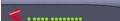# Vega 400 E1/T1
23-120 Channels Digital

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.

The Vega 400 digital gateway connects digital telephony equipment to IP networks. All Vega 400 gateways have four E1 or T1 interfaces and can be configured to support between 23 VoIP channels (1 T1) and 120 VoIP channels (4 E1s).

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 capacity and other applications

The base Vega 400 unit can therefore be installed and additional capacity provisioned as and when it is needed.

Each E1/T1 interface can be independently configured as network or terminal-facing therefore Vega 400 gateway can 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) on the T1 product

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. For a list of certified interoperability partners, please contact sales@vegastream.com

Vega 400 E1/T1
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Software release 6

Interfaces

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

LAN Interface
2 x 10 BaseT, 100 BaseTX, full or half duplex

Features

Identification
> Caller ID presentation
> Caller ID screening guarantees connection only from
  authenticated call sources
> H.323 gatekeeper registration
> SIP Registration and Digest Authentication

Billing, Operations and Maintenance
> HTTP web server – with access to user guide
> Radius Accounting
> Remote firmware upgrade:
  > Auto code upgrade
  > Auto configuration upgrade
> SNMP MIB 1&2
> TFTP/FTP support
> VT100 – RS232/Telnet

Routing and Numbering
> Dial Planner – sophisticated call routing capabilities,
  standalone or gatekeeper/proxy integration
> Direct Dialing In (DDI)/Direct Inward Dialing (DID)

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)
> NAT Traversal

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)

Front Panel Display
LED:

> ISDN: DSL Physicals
> LAN: Speed, Activity, Half/Full Duplex

Management
> HTTP web server – with access to user guide
> SNMP MIB 1&2
> VT100 – RS232C/Telnet

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

Program Storage
Code and configuration data are stored in FLASH and
executed from RAM.

Vega400/Draft2