

# Vega Gateway Series Analog/Digital



As business telecommunication requirements evolve with time, Sangoma VoIP Gateways are the ideal solution to connect your current telephony infrastructure with VoIP infrastructure, while keeping security, business continuity and cost in mind. Our wide customer-base trusts our gateways for small business, Enterprise, contact center and Service Provider solutions. Not only do we provide the most fault tolerant and resilient gateway on the market we are also becoming the most popular choice for interoperability with SIP trunk providers and large vendors.

## Sangoma Media Gateways

Implementing a Vega Gateway is an ideal addition to your business continuity plans. In spite of external network failures, you can stay connected—Vega Gateways have industry-leading resiliency and fault tolerance built right in. Local Survivability keeps SIP endpoints operational in the event that connectivity to the main switch is lost.

**“Award-winning IP-to-TDM stand-alone gateway devices from Sangoma effectively bridge disparate technologies easily and cost-effectively.”**

Vega Gateways support ISDN BRI, PRI, FXS, FXO, and E1/T1 line codes and protocols for installations ranging from small businesses to large enterprises. Easily deployed as Service Provider Customer Premise Equipment (CPE), the Vega appliances feature auto-detection and simple GUI-based configuration. The Vega series also include models for multi-tenant applications via legacy telephone wiring and systems.

Qualified for Lync 2013 and Skype for Business 2015.



## The Most Fault Tolerant Gateways in their Class

- » Local Survivability: Stay connected
- » Emergency PSTN backup
- » Flexible call routing for fallback and least cost routing
- » Interoperable with a range of legacy and IP equipment
- » Voice, fax and modem support
- » Hardware failover using port bypass (Vega 400G Only)
- » Optional annual support and software maintenance plans

### USE CASES

#### Service Provider Applications

- » Survivability for IP phones
- » Customer premises gateway for SIP trunking
- » Low-density PSTN gateway

#### Enterprise Applications

- » Enterprise VoIP networking
- » PSTN trunking for IP-PBXs
- » Enterprise IP telephony gateway

Vega Series	Vega 60G	Vega 100G	Vega 200G	Vega 400G	Vega 3000G	Vega 3050G
<b>VoIP Channels</b>	4 - 8	Up to 30	Up to 60	Up to 120	24	50
<b>Telephony Interfaces</b>	FXO/FXS/BRI	1 T1/E1	2x T1/E1	4x T1/E1 4x Failover Ports	24x FXS	50x FXS 2x FXO*
<b>Audio Codecs</b>	<ul style="list-style-type: none"> <li>» G.711</li> <li>» G.729a</li> <li>» G.723.1</li> <li>» G.726</li> <li>» T.38</li> </ul>	<ul style="list-style-type: none"> <li>» G.711</li> <li>» G.729a</li> <li>» G.723.1</li> <li>» G.726</li> <li>» T.38</li> </ul>	<ul style="list-style-type: none"> <li>» G.711</li> <li>» G.729a</li> <li>» G.723.1</li> <li>» G.726</li> <li>» T.38</li> </ul>	<ul style="list-style-type: none"> <li>» G.711</li> <li>» G.729a</li> <li>» G.723.1</li> <li>» G.726</li> <li>» T.38</li> </ul>	<ul style="list-style-type: none"> <li>» G.711</li> <li>» G.729a</li> <li>» G.723.1</li> <li>» G.726</li> <li>» T.38</li> </ul>	<ul style="list-style-type: none"> <li>» G.711</li> <li>» G.729a</li> <li>» G.723.1</li> <li>» G.726</li> <li>» T.38</li> </ul>

\*Optional

## TECHNICAL SPECIFICATIONS

### Interfaces

#### VoIP Interface:

- » Fax support - up to G3 FAX, using T.38
- » Modem support - up to V.90, using G.711
- » Up to 120 VoIP channels (depending on the model)
- » SIP (H.323 version 4 for Vega 60G only)
- » Audio Codecs:
  - > G.711 (a-law/ $\mu$ -law) (64 kbps)
  - > G.723.1 (5.3/6.4 kbps)
  - > G.729a (8kbps)
  - > G.726
  - > T.38

#### Telephony Interface:

- » ETSI BRI
  - > 2x or 4x S/T interfaces presented on RJ-45
  - > Point to point or point to multipoint
  - > Each interface can be configured NT or TE
- » Analog
  - > Vega 60G: 1 FXO/FXS port per RJ-11
  - > Vega 3000G: Up to 24 FXS ports
  - > Vega 3050G: Up to 50 FXS ports
  - > 600R, 900R or CTR-21 line impedance

Primary Rate ISDN (User configurable NT/TE):

- » T1
  - > NI1/NI2
  - > AT&T 5ESS
  - > CAS (RBS)
  - > DMS100
  - > ISO QSIG
  - > CAS Private Wire (\*400G)
- » E1
  - > Euro-ISDN
  - > ISO QSIG
  - > VN4
  - > CAS R2MFC
  - > CAS Private Wire (\*400G)

#### LAN Interface:

- » 2x RJ-45s (Vega 3000G has only 1), 1000BaseT (Vega 100G/200G/400G) / 100 BaseT / 10 BaseT, full/half duplex
- » IPv4

### Features

#### Identification

- » Caller ID presentation
- » Caller ID screening allows connections to be accepted only from selected call sources
- » SIP registration & digest authentication
- » H.323 gatekeeper registration (Vega 60G only)

#### Operations, Maintenance & Billing:

- » HTTP(S) web server
- » RADIUS accounting & login
- » Remote firmware upgrade
- » Auto configuration upgrade

- » SNMP V1, V2 & V3
- » TFTP/FTP support
- » VT100 – RS232/Telnet/SSH

#### Routing & Numbering:

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

#### Call Quality:

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

#### Security & Encryption:

- » Management – HTTPS, SSH Telnet
- » Configurable user login passwords
- » SIP/TLS and SRTP

#### Redundancy:

- » Hardware failover using port bypass (Vega 400G only)

### Hardware

#### Certification:

- » EMC (CLASS B)
  - > EN55022
  - > EN55024
  - > FCC Part 15
  - > AS/NZS3548
- » Safety
  - > EN60950
  - > IEC60950
  - > UL60950
  - > AS/NZS60950
- » TELECOMS (ISDN)
  - > E1: TBR4
  - > T1: FCC Part 68
  - > T1: CS-03
  - > VCCI

#### Environmental:

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

#### Dimensions:

- » All units are standard 1U high and support rack mount

#### Power Supply:

- » Internal PSU (Vega 400G & 3050G)
- » External AC/DC Converter (Vega 60G, 100G, 200G & 3000G)