Telco Cloud: The Path Forward for Communications Workloads

Accelerate Business Agility and Transform Economics

Communications service providers (CSPs) are continuously seeking new ways to accelerate the pace of business, grow revenues, and drive down expenses in today's hypercompetitive market. Many are looking at cloud-native architec-tures to speed up service delivery and agility, slash infrastructure cost and complexity, and better align recurring expenses with evolving business demands.

Introduction

Telco Cloud   solutions help CSPs take full advantage of cloud speed, elasticity, and economics by instantiating network functions as container-based workloads running in private, public, or hybrid clouds. They help CSPs reduce TCO, automate operations, and free up staff to focus on innovation and competitive differentiation. They also help CSPs reduce their carbon footprint and improve corporate social responsibility.

When it comes to Telco Cloud offerings, not all solutions are the same. Designing, implementing, and operating a cloud-native network that delivers outstanding reliability, availability, and service quality is a challenge. And unless you are implementing a greenfield cloud-native network, migrating your existing virtual network functions to a cloud-native environment, and seamlessly weaving them into your cloud-native operations processes is equally important.

That's where Ribbon shines. Ribbon's cloud-native software portfolio for business and consumer voice services is designed from the ground up to work with your incumbent configuration management and application lifecycle management tools and automation practices. The portfolio enables frictionless operation while ensuring backward compatibility. We leverage our vast telecom expertise and our first-hand experience developing, managing, and scaling our own cloud-based real-time communications services to help CSPs successfully plan, build, and operate carrier-grade, cloud-native networks.

This brief provides an overview of Ribbon's Telco Cloud portfolio and explains how it helps CSPs streamline network evolution and improve revenues, margins, and service velocity. No matter where you are on your cloud-native journey, Ribbon Telco Cloud is the clear path forward to unleashing the full power of your network transformation.

Ribbon Solution Benefits

- Accelerate time-to-market for new services by exploiting cloud simplicity, speed, and reach

- Increase service agility, reduce network operations expenses, and free up staff by automating software management

- Migrate network functions to a cloud-native environment, reducing legacy infrastructure expenses

- Eliminate overhead and optimize costs by implementing diverse network functions on common infrastructure with open APIs

- Eliminate inefficient siloed operations practices by leveraging standard cloud tools and methodologies

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Ribbon Telco Cloud Streamlines Network Modernization

Ribbon Telco Cloud brings Ribbon's deep telecommunications workload knowledge and field-proven, carrier-class solutions to the world of cloud computing, microservices architectures, and continuous integration and continuous delivery (CI/CD) practices. A global leader in secure real-time communications solutions, Ribbon has decades of experience supporting some of the world's largest service providers in more than 80 countries.
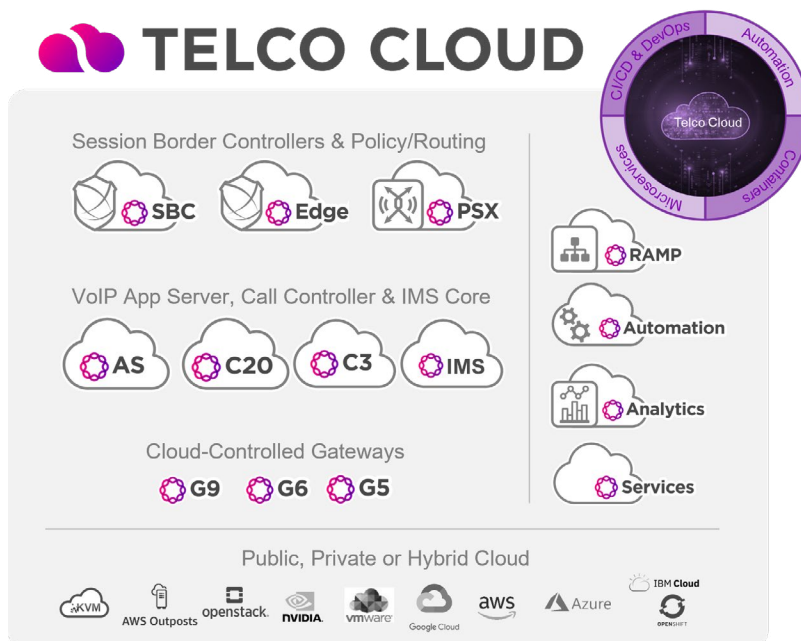
Ribbon has a long history of helping CSPs effectively transform their networks. Ribbon Telco Cloud helps service providers successfully navigate the next phase of their network evolution by smoothly transitioning to a cloud-native architecture. The solution portfolio lets you deliver a variety of business and consumer voice services, using any combination of private, public, hybrid, and multi-cloud resources for unmatched speed, operational simplicity, and cost savings.

Optimize Costs and Improve Choice

Ribbon Telco Cloud delivers fundamental communications network components (session border controllers, policy and routing servers, application servers, etc.) as cloud-native network functions (CNFs) for ultimate efficiency, flexibility, and portability. CNFs avoid the overhead of traditional physical network elements or conventional virtual network functions (VNFs) by instantiating network elements as lightweight, container-based workloads. You can deploy and manage Ribbon Telco Cloud CNFs just like any other cloud-native application using your existing CI/CD tools and established software lifecycle management and DevOps practices. If you are adopting a container-based cloud-native architecture to improve economics and agility, Ribbon's Telco Cloud solution enables seamless integration with existing virtualized deployments.

Field-Validated Interoperability and Manageability

Ribbon's hosted communications services serve as a proving ground for Ribbon Telco Cloud. We use industry-standard CI/CD tools, service orchestration tools, and DevOps practices to deploy, test, and provision our own cloud-based communications offerings, which are powered by Ribbon Telco Cloud. The "drink your own champagne " approach helps ensure Ribbon Telco Cloud CNFs integrate seamlessly with popular cloud management tools.

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Ribbon Telco Cloud helps improve choice and avoid vendor lock-in. Ribbon has many deployments across different cloud environments, meaning you can move workloads from one cloud to another to increase leverage and improve business terms. You can deploy CNFs in private clouds using standard container platforms like such as OpenShift; in public clouds like AWS, Microsoft Azure, or Google Cloud Platform using their Kubernetes services; or in on-premises instances of public clouds like AWS Outposts. Many CSPs take a hybrid approach, using private clouds for production workloads and public clouds for backup or burst capacity, or as sandboxes.

Unify Operations and Simplify Network Transformation

Ribbon Telco Cloud includes common network administration, analytics, and management functions to unify operations and streamline your move to the cloud. Ribbon Application Management Platform (RAMP) manages incumbent Ribbon network elements as well as new Ribbon Telco Cloud CNFs, helping you migrate to the cloud with minimal disruption. RAMP provides single-pane-of-glass management and advanced analytics for the entire network, from the core to the edge. It centralizes network monitoring, troubleshooting, and administration functions, and transforms raw traffic and error statistics into meaningful and actionable insights.

Ribbon Automation provides frictionless integration with external orchestration solutions and CI/CD tools. It lets you transparently extend your cloud provisioning and lifecycle management tools and practices to Ribbon VNFs and CNFs, and easily incorporate Ribbon Telco Cloud software into your cloud-native operations environment. Implementing a cloud-native network means not just migrating communications workloads to the cloud, but perhaps more importantly, deploying and automating the management of those workloads just like any other cloud-native application.
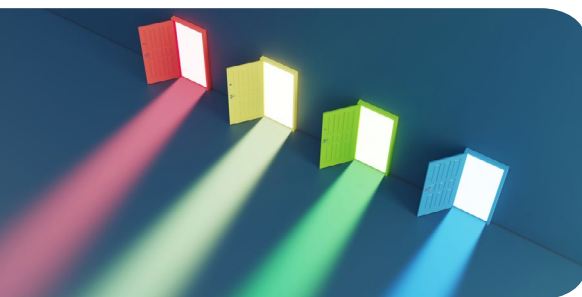
Ribbon Telco Cloud for Hyperscale Cloud Providers

Hyperscalers are looking to expand business opportunities, grow revenues, and tap into lucrative new markets like 5G services. Ribbon Telco Cloud software solutions let hyperscalers extend all their inherent advantages—global reach, massive scalability, deep cloud expertise—to the realm of real-time communications.

Ribbon helps hyperscalers launch new carrier-grade communications services with confidence. Real-time communications services pose unique performance, availability, service quality, interoperability and compliance challenges. Ribbon has decades of experience solving these complex challenges in large-scale service provider networks around the globe. Some of the largest communications networks in the world are powered by Ribbon technology. And Ribbon Telco Cloud software is built on the same tried-and-true intellectual property.

For years, Ribbon has helped service providers successfully design, implement, operate, and evolve their networks. We offer comprehensive professional services to help hyperscalers plan and architect their communications offerings; expert support services to help troubleshoot and resolve issues; and extensive educational services to help train hyperscaler engineering, operations, and support teams.
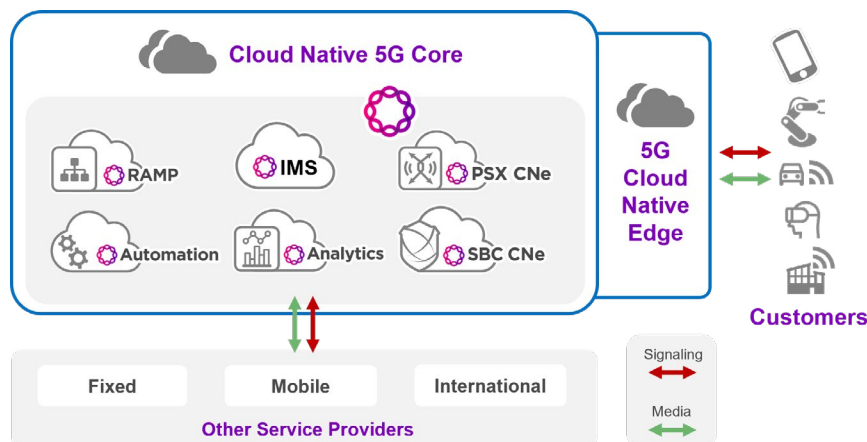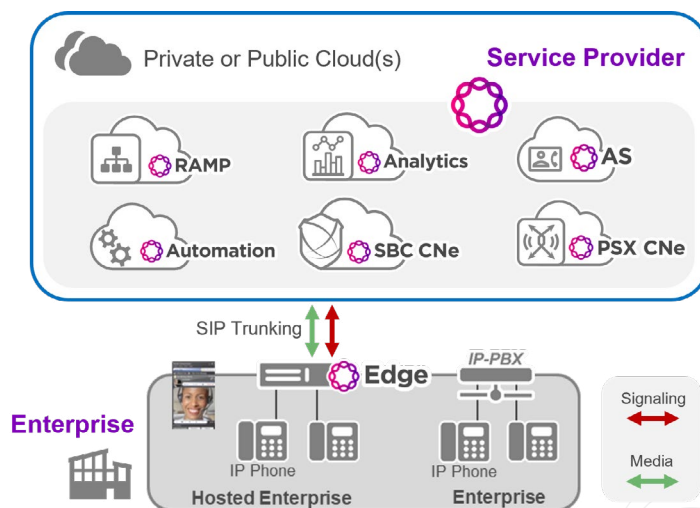
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Ribbon Telco Cloud Supports a Variety of Use Cases

You can use Ribbon's versatile Telco Cloud software to launch new services or to improve the economics and agility of existing network operations and services. The solution portfolio supports a variety of use cases in both fixed and mobile networks, addressing both business and consumer market opportunities.

Business Voice Services

Use Ribbon Telco Cloud software to deliver secure carrier business voice services from private, public, or hybrid clouds. The solution lets you gradually decommission legacy network infrastructure, rejuvenate margins, and increase service reach. Ribbon's Application Server (AS) supports popular PBX features like uniform call distribution, hunt groups, call screening and routing, find-me follow-me services, call park and pick-up, music-on-hold, and ad hoc conferencing.

Secure your business service offers in your domain as well as your Enterprise customer's domain with Ribbon's Session Border Controllers. Enrich policy management and call routing with Ribbon's Policy & Routing Server. Enhance the management of your business service offers using Ribbon Automation and Ribbon Application Management Platform. Gain valuable insights into service and network traffic with Ribbon Analytics.
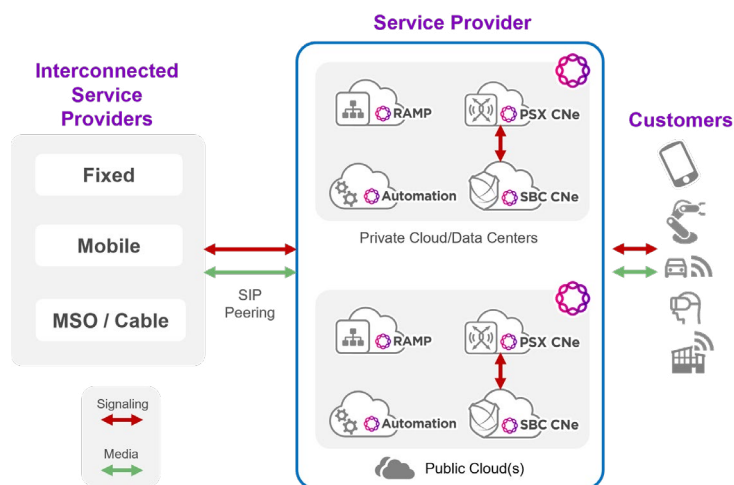
Mobile – IMS functions for 4G/5G

Ribbon Telco Cloud provides IMS Core functions for both 4G and 5G networks. IMS is fundamental for delivering voice services over 4G (Voice over LTE) and over 5G (Voice over New Radio). A cloud-native IMS helps you eliminate inefficiencies, optimize costs, and simplify operations. With Ribbon IMS you can implement a single, cloud-native IMS core that provides common technology, unified managed, and uniform automation for 4G and 5G networks.

Network-to-Network Interconnect (NNI) Agility

Use Ribbon Telco Cloud to implement high-scale, cloud-native, secure connectivity to other service provider networks for SIP trunking or peering. Deploy Ribbon's cloud-native session border controller (SBC CNe) and Ribbon's cloud-native policy & routing server (PSX CNe) in public or private clouds to dynamically scale up (or down) in response to fluctuating Voice over IP traffic demands. Doing so will increase service agility and reduce OPEX.

Ribbon Telco Cloud: The Path Forward for CSPs

Wherever you are on your cloud-native journey, Ribbon Telco Cloud can help you streamline your transition and accelerate your success. Ribbon has vast experience helping CSPs modernize their networks. Cloud-native is the next logical step in network evolution. And we have the technology, resources, and know-how to help you succeed.

Ribbon's Telco Cloud portfolio includes an extensive collection of cloud-native and virtualized software solutions; a common management platform that works across physical, virtual, and cloud-native elements; and a unified automation suite that simplifies operations and accelerates service agility. Ribbon's field-proven Telco Cloud solutions are running in private and public clouds today, supporting large-scale production workloads including Ribbon's own hosted communications services.

If you've already made your move to cloud, you can rest assured that Ribbon Telco Cloud will integrate seamlessly with your existing service orchestrators and application lifecycle management tools. If you are just beginning your cloud-native journey we can provide the experience to help your teams get up to speed on cloud software management tools and best practices.

We also offer a variety of professional services to help you plan, implement, and operate your cloud-native network. If you are using Ribbon Telco Cloud to launch new services, we can help you

accelerate service delivery and time-to-value. If you are using Ribbon Telco Cloud to optimize existing services, we can help you develop a phased strategy to gracefully migrate functionality and decommission legacy assets. Ribbon Telco Cloud is your clear path forward!

Next Steps: To learn how Ribbon Telco Cloud can help your company achieve cloud speed, elasticity, and economics contact Ribbon today.

Contact Us Contact us to learn more about Ribbon solutions.

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