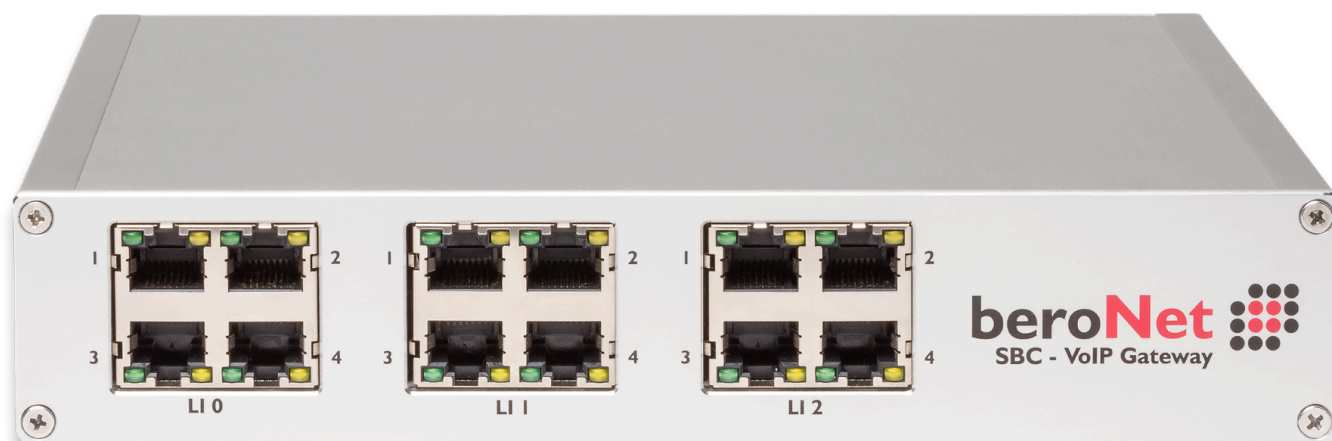


Analogue VoIP gateways: FXS and FXO to SIP

Analogue gateways

For everything that will never speak SIP: fax, alarm diallers, door intercoms, lift emergency telephones.



- FXS ports for analogue telephones, fax machines, modems, alarm diallers, door intercoms and lift emergency phones
- FXO ports to connect an analogue provider line or an analogue extension port of an existing PBX
- Fax and modem pass through as clear channel (RFC 4040); fax also via T.38 relay
- Calls between the analogue ports and SIP need no session licence; only SIP-to-SIP traffic is licensed
- CLIP and CNIP, message waiting indication as stutter tone and FSK

Models

MODEL	PSTN INTERFACES	PSTN CHANNELS	SESSIONS INCLUDED	MAX. TRANSPARENT	MAX. TRANSCODED
BNSBC-M-4FXS	4 × FXS	4	2	128	8
BNSBC-M-8FXS	8 × FXS	8	2	128	8
BNSBC-M-4FXO	4 × FXO	4	2	128	8
BNSBC-12FXS	12 × FXS	12	2	128	8
BNSBC-12FXO	12 × FXO	12	2	128	8

Sessions are SIP-to-SIP sessions: included without licence, maximum with session licences.

Session licences

Calls between the PSTN interfaces (FXS, FXO, BRI, PRI) and SIP need no session licence. Only SIP-to-SIP sessions are licensed; included sessions and maximum per model are listed in the model table.

Technical data

HARDWARE

Housing	BNSBC-12FXS, -12FX0 Fanless aluminium housing, wide version, 218 × 170 × 42 mm (W × D × H) Other models Fanless aluminium housing, 170 × 170 × 42 mm (W × D × H)
Weight	approx. 820–1020 g, without power supply
Network	2 × Ethernet 10/100 Mbit/s (LAN, WAN)
Power	12 V DC via external power supply, max. 24 W
Environment	Operating 0 to 40 °C with the supplied power supply, 0 to 70 °C with a power supply rated for this range; storage –20 to 70 °C; humidity 10–90 % operating, 5–95 % storage, non-condensing
Expandability	BNSBC-M-4FXS, -4FX0 Second module slot free, upgradable with an upgrade kit BNSBC-M-8FXS Both module slots in use BNSBC-12FXS, -12FX0 Fixed configuration, not modular
Mounting	BNSBC-12FXS, -12FX0 19-inch rack mounting with BNSBC19BracketL Other models 19-inch rack mounting with BF19Bracket or BF19BracketDBL
Scope of delivery	Device, power supply 12 V (BFPower)

COMPLIANCE AND WARRANTY

CE	EMC 2014/30/EU, low voltage 2014/35/EU, RoHS, REACH
Marks	CE, FCC, ACMA (RCM)
Warranty	2 years; extendable by 3 years to 5 years in total

Matching accessories

BNSBC-SESSION-TP-4...128	Licences for transparent SIP-to-SIP sessions
BNSBC-SESSION-4/-8	Licences for transcoded SIP-to-SIP sessions
BNMO-...	Add-on modules: 4 × BRI, 2 × BRI + 2 × FXS, 4 × FXS, 4 × FXO, 1 or 2 × PRI T1/E1 For: BNSBC-M-4FXS, -4FXO
BNSBCUPGRADEKIT	Upgrade kit for a second module: front panel and connector board For: BNSBC-M-4FXS, -4FXO
BNSBCUPGRADEKITPRI	Upgrade kit for a second PRI module For: BNSBC-M-4FXS, -4FXO

TELEPHONY

FXS	CLIP, CNIP, message waiting indication (stutter tone, FSK)
FXS line	Loop current 30 mA (fixed); ringing frequency, amplitude and cadence set per country
FXO	CLIP, CNIP, flash hook
Fax	T.38 fax relay; fax and modem as clear channel (RFC 4040)

VOICE

Codecs	G.711; G.729 and G.723.1 for up to 4 calls at a time, without licence
Signal processing	Echo cancellation G.168/G.165 up to 128 ms, VAD/CNG, DTMF detection and generation

SIP, SECURITY AND MANAGEMENT

SIP	RFC 3261 over UDP, TCP or TLS 1.2 (TLS without additional licence); SRTP media encryption
SBC functions	Topology hiding, SIP DoS detection, access control lists, SIP header manipulation, TCP/UDP and RTP/SRTP conversion
Management	beronet OS with web interface; provisioning via DHCP option or REST API; beronetCloud for remote configuration, monitoring and firmware updates

BF19Bracket	19-inch mounting bracket for one device For: all except BNSBC-12FXS, -12FXO
BF19BracketDBL	19-inch mounting bracket for two devices side by side, 1 U For: all except BNSBC-12FXS, -12FXO
BNSBC19BracketL	19-inch mounting bracket for the wide housing For: BNSBC-12FXS, -12FXO
BFFXXCableKit	Cable kit RJ45 to RJ11
BFExtendedWarranty_M/_L	Warranty extension by 3 years to 5 years in total
beronetCloud_Account	beronetCloud account
BFPower	Power supply 12 V