

Technical Specification

VoIP-Gateway IP2000

Interfaces

ISDN PRI	20 channel step-by-step license registration
2 x Ethernet:	10/100-BASE-TX auto negotiation Power over LAN (IEEE 802.3af) Both interfaces individually addressable LED for Activity and 100Mbit Modus
Compact Flash	prepared for Compact Flash Cards Type I

Hardware

Housing:	210 x 184 x 32 mm Can be fitted in 19" equipment using an additional frame (optional), 1 height unit
Power Supply:	Power over LAN (IEEE 802.3af)
Memory:	64 MB DRAM, 16 MB Flash Remote firmware update
CPU:	RISC CPU for protocol processing Digital Signal Processor (DSP) for voice data processing for up to 20 channels
Operation environment:	Operation temperature 0°C to +45°C Humidity 10% to 90% non-condensing Storage temperature -10°C to +70°C
Weight:	1050 g

Voice over IP

Internet:	IP Internet Protocol – basis for TCP and UDP, DHCP dynamic host configuration protocol
H.323:	H.323 version 4 inclusive H. 225, H.235, H.245 and RAS Gatekeeper routed signaling, H.450 RAS support for external Gatekeeper H.245 fast connect En-block dialing Overlapped sending
SIP:	SIP version 2 (including HTTP digest authentication) conform RFC 3261 RFC 2327 SDP: Session Description Protocol RFC 2396 URI generic syntax RFC 2617 Digest Authentication RFC 3261 SIP RFC 3264 An Offer/Answer Model with SDP RFC 3265 Session Initiation Protocol (SIP) - Specific Event Notification RFC 3326 The Reason Header Field for the Session Initiation Protocol RFC 3515 Sparks, The Session Initiation Protocol (SIP) Refer Method RFC 3891 SIP Replaces Header
Voice over IP:	RTP real time protocol – for speech transport RTCP real time control protocol – first level of „Quality of Service“
Fax over IP:	T.38 real time fax
DTMF:	H.245 Alphanumeric or Signal Type
Quality of Service:	TOS und DiffServ IEEE 802.1p / 802.1q
Voice Encoding:	G.711 A-law / μ -law (64 kbps), G.723.1 (5.3 and 6.3 kbps), G.729A (16 kbps) G.726 (32 kbps), VAD (Voice Activity Detection), CNG (Comfort Noise Generation), Dynamic Jitter Buffering
Echo Compensation:	G.168

Administration

Access:	via HTML/Web-Browser Password protected authentication
Troubleshooting:	Logs and Traces Status display of interfaces and connections PING SNMP Traps sending
Update:	Configuration recording/sending Bootcode and firmware update via HTML upload Automatic update via Update-Server

Data routing

DSL:	PPPoE Manual/automatic connection after boot
VPN:	PPTP Tunneling Up to 32 tunnels simultaneously Encoding via MPPE
NAT:	for transformation of official IP Addresses into private IP Addresses and vice versa

Routing of Telephone connections

Connections	VOIP-ISDN, ISDN-ISDN, VOIP-VOIP
Re-Routing	configuration of alternative routes
Billing:	automatic Call Detail Records (CDR) generation
Calling Number Mapping:	modifying of Calling and Called Party Number possible; delete, add or replace of dial prefixes
External Address Resolution:	related to ENUM for H.323 and SIP protocols
Automatic Dial tone	European and US Standard
HTTP Interface	plays recorded messages deposited on a web server
ISDN Protocols	EDSS1, QSIG, T1-CAS, E1-CAS
QSIG-Interworking	QSIG ECMA V.2

Additional Features

Time:	exact time information via time server SNTP-Client & Server
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