

NXS2000-16S FXS Analog VoIP Gateway



The **NEOX NXS2000-16S** is an analog gateway designed to connect traditional telephones, fax machines, and PBX systems to IP-based telephony networks. With **16 FXS ports** and supporting **RJ11 interfaces**, it ensures efficient and reliable communication for a variety of applications.

Tailored for **small to medium-sized businesses, call centers, and multi-location setups**, the NXS2000-16S offers seamless integration with **IMS/NGN platforms** and SIP-based telephony systems. Supporting the **standard SIP protocol**, it provides a **scalable and dependable solution** for modern VoIP services.

Key Features

- **Codec Support:** Supports G.711A/U, G.723.1, G.729A/B, and G.726 to ensure clear and reliable voice communication.
- **Cost-Effective Solution:** Features 16 FXS ports, making it an affordable choice for various use cases.
- **Effortless Management:** Equipped with TR069 and SNMP for simplified network monitoring and configuration.
- **Fax Compatibility:** Offers Fax over IP functionality, supporting T.38 and Pass-Through modes.
- **Future-Ready Networking:** Fully supports both IPv4 and IPv6 protocols for modern deployments.
- **Broad Interoperability:** Seamlessly integrates with SIP-based IP telephony systems and leading IMS/NGN platforms.

Voice and Fax Processing

Audio Codecs: G.711A/U, G.723.1, G.729A/B, G.726, AMR, iLBC

Fax/Modem Support: T.38 Fax Relay, Pass-through, Modem/POS compatibility

Voice Optimization:

Silence Suppression, Comfort Noise Generation (CNG)

Voice Activity Detection (VAD)

Adaptive (Dynamic) Jitter Buffer, Programmable Gain Control, Hook Flash

Echo Cancellation (G.168) with 128 ms tail length

Supports fax transmission at speeds of up to 14.4 kbps.

Compatible with Signal, RFC2833, and Inband modes.

Enables Voice, Data, and Management VLANs with 802.1P/802.Q standards.

Features Layer 3 Quality of Service (QoS) and DiffServ for optimized network performance.

Network Maintenance and Management

Monitoring and Configuration:

SNMP, TR069, TR181, NTP, Daylight Saving Time, Syslog (Debug, Info, Error, Warning), Auto Provisioning, Web/Telnet

Network Capture, Ping/Traceroute Test, CDR, GR909 Outward Line Test

Management Platforms: Local IVR Maintenance, Cloud-Based Management (NMS)

Backup and Upgrades: Configuration Backup/Restore, Firmware Upgrade



Call Handling Features

Advanced Call Control:

Call Waiting, Holding, Blind and Attended Transfer
Call Forwarding: Busy, No Reply, Unconditional
Flexible Routing: Caller/Called Number Manipulation, Routing Policies
Hotline
3-Way Conferencing

User-Centric Features:

Do-Not-Disturb (DND)
Speed Dialling
Indicator for a waiting message

FXS Line Specifications

Interface: RJ11

Maximum Line Length: 5 km

Dial Mode: DTMF/Pulse (10/20 PPS)

Caller ID: DTMF/FSK CLI Presentation

Advanced Features:

Reversed Polarity, Programmable Call Progress Tone

Environmental and Physical Specifications

Power: 100-240 VAC, 50/60Hz (DC 12V 2A)

Power Consumption: 40W

Operating Conditions:

Temperature: 0°C to 45°C (Operating), -20°C to 80°C (Storage)

Humidity: 10%–90% (Non-Condensing)

Dimensions: : 440x250x44mm

Weight: 3.2 kg

Physical Interfaces

Phone Connectivity:

16 FXS ports with RJ11 interface

Console Port: 1x RS232 (115200 bps)

Ethernet Ports:

3 LAN Port: 10/100Mbps, RJ45



VoIP Protocols and Standards

VoIP Protocols: SIP v2.0 (UDP/TCP), RFC 3261
SDP, RTP/RTCP (RFC 2198, 1889)
SIP, TLS/SRTP Encryption

NAT Traversal: STUN, Static/Dynamic NAT

RFC Compliance:

RFC 2833, 3262, 3263, 3264, 3265, 2976, 3311
IPv6 in SDP (RFC 3266), TEL URI (RFC 2806)

SIP Trunking
Early Media and Early Answer
Session Timer in (RFC 4028), NAT report (RFC 3581)
Outbound Proxy Support
Supports DNS SRV, A Query, and NATPR Query
Primary and Backup SIP Server Support

Advanced Software and Call Management Features

Access Control & Security: Web ACL and Telnet ACL ensure secure system management and controlled access.

Routing and Call Management: Prefix-based **Routing Rules** for intelligent call direction.

Flexible **Caller/Called Number Manipulation** for customized call handling.

Digit Mapping for efficient number translation and call routing.

Designed to optimize network bandwidth for improved performance.

Supplementary Call Services:

Speed Dial, Hunt Group

Action URL Integration:

Automated system triggers and external integrations to streamline operations.

Integrates Open VPN

Integrate with PPPoE/IPv4/IPv6

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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