Oracle® Unified Session Manager

Release Notes
Release S-CZ7.2.5

May 2016

ORACLE

Notices

Contents

About This Guide

Overview

The Oracle USM Release Notes provides the following information when applicable:

- An overview of the new features available
- An overview of the interface enhancements
- A summary of known issues and caveats

If any of these sections does not appear in the document, then there were no changes to summarize in that category for this release.

Supported Platforms

Release Version S-CZ7.2.5 includes both the Oracle Core Session Manager (CSM) and Unified Session Manager (USM) products. The Oracle USM is supported on the Acme Packet 4600, 4500, 6100, and 6300 series platforms. The Oracle CSM is supplied as virtual machine software or as a software-only delivery suitable for operation on server hardware. Refer to sales documentation updates for information further specifying hardware support.

Related Documentation

The following table lists the members that comprise the documentation set for this release:

Document Name	Document Description
Acme Packet 4500 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 4500 system.
Acme Packet 4600 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 4600 system.
Acme Packet 6100 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6100 system.
Acme Packet 6300 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6300 system.
Release Notes	Contains information about the current documentation set release, including new features and management changes.
ACLI Configuration Guide	Contains information about the administration and software configuration of the Oracle Communications Session Border Controller.
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 logs, performance announcements, system management, inventory management, upgrades, working with configurations, and managing backups and archives.
MIB Reference Guide	Contains information about Management Information Base (MIBs), Oracle Communications 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 accounting support, including details about RADIUS accounting.

Document Name	Document Description
HDR Resource Guide	Contains information about the Historical Data Recording (HDR) feature. This guide includes HDR configuration and system-wide statistical information.
Administrative Security Essentials	Contains information about Administrative Security license support.
Security Guide	Contains information about security considerations and best practices from a network and application security perspective for the Oracle Communications Session Border Controller family of products. The Oracle USM and the Oracle CSM are members of the Oracle Communications Session Border Controller family of products.
Call Monitoring Guide	Contains information on call monitoring.

Hardware documentation listed above is relevant only to the Oracle USM. Refer to your hardware vendor's documentation for information required for Oracle CSM operation.

The version SCZ725 software documentation set relies on 3 version SCZ720 documents:

- The ACLI Reference Guide
- The Troubleshooting and Maintenance Guide
- The Administrative Security Essentials Guide

Revision History

Date	Description
November, 2014	• Initial Release
January, 2015	• Updated to reflect Oracle USM support over the Acme Packet 4600.
February, 2015	• Removes reference to the Acme Packet 3820, over which the Oracle USM is not supported.
June, 2015	• Removes reference to online/offline operational mode enhancement.
March 2016	• Adds note of Source routing deprecation to Caveats section.
May 2016	• Adds known issue on addressing that must not be used for HA deployments that include transcoding cards

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Introduction to S-CZ7.2.5

The Oracle USM S-CZ7.2.5 Release Notes provide the following information about this product:

- Supported platforms and hardware requirements
- An overview of the new features available in this release
- An overview of previously-available features that are new to the GA of this major release
- A summary of changes the Oracle USM interfaces including the ACLI, MIB Support, and accounting interfaces.
- Caveats and Known Issues

Platform Support

The following platforms are supported by S-CZ7.2.5:

- AP4500
- AP4600
- AP6100
- AP6300

4500 CPU Support

- Only the 64-bit CPU 2 on the AP4500 is supported. The AP4500's CPU revision must be MOD-0026-xx. Systems containing MOD-0008-xx are unsupported. You may query this with the **show prom-info cpu** command.

Acme Packet 4000 Transcoding NIU Support

Acme Packet 4000 chassis with a transcoding NIU upgrading to S-CZ7.2.5 and above must have a high-speed fan module to ensure sufficient cooling.

Image and Bootloader File Conventions

The AP 4500, AP 4600, AP6100, and AP6300 should be provisioned with the 64-bit Oracle USM image file in the boot parameters. 64-bit image files are recognized by the "64" between the image revision and file extension. e.g., nnSCZ725.64.bz.

All platforms require that you install a stage 3 bootloader. The Stage 3 bootloader is identified by ending with a .boot extension. Stage 3 bootloaders and system image files have identical name portions of the filename, and are distributed together. For this software the GA system image and Stage 3 bootloader are nnSCZ725.64.bz and nnSCZ725.boot respectively.

Bootloader Requirements

Acme Packet 4500 Bootloaders

The Acme Packet 4500 requires Stage 1, Stage 2, and Stage 3 bootloaders.

Stage 1 and Stage 2 bootloaders should be dated no earlier than July 3, 2013 (MOS patch # 18185632). Use the **show version boot** command to view current bootloader version on your system.

Stage 1 and Stage 2 bootloader updates are available on My Oracle Support listed under the respective hardware.

The Stage 3 bootloader accompanies the image file, as distributed. It should be installed according to the instructions found in the Maintenance and Troubleshooting Guide.

Acme Packet 4600, 6100 and 6300 Bootloaders

Acme Packet 4600, 6100 and 6300 require a Stage 3 bootloader that accompanies the image file, as distributed. It should be installed according to the instructions found in the Maintenance and Troubleshooting Guide.

NIU and Feature Group Requirement

This section includes tables that list the feature groups that require specific NIUs for all hardware platforms.

Table 1: Acme Packet 4500 NIU and Feature Group Support Matrix

S-CZ7.2.5 supports the NIUs listed in the left column on the Acme Packet 4500. The matrix indicates the feature sets that require the supported NIUs.

NIU	IPSec	IMS-AKA	SRTP	QoS	Transcoding	MSRP B2BUA
Clear (RJ45)	✗	✗	✗	✗	✗	✗
Clear (SFP)	✗	✗	✗	✗	✗	✗
ETCv1	✓	✓	✓	✓	✗	✓
ETCv2	✓	✓	✓	✓	✗	✓
Encryption	✗	✗	✗	✗	✗	✗
QoS	✗	✗	✗	✓	✗	✗
Encryption & QoS	✗	✗	✗	✓	✗	✗
Transcoding	✗	✗	✗	✓	✓	✗

Table 2: Acme Packet 4600 NIU and Feature Group Support Matrix

S-CZ7.2.5 supports the NIUs listed in the left column on the Acme Packet 4600. The matrix indicates the feature sets that require the supported NIUs.

NIU	IPSec	IMS-AKA	SRTP	QoS	Transcoding	MSRP B2BUA
2x10Gig NIU	✓	✓	✓	✓	✓	✓

Table 3: Acme Packet 6100 NIU and Feature Group Support Matrix

S-CZ7.2.5 supports the NIUs listed in the left column on the Acme Packet 6100. The matrix indicates the feature sets that require the supported NIUs.

NIU	IPSec	IMS-AKA	SRTP	QoS	Transcoding	MSRP B2BUA
2x10Gig NIU	✓	✓	✓	✓	✗	✓
Transcode NIU	N/A	N/A	N/A	N/A	N/A	N/A

Table 4: AP6300 NIU and Feature Group Support Matrix

S-CZ7.2.5 supports the NIUs listed in the left column on the Acme Packet 6300. The matrix indicates the feature sets that require the supported NIUs.

NIU	IPSec	IMS-AKA	SRTP	QoS	Transcoding	MSRP B2BUA
2x10Gig NIU	✓	✓	✓	✓	✓ (required)	✓
Transcode NIU	✗	✗	✗	✗	✓	✗

Unsupported Hardware

- ETCv1 Cards with 4GB RAM. These NIUs can be identified by a revision lower than 2.09 (use **show prom-info phy** to query this NIU attribute).

Supported Upgrade Paths

The following upgrade paths are supported:

- S-CX6.3.15 -> S-CZ7.2.5
- S-CZ7.1.5 -> S-CZ7.2.5

These upgrades are transparent, consisting of backing up configuration and booting on new S-CZ7.2.5 software.

S-CX6.3.15 and S-CZ7.1.5 configurations are fully compatible with S-CZ7.2.5 software. Backup configurations prior to upgrade to follow software administration best practices.

Co-Product Support

The products/features listed in this section run in concert with the Oracle USM for their respective solutions.

Oracle Communications Session Load Balancer

With an Oracle Communications Session Load Balancer running L-CX1.5.0 software, Oracle USM cluster members may run S-CZ7.2.5 on the following hardware:

- AP4500
- AP4600
- AP6300

Pooled Transcoding

The pooled transcoding feature requires an access function Oracle USM (P-CSCF) using transcoding resources provided by Oracle USMs with transcoding hardware (T-SBC). When the P-CSCF function is based on S-CZ7.2.5 software, the following hardware/software combinations may be used as a T-SBC in a pooled transcoding scenario:

- AP3820, Transcoding NIU, S-CX6.3.7M2+ or S-CZ7.2.0+
- AP4500, Transcoding NIU, S-CX6.3.7M2+ or S-CZ7.2.0+
- AP6300, Transcoding NIU, S-CZ7.1.2+
- AP6300, Transcoding NIU, S-CZ7.2.0+

Oracle Communications Session Element Manager

Oracle Communications Session Element Manager versions 7.4M1 and later support this GA release of the Oracle USM

QoS NIU Version Requirement for AP3820 and AP4500

A Network Interface Unit (NIU) that supports the Quality of Service (QoS) feature group on the AP 3820 and AP 4500, except the two Enhanced Traffic Control (ETC) cards, requires QoS Field Programmable Gate Array (FPGA) revision 2.19 for the S-CZ7.2.5 release. The 2.19 FPGA upgrade image is available at My Oracle Support, *https://support.oracle.com/*, with a customer account.

If the QoS FPGA hardware revision is lower than 1.109, you need to upgrade the hardware. Use the **show qos revision** command on the ACLI to find the QoS FPGA hardware revision number.

```
ORACLE# show qos revision
QoS FPGA Hardware Revision is 1.109
ORACLE#
```

Access Control Endpoint Classification Capacity and DoS

The following capacities are for both IPv4 and IPv6 endpoints.

Platform	Denied	Trusted	Media	Untrusted	Dynamic Trusted	ARP	VLAN
AP4500	32000	8000	32000	2000	250000	4000	4000
AP6100	32000	16000	80000	16000	500000	16000	16000
AP6300	32000	16000	80000	16000	500000	16000	16000

Supported SPL Engines

The following SPL engine versions are supported by this software

- C2.0.0
- C2.0.1
- C2.0.2
- C2.0.9
- C2.1.0
- C2.2.0
- C3.0.0
- C3.0.1
- C3.0.2

- C3.0.3
- C3.0.4
- C3.0.6
- C3.1.0
- C3.1.1
- C3.1.2

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New Features in Service Provider Release S-CZ7.2.5

This section describes the new features available in Version S-CZ7.2.5. Feature descriptions of the following item may be found in the Configuration Guide:

- Unregistered User Release

Unregistered User Release Timer

The feature listed in this section are related to the Oracle USM's suite of registrar-related functions. Feature descriptions of the following item may be found in the Configuration Guide.

The Oracle USM receives SIP messaging from a variety of UEs, including those that have never registered with a supported domain. The system stores information about these UEs in its registration cache, labelled "NEVER REGISTERED". The Oracle USM gracefully releases unregistered users from the registration cache using a configurable timing mechanism. This prevents the UE from becoming permanently homed to this Oracle USM even though a more appropriate S-CSCF may be available to the UE.

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Interface Changes

This chapter summarizes ACLI, SNMP, and RADIUS changes (where applicable) for S-CZ7.2.5. Additions, removals, and changes appearing in this chapter are since the release of S-CZ7.1.5M1.

ACLI Command Changes

This section summarizes the ACLI command changes that first appear or are significantly changed in release Version S-CZ7.2.5

Command	Description
show registration sipd by-user <unregistered user> detailed	Adds functionality to show registration sipd by-user to display unregistered user's expires time.

ACLI Configuration Element Changes

This section summarizes the ACLI configuration element changes that first appear in release Version S-CZ7.2.5.

SIP Interface Features

New Parameter	Description
session-router > sip-interface > redirect-action	The default value for this parameter is changed to recurse-305-only.

Registrar Features

New Parameter	Description
session-router > sip-registrar > unreg-cache-expiry	Parameter added to specify the amount of time before the system removes unregistered users from the registration cache.

Interface Changes

New Parameter	Description
session-router > sip-registrar > +option psi-cache-expiry	Option added to specify the amount of time before the system removes PSIs from the registration cache. Setting the option to zero prevents the system from caching PSIs.

System Features

New Parameter	Description
system-config > collect > +option push-product-specific-stats = [enable | disable]	Parameter added to allow the user to collect legacy statistics in HDR groups.
system-config > +option heap-threshold = [10 - 100]	Drops all packets when memory crosses threshold.
system-config > +option transport-load-limit = [10 - 100]	Drops all packets when CPU crosses threshold.
sip-config > +option load-limit = [15 - 100]	Rejects standalone, dialog creating, and optionally register messages.
sip-config > +option reject-register = [no | refresh]	Determines whether load-limit option rejects register messages.
sip-config > +option memory-overload-threshold [1 - 100]	Sets the default memory overload threshold.
sip-config > +option disable-memory-overload-threshold	This command has been removed.

Local Response Codes

New Parameter	Description
local-response-code > overload-protection-reject-register	Local response map for changing the SIP response for REGISTER message to indicate that the system cannot serve the user.
local-response-code > overload-protection-reject-non-register	Local response map for changing the SIP response for non-REGISTER message to indicate that the system cannot serve the user.

Application SNMP Changes

This section summarizes the Application SNMP/MIB changes that appear inOracle USM Version S-CZ7.2.5.

Platform	sysObjectID Object Identifier Name: Number	sysDescr
Acme Packet 4600	apNetNet4500: 1.3.6.1.4.1.9148.1.1.3	Acme Packet 4500 X

Provisioning Entitlements

The Oracle USM may be self-licensed at the ACLI. Licensing a system for use consists of setting the system type, then setting the desired entitlements.

Note: You may continue using the legacy licensing system or you may transition to self-provisioning entitlements. In both cases, ensure that your system's functionality abides by your organization's contractual obligations with Oracle.

Enabling functionality on the Oracle USM is based on installing feature and entitlements. These determine the feature groups that are available for use.

For the Oracle USM, the system provisions a set of default entitlements. You can then choose the user-provisioned entitlements for your deployment.

Entitlements and Entitlement Groups

The following features are entitlements that you may enable on your system:

- Accounting
- Administrative Security with ACP/NNC
- IPv6
- Load Balancing (Session Agent Groups)
- Policy Server, which encompasses External BW Mgmt, External CLF Mgmt, and Ext Policy Server
- QoS
- SIPREC

Note: If fewer than all of the features that comprise an entitlement group are licensed before setting up entitlements for the first time, the full entitlement group will be enabled after switching to the entitlements system.

Provisioning a New System

An uninitialized Oracle USM already has the product type set, and has a set of default entitlements installed. This allows you to begin operation immediately. A system that has legacy keyed-licenses installed is still considered an uninitialized system.

The **setup entitlements** command allows the user to provision further entitlements.

Note: The **setup product** command is visible, but not relevant to this release.

Provisioning a System with Existing Keyed Licenses

When changing your Oracle USM's licensing technique from the legacy keyed licenses method to the provisioned entitlements method, be aware of the following:

- After first running **setup entitlements**, your system will be "seeded" with the existing licenses' functionality.
- Once your system has been seeded with its prior, keyed functionality to the provisioned entitlements system, functionality may be changed with the **setup entitlements** command.
- You may notice that there are fewer entitlements than there were keyed licenses; this is normal.
- After setting up provisioned entitlements, the **show features** command will still function to display the previously installed keyed entitlements.

Editing and Viewing Entitlements

If you are not changing the product type, and you are only changing the entitlements, you can edit the existing entitlements with the **setup entitlements** command. Executing this command will first display existing entitlements before giving you the option to modify their settings.

The **show entitlements** command is used to display the currently provisioned entitlements and keyed entitlements. You may also use the **setup entitlements** command and type **d** to display the current entitlements. Additionally, upon first executing the **setup entitlements** command, all provisioned entitlements (excluding keyed entitlements) are displayed on the screen.

Keyed-only entitlements

Certain entitlements can only be enabled by entering a license key in the **system** > **license** configuration element, and not through the **setup entitlements** command. Contact Oracle support about purchasing these licenses and receiving a valid code to enter in your system.

The Keyed-only entitlements used in conjunction with provisioned entitlements:

- Lawful Intercept
- Codecs including EVRC family and AMR family
- Software TLS

Note: not all of the above keyed only entitlements are available for all platforms.

Setting Entitlements on HA Pairs

When setting up an HA pair, you must provision the same product type and entitlements on each system.

Entitlements Configuration

1. Type **setup entitlements** at the ACLI. Currently provisioned entitlements are printed on the screen.
2. Type the number of the entitlement you wish to configure followed by pressing the **<Enter>** Key. Some entitlements are set as enabled/disabled (provisionable feature entitlement), and some entailments are provisioned with a maximum capacity value (provisionable capacity entitlement). The command will let you provision these values as appropriate.
3. Type **enabled** or **disabled** to set a provisionable feature entitlement, or type an integer value for a provisionable capacity entitlement. Both input types are followed by pressing the **<Enter>** key.
4. Repeat steps 2 and 3 to configure additional entitlements.
5. Type **d** followed by the **<Enter>** key to review the full range of your choices. Note that disabled entitlements display their state as blank.
6. Type **s** followed by the **<Enter>** key to commit your choice as an entitlement for your system. After saving the value succeeds you will be returned to the ACLI.
7. Reboot your Oracle USM.

```
ORACLE# setup entitlements

------------------------------------------------
Entitlements for Unified Session Manager
Last Modified: Never
------------------------------------------------
1 : Session Capacity                        : 32000
2 :   Accounting                            : enabled
3 :   IPv4 - IPv6 Interworking              :
4 :   Load Balancing                        : enabled
5 :   Policy Server                         : enabled
6 :   Quality of Service                    : enabled
7 :   SIPREC Session Recording              : enabled
8 : Admin Security with ACP/NNC             :
9 : Endpoint Capacity                       : 250000
10: IMS-AKA Endpoints                       : 0
11: IPSec Trunking Sessions                 : 0
12: MSRP B2BUA Sessions                     : 0
13: SRTP Sessions                           : 0

Enter 1 - 14 to modify, d' to display, 's' to save, 'q' to exit.
[s]: s
SAVE SUCCEEDED
```

Keyed Licenses and Provisioned Entitlements Compatibility

The Oracle USM supports keyed licenses and the provisioned entitlements process for provisioning features on your system. There are a few mechanics to understand regarding how both licensing mechanisms work along side each other.

- You are not required to begin using the provisioned entitlement system as of this release.
- You may continue to obtain keyed licenses and install them as necessary.
- Upon migrating to the provisioned entitlements system, the current range of your installed, keyed licenses will be seeded to the provisioned entitlements system; your system's functionality will remain identical.
- If you upgrade to the provisioned entitlements system, then downgrade your software to a version without the provisioned entitlements system, your pre-existing keyed licenses will still function.
- If you upgrade to the provisioned entitlements system, then change the functionality (like adding more SIP sessions or removing a feature set), upon downgrade to a pre-provisioned entitlements image, your new functionality will not be present.

4

Caveats, Known Issues, and Behavioral Changes

Issues Resolved and Known Issues in this Release

Issues Resolved in this Release

The following sections list known issues related to Version S-Cz7.2.5 of the Oracle USM.

- With this release, a Oracle USM registrar set to DDNS that also has the **e164-primary-config** option set now works properly.
- With this release, the **fallback-to-local-policy** option now works properly with ENUM, Cx and LST-based deployments.

Known Issues in this Release

The following sections list known issues related to Version S-Cz7.2.5 of the Oracle USM.

- Configuring support for SNMPv3 is not supported as a real-time configuration change. Reboot the system after establishing an SNMPv3 configuration on the Oracle USM.
- Do not load configurations from sibling products, the Oracle SBC for example, on the Oracle USM. Those configurations are incompatible with the Oracle USM, causing incorrect operation. Users should configure the Oracle USM from scratch or use another valid Oracle USM configuration.
- The ISC interface does not work when dialog transparency is enabled on the Oracle USM.
  - Resolution - Do not enable dialog transparency if your Oracle USM must support ISC.
- The Oracle USM does not work with an iFC when its default handling is set to “SESSION CONTINUED”.
- Multi-stage routing does not work for S-CSCF routing functions.
- The Oracle USM accepts only the first message received from an application server in response to messages from the Oracle USM that included an ODI. The Oracle USM drops any subsequent messages with the same ODI.
  - Resolution - Do not configure an AS to fork responses to the Oracle USM that include an ODI originally provided by the Oracle USM.
- The Oracle USM does not send third party registration for the entire implicit registration set. It only sends this for the specific public user identity that is registering, de-registering or re-registering.

- Instead of routing a message via local policy, the Oracle USM incorrectly issues an LIR when the following two conditions exist simultaneously:
  - The Oracle USM is not configured with the e164-primary-config and e164-secondary-config options, and
  - The Oracle USM receives a request with a tel-URI or a sip-URI with the user=phone parameter.

  Note that the Oracle USM sends the request via local-policy if the LIA for a tel-URI or sip-URI with user=phone returns 5001 DIAMETER_ERROR_USER_UNKNOWN. For all other errors in the LIA, the Oracle USM returns an error.
- With this release, the **sip-registrar** element's **home-server-route** parameter is not supported for real time configuration. The user must reboot the Oracle USM to have a changed **home-server-route** setting take effect.
- With this release, the **sip-registrar** element's **ims-core** parameter is not supported for real time configuration. The user must reboot the Oracle USM to have a changed **ims-core** setting take effect.

Supported Hardware

AP4500 hardware with BoardRev: 3.00 will not load the licenses that are expected to appear. As a workaround, reinstall licenses manually after reboot with the original key. Use the **show version boot** command and look to the Mainboard Info section, BoardRev: attribute.

IPSec

When the security-association configuration element is configured as an IPv6 SA, it is not RTC enabled.

The **transport-protocols** parameter in **security-policy** configuration element is set to the default of all, regardless of configuration.

File Systems

For users with the AP4500 system with a hard-disk, an upgrade from pre-S-CZ7.1.5 software to this version will not change the hard drive's filesystem from FAT-32 to ext3 to preserve any existing data. This results in the SFTP application not providing the expected filesystem user security. To rectify this, reformat the system's hard-disk.

Note: By reformatting the hard-disk, you will lose the contents of /opt and any other user-created partitions located under /mnt.

Encryption Hardware Support

On the AP4500, IPSec and SRTP are supported with ETCv1 and ETCv2 NIUs only.

IMS AKA

Inbound and outbound SA counts can lose synchronization when an IMS-AKA protected port pool is enabled.

After failover, Security Parameter Index (SPI) values are not properly synchronized when the IMS-AKA protected port pool is enabled.

In an HA deployment, the primary Oracle USM synchronizes contacts for IMS AKA-based registrations to the standby very slowly. Under extreme load conditions, the standby may not receive all registrations.

USM Running as an SLB Cluster Member

Rebalancing is unavailable on the Oracle Communications Session Load Balancer when running an AP6300 as a cluster member. Set the SLB's **cluster-config** > **auto-rebalance** parameter to **disabled** to use an AP6300 as a cluster member from that SLB.

SIP over TCP

No more than 500 SIP Interfaces with SIP over TCP are supported.

Redundancy Configuration

Do not use the 169.254.16.x or 169.254.21.x networks in the redundancy-config of the Oracle SBC (including the network-interface configuration for the wancom1 and wancom2 interfaces) when installed on an Acme Packet platform that includes a transcoding card. The system uses these networks to provide software to transcoding DSPs. When the user configures the redundancy configuration with these networks, the system fails to route this software properly.

Workaround: Choose any available network for redundancy other than 169.254.16.x or 169.254.21.x. Note that user documentation describes redundancy configuration using the 169.254.1.x/16 network, which works properly with transcoding cards.

Caveats

The following sections list caveats related to Version S-Cz7.2.5 of the Oracle USM.

- Do not load configurations from sibling products, the Oracle SBC for example, on the Oracle USM. Those configurations are incompatible with the Oracle USM, causing incorrect operation. Users should configure the Oracle USM from scratch or use another valid Oracle USM configuration.

Transcoding - general

Only SIP signaling is supported with transcoding.

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

Transcoding is not available in conjunction with SRTP.

QoS is not supported for transcoded calls.

SIPREC may not be performed on a transcoded call.

T.38 Fax Transcoding

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

Fax codec policy based on D7.0 fax transcoding policy.

Pooled Transcoding for Fax is unsupported.

High Availability

When the AP6300 experiences call rates over 650 CPS, SIP and/or MBCD may fail to synchronize.

Archive Logs

Archiving log files is unsupported on the AP4500 platform without a HDD installed.

HMR action on Call-ID

HMR operations on the Call-ID: header are deprecated.

Lawful Intercept

Lawful Intercept is supported for the X123 protocol only.

FTP Support

The Oracle USM's FTP Server is deprecated. Only SFTP server services are supported.

FTP Client access for features such as HDR/CDR push remains.

Fragmented Ping Support

The Oracle USM does not respond to inbound fragmented ping packets.

Physical Interface RTC Support

After changing any Physical Interface configuration, a system reboot is required.

SRTP Caveats

MIKEY key negotiation is not supported.

The ARIA cipher is not supported.

Linksys SRTP is not supported.

For hold and resume SRTP calls, if the rollover counter increments, upon a subsequent hold and resume action without an SRTP rekey or SSRC change an SRTP rekey, the media portion of the call will be lost. This Caveat only applies to systems running Encryption or QoS & Encryption NIUs.

Packet Trace

Output from the packet trace local feature on hardware platforms running this software version may display invalid MAC addresses for signaling packets.

Phy Link Redundancy

Phy link redundancy is not supported in this release.

Session Replication for Recording

Session Replication for Recording is not supported in this release.

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.

Source-based Routing

The source routing feature as configured by system-config --> source-routing is deprecated. Please review the HIP information in the Network Interface section in the System Configuration chapter of the ACLI Configuration guide for background of accessing SBC Administrative Applications over media Interfaces.

IMS-AKA

To support 500,000 IMS-AKA UDP registrations, the connections must be distributed evenly across 4 physical interfaces.