

# Sangoma SBC Series



IP communications across multiple, sometimes untrusted, networks needs to be normalized, managed and secured. There is a need to guarantee interoperability of multiple devices, carriers and protocols in a transparent way to the user of the network. Session border controllers take care of the conversion between protocols, transcoding, threat prevention, resource limiting, and accounting at the edge of VoIP networks of enterprises and carriers alike.

## You wouldn't put your data network on the internet without a firewall—why would you expose your voice network without a Session Border Controller?

Sangoma's Vega and NetBorder SBC product line is designed to provide SMBs, enterprises, carriers and service providers with high performance, highly secure, scalable and cost-effective solutions. Sangoma SBCs allow VoIP calls to pass through the firewall, route VoIP traffic properly across the network and enhance network security.

**"The Session Border Controller is the critical component necessary to safely and effectively utilize SIP and SIP trunks."**

### Tailored for Your Business Needs

All Sangoma SBCs feature field upgradable, session-based licensing as well as hardware-based transcoding and media handling (Excludes Vega SMB). Support for a broad range of SIP trunking topologies and integration with Skype for Business and Microsoft Lync environments, the Vega series includes comprehensive security configuration and a full suite of GUI-based tools and APIs for deployment, management, reporting and troubleshooting.



### Quick Facts

- » Supports 5 - 4,000 Simultaneous Calls
- » Field Upgradeable Session Expansion
- » Browser-based GUI for Easy Configuration
- » Session-based Licensing - No Hidden Fees
- » Enterprise Inter-site Networking & SIP Trunking
- » Local Security Management for SMBs
- » Hardware-based Transcoding & Media Handling
- » Optional Annual Support & Software Maintenance Plans

### FOR ENTERPRISES

All of our Vega Enterprise SBC solutions feature an easy-to-use GUI and simple licensing plan based only on the number of sessions; no per feature, per user or per codec licensing is required. This offers the maximum predictable SBC capacity and cost in every use case.



SMB SBC (5 - 20 Calls)



Enterprise SBC (25 - 250 Calls)

### FOR CARRIERS

The NetBorder Carrier SBC has the same easy-to-use feature set and GUI, but can scale up to 4,000 sessions in a single chassis. Plus, it has the carrier-grade hardware features that carriers demand, including available dual AC or DC power and Raid-1 solid state drive.



NetBorder Carrier SBC (250 - 4,000 Calls)

### ADVANCED CAPABILITIES

#### High Availability

Ensure business continuity with our new High Availability (HA) feature, allowing mirroring of your main SBC with a standby SBC ready to automatically take over calls in case of failure. This feature is included free of charge!

#### Benefits

- » Network security
- » Protocol normalization
- » Statistics and billing
- » Regulatory compliance
- » TDM resilience
- » Media services
- » Quality of service / Quality of experience

#### USE CASES

#### Service Provider Applications

- » SIP trunking
- » Core session router and load balancer
- » Remote worker
- » Hosted PBX

## TECHNICAL SPECIFICATIONS

### Features

#### Capacities:

- » Max call / sessions
  - > 4000 - NetBorder Carrier
  - > 500 - VM SBC
  - > 250 - Vega Enterprise
  - > 20 - SMB SBC
- » Unlimited SIP trunks
- » Max. 120 TDM-SIP calls/sessions \*Applicable only to Vega Enterprise
- » Full security (SRTP/TLS)
- » Full transcoding capability (Excludes SMB SBC)

#### Media Capabilities:

- » Voice, Video, FAX, IM and Presence support
- » Full RTP transcoding (G.711, G.722, G.729, G.726, G.723.1, iLBC, AMR, G.722.1) \*Only with hardware transcoding option
- » T.38 Fax Relay \*Only with hardware transcoding option

#### Networking:

- » 10/100/1000 BaseT Ethernet ports
  - > 7x - NetBorder Carrier
  - > 3x - Vega Enterprise
  - > 4x - SMB SBC
- » IPv4, IPv6
- » VLAN support
- » 1x IPMI port \*Applicable only to NetBorder Carrier SBC appliance

#### Licensing:

- » Field upgradeable in 5/10 call increments (SMB)
- » Field upgradeable in 25/50/100/250 call increments

#### Security:

- » DDoS / DoS attack protection
- » Media security with SRTP
- » IPsec encryption
- » IP firewall with port forwarding
- » Call security with TLS/SRTP
- » Two-stage authentication

#### VoIP:

- » SIP 2.0 compliant
- » SIP intrusion prevention
- » SIP trunking and remote working
- » SIP registration pass-thru
- » SIP malformed packet protection
- » Topology hiding
- » ENUM routing
- » SIP request rate limiting
- » SIP registration scan attack detection
- » SIP friendly load limitation
- » SIP header normalization
- » Advanced NAT traversal capabilities

#### 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

#### Session and Monitoring:

- » Multiple session routing options
- » RTCP statistics reports
- » QoS (ToS or DSCP)
- » RADIUS CDR and authentication
- » QoS monitoring and reporting

#### High Availability / Redundancy:

- » 1:1 active/standby two-box redundancy to guarantee business continuity

#### Call Control:

- » Least cost routing
- » Multiple call access control options
- » Rate limiting: Call and registration
- » Endpoint authentication
- » Dynamic load balancing and call routing
- » Advanced XML routing engine
- » Intelligent media anchoring/release
- » Media bandwidth policy

#### Management:

- » Easy to use web interface
- » Real-time monitoring and debugging
- » HTTP XML-based CDR
- » TR-069 for remote provisioning
- » REST based interface to remotely configure SBCs

### Interfaces

#### Telephony Interface:

\*Applicable only to Vega Enterprise

- » Up to 4 E1/ T1s (with A101DE/A102DE/A104DE card)
- » Echo cancellation up to 128ms tail
- » Primary rate ISDN, configurable NT/TE
- » T1: Q.931, NI2, 4ESS, 5ESS, DMS-100
- » E1: Q.931, ETSI

### Hardware & \*Minimum Requirements

#### SMB SBC:

- » Power: External universal AC/DC power brick
- » Dimensions: 127mm (W) x 127mm (D) x 50mm (H)
- » Weight: .68kgs (1.5lbs)

#### Vega Enterprise:

- » Power: 60W universal internal power supply
- » Dimensions: 430mm (W) x 305mm (D) x 45mm (H)
- » Weight: 7.25kgs (16lbs)
- » Mounting clips included

#### NetBorder Carrier:

- » Power: Internal AC: 300W, dual, modular universal power supplies
- » Dimensions: 430mm (W) x 470mm (D) x 45mm (H)
- » Weight: 15kgs (33lbs)
- » 19 inch rackmount brackets included

#### \*VM SBC:

- » Hypervisor: VMware, ESX, Linux KVM, Microsoft Hyper-V, Oracle Virtualbox
- » Virtual Network Interfaces: minimum 1 (2 preferred)
- » Virtual Cores: 1-4
- » Memory: 2GB
- » Disk Space: 20 GB