UNIVERGE BX500

Enterprise Session Border Controller

Secure Communication for **your Business**

The NEC UNIVERGE BX500 Enterprise Session Border Controller (E-SBC) offers a complete connectivity solution for small-to-medium sized businesses.

The BX500 connects your NEC phone system to SIP trunk service providers, scaling up to 60 concurrent sessions. It offers superior performance and security in a dedicated appliance.

The BX500 allows your employees to securely connect to your NEC IP phone system from virtually anywhere using their smartphones.

Superior performance - proven interoperability

The BX500 supports up to 200 remote employees and 60 concurrent voice conversations, securely and efficiently.

It offers certified interoperability with leading unified communications solutions and SIP trunk providers.

Security

The BX500 provides robust protection for the IP communications infrastructure, preventing Denial of Service (DoS), fraud and service theft guarding your organisation against cyber-attacks and other service-impacting events.

Reliability

The BX500 offers high quality voice, delivering reliable enterprise VoIP communications.

Advanced call routing mechanisms, network voice quality monitoring and branch survivability capabilities result in minimum communications downtime.

Benefits

- Fully integrated device for secured SIP trunk access
- Extensive interoperability and partnerships that extend across multiple vendor devices and protocol implementations
- Offers comprehensive security, interoperability and reliability
- Delivers high service performance and voice quality
- Branch office survivability in the event of a WAN outage

Key features

- Rich and powerful SIP normalisation and routing mechanisms for seamless interoperability
- Perimeter defence against denial of service, fraud and eavesdropping
- VoIP quality monitoring and enforcement

Applications

- SIP trunks
- Hosted PBX & UC as a Service
- Remote and mobile worker support
- SIP mediation between UC and IP-PBX systems

Work anywhere, securely

Capacities	
Signalling / Media sessions	60
Registered users	200

Network Interfaces	
Ethernet	> 4 x GbE interfaces

Security / Management	
Access control	> DoS/DDoS line rate protection > Bandwidth throttling > Dynamic blacklisting
VoIP firewall	> RTP pinhole management > Rogue RTP detection and prevention > SIP message policy > Advanced RTP latching
Encryption / authentication	> TLS, DTLS, SRTP, HTTPS, SSH > Client / Server SIP Digest > RADIUS Digest
Privacy	> Topology hiding, User privacy
Traffic separation	> VLAN / Physical interface separation
Intrusion detection	> System Detection and prevention of VoIP attacks, theft of service and unauthorised access
Operation & Management	> Browser-based GUI, CLI, SNMP, INI Configuration file, REST API, EMS

Physical Specifications	
Dimensions	51 x 296 x 160 mm (H x W x D)
Mounting	Desktop
Weight	0.67kg
Power supply	100 - 240 V AC (50 / 60 Hz) / 3A
Operating temperature	0°C - 40°C

SIP Routing	
Routing methods	> Request URL, IP address, FQDN, ENUM, advanced LDAP, 3rd party control via API
Advanced routing criteria	> QoE, bandwidth, SIP message (SIP request, codec type, etc.), Layer-3 parameters
Routing features	> Least-cost routing, call forking, load balancing, emergency call detection and prioritisation
SIPRec	> IETF standard SIP recording interface

Interoperability	
SIP B2BUA	> Full SIP transparency, stateful proxy
SIP interworking	> 3xx redirect, REFER, PRACK session timer, early media, call hold, delayed offer
Registration and authentication	> User registration restriction control > registration on behalf of users > SIP authentication server for SBC users
Transport mediation	> SIP over UDP/TCP/TLS > IPv4 / IPv6, RTP / SRTP (SDES/DTLS)
Message manipulation	> Ability to add/modify/delete SIP headers and message body using regex.
URI and number manipulation	> URI user and host name manipulations, ingress and egress digit manipulation
Codecs	> G.711, G.723.1, G.726, G.729, GSM-FR, AMR-NB/WB, SILK-NB/WB, Opus-NB/WB
NAT	> Local and far-end NAT traversal for support of remote workers

Voice Quality	
Call admission control	> Based on bandwidth, sessions, number of connections/registrations
Packet marking	> 802.1p/Q VLAN tagging, DiffServ, TOS
Impairment mitigation	> Packet Loss Concealment, Dynamic Jitter Buffer, Silence Suppression, Noise Generation, RTP redundancy, broken connection detection
Voice enhancement	> Transrating, Acoustic echo cancellation, replacing voice, Fixed & dynamic voice gain control
Direct media	> Hair-pinning of local calls
Voice quality monitoring	> RTCP-XR
Quality of Experience	> Access control and media quality based on Quality of Experience (QoE) and bandwidth utilisation
Test agent	> Ability to remotely verify connectivity, voice quality and SIP message flow between SIP UA

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About NEC Australia. NEC Australia is a leading technology company, delivering a complete portfolio of ICT solutions and services to large enterprise, small business and government organisations. We deliver innovative solutions to help customers gain greater business value from their technology investments.
NEC Australia specialises in information and communications technology solutions and services in multi-vendor environments. Solutions and services include: IT applications and solutions development, unified communications, complex communications solutions, network solutions, display solutions, identity management, research and development services, systems integration and professional, technical and managed services.

UNIVERGE BX500 Data Sheet | v.20180228