NetBorder VoIP Gateway

16 or 32 Port E1/T1 Appliance

Although the telecommunications industry is rapidly adopting the Internet Protocol to provide Voice-over-IP (VoIP) services, the legacy PSTN network (using T1/E1 telco lines) is still prevalent for world-wide communication. As such there is a growing need for equipment that can seamlessly bridge legacy PSTN and VoIP services, whilst offering a variety of protocol support.

Introduce VoIP Telephony Services by Connecting a High-density VoIP Gateway to Your TDM Network

Sangoma's NetBorder VoIP Gateway (NVG) is a feature-rich, cost-effective solution that allows Telecom service providers to migrate from centralized legacy TDM networks to decentralized Voice-Over-IP (VoIP) networks, offering a more integrated telephony services.

The solution supports up to 32 E1/T1s using PRI or CAS MFCR2, providing SIP and T.38 fax connectivity in a 1U form factor. Built-in hardware transcoding also guarantees interoperability with all softswitches and compressed VoIP traffic to increase ROI.

The NetBorder VoIP Gateway is perfect for:

» Migrating from legacy services to IP-centric architectures
» Large enterprises and call-centers to deliver high-volume Sip trunking

NVG has been deployed in most regions world-wide, which can attest to its highly successful interoperability and integration with PRI/MFCR2 signaling and VoIP carriers as well as open-source PBXs and proprietary applications.

"Guarantee business continuity with built-in signaling link redundancy, SIP trunk failover and field-upgradable licensing."

Quick Facts

» Up to 32 Ports of E1/ T1 PRI & CAS MFCR2 Connectivity
» Up to 960 Channels of VoIP Calls & T.38 Faxing
» Flexible IP-TDM & IP-to-IP Interworking
» Hardware-based Transcoding to Guarantee Softswitch Interoperability
» Telco Grade Echo Cancellation
» Fully-featured Web GUI for Configuration, Monitoring & Diagnostics
» Optional Annual Support & Software Maintenance Plans

COST-EFFECTIVE & FLEXIBLE

Full inter-working is supported across all VoIP and TDM protocols simultaneously, allowing this single multi-protocol TDM to VOIP gateway to be deployed in differing networks.

PLATFORMS

Hardware Options

» Carrier grade 8 port E1/T1 appliance

» Carrier grade 16 / 32 port E1/T1 appliance

ADVANCED CAPABILITIES

Open, Non-proprietary Interfaces
All NetBorder VoIP Gateways Support the Following:

» ETSI, VN4, ISDN
» NI1, NI2, AT&T 5ESS, DMS100
» ISO QSIG Basic Call and QSIG Feature Transparency
» Channel Associated Signaling (CAS)
» R2 MFC
» All Vega gateways support SIP and T.38 Fax

SNMP & Radius

» An advanced web GUI delivers critical system and network information for easy monitoring and management of your services

Diagnostic Tools

» Onboard browser-based PCAP tracing, signaling and media – wireshark compatible

TECHNICAL SPECIFICATIONS

Features

Capacities:

» 8 port appliance
  › 8 E1/T1 ports, or 240 channels
» 16 port appliance
  › 16 E1/T1 ports, or 480 channels
» 32 port appliance
  › 32 E1/T1 ports, or 960 channels

VoIP Protocols:

» SIP V2 / RFC3261
» SCTP RFC 2960

PSTN Protocols:

» Primary Rate ISDN (PRI)
» E1: Euro-ISDN, CAS MFCR2
» T1: Q.931, NI2, 4ESS, 5ESS, DSM-100

Audio Codecs:

» G.711
» G.723.1
» G.726
» iLBC
» G.729AB
» GSM
» G.722
» AMR
» G.722.1
» Fax Support; T.38 Fax Relay

Echo Cancellation:

» DTMF detection and generation:
  › RFC2833 tone relay
  › In-band
  › SIP info
» G.168-2002 with 128ms tail

Debugging:

» Dedicated Browser interface for capturing full RTP media and signaling information
» Onboard browser-based PCAP tracing, signalling and media – wireshark compatible
» Large onboard storage capacity for long term tracing

Call Routing:

» Configurable and extendable XML-based dial plan and routing rules

Management & Configuration:

» Web GUI
» Command line interface
» Detailed logs with configurable file size and autorotation
» SNMP
» Radius
» Call detail records in XML format
» Remote firmware upgrade

Interfaces

PSTN Interfaces:

» 8 port appliance
  › 8 E1/T1; One 8-port telephony interface (RJ45 ports)
» 16 port appliance
  › 16 E1/T1; Either two 8-port telephony interface (RJ45 ports) or one 16-port telephony interface (16-port interface requires 68-pin SCSI type interface)
» 32 port appliance
  › 32 E1/T1: Two 16-port telephony interfaces (16-port interface requires 68-pin SCSI type interface)

Network Interfaces:

» 8 port appliance
  › 5x LAN 10/100/1000 BaseT Ethernet ports
  › IPV4, IPV6
  › 1x IPMI remote management Interface
  › 2x USB ports
  › 1x console port
» 16/32 port appliance
  › 7x LAN 10/100/1000 BaseT Ethernet ports
  › IPV4, IPV6
  › 1x IPMI remote management Interface
  › 2x USB ports
  › 1x console port

Hardware

8 Port Appliance:

» 430mm (W) x 305mm (D) x 45mm (H)
» 7.2kgs (16lbs)
» 60W universal AC power

16/32 Port Appliance:

» 430mm (W) x 470mm (D) x 45mm (H)
» 15kgs (33lbs)
» 250W universal AC power

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