

QuadroE1/T1: The Voice over IP Gateway

The QuadroE1/T1 is the complete PSTN/VoIP gateway for growing small businesses that want to establish for example a corporate telephone network.

Connected over an E1/T1 voice trunk for up to 24 (T1) or 30 (E1) concurrent calls to a PBX or directly to the local PSTN and via Ethernet to the Internet, the QuadroE1/ Ti seamlessly combines the cost reducing benefits of IP technology with the ubiquity of the PSTN, which opens a multitude of scenarios for free phone calls all over the world.

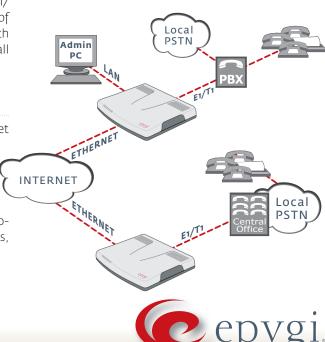
Integrated Internet Access

The QuadroE1/T1 VoIP Gateway allows voice Internet access with firewall security, including NAT, policy and service based filtering.

The QuadroE1/T1 shapes network traffic by prioritizing voice over data to ensure optimal voice quality at all times and is compatible with legacy equipment configurations like off-the-shelf telephones, standard PBXs and routers.

Broad Mangement Features

The included RADIUS Billing functionality gives detailed information about every call and allows both acurate and easy billing. Further, statistic information about the current and former IP traffic is provided.



Telephony

Voice Features

Voice Coding G.711, G.723 (5.3, 6.3 kbit/s), G.726 (16, 24, 32, 40 kbps), G.729, iLBC (13,33 kbit/s, 15,2 kbit/s); (RFC 3951, ITU-T: G711, G.723,1 Annex A, G.726, G729 Annex A; IETF;

ITU-T Q.23, Q.24, Bellcore GR.506, GR.181; ITU-T G.168-2000, 2002; ETS_300659_1,2,3; A-law, μ-law coding)

NAT traversal (both manually and STUN) VAD, CNG, G.168 echo cancellation

PBX Features

Call statistics Call routing Auto Attendant T. 38 fax, fax relay and clear channel fax

Call Signaling

SIP on the WAN and LAN side (RFCs: 3261, 3263, 3265, 3311, 3428, 3515, 3842, 3856, 3891, 3892, 3581, draft-ietf-sip-session-timer-15, draft-ietf-sipping-dialog-package-o5;
Presence: RFCs: 3842, 3856, 3863, draft-ietf-sipping-dialog-package-o5)
SDP (RFC 2327)
RTP (RFCs: 1889, 1890, 2833, 3389, 3550, 3551, 3555, draft-ietf-avt-rtp-ilbc-o5)
H. 323 (optional) (ITU-T: H. 225, O, H. 235, H. 245, H. 323, H. 450, X., Q. 931, Q. 932)
Fax over IP (ITU-T: T4, T30, T38, V17, V21, V27 ter, V20)

POTS Signaling Loop start

·

ISDN Signaling

TTU-T: Q,921, Q,931 (DSS1), Q,951; ETSI ETS300 102 (NET5); ECMA-143-(QSIG); SR-NWT-002120 (NI2) NTT INS1500 for Japan

E1/T1Signaling

Fi-CAS (MELCAS, ITU, ITU-T2, IUT-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; E6M Delay Dial, E6M Wink Start, E6M Immediate Start, R2 DTMF, R2 compelled with ANI, R2 non-compelled, R2 compelled with ANI; R2 Parameters for Brazil, Guatemala and Mexico)

Ti-CAS (Loop Start, Ground Start, E6M Delay Dial, E6M Wink Start, E6M Immediate Start; ANSI Ti.1Q3, 02-199, Ti.403, 02a-2001

PRI switch types: DSS1, NET5, QSIGg, 5ESS,

DTMF

Caller ID support In band and out of band signaling support

NTT ins1500 DMS 100

Connectivity

Premise Connections

1 short-loop FXS port (RJ11) 1 Ethernet 10/100BASET port to connect a PC for configuration purposes (RJ45)

Uplink Connection

1 E1/T1 port to the Central Office (RJ45) 1 Ethernet 10BASET (RJ45)

Billing

Radius Client (RFCS: 2865, 2866)

Internet

NAT address translation STUN/NAT traversal (RFC 3489) Firewall security via: NAT (Network Address Translation) Policy and service-based filtering 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 ISP with PAP/(MS)CHAP authentication IP DIFFSERV for QoS DNS support Port forwarding Port translation

System

Management

WEB interface accessible from LAN and WAN (HTTP/HTTPS), the WAN management access can be switched off Password control Remote diagnostics and software upgrade Download/restore configuration Reset button with factory reset option

Diagnostics/Testing

LEDs: Busy, Info, Fault, LAN, WAN, Line 1, Line 2 E1/T1 diagnostigs, Loop settings Remote testing Power-up diagnostics

Environmental

Physical Dimensions

Desktop devices, wall-mountable: Measurements: 10.04" x 8.27" x 1.77" (25.5 x 21.0 x 4.5 cm) Weight: 22.6 ounces (640 g)

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 Output 12.0 VDC; 1.5 A

Regulatory Compliance

Safety: UL 60950; CSA 22; EMC: FCC Part 68, FCC Part 15 Class B; EN55022, EN55024; Telecom: TBR12, TBR13

Certification:

For Australia, Brazil, Canada, European Community, Mexico, USA

















