Session border control for your enterprise communications network
The growing importance of securing network boundaries demands action

In today’s enterprise networks that rely on IP voice and video, the session border controller (SBC) plays a critical role. With networks supporting untrusted, best-effort quality and data-oriented services, it’s up to the SBC to protect and sustain quality while securing the media and signaling streams that cross the edges of the network and deliver business communications services. These days, there’s a lot of that crossing going on. And it’s only going to increase with the proliferation of BYOD phones and tablets, web based portals, and digital transformation initiatives. Innovative business communications services are on the rise — along with more and more interconnection between enterprise IP networks.

To handle this mounting demand, enterprises know that adding costly security hardware is not sustainable in the long term. Yet many wonder, “What’s the alternative?” Cloud software design may have brought speed, flexibility and efficiency to other parts of the network, but is it really possible to put an SBC into an enterprise cloud, given it has such a critical role in manipulating real time media streams?

Happily, yes.

Meet Nokia SBC, the field-proven virtualized and cloud-ready SBC designed specifically to meet the emerging needs of enterprises.
Information security spending tops $101 billion
16,700 new IP devices added every minute

By 2020, more than 25% of enterprises will secure their IT architectures through cloud, hosted, or SaaS security service

80% of consumers will defect from a business in the next two years because their personally identifiable information is impacted in a security breach

Startling increase of IP connections

Today
11 billion devices

2020
30 billion devices

2025
80 billion devices
Securing borders the Nokia way

The Nokia virtualized SBC solution delivers the performance, resilience and efficiency you need.

1. **Reduce costs.** With access and peering functions running on a single software load in your enterprise cloud, you can lower operating and capital expenditures and get new business applications up and running faster.

2. **Optimize media performance.** Accelerate the media plane with support for software-based transcoding and advanced technologies such as single-root input/output virtualization (SRiOV) and data plane development kit (DPDK).

3. **Simplify day-to-day operations.** Streamline your SBC with a unified operation, administration and management (OA&M) interface to simplify operations and cut management costs.

4. **Protect your network from cyber attacks.** Maintain high call processing rates with no system degradation — even in the face of distributed denial-of-service (DDoS) attacks — with an integrated best-in-class firewall defense system.

5. **Boost innovation and unlock new revenue streams.** Bring communications to your web-based services with the support of WebRTC. Easy-to-use application programming interfaces (APIs) help developers push and pull business communications directly into browsers and web applications.
With the option to deploy Nokia SBC either on-site on COTS-IT servers or fully in the cloud, you can benefit by virtualizing your SBC regardless of your current network maturity or to what extent your network is in the cloud.

If you start with our integrated solution, you can transition to our cloud variant once you are prepared for the technology shift.

**Flexible deployment options**

**Integrated vSBC**
The integrated variant is designed for small, medium and large deployments and can be installed for access, peering or both. In scaled-down 2 x 2U form, the integrated vSBC provides increased deployment flexibility with an efficient physical footprint.

**Cloud SBC**
Running in either VMware or OpenStack cloud environments, the cloud variant is designed for deployment on any scale. It reduces total cost of ownership by sharing computing resources between virtualized network functions (VNF) and allows SBC VNF components to scale up and down independently to meet fluctuating service demands, enabling unmatched operational efficiency.

**Hybrid**
Nokia SBC can be deployed in a hybrid configuration that includes both cloud VNF and Integrated vSBC nodes working seamlessly together to protect your enterprise.

You can fit the deployment to suit your business location layout, or add Integrated nodes at key locations to provide hardware acceleration for special purpose traffic loads.
Unified SBC management and operations

Nokia SBC enables superior management flexibility on three levels:

**SBC**
Our SBC web user interface lets you configure signaling and media planes for individual SBCs, perform fault management and performance management activities, troubleshoot with SIP call tracing and set multi-level or role-based access control profiles all in one place.

**Network**
We support the open and non-proprietary NETCONF protocol to allow interfacing with any third-party EMS. Open, standardized interfaces allow easy integration with the existing operations infrastructure.

**Cloud**
Our support for Mistral workflow and ansible playbooks offers a simplified approach to lifecycle management and makes it easy to deploy, grow and update SBC VNFs. Nokia SBC supports integration with any network functions virtualization management and orchestration solution.
"Nokia is taking an early lead in vSBC deployments, supporting media plane processing at scale and including NFV MANO support. The Nokia SBC is one of few to support embedded load balancing functionality increasing single node performance and easing operations. The company’s SBC was also early to support commercial WebRTC capability and includes a leading portfolio of APIs capable of exposure to third-party developers."

David Snow, GlobalData October, 2016
Why Nokia?

When it comes to trusting a vendor with your investments, experience is important. Thanks to Nokia’s proven reliability and the integrity and strength of our solution, we offer a safe way to evolve your network away from appliance SBCs to fully virtualized SBCs deployed on-site or in the cloud.

Our SBC portfolio is ranked as a leader in the market by market research firm GlobalData. We have proven on-field experience with initial cloud deployments and large-scale VoLTE rollouts involving more than 100-million subscribers, so you can be assured your investments are in qualified hands.

Winner of Technology Marketing Corporation’s 2016 communications solutions product of the year award, Nokia SBC is recognized for its outstanding achievement in communications. It is uniquely suited to help enterprises bolster their communication networks in the face of ramping demands from IP device proliferation and new interconnect arrangements, offering:

- Flexible deployment options
- Proven resiliency against attacks
- Optimized performance of the virtualized media plane
- Unified OA&M
- Built-in WebRTC gateway and APIs