

# SBC8000 Session Border Controller

## Overview

A Session Border Controller(SBC) is a SIP/IP network core element that deployed for next generation networks (NGN) to support peer/access connection by SIP/IMS trunk and provide interworking between incompatible signaling messages or media flow from endpoint devices and SIP applications. In particular SBC supports SIP/IMS network connection, sip endpoint remote registration, NAT traversal, signaling modification, media control, flexible call routing, codec transcoding, billing and QoS management.



DINSTAR SBC8000 is a new software-based SBC. It provides very rich features for medium and large enterprise SIP network connection and supports various security mechanisms, call routing based on control policies, carrier-grade high availability(HA) and debug tools for service providers and telecom operators.

SBC8000 can be installed on VM/cloud-based system or third-party hardware appliances. Users can install SBC8000 in X86, ARM architecture and any cloud-based platforms for many different SIP implementations with advantages of VM and cloud platforms.

## Key Features

- Up to 10,000 concurrent call sessions, 5,000 media transcoding and 100,000 SIP registrations
- Operate on physical server, virtual machine and public cloud
- Intelligent bandwidth limit and dynamic blacklist
- Cross-network, NAT traversal and high availability(HA)
- SIP over TLS, SRTP
- Compatible with different codecs: G.711A/U, G.723.1, G.729A/B, iLBC, AMR, OPUS
- Flexible call routing
- Broad compatibility with IMS network
- VoIP firewall, anti-attacks and core network protection
- Call recording

## Maintenance

Web-bases GUI for Configurations  
Configuration Restore/Backup  
HTTP Firmware Upgrade  
CDR Report and Export  
Ping and Tracert  
Network Capture  
System log  
Statistics and Reports  
Multiple languages support  
Remote Web and Telnet  
Signaling tracking

## Media Capabilities

Codecs: G.711a/μ, G.723, G.729A/B, iLBC, G.722, AMR, OPUS  
Silence Suppression  
Voice Activity Detection(VAD)  
Comfort Noise Generator(CNG)  
Echo Cancellation:  
G.168 with up to 128ms  
RTP/RTCP  
Voice Interrupt Protection  
Adaptive Dynamic Buffer  
Adjustable Gain Control  
Automatic Gain Control (AGC)  
FAX: T.38, Pass-through  
DTMF: RFC2833/Signal/Inband

## Security

Control of Access Policies  
Policy-based Anti-attacks  
Call Security with TLS/SRTP  
Whitelist & Blacklist  
Access Control List  
Built-in VoIP Firewall

## Capabilities

Concurrent Calls:  
Up to 10,000 SIP sessions  
Transcoding:  
Supports 5,000 transcoding calls  
CPS for Call:  
800 calls per second at maximum  
Registrations:  
Up to 100,000 SIP registrations  
CPS for Registration:  
800 Registration per second

## Deployment Platforms

Hardware Architecture: X86/ARM  
Virtual Machine:  
VMware, Fusionsphere,  
FusionComputer, KVM  
Cloud Deployment:  
Alibaba Cloud, Amazon Cloud,  
Baidu Cloud, Huawei Cloud,  
Telecom Cloud, etc.

## Call Control Features

Dynamic Load Balancing and Call Routing  
Flexible Routing Engine  
Routing Based on Caller/Called Prefixes  
Regular Express  
Call Routing Base on Time Profile  
Call Routing Base on SIP URI  
Call Routing Base on SIP Method  
Caller/ Called Number Manipulation  
TLS mutual authentication

## VoIP

SIP 2.0 Compliant, UDP, TCP, TLS,  
SIP Trunk (Peer to peer)  
SIP Trunk (Access)  
SIP Proxy Registrations: Up to 3,000  
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 Header Manipulation  
SIP Malformed Packet Protection  
Multiple Soft-switches Supported  
QoS (ToS, DSCP)  
NAT Traversal

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### About Us

Founded in 2011 in Shenzhen, DINSTAR is a leading global provider of IP Unified Communication products including VoIP Gateways, IP PBXs, IP Phones and SBCs, we have been delivering more agile, efficient and affordable communication solutions and unparalleled communication experiences to our customers with our reliable, innovative and future-proof products for years. Through our value-added distributors and resellers worldwide, now DINSTAR serves telecom operators, service providers, system integrators, enterprises, SMBs and OEM partners in over 100 countries.