Mission Critical Communications Solutions

JITC Certified Solutions for Cloud Enablement and Tactical Deployments

Ribbon solutions enable government agencies and departments, military and civilian, to securely communicate, regardless of mission. Ribbon solutions enable:
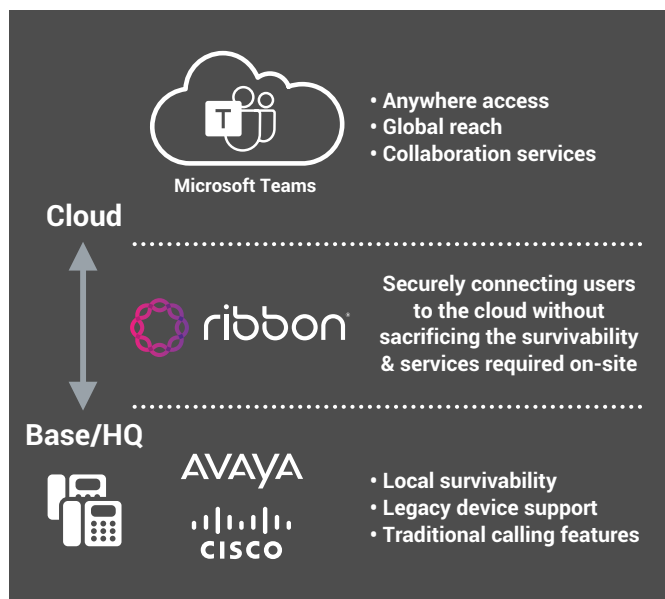
- **Secure SIP Trunking (& PRI migrations)**
- **Microsoft Teams Phone System Enablement**
- **Tactical Edge Communications**
- **Tactical Core Communications**
- **Hybrid Cloud with Survivable Bases**
- **Cross-vendor Interoperability (Avaya, Cisco, Microsoft, NEC, & Nortel)**

Ribbon Communications provides FIPS-compliant and JITC-certified communications security solutions for connecting cloud-based services as well as traditional PBXs. Ribbon also provides unified communications services for command centers, military bases and tactical environments. Unlike most vendors, Ribbon does not rely on proprietary protocols or devices, instead using industry standard SIP. This is why so many organizations turn to Ribbon to intelligently network their disparate brands of communications gear. It's also why we can create unique solutions to enable migrations to Microsoft Teams and enable bases to retain local survivability with existing Cisco, Avaya or Nortel PBXs.

Ribbon heritage is building communications solutions for the world's largest and most demanding service providers. The kind of resilient elements that are expected to run for years, virtually unattended. Scale, resiliency and superior performance are engineered in from day-one. It is no surprise that a Ribbon solution powers the DoD's largest Voice of IP (VoIP) deployment or that all four branches of the United States military rely on Ribbon solutions.

Securing Real-Time Communications

Session border controllers (SBCs) play a critical role in ensuring the quality of real-time communications over SIP networks. Their primary function is to protect the communications network from SIP-based attacks. A federal agency would never connect its data network to the internet without a firewall. By comparison, the SBC is just as critical for securing real-time communications. SIP networks face many of the same risks as data networks— Telephony Denial of Service (TDoS) attacks, network hacking, eavesdropping - as well as new risks such as SIP hijacking and toll fraud. Because of its placement at the network border, an SBC is used to interconnect safely with external IP networks (or the DISA network) to secure SIP trunking services between a federal agency and a SIP service provider (or the DISA network). Ribbon's JITC-certified SBCs provide a scalable and effective way of ensuring that real-time traffic is secured from the data center to the warfighter at the tactical edge.

Microsoft Teams
- Anywhere access
- Global reach
- Collaboration services

Cloud

Securely connecting users to the cloud without sacrificing the survivability & services required on-site

Base/HQ

AVAYA
CISCO
- Local survivability
- Legacy device support
- Traditional calling features

All of Ribbon's SBCs are certified for:
Microsoft Direct Routing & Zoom Phone BYOC

zoom

Securing Real-Time Communications

SBC SWe

The Ribbon SBC Software Edition (SWe) delivers user-defined scalability on a virtual or cloud environment with the same advanced features and functionality as an appliance-based SBC 5400 or 7000. Leveraging a cloud-native design to optimize resource allocation, dynamically scale, and automate lifecycle management, the SBC SWe delivers carrier-grade capabilities such as robust network security, sophisticated routing and policy enforcement, overload controls, SIP normalization, SIP Recording, Pv4-IPv6 interworking, and audio transcoding.

SBC 7000

The Ribbon SBC 7000 is purpose-built with industry-leading performance and scale that delivers increased operational efficiency and uncompromised quality of service to help customers securely and efficiently handle the massive amount of audio, video and collaboration traffic crossing their networks. The SBC 7000 can scale up to 150,000 sessions via simple software licenses, allowing federal operational teams to expand capacity in minutes, not months. The SBC 7000's massive scale empowers federal agencies to leave behind traditional "racking and stacking" of small capacity SBCs to accommodate growth, resulting in faster deployments and reduced operational expenses.

A Trusted Partner

SBC 5400

The Ribbon SBC 5400 is the EXCLUSIVE SBC deployed for Microsoft Teams in the SUT for Microsoft Team's JITC certification.

Designed for communications service providers and large enterprises, the SBC 5400 is a powerful, compact, purpose-built SBC. It easily scales up to 75,000 sessions and from 2GB to 10GB of multimedia traffic. The Ribbon SBC 5400 provides the protection agencies need — robust network security, sophisticated routing and policy enforcement, overload controls, SIP normalization—plus the capabilities required to thrive in diverse deployment environments such as IPv4-IPv6 interworking, multi-modal communication, built-in media transcoding, and assured performance and scale under heavy traffic.

Tactical Solutions for the Warfighter

Tactical Edge

Ribbon is the only JITC-certified vendor with an all software-based tactical solution capable of extending the services and class of service parameters defined at headquarters, to the tactical edge. It can be deployed as a standalone communications system or as a mobile command post. Deployable in 90 minutes or less, on industry standard compute platforms, Ribbon's Tactical Edge includes:

- Ribbon Application Server
- Ribbon SBC SWe
- Unique bandwidth efficiency technology for low bandwidth uplinks
- Support for up to 1000 users with full C2 services

Tactical Edge provides full-featured elements, proven in DoD deployments. Each is simply scaled down to be deployable and cost-effective on tactical hardware from vendors such as Crystal Rugged, Klas, Acuity, PacStar, etc. Ribbon's Tactical Edge can also be deployed in concert with Ribbon's Tactical Core solution, the Ribbon Application Server. A user that moves from headquarters to a tactical environment brings their user profile (including MLPP services) wherever they travel, eliminating hours of one-off configuration.

Anchoring Ribbon's Unified Communications (UC) Capabilities – Tactical Core

Application Server

Ribbon's Application Server (AS) can scale from several thousand to up to 2 million subscribers by supporting multiple use cases, from basic calling, to presence and instant messaging, to conferencing and collaboration. Redundancy and resiliency is inherent in the design – including the ability to patch or upgrade the solution without impacting call traffic. By contrast, most enterprise-class call servers assume that planned outages for maintenance windows are an acceptable option.

In most new federal deployments, the Ribbon Application Server is deployed as a standalone SIP application server. In many legacy deployments it is also coupled with a CS2100 or C20 softswitch, serving as the SIP access engine.

The Application Server's resilient architecture is the heart of multiple large service provider Unified Communication as a Service (UCaaS) networks across the globe. To meet those kinds of deployment environments, survivable geo-redundancy and five "9's" reliability are basic requirements. Given these parameters, and JITC certification, it is easy to see why the Ribbon AS is the right choice for mission-critical deployments.

Ribbon's Application Server powers the largest VoIP deployment in the DoD

Traditional Analog Access

G5 Analog Gateway

Ribbon's G5 Analog Gateway (interworking between analog and SIP) is unique in the industry both in terms of scale and performance. A single chassis can support up to 768 ports of analog across legacy copper infrastructure, with devices located miles away. It can also be deployed in an Emergency Standalone Model (ESM) in case connectivity is lost. The G5 is ideal for military bases or federal facilities with sprawling campuses and miles of legacy copper cable that can't easily be replaced.

The G5's density and extended reach is in stark contrast to typical enterprise-class gateways that support a few dozen ports per instance, and in some cases just a few hundred feet of copper. Often, competitors' enterprise gateways have to be deployed in local wiring closets, requiring major upgrades in rack space, power, back-up power and cooling. In fact, some organizations have delayed entire migrations to IP based on the cost of analog migrations.

Ribbon's G5 Analog Gateways can be deployed in the core or at the edge of the network, registering with an Application Server and traversing an SBC as needed. Since the G5 is standards-based it can also be deployed with other SIP-based call servers.

Summary

Federal agencies and departments require secure and scalable communications, whether their mission is civilian or military. That is why it is no surprise that millions of government personnel rely on Ribbon solutions every day. Ribbon solutions secure IP communications as well as deliver PBX and unified communications capabilities. Ribbon enables federal organizations to leverage their significant investments in upgraded data networks to decommission aging voice-only infrastructure and deliver more reliable, secure and innovative IP communications that are JITC certified.

Contact Us Contact us to learn more about Ribbon solutions.

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