

Oracle® Communications Session Monitor Release Notes



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Oracle Communications Session Monitor Release Notes, Release 5.2

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About This Guide

This document presents information about the Oracle Communications Session Monitor product family. The Session Monitor platform supports the following products:

- Oracle Communications Operations Monitor
- Oracle Enterprise Operations Monitor
- Oracle Communications Control Plane Monitor
- Oracle Communications Fraud Monitor

Documentation Set

Table 1 Documentation Suite for Session Monitor Release 5.2

Document Name	Document Description
Backup and Restore Guide	Provides instructions for backing up and restoring Session Monitor.
Developer Guide	Contains information for using the Session Monitor SAU Extension.
Fraud Monitor User Guide	Contains information for installing and configuring Fraud Monitor to monitor calls and detect fraud.
Installation Guide	Contains information for installing Session Monitor
Mediation Engine Connector User Guide	Contains information for configuring and using the Mediation Engine Connector.
Operations Monitor User Guide	Contains information for monitoring and troubleshooting IMS, VoLTE, and NGN networks using the Operations Monitor.
Release Notes	Contains information about the Session Monitor Release 5.2, including new features.
Security Guide	Contains information for securely configuring Session Monitor.
Upgrade Guide	Contains information for upgrading Session Monitor.

Revision History

This section provides a revision history for this document.

Date	Description
January 2024	<ul style="list-style-type: none"><li data-bbox="922 583 1117 609">• Initial release.
July 2024	<ul style="list-style-type: none"><li data-bbox="922 623 1149 648">• Content updates.
August 2024	<ul style="list-style-type: none"><li data-bbox="922 663 1149 688">• Content updates.

1

Introduction

The Oracle Communications Session Monitor *Release Notes* provide information about new features, enhancements, and changed functionality in Release 5.2.

Session Monitor Supported Hardware

The products within the Oracle Communications Session Monitor suite are supported on Oracle, Sun, and HP systems.

Table 1-1 Supported Hardware for Oracle systems

Hardware	Supported Configurations
Server	The following servers are supported: <ul style="list-style-type: none">• Oracle Server X9-2• Oracle Server X9-2L• Oracle Server X8-2• Oracle Server X7-2• Oracle Server X6-2• Oracle Server X6-2L
Network Adapter	The following adapters are supported: <ul style="list-style-type: none">• Oracle Quad Port 10GBase-T Adapter



Note:

Session Monitor Release 5.2 supports installation using the RPM installer only.

The following table lists the hardware supported for Oracle systems.

The following table lists the hardware supported for HP systems.

Table 1-2 Supported Hardware for HP Systems

Component	Requirement
Server	The following servers are supported: <ul style="list-style-type: none">• HP DL580 G9• HP DL380 G9• HP DL380p G8• HP DL580 G7
Network Adapter	The following network adapter s are supported: <ul style="list-style-type: none">• HP NC365T PCIe Quad Port Gigabit Server Adapter• HP NC364T PCIe Quad Port Gigabit Server Adapter• HP Ethernet 1Gb 4-port 366FLR Adapter

Table 1-2 (Cont.) Supported Hardware for HP Systems

Component	Requirement
Driver/Chipsets	<p>The following drivers/chipsets are supported:</p> <ul style="list-style-type: none"> • e1000 (82540, 82545, 82546) • e1000e (82571, 82574, 82583, ICH8..ICH10, PCH..PCH2) • igb (82575, 82576, 82580, I210, I211, I350, I354, DH89xx) • ixgbe (82598, 82599, X540, X550) • enic • i40e • Mellanox (mlx4, mlx5)

Hardware Requirements for Production Systems

For production systems, Oracle recommends completing a detailed sizing and traffic profile analysis exercise, please contact your sales representative. Higher performance hardware may be required, for example, in cases with:

- High levels of monitored traffic
- High numbers of concurrent users
- High volumes of historical information

On the Mediation Engine machines, Oracle recommends using a RAID-10 array for the operating system and the database. A separate RAID-5 array is recommended for storing long-term data.

Hardware Requirements for Demonstration Systems

For development or demonstrations systems with little network traffic, the following table lists the minimum requirements to install any of the Session Monitor machine types.

Table 1-3 Hardware Requirements for Demonstration Systems

Component	Minimum Requirement
Processor	2.6 GHz Intel Xeon processor, 64-bit with 8 processing threads
Memory	8 GB RAM
Disk Space	80 GB storage on a hardware RAID controller
Ports	2 Ethernet ports

Session Monitor Virtualization Support

This section describes the software and hardware requirements for Session Monitor virtualization.

Hypervisor Support

The following hypervisors are supported:

- Oracle VM version 3.4
- VMware vSphere ESXI 7.0 VM
- Kernel-based Virtual Machine (KVM)

Virtual Machine Requirements

The following table lists the minimum requirements for the virtual machines.

Table 1-4 Hardware Requirements for Virtual Machines

Component	Requirement
Processor	8 vCPUs
Memory	8 GB RAM
Disk Space	80 GB
NIC Card	1 Gbps vNIC

Host Machine Requirements

The physical machine that hosts the virtual machines should contain at a minimum the hardware resources that are required to host all the virtual machines, in addition to the hardware that is required for the hypervisor.

Session Monitor Cloud Deployment

The following minimum shapes supported are as follows. For more information, see the Session Monitor Installation Guide.

- OCI Cloud : VM Standard 2.8
- Azure: Standard F8s
- AWS : c4.4xlarge

Session Monitor Operating System Requirements

Oracle Communications Sessions Monitor is offered as a set of Linux applications. The latest version of Session Monitor 5.2 has been tested, benchmarked and certified on the Oracle Linux platform as mentioned in the table below.

Oracle Linux is binary compatible with the RHEL Kernel, and Session Monitor has been tested with Oracle Linux Kernel as mentioned in the table below. Customers who want to use Session Monitor with RHEL are encouraged to install and test Session Monitor on the version of RHEL compatible with supported Oracle Linux version.

In this case, performance and capacity characteristics may vary from those tested while running Session Monitor on Oracle Linux. When Session Monitor is deployed on RHEL, Oracle continues to support Session Monitor when installed on the base RHEL without any customizations.

In case of issues where Oracle Support determines to be related to RHEL, the customer will be directed to work with RedHat support organization for issue resolution.

The following table lists the supported operating systems for running Session Monitor.

Table 1-5 Supported Operating Systems

Product	Version	Notes
Oracle Linux 8 x86-64 (64 bit)	Version 8.10 (with Oracle UE Kernel for Linux)	By default Oracle Linux installs Kernel 5. Oracle recommends that the latest Unbreakable Enterprise (UE) Kernel 5 is installed.
Red Hat Enterprise Linux 8	Version 8	See clarification above.

 **Note:**

- You must configure a network device when installing Oracle Linux 8.
- If required, update the DPDK drivers.

Session Monitor Connectivity

Following are Session Monitor connectivity details:

- One Aggregation Engine (Operations Monitor's Mediation Engine Connector feature): Supports up to 64 Mediation Engines
- One Mediation Engine (Operations Monitor, Control Plane Monitor): Supports up to
 - Native-Only Probes:
 - * Media+Sig ; Signalling-Only: 128
 - * Packet Inspector: 16
 - Embedded-Only Probes (Session Border Controller as a probe):
 - * < 500 parallel calls per Session Border Controller: 1k (might require some manual tweaking, unlimited open files)
 - * >= 500 parallel calls per Session Border Controller: 128
- Mixture of SBC and native probes: 128 (individual limits still apply)
- One Probe (Operations Monitor, Control Plane Monitor) or Session Border Controller-probe can be connected to up to:
 - Probe: 2 Mediation Engines
 - SBC: 8 Mediation Engines
- One Mediation Engine (Operations Monitor, Control Plane Monitor): Connected to up to 1 Aggregation Engine

Session Monitor Software Requirements

The table lists the supported client browsers:

Table 1-6 Supported Client Browsers

Browser	Version
Mozilla Firefox	121.0 or higher (on any operating system)
Apple Safari	17.1 or higher (19616.2.9.11.7)
Google Chrome	120.0.6099.130 or later versions
Opera	106.0.4998.12 or later versions (on any operating system)
Microsoft Edge	120.0.2210.91 or higher

Compatibility Matrix for Session Monitor

The following products can be configured with Session Monitor:

Product Name	Version
DPDK	22.11.3
ISR	6.4
SP-Session Border Controller	S-Cz9.2.0 Works with Operations Monitor and Enterprise Operations Monitor
E-Session Border Controller	S-Cz9.2.0 Works with Operations Monitor and Enterprise Operations Monitor
Enterprise Communications Broker	Version: 4.1

Compatibility Matrix for Fraud Monitor

The following products can be configured with Fraud Monitor:

Product Name	Version
SP-SBC	For more information, see Session Border Controller Supported Versions . Works with Fraud Monitor and Enterprise Telephony Fraud Monitor.
E-SBC	For more information, see Session Border Controller Supported Versions . Works with Fraud Monitor and Enterprise Telephony Fraud Monitor.
SDM	NNC90_1

Session Border Controller Supported Versions

The table lists supported Session Border Controller (SBC) versions.

Table 1-7 Supported Session Border Controller Versions

Product	Versions
Enterprise Session Border Controller (E-SBC)	<ul style="list-style-type: none"> • S-Cz9.2.0 • S-Cz9.1.0 • S-Cz9.0.0 • S-Cz8.4.0 • S-Cz8.3.0 • S-Cz8.2.0 • E-Cz8.1.0 • E-Cz8.0.0 • E-Cz7.5.0 • E-Cz7.4.0 • E-Cz7.3.0
Session Border Controller (SBC)	<ul style="list-style-type: none"> • S-Cz9.2.0 • S-Cz9.1.0 • S-Cz9.0.0 • S-Cz8.4.0 • S-Cz8.3.0 • S-Cz8.2.0 • S-Cz8.1.0 • S-Cz8.0.0 • S-Cz7.5.0 • S-Cz7.4.0 • S-Cz7.3.0

Database Support

The following databases are supported by Session Monitor.

MySQL Enterprise Edition

This release is compatible with the following versions of MySQL Enterprise Edition:

- MySQL 8.0.37
- MySQL 8.0.36
- MySQL 8.0.34
- MySQL Connector 8.0.33

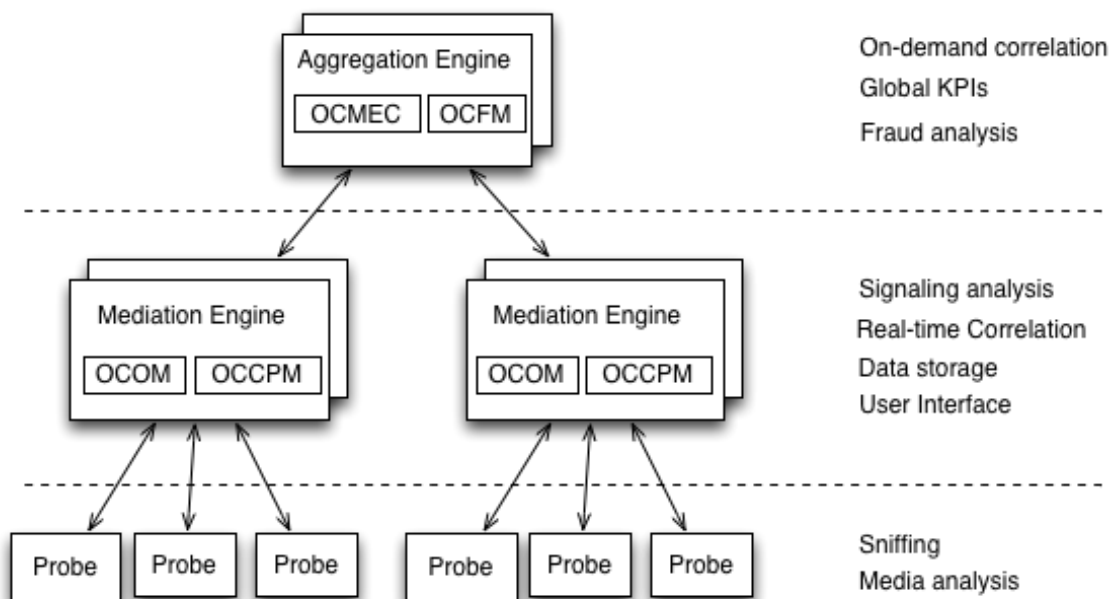
Session Monitor System Architecture

The Session Monitor system works by capturing the traffic from your network, correlating it in real-time, and storing it in indexed formats so that they are available for the various reports offered by the web interface.

The Session Monitor system architecture has three layers:

- **Probe layer:** This layer is responsible for capturing the traffic from your network and performing the Media Quality analysis. The probes send meta-data for each of the signaling messages to the Mediation Engine layer and analyze the RTP streams locally, sending the results of this analysis to the Mediation Engine layer.

- **Mediation Engine layer:** This layer is responsible for understanding in real-time the traffic received, correlating it and storing it for future reference. This layer is also responsible for measuring, managing, and storing the KPIs. In the common case, there is one Mediation Engine per geographical site. It is possible, however, to have the probes from multiple geographical sites sending the traffic to a single Mediation Engine. It is also possible to have multiple Mediation Engine installations in the same geographical site.
- **Aggregation Engine layer:** This layer is responsible for aggregating the global KPIs from all the Mediation Engine linked to it, and for the global search features. In a typical setup, there is only one AE for the whole network.



In the diagram above, acronyms have been used for the following products:

Table 1-8 Acronyms

Acronym	Product Name
OCCPM	Oracle Communications Control Plane Monitor
OCFM	Oracle Communications Fraud Monitor
OCMEC	Oracle Communications Mediation Engine Connector
OCOM	Oracle Communications Operations Monitor
OCSM	Oracle Communications Session Monitor

Each of the three layers supports high-availability by deploying two identical servers in active-passive or active-active modes of operation. For small setups, it is possible to run the probe layer and the Mediation Engine layer on the same physical hardware. The Aggregation Engine layer always requires its own hardware.

From the Session Monitor products perspective, the Operations Monitor and the Control Plane Monitor run on the Mediation Engine while the Mediation Engine Connector and the Fraud Monitor products run on the Aggregation Engine.

Upgrade Information

For upgrade related information, see the *Session Monitor Release 5.2 Upgrade Guide*.

2

New Features

Session Monitor Release 5.2 includes the following new features, enhancements, and changed functionality:

Support for the following Tech Stack Components in the Session Monitor Release 5.2

Session Monitor Release 5.2 supports the following tech stack:

- Oracle Linux Version 8.10 (with Oracle UE Kernel for Linux)
- MySQL 8.0.37
- MySQL 8.0.36
- MySQL 8.0.34
- MySQL Connector 8.0.33
- Python 3.9
- OJET 14.1

UCaaS monitoring - Microsoft Teams - Direct Routing

The UCaaS CCaaS Monitoring enables you to view the correlated calls made from PSTN to UCaaS CCaaS applications and vice-versa. Currently, support for Microsoft Teams is available. This feature needs to be activated using the **UCaaS CCaaS** Extension provided in the Platform Setup Application.

Media Quality Enhancements

As part of Media Quality Enhancements, the following new columns have been introduced:

- Columns - Avg Jitter, Max Jitter, Packet Loss Rate in Calls table
- Column showing the Audio status of a call (one-way, both-ways, and no audio) in the Calls table
 - No Audio - If no RTP packets are exchanged between the end points.
 - One way Audio - If RTP packets flowed only in one direction.
 - OK - If RTP packets flows in both the direction.

Note:

Starting with Release 5.2, one-way Audio Add-on has been removed from the Platform Setup Application and Mediation Engine.

VQ-Device-Specific Dashboard Panel

You can add a device-specific Voice Quality panel in the Mediation Engine dashboard. This panel shows a stacked area chart for a specific device for MOS, Packet Loss, and Jitter measures.

 **Note:**

Starting with Release 5.2, the Custom Header Add-on has been removed from the Platform Setup Application and Mediation Engine.

Custom Headers Functionality for Calls Table

You can define Custom Headers that are shown new columns in the **Calls** page. Custom Headers enable custom monitoring of calls and filtering Calls based on customer's architectural requirements that bring in specific call flows to be better monitored. This feature supports parsing of messages of only SIP protocol. Messages of other protocols like ISUP, ENUM, MEGACO, DIAMETER, MGCP etc are not supported. SIP messages belonging to Calls only are supported, messages related to other functionalities like Registrations, Subscriptions are not supported.

Display of Graphs and Charts - Enhancements

Graphing Library enhancements provide features such as dual axis, graph export, and markers for KPI/Metrics. This feature enables you to select dual Axis for any KPI/chart in the KPI/Metrics page for all KPIs applicable with marker functionality.

KPI Display Enhancements

You can view the sum value of a KPI in the charts displayed on the **KPI/Metrics** or **Devices** pages, along with min/max/avg and current sampling intervals. Enable the **Sum** check box option, to view the sum value of a KPI on the KPI/metrics or Devices pages graph. When you add a the KPI/Metrics chart to a Dashboard panel, the state of KPI/metrics chart (min/max/avg and **Sum** check box option is enabled) will be consistent in the dashboard panel and vice-versa. The sampling interval to display the 'sum' of KPI remains the same as the existing min/max/avg. You can export the sum statistics for selected KPIs to a .CSV file along with the existing functionality on the KPI/metrics and devices page.

Registrations Table - Enhancements

The **Registrations** table displays the user agent (User device) used in the registration process.

Filters - Enhancements

The new type of Filter allows you to double-click on a column header and type in the criteria for a new filter. This type of filter is available in the following pages:

- Calls
- Registrations
- Subscriptions
- User Calls section in the User Tracking
- Calls section in the IP Tracking
- All tabs on the Devices pages, Dashboard Panels for Calls/Registrations and Subscriptions

The new text-based filtering allows you to type in the filter criteria in the **Filter** text box in the **Calls** page. If you export the filter results to the Dashboard panel, the Dashboard panel displays the filter results. The filter results can be exported using the Bulk Export or CSV Export.

Column Enhancements - Set Columns

New tools have been added to facilitate a smooth user experience to add, remove, reorder, append, reset the columns using the Set Column feature.

Product Naming Abbreviation Updates for Session Monitor

In compliance with the Oracle branding and Legal requirement, all user documentation and Marketing Communication artifacts now reflect approved product names. This change affects only text displayed on the user interface elements.

3

Resolved Issues

The following table lists resolved issues in Oracle Communications Session Monitor Release 5.2.

ID	Fixed in Label	Severity	Description
34132174	5.2.0.0.0	3	CDR Header too long
35079356	5.2.0.0.0	2	Operations Monitor showing all calls as red and unable to find certain calls
35117893	5.2.0.0.0	3	Advanced search not working with terminator or initiator device used in conjunction with OR
35302220	5.2.0.0.0	3	Advanced Response Code Search Not working for 513 / 491
35339664	5.2.0.0.0	3	DPDK configuration & installation issue in packet inspector OCOM probe
35353783	5.2.0.0.0	2	5.0p5 Issue with User Roles
35369624	5.2.0.0.0	3	Session Monitor v5.1 installation fails when using RHEL 8.7 OS
35383953	5.2.0.0.0	3	One DPDK monitoring port check box is grayed out on PSA capture setting
35426448	5.2.0.0.0	2	When using RADIUS with default installation, instead of PAP there is EAP
35489765	5.2.0.0.0	2	Device with IP Subnet in Platform Devices are showing up as "unnamed" in the call details
35508963	5.2.0.0.0	3	Setting Realms in Platform Devices not possible
35586774	5.2.0.0.0	4	Regression in call flow display functionality comparing 5.1 to 4.4 release
35623083	5.2.0.0.0	3	Broken kernel-uek-devel package pointed in Download_rpms.sh

ID	Fixed in Label	Severity	Description
35630588	5.2.0.0.0	2	DPDK installation failed in Operations Monitor upgrade
35642069	5.2.0.0.0	3	Operations Monitor call report generation of PDF file failed
35659153	5.2.0.0.0	3	Mediation Engine 5.1 unable decode IPV6 SIP messages in message flow
35692764	5.2.0.0.0	3	Role permissions not correctly enforced
35709737	5.2.0.0.0	3	Error message displayed when trying to display Message Flow within Operations Monitor
35731104	5.2.0.0.0	3	OPC/DPC values are getting exchanged in the CDR report from Operations Monitor
35758759	5.2.0.0.0	2	Issue with DPDK Installation
35950906	5.2.0.0.0	2	Unable to add a new user or edit a user as admin, no pop up window to entry / edit user's information

4

Known Issues

The following tables list known issues in Oracle Communications Session Monitor 5.2.

Known Issues

The following table provides a list of known issues in 5.2 GA.

ID	Description	Severity	Found in
34267309	No left-side Index/ Search in the web browser for local Help files	4	5.2.0.0.0