

DATASHEET**ONEvSBC**

Virtual SBC (VNF) for Enterprises and Operators



The vSBC enables fixed line operators, mobile operators and ISPs to overcome the challenges inherent in routing SIP-based calls between their network and customer premise equipment.

It provides a simple and cost-effective solution for signal interworking, media interworking, address translation, network demarcation, Quality of Service (QoS) and security. The ONEvSBC provides SIP signaling resolution, SIP proxy and Session Border Controller (SBC) capabilities for SIP based PBXs and SIP phones, ensuring trouble free operation of SIP Centrex and SIP Trunking services to small and mid-sized offices.

- SIP Centrex and SIP Trunking
- SIP Proxy and SBC capabilities
- Ground-breaking per session price point
- Enhanced interoperability and security
- SIP Connect 2.0 compliant
- On premise disaster recovery
- Fax support
- QoS and bandwidth management
- Up to 1200 desks
- NETCONF ready

SIP Centrex and SIP Trunking Services

The vSBC has two main modes of operation, providing service assurance, network optimization and security for a variety of SIP based services. A first mode optimized for hosted SIP services (aka. Centrex) manages SIP phone authentication and registration to the service provider's network. In that mode, the SBC ensures media anchoring to make sure the RTP stream follow the optimum path and provides call survivability when the path to the SIP AS or hosted PBX is lost.

A back to back mode ensures interoperability of SIP-based PBXs with the service provider network for SIP Trunking services. Transcoding makes sure incompatible media can be interworked with the network. The selective transcoding mode is an enhanced back-to-back mode that releases DSP resources when no transcoding is required. This mode enables a B2B solution on products with no DSP resource and improves the scalability of the product. This makes Ekinops vSBC even more suitable for fully virtualized environment and lightweight Edge hardware.

Enhanced Interoperability

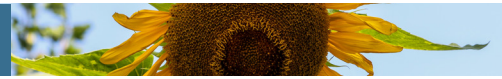
The vSBC translates between the various SIP implementations on SIP based PBXs, SIP phones and the service provider's network, providing 'plug and play' functionality for SIP Centrex and SIP Trunking services. This avoids unnecessary engineering integration costs or capital expenditure on more complex, larger scale SBC solutions for small and mid-sized offices. In addition, it enables service providers to offer and support a broad range of SIP phones, which connect directly and seamlessly to their SIP services.

The vSBC provides media interworking and transcoding for voice, DTMF and FAX calls, providing analog service migration and convergence with IP services. Advanced QoS capabilities in the vSBC, such as packet classification, marking/tagging, Diffserv, traffic conditioning, traffic shaping and congestion avoidance, ensure voice quality with SIP Trunking and SIP Centrex services.

Security

The vSBC provides a comprehensive range of network interconnection, caller, session and IP security features. It acts as a border between customer premise and service provider networks, hiding the network topology between IP networks. The vSBC securely manages SIP sessions, NAT translation and firewall transversal, SIP phone registration, and protects itself from DoS attacks.

ONEvSBC



On Premise Disaster Recovery

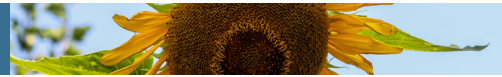
The vSBC enables service providers to offer on-premise business continuity for SIP based services, automatically detecting network failure and assuming local call control functions. Internal on-site calls can be made and outbound/inbound calls can be delivered via alternative ISDN and analog voice trunks on OneAccess routers. Once the SIP trunk network is restored, the vSBC hands back control to the service provider's network.

Reduce Total Cost of Ownership

As well as opening the door to new revenue opportunities, the vSBC helps achieve long term cost savings. The vSBC integrates SBC/SIP proxy capabilities within a single, flexible multi-service access router, which means reduced capital costs and simpler logistics and operations.

In addition, for SIP trunking services, no unwanted SIP header, SDP or media will be sent to the service provider network avoiding operational and support issues. Advanced troubleshooting and monitoring tools make it simpler to manage. The vSBC assures a positive customer experience of SIP based services

Technical Features



Applications for SMBs & Service Provider

- SIP Trunking
- Hosted PBX
- Unified Communication as a Service (UC SaaS)

Security

- DoS / DDoS self protection
- SIP topology hiding
- SIP message parsing
- Session Handling
- Anti-flooding mechanism
- SIP authentication (two steps or end-to-end mode)
- SIP Encryption & secure media (TLS/SRTP)
- IP level filtering
- Intrusion detection mechanism
- SIP rate pacing for Centrex solutions

Interoperability

- SIP v2 with UDP/TCP/TLS and RTP/SRTP
- SIP Back-to-Back User Agent (B2BUA)
- SIP transparency for Centrex solution
- SIP normalization
- SIP Header Manipulation
- Address translation & NAT pinhole management, Hosted NAT traversal
- Wide proven IP PBX interoperability

Media

- Packet marking: 802.1p/Q VLAN tagging, TOS, DiffServ,
- Media processing / Direct Media transport
- Intelligent Media Alignment
- Voice Transcoding G.711a/u, G.729A/B, G.722
- Various voice and video codecs pass-through
- RTP inactivity monitoring

Advanced Features

- Geo-redundancy with DNS-A/SRV and NAPTR
- Survivability: Local calls, backup
- High availability with two-box redundancy (*)
- Media hair-pinning of local calls
- Advanced Call Routing
- Endpoint monitoring
- Intrusive mode

Voice Quality Monitoring

- Bandwidth management
- CDR (call detail record) generation
- RTP-XR support
- VQM measurement and generation
- Call Admission Control (CAC)

Management

- Integration with leading cloud orchestration vendors for NFV/VNF platform
- Web-based management GUI including wizards for easy configuration
- Fully managed by OneManage EMS (**)
- CLI, SSH, HTTP/HTTPS, SNMP, TR-69, NETCONF
- Statistics, events, alarms and debug engine

Hypervisors

- OneOS6-LIM (Ekinops Middleware) (**)
- KVM/QEMU
- Oracle VM Virtualbox
- VMware 5.0 and higher

Minimum Requirements

- 10 GB hard disk space
- 1 GB of RAM
- 1 - 4 Intel-based virtual CPU
- 3 virtual NICs (vNICs)

(*) Under license

(**) Please contact Ekinops Product Marketing team

Performance / Scalability



Performance	
Users	3000
SIP trunk	200
Concurrent Calls (UDP/TCP)	2000
Transcoded Calls (UDP/TCP)	20 for 2 vCPU / 40 for 3 vCPU / 60 for 4 vCPU Supported codecs: G.711, G.729, G.722

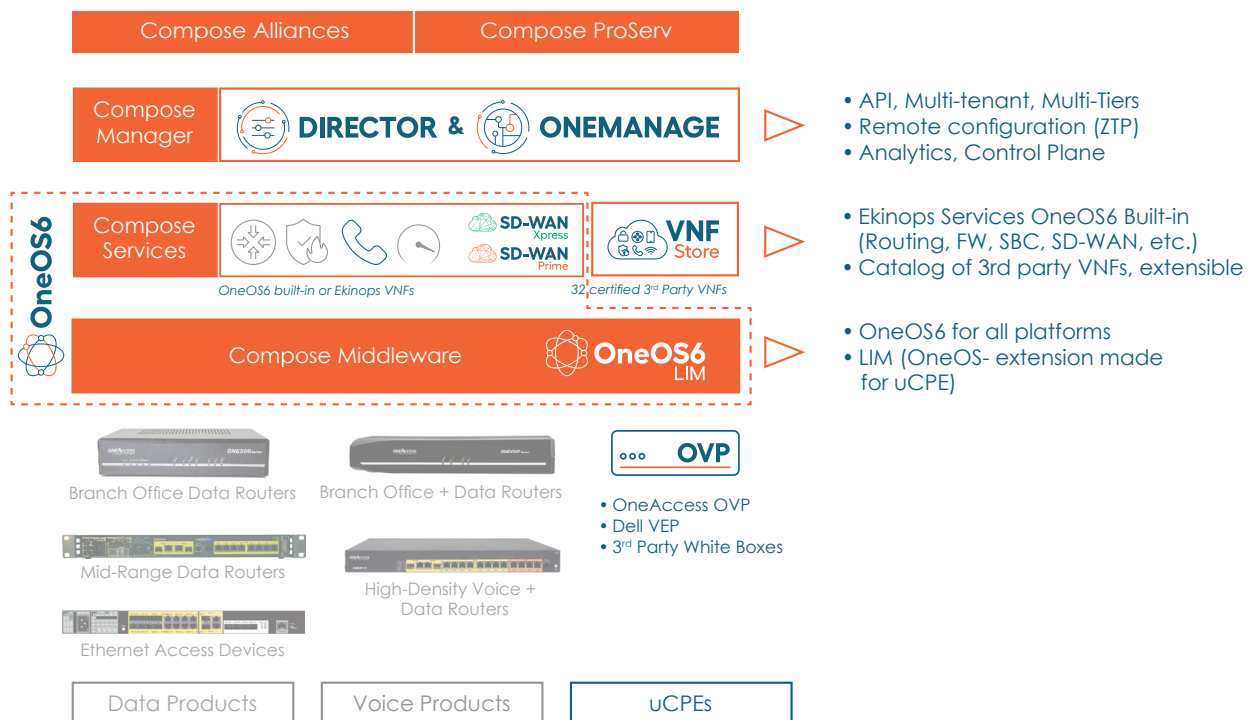
Scalable Licensing model	
OneSBC-50	SBC VNF license - 50 concurrent calls; up to 40 transcoded calls
OneSBC-100	SBC VNF license - 100 concurrent calls; up to 60 transcoded calls
OneSBC-200	SBC VNF license - 200 concurrent calls; up to 60 transcoded calls
OneSBC-500	SBC VNF license - 500 concurrent calls; up to 60 transcoded calls
OneSBC-600	SBC VNF license - 600 concurrent calls; up to 60 transcoded calls
OneSBC-1000	SBC VNF license - 1k concurrent calls; up to 60 transcoded calls
OneSBC-2000	SBC VNF license - 2k concurrent calls; up to 60 transcoded calls

ONEvSBC part of the Ekinops virtualization portfolio



Ekinops champions an open and flexible approach to NFV that provides choice and unsurpassed agility for its customers. Orchestration with Ekinops portfolio has never been simpler.

Service providers can select from a wide range of compact network functions to orchestrate and combine these in an open and flexible manner to deliver new virtualized services either in the Cloud or integrated within a range of cost-effective access platforms.



About Ekinops



Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world. Our programmable and highly scalable solutions enable the fast, flexible and cost-effective deployment of new services for both high-speed, high-capacity optical transport networks and virtualization-enabled managed enterprise services

Our product portfolio consists of three highly complementary product and service sets: Ekinops360, OneAccess and Compose.

- Ekinops360 provides optical transport solutions for metro, regional and long-distance networks with WDM for high-capacity point-to-point, ring and optical mesh architectures, and OTN for improved bandwidth utilization and efficient multi-service aggregation.
- OneAccess offers a wide choice of physical and virtualized deployment options for Layer 2 and Layer 3 access network functions.
- Compose supports service providers in making their networks software-defined with a variety of software management tools and services, including the scalable SD-WAN Xpress.

As service providers embrace SDN and NFV deployment models, Ekinops enables future-proofed deployment today, enabling operators to seamlessly migrate to an open, virtualized delivery model at a time of their choosing.

A global organization, with operations in 4 continents; Ekinops (EKI) - a public company traded on the Euronext Paris exchange - is headquartered in Lannion, France, and Ekinops Corp., a wholly-owned subsidiary, is incorporated in the USA.

EKINOPS360
Dynamic Optical Transport

ONEACCESS
Fast Network Virtualization

The logo for COMPOSE, featuring a stylized icon of three interlocking puzzle pieces in blue and orange, followed by the word "COMPOSE" in a bold, blue, sans-serif font.