

- Up to 2000 simultaneous calls
- Business process security
- Efficient management
- Hardware redundancy<sup>1</sup>



**SBC-1000** 



SBC-3000

## Session border controller

**Eltex SBC** is an element of VoIP network that participates in call processing as a session border controller. The device provides signal protocol normalization, statistics collection and network protection against unauthorized access and attacks.

## **Application**

**Eltex SBC** is deployed at the border of the IP networks:

- between service providers' networks;
- between service provider network and Customer's corporate network;
- between service provider network and a public network.

#### **Features**

- Ensuring security for service provider networks
- Public IP addresses translation
- Flexible distribution of redundancy routes
- Extended Firewall settings
- Statistics gathering
- Media streams transcoding<sup>2</sup>
- Alarm log
- Linear scaling<sup>2</sup>
- RADIUS access control
- Operation with subscribers behind NAT
- SDP analysis and verification
- End-to-end SLA<sup>2</sup>
- Dynamic firewall
- RTCP control
- RTP sessions management
- Efficient management
- Black and white lists
- Quality of Service (QoS)<sup>2</sup>
- Integration with Eltex.EMS
- Signaling protocol conversion<sup>2</sup>
- Load balancing between trunks
- Trunks with registration
- Flexible calls distribution according to established rules
- -1+1 redundancy<sup>1</sup>

# **Bypassing NAT**

NAT bypassing is a necessary feature that provides transparent transmission of voice and video traffic over IP networks. Different types of NAT are supported.

## **Security**

**Eltex SBC** provides network protection against unauthorized access and DoS attacks. Intellectual access management, ingress load limiting and network topology hiding ensure security of a network.

## **Network topology hiding**

**Eltex SBC** allows providing access to a carrier or corporate network from an untrusted connection, ensuring security of a Company business data.

The following mechanisms are used:

- intellectual IP addresses translation for signalling and media traffic:
- -full B2BUA provides a required network isolation level.

# **Redundancy**

Complete redundancy is ensured by the cluster redundancy scheme and presence of backup power modules.

## Interconnection

**Eltex SBC** provides the opportunity of interaction between terminal devices that have non-intersecting codec packs<sup>2</sup> and different SIP versions and extensions.

	SBC-1000	SBC-3000
Load	up to 500 calls	up to 2000 calls

<sup>&</sup>lt;sup>1</sup>Not supported for SBC-3000 in the current firmware version 1.10.0

<sup>&</sup>lt;sup>2</sup> Not supported in the current firmware version 1.10.0



# **Features and capabilities**

# **Signaling protocols**

- SIP, SIP-T/I

# **SIP functionality**

- -SIP L5 NAT/Topology hiding
- -SIP dialogue transparency
- SIP transit of unrecognized headers
- -B2BUA as defined in RFC-3261
- RFC-2833 (Telephone Event)
- -RFC-3264 (Offer/Answer)
- -RFC-3204 (MIME Support)
- RFC-4028 (Session Timers)
- -RFC-3326 (Reason Field)
- -RFC-3262 (PRACK)
- -RFC-3372 (SIP-T)
- -B2BUA peering
- -B2BUA access
- -RFC-1889 (RTP)
- -RFC-4566 (SDP)
- -RFC-3261
- -RFC-3581
- -RFC-3515 (Refer Method)
- -RFC-3265 (Subscribe)

# **Media protocols**

- RTP and RTCP

#### **Media modes**

- Flow-through
- Flow-around<sup>2</sup>

## **Transport protocols**

- -TCP
- -UDP
- -TCP/UDP interworking

# **Network protocols**

- -LACP1
- -IPv4
- -IPv6<sup>2</sup>

## Video codecs

- H.263
- H.263-1998
- -H.264

# **Capacity**

- Up to 500 simultaneous calls (SBC-1000)
- Up to 2000 simultaneous calls (SBC-3000)

#### Redundancy<sup>1</sup>

- Warm standby 1+1 redundancy
- Automatic switching to backup
- Automatic synchronization of primary and backup equipment settings

## **Security**

- Up to 40 VLAN (up to 500 on SBC-3000)
- VPN (L2TP, PPTP)
- Rogue RTP detection
- Toll-free, fraud protection<sup>2</sup>
- Protection against SIP/ICMP DoS flood
- DDoS
- Protection against overloading based on registration
- IP address filtering by geographical criterion

#### **Fax transmission**

- -T.38
- -G.711

#### Voice codecs

– G.711 (a-law, μ-law), G.729, G.729 (A/B), G.723.1, G.722, G.728, G.726

# Quality of Service (QoS)

- IP priority mechanism<sup>2</sup>
- Differentiated Services Code Point (DSCP) marking<sup>2</sup>

# Interfaces (SBC-1000)

#### IΡ

- 2 x 1000BASE-X ports (2 slots for SFP modules)
- 3 x 10/100/1000BASE-T (RJ-45) ports

# USB port, 2 e-SATA ports

- Alarm logging
- Billing data recording

# Interfaces (SBC-3000)

#### IΡ

- -2 x 10/100/1000BASE-T (RJ-45)/1000BASE-X(SFP) ports
- 2 x 10/100/1000BASE-T (RJ-45) ports

## USB port, 2 slots for SATA HDD, form factor 2,5"

- Alarm logging
- Billing data recording

# **Connection statistics**

- Writing CDR files to the SATA storage
- Writing CDR files to the remote FTP server
- Transmission connection data via the AAA protocol<sup>2</sup>

## **Management**

The following management means provides access right differentiation:

- MML console (SSH/Telnet)
- Web interface
- Active registration list monitoring and editing
- Possibility of integration with Eltex.EMS (SNMP)

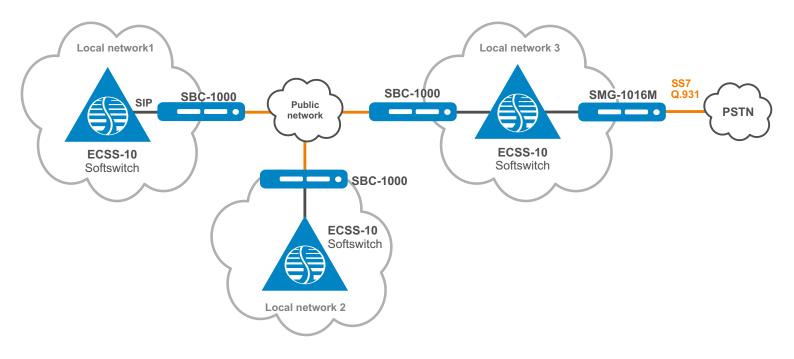
Not supported for SBC-3000 in the current firmware version 1.10.0

<sup>&</sup>lt;sup>2</sup> Not supported in the current firmware version 1.10.0

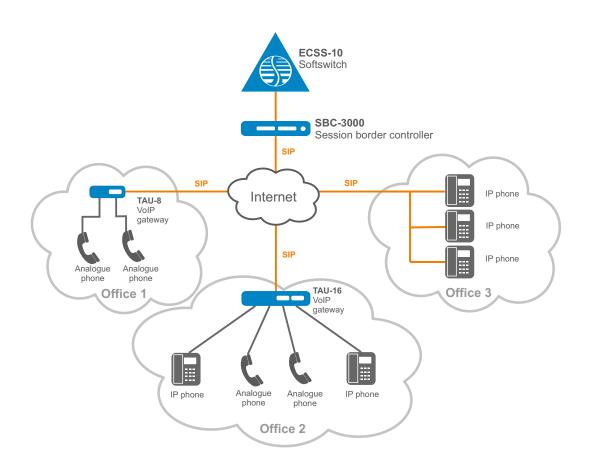


# **Application**

# Service providers' interaction



# «Virtual PBX» service





# **Physical parameters**

	SBC-1000	SBC-3000		
Physical specifications and ambient parameters				
Operating temperature	from 0 to +40°C			
Operating humidity	no more than 80%			
Noise level	from 44 to 60 dB			
Power supply	AC: 220 V+-20%, 50 Hz DC: -48 V+30%-20% Power supply options: -1 AC/DC power supply; -2 hot-swappable AC/DC power supplies.			
Power modules	AC, power module PM160-220/12 160 W	DC, power module PM100-48/12 100 W		
Maximum power consumption	50 W			
Dimensions (W x H x D)	430 x 45 x 260 mm	430 x 45 x 340 mm		
Form factor	19", 1U			
Weight	3.2 kg	5.3 kg		

# **Ordering information**

Name	Description	
Session border controller		
SBC-1000	Session border controller SBC-1000	
SBC-3000	Session border controller SBC-3000	
Supplementary modules		
PM160-220/12	Power module PM160-220/12, 220 V AC, 160 W	
PM100-48/12	Power module PM100-48/12, 48 V DC, 100 W	
<b>Options</b>		
SBC1-SW-500	Up to 500 simultaneous calls for SBC-1000	
SBC1-RESERVE	Redundancy activation for SBC-1000	
SBC3-SW-500	Up to 500 simultaneous calls for SBC-3000	
SBC3-SW-1000	Up to 1000 simultaneous calls for SBC-3000	
SBC3-SW-2000	Up to 2000 simultaneous calls for SBC-3000	
SBC3-VNI-500	Up to 500 VLAN interfaces for SBC-3000	

Contact us About ELTEX







**ELTEX** company is a leading Russian developer and manufacturer of telecommunication equipment with more than 25 years of history. Integrity of solutions and seamless integration capability into Customer infrastructure is a priority area of company development.