

Cloud SBC

Providing a service-aware transit platform with end-to-end QoS and visibility

Intelligent Connectivity Made Fast and Affordable

Due to the evolution of the telecommunications landscape towards an all-IP world, operators are facing new challenges ahead. Mobile, fixed, local PSTN providers, GRX network providers, and IPX network providers are all reducing their dependence on traditional TDM interconnects, thereby opening the door to a new set of mission-critical parameters for operational success.

At the forefront, operators are increasingly seeking security, management, reliability, Quality of Service (QoS) or Quality of Experience (QoE) assurance, and real-time visibility of their IP networks. At Epsilon, we understand these requirements and have built a purpose-built platform using our internally developed networking technology to deliver these capabilities to our customers through Cloud SBC.

Epsilon's Cloud SBC adds a new dimension to Epsilon's trusted interconnect and transit platform by providing a service-aware (voice, video, data) transit layer. It enables end-to-end QoS and visibility across network, session, system, KPI, and SLA statistics, helping to enhance service optimisation and monetisation.

It is a subscription-based service, with a pay-per-use charging model that requires no upfront CAPEX. IP interconnects are also more cost-effective and faster to deploy, driving operational efficiency through reduced equipment costs and infrastructure support.

Epsilon Facts

600+ Network
Supplier Relationships

•

Global Optical Backbone

•

24/7 Expert Support

•

Over 20 Years Of Experience

•

Access In Over 150+
Countries

•

One Contract Procurement

Benefits



Security

Cloud SBC is a Private Network that consists of several safety mechanisms like DoS/DDoS Prevention, SIP Rate/Flooding Protection, Malformed SIP and SIP Profiling. It has the ability to check for unauthorized customer and implement control for Media Bandwidth and Call Limit.



Session Management

Can offer Extensive SIP Protocol Support, Topology Hiding, Signalling Adaptation Framework (SAF), Transcoding and Call Admission Control (CAC) for better management of call sessions.



High Availability (HA)

Each Cloud SBC node offers Service level redundancy, whereby each of them is in Active/Standby mode with hot standby. There is also Stateful Session Redundancy Protocol (SSRP) built between Active and Standby units within a single node.



Service Assurance

Can better manage End-to-end QoS and QoE to ensure premium quality. Have capability of dynamic steering of sessions in wake of network challenges.



Extensive Tools

By using DPI (Deep Packet Inspection) technique, Cloud SBC is able to offer tools to users for end-to-end session tracing, media quality measurements and traffic type monitoring.

“Cloud SBC enables operators to simplify IP interconnection while enhancing service quality, resilience and operational efficiency.”



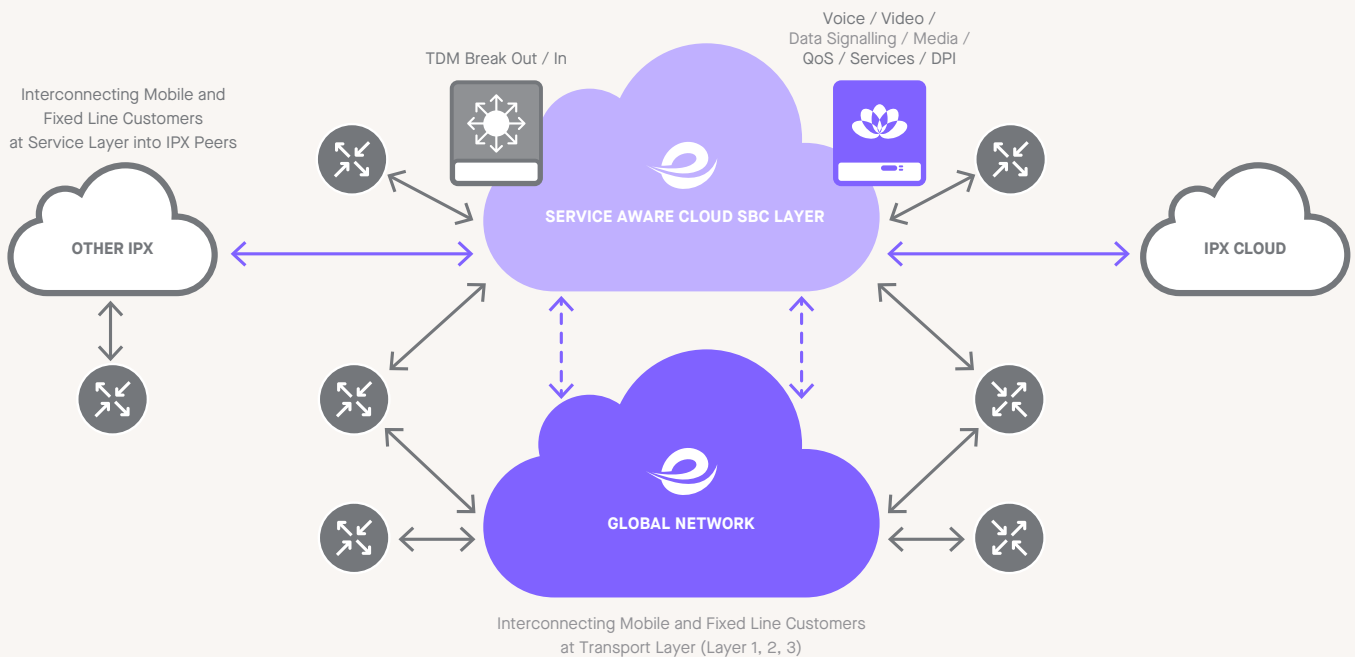
Alison White
Head of Voice Business
Epsilon

Why Choose Us?

- More than 20 years of experience serving the sector
- Direct connection to the leading Cloud and IX service providers
- Rapid lead time to establish service provider connectivity based on exchange concepts
- Software-defined Networking (SDN) platform for on-demand connectivity
- Internally developed intelligent networking technology
- Global team of expert engineers
- Innovative services
- 24/7 customer-centric support
- A dense interconnect fabric of 600+ carriers, service providers, Cloud and IX providers
- Flexible application, APIs and web-based self-service portal

What it can do for you:

Epsilon's Cloud SBC can enhance the performance, privacy, and stability of your bilateral interconnections (TDM/VoIP) with a single interconnection, while extending your global market reach.



Cloud & Application Providers

Private Connection

Secured community network that is separated from the public Internet.

Operations and Support

24/7 proactive monitoring and customer support.

Flexible Pricing

The charging model is based on "pay-as-use" term.

Single Centralised Portal

Access near real-time analytics and traffic summary reports.

Carriers & Service Providers

Full Control and Visibility

Comprehensive session and call management platform.

CAPEX and OPEX Savings

Subscription based service and no upfront CAPEX. IP interconnects are more cost effective and faster to install.

Maximize Revenue Opportunity

Minimise session failures due to incompatible codecs/parameters.

HA Redundancy

Maximise service uptime and ongoing calls will not be dropped during failover.

Managed Service Providers

Simplified Interconnection

Multiple services can be provisioned across a single service-aware interconnect.

Industry Standards

Strong collaboration with GSMA and i3 forum.

Proactive Service Support

Dynamic steering of sessions due to predefined QoS and QoE.

Real-time Service Provider Feed

Demonstrate real-time network and service quality.

Technical Specifications

Supported Protocols on TDM Side	SS7: ETSI ISUP V1 & V2, ITU ISUP, ISUP, ANSI ISUP and dozens of other country signalling variants
CLOUD SBC Features	• Interconnect B2B User Agent Call Model (NAT, Topology Hiding, Security) • RFC 3264 SIP Offer/Answer • RFC 3261 SIP Messages and Header Support (Interconnect Feature set) • Call Admission Control (call rate, call limit, BW) at system and customer level • Codec Negotiation • Media Control (Relay, By-pass) • PRACK, Forking, Session Refresh Procedure Support • SIP OPTIONS Ping • Reason Header Support (Release cause) • FQDN Resolution for Remote IP Peer (Local) • Load Balancing and CAC policies across customer remote endpoints • Zone Based Session Steering • Profiles (QoS, Codecs, SIP) • Session based KPIs and Stats
Billing Module	SDRs (Session Detailed Records)
Media & Security Handling	• RTP/RTCP Media Relay • Media NAT (address and port translation, topology hiding) • DoS/DDOS attack blocking at H/W • Access Control List • VLAN • Media BW CAC at Customer, System, Port Level • Multiple IP Address Support
Policy Engine	• Static Routing/Default • (Zone to Zone) • Parameter Based Policy Rules • Weight Priority based routing • Session Re-routing and Redirection • Time of Day
Transcoding Features	• Static Transcoding • Supports Voice and Video codecs • G.711, 723, 729, iLBC, OPUS, SILK, AMR WB, G.722 etc
Analytics	• Customer and System Voice Scores (MOS and R-factor) • QoS Metrics Calculation for Real time Enforcement
Overflow Routing	• Number Directories • Directory Lookup • Data Manipulations • (Set, Get, Test) • Route Treatments/Actions • Route Filters/Post Processing Rules • Media Transcoding Control • User Interface for Advanced Policy Routing

Media Plane Features	• Media NAT Traversal (Latch) • Hierarchical QoS-policing • Dynamic Blacklisting • Grey Lists • Policy based IP routing • Dynamic Firewall Policies • Service Availability • High Availability (HA) across Epsilon PoPs globally
Operational Tools	Tracing (Signalling and Media)
Security	• Customer access from Public Domain via IPSEC* • Customer access from Private Domain via Direct Peering model
Customer Service Portal	• Multi-node web based central manager • Maintenance Operations • Role Based Access Control for shared access/partitioning • Graphical User Interface for Configuration • Dashboard View • Alarms
SIP Features	SIP event package for QoS and SLA management
Policy Engine	• QoS Based Session Steering • Policy Based Transcoding Control (Policy Triggers)
Media Features	• RTP Analysis and RTCP-XR generation • Advanced Queuing • (Strict and Priority Queuing)

Contact Us

APAC

+65 6813 4020

UK

+44 207 096 9600

EMAIL

info@epsilontel.com