A Practical Guide: Cloud Native Voice for Contact Center

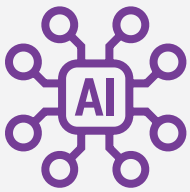
Cloud Native Session Border Controller: The Control and Security Layer Behind Every Contact-Center Voice Interaction

Session Border Controllers (SBCs) control and protect every voice interaction—providing call admission control, denial-of-service protection, fraud mitigation, encryption, protocol normalization, and secure interworking between CCaaS platforms, carriers, and enterprise networks. As contact centers move to cloud, CCaaS, and AI-driven voice, the voice infrastructure needs to evolve and be built inherently with underlying expectations of:

- Demand for seamless, context-aware escalations and continuous updates as AI manages more interactions.
- Near-zero tolerance for downtime, requiring uninterrupted service.
- Infrastructure must support constant change, adapting to AI-driven operational models.
- Teams face new challenges as legacy voice platforms struggle to scale and integrate with agentic AI.

The contact center teams now need the operational model to work in the AI-driven environment with the same set of challenges.

Voice Challenges for Contact Center in the Agentic AI Era



- Higher infrastructure cost, especially as environments grow and licensing scales
- Limited alignment with automation and AI driven operations
- Complex operations to achieve high availability
- Voice workloads stuck on VMware driving up costs
- Costly, risky upgrades that slow change
- Scaling call volume without overprovisioning
- Monitoring at scale to match demand, amplified by Agentic AI
- Standing up new markets/regions slower than business expectations

Why Cloud Native Voice Architecture Matters in the Agentic AI World

Cloud Native Session Border Controller for Contact Center Voice Workloads

Cloud native voice architectures were introduced to address long standing challenges around scale, resiliency, and operational efficiency. Agentic AI accelerates the need for these capabilities. Having a cloud native session border controller built on the principles of the Cloud Native Computing Foundation is key to securing voice workloads.

Elastic Scalability for Peak Capacity Demands, reducing Capex

Common Infrastructure – Voice, Video & Collaboration

Accelerated Upgrades, Security Patches, And Feature Rollouts

Reduced Maintenance Costs And Need For Special Expertise

Elastic Scalability for Peak Capacity Demands, Reducing Capex

Expand Into New Markets

- **Match Demand Dynamically**
  Scale up, tear down services, to match seasonal, sudden surge in voice traffic with microservices architecture.
- **Global Expansion**
  Expand globally without upfront data center costs– stand up a new contact center in a new region or market by deploying on a public cloud.
- **Cloud Operating Model**
  Enables you to operate voice on the same operating model as the cloud, such as AWS.
- **No More Overprovisioning**
  Eliminate hardware/VM inefficiencies, avoid over-provisioning, and reduce costs.

Voice, Video & Collaboration – All on a Common Infrastructure

Common Infrastructure Lowers Cost

One Platform
Enterprises can run real-time communications on the same infrastructure as their IT workloads.

Align with IT
Same cloud automation frameworks and continuous delivery practices that govern broader IT environments.

Targeted Upgrades, Less Risk
Avoid the surge in infrastructure costs driven by VMware price increase.

Enterprise-Grade HA
Power secure, elastic voice services for UCaaS and CCaaS—built for AI driven engagement.

Accelerated Upgrades, Security Patches, and Feature Rollouts

Automatically update any portion of the voice infrastructure, isolate failures to reduce blast radius.

GitOps Based Lifecycle Management
GitOps-based lifecycle management enables continuous updates.

Continuous Compliance
Stay compliant with the latest security mandates and regulations via automated software downloads.

CI/CD Driven Operations
DevOps approach based on CI/CD practices, accelerates service upgrades, and feature rollouts.

Reduced Maintenance Costs and Need For Special Expertise

- Common platform reduces infrastructure maintenance burden for voice & IT workloads.
- Accelerate updates and patches while reducing manual overhead with continuous deployment pipelines.
- Faster recovery times, proactive preparedness for failures.
- Optimize resource utilization with automation and industry toolset, bridging the skillset gap for maintaining legacy software.

Why Ribbon For Cloud Native SBC

Tested & Deployed by Fortune 500 Enterprises

Ribbon's integrated cloud native offering includes SBC, policy, and routing – offering security, session control on a containerized architecture.

- **Multi Availability Zone** survivability, not just local redundancy.
- **Elastic scalability-** scale up unpredictable call volumes, scale down to free up resources when not in use.
- Automation for fast, **repeatable** deployments.
- **Reuse** of Toolset Investment
- **Deploy** anywhere - **private or public** cloud such as AWS, Azure or GCP, migrate workloads at your pace.
- Cloud-first strategy for those already migrating to the cloud. Ribbon's cloud native SBC is fully **deployable and available on AWS**.
- Seamless integration with Amazon CloudWatch, Prometheus, and Grafana provides **unified observability**.

About Ribbon

Ribbon Communications (Nasdaq: RBBN) is a global provider of voice communications software, IP routing, and optical networking to mobile and wireline service providers, enterprises, critical infrastructure and defense sectors. We support our customers' Path to Autonomous Networks by leveraging the latest AIOps automation platforms and Agentic AI technologies, helping them deliver better customer experiences, reduce operational costs, and achieve sustainable growth.

To learn more about Ribbon visit rbbn.com.

Contact Us Contact us to talk to an Expert for cloud native session border controllers.