Avaya Session Border Controller for Enterprise 8.1.2.0 Release Notes

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Overview

This document provides information about the new features/enhancements in Avaya SBCE Release 8.1.2.0, and the known issues for this release.

New Features and Enhancements

ICE Gateway support for Microsoft Teams

Avaya SBCE introduced support of ICE Gateway functionality towards Microsoft Teams along with Aura and PSTN legs being non-ICE. It follows RFC 5245 and ICE Lite mechanism.

Local Media Optimization

Avaya SBCE provides support of Local Media Optimization with Microsoft Teams using ICE gateway functionality in a multi-tier branch setup keeping media local to the site and Teams user. It works on principles of proprietary headers and site names/location.

NG911

Avaya SBCE supports NG911 PSAP with a NG911 Core Service as per NG911 NENA specifications. It covers all the basic and advanced features including URN mapping, Subscription/Notification of NG911 events and states, NG911 Conference and Transfer evolved from RFC 4579, EIDO support for informational element in Transfer, RTT (Real Time Text) support as per RFC 4103.

Azure HA Support

Avaya SBCE provides HA functionality in Azure with seamless failover in Azure environment for signaling and media.

301/302 Redirection Support

Avaya SBCE introduced support of NATing 301/302 messages. It can be NATed with IP address or FQDN. This mechanism can be used for redirection to another ASM or Data Center.

SIP/SIPS Schema for SRTP

Avaya SBCE added 'SIPS Required' configurable option in the Server Interworking Profile to support SIP or SIPS schema for SRTP, thereby decoupling SIPS with SRTP media. This is applicable for both Trunking and Remote Worker solutions.

The feature has dependency on Aura configuration settings for handling of SIPS with SRTP. By default, 'SIPS Required' will be enabled. When Avaya SBCE is upgraded from prior releases to 8.1.2, all existing Interworking Profiles will have 'SIPS Required' enabled.

Note: Most 3rd party call/trunk servers, Microsoft SfB and Microsoft Teams do not support SIPS. It is recommended to review the 'SIPS Required' configuration and disable if required.

Relay Unknown Headers

Avaya SBCE added support to relay unknown headers towards transfer target review. This ensures information sent by customer or any other application like IVR is not lost towards agents or other target applications.

Symmetric Context Support for SRTP through Configuration Control

Avaya SBCE added support to reset SRTP crypto context in symmetric fashion for both the Rx and Tx crypto streams. The default behavior prior to this feature was to reset the crypto context either for Rx or Tx. This feature solves interop issues related to no talk path for long held calls due to mismatch of ROC between the sender and receiver.

Additional configuration control is added for Avaya SBCE to send new crypto keys and/or port change for a session initiation/modification.

GSID

Avaya SBCE added support for GSID to uniquely trace a call end to end across multiple SIP B2B UA hops for better traceability. Avaya SBCE supports relaying of GSID in any Request and Response. Avaya SBCE should generate GSID for any call leg it creates.

Configuration Change Enhancements for Deployments

Avaya SBCE configuration tools have been enhanced to allow easier methods for making server configuration conversions and moves. With these enhancements, you can make the following configuration changes:
- Converting a standalone EMS and SBCE to a dedicated SBCE
- Moving an SBCE from one EMS to another EMS
- Moving an HA SBCE from one EMS to another EMS
- Converting a single commissioned SBCE into an HA deployment

EMS User Authentication SSO Enhancements

Avaya SBCE added support for users to login to EMS without configuring the 'User' as EMS user in GUI. Enterprise administrators can manage the users through RADIUS/LDAP. Enterprise administrator is responsible for configuring the ASBCE privileged user's authentication credentials and user role in RADIUS/LDAP.

LDAP
- o Users can be mapped to LDAP user accounts in a configured server
- o No way to handle authentication if the user is not mapped locally with authorization details

X.509
- o Users can be authenticated via an X.509 certificate offered through the browser via TLS mutual authentication

Template wizard and Config API

Template Wizard
- o Facilitates quick provisioning of a newly installed system to a working state
- o Supports provisioning of Trunk and Remote Worker flows
- o Not a replacement for the traditional UI

Config API Support

>   Avaya SBCE provides authenticated RESTful Configuration API to automate provisioning of SIP Trunking, Remote Worker, Turn Server, Reverse Proxy functionalities with all applicable ASBCE properties.

License Compliance Auditing and Reporting

This feature will collect information when, for how long and how often a customer is infringing on its licensing in Avaya SBCE. Avaya SBCE will collect daily licenses usage with the parameters like Max usage, Max licenses acquired and Max license over usage.

Support of ESXi/vSphere 7

Avaya SBCE deployment on ESXi 7.0 (Build 15952599) is now supported using CLI as well as template-based configuration. Snapshot restore from ESXi 6.x to ESXi 7.0 is also supported.

Mandatory Patch

Mandatory patch has been released for 8.1.2 GA to address the following two issues -

Issue 1#: ASBCE Resets or Failovers Observed
Description: ASBCE reset or failover has been observed with ASBCE 8.1.2 GA. This could happen while processing the 4xx error response to heartbeat OPTIONS message from remote SIP entity. The issue is noticed for some of the 4xx response codes like 403, 404, 400, 420 from the remote SIP entity to the heartbeat OPTIONS message sent by ASBCE. This is not observed with other 4xx response codes (486, 401, 407, 406).

Issue 2#: Intermittent talk path issue observed with ASBCE 8.1.2.
Description: It is observed that with ASBCE 8.1.2 GA some calls are established with no talk path and for those calls ASBCE does not process SDP resulting in no audio. There is no fixed pattern to this, and the behavior is intermittent

Resolution: A mandatory patch with a fix has been released to address these issues. It is required to install a patch on top of 8.1.2 GA build, as specified in Product Support Notice (#PSN005770u, #PSN005767u). The patch software is available on support site (PLDS ID: SBCE0000227). The patch needs to be applied only on SBC server(s). Please refer to PSN for patch installation and other details.
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Build Download Files

You can download software files from the following websites:

https://support.avaya.com/downloads/

https://plds.avaya.com

File Name	PLDS ID	MD5SUM	Remarks
sbce-8.1.2.0-31-19809.ova	SBCE0000215	41cbd574d404d8557407c9c0dee20b52	OVA for fresh Installation on VMWare
sbce-8.1.2.0-31-19809.iso	SBCE0000216	4e17a92e6b8ab3631e2e940ad5984bc9	ISO image for fresh install on hardware
sbce-8.1.2.0-31-19809.qcow2	SBCE0000217	30fd121fc2dc844eb65af22d9c043794	QCOW2 image for fresh installation on Nutanix and Azure
sbce-8.1.2.0-31-19809-aws-001.ova	SBCE0000222	5db3d547f3b252ed8f72149338d7593c	AWS OVA for fresh installation on AWS
sbce-8.1.2.0-31-19809-b904052004f4f3af5d85634f933fcc8d.tar.gz	SBCE0000219	b904052004f4f3af5d85634f933fcc8d	Upgrade package to upgrade to 8.1.2.0 release
sbce-8.1.2.0-31-19809-b904052004f4f3af5d85634f933fcc8d.tar.gz.asc	SBCE0000220	81620bf2fe00cae4758d403437f5c9ff	Signature file to be used to upgrade to 8.1.2.0 release
sbce-8.1.2.0-31-19809-signatures.tar.gz	SBCE0000221	c181384706b1c8c7cef80af92631dfa5	Key Bundle to validate RPM signatures
sbce-8.1.2.0-31-19809_6cbd282cc8a7703d2dd5fa9a9a1f12c2.img	SBCE0000218	6cbd282cc8a7703d2dd5fa9a9a1f12c2	Image file for creating USB Installer for fresh install on hardware
sbce-8.1.2.0-31-19809_uberutility-a50b843901bb3f405da1a56534e70be7.tar.gz	SBCE0000223	a50b843901bb3f405da1a56534e70be7	Uber utility Script is applicable for migration only, one must use target release uber utility Script for migration
ASBCE_8_1_2_0/sbce-8.1.2.0-31-19809-uefi.qcow2	SBCE0000224	5f6b4fb4e0de9ae246fc1777e21c74e8	uefi qcow2 image for fresh installation on azure gen2
AVAYA-SBCE-MIB_R811.mib	SBCE0000202	774e62365af182661de5a99519acaf1f	MIB File for ASBCE 8.1.2.0
sbce-8.1.2.0-34-19941-hotfix-01222021.tar.gz	SBCE0000227	63bc8158779884b8889ac81c2a5eb33e	Mandatory patch to be installed on 8.1.2.0 GA build

Upgrade Support

Before starting the upgrade, you must run pre-upgrade check on each system to verify whether the upgrade process is supported for that system. If pre-upgrade check passes, you can start the upgrade. Otherwise, you must follow migration procedure. The pre-upgrade check, upgrade, and migration procedures are found in *Upgrading Avaya SBCE*:

https://support.avaya.com/css/P8/documents/101063930

Platforms that Support Upgrades

The following platforms support direct upgrade to Avaya SBCE 8.1.2.0 release using GUI/CLI:
- Dell R320
- Dell R330
- Dell R340
- Dell R620
- Dell R630
- Dell R640
- HP DL 360 G9
- Portwell CAD-0230
- Portwell CAF-0251
- VMware 6.x
- Avaya Solutions Platform Profile 3 and ASP Profile 5 (formerly known as Avaya Converged Platform)

Platforms that Require Migration

You must use migration procedure for upgrading the following platforms to Avaya SBCE 8.1.2.0 release:
- HP DL360 G8
- Nutanix
- AWS
- Azure

Platforms Not Supported for Upgrade or New Installations

The following platforms are not supported for upgrading or installing the Avaya SBCE 8.1.2.0 release:
- CAD 0280
- VMware 5.x

Supported Upgrade Paths

- Avaya SBCE 7.2.2.6 to Avaya SBCE 8.1.2.0
- Avaya SBCE 8.0.0.0 to Avaya SBCE 8.1.2.0
- Avaya SBCE 8.0.1.0 to Avaya SBCE 8.1.2.0
- Avaya SBCE 8.1.0.0 to Avaya SBCE 8.1.2.0
- Avaya SBCE 8.1.1.0 to Avaya SBCE 8.1.2.0

An SBCE/EMS which is on a pre-7.2.2.0 version, needs to first upgrade to 7.2.2.6 or 8.0 version and then upgrade to Avaya SBCE 8.1.2.0 release.

Note: Adding secondary EMS with lower version to primary EMS with 8.1.2.0 version is not supported. In this case upgrading secondary EMS will fail. Secondary EMS should be on 8.1.2.0 to get added to 8.1.2.0 primary EMS.

Upgrade through GUI from 8.0.x

In Avaya SBCE 8.1 and later, the size of the upgrade package is more than 2GB. Avaya SBCE 8.0.x (GA version) upgrade from GUI will fail. A patch must be installed on all EMS/SA-SBC before the upgrade. However, upgrading through CLI will not require any patch. Details of the patch are given below.

- **Upgrading from 8.0.0.0**
  Requires sbce-8.0.0.0-19-16991-hotfix-11142019.tar.gz or later patch.

  sbce-8.0.0.0-19-16991-hotfix-11142019.tar.gz - MD5SUM: 7bdaa7dc0146911eab11a86cf532b37a

- **Upgrading from 8.0.1.0**
  Requires sbce-8.0.1.0-10- hotfix 17555-hotfix-10172019.tar.gz or later patch.

  sbce-8.0.1.0-10-17555-hotfix-10172019.tar.gz - MD5SUM: 5eb226ba5a0ee4044fdd2607c476bb37

Documentation

Title	Support Site Link
Avaya Session Border Controller for Enterprise Overview and Specification	https://support.avaya.com/css/P8/documents/101063920
Deploying Avaya Session Border Controller for Enterprise on a Hardware Platform	https://support.avaya.com/css/P8/documents/101063922
Deploying Avaya Session Border Controller for Enterprise on a Virtualized Environment Platform	https://support.avaya.com/css/P8/documents/101063924
Deploying Avaya Session Border Controller for Enterprise on an Avaya Aura® Appliance Virtualization Platform	https://support.avaya.com/css/P8/documents/101063926
Deploying Avaya Session Border Controller for Enterprise on an Amazon Web Services Platform	https://support.avaya.com/css/P8/documents/101070040
Deploying Avaya Session Border Controller for Enterprise on a Microsoft Azure Platform	https://support.avaya.com/css/P8/documents/101069884
Upgrading Avaya Session Border Controller for Enterprise	https://support.avaya.com/css/P8/documents/101063930
Administering Avaya Session Border Controller for Enterprise	https://support.avaya.com/css/P8/documents/101063932
Maintaining and Troubleshooting Avaya Session Border Controller for Enterprise	https://support.avaya.com/css/P8/documents/101063938
Working with Avaya Session Border Controller for Enterprise and Microsoft Teams	https://support.avaya.com/css/P8/documents/101069910
Working with Avaya Session Border Controller for Enterprise Multi-Tenancy	https://support.avaya.com/css/P8/documents/101063934
Working with Avaya Session Border Controller for Enterprise Geographic-Redundant Deployments	https://support.avaya.com/css/P8/documents/101063936
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Avaya Session Border Controller for Enterprise Port Matrix	https://support.avaya.com/css/P8/documents/101064449
Avaya Session Border Controller for Enterprise Product Privacy Statement	https://support.avaya.com/css/P8/documents/101063993
Avaya SBCE 8.1 Security Configuration and Best Practices Guide	https://support.avaya.com/css/P8/documents/101065050

List of Fixed Issues

Key	Summary
AURORA-25542	SSYNDI process restarting multiple times a day due to state machine couldn't process the request
AURORA-25530	SBCE adds wrong dialog contact in the Request URI of BYE
AURORA-25515	SSYNDI crashed on SBC 8.0.1.0-19154
AURORA-25413	SSYNDI process restarted after updating reverse proxy profile
AURORA-25409	Service disruption when user ran traceSBC with capturing HTTP/WEBRTC traffic in SBC
AURORA-25402	TLS Server Profile doesn't update correctly in Signaling Interface
AURORA-25361	Memory rapidly leaking in RW SBC, likely due to RTCP monitoring feature
AURORA-25306	Intermittent - 96x1 and J1xx phone is failed to get PPM configuration because SBC response 503 service unavailable
AURORA-25093	CVE Security Updates for 8.1.2
AURORA-25040	SSYNDI crash when SIPRec is enabled
AURORA-24977	SBCE audit (IPO Call Cleanup) clean up the call leg even when it has signaling in the last few secs
AURORA-24733	Call leak - calls with response code 481 to RE-INVITE not cleared by SBCE
AURORA-24644	User cannot add/edit secondary DNS server in GUI
AURORA-24631	SBCE crashed when generating the RTCP msg
AURORA-24233	SBCE is sending Registration to incorrect Priority Server
AURORA-24111	Port bonding not working in SBCE 8.1.1
AURORA-23915	Upgrade to 8.1.1 failed due to database conversion failed for ASBCE installed with 7.1.0.x and upgraded to 7.2.2.x/8.0.x/8.1
AURORA-23882	SBCE routes re-INVITE on wrong transport
AURORA-23861	Intermittently incidents detail popup window display "Record not found" message
AURORA-23854	SBC not processing any messages if stale call resources hanging for more than an hour
AURORA-23826	SBCE crashed while relaying RTCP message (Bind Err: 22)
AURORA-23803	After upgrade to 8.1.1 SBCE and EMS M1 is taking IP's from DHCP
AURORA-23672	SBCE is not converting the SIP INFO signal * and # to RFC 2833
AURORA-23669	SBC respond with 491 for update message
AURORA-23528	One-way audio issue on RW while Media Anchoring is disabled
AURORA-23478	When FGDN enabled, after SM failover, call cannot be terminated successfully
AURORA-23088	SBC 8.0 GUI - Not able to install new identity certificate with use existing key option
AURORA-23073	Enable RTCP report generation in a Trunking SBC caused crash, about twice a day.
AURORA-22987	SNMP OID's missing in 8.1 MIB version 113
AURORA-21991	TraceSBC doesn't show get-home-response passing toward endpoint
AURORA-20861	[JITC] Peon does not generate FIPS compatible key while in FIPS mode

List of Known Issues with Workarounds

Issue Summary	Workaround
SBC on AWS: SBC does not allow configuring FQDN for NTP server	Use IP address as NTP server instead of FQDN
Calls doesn't not work with duplicate server profile (2 SIP servers with the same IP)	Configure the PPM mapping profile using custom option
Auto reload login web page since EMS manually startup after shutdown does not work	Manually modify the address in the browser address bar (remove "shutdown.htm") or open another browser tab to log in EMS as usual
Few configs (Media Interface, Server Flow, Reverse Proxy) lost after installing new certificate	The following features need to be verified are not using a TLS profile before deletion: Media Interface (TLS profile is hidden if Media Tunneling is disabled, but defaults to None) Application Relay Reverse Proxy Relay STUN/TURN Profile (this will not result in data loss, but it may break functionality) Load Balancing Syslog Collectors Remote Log Server Failure to check may result in configuration loss if any profiles are configured to use a TLS profile that is being deleted
Call transfer failed due to SBC strip off SDP in the second re-INVITE	Enable t-38 support in ASM side to preserve the SDP
AMS package is not installed for VMware deployments during install/migrate use cases	Commands to be executed for fresh deployments on VMware (including migration use cases as fresh install is part of migration): Please follow the installation of the packages in the same order mentioned below. cd /archive/SBC-RPM-Repository/ rpm -Uvh --nodeps --force ams-installer-8.1.2.0-8.0.0.198.1.i686.rpm rpm -Uvh --nodeps --force ams-common-8.1.2.0-8.0.0.198.1.noarch.rpm /etc/init.d/ipcs-init stop /etc/init.d/ipcs-init start
CLI based deployed SBC gives GUI error on View Details page	Refresh External WebLM license URL
'SIPS Required' is enabled by default post upgrade to 8.1.2.0	After upgrade the recommendation is to review the "SIPS required" setting under the Server interworking profile. For Interaction with 3rd party call servers, trunks and cloud systems like MS Teams, this configuration may need to be disabled if required.
swversion command is giving error on EMS	" ipcs-version "

Syslog-ng is fail to start or taking longer time to come-up.	Run the following command to start/restart
	  As a root user,
	   #/usr/local/ipcs/icu/scripts/syslog-ng-init restart
	  OR
	   #/usr/local/ipcs/icu/scripts/syslog-ng-init stop
	   #/usr/local/ipcs/icu/scripts/syslog-ng-init start
	
	To know the status of syslog-ng run the following command instead of

	"systemctl status syslog-ng ". Please use the below command always to find the status of syslog-ng. #/usr/local/ipcs/icu/scripts/syslog-ng-init status

List of Known Issues

The following known issues are being worked and will be addressed in an upcoming patch/release.

Key	Issue Summary
AURORA-23657	SBC crash due to port leak of RTCP msg after applying patch 8.1-19115
AURORA-23568	Secondary SBCE kicks in during failover but reverse proxy service did not work
AURORA-23682	UI mismatch in mapping profile when configure the PPM mapping profile using custom option
AURORA-23538	If there is packet loss in the network, customer may experience capacity degradation on ACP Profile 5 server
AURORA-25672	Issue with LDAP routing incase SIP server in SBC is configured with FQDN
AURORA-19953	LDAP search not matching if multiple entries exists for the Attribute
AURORA-20435	The call is routed to wrong destination after blind transfer with LDAP Routing
AURORA-25590	Radius Role name should display default Role Name Attribute instead of 0 after upgrade from Previous releases
AURORA-25268	Clear Cache button to clear cache information of LDAP is always grayed out