**Techroutes**
N E T W O R K

# TS-1000

## Session Border Controller



### Product Overview

TS-1000 SBC provides rich SIP-based services such as safe network access, robust security, system interworking, flexible session routing & policy management, QoS, media transcoding and media processing for small-and-medium telecommunication operators. With distributed multi-core processor, rear panel for non-blocking gigabit switching data network, embedded Linux operating system, TS-1000 SBC delivers high capability while achieves low power dissipation. It supports 500 concurrent SIP sessions and transcodes upto 200 concurrent calls, and allows encrypted sessions via TLS and SRTP. Session border controller supports transcoding of G.729, G.723, G.711, G.726, iLBC, AMR and OPUS. Besides, TS-1000 SBC offers two E1 ports that are compatible with PBX to meet customers' networking needs.

### Key Features

- Supports up to 500 SIP sessions and 200 transcoding sessions
- SIP trunks & flexible routing rules for accessing IMS
- Embedded VoIP firewall, prevention of DoS and DDos attacks
- Bandwidth limitation and dynamic white list & black list
- QoS, static route, NAT traversal
- Import & export of remote upgrade and configuration data
- Encrypted sessions
- User-friendly web interface, multiple management ways

### Physical Interfaces

- Ethernet Ports:
  4* 10/100/1000M Base-T Ethernet ports
  1* 10/100/100M Base-T (Admin)
- E1/T1 Ports: （Optional, TBD)
  2* E1/T1, RJ48C
- 1* USB 2.0
- Serial Console
  1* RS232, 115200bps, RJ45
- LTE Uplink (To be done)
  1* SIM Card Slot

### VoIP

- SIP 2.0 compliant, UDP, TCP, TLS
- SIP trunk (Peer to peer)
- SIP trunk (Access)
- SIP Registrations
- B2BUA (Back-to-Back User Agent)
- SIP Request rate limiting
- SIP registration rate limiting
- SIP registration scan attack detection
- SIP call scan attack detection
- SIP anti-attack
- SIP Header manipulation
- SIP malformed packet protection
- Multiple Soft-switches supported
- QoS (ToS, DSCP)
- NAT Traversal

### Capabilities

- Concurrent Calls
  Supports 500 SIP sessions at maximum
- Transcoding
  Supports 200transcoding calls
- CPS for Call
  25 calls per second at maximum
- Registrations
  Maximum SIP registrations: 5000
- CPS for Registration
  25 Registration per second
- SIP Trunks
  Unlimited SIP Trunks

*Your Route to The Destination*

### Media Capabilities

- Voice, FAX support
- Codecs: G.729, G.723, G.711, iLBC, G.726, OPUS
- RTP Transcoding
- Pass-through fax
- No RTP detection
- One-way audio detection
- RTP/RTCP, SRTP
- RTCP statistics reports
- DTMF: RFC2833, SIP Info, INBAND
- Silence Suppression
- Comfort Noise
- Voice Activity Detection
- Echo Cancellation
- Adaptive Dynamic Buffer

### Security

- Prevention of DoS and DDos attacks
- Control of access policies
- Policy-based anti-attacks
- Call Security with TLS
- White List & Black List
- Access Rule List
- Embedded VoIP Firewall

### Call Controls

- Dynamic load balancing and call routing
- Flexible Routing Engine
- Call routing base on prefixes
- Call routing base on caller/called number regular express
- Call routing base on time profile
- Call routing base on SIP URI
- Call routing base on SIP method
- Call routing base on endpoint
- Caller/ Called number Manipulation

### Maintenance

- Web-bases GUI for Configurations
- Configuration Restore/Backup
- HTTP Firmware Upgrade
- CDR Report and Export
- Ping and Traceroute
- Network Capture
- System log
- Statistics and Reports
- Multiple language support
- Centralized management system
- Remote Web and Telnet

### Environmental

- Power Supply: 1+1,100-240VAC, 50-60 Hz
- Power Consumption: 15W
- Operating Temperature. 0 ℃~ 45 ℃
- Storage Temperature: -20 ℃~80 ℃
- Humidity: 10%-90% Non-Condensing
- Dimensions (W/D/H): 437*300*44mm
- Unit Weight: 4.5 kg

VOIP

*For More details:*
*visit :* www.techroutes.com
Or contact
sales@techroutes.com
voip@techroutes.com

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