

# Oracle Enterprise Virtualized Session Border Controller

Oracle's Enterprise Virtualized Session Border Controller (E-vSBC) helps connect disparate SIP-based real-time communications networks while mitigating security threats, curing interoperability problems, and ensuring reliable communications. As a virtualized network function, the E-vSBC can be located where it will be most effective and least expensive to operate, enabling enterprises to address their increased need for flexible and agile voice, video and Unified Communications (UC) infrastructures while reducing CAPEX and OPEX. The E-vSBC is an extension of Oracle's market leading appliance E-SBC product portfolio, but is specifically for virtualized deployments.

## OVERVIEW

The E-vSBC leverages the same code base as Oracle's appliance based E-SBCs. It provides the strong security, reliability and scalability that enterprises and contact centers rely on for their real-time communications. Starting at 25 sessions, the E-vSBC can be deployed by small to very large enterprises for use cases including: SIP trunking, unified communications & collaboration (UC&C), contact centers (CC), hosted voice services, and connecting remote workers. The E-vSBC is both horizontally and vertically scalable depending on capacity and performance requirements, and can be deployed on a wide range of hypervisors and public clouds. There is also the option of Oracle's network wide licensing (NWL) model which enables license rebalancing and capacity redistribution for efficient use of virtualization resources.

The E-vSBC is designed to fit into Oracle's mission to see data in new ways, discover insights, and unlock endless possibilities. Our E-vSBC aligns to Oracle's Network Function Virtualization (NFV) vision, offering the simplified manageability, orchestration, and integrated analytics synonymous with a cloud native architecture. Oracle's E-vSBC is certified with leading UC&C, CC and hosted telephony platforms, including Microsoft Teams and Genesys PureEngage.

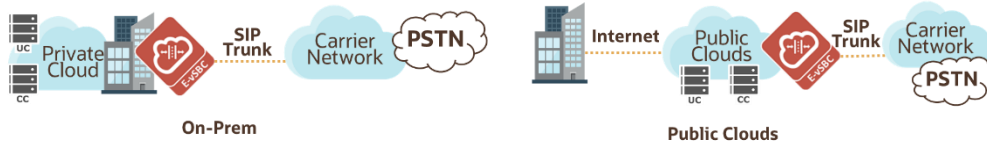
The E-vSBC also comes in a Small Footprint version with scaled down capacity and performance to support the vCPE market, which is critical for MSP efficient and cost-effective operations.

### Oracle Advantage

- Common code base with appliance E-SBCs
- Feature parity from small to large scale deployments
- DSP support for high scale transcoding
- Varied hypervisor support:
  - KVM, VMware, OVM, Hyper-V, OpenStack
- Support for the leading cloud providers:
  - Microsoft Azure
  - Amazon AWS
  - Oracle OCI
- Small Footprint E-vSBC for MSPs
- FIPS and JITC Compliant
- Microsoft Teams Certified.
- Genesys PureEngage contact center certified
- Automation via industry standard HEAT Templates
- Configuration and Life Cycle Management through REST APIs
- Built-in Oracle Enterprise Operations Monitor probe
- Pooled Network Wide Licensing

The E-SBC is a field-proven solution for connecting a wide range of multivendor VoIP, UCC and contact center systems to public network services, including SIP trunking services, the Internet and cloud applications.

## COMMON DEPLOYMENT MODELS



**On-Premise & Private Clouds:** Virtualized instances deployment in the enterprise’s network on vCPEs or hypervisors such as KVM, VMware, OVM, Hyper-V and OpenStack.

**Public Clouds:** Virtualized instances on public cloud platforms such as Amazon Web Services, Microsoft Azure and Oracle Cloud Infrastructure.

## E-VSBC DATASHEET

### Specifications and Capacities

Feature	Oracle Small Footprint E-vSBC	Oracle E-vSBC
<b>Hypervisor</b>	KVM, VMware	KVM, VMware, Hyper-V, OVM
<b>Public Cloud Support</b>	AWS, MS Azure, OCI	AWS, MS Azure, OCI
<b>OpenStack</b>	✓	✓
<b>Encryption</b>	Software SRTP/TLS	Software SRTP/TLS
<b>Min. Requirements</b>	1 core/2vCPUs 4GB RAM 20GB	3 cores/4vCPUs 16GB RAM 40GB
<b>Media Sessions (Min-Max)*</b>	25 - 1,600	25 - 60,000
<b>Max. SRTP Call Legs</b>	600	40,000
<b>Max. Transcoding Sessions</b>	NA	5,600 (SW); 10,800 (DSP)
<b>Max. CPS</b>	120	2,000

### E-vSBC Capacity and Performance Comparison

Feature	On-Prem*	OCI	Azure	AWS
<b>Max. CPS</b>	540	400	180	190
<b>Max RTP Sessions</b>	12,450	5,700	2,100	2,200
<b>Transcoded Sessions</b>	350	200	NA	330

\*On-Prem number are for KVM Hypervisor

\*\*The comparison chart is for 4 core VM shapes only

#### Applications

- Private and Public cloud based deployments
- SIP Trunking
- IP Enabled Contact Centers
- Unified Communications
- Hosted IP Communication Services
- Remote Workers and Offices

#### Key Business Benefits

- Enables E-SBC functionality to be placed where most effective and least expensive to operate
- Simplifies and accelerates service deployment
- Reduces CAPEX and OPEX
- Protects real-time communications against cyber-attacks

#### Related Products

The following products support Oracle Enterprise Session Border Controller:

- [Oracle Enterprise Operations Monitor](#)
- [Oracle Enterprise Telephony Fraud Monitor](#)
- [Oracle Enterprise Communications Broker](#)
- [Oracle Communications Interactive Session Recorder](#)
- [Oracle Communications Session Delivery Manager](#)
- [Oracle Communications Security Shield Cloud](#)

## E-VSBC CRITICAL FEATURES & CAPABILITIES

FEATURE	CAPABILITIES
<b>SECURITY</b>	<ul style="list-style-type: none"> <li>• Granular access control</li> <li>• IP address and SIP signaling concealment</li> <li>• Layer three through five topology hiding and signaling overload controls</li> <li>• IP telephony spam protection</li> <li>• Stateful deep packet inspection</li> <li>• Signaling and media encryption</li> <li>• FIPS Compliant including MSRP FIPS for E-vSBC</li> <li>• JITC Compliant and being validated.</li> </ul>
<b>INTEROPERABILITY</b>	<ul style="list-style-type: none"> <li>• SIP message normalization</li> <li>• Response code translation</li> <li>• SDP and Dual Tone Multi-Frequency (DTMF) manipulation</li> <li>• Number and uniform resource identifier (URI) manipulation</li> <li>• Header manipulation rules (HMR)</li> <li>• SIP / H.323 signaling interworking</li> <li>• Protocol interworking: Transmission Control Protocol (TCP), User Datagram Protocol (UDP)</li> <li>• Encryption interworking: Transport Layer Security (TLS), Mutual TLS, Secure Real-time Transport Protocol (SRTP), IP Security (IPsec)</li> <li>• Network address translation (NAT) and firewall traversal</li> <li>• IP address translation: private/public, IPv4/IPv6</li> <li>• Transcoding</li> <li>• IETF standard SIP Recording (SIPREC) interface</li> <li>• Support for Microsoft ELIN Gateway and Avaya Personal Profile Manager proxy</li> <li>• RFC3389 – RTP payload for Comfort Noise</li> </ul>
<b>RELIABILITY</b>	<ul style="list-style-type: none"> <li>• Standby SIP registrar with caching for remote site survivability</li> <li>• Stateful signaling and media failover</li> <li>• Quality of service (QoS) marking, virtual local area network (VLAN) mapping</li> <li>• Registration storm avoidance</li> <li>• Call rate limit enforcement</li> <li>• Trunk load balancing</li> <li>• Stateful session routing</li> <li>• QoS-based routing H.323 destination address based routing</li> </ul>
<b>REGULATORY COMPLIANCE</b>	<ul style="list-style-type: none"> <li>• Session prioritization for emergency services</li> <li>• IETF SIPREC interface</li> <li>• Call detail records (CDRs) with local or remote storage via RADIUS</li> </ul>
<b>COST MANAGEMENT</b>	<ul style="list-style-type: none"> <li>• Least cost routing</li> <li>• CODEC renegotiation</li> </ul>
<b>MANAGEMENT</b>	<ul style="list-style-type: none"> <li>• Embedded Oracle Enterprise Operations Monitor probe</li> <li>• Browser-based GUI</li> <li>• SIP monitoring and tracing tool</li> <li>• SNMP agent, XML configuration files, Syslog, SFTP, RADIUS interfaces</li> <li>• Subnet masks for SNMP</li> <li>• Secure WebGUI access with HTTPS</li> <li>• HEAT Templates</li> <li>• REST API Support for configuration and life cycle management</li> </ul>

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