Oracle® Communications Policy Management Release 9.9

Release Notes

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Introduction

Release 9.9 provides diameter routing features and VoLTE related features required by CMCC.

This Release Notice includes Feature Descriptions, supported Hardware Baseline, Media and Documentation pack contents and identifies the Supported Upgrade Paths. This document also includes listings of both the Resolved and Known Bugs for this Release. Directions for accessing key Oracle sites and Services are also identified in the *Oracle References and Services* chapter.

Release Notices are included in the Documentation Pack made available with every Software Release.

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Feature Descriptions

This Release delivers the following features:

- ADC Rule Support in PCC Rule Level (BugID# 20271473)
- Add the Policy Support to Judge Roaming Status According to PCEF's Hostname (BugID# 19116506)
- Add Several Raw Counter for Rx Related Messages (BugID# 19117768)
- Add SigC Address (BugID# 20271469)
- Diameter Routing Feature Set (BugID# 20271461, BugID# 20271465)
- Profile Viewer Supports OCUDR in Mediation Configuration (BugID# 19472105)
- *SCTP Counters (BugID# 19111993)*
- SigC Address Support in MRA (BugID# 20271469)
- Specify Gx and Rx Result Code (BugID# 19488243)
- SPR Query Supports OCUDR in CMP (BugID# 19471939)
- Support Upgrade To 9.9 From 9.8 (BugID# 19112192)
- ToD Setting For a Specific Day (BugID# 20271481)
- Topology Hiding in MRA For Rx Application (BugID# 19116504)
- [VoLTE] PCRF Consider RR/RS Bandwidth is not Present if PCC Profile is Applied for Rx Flow (BugID# 19119453)
- Value Zero of RR Bandwidth and RS Bandwidth Shall Mean they are not Present (BugID# 19119452)

ADC Rule Support in PCC Rule Level (BugID# 20271473)

PCRF needs to support application detection information and redirect function in Gx interface IF the PCEF supports Application Detection and Control feature.

Add the Policy Support to Judge Roaming Status According to PCEF's Hostname (BugID# 19116506)

PCRF shall support to add the policy to judge the roaming status according to PCEF's hostname requested by a customer.

Add Several Raw Counter for Rx Related Messages (BugID# 19117768)

With the Rx interface is introduced to the live deployment.

Add SigC Address (BugID# 20271469)

Sig C address in MRA shall be able to be created and configured in CMP GUI.

Note: This enhancement feature only applicable to the policy solution based on HP c-Class Gen8 and Gen9 hardware. DL360/380 and HP c-Class Gen6 hardware support is not in the scope of the requirement.

Diameter Routing Feature Set (BugID# 20271461, BugID# 20271465)

This feature is an effort to realize series of diameter routing functions required by some customers in LTE deployment with P-DRA is introduced in network.

PCRF shall be able to support the diameter routing features described below in Gx/Rx/Sy/Sd/Gxx interface.

Profile Viewer Supports OCUDR in Mediation Configuration (BugID# 19472105)

In Profile Viewer of Medication Configuration in CMP, new BOSS spec shall be supported.

SCTP Counters (BugID# 19111993)

PCRF shall support some SCTP association-level counters that required by a customer with the format defined in PM/NRM v2.0

SigC Address Support in MRA (BugID# 20271469)

This feature is only applicable to the policy solution based on HP c-Class Gen8 and Gen9 hardware. DL360/380 and HP c-Class Gen6 hardware support is not in the scope of the requirement.

Specify Gx and Rx Result Code (BugID# 19488243)

Result code of DIAMETER_UNKNOWN_SESSION_ID (5002) and current DIAMETER_UNABLE_TO_COMPLY (5012) shall be supported via configuration in CCA-U/CCA-T when no session binding info was found in MRA.

Result code of DIAMETER_UNKNOWN_SESSION_ID (5002) and current IP_CAN_SESSION_NOT_AVAILABLE (5065) shall be supported via configuration in AAR-I/AAR-U/AAR/STR when no session binding info was found in MRA.

SPR Query Supports OCUDR in CMP (BugID# 19471939)

In CMP's SPR query page, the new SEC deployed in OCUDR shall be supported, including new fields added for Subscriber entity, and the two new entities UsrSessionPolicy and UsrLocation. And CMP also shall support backward compatible with Blueslice.

Support Upgrade To 9.9 From 9.8 (BugID# 19112192)

PCRF shall support smoothly upgrade from Rel9.8 to Rel9.9

ToD Setting For a Specific Day (BugID# 20271481)

This feature enhancement will allow PCRF to make flexible configuration to realize the ToD in a specific required calendar date. One or several specific calendar days with configurable GUI with the format of Year//Month/Day for ToD shall be able to be supported by PCRF.

Topology Hiding in MRA For Rx Application (BugID# 19116504)

MRA is working as the prime of multiple MPE instances interacting with external diameter network elements (AF/P-DRA), its hostname is required to be presenting in the messages exchange between PCRF system (1*MRA+n*MPEs) and external diameter network elements such as AF/P-DRA on the purpose of topology hiding. With Rx interface is introduced in many operators, topology hiding feature in MRA for Rx interface is required accordingly.

[VoLTE] PCRF Consider RR/RS Bandwidth is not Present if PCC Profile is Applied for Rx Flow (BugID# 19119453)

The QoS parameters needs to be mapped based on the definition of QoS parameter mapping Functions at PCRF in 3GPP 29.213 (v10.11.0) especially for the scenario when RR bandwidth and RS bandwidth is not presented in the messages coming from Rx interface.

Value Zero of RR Bandwidth and RS Bandwidth Shall Mean they are not Present (BugID# 19119452)

Value Zero of RR Bandwidth and RS Bandwidth Shall Mean they are not Present (BugID# 19119452)

Feature Descriptions

When the value of RR bandwidth and RS bandwidth equals to zero in the messages coming from Rx interface, the PCRF should map the QoS parameters based on the scenario when RR bandwidth and RS bandwidth is not presented.

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Policy Management Release 9.9 Media and Documentation

Topics:

- Media Pack.....12
- Documentation Pack.....12

Oracle Communications software is available for electronic download on the Oracle Software Delivery Cloud (OSDC). Documentation is delivered electronically on the Oracle Technology Network (OTN). Both the software Media Pack and the Documentation Pack are listed in this chapter.

Media Pack

All components available for download from the Oracle Software Delivery Cloud (https://edelivery.oracle.com/) are in Table 1: Media Pack Contents.

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

Table 1: Media Pack Contents

Name
Oracle Communications Policy Configuration Management Platform 9.9.0.0.0-36.1.0
Oracle Communications Policy Front End 9.9.0.0.0-36.1.0
Oracle Communications Policy Multimedia Policy Engine 9.9.0.036.1.0
Oracle Communications Policy Mediation 9.9.0.0.0-36.1.0
Oracle Communications Tekelec Platform Distribution 6.7.0.0.1-84.18.0
Oracle Communications Tekelec Virtual Operating Environment 2.7.0.0.0-84.20.0
Oracle Communications Tekelec Platform Management and Configuration 5.7.0.0.1-57.17.1

Documentation Pack

All documents available for download from the Oracle Technology Network (OTN) site (http://docs.oracle.com) are listed in Table 2: Documentation Pack Contents.

Note: This list is accurate at the time of release, but is subject to change. Please view the OTN site for the latest information.

Table 2: Documentation Pack Contents

Name
Related Publications Reference
Roadmap to Hardware Documentation
Platform Configuration User Guide
Configuration Management Platform Wireless User Guide
Policy Wizard Reference
SNMP User Guide
OSSI XML Interface Definitions Reference Guide
Policy Front End Wireless User's Guide
Troubleshooting Reference Guide

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Analytics Data Stream Wireless Reference

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Supported Hardware Baseline

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The Hardware identified in *Table 3: Supported Hardware Baseline* comprises the hardware and server versions that have been verified with this Release.

Supported Hardware Baseline

Table 3: Supported Hardware Baseline

Hardware	Description
HP Gen6 and Gen8 C-Class Blades	C-Class Blade Servers configured as defined in configuration workbook

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Policy Management Release 9.9 Supported Upgrade Paths

Topics:

• Supported Upgrade Paths.....17

This release has been tested for upgrades from specific prior releases; this chapter contains the exact paths for upgrade. Please verify that your current installed release is listed on a valid upgrade path.

Supported Upgrade Paths

The possible upgrade paths to Policy Management Release 9.9 are listed below.

Table 4: Policy Management Release 9.9 Upgrade Paths

From	То
9.8	9.9

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Policy Management Release 9.9 Resolved and Known Bugs

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- Severity Definitions....19
- Resolved Bug Listing....19
- Customer Known Bug Listing.....20

This chapter lists the Resolved and Known Bugs for Policy Management Release 9.9

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 problem report sections in this document refer to Bug severity levels. Definitions of these levels can be found in the publication, *TL* 9000 Quality Management System Measurement Handbook.

Problem Report: 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
 - 1. product inoperability (total or partial outage),
 - 2. a reduction in the capacity capability, that is, traffic/data handling capability, such that expected loads cannot be handled,
 - 3. any loss of emergency capability (for example, emergency 911 calls), or
 - **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
 - 1. reduction in 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, or
 - 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

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

- 1 Critical
- 2 Major
- 3 Minor

Resolved Bug Listing

Table 5: Policy Management Release 9.9 Resolved Bugs lists bugs that are resolved in the following builds:

Application Lineup

- Oracle Communications Policy Configuration Management Platform 9.9.0.0.0-36.1.0
- Oracle Communications Policy Front End 9.9.0.0.0-36.1.0
- Oracle Communications Policy Multimedia Policy Engine 9.9.0.0.0-36.1.0

• Oracle Communications Policy Mediation 9.9.0.0.0-36.1.0

Platform Lineup

- Oracle Communications Tekelec Platform Distribution 6.7.0.0.1-84.18.0
- Oracle Communications Tekelec Virtual Operating Environment 2.7.0.0.0-84.20.0
- Oracle Communications Tekelec Platform Management and Configuration 5.7.0.0.1-57.17.1

Note: Resolved bugs are sorted in ascending order by Severity (Sev), and then by Bug number.

Table 5: Policy Management Release 9.9 Resolved Bugs

Bug number	Severity	Title
19116016	Minor	[236977]APR Timeout
20210993	Minor	9.9 Sync code refact
19112993	Minor	[236562][merge]this build can not support Mysq 5.6.15 1.el6l
19117357	Minor	[239912][AUTO]STR contains Required Access Info AVP MS_Time_Zone, but STA doesn'
19113709	Minor	[237001][Merge][Cable]: comcol status is abnormal after install
19112181	Minor	[232575]Flow-Description AVP doesn't comply with 3GPP Release 9

Customer Known Bug Listing

Table 6: Policy Management Release 9.9 Customer Known Bugs lists known bugs in this release:

Table 6: Policy Management Release 9.9 Customer Known Bugs

Bug Number	Severity	Title
20510344	3	[239247][Mediation server give alarm 32508 Server Core File Detected
20435900	3	Save log of JNI native part in trace.dat of app process
20379089	3	[PR235938]MPE active&standby balde with different session count after upgrade
20356801	3	MPE haven't any protection mechanisms when system resource isn't enough
20355399	3	[PR242223]MPE send out unnecessary UDR when usrSessionPolicy active or inactive
20355370	3	[CMP]The button "Filter"for searching Batch Task Status doesn't work in IE9
20355329	3	[CMP] online help display tekelec tag
20348504	3	cmp's online help couldn't search alarm/tracelog in some version of firefox/IE

Bug Number	Severity	Title
20342701	3	[PR240024]Policy table used in TOD for one specific day of specific month
20330679	3	[239247]MPE will not do billing cycle reset under certain condition
20308178	3	[239247][CMP]Mediation/profile viewer/subscribe's IMSI is diff on Audit Mode
20284381	3	[AUTO]Invalid result code for reject message with code 2000, CCA return 5012
20272442	3	[239247][Mediation]enter into load-shedding state send so many alarm to CMP
20266760	3	[MDFperf]ProvisionTokenBucket can not take effect.
20241010	3	[PR239247]If mediation is inactive, click 'Export'in Batch Task Status, has error
20240652	3	Mediation9.9 doesn't save UsrIMSI,UsrBillingType into table DeleteSubscriber
20225211	3	[AUTO]11.5PR19119370 ,[Eliminate PCRF Default Bearer]The default EPS bearer is
20218289	3	[PR240024]overlap didn't check when * year meets year of five years later
20212208	3	[regression]tracelog has no details when received PNR
20211352	3	[PR239247]could not trigger alarm 79107 and 79108
20105698	3	[regression]no Revalidation-Time AVP got in RAR
20083012	3	[PR239247]If mediation is inactive, click 'Filter'in Batch Task Status, has error

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Oracle References and Services

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My Oracle Support (MOS)

MOS (https://support.oracle.com) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS 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 will be connected to a live agent who can assist you with MOS registration and opening a support ticket.

MOS 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 (CAS) 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 expert training on Oracle Communications solutions for service providers and enterprises. Make sure your staff has the skills to configure, customize, administer, and operate your communications solutions, so that your business can realize all of the benefits that these rich solutions offer. Visit the Oracle University web site to view and register for Oracle Communications training: <code>education.oracle.com/communication</code>. To reach Oracle University:

- In the US, please dial 800-529-0165.
- In Canada, please dial 866-825-9790.
- In Germany, please dial 0180 2000 526 (toll free) or +49 8914301200 (International).
- In Spain, please dial +34 91 6267 792.
- In the United Kingdom, please dial 0845 777 7 711 (toll free) or +44 11 89 726 500 (International).

For the appropriate country or region contact phone number for the rest of the world, please visit Oracle University's web site at http://www.oracle.com/education/contacts.

Locate Product Documentation on the Oracle Technology Network Site

Oracle customer documentation is available on the web at the Oracle Technology Network (OTN) 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 www.adobe.com.

- 1. Log into the Oracle Technology Network site at http://docs.oracle.com.
- Select the Applications tile.The Applications Documentation page appears.
- 3. Select Apps A-Z.
- **4.** After the page refreshes, select the Communications link to advance to the **Oracle Communications Documentation** page.
- **5.** Navigate to your Product and then the Release Number, and click the View link (note that the Download link will retrieve the entire documentation set).
- 6. To download a file to your location, right-click the PDF link and select Save Target As.

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 (OSDC) site, https://edelivery.oracle.com. Only authorized customers with a valid password may download software from the site.

- **1.** Log into the Oracle Software Delivery Cloud site at https://edelivery.oracle.com. The **Terms & Restrictions** page appears.
- **2.** Read and accept both the Oracle Trial License Agreement and the Export Restrictions Agreement. The **Media Pack Search** page appears.
- 3. Select Oracle Communications for Product Pack and Tekelec for Platform.
- **4.** Click the **Go** button.

 All media packs that meet the search criteria are displayed on the page.
- **5.** Select the media pack for your Product and Release Number and click the **Continue** button. The **Download** page appears.
- **6.** Provide a valid password in the **Password** field and click the **Go** button.
- 7. To download a file to your location, click the **Download** button.

Appendix

A

Firmware Components

Topics:

• Firmware Components.....26

The firmware components are software that is installed on the hardware. These components are listed in this chapter, and are also listed in the Firmware Release Notice. Please refer to the latest Firmware Release Notice for any updates to this list.

Firmware Components

The firmware document is available on the Oracle Technology Network (OTN) site at:

• http://docs.oracle.com/cd/E57059_01/docs.67/E56670.pdf