SX100-P SESSION BORDER CONTROLLER

5000 User Register

Max 600 Routes Concurrent Calls

Max Transcoding Sessions: 250
(Base license includes 50 concurrent calls and 50 transcoding sessions)

CPS: 25



The SX 100-P session Border Controller is designed for small and medium-sized enterprises, delivering high-quality session security and data protection for business communications. It features NAT traversal capabilities for SIP messages, enabling SIP message NAT conversion to resolve security and interoperability issues in private networks. The device supports QoS policies to ensure voice quality, alongside robust security mechanisms including topology hiding, attack protection, and professional-grade firewall processing for audio and video services.

Product Features

- High Availability Standby System
- Standard SIP protocol and flexible routing rules, perfectly compatible with IMS system
- Supports 5000 user registration, **Max 600 concurrent calls, max 250 transcoding sessions** **(Base license includes 50 concurrent calls and 50 transcoding sessions)**
- Compatible with multiple encoding standards:G.711（A-Law / U-Law）、G.723.1、G.729a/b、iLBC、G.722、G.722.1、G.722.2、AMR、H.264、H.265
- Support voice and video calls
- Supports forwarding registration, proxy registration, and trunk integration
- Support SIP based on UDP and TCP transmission
- Support SIP over TLS, SRTP/DTLS-SRTP encrypted sessions
- Compatible with mainstream signaling and media protocols, symmetric and asymmetric NAT penetration, Keep-alive, supports cross network deployment, and adapts to various network environments
- Supports whitelist, blacklist, topology hiding, DoS/DDoS attack defense, provides voice firewall, protects core devices from attacks
- Provide voice quality (packet loss rate) monitoring to ensure call quality
- Support Call Recording

Integration & Interoperability

The SX100-P SBC is compatible with the mainstream signaling and media protocols in the current market, eliminating the differences between networks from different manufacturers, different solutions.

Multi-Features

The SX100-P SBC not only provides SIP/IMS docking solutions for enterprise users, but also provide standard SBC functions for enterprise customers SBC functions, including branch networking, cross network interoperability, and heterogeneous networking between different communication systems.

The SX100 SBC also supports the customization of header fields, codec conversion, protocol conversion, DTMF mode conversion, call recording, voice quality monitoring, trunk redundancy and load balancing, call frequency limitation etc.

Easy to management

User-friendly graphical, web-based operation interface, easy to use, supports remote upgrade and remote maintenance, convenient for daily maintenance

High Security

As a network edge device, the SX100-P SBC solves the problem of system resource depletion caused by internet DoS/DDoS、UDP/TCP-Flood and other abnormal service requests, provide enterprises with total network security.

High Compatible

Supports multiple protocols: IPv4/IPv6, UDP/TCP, RTP/RTCP/MSRP, TLS/SRTP, SIP/IMS, HTTP/HTTPS, NTP/SNTP, etc., with strong compatibility

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Performance

Call Concurrency	Maximum 600 (unencrypted)/500 (encrypted) concurrent calls
Transcoding Concurrency	Max Transcoding Sessions: 250 (Base license includes 50 concurrent calls and 50 transcoding sessions)
Call CPS	25 completed calls per second
Registered Users	Maximum 5000 Registered Users

Voice

Audio and video codecs	G.711 (A-Law / U- Law), G.723.1, G.729a/b, iLBC, G.722, G.722.1, G.722.2, AMR, H.264, and H.265, etc;
NGN and IMS Protocol Conversion	
Call Recording	
Voice Quality	802.1p/QVLANtagging, QOS, TOS, DiffServ, Voice Attenuation (VAD), Comfort Noise Generation (CNG), Echo Cancellation (AEC), Fixed/Dynamic Voice Gain Control, Jitter Buffer
Fax	G.711 Transparent Fax, T.38 Fax, compatible with G3 fax machines up to 33.6kbps (Transparent)
DTMF mode	RFC2833, SIP-INFO, INBAND

Protocols

Networking	IPv4/IPv6, SSH, HTTP/HTTPS, DNS, ARP, NTP/SNTP, ICMP
Media	UDP/TCP, RTP/RTCP/MSRP, TLS/SRTP
Terminal agent/forwarding registration and authentication	
SIP V2, IMS	
QoS (IP TOS)	
SIP B2BUA	
Signaling message fragmentation	
NAT travel through	

Call Handling

- Calling and Caller Number Transformation
- Route selection based on calling/caller number prefixes
- Select the corresponding call routing according to the time slot policy
- Trunking redundancy and load balancing
- Heterogeneous network routing redundancy/load balancing

Security

- Black/white list based access control
- DOS/DDOS Attack Defense
- UDP/TCP-Flood Attack Defense
- Policy-based SIP Attack Defense
- TLS, SRTP/DTLS-SRTP Encrypted Sessions
- Black/white list of calling and receiving numbers
- Policy-based call frequency restriction
- Local and off-site dual-server disaster recovery deployment

Management & Maintenance

- Web-based visual configuration and maintenance management (Simplified Chinese)
- Command line based configuration and maintenance management (SSH)
- Configure data backup/recovery
- Built-in network data capture function
- Multi-level log management; system logs, operation logs, call logs

CPU	3.3 GHz(dominant frequency)
RAM	SO-DIMM DDR4 32GB
Flash	500G SSD
H×W×D	430*390*45mm
Network Interface	10×10/100/1000Mbps adaptive network ports
Power	100 to 240V AC, 50/60 Hz
Operating	Temperature: -15 to 60°C Humidity: 10 to 90% RH (non-condensing)
Storage	Temperature: -40 to 70°C Humidity: 5 to 90% RH (non-condensing)

New Rock Technologies, Inc. is a leading provider of Voice over IP products in China, offering wide range of VoIP products including all-in-one IP-PBX, hybrid IP-PBX, media gateway, session boarder controller, and related application software. We work with service providers, system integrators, distributors, resellers, independent software vendors, as well as OEM partners.