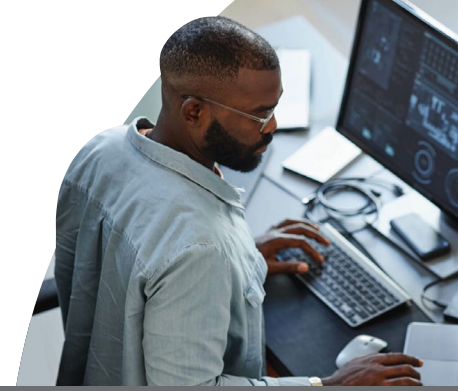# PSX CNe

## Highly scalable and reliable cloud-native policy and routing engine

Considered by service providers and enterprises to be the "gold standard" of network policy and routing management, Ribbon's Centralized Policy and Routing Server Cloud Native edition (PSX CNe) is the industry's most feature-rich policy and routing engine, delivering unparalleled reliability in the world's most demanding environments and scalability to millions of subscribers. Architected from the ground up using CNCF cloud native design and implementation principles (containers, microservices, immutable infrastructure, and declarative APIs), the PSX CNe delivers scalable policy and routing services (in support of up to 5000+ calls per second per instance) that are simultaneously resilient, manageable, and observable. The services are delivered without compromise as the PSX CNe capitalizes on Ribbon's 20+ year heritage of enabling secure, reliable, and scalable real-time communications found in Ribbon's award-winning portfolio.

Combined with robust automation, customers can deploy the PSX CNe in today's modern, dynamic operational environments such as public, private, and hybrid clouds and easily make high-impact changes frequently and predictably. The cloud-native PSX CNe provides the same features, exceptional scalability, and centralized policy/traffic control as the prior virtualized PSX, for both Session Initiation Protocol (SIP) and legacy network elements, including Session Border Controllers (SBCs), media gateways and soft switches.

For Ribbon customers, the PSX CNe 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, PSX CNe functions as a Border Gateway Control Function (BGCF) in IMS networks.

The policy and routing cloud native network functions (CNFs) of the PSX CNe have been designed based on well established cloud-native attributes and with the expectation that it will be managed using cloud-native operational principles. PSX CNe is required for policy and routing decisions when a customer deploys Ribbon's cloud-native Session Border Controller (SBC CNe).The unique architecture of PSX Primary and Replica significantly reduces operational cost and human intervention errors. Primaries offer centralized provisioning layer for the whole network whereas the Replicas offer highly available call processing.
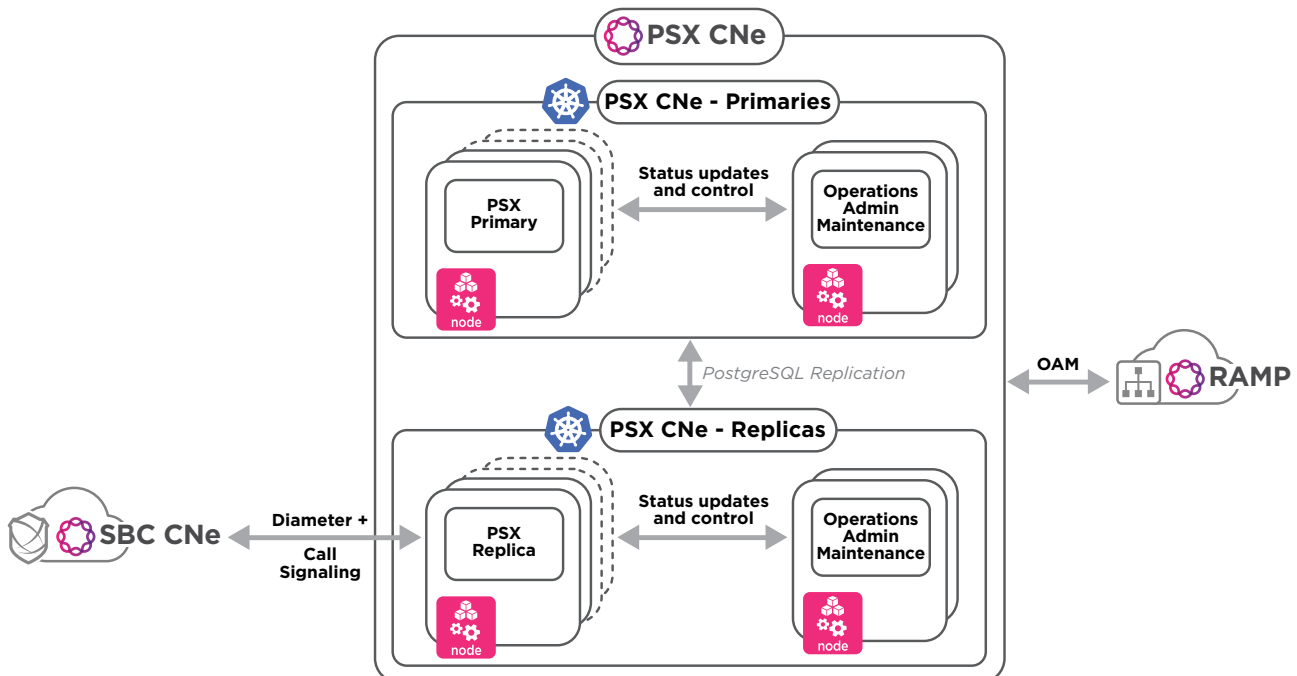
Routing Engine Protocols
- Diameter+

Transport Protocol Support
- Diameter+ over UDP
- IPv4
- IPv6

Translation Services
- Address of Record
- Calling Name

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

High Availability and Reliability
- 99.999% availability
- High Availability
- N+1 Primary replica architecture
- Live data migration

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

Overload Controls
- Adaptive Congestion Control Feedback
- Automatic Code Gapping
- CAMEL Call Gapping
- Cancel From (CANF)
- Cancel To (CANT)
- Code Control
- Immediate ReRoute (IRR)
- Overflow Reroute (ORR)
- Skip
- Spray Immediate Rerouting (SprayIRR)
- Spray Overflow Rerouting (SprayORR)
- Temporary Alternate Routing

Services
- Blocking (white, grey, blacklisting)
- Screening
- Authcode
- Custom scripts
- Subscriber Access Code (SAC) / Non-SAC routing
- Forced routing
- Toll bypass
- Voice VPNs
- Digit Manipulation
- Parameter Manipulation
- Customizable service logic
- Call Validation and Treatment

Software Platforms
- Kubernetes 1.23 or higher

About Ribbon

Ribbon Communications (Nasdaq: RBBN) delivers communications software, IP and optical networking solutions to service providers, enterprises and critical infrastructure sectors globally. We engage deeply with our customers, helping them modernize their networks for improved competitive positioning and business outcomes in today's smart, always-on and data-hungry world. Our innovative, end-to-end solutions portfolio delivers unparalleled scale, performance, and agility, including core to edge software-centric solutions, cloud-native offers, leading-edge security and analytics tools, along with IP and optical networking solutions for 5G. We maintain a keen focus on our commitments to Environmental, Social and Governance (ESG) matters, offering an annual Sustainability Report to our stakeholders. To learn more about Ribbon, please visit rbbn.com.

Contact Us Contact us to learn more about Ribbon solutions.

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Unified Communications
Business Productivity Solutions
Midmarket Solution Provider

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