



Engage **The Power of We™**

Avaya Session Border Controller for Enterprise

A security solution for SIP-based networks implementing unified communications applications

To benefit from the latest communication and collaboration solutions, businesses are increasingly turning to SIP-based networks.

Whether it's to lower costs using IP telephony or to take advantage of the latest multimedia messaging, conferencing and unified communications (UC) applications, SIP is emerging as the industry standard.

Advantages of SIP

Because they are designed for high-fidelity voice, high-definition video and other real-time collaboration applications, carriers are increasingly offering SIP trunks (Session Initiation Protocol). SIP trunks cost-effectively support more telephone extensions and help reduce local, toll-free, domestic and international long-distance communications costs.

With the support of a SIP network, a growing business can more easily and cost effectively roll out the latest UC applications to employees regardless of where they are working: in the office, at home or on the road. The productivity that results from these collaborative, real-time applications can be a major competitive advantage.

SIP Trunk Security

However, SIP trunks also present a security challenge: there is vulnerability at the point where the SIP trunk connects to the public network, which can leave a business exposed to hacker attacks including spoofing, call hijacking, eavesdropping and toll fraud. In addition to potential damage to business operations, privacy and security mandates such as those for credit and health information (e.g., PCI and HIPAA) require that these vulnerabilities be addressed, imposing significant financial and legal penalties for non-compliance.

VPN-less Remote Worker Security

Business customers are now facing an evolving world where users are no longer confined inside the walls of the enterprise. Trends towards mobile access to system resources, telecommuting, and BYOD are creating the need to deliver SIP-based UC and collaborative services to these remote users in a flexible yet secure manner. Avaya Session Border Controller for Enterprise delivers a new solution for this need with security in mind.



“Customer service is at the heart of what we do, and as a leader in outsourced contact center services, our clients count on us to ensure superior functions and secure service. The Avaya SBCE helps us deliver this, and does so with an eye towards cost-savings. We can reduce our hardware expenses, simplify implementations, and use fewer resources, saving us time and money. Avaya SBCE is critical in helping protect our network, while delivering the cost-saving benefits of SIP trunking.”

*-Richard Blake, Manager,
IT Telecom,
Teleperformance*

Security for SIP-based networks

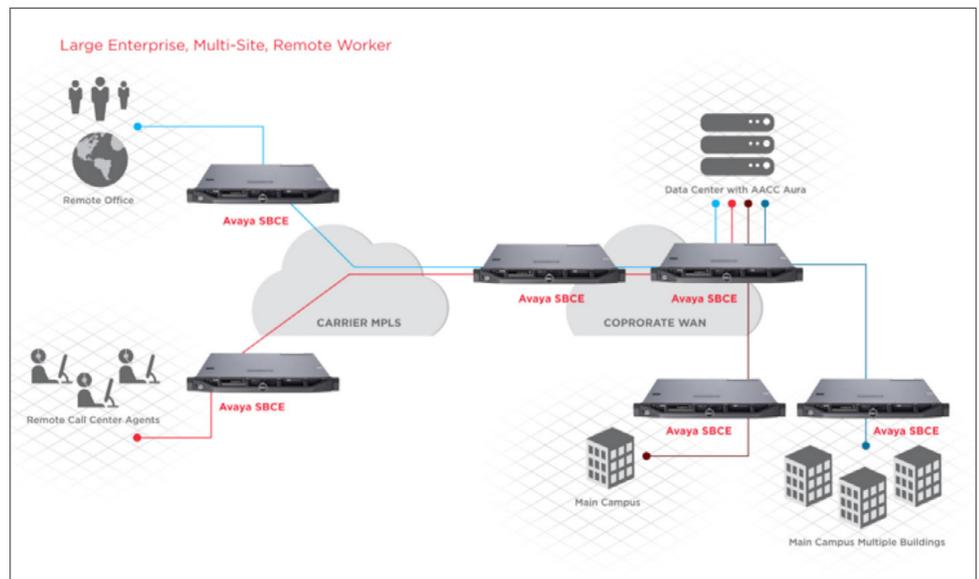
- A clear line of defense where the SIP trunk meets the public network
- Supporting communications applications that drive competitive advantage
- Protection against:
 - Denial of Service (DoS) attacks
 - Spoofing
 - Call Hijacking
 - Toll-fraud blocking
 - Eavesdropping and theft of information
- Multiple vendor compatibility
 - Cisco 8.x & 9.x (CUCM)
 - Mitel
 - Shoretel
 - Microsoft Lync
- Fine-grained policy enforcement

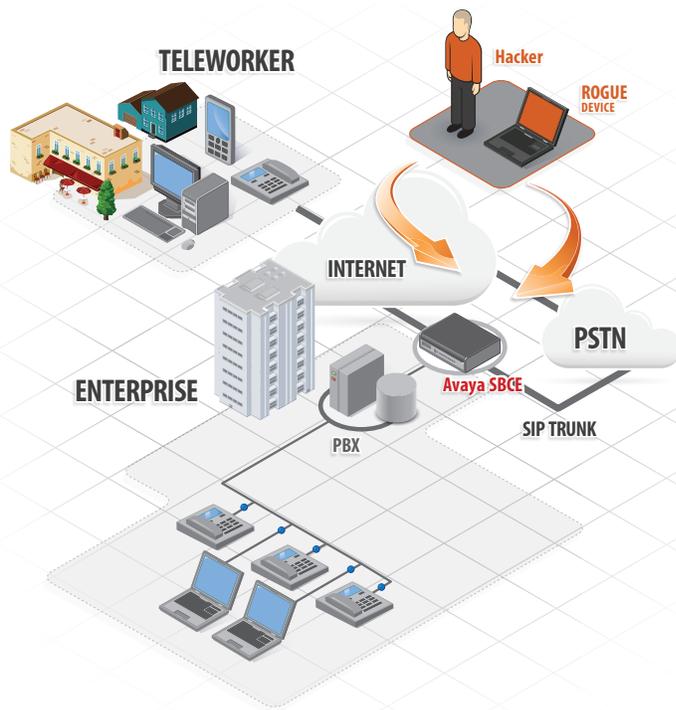
Multi Domain Security

Network support for multiple users connecting via multi-tiered networks, both private and public cloud based, is a necessity. This is especially true for large multinational enterprises or large scaled government communication installations. The criticality of maintaining secure access regardless of location is understood, but the solution is not always as obvious. Avaya Session Border Controller for Enterprise helps provide the necessary functions for network-to-network security as well as network-to-user security. This means that for a large scale, geographically extended network, all layers of network access can be kept secure. The back-to-back-to-back capabilities of the Avaya Session Border Controller for Enterprise will help ensure secure user access no matter how extended and diverse.

Cloud

As more enterprises are looking at hosted alternatives for their collaboration environments, it becomes even more critical for the interfaces between enterprise and host to be secure and manageable. The Session Border Controller for Enterprise offers an interface that helps to support network protection and enterprise control of VOIP traffic. Avaya sees increased interest in configurations that are a hybrid architecture, hosted applications as well as enterprise on premise applications. The Session Border Controller for Enterprise is the protection needed to help address proper protocol support and a truly integrated and secure network infrastructure.





A Solution for Growing Businesses

The Avaya Session Border Controller for Enterprise (Avaya SBCE) helps address the security vulnerabilities in SIP networks in a cost-effective, easily-implemented, single-box solution.

Easily operated from an intuitive graphical user interface (GUI), the Avaya SBCE establishes a precise demarcation where the SIP trunks meet the enterprise network, presenting a clear line of defense. It helps deliver enterprise-class security that helps mitigate the risks of Denial of Service (DoS) and application-layer threats as well as toll-fraud. Fine-grained policy enforcement helps support ongoing compliance.

With Avaya SBCE in place, growing businesses can adopt the collaborative and unified communications applications that drive competitive advantage.

Single-box Solution for SIP Network Security

Avaya Session Border Controller for Enterprise provides an advanced application-layer security architecture in one device: SIP Firewall, Session Border Controller, Intrusion Detection System and Intrusion Prevention System (IDS/IPS), Access Controller, Authentication, Unified Communications Proxy and Policy Enforcement for all real-time unified communication applications.

Help Secure and Support BYOD

Consumer devices are pouring into the enterprise. Businesses can leverage BYOD—Bring Your Own Device—as a way to reduce costs, increase productivity, and enhance communication and collaboration. The challenge is how to say yes to BYOD while maintaining control of the network.

Avaya Session Border Controller for Enterprise with IP Office

Avaya IP Office is the solution many growing businesses turn to for comprehensive, easily implemented unified communications.

With more than 300,000 systems installed worldwide, IP Office is an industry standard-bearer, delivering the communications and productivity tools today's employees need to perform at their best.

When Avaya IP Office is implemented in conjunction with SIP trunks, the Avaya Session Border Controller for Enterprise works hand in hand to help protect against security threats.

As more enterprises are looking at hosted alternatives for their collaboration environments, it becomes even more critical for the interfaces between enterprise and host to be secure and manageable.

The Session Border Controller for Enterprise is the protection needed to help support proper protocol support and a truly integrated and secure network infrastructure.

Every enterprise is impacted by and talking about BYOD, but what can get lost in the conversation is the fact that BYOD is more than just device management. Avaya supports BYOD with a combination of security, authentication, networking, and policies. The Avaya solution includes device authentication, access control for wired and wireless devices, secure remote access, and support via a range of services.

The Avaya Session Border Controller for Enterprise is designed to securely enable many deployments, including:

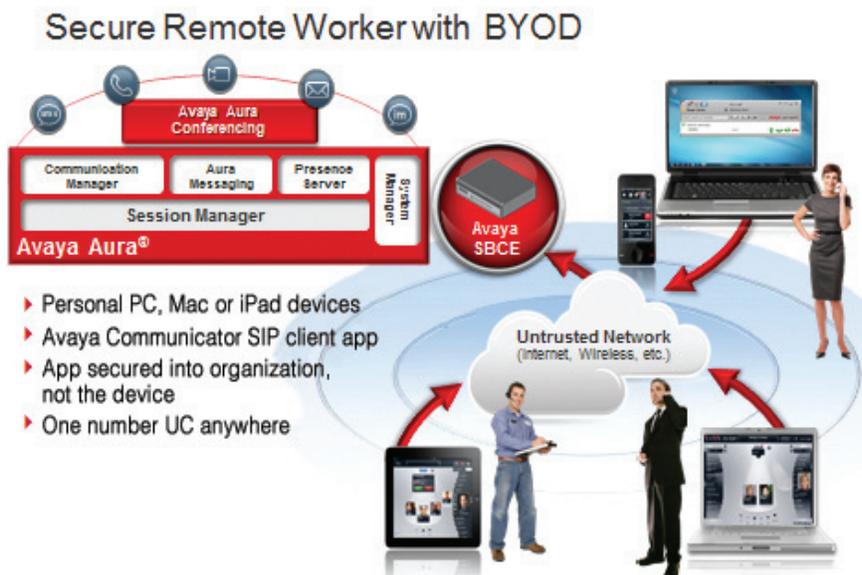
- Enabling remote workers to connect without VPN, offering support of Bring Your Own Device (BYOD) without the administrative overhead of a Virtual Private Network (VPN) solution
- Help secure UC applications entering the enterprise core
- Help secure Border Access for incumbent and competitive local exchange

Support for Legacy Communications

Security for remote access is not just an issue for new systems; even legacy call systems see requirements to add secure mobile collaboration. The Avaya Session Border Controller for Enterprise has been extensively tested for compatibility with Avaya Aura® and Avaya IP Office installations as well as to support the legacy systems of our customers. The Avaya Session Border Controller for Enterprise will support:

- Avaya Aura platform Release 6.1 and higher
- Avaya IP Office 9.0
- Avaya Communication Server 1000 Release 7.6

Maintaining secure remote access is our goal for all collaboration solutions and enterprise mobility requirements.



Virtualization

The need to reduce CapEx and consolidate the network environment has led many enterprises to utilize a virtual application solution for real-time collaboration. Extending the benefits of infrastructure virtualization offers a less costly implementation. In addition, the move to virtualization can provide ongoing savings in IT operating expenses due to support for a common system architecture. The secure access requirements for SIP based communications can also significantly reduce the hardware requirements for system design. The Avaya Session Border Controller for Enterprise

offers a virtualized solution for the management as well as the core appliance. This will support the overall move to a virtualized collaboration solution for all customers as they fulfill the enterprise requirements for SIP access and remote worker security.

Avaya Session Border Controller for Enterprise core application software and EMS are available as OVA files for installation on VMware. More details are available in the Avaya Session Border Controller for Enterprise VMware deployment guide available on the [Avaya Support website](#).

Avaya SBCE VMware Resources	EMS	EMS & SBCE
vCPU	3 vCPU	4
Min Processor	2.4 GHz (Xeon x5670 or equivalent)	2.4 GHz
CPY reservation	7200 MHz	9600 MHz
Virtual memory	4G	8G
Virtual Storage	80G	80G
Shared NICs	2@100Mbps or 1000 Mbps	4@100Mbps or 1000 Mbps

The Avaya Session Border Controller for Enterprise offers a virtualized solution for the management as well as the core appliance, supporting the overall move to a virtualized collaboration solution for any enterprise.

As part of the Avaya support for a virtualized collaboration solution, Avaya Aura Virtualized Environment provides a complete set of UC and Collaboration applications all compatible with VMware and ready for installation on a customer provided virtualized infrastructure.

Specification	Low Range SBCE Portwell (Core)	Mid Range SBCE		Mid Range SBCE (Dual PSU)	
		Dell (Core)	Dell EMS	Dell (Core/EMS)	HP (Core/EMS)
Product Type	Avaya SBCE	Avaya SBCE	Avaya EMS	Avaya SBCE, EMS	Avaya SBCE, EMS
SIP Trunk Sessions	250	6000	NA	6000	NA
Remote Worker Sessions	250	1200	NA	1200	NA
Part Number	271023	271021	271022	308596	308597
Platform Type	CAD-0208-3402-900	PE R210 II XL (OEM)	PE R210 II XL (OEM)	PE R620 (CR2 OEM)	DL 360pG8 (CR2 OEM)
BIOS	08.00.15	1.1.1	1.1.1	2.2.2	P71 03/01/2013
Main Processor	ATOM D510 - 1.66GHz	Xeon E3-1220 - 3.1GHz (Quad core - 80W)	Pentium G850 2.9 GHz (Dual core)	Xeon E5-2630 2.3 GHz (Hex Cores)	Xeon E5-2630 2.3 GHz (Hex Cores)
Memory	2GB DDR2 667MHz SODIMM	4GB (2 X 2GB) DDR3 1333MHz, UDIMM	2GB (1 X 2GB) DDR3 1333MHz, UDIMM	16GB (4 x 4GB) DDR3 1600MHz, RDIMMS	16GB (4 x 4GB) DDR3 1600MHz, RDIMM
RAID	No	No	RAID 1	RAID 1	RAID 1
Hard Drives	320GB (SATA)	250/500GB (SATA)	2 X 500 GB (SATA)	2 X 300 GB (SAS)	2 X 300 GB (SAS)
Optical Drive	No	No	No	DVD+/-RW	DVD+/-RW
Compact Flash	No	No	No	No	No
PCI Cards	-	1 X Quad Port NICP- Cle-4	1 X H200 (SAS/SATA) RAID Controller	1 X Dual 1GbE Port NIC	1 X Dual 1GbE Port NIC
TPM	No	No	No	No	No
LED Display	No	Yes	Yes	Yes	Yes
Interfaces (Ports)					
Data	4 X 1GbE	6 X 1GbE	2 X 1GbE	6 X 1GbE	6 X 1GbE
USB	2	2	2	2	2
Console	1 (RJ-45)	1 (DB 9 - Female)	1 (DB 9 - Female)	1 (DB 9 - Female)	1 (DB 9 - Female)
VGA	Yes	Yes	Yes	Yes	Yes
Replaceable Fan	No	No	No	No	No
Replaceable Hard Drive	No	No	No	Yes	Yes
Redundant PSU	No	No	No	Yes	Yes
Port Bypass	No	No	No	No	No
Form Factor	1U (Desk or Rack Mount)	1U	1U	1U	1U
Bezel	-	Dell OEM - Avaya Branded	Dell OEM - Avaya Branded	Dell OEM - Avaya Branded	HP OEM - Avaya Branded

Specification	Low Range SBCE Portwell (Core)	Mid Range SBCE		Mid Range SBCE (Dual PSU)	
		Dell (Core)	Dell EMS	Dell (Core/EMS)	HP (Core/EMS)
Dimensions					
Height	1.7 in	1.7 in	1.7 in	1.7 in	1.7 in
Width	11.75 in	17.1 in	17.1 in	17.1 in	17.1 in
Depth	5.75 in	15.5 in	15.5 in	26.9 in	27.5
Boxed					
Height	7.5 in	10 in	10 in	11.5	8.8
Width	12 in	24 in	24 in	24.25	23.31
Depth	15 in	32 in	32 in	36.25	38.69
Weight					
Unit	3 lbs.	15.5 lbs.	16.2 lbs.	41 lbs.	42.3 lbs.
Boxed	6 lbs.	30 lbs.	31 lbs.	48 lbs.	49 lbs.
Input	100/240V AC Adaptor (12V DC)	100/240V AC	110/240V AC	110/240V AC	110/240V AC
Nominal Current (110V)	0.2 A	1.1A	1.1A	1.5A	1.5A
Maximum Current (110V)	0.5 A	2 A	2 A	4.5A	4.5A
AC Power (Max)	40 Watts	250 Watts	250 Watts	500 Watts	500 Watts
Environmental					
Nominal Operating Temp	20oC	20oC	20oC	20oC	20oC
Operating Temp Range	5oC - 35oC	10oC - 35oC	10oC - 35oC	10oC - 35oC	10oC - 35oC
Relative Humidity	20% - 90%	10% - 90%	10% - 90%	10% - 90%	10% - 90%
Storage Temp	0oC - 75oC	-40oC - 65oC	-40oC - 65oC	-40oC - 65oC	-30oC - 60oC
Certifications & Compliances	FCC, CE, UL & RoHS	FCC, CE, CSA, UL & RoHS			
HTS	8517.62.0050				
ECCN's	H/W = 5A002 (A.1), S/W = 5D002 (C.1)				
Export License	Exception: ENC - Restricted to "Non - Government" End Users. Ref: Section 740.17(A), (B)(1) and (B)(2)				
CCATS	G072860				



About Avaya

Avaya is a leading, global provider of customer and team engagement solutions and services available in a variety of flexible on-premise and cloud deployment options. Avaya's fabric-based networking solutions help simplify and accelerate the deployment of business critical applications and services. For more information, please visit www.avaya.com.

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