SBC SWe Edge – Virtualized Software

Intelligent Edge™ – Highly Available Enterprise Session Border Control Software

Organizations are rapidly adopting cloud communications whether it be contact centers, Unified Communications as a Service (UCaaS) such as Microsoft Teams, Zoom Phone, Webex, Google Voice or SIP Trunks to connect premises PBX equipment. Ribbon's Session Border Controller Software Edition Edge (SBC SWe Edge), is highly available, virtualized software that provides market leading security for real-time communications.

The SBC SWe Edge has an extremely compact footprint that makes it easy to deploy and configure in almost any environment, be it a white box server at the edge, a shared server in a data center, a virtual machine in a private cloud, or Azure or AWS public clouds. It can be deployed in High Availability (HA) configurations for enhanced resiliency.

The SBC SWe Edge protects communications infrastructure from Denial of Service (DoS)/ Distributed DOS (DDoS) attacks, maintains privacy, encrypts calls, and interworks with a wide variety of third-party SIP and legacy voice infrastructure devices/services, all while providing reliable, scalable performance that ensures maximum uptime and service availability. SBC SWe Edge is deployable on Microsoft® Hyper-V®, VMware® vSphere® Hypervisor and Linux® KVM.

Ribbon has been working closely with Microsoft for more than a decade so it should come as no surprise that the SBC SWe Edge is Microsoft certified for Microsoft Direct Routing and supports Microsoft Survivable Branch Appliance (SBA).

The SBC SWe Edge is also certified with Zoom Phone, Webex Local Gateway, Google Voice SIP Link, Cisco BroadSoft, Yealink, Poly and is tested with many other popular contact centers, and communications products.
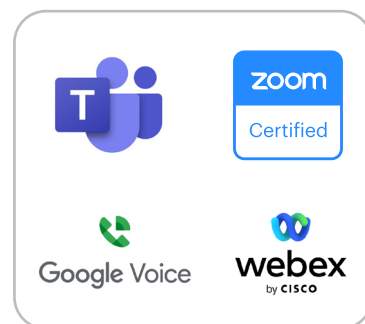
Certified for Popular Cloud Solutions

Key Capabilities

- Secure signaling, media, and management
- Robust media processing including SILK & OPUS
- High Availability (HA) Configuration Options
- Denial-of-Service (DoS) and Distributed DoS (DDoS) attack prevention
- Easy Configuration Wizard
- Centralized management via Ribbon Application Management Platform (RAMP)
- Support for redundant SIP trunks
- Microsoft Phone System emergency calling support (E911, ELIN) and Microsoft SBA support
- 30-day trial license with permanent option avaialable
- Available in the Azure Marketplace via Quick Launch
- Available in AWS via AWS CloudFormation Template

Capabilities	SBC SWe Edge
Maximum Concurrent Calls	300 to 1200
Maximum Calls with Media Services (including SILK & OPUS high-fidelity voice)	95 to 1200
Maximum Encrypted Calls	300 to 1200
High Availability (HA) Configuration Option	√
Call Recording Support (SIPREC)	√
Multiple Licensing Options	√
Microsoft SBA Support	√
Session Resiliency	√

Note: Ribbon's SBC SWe Edge can be deployed on virtual machines and in public cloud environments (Azure and AWS). Ribbon's SBC 1000 and SBC 2000 appliances are also available, sharing the same software.

▶ **Click Here to Get a Quote for One of Our SBCs**
https://rbbn.com/ribbon-sbc-quote

Data Sheet

Part of an Industry Leading Portfolio of Real-time Security Solutions - from Ribbon Communications

The SBC SWe Edge virtualized deployment represents one element of Ribbon's security portfolio. SBC SWe Edge can also be deployed in the AWS or Azure clouds. Ribbon's SBC 1000 and SBC 2000 share the same software as the SBC SWe Edge, offering an appliance-based alternative for organizations that desire a hardware-based deployment or that need analog or TDM ports for integration.

Ribbon has a proven track record of deployments in over 1,000 of the world's leading communications service providers. In fact, there is a good chance that your communications service provider is already a Ribbon customer.

## Built-in Tools for Rapid Deployment

Ribbon has made it easy for enterprise or managed service providers to deploy an SBC SWe Edge instance. The SBC SWe Edge includes a built-in Easy Configuration Wizard that is prepopulated with sought-after PBXs, cloud UC services, and service provider configurations, making deployments as simple as point and click. It's also easy to test the solution prior to purchase, a 30-day trial license is enabled by default. Most importantly, the SBC SWe Edge has been successfully deployed tens of thousands of times to secure communications for organizations of all sizes, across the globe.

Centrally Managed from Ribbon Application Management Platform (RAMP)

Ribbon SBC SWe Edge is centrally managed via the Ribbon Application Managment Platform (RAMP). RAMP provides streamlined access to SBC SWe Edge management interfaces and simplified access to cross location centralized reporting. The RAMP platform manages heterogenous deployments of SBC SWe Edge instances in data centers or public cloud. Customers can rationalize far-flung networks, monitor performance and quickly remediate issues to improve experiences and reduce costs.
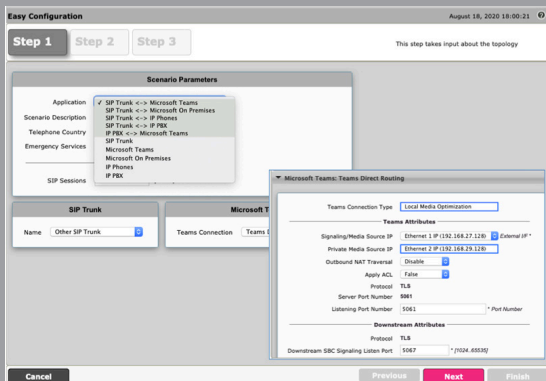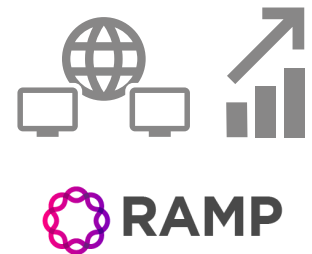
Easy to use configuration wizard
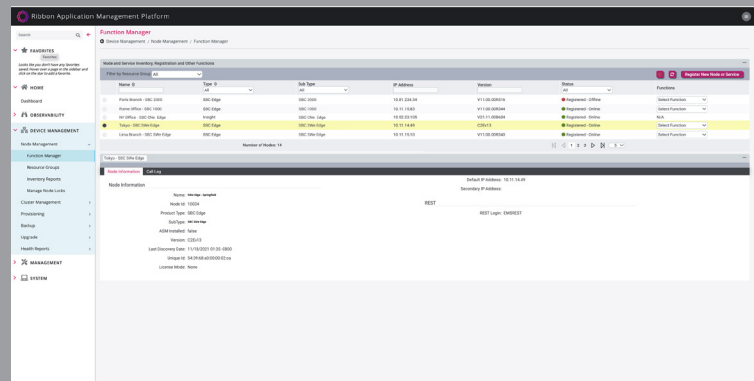
Easily spot issues across thousands of instances

PSTN Access	VoIP Firewall	NAT/DHCP	WAN Resiliency	Back-up Call Server	Call Recording Support	Voice Quality Monitor	Traffic Shaper

The Ribbon SBC SWe Edge is fully virtualized software that provides a comprehensive solution to secure and manage communications

ribbon

SBC SWe Edge – Virtualized Software

Features and Capabilities	Specifications
Security	• TLS (Transaction Layer Security) for signaling encryption - TLS 1.3 (RFC 5246) • Secure Real-time Transport Protocol (SRTP) & Control Protocol (SRTCP) for media and media control encryption (RFC 3711) • Multiple unique X.509 public key certificates/PKCS #12 files (up to 11) • Wildcard certificate support • Topology hiding; user privacy • Prevention of Denial-of-Service (DoS) and Distributed DoS (DDoS) attacks • Traffic separation (VLAN interface separation) • Malformed packet protection • Access Control Lists (ACLs) • IPsec VPN tunnel • NAT/NAPT and port forwarding; NAT traversal
Protocol Support	• SIP (RFC 3261) over UDP, TCP, TLS • RTP/RTCP/RTCP-XR (RFC 3550, 3551, 3611) • RTP/RTCP multiplexing over single UDP port (RFC 5761) • IPv4, IPv6, and IPv4/IPv6 interworking • DHCP server & client (RFC 2131) • Network Address Translation – NAT (RFC 2663) • SNMPv2c, SNMPv3 • HTTPS
Media Services	• G.711, G.722, G.722.2 (AMR-WB), G.723.1, G.726 (32 kbps), G.729A/B (8 kbps), T.38, SILK-NB/WB media encoding • Video interworking • Session Recording Protocol support - SIPREC (RFC 7866) • DTMF support: RFC 4733, inband DTMF, SIP INFO (RFC 2833) • Voice Activity Detection (VAD) • G.168 Echo cancellation with standard 128 ms tail length • Comfort noise generation and packet loss concealment • Music on hold • RTP inactivity monitoring (inactive call detection)
Quality of Service (QoS)	• Bandwidth management • Call Admission Control (CAC) to deny inappropriate calls • P-time mediation for rate limiting • Per-call statistics • Diffserv/DSCP marking
Routing/Policy	• Interactive Connectivity Establishment (ICE), full and lite support (RFC 8445) • Azure® and on-premises Active Directory®/LDAP-based call routing • Least cost, time of day and quality-based routing • On-board call forking (up to eight end points) • Supplementary services: call hold, call transfer (blind & assisted) and call forward • SIP routing based on source and destination IP address or Fully Qualified Domain Name (FQDN) • ITSP E911 support; 911 call preemption

Management Capabilities	• Single, secure, web-based GUI with real-time port monitoring
	• Easy Configuration Wizard, for quick provisioning between
	• - SIP trunks, SIP phones, SIP PBXs (e.g. Avaya® Aura® or Cisco® Unified Communications Manager)
	  - Microsoft Direct Routing
	  - Integrated support for Microsoft Survivable Branch Appliance (SBA)
	• Centralized management from Ribbon Application Management Platform (RAMP)
	• REST-based programmatic interface to remotely manage multiple SBCs
	• SNMP v2c/v3 for comprehensive network management using third-party management systems
	• Configuration backup and restore; upload from one site to another
	• CDR reporting and local logging for troubleshooting
	• Free Ribbon LX syslog server and log parser tool available
	• Configurable for secure Syslog over TLS
	• Authentication: local user (username/password), Active Directory®, RADIUS

Certified SBC for Microsoft Phone System & Direct Routing (Teams)	• Supports Microsoft Survivable Branch Appliance (SBA) via an additional, integrated, virtual instance • SILK-NB, SILK-WB codec support for improved Microsoft Teams user experience • Enhanced 911 (E911) and Emergency Location Identification Number (ELIN) Gateway Support • Media Bypass and Local Media Optimization support • Simplified migration from on-premises Skype for Business Server to Microsoft Teams • Support for multiple tenant-related Direct Routing deployments with Microsoft partners/PSTN carriers

ribbon®

SBC SWe Edge – Virtualized Software

Features and Capabilities	Specifications
Site Survivability	• IP route redundancy to UC provider, in case of ISP or router failure • PSTN fallback in case of WAN failure • Built-in SIP registrar for site survivability for SIP clients including Yealink® Teams and Poly® UC phones and conference bridges • Multiple Spanning Tree Protocol, to prevent routing loops
Virtual Machine System Requirements (standalone deployment)	• CPU: 1, 2, 4, or 10 virtual CPUs (vCPU) processing recommended on a second-generation Intel® Core™ or Intel® Xeon® processor • Memory: 1, 1.5, or 2.5 GB RAM • Hard Disk Drive (HDD): 5 GB • Virtual Network Interface Cards (vNIC): Minimum 2 vNICs in operation • Supported Virtual Machine Environments: MicrosoftHyper-V®• VMware® vSphere® Hypervisor (ESXi) Version 5.5 or above, Linux® KVM (Kernel-based Virtual Machine) • Delivers up to 30 Calls Per Second (CPS) for deployments with 4 or more vCPU
Virtual Machine System Requirements (High Availability –HA deployment)	• CPU: Minimum of 4 virtual CPUs (vCPU) on a second-generation Intel® Core™ or Intel® Xeon® processor • Memory: Minimum of 4 GB of RAM • Hard Disk Drive (HDD): 5 GB • Virtual Network Interface Cards (vNIC): Minimum 3 to maximum of 5 vNICs • Supported Virtual Machine Environments: VMware® vSphere® Hypervisor (ESXi) Version 5.5 or above, Linux® KVM (Kernel-based Virtual Machine) • Delivers up to 30 Calls Per Second (CPS) for deployments with 4 or more vCPU
Virtual Survivable Branch Appliance (vSBA) Instance Requirements	• CPU: Minimum of 4 virtual CPUs (vCPU) on a second-generation Intel® Core™ or Intel® Xeon® processor • Memory: Minimum of 8 GB of RAM • Hard Disk Drive (HDD): Minimum of 80 GB (includes logging) • Virtual Network Interface Cards (vNIC): Minimum of 3 vNICs • Supported Virtual Machine Environments: Windows 2019 Server VM

▶ **Click Here to Get a Quote for One of Our SBCs** ■ **https://rbbn.com/ribbon-sbc-quote**