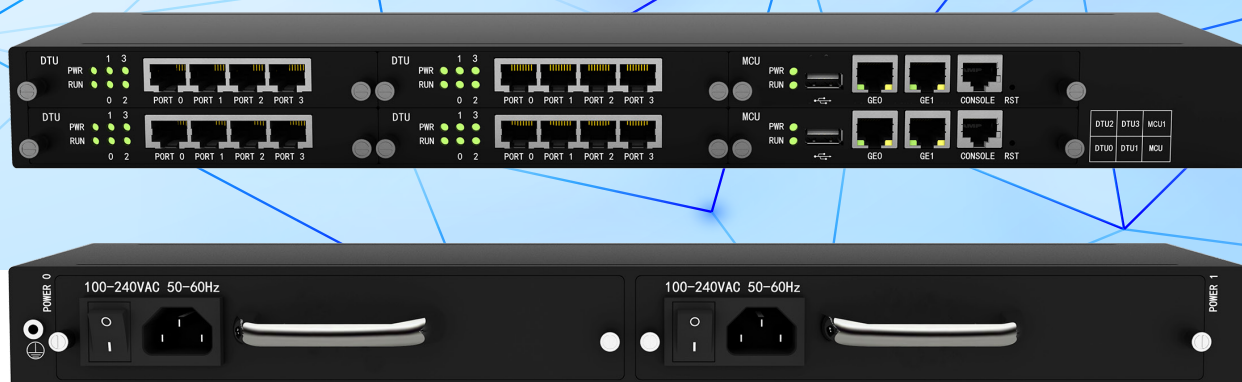# STL neox

Making every conversation count

Neox NPG2000B PRI Trunk Gateway

The **Neox NPG2000B** is an advanced VoIP gateway features **high integration and large capacity**, enabling the construction of a **flexible, efficient, and future-ready communication network** with a focus on **maintainability, manageability, and operability** and is designed for enterprises, telecom operators, and diverse industries. It supports multiple **signaling protocols**, ensuring seamless interconnection between **SIP networks and traditional signals** such as **SS7 and PRI**

providing a **carrier-grade VoIP and FoIP services**, along with value-added features like **modem support and smart voice recognition** enhances resource utilization through **signal encryption technology, flexible codec support**, all while maintaining superior voice quality. The NPG2000B is a reliable trunk gateway designed to meet the needs of modern **access networks.**

Key Features

- **Wide Codec Compatibility**: Supports multiple codecs, including G.711A/U, G.723.1, G.729A/B, and iLBC, ensuring high-quality voice transmission.
- **Compact High-Capacity Build**: Offers up to 16 E1 ports within a 1U chassis, ensuring space efficiency and scalability.
- **Carrier-Grade Design**: Features 1+1 hot-swappable power supply for enhanced reliability and uninterrupted operation.
- **Customizable Dialing Rules**: Allows users to work diverse operational requirements with configurable flexible dialing rules.

Physical Interfaces

E1/T1 Ports: 4/8/12/16 E1/T1 ports, RJ48 interface with 120 Ω impedance.

DTU Module: 4 E1/T1

Ethernet Interfaces:
GE1: 10/100/1000 Base-T Adaptive Ethernet.
GE0: 10/100/1000 Base-T Adaptive Ethernet.
Serial Port: 1 RS232 port, supporting 115200bps.

Calling Features

Caller and Called Number Modification for seamless integration
Supports up to **256 routing rules per direction**
Flexible routing between **PSTN-PSTN, PSTN-IP, and IP-PSTN** connections
Time-Based Call Routing for efficient scheduling
Dynamic Routing Methods with intelligent call handling
Prefix-Based Routing for Caller and Called numbers

PSTN Protocols and Features

ISDN PRI: 23B+D (T1), 30B+D (E1), NT or TE modes, compliant with ITU-T Q.921, Q.931, and Q.SIG.
SS7 (Optional): ITU-T, ANSI, MTP1/MTP2/MTP3, TUP/ISUP protocols.

E1/T1 Frame Types:
E1: DF, CRC-4, CRC_ITU, line codes (NRZ, CMI, AMI, HDB3).
T1: 4-Frame Multi-frame (F4, FT), 2-Frame Multi-frame (F12, D3/4), Extended Super-frame (F24, ESF), Remote Switch Mode (F72, SLC96), line codes (NRZ, CMI, AMI, B8ZS).
Clock Source: Supports both local and remote synchronization options.

Voice Capabilities

Codecs Supported: G.711a/µ-law, AMR, G.723.1, G.729AB, iLBC, AMR

Enhancements:

Silence Suppression and Comfort Noise Generation.

Voice Activity Detection (VAD).

Echo Cancellation (G.168) with adaptive support up to 128ms.

Dynamic Buffer and Voice/Fax Gain Control.

FAX (T.38 and Pass-through), Modem/POS support.

DTMF Modes: RFC2833, SIP Info, In-band, Clear Channel, Clear Mode.

Maintenance and Management

Configuration Interfaces: Web GUI (HTTP/HTTPS), centralized management system.

Diagnostics:

PSTN and SIP trunk call statistics.

Firmware upgrades via TFTP/FTP/Web.

Network capture and Syslog (debug, info, error, warning, notice, Call History via syslog).

SNMP v2

Event Management NTP synchronization

Backup and Restore: Data backup/restore functionality.

Environmental Specifications

Redundant Power Supply (1+1)

Power:

Adapter: 100-240VAC 50-60 Hz.

Power Consumption: 45W.

Operating Conditions:

Temperature: 0℃ to 45℃ (operating), -20℃ to 80℃ (storage).

Humidity: 10%-90% non-condensing.

Dimensions: 436mm (W) × 300mm (D) × 44.5mm (H).

Weight: 3.8 kg.

Compliance: CE, FCC.

VoIP Protocols

SIP v2.0 (UDP/TCP), RFC3261, SDP, RTP (RFC2833).

SIP-T, RFC3262,3263,3264,3265,3515,2976,3311.

RTP/RTCP (RFC2198, 1889), TLS/SRTP.

SIP Trunk Work Modes: Peer/Access.

SIP/IMS Registration: Up to 256 SIP accounts.

NAT: Dynamic NAT, Remort port(RFC 3581)

RFC Compliance:

RFC 2833, 3262, 3263, 3264, 3265, 2976,3311

Advanced Software Features

IP Trunk Group Management with flexible configuration

Access Rule Lists for secure and controlled access

Whitelist and Blacklist Management for both caller and called numbers

Configurable IP Trunk Priority for optimized call routing

Overlapping Dialing functionality

Support for Voice Codec Groups

Configurable Dialing Rules with a capacity of up to 2000 entries

Local and Transparent Ringback Tone support

PSTN Grouping by E1 port or E1 timeslot

Why STL-Neox?

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

Certified Excellence: Make 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.