

Perimeta SBC Overview

Perimeta SBC from Metaswitch – the last SBC you'll ever need

The perimeter of any network is only as strong as its weakest link and must provide the secure basis required to ensure continuity and quality of your service offerings. Realizing this, Metaswitch developed Perimeta, a Session Border Controller (SBC) that can be deployed for any carrier SBC use case, while providing an unprecedented level of visibility, reliability and ease of use.

Cloud Native Design

The Perimeta software runs on any platform – public cloud, private cloud, virtualized or COTS hardware - and takes full advantage of today's standard processors, offering outstanding performance. It can provide transcoding without GPUs or DSPs. And with its patented N + k redundancy model, it removes the need for passive backups that take up underlying platform resources, doubling the utilization of underlying hardware immediately.

Distributed Admissions Manager (DAM) and the Secure Distribution Engine (SDE) allow hundreds of Perimeta instances to act and be managed as a single logical SBC. This means that Perimeta SBCs act in unison to provide maximum security to the network and provide unparalleled centralized intelligence when distributing traffic and making admission decisions related to SLAs and capacity limits.



Patented N+k architecture reduces TCO by 50%



20k media sessions on 8vCPU in public cloud



Multiple Tier 1 Mobile & Fixed References

Operational Excellence

Security remains the key requirement for the SBC, and Perimeta continues to maintain security leadership in the cloud with a Zero Trust model. This means it can encrypt every interface to the FIPS US government standard, reducing the attack surface and stopping any potential attacker.

Perimeta is deployed alongside ServiceIQ Service Assurance (SAS), a monitoring tool that distinguishes itself by capturing every session and service flow and making them ready for immediate analysis. This is available for your troubleshooting team, even if the messages are encrypted on the wire.

For the largest networks Perimeta can leverage the ServiceIQ automation solution to reduce configuration and provisioning operations from hours to minutes. The chances of costly human errors are reduced to zero, along with the need for maintenance windows.

Single SBC platform

Perimeta is deployed at the largest tier 1 carriers for all mobile and fixed SBC use cases (including Microsoft Teams Direct Routing). This makes it the truly flexible option for a network operator and it removes the expenditure in finding, validating and on-boarding distinct SBCs for each application. And with experience of migrating over 100 customers onto the Perimeta platform, choosing Perimeta is the safest decision you'll make.

Feature List

Use Cases

- Mobile/VoLTE Access and Interconnect
- Fixed Access and Interconnect
- SIP Trunking

Security

- Static ACLs
- Dynamic blacklisting based on traffic
- Topology hiding
- SIP privacy support
- Zero Trust Security model
- Line rate DoS/DDoS protection
- FIPS 140-2 certified
 - STIR/SHAKEN ready
 - Fully integrated with MetaSphere QCall Signing and Verification Service

Media Interworking Features

- Transcoding: G.711, G.722, G.723.1, G.729A/B/AB, AMR-NB, AMR-WB, SILK, EVS, Opus, iLBC, T.38
- Available in software and with DSPs for high density transcoding
- In-band DTMF, DTMF in signalling and RFC2833 interworking
- Transrating
- Comfort noise generation
- Fax/T.38 interworking
- RTCP generation
- RTP-SRTP interworking
- MSRP-MSRPS interworking
- NAT detection and traversal
- On-instance tone/announcement generation
- Video codec passthrough

SIP Interworking Features

- Powerful Message Manipulation Framework to manipulate and repair:
 - SIP headers
 - SIP bodies
 - Diameter messages
- SIP/SIP-I interworking
- UPDATE/PRACK interworking
- Overlapping address spaces
- Number Portability
- Certified for Microsoft Teams
- eSRVCC and EATF function
- Registration monitoring

Network Integration

- Secure SIP load balancer available
- Deployment-wide admissions control
- IPsec tunnel/VPN support
- SIP over TLS v1.1/1.2/1.3
- IMS-AKA
- SIPREC call recording
- Lawful Interception
- APNS compliant

Service Assurance

- Configurable QoS/DSCP marking
- Billing in both XML and RF formats
- N + k media redundancy model
- In-built Geographic redundancy
- Always-on call tracing with SAS

Deployment Models

- Decomposed architecture supports independent scaling of signalling and media
- Optimised for Intel x86
- Same field hardened software available in:
 - Public clouds (Azure, AWS)
 - Private clouds (Openstack, VMWare)
 - Common of the Shelf Hardware (e.g. DELL/HP)
 - ATCA
 - Containers

Management and Operations

- Deployment-wide declarative configuration
- Configuration via GUI, CLI, REST API
- Ready for fully automated deployment
- VNFM available
- Simple integration with 3rd party MANO
- Full automation solution with ServiceIQ automation enables scale to any size with no increase in opex
- Automatic scaling of signalling and media resources available
- CI/CD gitops management option
- Deployment-wide licensing

Monitoring

- SNMP V2/V3
- Log streaming to remote servers
- End-to-end visibility with Service Assurance Server
- Service IQ monitoring integration providing configurable dashboards for metrics, logs and alarms
- External monitoring feeds for analytics and probe substitution