

Sonus PSX SWe

Considered by service providers and enterprises to be the "gold standard" of network policy and routing management, Sonus' Centralized Policy and Routing Server (PSX) is the industry's most feature-rich policy and routing server, delivering unparalleled reliability in the world's most demanding environments and scalability to millions of subscribers. The virtualized PSX SWe is cloud optimized and provides the same features, exceptional scalability, and centralized policy/traffic control as hardware for both Session Initiation Protocol (SIP) and legacy network elements, including Session Border Controllers (SBCs), media gateways and soft switches.

For Sonus customers, the PSX SWe delivers a host of real-world benefits, including lower-cost Voice over Internet Protocol (VoIP) calls, intelligent routing, simplified network management and increased margins. In addition, the PSX SWe also functions as the Border Gateway Control Function (BGCF) in IMS networks. Sonus customers can now seamlessly deploy the PSX SWe into their networks using commercial off-the-shelf (COTS) platforms. For customers planning and designing a cloud-based network architecture, the PSX provides support for OpenStack-based service orchestration. In such a deployment scenario, PSX instances can be created and deleted on demand, based on traffic requirements. When the PSX SWe is deployed in a Sonus cloud environment, common orchestration techniques can be used to service chain policy control with session management.



System Capabilities

Large Configurations

- Policy Lookup with an external ENUM dip: 4,500 cps
- Policy Lookup with an external TCAP dip: 2,000 cps
- SIP Proxy: 1,400 cps
- SIP Redirect: 3,000 cps

Small Configurations

- Policy Lookup with an external ENUM dip: 900 cps
- Policy Lookup with an external TCAP dip: 900 cps
- SIP Proxy: 500 cps
- SIP Redirect: 1,000 cps

Routing Engine Protocols

- Diameter+
- SIP Redirect
- SIP Proxy
- ENUM
- H.323
- DNS

Transport Protocol Support

- Diameter+ over UDP
- SIP over UDP
- SIP over TCP
- SIP over SCTP
- ENUM over UDP
- H.323 over UDP
- IPv4
- IPv6

Translation Services

- Address of Record
- Calling Name
- Local Number Portability
- Wireless Number Portability
- Toll Free

SCP Signaling Protocols

- TCAP (ANSI & ITU) over SIGTRAN (SUA/SCTP)
- INAP CS2
- AIN 0.2
- IN (Toll-Free and CNAM)
- GSM-MAP/CAMEL
- IS41
- SIP
- ENUM
- DNS

Routing Configurations

- Calling party category routing
- Carrier cut through routing
- Casual call routing
- Codec based routing
- Direct-dial routing
- Emergency routing
- Fallback routing
- Generic number routing
- International routing
- Leading digit routing
- Least cost routing
- Nested routing labels
- Operator Services and Directory Assistance
- Origination entity routing
- Overflow ReRoute
- Percentage allocation routing
- Round robin routing
- Private call routing
- Private number routing
- Route hopping
- Routing to announcements
- Temporary alternate routing
- Time of Day/Time Zone and Day of Week routing
- Transmission Medium Requirements routing
- Trunk group prioritization routing

Services

- Blocking (white, grey, blacklisting)
- Screening
- Authcode
- Custom scripts
- SAC/ Non-SAC routing
- Forced routing
- Toll bypass
- Voice VPNs
- Digit Manipulation
- Parameter Manipulation
- Customizable service logic

Voice Services

- Auto Recall
- Business groups
- Conference and transfer
- Message waiting indication
- Service exception profiles
- Take back and transfer

Number Portability Server

- Multi-Protocol Support
 - ENUM
 - SIP
 - SS7
- Multi-Protocol Support
 - Local DB
 - External ENUM
 - External TCAP
 - External SIP
- Multi-country signaling support
- SIP-IX based LSMS in the North American market
- Direct feed support in India
- File-based input in other countries

BGCF Functionality

- 3GPP Release 9 TS 24.229 compliance
- Mi interface toward S-CSCF
- Mj interface toward MGCF
- Mk interface toward peer BGCF
- Mx interface toward peer IBCF

Overload Controls

- Adaptive Congestion Control Feedback
- Automatic Code Gapping
- CAMEL Call Gapping
- CANF
- CANT
- Code Control
- Immediate ReRoute (IRR)
- Overflow Reroute (ORR)
- SKIP
- SprayIRR
- SprayORR
- Temporary Alternate Routing

High Availability and Reliability

- 99.999% availability
- Geo-redundancy
- N+1 master replica architecture
- Live data migration
- Shadow database
- Test database

Regulatory Services

- Lawful Intercept
- Enhanced 911 - NENA i2
- Wireless Priority Service (WPS)
- Government Emergency Telecommunications Service (GETS)
- Japan Emergency Call Services (ECS)
- Hosted Emergency Database (German market)

Hardware Specifications

- PSX Standalone
 - vCPU -4
 - vMemory - 10G
 - vHDD - 450GB
 - vNIC - 1
- PSX High Availability
 - vCPU - 16
 - vMemory - 16GB
 - vHDD - 450GB
 - vNIC - 6

Database Management System

- Oracle 11.2.0.3

Operating System

- Red Hat Enterprise Linux 6.4
- Openstack Liberty and Mitaka support

External Storage System

- SAN with a shared LUN for PSX HA Master configuration

Please note that the performance results could vary significantly based on the customer's specific network scenarios.

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