

# The Ribbon Communications Centralized Policy Server



The Ribbon Communications Centralized Policy Service (PSX) delivers the call routing and session policy management for Ribbon's industry-leading session border controller, media gateway and Class 5 access solutions. PSX's unique master/replica softswitch architecture provides a single, central point of provisioning for all routing and policy in either a service provider or enterprise network, greatly simplifying network management while offering unmatched scalability.

Supporting a wide variety of signaling standards, the PSX server can also be deployed in heterogeneous networks as a centralized call routing engine using SIP Proxy Server, SIP Redirect Server, H.323 Proxy Gatekeeper, and ENUM Server capabilities. It also functions as the Border Gateway Control Function (BGCF) in IMS networks.

## System Capabilities

- Policy Lookup with an external ENUM dip: 4,500 cps
- Policy Lookup with an external TCAP dip: 2,000 cps
- SIP Proxy: 2,700 cps
- SIP Redirect: 5,000 cps

## Routing Engine Protocols

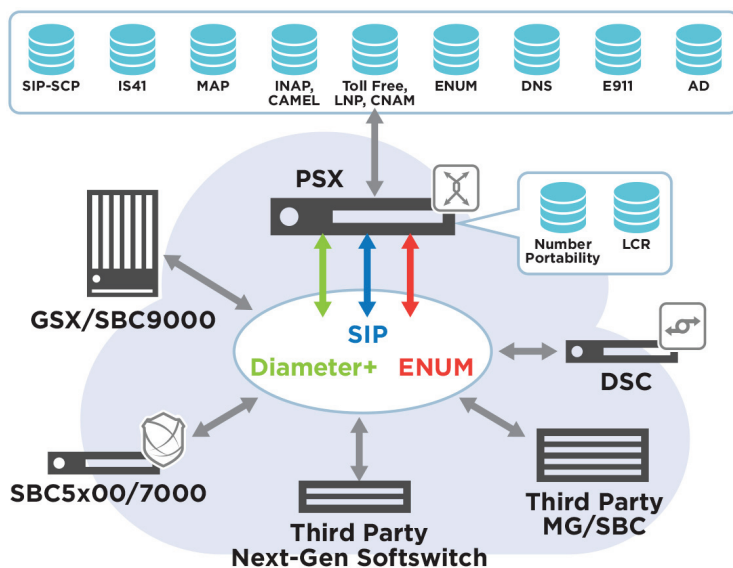
- Diameter+
- SIP Redirect
- SIP Proxy
- ENUM
- H.323

## Transport Protocol Support

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

## 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

## Translation Services

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

## 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

- HP DL380 G8 carrier grade, NEBS compliant server
- 2 RU
- Dimensions: (H x W x D) 3.38 x 17.54 x 27.25 in (8.59 x 44.55 x 69.22 cm)
- Weight: Maximum 60.00 lbs (27.27kg)
- Optionally requires External Storage (For High Availability).

*Note: Please contact your sales or channel contact to get the exact specifications.*

## Database Management System

- Oracle 12.1.0.2.0

## Operating System

- Red Hat Enterprise Linux 7.2

*Please note that the performance results could vary significantly based on the customers' specific network scenarios*

## About Ribbon Communications

Ribbon is a company with two decades of leadership in real-time communications. Built on world class technology and intellectual property, Ribbon delivers intelligent, secure, embedded real-time communications for today's world. The company transforms fixed, mobile and enterprise networks from legacy environments to secure IP and cloud-based architectures, enabling highly productive communications for consumers and businesses. With locations in 28 countries around the globe, Ribbon's innovative, market-leading portfolio empowers service providers and enterprises with rapid service creation in a fully virtualized environment. The company's Kandy Communications Platform as a Service (CPaaS) delivers a comprehensive set of advanced embedded communications capabilities that enables this transformation.

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