

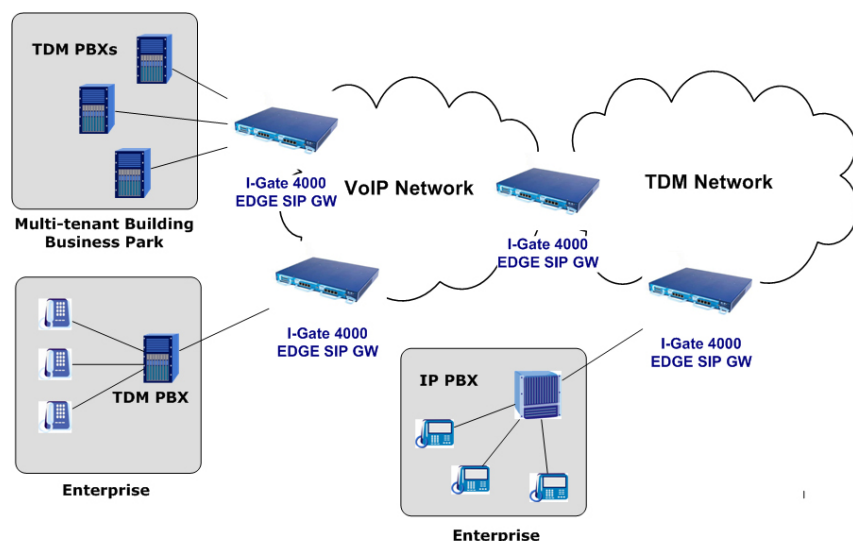
I-Gate 4000 EDGE SIP Gateway

Bridging TDM to SIP and VoIP Services

The I-Gate 4000 EDGE SIP Gateway (GW) is a feature-rich bridge from legacy TDM based networks to next generation SIP IP-based networks enabling service providers to:

- Reduce the cost to provide voice services to enterprise customers using legacy TDM PBXs by allowing them to access IP and SIP based services.
- Cost effectively reach new customers through IP networks instead of expensive TDM infrastructure.
- Provide SIP and IP access to their own legacy TDM switches and applications

In addition, multi-site enterprises can use the I-Gate 4000 EDGE SIP GW to interconnect locations still using legacy TDM voice switches with sites that have already been migrated to VoIP.



The I-Gate 4000 EDGE SIP GW's unique hardware architecture and industry-leading signaling and media handling features combine to form a powerful platform for bridging TDM and IP networks.

The I-Gate 4000 EDGE SIP GW can be deployed in a fully redundant configuration providing six 9's reliability and ensuring high availability. No other comparable product supports full system redundancy which typically means availability below five 9s. High reliability is especially important because the I-Gate 4000 EDGE SIP GW will often be placed at the customer's premises which means getting access may be difficult and time-consuming.

The I-Gate 4000 EDGE SIP GW supports a comprehensive set of digit handling, call routing and IP QoS features to optimize call handling. To simplify configuration and deployment and minimize operating costs, the I-Gate 4000 EDGE SIP GW is fully supported by the GUI-based VerazView xMS management system.

The I-Gate 4000 EDGE SIP GW leverages the field-proven compression technology in the I-Gate 4000 media gateway family to provide industry leading compression levels of to 16:1 without sacrificing voice quality. This capability is especially useful for reducing IP transport costs when extending services to remote locations.

The I-Gate 4000 EDGE SIP GW: Delivering SIP to Legacy Switches

• Six 9s reliability in 1U form-factor

The I-Gate 4000 EDGE SIP GW can be configured for six 9s reliability in a 1U chassis supporting zero-downtime applications.

• Up to 16:1 voice compression with high quality

The I-Gate 4000 EDGE SIP GW includes industry-leading voice compression supporting up to 16:1 voice compression while maintaining toll-quality.

• Sustained performance at peak traffic load

Even at maximum load, the I-Gate 4000 EDGE SIP GW maintains its call processing performance, voice quality and compression rates.

• Comprehensive digit handling, call routing and IP QoS

The I-Gate 4000 EDGE SIP GW supports a comprehensive set of digit handling, call routing and IP QoS features providing a high degree of flexibility and optimized performance.

• Simple management with the VerazView xMS

Configuration and management of the I-Gate 4000 EDGE SIP GW is easy with the GUI-based VerazView xMS management system.

• Multivendor interoperability

The I-Gate 4000 EDGE SIP GW's open architecture and standards compliance ensures multi-vendor interoperability.

**Energizing
Communications**

specifications

Features & Specifications

Traffic Capacity

- 480 simultaneous calls max

Traffic Processing

- Silence suppression
 - * G.711, App 2
 - * G.729A, Annex B
 - * G.729A, App 2 (G.711)
 - * G.723.1, Annex A
- Voice Codecs
 - * G.711 PCM @ 64Kbps (A-law and μ -law)
 - * G.729A (+B), CS ACELP @ 8 Kbps
 - * G.723.1, ACELP/MPMLQ @ 5.3, 6.3 Kbps
- Fax support
 - * Group 3 fax
 - * ITU T T.38 fax relay or pass-through to G.711
 - * V.27, V.29 and V.17 (up to 14.4 Kbps)
- VBD/modem support
 - * Pass through to G.711
 - * V.22, V.23, V.32, V.34, V.90 and V.92
 - * Operator configurable maximum number of VBD/modem call (and transparent channels)

Echo Cancellation

- ITU T G.168 and G.165 compliant
- Up to 128 msec echo tail length
- Dynamic echo cancellation controlled by signaling
- ERL: 6dB
- NLP: Non-linear Processor Enable/Disable

DTMF Support

- In-band, DTMF relay (RFC 2833)
- Out-of-Band, INFO method (RFC (2976)

Jitter Buffer

- Adaptive
- Up to 300 msec network jitter

Trunk Interfaces (PBX)

- Up to 16 E1
- Up to 20 T1

Packet Network Interface

- Physical
 - * Fast Ethernet (100BaseT)
 - * TDM: E1 or T1
- WAN Protocols
 - * PPP
 - * MLPPP
- Signaling
 - * RFC 3261
 - * RFC 3264
 - * RFC 4028
 - * RFC 4566

Management

- SNMP v2 (RFC 1907) for runtime configuration, status, alarm
- FTP (RFC 959) for SW and map download/upload)

Power

- Max dissipation: 76W

	Nominal	Max/Min
DC	-48/-60V	-75/-36V
AC	-220/110V	90/265V

Physical Specifications

- Dimensions (H*W*D):
44.45 (1U) * 435 * 350 (mm)
- Weight: 4 (Kg)

Redundancy

- Main module
- Power supply and input
- TDM bearer
- Fan tray and turbo support

Environmental

- Operating Temperature: -5°C - 50°C
- Relative Humidity: 10% - 95% RH

Availability

- 99.9999% (six 9s)

Regulatory Standards

- Safety :
 - * UL 60950-1:2003
 - * CAN/CSA -C22.2 No. 60950-1-03
 - * CE EN60950-1:2001
 - * CB IEC60950-1:2001 1st Ed.
 - * German: EN60950-1:2001+A11
- Environmental:
 - * ETSI - ETS300 019
 - * Telcordia GR-63-CORE
- EMC:
 - * EN 300 386 V1.3.2 (2003-05)
 - * FTZ 1TR9:06-2002
 - * Emission: EN55022
 - * Immunity: EN61000-4 2, 3, 4, 5, 6, 11
 - * FCC CFR 47 part 15
 - * ICES-003
 - * VCCI V-3/2001.04
 - * CISPR 22:04

About Veraz Networks

Veraz Networks, Inc. (NASDAQ: VRAZ), is the leading provider of application, control, and bandwidth optimization products that enable the evolution to the Multimedia Generation Network (MGN). Service providers worldwide use the Veraz MGN portfolio to extend their current application suite and rapidly add customized multimedia services that drive revenue and ensure customer retention. The Veraz MGN separates the control, media, and application layers while unifying management of the network, thereby increasing service provider operating efficiency. Wireline and wireless service providers in over 50 countries have deployed products from the Veraz MGN portfolio, which includes the ControlSwitch™, Network-adaptive Border Controller, I-Gate 4000 Media Gateways, the VerazView Management System, and a set of customizable applications, including the verazVirtu softclient.

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