Next-Generation Intelligent Edge Solutions for Communications Service Providers

Businesses are migrating communications applications and services to the cloud to improve agility and simplify operations. Communication Service Providers (CSPs) need new cloud-oriented offers to remain relevant to their customers and stay in the value chain. Ribbon's Next-Generation Intelligent Edge solution portfolio helps CSPs tap into the massive cloud market and stave off competitive threats with differentiated services that fully exploit the inherent advantages of owning and operating an end-to-end network.

Ribbon's solution portfolio distributes intelligence to the edge of the enterprise network, improving visibility and control over customer environments, helping CSPs deliver, protect and manage a wide range of cloud-centric communications, collaboration and security services. When combined with centralized analytics and service orchestration functionality in the core/cloud, Ribbon Intelligent Edge platforms lay the foundation for a vast array of value-added services that deliver unmatched performance, resiliency and scalability.

Ribbon's end-to-end solution portfolio helps CSPs:

- Expand revenues by offering enterprises and SMBs a variety of differentiated voice, data and cloud collaboration services.

- Improve margins and accelerate service velocity by avoiding truck rolls, centralizing management, and leveraging virtualized edge devices and network elements.

- Increase customer satisfaction and reduce churn by maximizing uptime, enforcing SLAs, and preventing fraud and abuse.

- Stay ahead of the competition by rolling out new services quickly and cost-effectively, with an extensible Intelligent Edge platform.

Intelligent MSBG Functionality Unleashes Innovation

Unlike traditional dumb demarcation devices, Ribbon Intelligent Edge solutions act as Multi-Services Business Gateways (MSBGs) that support an extensive feature set (SBC, edge router, LTE failover, SD-WAN, etc.), providing a flexible foundation for services innovation. CSPs can use the Intelligent Edge device as a trojan horse, delivering traditional SIP trunking and UCaaS services today to establish an account presence, and selling premium add-on services over time to improve customer retention and grow revenues. With Ribbon Intelligent Edge solutions, providers can introduce new services in software, directly over the network, without onsite intervention.

### Intelligent Edge Devices Enable a Variety of Differentiated Services

- SD-WAN
- LTE Failover
- Business Continuity

- UCaaS
- CCaaS
- Next-Generation Firewall

- Proactive CyberSecurity
- Network Optimization

End-to-End Solution Portfolio Extends Visibility, Control and Economics

Ribbon's Next-Generation Intelligent Edge products are an integral component of Ribbon's field-proven, end-to-end service provider solution architecture. A global leader in secure real-time communications solutions, Ribbon boasts decades of experience supporting some of the world's largest service providers in over 80 countries. Ribbon's tightly integrated family of edge, core and cloud communications products—with unified operations, administration and maintenance—helps CSPs streamline service delivery, contain operations expenses and increase customer satisfaction.

Ribbon's wide-ranging CSP product family includes:

- **Intelligent Edge Devices** – appliance-based and virtualized enterprise SBCs that enable a wide range of value-added business communications services.

- **EdgeView Service Control Center** – a centralized management platform for remotely configuring, provisioning and controlling intelligent edge devices, monitoring network performance, and diagnosing and resolving problems.

- **Ribbon Analytics** – a suite of advanced analytics applications that leverage machine learning and artificial intelligence to help CSPs improve security, fight fraud and abuse, and streamline operations.

- **PSX** – a centralized policy and routing solution that automatically orchestrates communications sessions (routing paths, priority, admission controls, etc.) based on business rules.

- **Service Provider SBCs** – carrier-grade and virtualized session border controllers that protect the service provider network.
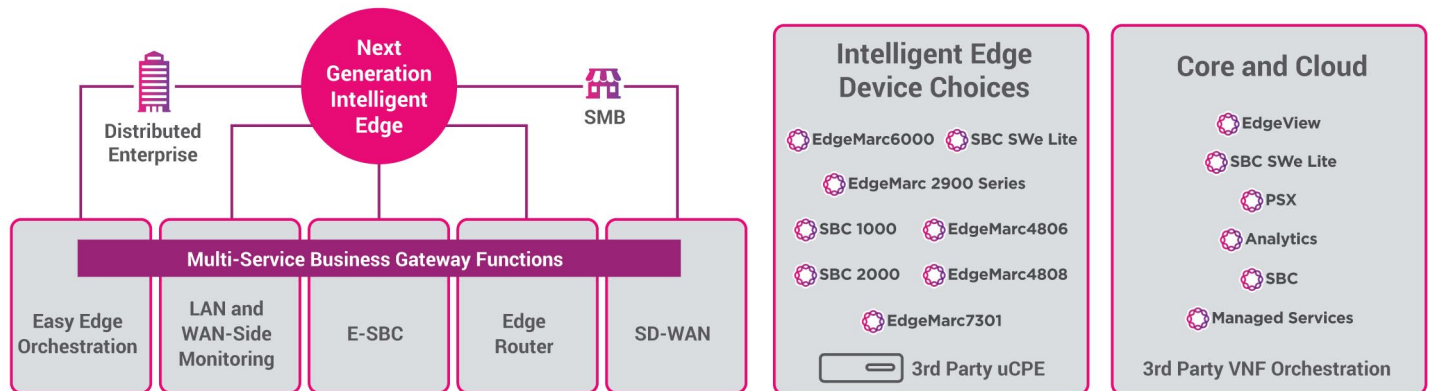
Ribbon's End-to-End Service Provider Solutions Architecture

Service provider network elements (EdgeView, Analytics, PSX, service provider SBCs) can be deployed in the core, in the cloud, or as a Ribbon-managed service to satisfy various business requirements and service delivery models. Ribbon's product family interoperates seamlessly with a variety of cloud-based communications and collaboration platforms, and is ideal for service providers reselling or private-labelling cloud solutions.

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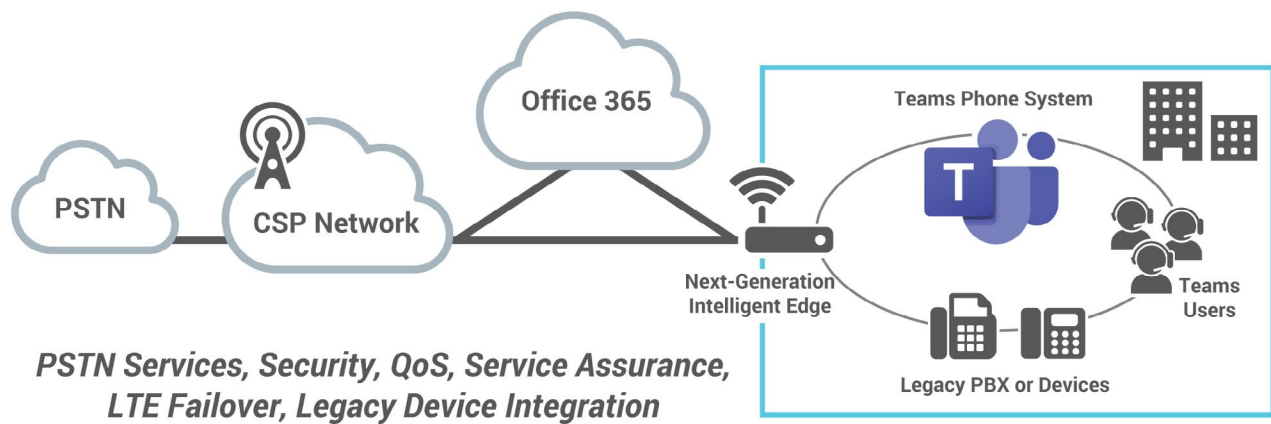**Ribbon Intelligent Edge Solutions Capabilities and Benefits**

Feature	Function	Benefit
Zero-touch provisioning	Ship customers edge devices for plug-and-play installation	Avoid truck roll delays and expenses
Rich, embedded edge intelligence	Intelligent instrumentation automatically detects and resolves issues (e.g., proactively redirects IP voice traffic to a secondary WAN uplink based on service quality metrics)	Enforce SLAs and improve end-user experiences
LTE backup and survivability	Integral LTE modems support automatic wireless failover; PBX survivability enables business continuity	Ensure continuous service in the event of primary uplink failures
Containerized design	Lightweight, software-based solution runs in a containerized environment	Support cloud-native and NFV implementations

Ribbon Core and Cloud Solutions Capabilities and Benefits

Feature	Function	Benefit
Remote device and network management	Monitor, configure and control edge devices; manage QoS parameters; view call quality metrics and troubleshoot problems from a central NOC	Reduce OPEX and improve customer service and satisfaction
Advanced analytics	Transform raw data gathered from network devices into actionable insights	Analyze network trends; automatically defend against toll fraud, robocalling and DoS attacks
Policy and routing	Centralized session management platform orchestrates communications sessions based on administratively defined policies	Optimize performance, availability and service quality
Kandy UCaaS integration	Single pane-of-glass provisioning and management for end-to-end services	Accelerate service velocity, unify operations, streamline administration

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Boost Revenues with SIP Trunking Solutions for Microsoft Teams

Businesses around the world are using Microsoft Teams as an enterprise phone system. CSPs can cash in on Teams' popularity by selling SIP trunking services for Microsoft Phone System. Microsoft's Direct Routing capability lets Teams customers connect to the PSTN using an SBC and a SIP trunking service. Ribbon offers the broadest portfolio of SBCs certified for Microsoft Direct Routing—and the first SBCs with validated E911 support.

PSTN Services, Security, QoS, Service Assurance, LTE Failover, Legacy Device Integration

Many CSPs will deploy Ribbon SBCs in their own network for an all-cloud-based solution (SBCaaS). Ribbon's Next-Generation Intelligent Edge adds another layer of sophistication to a Microsoft Teams Direct Routing solution by offering local analog ports, LTE failover, business continuity, analytics and more.

Contact Us   Contact us to learn more about Ribbon solutions.