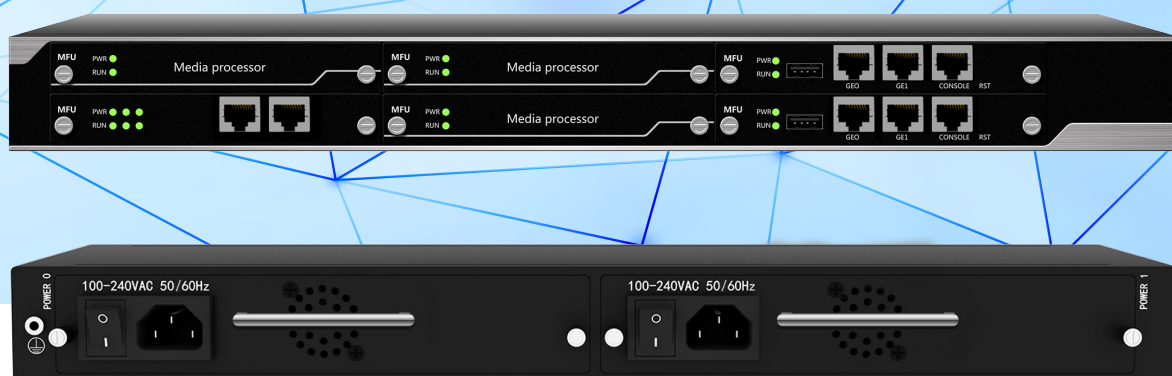


Neox NSBC3 Session Border Controller



The **STL Neox NSBC3** is an advanced Session Border Controller (SBC) engineered to provide secure and seamless SIP-based communication for small-to-medium telecommunications operators. Its robust architecture integrates secure network access, sophisticated interworking capabilities, dynamic session routing, policy management, QoS enforcement, media transcoding, and media handling. Powered by a distributed multi-core processor and supported by a non-blocking gigabit switching network, the NSBC3 leverages an embedded Linux operating system to deliver exceptional performance with minimal power consumption. This cutting-edge SBC solution combines flexibility, security, and performance, enabling operators to deliver high-quality, scalable, and future-ready SIP-based services.

Key Features

- **Concurrent Session Support:** Manages up to 50 simultaneous SIP sessions with seamless transcoding for all active calls.
- **Codec Compatibility:** Comprehensive support for codecs such as G.729, G.723, G.711, G.726, iLBC, AMR, and OPUS for optimal interoperability.
- **WebRTC Integration:** Enables transparent WebRTC-to-SIP functionality, allowing desktop and mobile browsers to interact directly with SIP services via web sockets.
- **Security-Enhanced Operations:** Incorporates VoIP firewall capabilities to prevent DoS/DDoS attacks, TLS encryption for signaling, and SRTP for secure media transport.
- **Session Management and Routing:** Offers SIP trunks with customizable routing policies for IMS integration and advanced NAT traversal mechanisms.
- **Quality of Service (QoS):** Ensures high-quality communication with bandwidth control and dynamic white/blacklisting for enhanced traffic management.
- **System Management:** Simplifies configuration and remote upgrades through a user-friendly web interface and diverse management options.
- **Data Handling:** Supports static routes, import/export configurations, and bandwidth limitation for optimal resource allocation.

Physical Interfaces

- **Ethernet Ports:**
 - 4× 10/100/1000M Base-T Ethernet ports
 - 1× 10/100/100M Base-T Ethernet port for administrative access
- **USB Interface:** 1× USB 2.0 port
- **Serial Console:**
 - 1× RS232 (RJ45), supporting 115200bps

Performance Capabilities

- **Concurrent Calls:**
 - Up to 50 concurrent SIP sessions
 - Supports up to 50 transcoding calls
- **SIP Registrations:**
 - Maximum of 1,000 SIP registrations
 - Registration rate: 20 per second
- **SIP Trunks:** Unlimited SIP trunk support



Media Capabilities

- **Voice and Fax Support:** Advanced handling of voice and fax communications
- **Supported Codecs:** G.729, G.723, G.711, iLBC, G.726, OPUS
- **Transcoding:** Pass-through fax support with no RTP detection
- **RTP and RTCP Handling:**
 - o One-way audio detection
 - o SRTP for secure media transport
 - o RTCP statistical reporting
- **Audio Enhancements:**
 - o DTMF: RFC2833, SIP Info, Inband
 - o Silence Suppression, Comfort Noise Generation, Voice Activity Detection
 - o Adaptive Echo Cancellation and Dynamic Buffer

Environmental Parameters

- **Power Supply:** DC 12V, Power Consumption: 10W
- **Operating Temperature:** 0°C to 45°C
- **Storage Temperature:** -20°C to 80°C
- **Humidity:** 10%–90% (non-condensing)
- **Form Factor:**
 - o Dimensions: 227mm × 147mm × 39mm
 - o Unit Weight: 1.5 kg

Security Features

- **Access Control:**
 - o Prevention of DoS and DDoS attacks
 - o Policy-based anti-attack mechanisms
 - o Embedded VoIP firewall with access rule lists
- **Call Security:**
 - o TLS encryption for signaling
 - o White/Black List Access Rules

Call Control Capabilities

- **Dynamic Load Balancing and Call Routing:**
 - o Routing based on prefixes, caller/called number patterns, time profiles, SIP URIs, SIP methods, and endpoints
- **Caller/Called Number Manipulation:** Comprehensive rule-based transformations



VoIP Protocols and Features

- **SIP Support:** Fully compliant with SIP 2.0 (UDP, TCP, TLS)
- **Back-to-Back User Agent (B2BUA):** Enables secure SIP communications
- **SIP Security:**
 - o Request rate limiting
 - o Registration and call scan attack detection
 - o Malformed packet protection
 - o Header manipulation
- **QoS Support:** Implements ToS and DSCP for prioritized traffic handling
- **NAT Traversal:** Seamless NAT handling for improved connectivity

Maintenance and Management

- **User Interfaces:**
 - o Web-based GUI for configuration
 - o Telnet and centralized management system support
- **Diagnostics:**
 - o System logging, network capture, and statistics reports
 - o Ping and Traceroute utilities
- **Configuration Management:**
 - o Restore/Backup capabilities
 - o HTTP-based firmware upgrades
- **CDR Reporting:** Detailed Call Detail Record export functionality
- **Multilingual Support:** Designed for global deployment

Why STL-Neox?

Trusted Globally: CCaaS/UCaaS solution with 500+ customers worldwide

Certified Excellence: Made in India, Gartner-reviewed, ISO 27001/14001, CMMi Level 5, DOT-TRAI tested

All-in-One Platform: Unifies all communication needs on a single platform

Open SIP Protocol: Avoids vendor lock-in

In-House Development & Customization: Tailored to meet specific client needs

24x7 Professional Support: Strong post-sales service for seamless operations

Value for Govt. Helplines, Telcos, Data Centers, and Enterprises

Multi-Vendor Compatibility: Interoperable with various systems

Compliance-Ready: Meets data privacy and security standards

About Sterlite Technologies Ltd. (STL)

STL is a leading global optical and digital solutions company providing advanced offerings to build 5G, Rural, FTTx, Enterprise, and Data Centre networks. The company, driven by its purpose of 'Transforming Billions of Lives by Connecting the World', designs and manufactures in 4 continents with customers in more than 100 countries. Telecom operators, cloud companies, citizen networks, and large enterprises recognize and rely on STL for advanced capabilities in Optical Connectivity, Global Services, and Digital and Technology solutions to build ubiquitous and future-ready digital networks. STL's business goals are driven by customer-centricity, R&D and sustainability. Championing sustainable manufacturing, the company has committed to achieving Net Zero emissions by 2030.

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