*T*SBC5000 – Session Border Controller

The TelcoBridges **TSBC5000** is a carrier-grade session border controller designed for Network-to-Network interface (NNI) and peering deployments.

Software upgradeable from 25 to 5000 sessions, the *T*SBC5000 is the most cost-effective session border controller for service providers currently available on the market. Depending on ordering configuration, it also supports up to 2744 transcoding sessions without any external hardware required.

Product Characteristics:

- ✓ Back-to-back user agent (B2BUA)
- ✓ Line rate DOS/DDOS protection (64 bytes packets)
- ✓ Up to 5000 simultaneous signaling and media sessions
- ✓ Supports up to 686 or up to 2744 simultaneous transcoding sessions
- ✓ Flexible and extensive routing capabilities
- ✓ Integrated network troubleshooting tools (traces, media/signaling recording, test call generation, etc)
- ✓ Easy to deploy, operate and manage
- ✓ Optional TDM fallback capabilities

*T*SBC5000
Data Sheet

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Network function

Back-to-back user agent (B2BUA)

IP Network Security

Topology hiding
Line-rate DOS/DDOS protection (64 bytes packets)
Rogue RTP detection
Dynamic blacklisting
Access control list
Session admission control
Session bandwidth control

Interoperability Functions

SIP message manipulation
Extensive header manipulation
SIP UDP/TCP interworking
SIP to SIP-I interworking
Local and remote NAT traversal adaptation
Error/cause code adaptation

Transcoding and Media Adaptation

DTMF transcoding (inband, INFO, RFC2833/4733)
T.38 fax and video relay
T.38 V.17 & V.34 fax conversion to pass-through
NSE and VBD conversion
Media transcoding:
    G.711, G.723.1, G.726, G.729ab, G.729eg,
    Clear mode (RFC 4040), G.728, iLBC,
    G.722, AMR-NB, G.722.2 (AMR-WB), EVRC,
    GSM FR/EFR, QCELP

Voice services

Call progress tones
Announcement prompts

Routing and Policy

Least cost routing
Scheduled routing
Load-balancing and percentage routing
Script-based routing
SIP REFER/3xx based routing
RADIUS based routing
Routing alternate retry routes
Digit matching and manipulation
Call blocking
Loop detection and prevention
Direct media routing (no anchoring)

Quality of Service

Per session network quality analysis
Per session statistics
DSCP/TOS marking

Management Capabilities

Provisioning and status graphical interface (GUI)
HTTPS secured transport
CLI interface for local and remote management
RESTful northbound provisioning and status API
Level-based user access
Configuration change audit logging
SNMP v2, v3 GET, TRAPs (alarms)
Extensive SNMP call statistics MIBs
Configurable Call-detail-records (CDRs)
    Local text customizable format
    Customizable RADIUS accounting

Network Analytics (TB Analytics)

Live session trace with protocol information (ladder)
Live test call with media playback (and recording)
Live media call recording with selectable targets
Raw signaling protocol capture (pcap format)

Capacity and Performances

Maximum signaling/media sessions: 5000
Maximum transcoding sessions: 686 or 2744
Maximum routes: 100,000

High Availability & Redundancy

1+1 redundancy support (active/standby)
Power supply redundancy
Ethernet port bonding support
Fault-tolerant software
Seamless software upgrade

Regulatory

Lawful interception (ETSI 201 671)
Emergency routing
Optional TDM fallback [TSBC5000-680 only]

Optional TDM Fallback

ISDN PRI (NI1, NI2, 4ESS, 5ESS, DMS, Euro, NFAS)
CAS R1 (E&M, loop/ground start)
CAS R2 (ITU, Brazil, Mexico, Venezuela)
Customizable R1/R2 scripts for any variant

Regulatory Compliance

Safety
   CAN.CSA C22.2
   EN 60950-1:2005
   EN 60950-1:2006
EMC
   FCC Part 15:2013, Subpart B,
   CE Mark (EN55022:2010, Class A, EN61000, ETSI
      EN 300 386)

Interfaces

TSBC5000-680

Up to 6 Ethernet ports 100/1000 Base-T (RJ45)
All ports used for signaling, media and/or management
Ethernet bonding and 802.1Q VLAN support
1 RS232 serial port (RJ45)
1 USB serial port (USB type B)
Up to 16 RJ48C TDM fallback interfaces (T1/E1)

TSBC5000-2700

Up to 4 ports for signaling, media or management
1 dedicated management port for local access
All Ethernet ports are 100/1000 Base-T (RJ45)
Ethernet bonding and 802.1Q VLAN support
1 RS232 serial port (RJ45)
1 USB serial port (USB type B)

Maintenance

Replaceable fan filters
Offline configuration export/import
Multiple configuration backup storage
Multiple software version storage
GUI/CLI/API system upgrade and management

Dimensions & Weight

1U, 19" rackmount
1.75" (44.5 mm)H x 16.9" (429 mm)W x 16" (406 mm)D
14 lbs (6.4 kg) [TSBC5000-680]
14.5 lbs (6.5 kg) [TSBC5000-2700]

Electrical Characteristics

90 to 260 VAC, 47 to 63 Hz or -36 to -72 VDC
Hot-swap redundant power supplies (AC or DC)
Maximum 70W power consumption [TSBC5000-680]
Maximum 138W power consumption [TSBC5000-2700]

Environmental

Operating temperature:
   0 to +70 °C, 95% rel. hum. non-condensing
Storage temperature:
   -10 to +85 °C, 95% rel. hum. non-condensing
Designed to meet NEBS Level 3
RoHS compliant

TSBC5000 1U Session Border Controller, front view (all models)

TSBC5000 1U Session Border Controller, rear view (TSBC5000-680 model)

TSBC5000 1U Session Border Controller, rear view (TSBC5000-2700 model)