

Providing Security, Simplicity,
Reliability, and Ultimate Interoperability

to Intercarrier Cooperation

*The product functionality will be further enhanced in 2012

ALOE Transit SBC revision 1*

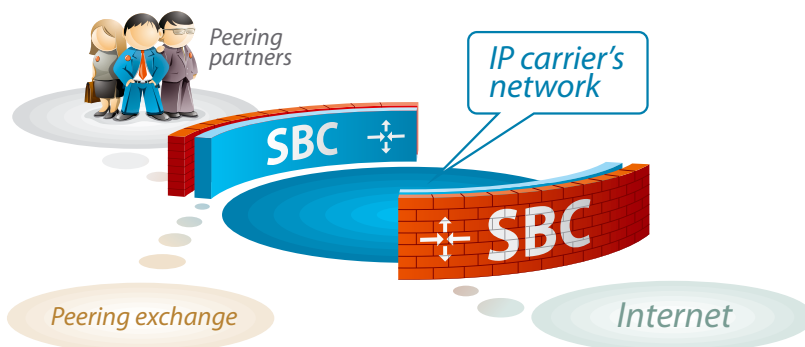


As most global telecommunications service providers are steadily switching to IP due to its price-to-quality features and a wide variety of services, the role of session border controllers is rapidly growing, as well as the scope of their functions. Today an interconnect SBC is an important part of the carrier's network, responsible for secure and controlled IP connections across IP network borders, media processing, call routing, signaling manipulation, etc. Thus, a modern interconnect SBC incorporates network management, interconnection, and control functions.

ALOE TRANSIT SBC rev.1 **combines security, media management, and transcoding services** in a single, highly scalable device. It is designed to be placed at the border of carrier's networks and provide an intelligent interconnection between partners, at the same time performing media anchoring thus maximizing bandwidth utilization.

ALOE Transit SBC rev.1 delivers the following functions:

- ✓ Secure entry point into the carrier's VoIP network
- ✓ Network topology hiding
- ✓ Centralized media traffic management
- ✓ Maintaining SIP-related NAT bindings
- ✓ Access control
- ✓ Protocol and codec interworking



Key benefits:

Network security

- ✓ Network topology hiding. Efficient hiding of the carrier's network topology from peering partners to enable information security (IP address, etc).
- ✓ Call authorization by IP address or user name and password based on data from internal system's configurations.
- ✓ Ability to control CPS/RPS value from the carrier's network

- ✔ Privacy support (presentation/screening indicators, RFC3325/RFC4497/Cisco Remote-Party-Id)

- ✔ NAT traversal

Dynamic transcoding

- ✔ Call-by-call transcoding (no need to transcode all calls of a trunk to the same codecs).
- ✔ Ability to set codec attributes to be able to interoperate better with vendor's and customer's equipment.

Access control

Extensive access control allows only specific units of vendor's and customer's equipment to access the network thus protecting the internal code and work from outside influence or any malicious attacks. It allows the carrier to let only intended customers, vendors and data inside the network.

Media anchoring

Efficient media routing provides for better control and knowledge of the RTP quality by anchoring RTP to interconnect SBC. Media anchoring allows RTP to flow through the carrier's network while hiding IP address of the far endpoint.

Distributed architecture with centralized management

- ✔ Single management point for geographically distributed system
- ✔ Efficient load balancing and dynamic re-distribution of workload that allows for efficient usage of hardware resources and increases overall reliability of the system
- ✔ Zone traffic manager to ensure number translation and network access

Protocol interworking

- ✔ Multi-protocol support (SIP, H.323) for seamless interoperation with multi-vendor and multi-protocol VoIP equipment.
- ✔ Protocol repair for smooth interworking between different interconnect networks.

Advanced routing

- ✔ Dynamic and static routing between interconnect peers based on a diversity of parameters (ASR, gateway/route load, day of week, time of day, caller ID etc).
- ✔ Routing based on received SIP 300/302 redirect messages.

Technical features

Configuration Flexibility

All-in-one: Signaling + media, SIP, H.323

Session Control Functionality

B2BUA

Media Transcoding

G.729 (plain, A,B, AB), G.723.1, G.711A-Law, G.711 mU-Law, G.726, Speex, AMR NB, iLBC, GSM FR – transcoding.

H.261, H.263, H.264 – pass through.

Point-to-point media capability. Configurable proxy policies (no proxying, without codec conversion etc.)

Load Balancing

Using hunt, round-robin, least busy, proportional distribution or least-busy balancing methods, statistics-based balancing (ASR-, QoS-oriented, etc.)

Calls Per Second/BHCA

500 CPS per traffic entry point, multiple entry points, BHCA 10 mln.

Concurrent Calls

50,000 per cluster

Call Detail Records

CDRs in the DB, interim CDR reports, statistics keeping, schedule-based CDR import and export (to ftp, etc.)

Protocol Support

SIP, H.323

Access Control Lists

CPS/RPS restrictions across IP networks and by registered/static gateways

Topology Hiding

On signaling and media layer, NAT by means of OS

Server Brand/Type

Standard IA server (e.g. 2X Intel Xeon 2, 8Gb RAM)

Routing Intelligence

Incoming and outgoing call number, origination equipment, time-of-day/days-of-week/month, dial-peer priority/ statistics (QoS, ASR, etc.), incoming SIP 300/302 redirect messages, LRQ, relative/absolute gateway workload, codecs, CPC, other call parameters

Service assurance

QoS measurement (packet loss, latency, and jitter), real-time failure notification, EMS, QoS marking, load balancing, redundancy deployments, ingress traffic restriction by CPS

Call/Session Admission Control

Restrictions by CPS, RPS, CC, registered/static gateway

Scalability Using Multiple Systems

Near-linear scalability by adding servers and entry points due to modular architecture

High Availability/Redundancy

Cluster system with the capability of entry point shifting among the cluster servers and a plurality of entry points, load balancing, "safe configuration" mode

Product Design

Software with modular architecture

Operating System

Debian Lenny/Squeeze