Policy Management
Release Notes

Release 12.3
E85328-03
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Policy Management Release Notes, Release 12.3

E85328-03

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Introduction

These release notes identify the functions and features of Oracle Communications Policy Management which include:

- Feature descriptions
- Supported hardware baseline
- Software and documentation
- Supported upgrade paths
- Compatibility
- Resolved bugs
- Customer-known bugs

Directions for accessing key Oracle sites and services are also identified in the Oracle References and Services.

Release notes are available on Oracle Help Center and are made available for every software release.

Disclaimer

Before installing third-party software on the same server with Oracle products (for example, DSR, PCRF, UDR, PIC, EAGLE and so on), please be aware of the following information:

- Oracle is not responsible for installation, operation, maintenance, etc. of any non-Oracle distributed software with Oracle products (for example, DSR, PCRF, UDR, PIC, EAGLE and so on).
- Additional due diligence including testing is recommended to be performed in the lab before deploying non-Oracle software on production sites to avoid potential issues.
- Oracle is not responsible for validating or integrating non-Oracle software with Oracle products (for example, DSR, PCRF, UDR, PIC, EAGLE and so on). Additionally, persistence of the non-Oracle software over upgrade of the Oracle product may or may not occur, and Oracle does not guarantee the non-Oracle software will persist.
- Oracle Support may require that the customer uninstall the non-Oracle software and reinstall Oracle products (for example, DSR, PCRF, UDR, PIC, EAGLE and so on) to recover the system to address a field issue.

2
Enhancements Descriptions

This release of Oracle Communications Policy Management adds the enhancements described in this chapter.

3GPP Support Enhancements

Policy Action to Set Time-Conditioned APN-AMBR—ER 22135911

This enhancement supports setting the APN Aggregated Maximum Bit Rate (APN-AMBR) value that becomes effective at a specified time.

Policy Action to Time -Conditioned ARP and QCI (DEBQ)—ER 24750030

This enhancement supports setting the Allocation-Retention-Priority (ARP) and QoS-Class-Identifier (QCI) information which becomes effective at a specified time.

New RAT-Type for NarrowBand IoT—ER 24953778

This enhancement supports the RAT type value `EUTRAN-NB-IoT (1005)` for the RAT-Type AVP.

Policy Engine Enhancements

Policy Action to Randomize Time—ER 22315343

This enhancement supports randomized time configuration for the following times:

- Execution-Time
- PCC Rule/Profile Activation-Time
- PCC Rule/Profile Deactivation-Time
- Rrevalidation time

System Enhancements

Virtualized Software Bundle—ER 23173988

This enhancement enables operators to deploy a virtualized policy solution (including both Oracle Communications Policy Management and Oracle Communications User Data Repository) with a small capacity footprint, such as single cluster of servers.

Platform Enhancements

VMWare support in NF Agent—ER 23634069

This enhancement allows the NF Agent to manage the VM lifecycle in VMWare virtual environments using the vCloudDirector.

VNF Orchestration using Oracle NSO—ER 20396273

This enhancement provides virtual network function (VNF) on-boarding, scaling out, scaling in, and decommissioning through Oracle Communications Network Service Orchestrator (NSO).

Modify MySQL Password—ER 25173137

This enhancement enables operators to modify the MySQL password and also adds CLI capability for performing the modification.

Management Enhancements

Policy Configuration Management over OSSI Interface—ER 23081328

This enhancement adds an interface/API to the 3[rd]party configuration management platform to realize the configuration management functionalities over OSSI interface.

Backup/Restore of MRA Associations—ER 25241720

This enhancement adds support for export/import and checkpoint functions for MRA associations.

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Software and Documentation

Oracle Communications Policy Management software is available for download on the Oracle software delivery website. Documentation is delivered electronically on Oracle Help Center. Both the software and the documentation are listed in this section.

Software

All components are available for download from the software delivery website (http://www.oracle.com/us/support/software/premier/my-oracle-support-068523.html).

> **Note:**
>
> These files are available in one or more of the following formats:
> - *.iso: for bare metal deployments
> - *.ova: for VMware and OVM/OVS deployments
> - *.qcow2: for KVM/Openstack deployments

Software:

- Oracle Communications Policy Configuration Management Platform 12.3.0.0_xx.x.0
- Oracle Communications Policy Multimedia Policy Engine 12.3.0.0_xx.x.0
- Oracle Communications Policy Front End 12.3.0.0_xx.x.0
- Oracle Communications Mediation Server 12.3.0.0_xx.x.0
- Oracle Communications Tekelec Virtual Operating Environment (TVOE) 3.0.3.0.0_86.45.0
- Oracle Communications Tekelec Platform Distribution (TPD) 7.0.3.0.0_86.46.0
- Oracle Communications Tekelec Platform Management and Configuration (PM&C) 6.0.3.0.2_60.28.0

> **Note:**
>
> This list is accurate at the time of release, but is subject to change. View the Oracle Software Delivery Cloud site for the latest information.

Documentation

All documents available for download from Oracle Help Center (http://docs.oracle.com/en/industries/communications).

> **Note:**
>
> This list is accurate at the time of release but is subject to change. See Oracle Help Center for all available documents.

- Platform Configuration User's Guide
- Configuration Management Platform Wireless User's Guide
- Policy Wizard Reference
- SNMP User's Guide
- OSSI XML Interface Definitions Reference
- Policy Front End User's Guide
- Mediation Server User's Guide
- Troubleshooting Reference
- Analytics Data Stream Reference
- Policy Variables Reference
- Network Impact Report
- Virtual Network Function Overview and Direction
- Cloud Installation Guide
- Software Installation Guide
- 12.1.x/12.2.x to 12.3 Upgrade Procedure Georedundancy Enabled
- 12.1.x/12.2.x to 12.3 Upgrade Procedure Non-CMP Georedundancy Disabled
- Disaster Recovery Guide
- Cloud Software Upgrade Guide, Georedundancy Disabled
- Cloud Software Upgrade Guide, Georedundancy Enabled
- Cloud Disaster Recovery Guide
- Concepts for Wireless Networks
- Licensing Information User Manual

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Supported Hardware Baseline

The hardware identified in Supported Hardware Baseline comprises the hardware and server versions that have been verified with this release.

Supported Hardware Baseline

Table 4-1   Supported Hardware Baseline

Hardware	Description
HP Gen 8/8+	Rackmount and C-Class servers configured as defined in the configuration workbook.
HP Gen 9	Rackmount and C-Class servers configured as defined in the configuration workbook.
X5-2 servers	Rackmount servers configured as defined in the configuration workbook.
X5-2 NETRA servers	Rackmount servers configured as defined in the configuration workbook.

The firmware components are software that is installed on the hardware. These components are listed in the Firmware Release Notice:http://docs.oracle.com/cd/E57832_01/index.htm.

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Firmware Components

The firmware components are software that is installed on the hardware. These components are listed in the Firmware Release Notice:http://docs.oracle.com/cd/E57832_01/index.htm.

Firmware Component List

The firmware documents are available from Oracle Help Center: http://docs.oracle.com/cd/E57832_01/index.htm.

Table 5-1 shows the firmware components used in this release.

Table 5-1   Release 12.3 Supported Firmware Components

Hardware	Release	Description
HP Firmware FUP	2.2.9 (minimum)*	FC
Oracle X5-2 Firmware	3.1.5 (minimum)	FC

FC - Fully Compatible

PC - Partially Compatible (Compatible but not fully functional (feature dependent))

NC - Not Compatible

N/A - Not Applicable

* Policy Management Release 12.3 can be used in conjunction with any supported firmware shown in the *HP Solutions Firmware Upgrade Pack (FUP), Software Centric Release Notes 2.2.9* located at: http://docs.oracle.com/cd/E52577_01/docs.60/E64917-03.pdf. This document specifies the minimum required firmware level. In many cases, it is not necessary to upgrade the firmware to the latest level.

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Compatibility and Software Upgrade Paths

This chapter provides a Policy Management compatibility matrix and a table of upgrade paths.

UDR and Policy Management Compatibility Matrix

The firmware documents are available from Oracle Help Center: http://docs.oracle.com/cd/E57832_01/index.htm.

UDR and Policy Management Compatibility Matrix lists which releases of Policy Management are compatible with each release of UDR.

Table 6-1   UDR and Policy Management Compatibility Matrix

UDR Software Release	Compatible Policy Management Software Releases
10.0	10.5, 11.5, 12.1
10.2	11.5, 12.1
12.1	11.5, 12.1*, 12.2 , 12.3
12.2	12.1, 12.2, 12.3

* If you decide to use the UDR enterprise pools feature in UDR release 12.2, then Policy Management release 12.2 is required. A special upgrade sequence order is required:

1. Upgrade to Policy Management 12.2.

2. Upgrade to UDR 12.2.

3. Upgrade to Policy Management 12.2.2.

After this is complete, the UDR enterprise pools feature can be enabled.

7
Upgrade Paths

This release has been tested for upgrades from specific prior releases. This chapter contains the exact paths for upgrade for wireless mode. Verify that your current installed release is listed on a valid upgrade path. The possible upgrade paths to Policy Management 12.3.0 are listed in the below table:

Table 7-1   Upgrade Paths

From	To
12.1.x	12.3.0
12.2.x	12.3.0

8
Resolved and Known Bugs

This chapter lists the resolved and known bugs for this release of Oracle Communications Policy Management.

These bug lists are distributed to customers with a new software release at the time of general availability (GA) and are updated for each maintenance release.

Severity Definitions

The resolved and known bug tables in this document refer to bug severity levels listed in this section. Definitions of these levels can be found in the publication *TL 9000 Quality Management System Measurement Handbook*.

> **Note:**
>
> A problem report is a report from a customer or on behalf of the customer concerning a product or process defect requesting an investigation of the issue and a resolution to remove the cause. The report may be issued via any medium. Problem reports are systemic deficiencies with hardware, software, documentation, delivery, billing, invoicing, servicing, or any other process involved with the acquisition, operation, or performance of a product. An incident reported simply to request help to bring back the service or functionality to normal without the intent to investigate and provide a resolution to the cause of the incident is not a problem report.

- Critical: Conditions that severely affect the primary functionality of the product and, because of the business impact to the customer, requires non-stop immediate corrective action, regardless of time of day or day of the week as viewed by a customer on discussion with the organization such as the following:

  1. Product inoperability (total or partial outage)

  2. A reduction in the traffic/data handling capability, such that expected loads cannot be handled

  3. Any loss of emergency capability (for example, emergency 911 calls)

  4. Safety hazard or risk of security breach

- Major: Product is usable, but a condition exists that seriously degrades the product operation, maintenance, or administration, etc., and requires attention during pre-defined standard hours to resolve the situation. The urgency is less than in critical situations because of a lesser immediate or impending effect on product performance, customers, and the customer's operation and revenue such as the following:

  1. Reduction in the product's capacity (but still able to handle the expected load)

  2. Any loss of administrative or maintenance visibility of the product and/or diagnostic capability

      3. Repeated degradation of an essential component or function

      4. Degradation of the product's ability to provide any required notification of malfunction

- Minor: Other problems of a lesser severity than Critical or Major such as conditions that have little or no impairment on the function of the system.

- Minor: No Loss of Service. Oracle severity is outside what is defined by TL 9000.

The numbered severity levels in the tables below correspond to these definitions:

- 1 - Critical

- 2 - Major

- 3 - Minor

- 4 - Minor: No Loss of Service.
  Oracle severity is outside what is defined by TL 9000.

Resolved Bug Listing

Table 8-1 lists bugs that are resolved in the following builds:

> ✎ **Note:**
>
> These files are available in one or more of the following formats:
>
> - *.iso: for bare metal deployments
>
> - *.ova: for VMware and OVM/OVS deployments
>
> - *.qcow2: for KVM/Openstack deployments

Application Lineup

- Oracle Communications Policy Configuration Management Platform 12.3.0.0_xx.x.0

- Oracle Communications Policy Multimedia Policy Engine 12.3.0.0_xx.x.0

- Oracle Communications Policy Front End 12.3.0.0_xx.x.0

- Oracle Communications Mediation Server 12.3.0.0_xx.x.0

Platform Lineup

- Oracle Communications Tekelec Virtual Operating Environment (TVOE) 3.0.3.0.0-86.45.0

- Oracle Communications Tekelec Platform Distribution (TPD) 7.0.3.0.0-86.46.0

- Oracle Communications Tekelec Platform Management and Configuration (PM&C) 6.0.3.0.2-60.28.0

The load line-up listed above provides a view of Oracle's GA milestone release.

> ✏️ **Note:**
>
> Resolved bugs are sorted in ascending order by severity and then by bug number.

Table 8-1   Oracle Communications Policy Management Release 12.3.0. Resolved Bugs

Severity	Bug Number	SR#	Title
3	25909336	14685312831	TPS drop to Zero observed in TPS trending report for CMP
2	25785612	14371638271	IMS-HSS Application lost connection with peer dab-max1-mpe3.da
3	25765155	14528117691	Export task fails if the Matchlist Or monitoring Key has a name that includes "
3	25741802	14404386461	Multiple UDRs
3	25679659	14643970201	[Savelogs] Export audit log failed with error in savelogs
1	25632783	14364589561	subscribers are not being capped when quota reaches 100%.
3	25603321	14809292621	R12.3:GEN:P1- Not able to fetch DIAMETEREVENTTRIGGER STATS through OSSI
2	25360609	13994228091	Issue in adding multiple grouped Custom AVPs under the same parent AVP
3	25340945	13993122631 13956445421 13964995201	Leap Second - unexpected behavior
3	25320076	13905344711	PCRF 12.2 MPE does not send STR after close session
3	25232750	13654890101	rcmgr does not show updated X2 and X3 destination
4	25183785	NA	Incorrect MIB labelling for pcrfMIBNo
3	25167298	NA	After upgrade from 11.5, the MPE always shows in Config Mis-Match status
3	25161115	NA	TPS has a high peak every 6 hours caused by session cleanup (default settings)
3	25139910	NA	[Failover] Standby server failed go to active due to inactive route on SigA VIP
3	25096011	NA	[Perf] MPE runs on HP G8 cannot support 8K TPS which dropped much than expected
3	25092515	13601799301	Diameter Missing AVP
3	24799330	NA	PCD: KPI Dashboard and OSSI support for PCD TPS Stats
4	24706902	NA	[Browser IEv11]Data of PDN Connection Report will be implicit if click Save as C
3	24706231	NA	[VNF,HEAT] VM's fields display blank, after update staticIP/VIP
3	24698475	13358707371	Remove/Delete MRA clusters is not possible
3	24461364	NA	NF Mgmt: Unable to Modify NF Agent Managed VM Network Ports

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Table 8-1   (Cont.) Oracle Communications Policy Management Release 12.3.0. Resolved Bugs

Severity	Bug Number	SR#	Title
3	24341240	NA	NF Mgmt: OpenStack Heat: Unable to Modify NF Agent Managed non-Active VM
3	24298127	NA	NF Mgmt: Alarm 78850 Not Cleared When Alarmed VM Deleted
3	24296447	14543734471	[reports] PCEF latency stat shows Maximum Processing Time received 66546162
3	23525419	12528546701	Alarm Id 72904 System has entered BUSY
3	21635697	11047327471	SSHkey exchange failed on cmp server, garbage values in the authorized_keys file
3	21628403	NA	qpSSHKeyProv.pl script checks for known_hosts file with case sensitivity

Customer-Known Bugs

Table 8-2 lists known bugs in this release:

> **Note:**
>
> Resolved bugs are sorted in ascending order by severity and then by bug number.

Table 8-2   Oracle Communications Policy Management 12.3.0 Customer-Known Bugs

Sev	Bug Number	Title	Impact Statement	Work Around
3	25957714	Custom Vendor can't be removed when Importing by "Delete all before importing"	The import result details lists the detailed warning about the customer vendor import failure. The customer vendor can either manually delete the existing customer vendor or import the vendor again and select the **Overwrite All** option before importing again.	Select the **Overwrite all** option when importing the AVP definition.

Table 8-2   (Cont.) Oracle Communications Policy Management 12.3.0 Customer-Known Bugs

Sev	Bug Number	Title	Impact Statement	Work Around
4	25957811	Previous interval stats is also returned for specified interval OSSI query	NA	Replace the start time without a sharp time such as '2017-04-25T15:45:01Z' Example: `wget --post-data='<?xml version="1.0" encoding="UTF-8"?> <QueryOmStats ValidateResonseXML="true"> <StartTime>2017-04-25T15:45:01 Z</StartTime> <EndTime>2017-04-25T16:00:00Z< /EndTime> <DiameterSyStats> <PolicyServer></PolicyServer> </DiameterSyStats> </QueryOmStats>' --output-document=- " http://10.113.43.90/mi/ xmlInterfaceRequest.do? user=admin&pwd=camiant"`

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Oracle References and Services

This chapter describes how to obtain help, where to find related documentation, and provides other general information.

My Oracle Support

My Oracle Support is your initial point of contact for all product support and training needs. A representative at Customer Care Center can assist you with My Oracle Support registration.

Call the My Oracle Support main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select 2 for New Service Request

2. Select 3 for Hardware, Networking and Solaris Operating System Support

3. Select one of the following options:

    • For Technical issues such as creating a new Service Request (SR), Select 1

    • For Non-technical issues such as registration or assistance with MOS, Select 2

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support main number at 1-800-223-1711 (toll-free in the US), or by calling the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. The emergency response provides immediate coverage, automatic escalation, and other features to ensure that the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

• A total system failure that results in loss of all transaction processing capability

• Significant reduction in system capacity or traffic handling capability

• Loss of the system's ability to perform automatic system reconfiguration

• Inability to restart a processor or the system

- Corruption of system databases that requires service affecting corrective actions

- Loss of access for maintenance or recovery operations

- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Customer Training

Oracle University offers training for service providers and enterprises. Visit our web site to view, and register for, Oracle Communications training:

http://education.oracle.com/communication

To obtain contact phone numbers for countries or regions, visit the Oracle University Education web site:

www.oracle.com/education/contacts

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center site, http://docs.oracle.com/. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at http://www.adobe.com.

1. Access the Oracle Help Center site at http://docs.oracle.com/.

2. Click `Industries`.

3. Under the Oracle Communications subheading, click the `Oracle Communications documentation` link.

   The Communications Documentation page opens. Policy Management is listed in the Network Session Delivery and Control Infrastructure section.

4. Click **Policy Management** and then the release number.

   A list of the documentation set for the release displays.

5. To download a document, click (download icon) and then click **PDF**.

Locate Product Release Software on the Oracle Software Delivery Cloud Site

Oracle Communications software is available for electronic download at the Oracle Software Delivery Cloud site, https://edelivery.oracle.com. Only authorized customers with a valid password may download software from the site.

For directions on downloading the software and other information about using this site, click **FAQ** in the top right corner.