calls with
external parties
Unlimited station-to-station calling for
IP phones

Memory Storage

microSD card

Network

STUN/Network Address Translation (NAT)
traversal (RFC 3489)
IPSec VPN with 3DES and AES encryption
in tunnel mode (RFCs: 2402, 2406, 2409)
Automatic Internet Key Exchange (IKE)
keying support
OpenVPN
PPTP VPN, L2TP VPN
Firewall security via:
Intrusion Detection System (IDS)
Network Address Translation (NAT)
Policy and service-based filtering Stateful
inspection firewall
SIP Intrusion Detection System (SIP IDS)
DHCP server on the LAN side
DHCP client on the WAN side
DNS server with forwarding functionality

Simple Network Time Protocol (SNTP)

server/client for computer clock
synchronization

PPPoE connection to the ISP with

PAP/MS CHAP authentication

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 .tiff/.pdf
respectively) and system notifications
DNS (DYNDNS) support with third party
NAT/router with port forwarding and port
translation

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*
Reset button with factory reset option
Extension status watching (with DCC)
Custom language pack
System event notification via SMS/email
Emergency recovery

Diagnostics/Testing

System status LED
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:

8.0" x 4.0" x 1.6" (20.5 x 10.5 x 4.0 cm)

Weight:

1.26 lbs. (570 g)

Conditions

Operating temperature:

41°F - 104°F (5°C - 40°C)

Storage temperature:

41°F - 140°F (5°C - 60°C)

Non-condensing humidity:

5% - 90%

Powering Options

Input: 85-264VAC, 47-63Hz, AC

Input from type AB mini-USB,

Input from 5VDC/2A adapter

Power Consumption

2.7W (idle), 6.5W (max)

* Requires a software license key

** The total number of extensions used for
IP phones, Auto Attendants and virtual
extensions can not exceed 100.