

Oracle® Session Border Controller

Known Issues and Caveats



Release S-Cz9.2.0

F74368-07

February 2024

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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Contents

About this Guide

Revision History

1 Known Issues and Caveats

Known Issues	1-1
Caveats	1-48
Limitations	1-54
Limitations Removed	1-58

About this Guide

The Oracle Session Border Controller (SBC) family of products are designed to increase security when deploying Voice over IP (VoIP) or Unified Communications (UC) solutions. Properly configured, Oracle's SBC family helps protect IT assets, safeguard confidential information, and mitigate risks—all while ensuring the high service levels which users expect from the corporate phone system and the public telephone network.

Documentation Set

The following table lists related documentation.

Document Name	Document Description
Acme Packet 3900 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 3900.
Acme Packet 4600 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 4600.
Acme Packet 4900 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 3950 and Acme Packet 4900.
Acme Packet 6100 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6100.
Acme Packet 6300 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6300.
Acme Packet 6350 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6350.
Release Notes	Contains information about the current documentation set release, including new features and management changes.
Known Issues & Caveats	Contains known issues and caveats
Configuration Guide	Contains information about the administration and software configuration of the Service Provider Session Border Controller (SBC).
ACLI Reference Guide	Contains explanations of how to use the ACLI, as an alphabetical listings and descriptions of all ACLI commands and configuration parameters.
Maintenance and Troubleshooting Guide	Contains information about SBC logs, performance announcements, system management, inventory management, upgrades, working with configurations, and managing backups and archives.

Document Name	Document Description
MIB Guide	Contains information about Management Information Base (MIBs), Oracle Communication's enterprise MIBs, general trap information, including specific details about standard traps and enterprise traps, Simple Network Management Protocol (SNMP) GET query information (including standard and enterprise SNMP GET query names, object identifier names and numbers, and descriptions), examples of scalar and table objects.
Accounting Guide	Contains information about the SBC's accounting support, including details about RADIUS and Diameter accounting.
HDR Guide	Contains information about the SBC's Historical Data Recording (HDR) feature. This guide includes HDR configuration and system-wide statistical information.
Admin Security Guide	Contains information about the SBC's support for its Administrative Security license.
Security Guide	Contains information about security considerations and best practices from a network and application security perspective for the SBC family of products.
Platform Preparation and Installation Guide	Contains information about upgrading system images and any pre-boot system provisioning.
Call Traffic Monitoring Guide	Contains information about traffic monitoring and packet traces as collected on the system. This guide also includes WebGUI configuration used for the SIP Monitor and Trace application.
HMR Guide	Contains information about configuring and using Header Manipulation Rules to manage service traffic.
REST API	Contains information about the supported REST APIs and how to use the REST API interface.

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Revision History

This section provides a revision history for this document.

Date	Revision
March 2023	<ul style="list-style-type: none">• Initial release
March 2023	<ul style="list-style-type: none">• Adds Limitations Section
April 2023	<ul style="list-style-type: none">• Updates hide-egress-media-update known issue• Adds DTLS-SRTP support on the AP6350 at S-Cz9.2.0p1
May 2023	<ul style="list-style-type: none">• Updates for Cz9.2.0p1• Updates trace tool caveats to point to Call Monitoring Guide.• Removes "Fax over IP on Acme Packet 3950/4900" from Caveats.
August 2023	<ul style="list-style-type: none">• Updates for S-Cz9.2.0p2.
October 2023	<ul style="list-style-type: none">• Updates for S-Cz9.2.0p3.
December 2023	<ul style="list-style-type: none">• Adds Intel limitation for software transcoding.• Updates for S-Cz9.2.0p4.• Adds limitation for playback headers and hairpin calls.
February 2024	<ul style="list-style-type: none">• Updates for S-Cz9.2.0p5.

1

Known Issues and Caveats

The following topics list the known issues and caveats for this release. Oracle updates this document to distribute issue status changes. Check the latest revisions of this document to stay informed about these issues.

Known Issues

The following table lists the known issues in this release. You can reference known issues by Service Request ID number and you can identify the issue, any workaround, when the issue was found, and when it was fixed using this table. Issues not carried forward in this table from previous Release Notes are not relevant to this release. You can review delivery information, including defect fixes in the S-Cz9.2.0 Build Notes.

ID	Description	Severity	Found In
36200606	The SBC stops processing calls from other IP addresses coming into the realm if the realm is marked with trust level high and there is a static ACL configured for the realm.	3	S-Cz9.2.0p4
35575147	When Admin Security is enabled with an authentication type of either TACACS or Radius, the SBC becomes unreachable to all users, including factory users.	3	S-Cz9.2.0p3
34991934	Do not upgrade any device licensed to use FIPS to S-Cz9.2.0. This causes the system to fail, preventing successful boot.	3	S-Cz9.2.0
35038085	If an exiting audio stream is interrupted by a stray SSRC within the flow's packets, this interruption may trigger one-way audio wherein the audio towards the called party fails. You can confirm this condition by locating RTP packets in the flow with stray SSRC.	2	S-Cz9.1.0

ID	Description	Severity	Found In
33600407	<p>When you add IPv4 and IPv6 addresses consecutively on the hip-ip-list and icmp-address of the same network-interface, followed by save and activate, the system eventually activates the configuration change but the SBC goes into an unsteady state with the following events on the console:</p> <pre>unregister_netdevice: waiting for <interface:id> to become free.Usage count = 1.</pre> <p>Workaround: Add IPv4 and IPv6 address on the hip-ip-list and icmp-address separately and activate them individually. For example, activate the first config change or addition and then add and activate the second configuration change.</p>	2	S-Cz8.4.0
33190562	<p>On the AP3950 and AP4900, in < 0.1% of reboots, the platform gets stuck and does not reach the ACLI prompt.</p> <p>Workaround: Perform a power cycle to successfully reboot the system.</p>	2	S-Cz9.0.0p1
	<p>When operating over the Azure platform, the SBC displays an inordinate number of kernel messages during the bootup process. You can safely ignore these messages.</p>	3	S-Cz9.0.0
32742216	<p>The Acme Packet 1100, 3900, and 4600 as well as all software-only deployments do not support any Media Policing configuration.</p>	3	S-Cz8.4.0
32077115	<p>For Hairpin and Spiral call scenarios, the hide-egress-media-update parameter under media-sec-policy is not supported. In addition, you must reboot the SBC when you change the hide-egress-media-update parameter under the media-sec-policy, inbound subelement. This parameter is not RTC supported.</p> <p>Oracle recommends you use the hide-egress-media-update parameter under the realm-config only.</p>	3	S-Cz9.0.0
32565921	<p>The acquire-config process is unsuccessful when your configuration includes an acp-tls-profile. The system does successfully synch the profile after establishing HA.</p> <p>Workaround: Disable your acp-tls-profile on the active system before performing an acquire-config procedure. Re-enable the profile after acquire-config completes successfully.</p>	3	S-Cz9.0.0
None	<p>This version does not support the enhancement to SMP-Aware Task Load Limiting, which adds a second parameter to the sip-config load-limit option.</p>	N/A	S-Cz7.4.0

ID	Description	Severity	Found In
26790731	Running commands with very long output, such as the "show support-info" command, over an OVM virtual console might cause the system to reboot. Workaround: You must run the "show support-info" command only over SSH.	2	S-Cz8.0.0
None	Re-balancing is unavailable on the OCSLB when running an Acme Packet 6300 as a cluster member. Set the SLB cluster-config, auto-rebalance parameter to disabled to use an Acme Packet 6300 as a cluster member from that SLB.	N/A	S-Cz730
None	The system does not support SIP-H323 hairpin calls with DTMF tone indication interworking.	N/A	S-CZ720
None	The SBC stops responding when you configure an H323 stack supporting SIP-H323-SIP calls with the max-calls parameter set to a value that is less than the q931-max-calls parameter. Workaround: For applicable environments, configure the H323 stack max-calls parameter to a value that is greater than its q931-max-calls parameter.	N/A	S-CZ7.4.0
None	The system does not support HA Redundancy for H.323 calls.	N/A	N/A
27699451	Oracle qualified the QSFP interface for the OCSR operating over the Oracle X7-2 platform for a single QSFP port operating in 4-port mode. Specifically, 4 media interfaces successfully map to the second port of the QSFP interface using a Hydra cable as physical connections to 10G switch ports.	3	S-Cz8.1.0
26316821	When you configure the 10 second QoS update mechanism for OCOM, the SBC presents the same codec on both sides of a transcoding call in the monitoring packets. You can determine the correct codecs from the SDP in the SIP Invite and 200 OK.	3	S-Cz8.0.0p1
	The SBC dead peer detection does not work with IKEv1.	3	S-Cz8.4.0
28539190	When operating as a VNF and using Mellanox interface cards, the OCSBC does not use the Host In Path (HIP) configuration to restrict management traffic. Instead the system allows any traffic over the interface.	3	S-Cz8.2.0
28617865	This version of the OCSBC is not supported as a VNF over VMware using Mellanox interface cards.	3	S-Cz8.2.0
29170419	In long call scenarios, the SBC does not send the expected refresh before the Session-Expires: header value time is up for SUBSCRIBE messages.	2	S-Cz8.2.0

ID	Description	Severity	Found In
30643522	Starting with S-Cz8.3.0m1p2, Lawful Intercept users cannot modify LI configuration with the Session Delivery Manager. Workaround: LI Configuration must be performed through the ACLI.	4	S-Cz8.3.0m1p2
34267143	No left-side Index and search in the browser for local Help files.	4	S-CZ9.1.0

Resolved Known Issues

The following table provides a list of previous Known Issues that are now resolved.

ID	Description	Severity	Found In	Fixed In
35815496	With Virtual SBCs, registration and calls work fine initially when running IMS-AKA, however, they may stop accepting registrations over TCP after multiple refresh registrations.	2	S-Cz9.2.0p2	S-Cz9.2.0p5
34511656	Primary SD runs into a USBC crash after running show scode session-byid command.	3	S-Cz9.1.0	S-Cz9.2.0
35614646	Certain RFC2833/telephone-event sequences generated by customer endpoints may not be properly detected/reported/re-transmitted by the SBC, resulting in missing DTMF digit(s).	2	S-Cz9.2.0p3	S-Cz9.2.0p4

ID	Description	Severity	Found In	Fixed In
34789990	When deployed on the Acme Packet 4600, enabling the Elin-Ignore-PSAP-Source spl-option may impact the number of supported calls per second by approximately 50 CPS, reducing it to 500 CPS.	3	S-Cz9.1.0p6	S-Cz9.2.0p4
35011380	When running Remote Packet Trace on VNF platforms filtered to specific ingress IP addresses, in the PCAP capture you will sometime observe out of filter or wrong IP addresses. Specifically, the ingress flow packet addressing in the PCAP may display as the egress flow addressing and vice-versa. This depends on scheduling of original and captured packets by the NIC in SBC and this behavior is random. If you find packets that have the wrong addressing, you need to analyze them using the content of the payload and ignore any incorrect addressing.	2	S-Cz9.2.0	S-Cz9.2.0p3

ID	Description	Severity	Found In	Fixed In
34870648	The "show fans" command (a hidden command) is not working on the following SD6 platforms: <ul style="list-style-type: none">• Acme Packet 1100• Acme Packet 3900• Acme Packet 3950• Acme Packet 4900	4	S-Cz9.2.0p1	S-Cz9.2.0p2
34593124	Media interfaces configured with Mellanox NICs do not support STIR/SHAKEN.	3	S-Cz9.2.0	S-Cz9.2.0p1

ID	Description	Severity	Found In	Fixed In
34458541	<p data-bbox="574 275 764 1010">During Upgrade of an HA Pair from SCZ840 (any patch up to and including SCZ840p12) to SCZ910 (all releases), the Standby SBC running the SCZ840 release crashes as soon as one of the systems is upgraded to 910p2 and made Active. This crash occurs for the "radd" module which is responsible for CDR generation. Scenario/ Condition in which issue is observed:</p> <ul data-bbox="574 1020 764 1503" style="list-style-type: none"><li data-bbox="574 1020 764 1125">• SBC running with Stir/ Shaken call flows<li data-bbox="574 1136 764 1325">• Protocol is set to RADIUS in account-config configuration attribute<li data-bbox="574 1335 764 1503">• cdr-output-redundancy is set to enabled (this is enabled by default) <p data-bbox="574 1514 764 1932">With the above configuration, once the first SBC is upgraded and made Active on the SCZ910 release, there is a chance that the standby SBC (on SCZ840) release may experience a radd crash. This is due to an issue in the SCZ840 release in which</p>	2	S-Cz9.1.0	S-Cz9.1.0p3

ID	Description	Severity	Found In	Fixed In
	standby SBC decodes radius CDR incorrectly resulting in corruption of the buffer received from Active SBC which results in crash.			



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ID	Description	Severity	Found In	Fixed In
		e c o n d i t i o n s a r e m e t a n d d o e s n o t a p p l y i f o n l y # 2 a n d # 3 a r e e n a b l e d		

ID	Description	Severity	Found In	Fixed In
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Workaround: The below steps can be taken as a workaround to perform an HA upgrade from SCZ840 to SCZ910 successfully without experiencing the radd crash described above. **Please note this will stop radius CDR replication to standby briefly during the upgrade.** Once the secondary box is

ID	Description	Severity	Found In	Fixed In
	<p data-bbox="574 275 756 527">upgraded to the SCZ910 release, perform the following steps before triggering switchover to make the upgraded box as Active:</p> <ol data-bbox="574 548 756 1852" style="list-style-type: none"><li data-bbox="574 548 756 999">1. Set “cdr-output-redundancy” config attribute under account-config to disabled and perform save/activate config on the active SBC (which is still on 840 release).<li data-bbox="574 1020 756 1188">2. Run “notify berpd force” to make the SCZ910 upgraded SBC active.<li data-bbox="574 1209 756 1346">3. Perform steps to start upgrading the second SBC.<li data-bbox="574 1367 756 1852">4. While the standby system comes up after reboot, enable “cdr-output-redundancy” config attribute under account-config again on 910 SBC which is currently active.			

ID	Description	Severity	Found In	Fixed In
	If a roll-back to SCZ840 is required, the same process must be performed.			
26497348	When operating in HA mode, the SBC may display extraneous "Contact ID" output from the show sipd endpoint-ip command. You can safely ignore this output.	3	S-Cz8.0.0	S-Cz9.1.0p3
28658810	When operating as a VNF and using Mellanox interface cards, the OCSBC does not support any other type of card for media interfaces. (If any media interface uses a Mellanox card, all media interfaces must use a Mellanox card.)	3	S-Cz8.2.0	S-Cz9.1.0
26323802	The 10s QoS interim feature includes the wrong source IP address as the incoming side of a call flow. The issue does not prevent successful call and QoS monitoring. For monitoring and debugging purposes, you can find the source IP in the SIP messages (INVITE/200OK).	3	S-Cz8.0.0p1	S-Cz9.0.0p5

ID	Description	Severity	Found In	Fixed In
32181987	Do not copy and paste characters into a configuration menu and attempt to edit the copied text. This applies to both console and SSH sessions. Workaround: Edit the data before copy and paste.	3	S-Cz8.4.0	S-Cz9.0.0
33434641	If local-port-match value is set under security-policy, and local-port-match-max is not set, then SBC processes traffic considering full port range. SBC considers the default value of local-port-match-max (i.e. 65535) and applies the specific action mentioned under security-policy to full port range. Configure the local-port-match-max or remote-port-match-max value to set a new port range or set same value for local-port-match and remote-port-match-max to configure a single port.	2	S-Cz8.4.0p4	S-Cz8.4.0p9

ID	Description	Severity	Found In	Fixed In
32535426	<p>The show temperature output will display different values compared to releases older than S-Cz8.3.0. Starting with S-Cz8.3.0, the temperature queries through the ACLI and SNMP are reporting more accurate values.</p> <ul style="list-style-type: none">• Similar components may not correspond between different platforms due to physical differences in each system.	3	S-Cz8.1.0	S-Cz8.3.0
33059603	<p>On the AP3900, AP3950, and AP4900, when performing quickly successive switchovers, an active system may not synchronize and go OOS after a failover. Workaround: Set the gateway heartbeat interval timeout value to 10 seconds with 3 gateway heartbeat retries.</p>	3	S-Cz9.0.0p1	S-Cz9.0.0p2
31344292	<p>The SBC does not support HA replication of a Wildcard PAU.</p>	3	S-Cz9.0.0	S-Cz9.0.0p1

ID	Description	Severity	Found In	Fixed In
32939208	<p>You cannot set the SBC ikev2-ipsec-wancom0-params parameters using SDM due to issues with the configuration of the rekeyfuzz and localip parameters. Note these parameters have defaults or "0" and "empty" respectively. You can, however, configure these values from the SBC .</p> <p>You cannot set the OCSBC ikev2-ipsec-wancom0-params via SDM due to issues in configuration of parameters rekeyfuzz and localip, which have defaults or "0" and "empty" respectively, using OCSDM.</p> <p>Furthermore, if you change the values for rekeyfuzz and localip, you cannot change them back to their defaults.</p> <p>Workaround for changing these parameters' values back to their defaults:</p> <ol style="list-style-type: none">1. remove the ikev2-ipsec-wancom0-params element from your configuration .2. Add the element	3	S-Cz9.0.0	S-Cz9.0.0p1

ID	Description	Severity	Found In	Fixed In
	again and set your values.			
24574252	The show interfaces brief command incorrectly shows pri-util-addr information in its output.	3	S-Cz7.4.0	S-Cz9.0.0
ACMECSBC-38270	Do not configure STIR over TLS. This configuration causes the system to crash.	3	S-Cz9.0.0	S-Cz9.0.0p1
32939113	Do not configure the auth-user-lookup parameter within the local-policy , policy-attribute without already having: <ul style="list-style-type: none"> • A configured sip-interface or, • If that sip-interface does not point to a configured realm <p>If either of these conditions are true, the SBC crashes when you perform a save-config or a verify-config. Workaround: Configure the applicable sip-interface and associated realms before you configure the local-policy, policy-attribute, auth-user-lookup parameter.</p>	3	S-Cz9.0.0	S-Cz9.0.0p1

ID	Description	Severity	Found In	Fixed In
29439964	ACLI Users will receive an error on the output of the show registration sipd by-user command.	4	S-Cz8.2.0	S-Cz8.4.0
32534935	Media is not resumed after RBT playback for transcoded calls on vSBC. Avoid upgrading to releases where this bug is open if your deployment uses a vSBC with Transcoding and is configured to use Ringback-Trigger values.	3	S-Cz8.4.0M0P4	S-Cz9.0.0
31163030	In VOLTE deployments with registration refreshes, you may see unusually large numbers in the alloc and usage count fields while executing the show buffers command. This is a known statistics accounting issue.	4	S-Cz8.3.0	S-Cz9.0.0

ID	Description	Severity	Found In	Fixed In
31315823	<p>When running IMS-AKA over UDP on virtual SBCs, IMS-AKA registrations may not succeed. Registration failure can also cause associated calls to fail. Oracle has observed this only happens after a system reboot. Oracle has also observed that performing a Save and Activate command sequence after a reboot ensures these registrations are successful.</p> <p>If you are running IMS-AKA over UDP on virtual SBCs, perform a Save and Activate command sequence after system reboot to ensure successful IMS-AKA registrations.</p>	3	S-Cz8.4.0	S-Cz9.0.0
31828563	<p>While using STIR/SHAKEN, Acme Packet 4600 performance is capped at 330 CPS, and Acme Packet 6350 performance is capped at 1200 CPS for both dual and quad NIU cards.</p>	3	S-Cz8.4.0M0P2	S-Cz9.0.0

ID	Description	Severity	Found In	Fixed In
	Do not upgrade to S-Cz9.0.0 directly from S-Cz8.4.0p4, S-Cz8.4.0p5 or any S-Cz8.4.0p5 OOC patches up to S-Cz8.4.0p5B. If running these versions, upgrade to S-Cz8.4.0p5C before upgrading to S-Cz9.0.0. Upgrading directly from these versions may cause the system to crash. When upgrading from these versions, upgrade to S-Cz8.4.0p5C first.	3	S-Cz8.4.0M0P4	S-Cz8.4.0M0P5
29881449	The DSP used by the OCSBC has a vendor firmware defect that causes failures with the T.38 codec. If you are using the T.38 codec, you may experience minimal media losses on those calls. This problem may also cause the OCSBC to reboot.	3	S-Cz8.1.0m1p9	S-Cz8.4.0p4
32517222	Media is not resumed after RBT playback for transcoded calls on vSBC. Avoid upgrading to releases where this bug is open if your deployment uses a vSBC with Transcoding and is configured to use Ringback-Trigger values.	3	S-Cz8.4.0M0P4	S-Cz8.4.0P4A

ID	Description	Severity	Found In	Fixed In
30794993	Please see the section on Upgrades For Configurations that Include Signaled IPSec Tunnels and LI Configurations in Upgrade Downgrade Caveats in this document for an explanation of this issue.	3	S-Cz8.4.0	S-Cz9.0.0
32243204	STIR/SHAKEN entitlement is not available when the system is set up as a Peering Session Border Controller product.	2	S-Cz8.4.0p2	S-Cz8.4.0p4
32056356	While performing VoLTE Accounting on a 3G-to-4G MT call, the SBC incorrectly populates VSA ID 69 with the P-Asserted-Identity (PAI) retrieved from the response. This identifies the called side. Within the context of a mobile terminating call, the SBC should be identifying the caller, populating this VSA with the PAI retrieved from the INVITE. Workaround— You can correct this by setting the unidirectional-p-asserted-id option in the applicable account-config to yes .	2	S-Cz8.4.0	S-Cz8.4.0p4

ID	Description	Severity	Found In	Fixed In
31812964 31926021 31918592	<p>The SBC incorrectly exhibits the following 3 incorrect behaviors with the PCRF during Register and Message call flows:</p> <ol style="list-style-type: none">1. The SBC sends an STR to the PCRF in response to a de-register even though PCRF does not consider the session established, having sent an AAA with a 3xxx, 4xxx or 5xxx error in response to the corresponding Register.2. The SBC keeps the hold timer active and holds an SMS message even though the PCRF has sent an ASR telling the SBC to abort the diameter session.3. The SBC does not send an STR to the PCRF during Register flows that fail because of an error from the core, even though	3	S-Cz8.4.0	S-Cz8.4.0p4

ID	Description	Severity	Found In	Fixed In
	<p data-bbox="623 281 764 449">the Diameter session between the SBC and PCRF was established.</p> <p data-bbox="574 470 764 919">Workaround— You can correct this by setting the diam-rx-strict-compliance option to the applicable ext-policy-server to enabled. When you set this option, you can correct the three issues above so that the SBC performs the following:</p> <ol data-bbox="574 940 764 1898" style="list-style-type: none"><li data-bbox="574 940 764 1478">1. For Register flows that do not establish a diameter session with the PCRF due to a 3xxx, 4xxx or 5xxx error from the PCRF, the SBC does not send an STR to tear down the session when it receives a De-Register.<li data-bbox="574 1499 764 1898">2. For Message flows, when the SBC receives an ASR from PCRF, it stops the hold timer, forwards the MESSAGE to the core, and sends an ASA with success.			

ID	Description	Severity	Found In	Fixed In
28618563	<p>3. For unsuccessful Register flows that include an established diameter session with the PCRF, the SBC sends an STR to tear down the session after the Register has failed due to, for example, responses from the core.</p> <p>The system is not populating the Username AVP in Accounting Requests (ACRs) correctly. When triggered by an INVITE, these AVPs contain only the "@" sign. They do not include the username and domain name portion of the URL.</p>	3	CZ8.1.0m1	S-Cz8.4.0

ID	Description	Severity	Found In	Fixed In
31726575	<p>Do not configure sip-advanced-logging if you expect any auth-invite call flows (401/407). If you are upgrading to S-Cz8.4.0p2 or later, and your configuration includes conditional logging (session-router, sip-advanced-logging, state=enabled), you must first remove sip-advanced-logging from the config, otherwise calls will fail.</p> <ul style="list-style-type: none">Setting the state to disabled does not work and removing it is required.	2	S-Cz8.4.0p2	S-Cz8.4.0p4
32049267	<p>Do not configure AEAD_AES_256_GCM cipher in the sdes-profile, crypto-list parameter, or the system will crash.</p>	3	S-Cz8.4.0p3	S-Cz8.4.0p4
30794993	<p>The SBC might display an excessive number of debug messages after an HA switchover, if you configured both X123 LI and IKEv2/IPSec with IPv6 security policies.</p> <p>You can safely ignore these messages.</p>	4	S-Cz8.4.0	S-Cz8.4.0p2

ID	Description	Severity	Found In	Fixed In
31384643	<p data-bbox="574 268 764 982">During the testing of this release Oracle identified a pre-existing issue in the code where adding an LI warrant during a period of heavy SIP load may cause the system to stop responding, which results in a switchover. This issue exists in prior releases and will be addressed in an upcoming 8.4 patch. If you have not encountered this issue in the past, it is unlikely that you will encounter it now.</p> <p data-bbox="574 995 764 1791">System Impact: If you add an LI warrant while the SBC is under heavy load from SIP traffic, a mid-call intercept operation may not occur after the addition (causing the SBC to stop responding). If the SBC stops responding a switchover will occur, but the warrant will have been added correctly. The issue can be mitigated by performing addition of LI warrants during off-peak times, such as maintenance windows.</p>	3	S-Cz8.4.0	S-Cz8.4.0p2

ID	Description	Severity	Found In	Fixed In
30520108	<p data-bbox="574 268 764 724">Upon registering 100k or more IMS-AKA user registrations, and handling large numbers of VoLTE calls and registration refreshes, in excess of 8k for example, a vSBC may hang. At this point, you would find the vSBC unresponsive and inaccessible.</p> <p data-bbox="574 737 764 846">An example of conditions when this may occur includes:</p> <ul data-bbox="574 858 764 1465" style="list-style-type: none"><li data-bbox="574 858 764 1140">• 100k IMS-AKA registrations with 100 registrations per second and an expiry timer of 18.0.0 seconds.<li data-bbox="574 1152 764 1262">• Forwarding cores at 60% or above utilization.<li data-bbox="574 1274 764 1465">• New calls at 50 registrations per second and 10 second hold timers. <p data-bbox="574 1478 764 1610">Reboot the system from the hypervisor to recover from this issue.</p>	N/A	N/A	S-Cz8.3.0m1p5

ID	Description	Severity	Found In	Fixed In
30364057	Do not use DNS for multiple services on the OCSBC simultaneously. DNS service operates on the OCSBC normally when you configure it for a single purpose. When you configure it for multiple purposes, however, lookups do not complete correctly. Workaround: An example of this would be configuring DNS for both PCRF and ENUM services. You can mitigate this issue by configuring the local routing table with ENUM lookups.	3	S-Cz8.3.0p7	S-Cz8.3.0m1p5
29862440	When transcoding from T.38 to G711FB, the OCSBC includes multiple (for example 2) m-lines in the SDP when there are multiple (for example 2) c-lines in the source SDP. This happens even if you have set the fax-single-m-line parameter in the applicable codec-policy to present a single m-line. Workaround: Configure an ingress HMR to remove all but 1 c-line from the incoming SDP.	3	S-Cz7.4.0m1p8	S-Cz8.3.0m1p3

ID	Description	Severity	Found In	Fixed In
30158557	Under high media loads that include AMR/AMR-WB to PCMA transcoding, the 10G port on the Acme Packet 6300 is experiencing packet loss and, therefore media MOS degradation.	2	S-Cz8.1.0m1p16	S-Cz8.4.0
30444535	When configured for the minimum TCP disconnect time, the default for network-parameters, the OCSBC takes an unexpectedly long time before attempting to create a socket and connect. When using the defaults to create and connect using the minimum amount of time, this process takes 18 seconds instead of 9.	3	N/A	S-Cz8.3.0m1p3
29846828	The OCSBC stops generating registration refreshes after 12 hours for Surrogate Agents. After a reboot, the OCSBC attends to registration and refreshes correctly using the new Call ID for 12 more hours.	2	E-Cz8.1.0m1p8	S-Cz8.1.0m1p22

ID	Description	Severity	Found In	Fixed In
30330778	The OCSBC cannot forward a call that uses a TEL-URI and includes the routing number (rn) parameter. Depending on your routing configuration, the OCSBC may reject these call with a 404 Not Found/No Route to Destination. The OCSBC forwards these portability scenarios properly when they present an R-URI.	1	S-Cz7.4.0m2p4;8.1.0m1p18	S-Cz8.1.0m1p23
29779932	The OCSBC uses a Diffie Hellman algorithm that conflicts with that of the 10.4 Solaris SFTP server. As a result, both CDR and HDR transfers to these servers fail. Do not use the Solaris 10.4 SFTP server with the OCSBC.	1	S-Cz8.1.0m1p9, S-Cz8.3.0p7	S-Cz8.3.0m1p4
29913123	NMC causes the Acme Packet 6350 to switchover when NMC gets its first traffic match.	2	S-Cz8.1.0M1P9	S-Cz8.3.0m1p3
29403076	When generating HDR reports and SNMP output on resource utilization that includes threads, the OCSBC omits the thread name, leaving the applicable field and OID empty.	3	S-Cz8.1.0M1P9	S-Cz825p3

ID	Description	Severity	Found In	Fixed In
310398.2.0	When mid-call Lawful Intercept is enabled, and the SBC has not started intercepting particular sessions, those sessions will not be replicated on the standby. If a switchover occurs, affected calls could be dropped.	3	S-Cz8.3.0m1p2	S-Cz8.4.0
28157960	When setting up a SIPREC session, the SBC sets up 1-way audio if the far end offers an odd port number in the m line.	2	S-Cz8.0.0	S-Cz8.3.0m1p8
26669090	The SBC dead peer detection does not work with IPv4.	3	S-Cz8.0.0	Could not reproduce - S-Cz8.4.0
22322673	When running in an HA configuration, the secondary SBC might go out of service (OoS) during upgrades, switchovers, and other HA processes while transitioning from the "Becoming Standby" state. Oracle observes such behavior in approximately 25% of these circumstances. You can verify the issue with log.berpd, which can indicate that the media did not synchronize. Workaround: Reboot the secondary until it successfully reaches the "Standby" state.	3	S-Cz7.3.0P1	S-Cz8.0.0

ID	Description	Severity	Found In	Fixed In
29931732	The embedded communications monitor probe does not send IPv6 traffic to the Oracle Communications Operations Monitor's mediation engine.	3	S-Cz8.0.0	S-Cz8.3.0m1p4
30375697	Infrequently during race conditions, the number of SIP registration entries on the active and standby SBCs differs, with the standby SBC containing fewer entries. When this happens and a switchover occurs, some endpoints are unable to receive calls until the endpoint re-registers. Increase Journal index size and optimize the Journal management code to avoid this.	2	S-Cz8.1.0m1p18	S-Cz8.1.0m1p18b

ID	Description	Severity	Found In	Fixed In
30544663	When a session add action is executed and the session is not found in the sipProxy, a new Sip Session and two Sip Dialogs are created and cross referenced and the buffer from the active is loaded. If the load fails, the update function exits and the SipSession and SipDialogs are left dangling and create a memory leak. Workaround: To avoid this memory leak, successfully load the buffer BEFORE creating the session and dialogs. Monitor the standby SBC's memory usage and reboot as needed.	3	S-Cz8.1.0m1	S-Cz8.1.0m1p18b

ID	Description	Severity	Found In	Fixed In
30498837	<p>A sipd process crash occurs with a signature containing the following:</p> <pre data-bbox="574 453 747 890"> ZNS8_Rb_tre eISsSt4pairI KSs4SptrI10S ipContactEES t10*_Select* 1stIS5_ESt4l essIS sE SaIS5_EE11eq ual_rangeERS 1_ (+ 0x67) - sp = 0x7f334938d3 80, ip = 0x1f1b117 </pre> <p>The SBC can leak File Descriptors in cases where there are certain process errors. For example:</p> <pre data-bbox="574 1184 747 1495"> [MINOR] (0) Selector::do _select() - epoll_ctl(DE L, 409) failed with errno=9:Bad file descriptor) </pre> <p>This does not trigger proper closure of sockets. This is avoided by closing the socket that was opened and then setting an error identifying exact error code.</p>	2	S-Cz8.1.0m1p18	S-Cz8.1.0m1p18b

ID	Description	Severity	Found In	Fixed In
29403076	The "thread-event" and "thread-usage" HDR categories are displaying incorrectly due to MBCD and SIPD thread names not properly writing into the files and OID output. MBCD and SIPD now properly assign and pass the proper names.	3	S-Cz8.1.0m1p9	S-Cz8.1.0m1p18b
29633588	During certain configuration activities, the SBC restarts due to an issue caused by improper configuration steps being processed in the sip-manipulation, header-rules . The SBC now returns an error message stating "Invalid Selection" instead of failing.	3	S-Cz8.1.0m1p11	S-Cz8.1.0m1p18b
29937232	GW unreachable and NetBufCtrl MBUFF errors - This can result in system instability including crash, gw-unreachable and redundancy issues. System will switchover if in HA. Show Buffers output will normally show an increase of errors reported in the NetBufCtrl field due to mbuf's not being freed.	2	S-Cz8.3.0	S-Cz8.3.0p6

ID	Description	Severity	Found In	Fixed In
288.2.0258	On VNF platforms, when running TLS Chat on VMware-PV 4core (SSFD) + 16GB, TLS Chat sessions are gradually decreasing. When looking in Wireshark at EXFO, EXFO forwards a wrong TLS MSRP Chat payload to EXFO UAS. TCP Chat does not have this error.	3	S-Cz8.0.0	S-Cz8.3.0m1p2
	For Advanced Media Termination deployments using the 4600, 6300, 6350 platforms, the SBC is generating RTP and RTCP on the ports 20000 and 20001, instead of generating both on the same port 20000.	3	S-Cz8.3.0	S-Cz8.3.0m1p2
29522609	Some calls that are configured to generate ring back tones result in one-way audio.	2	S-Cz8.3.0	S-Cz8.3.0m1p2
29558827	IMS-AKA calls running over IPv6 networks which utilize VLANs on systems with Mellanox network interfaces may experience one-way audio.	3	S-Cz8.3.0p3	S-Cz8.3.0m1p2

ID	Description	Severity	Found In	Fixed In
29580506	SBCs running on virtual platforms or the Acme Packet 3900 could switch over when running IMS-AKA calls involving refresh registrations.	2	S-Cz8.3.0p3	S-Cz8.3.0m1p2
29607573	The SBC is unable to successfully initiate a TCP connection to configured Diameter Accounting (Rf) servers.	2	S-Cz8.3.0	S-Cz8.3.0m1p2
30114764	When presenting the content type for SPIROU during SIP to SIPI interworking, the SBC is displaying the text base=spirou . Based on relevant standards, it should display base=itu-92+ as the content type.	4	S-CZ8.3.0m1	S-Cz8.3.0m1p2
30127762	When performing SIP to SIPI interworking, the SBC is not including an ISUP REL in the interworked body of its 400 Missing CSeq message when it rejects applicable calls from the SIPI side.	4	S-CZ8.3.0m1	S-Cz8.3.0m1p2

ID	Description	Severity	Found In	Fixed In
30240798	The OCSBC closes connections when using some SFTP clients, including WinSCP and MOBA, to upload files over 200KB. Workaround - Use the Linux or Filezilla SFTP client when uploading files greater than 200k.	3	S-Cz8.3.0p6	S-Cz8.3.0m1p2
30289027	Azure does not always properly reset media interfaces after the OCSBC reboots. Instead, Azure sometimes tries to process a non-existent packet as soon as the OCSBC comes back up, resulting in a kernel panic. Workaround - If you experience a kernel panic after OCSBC reboot, stop and restart the vSBC from the Azure UI.	3	S-Cz8.3.0	S-Cz8.3.0m1p2
30453532	The Web GUI available in the S-Cz8.3.0M1 release cannot adequately be used to configure the Enterprise SBC. Workaround: For Web GUI support, use releases either prior to S-Cz8.3.0M1, or releases S-Cz8.3.M1p2 and later.	2	S-Cz8.3.0m1	S-Cz8.3.0m1p2

ID	Description	Severity	Found In	Fixed In
26258705	The show sipd srvc command does not display the correct number of unsuccessful aSRVCC calls.	3	S-Cz8.0.0	S-Cz8.3.0
28617938	The anonymize-invite option for CommMonitor is not RTC. To see a change, you must either reboot or toggle the admin state. The following is a general admin state toggle procedure: <ol style="list-style-type: none">1. Set admin state to disabled.2. Save and activate.3. Set admin state to enabled.4. Save and activate.	4	CZ8.1.0m1	S-Cz8.3.0
29556215	The SBC does not send SIPREC data to a remote call server.	2	S-Cz8.3.0	S-Cz8.3.0p5
29608499	In all documents except for the Release Notes and Installation guide, the printed version of this release (S-Cz8.3.0) is incorrectly displayed as S-Cz8.2.0.	4	S-Cz8.3.0	S-Cz8.3.0p3
28539155	When operating as a VNF and using Mellanox interface cards, the OCSBC does not support ICMP over IPv6.	3	S-Cz8.2.0	S-Cz8.3.0

ID	Description	Severity	Found In	Fixed In
29322490	The SBC intermittently does not process the registration (Event: reg) of a SUBSCRIBE with Expires header=0 that should be created after receiving a NOTIFY with a termination request from a UE.	2	S-Cz8.2.0	S-Cz8.3.0
28526228	Maximum SRTP capacity on VNF platforms is 25% lower than in the S-Cz8.1.0 release. Expected capacity will be restored in a follow up patch.	3	S-Cz8.2.0	S-Cz8.3.0
28679339	When supporting SRVCC roaming calls, the OCSBC is handling SRVCC end-station de-registration events by properly including associated URIs in the 200 OK. It is not, however, saving those associated URIs in its registration cache. This causes the OCSBC to respond to calls to those URIs with 404 not found messages until the end-station re-registers.	2	S-Cz8.0.0	S-Cz8.3.0
26313330	In some early media call flows, the SBC may not present the correct address for RTP causing the call to terminate.	3	S-Cz8.0.0	S-Cz8.2.0

ID	Description	Severity	Found In	Fixed In
26281599	<p>The system feature provided by the phy-interfaces overload-protection parameter and overload-alarm-threshold sub-element is not functional. Specifically, enabling the protection and setting the thresholds does not result in trap and trap-clear events based on the interface's traffic load. The applicable ap-smgmt.mib SNMP objects include:</p> <ul style="list-style-type: none">• apSysMgmtPhyUtilThresholdTrap• apSysMgmtPhyUtilThresholdClearTrap	3	S-Cz720	S-Cz8.2.0
25144010	<p>When an SBC operating on an Acme Packet 6300 switches over, the secondary can successfully add new ACL entries, but it also retains old ACL entries that it should have deleted.</p>	3	S-Cz7.4.0p1	S-Cz8.2.0

ID	Description	Severity	Found In	Fixed In
26183767	When operating in HA mode and handling large traffic loads, the active SBC stops responding when you restore large configurations that are different from the configuration the active is currently running. The system subsequently goes out of service.	3	S-Cz8.0.0	S-Cz8.2.0
21975038	The Acme Packet 4600, 6100, 6300, and 6350 platforms do not support MSRP File Transfer.	3	S-Cz8.1.0	S-Cz8.2.0
27539750	When trying to establish a connection between the SBC and your network, while using TLS version 1.2, the SBC may reject the connection. Workaround: You may need to adjust your cipher list.	3	S-Cz8.1.0	S-Cz8.1.0
28062411	Calls that require SIP/PRACK interworking as invoked by the 100rel-interworking option on a SIP interface do not work in pooled transcoding architectures.	2	S-Cz7.4.0	S-Cz8.2.0

ID	Description	Severity	Found In	Fixed In
28071326	Calls that require LMSD interworking, as invoked by the lmsd-interworking option on a SIP interface, do not work in pooled transcoding architectures. During call establishment, when sending the 200 OK back to the original caller, the cached SDP is not included.	2	S-Cz7.4.0	S-Cz8.2.0
None	The CZ8.1.0 release does not support IPsec on the Acme Packet 3900 and VNF. You must upgrade to CZ8.1.0p1 to get this support. After you upgrade to CZ8.1.0p1, do the following: <ol style="list-style-type: none">1. Run setup entitlements, again.2. Select advanced to enable advanced entitlements, which then provides support for IPSEC on Acme Packet 3900 and VNF systems.	N/A	S-Cz8.1.0	S-Cz8.2.0

ID	Description	Severity	Found In	Fixed In
28.3.05575	On VNFs, the system erroneously displays the IPSEC entitlement under "Keyed (Licensed) Entitlements." The error does not affect any functionality and you do not need to do anything.	4	S-Cz8.1.0	S-Cz8.2.0
28659469	When booting CZ8.1.0M1 on any virtual platform, not all system processes start. This known issue only occurs on initial boot, and not in an upgrade scenario. Workaround: Reboot the SBC a second time, after it initially starts.	3	SCz8.1.0m1	S-Cz8.2.0
	If you configured the ims_aka option, you must also configure sip-interfaces with an ims-aka-profile entry.	3	E-Cz7.4.0	E-Cz7.4.0m1
27811129	When upgrading an OCSBC from a version that uses License Keys to enable CODECs, you must reboot the system after setting any CODEC entitlements to override the License Keys.	3	S-Cz8.1.0	S-Cz8.3.0

ID	Description	Severity	Found In	Fixed In
30152019	<p data-bbox="576 262 763 787">Oracle has identified a Potential tSipd crash when configured for a VOLTE w/SRVCC scenario. When the issue is encountered, there is a sipd crash and, if configured, an HA switchover. This is a race condition that is relatively rare, but has been seen in internal testing.</p> <p data-bbox="576 787 763 850">System Impact of HA Switchover:</p> <ul data-bbox="576 850 763 1927" style="list-style-type: none"><li data-bbox="576 850 763 1123">• The Registration cache and existing media sessions are replicated to the standby OCSBC.<li data-bbox="576 1123 763 1291">• During the switchover, transient calls/registrations are lost.<li data-bbox="576 1291 763 1732">• After the switchover, TCP connections to and from the UE's must become re-established in order to make a new call out / refresh register / reregister.<li data-bbox="576 1732 763 1927">• The UEs is able to receive calls from the IMS-core because the setup	3	S-Cz8.3.0p7	S-Cz8.3.0m1

ID	Description	Severity	Found In	Fixed In
28610095	<p>message reestablishes the TCP connection towards the UE.</p> <p>In some circumstances, and with add-sdp-invite and add-sdp-profile configured, the SBC does not include the original SDP in a Re-INVITE that has no SDP. This does not comply with RFC 3264. Instead, the SBC inserts the negotiated media information from the last successful negotiation as the ReINVITE's SDP offer and sends this ReINVITE with inserted SDP to the next hop signaling entity. This issue is evident by the contents of the SDP o line.</p>	3	S-Cz7.4.0	S-Cz8.3.0m1
29541242	<p><i>Installation and Platform Preparation</i> guide incorrectly includes information about setting up HA on Oracle Cloud platforms. These platforms do not support HA deployments at this time.</p>	3	S-Cz8.3.0	S-Cz8.3.0m1

The following Known Issues and Caveats do not occur in this release. They are listed here for tracking purposes.

ID	Description
23756306	When you configure the session-router with an operation-mode of session, it does not correctly clear sessions.
25954122	Telephony Fraud Protection does not blacklist calls after a switchover. Workaround: Activate the fraud protection table on the newly active server.
31162394	Running SIPREC on the Acme Packet 4600 over 1G interfaces may result in system instability. Workaround : Do not egress traffic out of a physical interface that exceeds the bandwidth of the physical media capacity. You should determine the amount of egress media traffic and the amount of intercepted traffic on that interface. The intercepted traffic could be any recorded traffic on the interface like (SIPREC, LI, and remote packet trace).
26260953	Enabling and adding Comm Monitor config for the first time can create a situation where the monitoring traffic (IPFIX packets) does not reach the Enterprise Operations Monitor. Workaround: Reboot the system.
33751575	Deployments must not signal any SILK codec with 12000 or 24000 clock rate in SDP to the SBC. Furthermore, the SBC must not use any SILK media profile with 12000 or 24000 Hz clock rate. Under these conditions, there is a risk of system memory corruption that can potentially lead to a transcoding core crashing.
26598075	When running on the Acme Packet 4600, the OCSBC sends a 200OK with IPv4 media address for call flows with offerless INVITES and the OCSBC configured with add-sdp-invite=invite and ALTC configured for IPv6 on the egress.
26559988	In call flows that include dual ALTC INVITES from the callee, and subsequent Re-INVITES that offer an ALTC with IPv6 video, the OCSBC may not include the m lines in the SDP presented to the end stations during the Re-INVITE sequence. This results in the call continuing to support audio, but not video.
28748784	When operating as a VNF and using Mellanox interface cards, the OCSBC does not support outbound ICMP.
30612465	On Virtual platforms, the OCSBC is not forwarding traffic transcoded to EVS or Opus codecs if you have configured the applicable policy with a forced ptime of 60ms.
21805139	RADIUS stop records for IWF calls may display inaccurate values.

ID	Description
26136553	<p>The SBC can incur a system-level service impact while performing a switchover using "notify berpd force" with an LDAP configuration pointing to an unreachable LDAP server.</p> <p>Workaround: Ensure that the SBC can reach the LDAP server before performing switchover.</p>
28770472	<p>ACLI Users will receive an error on the output of the show registration sipd by-user command.</p>
29999832 and 30194470	<p>When deployed as a vSBC, configured for IMS-AKA, and operating with registrations exceeding 60k, the OCSBC may exhibit performance degradation, exhibited by high CPU load or system crash.</p> <p>Workaround - Oracle has found that disabling the security-policy sa-lookup-exception parameter allows IMS-AKA to function correctly while supporting a high number of registrations. This parameter is enabled by default. Disable this parameter within all applicable security policies before running IMS-AKA.</p> <p>This parameter, when enabled on Acme Packet hardware, works as designed.</p>
32062551	<p>Virtual SBC platforms may incorrectly assess link status thereby causing major health degradation and triggering a failover.</p>
30595413	<p>The IKEv2/IPSEC negotiation fails while using TRANSPORT MODE and different IP's for IKE and SIP interfaces.</p>
23253731	<p>After an HA switchover, the new standby SBC retains some IMS-AKA subscriber TCP sockets. You can clear these sockets by rebooting the SBC.</p>
29005944	<p>On Acme Packet hardware in an HA configuration, with a large number of IMS-AKA endpoints, the standby is unable to synchronize, and when rebooted goes OOS.</p>
27031344	<p>When configured to perform SRTP-RTP interworking, the SBC might forward SRTP information in the SDP body of packets on the core side, causing the calls to terminate.</p> <p>Workaround: Add an appropriately configured media-sec-policy on the RTP side of the call flow. This policy is in addition to the policy on the SRTP side of the call flow.</p>
30520181	<p>When performing large numbers of simultaneous registrations, such as during a registration flood, the OCSBC may become unstable and stop responding when it exceeds 200k IMS-AKA subscriber registrations.</p>

ID	Description
ACMECSBC-23446 24809688	Media interfaces configured for IPv6, and using different VLANs that operate over different infrastructures, including VoLTE and 3GPP, are not supported.
28639227	When operating as a VNF and using Mellanox interface cards, the OCSBC does not support SCTP transport.
28906914	For transcoding use cases, the G711/G729 codec pair might experience unstable performance when each DSP has greater than 500 transcoding sessions.
N/A	The T.140-Baudot Relay is not excluded from supported features with pooled transcoding.
N/A	When operating as a VNF deployed in an HA configuration, the OCSBC does not support IPsec.

Caveats

The following information lists and describes the caveats for this release. Oracle updates this Release Notes document to distribute issue status changes. Check the latest revisions of this document to stay informed about these issues.

New Keys Required for High Availability

If you replace a peer in HA from a system running software prior to S-Cz9.1.0p9 running this version or higher, the old keys become irrelevant resulting in SFTP failures using the old keys on the new peer. High Availability collect operations fail unless the old keys are manually deleted on the active peer. This situation is rare. This issue also occurs if you copy an old configuration into any new peer.

This issue does not occur unless you change a system in an HA pair running software prior to S-Cz9.1.0p9 to a different SBC running this version or higher. To replace keys:

1. Check to see if this issue applies to your deployment. Applicable system have keys using **key-name** parameters named **backup-sbc1** and **backup-sbc2**.
2. Prior to replacing your previous system with a new system, delete the authorized public-keys for the HA systems.
3. Replace your previous system with the new system.
4. Reboot both systems.
At this point, the SBC generates the new keys automatically, allowing the HA pairs to communicate over the wancom interface(s).

Incorrect STI Server Statistics Updated

The Oracle Communications Session Border Controller (SBC) is displaying incorrect STI statistics when multiple servers are added.

Workaround: When using multiple servers, create a group to add them to and then assign them to the realm, interface, or session agent.

If you must use multiple servers, ensure the first server name is not configured as the sti-as or sti-vs on any realm, interface, or session agent.

Elin Table Entries Not Replicated on Standby SBC After Reboot

In an HA setup, when the standby SBC is rebooted, it loses the existing Elin table entries. However, any newly created entries post reboot are in sync between the Active and Standby SBCs.

DTLS and SDES SRTP Transport

If a network deployment involves realms where endpoint (UAC) initiates a call that requires secure DTLS-SRTP transport to SBC and the call is being forwarded to a realm where the callee (UAS) requires SDES-SRTP, then the ingress realm must have media-sec-policy configured with SDES in addition to dtls-srtp-profile.

Uneven Load Distribution on Forwarding Core on GCP

There is an imbalance when there are an odd number of queues for packets.

Workaround: Configure an even number of forwarding cores.

Load Variation With the Same Number of Sessions in GCP

When a vSBC is rebooted from the console, the load on the F core is significantly different for the same number of calls previous to the reboot.

Unsupported GCP Migration

Do not migrate an existing vSBC from a small GCP machine type to a larger GCP machine type. This is not supported on GCP.

VM Migration Not Supported

The queue allocation cannot be changed once a VM is created.

Web GUI Shows No Configuration Data After Clicking "View Configuration"

When you set the process level or system log level to DEBUG, the Web GUI may not display any configuration information for large configurations when you click "View Configuration".

Acquire Config and acp-tls-profile

The **acquire-config** process fails if your configuration includes an **acp-tls-profile**. The system does successfully synch this profile after HA is established.

Workaround: Disable your **acp-tls-profile** on the active system before performing an **acquire-config** procedure. Re-enable this profile after **acquire-config** completes successfully.

VNF in HA Mode

When the SBC VNF is running in HA mode, any existing IPsec tunnels do not fail over the standby SBC.

Toggle SIP Interfaces Running TCP

You must reboot the system any time you disable and then enable an active SIP interface that is using TCP.

Provisioning Transcode Codec Session Capacities

When a transcode codec was originally provisioned in an earlier software version with a license key, a capacity change using the **setup entitlements** command requires a reboot to take effect.

Virtual Network Function (VNF) Caveats

The following functional caveats apply to VNF deployments of this release:

- The OVM server 3.4.2 does not support the virtual back-end required for para-virtualized (PV) networking. VIF emulated interfaces are supported but have lower performance. Consider using SR-IOV or PCI-passthru as an alternative if higher performance is required.
- To support HA failover, MAC anti-spoofing must be disabled for media interfaces on the host hypervisor/vSwitch/SR-IOV_PF.
- You may need to enable trust mode on the host PF, when using Intel X/XL7xx [i40e] NICs with SR-IOV, before you can use VLANs or HA virtual MAC on the guest VF. Refer to the Intel X710 firmware release notes for further information.
- MSRP support for VNF requires a minimum of 16GB of RAM.
- The system supports only KVM and VMWare for virtual MSRP.
- CPU load on 2-core systems may be inaccurately reported.
- IXGBE drivers that are a part of default host OS packages do not support VLANs over SR-IOV interfaces.
- Software-based transcoding on vSBCs is not supported on servers with AMD CPUs.

Transcoding - general

Only SIP signaling is supported with transcoding.

Codec policies can be used only with realms associated with SIP signaling.

The T.140 to Baudot Relay transcoding support is not available on vSBC or Acme Packet 3900 platforms.

T.38 Fax Transcoding

T.38 Fax transcoding is available for G711 only at 10ms, 20ms, 30ms ptimes.

Pooled Transcoding for Fax is unsupported.

Pooled Transcoding

The following media-related features are not supported in pooled transcoding scenarios:

- Lawful intercept
- 2833 IWF
- Fax scenarios
- RTCP generation for transcoded calls
- OPUS codec

- SRTP and Transcoding on the same call
- Asymmetric DPT in SRVCC call flows
- Media hairpinning
- QoS reporting for transcoded calls
- Multiple SDP answers to a single offer
- PRACK Interworking
- Asymmetric Preconditions

DTMF Interworking

RFC 2833 interworking with H.323 is unsupported.

SIP-KPML to RFC2833 conversion is not supported for transcoded calls.

H.323 Signaling Support

If you run H.323 and SIP traffic in system, configure each protocol (SIP, H.323) in a separate realm.

Media Hairpinning

Media hairpinning is not supported for hair-pin and spiral call flows involving both H.323 and SIP protocols.

Lawful Intercept

Lawful Intercept is supported for the X123 and PCOM protocols only. PCOM support for LI is not available on virtual platforms.

Fragmented Ping Support

The Oracle Communications Session Border Controller does not respond to inbound fragmented ping packets.

Physical Interface RTC Support

After changing any Physical Interface configuration, you must reboot the system.

SRTP Caveats

The ARIA cipher is not supported by virtual machine deployments.

Trace Tools

See the [Monitoring Warning](#) in the Call Monitoring Guide before running any monitoring service like SIPREC, Communications Operation Monitor, Packet Trace, call-trace, or SIP Monitoring and Trace (on the ESBC).

RTCP Generation

Video flows are not supported in realms where RTCP generation is enabled.

SCTP

SCTP Multihoming does not support dynamic and static ACLs configured in a realm.

SCTP must be configured to use different ports than configured TCP ports for a given interface.

MSRP Support

When running media over TCP (e.g., MSRP, RTP) on the same interface as SIP signaling, TCP port allocation between media and signaling may be incompatible.

- Workaround: Set the **sip-port, address** parameter to a different address than where media traffic is sent/received, the **steering-pool, ip-address** value.

Real Time Configuration Issues

In this version of the SBC, the **realm-config** element's **access-control-trust-level** parameter is not real-time configurable.

Workaround: Make changes to this parameter within a maintenance window.

High Availability

High Availability (HA) redundancy is unsuccessful when you create the first SIP interface, or the first time you configure the Session Recording Server on the Oracle Communications Session Border Controller (SBC). Oracle recommends that you perform the following work around during a maintenance window.

1. Create the SIP interface or Session Recording Server on the primary SBC, and save and activate the configuration.
2. Reboot both the Primary and the Secondary.

Offer-Less-Invite Call Flow

Call flows that have "Offer-less-invite using PRACK interworking, Transcoding, and dynamic payload" are not supported in this release.

IPv6 On X1 Interface

IPv6 does not work on X1 interface.

Diameter Server Timeout during Save/Activate

When saving and activating a configuration, the SBC may disconnect from an external policy server. The cause of this disconnect is based on SCTP HEARTBEAT value configured on the Diameter policy server.

Solution: You can work around this issue by setting the policy server's SCTP HEARTBEAT to a value greater than 750ms, which exceeds the amount of time it takes to perform a save/activate on the SBC.

HA Deployment on Azure

HA deployments on Azure are not supported.

Simultaneous Use of Trace Tools

See "Trace Tools" caveat.

LI and Rx Interfaces using the same Address

Do not configure an X1, X2, or X3 TCP endpoint with the same address as an Rx interface. These configurations create conflicts between the Linux TCP stack and atcpd.

IKE

ECDSA certificates are not supported with IKEv2 configurations.

Acme Packet 3950/4900 Power Button

When running release 9.0.0 on the Acme Packet 3950 and the Acme Packet 4900, the power button may not function correctly. Upgrade to 9.0p1 or later to correct this.

Acme Packet 3950/4900 Excluded Features

The following features are not supported on the Acme Packet 3950 or Acme Packet 4900:

- VoLTE
- LI-PCOM
- IMS-AKA
- Diameter RX

Acme Packet 3950/4900 Transcoding Module Compatibility

The transcoding modules in the Acme Packet 3950 and Acme Packet 4900 are not compatible with other physical platforms.

IWF

IWF (SIP-H323) appears at the setup entitlements prompt on virtual platforms when H.323 is not supported.

SIPREC Post REFER Processing

For SIPREC calls that use the Universal Call ID SPL and also exercise SIPREC on main call flow, the SBC does not include UUID in ACK or BYE messages post REFER processing.

Acme Packet Platform Monitoring Caveats

The SFP INSERTED and SFP REMOVED Alarms and corresponding traps are not supported on the following platforms:

- Acme Packet 3900
- Acme Packet 3950
- Acme Packet 4600
- Acme Packet 4900
- Acme Packet 6100
- Acme Packet 6300
- Acme Packet 6350

IPSec Trunking Tunnel Caveat

The **setup entitlements** command allows to set a maximum of 2500 IPSec trunking tunnels. Each IPSec trunking tunnel secures signaling and media traffic for more than one SIP session. You can either set a maximum of 2500 trunking tunnels or less, while configuring the session capacity. Setting a maximum value for trunking tunnel does not limit the configured session capacity.

Limitations

The following information lists and describes the limitations for this release. Oracle updates this Release Notes document to distribute issue status changes. Check the latest revisions of this document to stay informed about these issues.

Virtual Network Function (VNF) Limitations

SBC functions not available in VNF deployments of this release include:

- FAX Detection
- T.38 FAX IWF
- RTCP detection
- LI-PCOM
- H.323 signaling or H.323-SIP inter-working
- ARIA Cipher

Packet Trace Limitations

- Output from the **packet-trace local** command on hardware platforms running this software version may display invalid MAC addresses for signaling packets.
- The **packet-trace remote** command does not work with IPv6.
- If any conflicting applications are enabled, the **packet-trace** command displays a warning. Conflicting applications are comm-monitor, call-trace, and SIP Monitor and Trace.

Fragmented SIP Message Limitations

Fragmented SIP messages are intercepted but not forwarded to the X2 server if IKEv1/IPsec tunnels are configured as transport mode.

Workaround: Configure IKEv1/IPsec tunnels as "tunnel mode".

Header Mapping Limitations

This version of the includes the following limitations to the header mapping feature:

- Indexing is not supported for HTTP headers.
Per the Section 4.2 of RFC 2616, Multiple message-header fields with the same field-name may be present in a message if and only if the entire field-value for that header field is defined as a comma-separated list. But, because indexing is not supported, the following configuration is not supported:
 - When the direction is outbound, the target-header field (HTTP header) does not support indexing and subscript.

- When the direction is inbound, source-header (HTTP header) field does not support indexing and subscript.

If you configure either of the above, the SBC displays an error at the ACLI when you run the **done** command on the applicable **mapping-rules** instance.

- If you are using 3GPP mode and the SBC receives two responses, SHAKEN and DIV signing responses, on which it performs header mapping, the SBC saves the first response. When it receives the second, the SBC processes this second response but does not save it. This is also true for any ensuing responses. Finally, the SBC processes the saved response, which can result in the system replacing the last mapping with the saved mapping.

Consider the following mapping ruleset and the steps below to understand what to expect in an INVITE after the mapping processing is completed:

```
sti-header-mapping-ruleset
  name                               ruleset1
  mapping-rules
    id                                HttpToSip
    source-header                     X-Test-Id
    target-header                     Test-Id
    direction                         inbound
    role                               STI-AS
```

This processing causes the SBC to behave and generate the final message, in this case an INVITE. as follows:

1. The SBC receives a SHAKEN Signing Response received with an X-Test-Id header and a value of 123.
 2. The system saves this response and waits.
 3. The SBC receives a DIV Signing Response with an X-Test-Id and a value of 345.
 4. The system processes the DIV response first, because it was received last, and applies the mapping. The system adds a new header to the egress INVITE called **Test-Id: 345**.
 5. The system processes the SHAKEN response next, and applies the mapping. This time, the system replaces the existing header with a header called **Test-Id: 123** in the INVITE.
 6. The system forwards the completed INVITE.
- For authentication scenarios, after receiving a response from the STI-AS, the SBC removes any previous signaling before sending the INVITE out. It does so by removing the following four headers, if present in the ingress INVITE:
 - Attestation-Info
 - P-Attestation-Info
 - Origination-Id
 - P-Origination-Id

But the SBC only deletes the first occurrence of these headers. This results in an issue during AS inbound (HTTP to SIP) mapping. Specifically, when you configure digits greater than 0 in the subscript operator, the system may process the wrong header if one of these headers is removed before applying the mapping rules.

DTLS-SRTP Limitations

This version of the SBC has some feature limitations within its DTLS-SRTP implementation. For DTLS-SRTP, the SBC does not support:

- The SBC operating as a DTLS client.

 **Note:**

You can only configure the system for passive setup

- Complete security of media streams using integrity protection, as defined in section 3 of RFC 5764.
- Conference specific functions, such as RTP mixing
- Re-keying
- DTLS-SRTP in SBC ICE Lite mode
- Hairpin call scenarios
- The “use_srtp” extension with non-zero MKI value
- Multiple media lines of the same media type, with one of them being DTLS

 **Note:**

Calls that establish multiple media sessions for different media types, audio and video for example, are supported.

- Detection of the “two-time pad” SRTP error (per section 3 of RFC 5764)
- Attended transfer
- DTLS-SRTP calls with RTP/RTCP flows that are not multiplexed. This limitation generates a requirement and several behaviors:
 - Requirement - You must enable the **rtcp-mux** parameter on each realm that has a valid **dtls-srtp-profile**.
 - Behavior - The SBC replies with a "488 Not Acceptable Here" response if it receives an initial INVITE that includes DTLS-SRTP attributes, but does not include the rtcp-mux attribute.
 - Behavior - If the SBC receives a 200 OK, a 180 ringing, or a 183 session progress from a callee that includes DTLS-SRTP attributes, but does not include the rtcp-mux attribute., the system sends a BYE to the callee and a “503 service unavailable” message to the caller.
 - Behavior - If the SBC receives an ACK from a caller that is in response to a delayed offer SDP from a callee, and that ACK does not include the rtcp-mux attribute., the system:
 1. Sends an ACK to the callee to acknowledge the 200 OK with the delayed offer.
 2. Sends a BYE to both the caller and callee to terminate the call.

DTLS-SRTP Platform Support

The SBC supports DTLS-SRTP on the following platforms:

- AP1100
- AP3900
- AP3950
- AP4900
- AP6350—Platform support as of S-Cz9.2.0p1
- vSBC deployment over:
 - KVM
 - VMware
 - OCI
 - AWS
 - Azure

Parallel Forking Limitations

This version of the SBC includes the following limitations to its parallel forking support:

- If you configure two MS Teams destinations for parallel-forking, and one of them supports MS Teams LMO feature while other destination doesn't supports MS Teams LMO feature, then parallel forking call flows will not be supported.
- SRVCC handover calls are not supported within parallel forking call flows
- SIP to SIP-I interworking is not supported within parallel forking call flows
- SIPREC calls are not supported within parallel forking call flows
- All merge-early-dialogs limitations apply to parallel forking call flows, including:
 - Offerless call
 - Preconditions interworking
 - SRVCC
 - multiple audio or video m-line
 - p-early-media-header with 'add' and 'modify' options
- If the SBC receives an INVITE with its req-uri in the format "username@FQDN:port" and the applicable routes include:
 - Route1 (IP1) – cost 5 – parallel-forking enabled
 - Route2 (IP2) – cost 5 – parallel-forking enabled

SBC behavior when Route1 or Route2 return 302 messages with multiple contacts:

- If Route1 /Route2 replies with a 302 with 2 contacts, then the SBC attempts to reach those contacts serially.
- If both contacts timeout, the SBC does NOT try the next policy-attributes.
- Note the SBC behavior when the routes are configured as below:
 - Route1 (IP1) – cost 5 – parallel-forking enabled

- Route2 (FQDN) – cost 5 – parallel-forking enabled
- Route3 (IP3) – cost 5 – parallel-forking enabled
- DNS resolution of FQDN for Route2 returns 3 IPs (IPx, IPy, IPz)

SBC behavior includes:

- If the UAC sends an INVITE with req-uri as username@IP:port, the SBC forks the INVITE to Route1 and Route2 in parallel. If Route 2 replies to the INVITE with a 302 that includes 2 contacts, the SBC tries to reach those 2 contacts serially.
If these 2 contacts timeout/18x timeout/error response, the SBC tries the next policy-attributes.
- If the UAC sends an INVITE with number@FQDN, and IPx replies to the subsequent INVITE from the SBC with a 302 with 2 contacts, the SBC tries to reach those 2 contacts serially.
If these 2 contacts timeout, the SBC does not attempt to reach any further DNS resolutions or next policy-attributes.
- If the UAC sends an INVITE with number@IP:port, and IPx responds to the INVITE with a 302 with 2 contacts, the SBC tries to reach those 2 contacts serially.
If these 2 contacts timeout, the SBC does not try to reach any further DNS resolutions, but does try to reach next policy-attributes.

Playback Headers and Hairpin Calls

Playback headers are not supported for hairpin calls.

Limitations Removed

The limitations listed in this section are no longer applicable on this version of the SBC.

Remote Packet Trace

Remote packet trace is now supported on the Acme Packet 1100, 3900, and 4900 platforms. It is also now supported over virtual platforms.

IPSec on Virtual Platforms

IPSec functionality including authentication header (AH) support is available on virtual platforms and the Acme Packet 3900.