

# Vega 400 E1/T1

## Up to 120 VoIP Channels



Let's talk Voice over IP. Let's talk VegaStream. Our range of dedicated VoIP gateways is helping to drive down the total cost of business communications. VegaStream's technical know-how and non-stop support mean that VoIP simply works, first time, every time. We collaborate with service providers, technology and channel partners to enable easy integration with existing systems. VegaStream gives your business a voice.



### Typical Vega 400 Gateway Applications

#### Service Provider Applications:

- > Customer premises gateway
- > Low-density PSTN gateway

#### Enterprise Applications:

- > Enterprise VoIP networking
- > Enterprise IP telephony gateway
- > For further details on these applications, please refer to the website.

The Vega 400 digital gateway connects digital telephony equipment to IP networks. All Vega 400 gateways have four E1 / T1 interfaces and can be purchased with various VoIP capacities up to 120 VoIP channels.

The Vega 400 has been designed with future expansion in mind and consists of:

- > Base Vega 400 unit with expansion slots
- > Field-installable expansion modules to provide additional VoIP channel capacity

A Vega 400 unit can therefore be installed with one VoIP channel capacity and then later additional capacity can be provisioned as and when it is needed.

Each E1 / T1 interface can be independently configured as network side or terminal side. The Vega 400 gateway can, therefore, be connected to a PBX and the PSTN simultaneously. This configuration provides:

- > No disruption to the configuration of existing equipment
- > Flexibility and choice for call routing

### Open, Non-Proprietary Interfaces

The Vega 400 gateway supports the following signaling schemes:

- > ETSI ISDN
- > NI1, NI2, AT&T 5ESS, DMS100
- > ISO QSIG Basic Call and QSIG feature transparency
- > Channel Associated Signaling (CAS)

All VegaStream gateways can support SIP, H.323 and T.38 fax.

The Vega 400 gateway has proven interoperability with a wide range of existing telecommunications and VoIP equipment.

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### Interfaces

#### VoIP Protocols

- > SIP
- > H.323 version 4
- > Audio codecs:
  - > G.723.1 (5.3/6.4 kbps)
  - > G.729a (8 kbps)
  - > G.711 (a-law/ $\mu$ -law) (64 kbps)
- > Fax Support – up to G3 fax, using T.38
- > Modem Support – up to V.90, using G.711
- > Up to 120 VoIP channels

#### Telephony Interface

Primary Rate ISDN (User configurable NT/TE):

4 x E1

- > Euro-ISDN
- > ISO QSIG
- > QSIG Feature Transparency (H.323)
- > CAS R2MFC

4 x T1

- > NI1/NI2
- > AT&T 5ESS
- > DMS100
- > CAS (RBS)
  - E&M wink start
  - Loop start
  - Ground start
- > ISO QSIG
- > QSIG Feature Transparency (H.323)

#### LAN Interface

- > 2 x 10 BaseT / 100 BaseTX, full or half duplex

### Features

#### Identification

- > Caller ID presentation
- > Caller ID screening allows connections to be accepted only from selected call sources
- > H.323 gatekeeper registration
- > SIP Registration and Digest Authentication

#### Operations, Maintenance and Billing

- > HTTP web server
- > Radius Accounting
- > Remote firmware upgrade:
  - > Auto code upgrade
  - > Auto configuration upgrade
- > SNMP
- > TFTP/FTP support
- > VT100 – RS232/Telnet

#### Routing and Numbering

- > Dial Planner – sophisticated call routing capabilities, standalone or gatekeeper/proxy integration
- > Direct Dialing In (DDI)
- > SIP registration to multiple proxies
- > NAT traversal

### Call Quality

- > Adaptive jitter removal
- > Comfort noise generation
- > Silence suppression
- > 802.1p/Q VLAN tagging
- > Differentiated Services (DiffServ)
- > Type of Service (ToS)
- > QoS statistics reporting
- > Echo cancellation (G.168 up to 128ms)

### Hardware

#### Certification

EMC (ClassB)	Safety	Telecoms (ISDN)
EN55022	EN60950	E1: TBR4
EN55024	IEC60950	T1: FCC Part 68
FCC Part 15	UL60950	T1: CS-03
AS/NZS3548	AS/NZS60950	
VCCI		

#### Environmental

- > 0° .. 40°C
- > 0% .. 90% humidity (non-condensing)

#### Indicators

LED:

- > Power
- > ISDN: NT/TE and Link up
- > LAN: Speed, Activity

#### Physical Dimensions

- > 437mm (17.2") x 43mm (1.7") x 275mm (10.8") width/height/depth
- > Industrial rackmount: 483mm (19"), 1U
- > Weight: 6.5kgs

#### Power

- > 100..240 VAC, 47..63 Hz, 1..0.5 A
- > -48V DC also available, 1.2A (Max)

#### Program Storage

- > Code and configuration data are stored in FLASH and executed from RAM.

Vega400/v5