Oracle® Communications Policy Management

Release Notes

Release 12.2

E72271 Revision 01

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ORACLE®

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1

Introduction

These release notes identify the functions and features of Oracle Communications Policy Management release12.2.0.0 which include:

- Feature descriptions
- Supported hardware baseline
- Software and Documentation Pack
- Supported upgrade paths
- Resolved bugs
- Customer-known bugs

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

Release notes are included in the Documentation Pack and made available with every software release.

Chapter

2

Enhancement Descriptions

This release lists the enhancements for this release.

Common Mode Enhancements

EVS Codec Support - ER 22135682

EVS (Enhanced Voice Service) is a codec that has been adopted by 3GPP. Oracle Communications Policy Management supports the EVS codec and computes the bandwidth based on the codec data offered in the SDP messages.

Network Function Agent - ER 20837199

This enhancement simplifies management of Policy Management VNFs by interfacing with Virtual Infrastructure Managers (VIM) to associate service configurations with the corresponding instantiated components using OpenStack direct interface or HEAT templates. This software maps the underlying infrastructure to the logical application components. This functionality is co-located with CMP.

Add audit log to CMP Savelog - ER 20319847

This enhancement allows the user to add the audit log to the CMP Savelog to assist in debugging issues.

Set Engineering Logging Level via CMP - ER 20325595

The operator can now easily modify the MPE and MRA logging level to capture additional information that can be useful for debugging issues. Prior to this feature, the debug level logging was changed by changing `logconfig.xml` file at each target MPE or MRA.

Enhancements to the Wireless Mode

Enhancements to 3GPP Support

Usage Monitoring Congestion Handling (Updated Time-Tariff Spec) - ER 19720700

This enhancement enables Oracle Communications Policy Management to send multiple service units for a subscriber in a single message towards PCEF, and also receive usage reports for units granted in a single message thereby providing a mechanism to reduce number of message exchanges across nodes.

Time-Based Usage Management (TimeBasedUM) - ER 20224100

This enhancement enables Oracle Communications Policy Management to support the time-based usage management on Gx and Sd interfaces. Policy Management can provide time-based thresholds towards the PCEF using the CC-Time AVP with in Granted-Services-Unit AVP, thereby providing time-based monitoring control.

Application-Based Charging - ER 21322637

This enhancement enables Oracle Communications Policy Management to support application-based charging functionality on Gx and Sd interfaces. This functionality allows operators to differentiate offerings on a service plan based on services such as gaming or social networking.

Group Communication Service - ER 21322663

This enhancement allows operators to create policy conditions based on Group Communication Service (GCS) and applies default GCS ARP values to the corresponding Gx session.

Allow QCI Values from 1 to 254 - ER 21322637

OCPM now supports QCI values from 1 to 254. Previously, OCPM supported 3GPP-defined values 1 through 9.

Mission Critical and Non-Critical Push to Talk QCIs - ER 21322590

This enhancement provides QCI values assigned for mission critical services (65, 69, 70) such as police or firefighters, and QCI (66) for non-mission-critical Push to Talk.

Diameter Routing Message Priority (DRMP) - ER 22121678

This enhancement enables Oracle Communications Policy Management to recognize that an incoming Rx request is for priority service and pass this priority information towards PCEF by setting DRMP AVP in a RAR message, and a priority service on Rx is identified by looking at the "RESERVATION-PRIORITY" and "MPS-ID" AVPs.

ADC Rule Support for PCC Rule Level - ER 20271473

This enhancement enables Oracle Communications Policy Management to instruct the PCEF to detect an application by providing the charging-rule-install AVP with the corresponding parameters and provide the redirect instruction for a dynamic PCC rule to the PCEF enhanced with an ADC in the PCC rule level.

Enhancements to the Policy Engine

Virtualized Policy Tables - ER 19482300

This enhancement provides a mechanism to roll out policy table changes to a subset of MPEs without impacting the rest of the deployment.

Selectively Trigger Policy Evaluation on Termination (Disable STR Policy Processing) - ER 20632502

This enhancement enables Policy Management to be provisioned to evaluate policies based on the type of received termination message (for example, Rx:STR or Gx:CCR-T). Previously, a single setting controlled whether policies were evaluated for all termination messages.

Policy Triggers for Specific Days (ToD setting for one specific day in a month) - ER 20271481

This enhancement enables Policy Management to be configured for higher flexibility in triggering ToD on a specific day or several days with the format of calendar days such as public holiday, special marketing activities with specific duration.

Policy Condition for PCEF Identity (Policy Judgment According to PCEF's Domain) - ER 20271484

This enhancement enables Policy Management to perform string matches based on the PCEF host name to determine roaming status. This feature requires that operators define the PCEF host name to include roaming information.

Policy Action to Set Gx Session Level Parameters on Rx Request - ER 20632554

This enhancement enables Policy Management to include policy action that sets the value of Gx session level parameters upon receiving an Rx request. This feature also allows operators to send configured Gx session values using policy action.

Policy Action to Configure Bearer Level ARP - ER 20271401

This enhancement allows Policy Management to configure bearer level ARP preemption capability and bearer level ARP preemption vulnerability as part of a policy action.

Policy Action to Specify Result Code (Result code 5143 cannot be returned if requested QoS conflicts with authorized QoS) - ER 20271416

This enhancement enables Policy Management to send operator-defined standard and experimental result codes. In addition, more advanced QoS parameters can be set via specific policy actions.

Policy Action to Specify Release Cause (UE SUBSCRIPTION REASON cannot be returned in Session Release Cause) - ER 20271438

This enhancement enables Policy Management to return the UE_SUBSCRIPTION_REASON within the Release-Cause AVP, when the session release is caused by removing subscription data.

System Enhancements

eMPS: Load Shedding Enhancements - ER 22121678

When creating load-shedding rules to determine which traffic to shed during various congestion levels, this enhancement enables you to inspect the included DRMP value (for Gx:RAR messages) and whether the Reservation-Priority and MPS-ID AVPs are present (for Gx: CCR messages) to determine whether to shed this traffic.

Send DPR to Disconnect Diameter Connection - ER 20271448

This enhancement enables an MPE device to be configured to send a Disconnect Peer Request (DPR) to gracefully disconnect a Diameter connection.

Policy Triggers for Specific Days (ToD setting for one specific day in a month) - ER 20271481

This enhancement enables Policy Management to be configured for higher flexibility in triggering ToD on a specific day or several days with the format of calendar days such as public holiday, special marketing activities with specific duration.

Specify Gx and Rx Result Code while No Binding Info - ER 20271501

This enhancement enables the operator to configure the error codes when there is no session binding information. Different result codes can be returned depending on received message type (Gx:CCR-U, Gx:CCR-T, Rx:AAR-I, Rx:AAR-U, Rx:STR). Default values are provided for some messages.

Platform Enhancements

Network Function Agent - ER 20837199

This enhancement simplifies management of Policy Management VNFs by interfacing with Virtual Infrastructure Managers (VIM) to associate service configurations with the corresponding instantiated components using OpenStack direct interface or HEAT templates. This software maps the underlying infrastructure to the logical application components. This functionality is co-located with CMP.

Policy Connection Director (PCD) - ER 22293420

PCD software module is an enhancement within the Policy Front End (PFE/MRA) that significantly reduces the hardware requirements for a georedundant solution by providing connection-level routing.

Netra X5-2 Support - Bug 22536159

Oracle Communications Policy Management operation has been verified on Oracle Netra X5-2 Server.

SigC Logical Network - ER 20271469

Policy Management now supports an the SIG-Clogical interface for signaling communication between MPE and Policy Front End (PFE /MRA). This interface is defined with a different IP address and VLAN identifier than the existing signaling interfaces.

Configure Quaternary (Fourth) Server in Sy Data Source - ER 22998274

Policy Management now supports configuring up to four servers in an Sy data source via CMP. Previously, only three servers were supported in an Sy data source.

Management Enhancements

Additional Rx counters - ER 20271492

Policy Management is updated with additional Rx counters (for example, AAA Initial send success, AAA Initial receive success and others) that can be used for statistical and reporting purposes.

Track Maximum KPI per Message Type - ER 19113866

This enhancement enables the Oracle Communications Policy Management to track the maximum TPS (with timestamp) for each message type for each interface type; for example, RAA, CCR-I, CCR-T. This information is included in the Savelog & Statistics File Generator. It is exportable via Operation Support System Interface (OSSI) but is not available via the CMP GUI.

SPR and Quota Enhancements

Policy Action to Limit Notification Frequency (Notification During the Configured Interval) - ER 20271430

This enhancement enables the Oracle Communications Policy Management to be configured to send a notification only after a configured number of days has elapsed since the last notification and based on location information. Policy Management tracks the last SMS notification date and Cell ID information by updating the SPR database.

Notification Triggers for Aggregate Quota - ER 22258207

Policy conditions that use subscriber quota threshold can include dynamic quota constructs such as rollovers and top-ups as part of the calculation. This ensures that notification triggers are accurate.

Additional Quota Plan Reset Frequencies Options - ER 22114178

Quota plans now have additional options for reset frequency, such as resetting quota every two weeks. The new reset frequency option is applicable to pooled and subscriber quota plans. Previously, Policy Management allowed monthly, daily, and weekly options for resetting quota.

Cable Enhancements

11.5.2 Cable Feature Merge to 12.2 - ER 21510956

This enhancement provides tracelog forwarding & accommodation of IPv4 Re-use/CG-NAT for cable. These capabilities were originally introduced in release 11.5.2.

Oracle X5-2 Bare Metal Operation - ER 22186354

This enhancement verifies that operation on selected Oracle X5-2 non-Netra servers when operating in cable mode.

Configuration Templates for MPEs - 19646305

This enhancement enables the Oracle Communications Policy Management to support configuration templates for MPEs operating in cable mode.

Upgrade Director Support for Cable Software Releases - ER 19888873

This enhancement upgrades the Oracle Communications Policy Management systems supporting cable deployments to use Upgrade Director.

PCMM per MPE Summary and per CMTS Statistics through OSSI/XML - ER 20162894

This enhancement enables additional cable-specific statistics to be retrieved by the OSSI interface.

Subnet Discovery Enhancement - ER 20286860

This enhancement enables the CMP to push only new/updated CMTSs to associated MPEs.

Convert Generic HTTP Policy Notification - ER 21153115

This enhancement creates a new policy action that sends operator-defined notifications by HTTP. Oracle Communications Policy Management performs HTTP actions such as: Get, Post, Put, and Delete. This notification body can include HTTP URL, User, Session, quota, and state variables that are sent to external systems. The success (2XX) or failure (4XX or 5XX) status is logged per notification.

Unified Export/Import Feature Support for Cable Mode - ER 21348748

The enhancement enables the operator to export and import multiple types of objects to the same file. In previous releases, a separate export/import was required for each type object such as: policies, traffic profiles, retry profiles, and configuration templates.

IP V6 Support for OAM and Replication Networks - ER 22186376

This enhancement enables IPv6 addresses to be provisioned on these interfaces.

Provide the number of active gates per AMID per MPE through OSSI/XML -ER 20162817

This enhancement enables additional cable-specific statistics to be retrieved by the OSSI interface.

Error Report per AMID - ER 20286961

The Oracle Communications Policy Management provides, through the OSSI interface, an error report containing per AMID, the error type, and count of each type.

Export BOD Session Database - ER 20287350

This enhancement enables tThe Oracle Communications Policy Management to track the number of sessions created, number of sessions failed, number of concurrent active sessions and number of gate set/info/delete success/failed. BoD notification messages now include information about early termination. This includes the SUBIP, AMID, configured duration, and actual duration and reason.

Cable Policy VMware support on Multiple HW Platforms - ER 19358129

This enhancement enables Gen8 servers to provision IPv6 addresses on these interfaces.

KVM/Openstack Support - ER 19358367

This enhancement provides verified operation for selected Oracle X5-2 non-Netra servers operating in cable mode.

Behavior Modifications

Removal of Manual Statistics Mode (Statistics Mode Unification) - ER 22534128

As of this release, the manual statistics mode is no longer available. The default and only available mode in this release is interval mode statistics. In prior releases, manual stats mode is the default.

Note: Upon upgrade, previously stored information will be lost.

Firewall Enabled by Default - ER 22536198

Firewall functionality is now enabled by default. Server firewall protects Policy Management against DDoS, flooding attacks, and unwanted connections. The settings are not altered upon upgrade.

Chapter

3

Software and Documentation

Topics:

Oracle Communications 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 chapter.

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 12.2.0.0_65.1.0
- Oracle Communications Policy Management Agent 12.2.0.0_65.1.0
- Oracle Communications Policy Multimedia Policy Engine 12.2.0.0_65.1.0
- Oracle Communications Policy Front End 12.2.0.0_65.1.0
- Oracle Communications Policy Bandwidth On-Demand Application Manager 12.2.0.0_65.1.0
- Oracle Communications Mediation Server 12.2.0.0_65.1.0
- Oracle Communications Tekelec Virtual Operating Environment (TVOE) 3.0.3.0.0_86.45.0
- Oracle Communications Tekelec Platform Distribution (TBD) 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
- Configuration Management Platform Cable User's Guide
- Policy Wizard Reference
- SNMP User's Guide
- OSSI XML Interface Definitions Reference
- Policy Front End User's Guide
- Bandwidth on Demand User's Guide
- Mediation Server User's Guide
- Troubleshooting Reference
- Analytics Data Stream Reference
- 9.9.x/ 11.5.x / 12.1 to 12.2.x Upgrade Procedure, GEO-Redundant Enabled
- 9.9.x/ 11.5.x / 12.1 to 12.2.x Upgrade Procedure, GEO-Redundant Disabled

Chapter

4

Supported Hardware Baseline

Topics:

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

Supported Hardware Baseline

Table 1: Supported Hardware Baseline

Hardware	Description
HP Gen 6	Rackmount and C-Class servers configured as defined in the configuration workbook.
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*.

Chapter

5

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 (OHC):
http://docs.oracle.com/cd/E57832_01/index.htm.

Table 2: Release 12.2 Supported Firmware Components shows the firmware components used in this release.

Table 2: Release 12.2 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 12.2 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.

Chapter

6

Supported Upgrade Paths

Topics:

This release has been tested for upgrades from specific prior releases; this chapter contains the exact paths for upgrade for both wireless and cable modes. Verify that your current installed release is listed on a valid upgrade paths.

Supported Upgrade Paths

This release has been tested for upgrades from specific prior releases. This chapter contains the exact paths for upgrade. Verify that your current installed release is listed on a valid upgrade path. The possible upgrade paths to Policy 12.2.0 are listed in *Table 3: Release 12.2.0 Upgrade Paths*.

Table 3: Release 12.2.0 Upgrade Paths

From	To
9.9.x	12.2.0
11.5.x	12.2.0
12.1.x	12.2.0

Chapter

7

Resolved and Known Bugs

Topics:

This chapter lists the resolved and known bugs for Oracle Communications Policy Management 12.2.0.

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 4: Oracle Communications Policy Management Release 12.2.0. Resolved Bugs 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 12.2.0.0_65.1.0
- Oracle Communications Policy Management Agent 12.2.0.0_65.1.0
- Oracle Communications Policy Multimedia Policy Engine 12.2.0.0_65.1.0
- Oracle Communications Policy Front End 12.2.0.0_65.1.0
- Oracle Communications Policy Bandwidth On-Demand Application Manager 12.2.0.0_65.1.0
- Oracle Communications Mediation Server 12.2.0.0_65.1.0

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 4: Oracle Communications Policy Management Release 12.2.0. Resolved Bugs

Severity	Bug Number	SR#	Title
1	22227188	3-13344024721 3-10175426711	Incorrect PUR after OOS resolution - causing quota mismatch
1	22880552	3-12300315661	Standby MPE is offline
1	23169337	3-12573117466	ADC Rule being installed instead of PCC Rule
1	23197060	3-12596751871	Alarm raised "Diameter Busy and Transport Closed on active MRA
1	23763544	3-12988492311	Policy with a traffic profile is not working
1	24304662	3-13013287211 3-13066838851 3-13224044681	Gx sessions not getting cleaned up
2	20287350	3-11986499751	Export BOD Session Database

Severity	Bug Number	SR#	Title
2	21803624	N/A	[Session Recovery] Synchronization and performance issues
2	21932169	3-11348801421 3-11449444451	User Object has multiple IMSI's and E164 linked to same IPor E164 or sessid
2	21934197	3-11463693241	Increase in PDN connection count after 12.0.0.2.0 patch upgrade
2	22066832	3-11561338851	IP-CAN Session not found - 5065 error
2	22179358	3-11681928141	Problem with CMP Upgrade from 9.1.6 to 11.5.2
2	22258451	3-11749091456	Negative Values in XML stats "ProtocolErrorStats"
2	22339290	3-11841003591	Hung threads causing communications errors
2	22556456	3-12024794571	SLR not sending towards OCS - resulted in call failed
2	22860640	3-12255035677 3-12254510501	Diameter_Pending_Transaction feature issue
2	23233332	3-12874327491	Subnet SNMP Collector task keeps running unless restart qp_procmgr
2	23239410	3-12598468111	Pair 3 - Topology Configuration alarms after 2.2.9 firmware upgrade
2	23327906	3-12697558441	Pair 7 - DB Replication From Master Failure alarms after 2.2.9 firmware upgrade
2	23542488	3-12825139561	[SubActLog] STA Not captured in Subscriber trace for Rx Interface
2	23606644	3-12641488231	Policy does not evaluate codec being sent for Rx session update
2	23642218	3-12905328501	Sy counters not found when evaluating policies when there are more than 2 DS
2	23733063	3-12955113861	MPE after becoming Active having connectivity issues and PCC/ADC rule [0_0] fail
2	24300229	3-13032655911	Missing statistics for some MPE/MRAs after upgrade
2	24433538	3-12988047196	No sufficient physical MEM for Java PolicyServer process on HP ProLiantBL460cG6
2	24659972	3-13311519471	PCRF does not send SNR after close session when Correlate PCEF sessions is on
3	20576875	3-10160238621	SNMP not responding with camiant-app-mib.diameterOMStats
3	21091633	3-10639890111	OHCIS CMP stats issue
3	21295041	3-10938624411	mysql corruption causes 100% disk utilization

Severity	Bug Number	SR#	Title
3	21378878	N/A	[Incremental_Upgrade] Standby MRA in Geo-Cluster remains OOS after failover
3	21389453	3-11022315321 3-11102030101	Large pages causes engineering log messages and possible other issues
3	21482567	3-11084561751	Pass re-validation time issue
3	21490142	N/A	GenNotf-P1:Static server name in policy actions are only being partially updated
3	21493159	N/A	RPE-P1:Retry is continuing even after Pre-defined PCC rule is removed
3	21555103	N/A	[Conf_Template] Template marking "T" is missing for all the SMTP configurations in policy server
3	21568474	N/A	[Upgrade Director] displaying incorrect [Last Update] date on [Select ISOs] page
3	21620509	N/A	[Multi-Level-OAM]Network Element Groups should not display MPE column in NW-CMP
3	21620769	N/A	[Multi-Level-OAM]List of MRA should not be shown in Virtual Template in NW-CMP
3	21635727	3-11200842906 3-11200109041	CCA_I not generated when policy action rejected with Experimental result code
3	21656659	N/A	The policy can not be deployed into MPE while import one policy.xml using "Overwrite strategy".
3	21662033	N/A	"Delete All..." strategy cannot delete LI MF if it is associated with an MPE
3	21662042	N/A	MPE cannot show normally in CMP after importing some configurations with "Delete all..."
3	21666623	N/A	[System] MRA shouldn't query backup MRA when recovery CCR-U is received
3	21670406	N/A	[qpIPv4Harvest]tool should add validation to IP preference of the CMP
3	21699458	3-11259235591	Alarm 71102 occurs when CMTS is deleted using the GUI
3	21699787	N/A	[Checkpoint] "Notification Server" in Configuration Template is not restored back
3	21699828	N/A	[Checkpoint] "Policy Syslog Forwarding Configuration" in Template is not restored
3	21772052	N/A	In RADIUS/Sd Perf testing, Sd sessions are not being terminated appropriately

Severity	Bug Number	SR#	Title
3	22061113	3-11276075951	ntpq -pn shows name resolution failure
3	21792979	N/A	MRA initiated session recovery fails if AAR does not contain Called-Station-Id
3	21843046	3-12155549621 3-12825139561 3-11320912061 3-11330107618	AAR Not captured in Subscriber trace
3	21855087	3-11392064331	MPE clusters reporting OOS - Cleanup Cluster Config menu issue
3	21864041	3-11398942721	Policy Table with Match List don´t work correctly in 11.5.1.1
3	21896470	3-11426901341	Alarm 31284 on all servers in pair after NTP config changes
3	21946026	3-11468027391	MPE failed to send long SMS during SMSC switchover
3	21946644	3-11434834131	Different Policy condition trigger with and without policytable
3	21985845	3-11465344971	TPS/Session capacity of a blade should not depends on the processor version
3	22007937	3-11658624751 3-11520044801	Restart on MPE blade
3	22048404	N/A	[System] SDR sent by MRA includes SIP_URI and incorrect IPv6 prefix
3	22061113	3-11554434631	Policy server with modifying the content time in +60min
3	22104449	N/A	Wrong behavior on potential stale sessions upon IP reuse
3	22104467	N/A	Secondary sessions like Rx, adding additional userIDs in the user object
3	22128309	N/A	When reusing IP for same sub, Gx+ is registered with the wrong session
3	22136301	N/A	DIAMETER.AF.SessionBindingAltKeys does not filter based on non-indexed user ids
3	22160143	3-11672950281	Rollover quota calculation is off by 1 month on 11.5.1.0.0
3	22160178	3-11672950281	No rollover is triggered if there is no quota record of the user
3	22202603	N/A	Where the PCC/ADC rule being reinstalled contains ims_signaling and the retry is the final attempt" does not work

Severity	Bug Number	SR#	Title
3	22224017	3-11694540261	Configured advanced key SH.SubscriberMSISDNFromDataSource gives undefined error
3	22240703	3-11223566191 3-11733892591	Too many consecutive thread problems detected: MPE Failover
3	22295715	3-11800018981 3-11800175678	Pool ID not being updated when a active subscriber is added to a pool
3	22379980	3-11877007181 3-11905177331 3-11946301511	DB Replication Alarms show hours after GEO site for MPE brought online
3	22477842	3-11929875731	Procmgr restarted due to the Tomacat service failure
3	22540635	3-11977959171	Mysql is not able to connect to the DB and JVM is shutting down in 11.5.0
3	22547724	3-12006973211	CMP Spit Brain - DB replication issue - MPE checksum mismatch
3	22549594	3-12005557511	Pair 3 - GR - Failed Promotion on njbbs02mpe02 cluster
3	22552761	3-12106781211 3-12109001249 3-12007538801	VOLTE- BW corresponding to last descriptor under "m" value under media-component-description AVP in AAR
3	22570488	3-11975996281	'wbsync' is causing a heap growth detected alarm
3	22578124	3-13454759661 3-12107927111	Forbid alarm 70013 on irrelevant node & add status for platcfg auto system Backup
3	22582683	3-12396181331 3-12397236391	Double RAR seen when PNR is sent for a user having [1Gx + Sy] sessions
3	22582912	3-11986172804	MPE went in OOS and not opening
3	22599287	3-12069033881	Graph showing Interval Max TPS dropping to zero while MPE KPI reports is not zero
3	22624617	3-1208436864	GR - After removing networks from enclosure switch, CMP KPI
3	22668669	3-12127596741	EMSE System ID string fails to accept more than 9 characters
3	22672795	3-12136812551	Kpistats csv file write/read attributes changed
3	22751025	3-12060153791	MPE drops CCR-U when it receives CCR-U and CCR-I for same subscriber within milliseconds

Severity	Bug Number	SR#	Title
3	22752172	3-12860242891 3-12867417501 3-12778980741 3-13344444201	wbsync heap growth alarm for memory leak in COMCOL DatabaseHelper::lookup
3	22765226	3-12210969161	SMS with 158 characters split into two messages
3	22852881	3-12265129141 3-12268550803	Custom value in User profile is not updated with NULL from previous non Null Val
3	22857569	3-12005557511 3-12270822011	GR - Failed Promotion on cluster
3	22873003	3-12278299561	Service qp_procmgr restarted with exit code 134 (Policy crash for JVM core dump)
3	22885169	N/A	R12.2.0_Dev: SMS Scheduled Delivery - Implementing FRS changes
3	22968524	3-12381367841	Standby CMP at GEO site upgrade to 12.1.1 shows "Zombie" Status
3	23168672	3-12552555311	MRA returns 5065 error *with Topology Hiding enabled*
3	23215600	3-12571813971	MRA sending IP-CAN_SESSION_NOT_AVAILABLE (5065) errors
3	23237242	3-12641488231	Policy condition failed with condition common and multiple profile-level-id
3	23308761	3-12676910441	Define Default Timeout settings in documentation
3	23421622	3-12743105641	Multiple stats entries on Sy reporting
3	23513589	3-13016643611	Policy Evaluation stops if PCID is not present under an OR condition
3	23633188	3-12847149291	Sy session terminated during CCR-T and CCR-I race condition
3	23744632	3-12946088751	MPE stuck in "Zombie" state during 12.1.1 Upgrade
3	24338748	3-13187006761 3-13064162441	Stas File Generator Task Hangs
3	24340055	3-13062643931	Empty Entitlements getting matched incorrectly With Sy filter .*N.*
3	24340925	3-13066838851	PCRF making stale session of Sd in race around condition

Severity	Bug Number	SR#	Title
3	24394789	3-13170411341 3-13083368891	OCS sends SLA with available Policy Counter but Sy session isn't created
3	24395071	3-13119776961	PCRF receiving CCR-I (for new session) then getting CCR-T for old session within
3	24449180	3-13165129611	AAR race condition caused corrupted Rx session
3	24514204	3-13221875561	Cable: Server Disk Space Shortage Error + HP hpacucliStatus utility problem
3	24658224	3-13387054801	GEN:Policy condition failed with condition common and different options in codec
3	24689102	3-10175426711 3-13344024721	New Quota mismatch scenario
3	24701134	N/A	[Browser IEv11] Configs of subscriber activity log change to be implicit using browser IE ver.11
3	24701508	N/A	[Browser IEv11] Paging link does not work in menu active alarms.
3	24702998	3-13387915251 3-13138298421	Race conditions leaving stale user objects behind
3	24714537	3-13363782661	SLR for unknown user going out after CCR-U, expected after CCR-I
3	24848719	3-13459570451	SOAP Notification failed from Policy Table
4	21479272	3-11133110641	Policy Conditions in "User" group with "subscriber or pool" migration issue
4	21697864	3-11400018991 3-11446411891 3-11817513504 3-12476581381	cmp01b has a stuck mysql sync alarm
4	21874500	3-11400930871 3-11887982711 3-12323588891	Quota Rounding calculation issue
4	22091266	3-11586142241	Customer observed high stats in MRA - MaxTPS 2.7 Million approx
4	22102837	3-11602258151	31114 DB replication of configuration failed via SOAP
4	22106385	N/A	Standalone Sd session remains in the rcmgr when IP-reuse functionality enabled

Severity	Bug Number	SR#	Title
4	22113144	3-11615570281 3-11590732761	Policy action to subtract usage for MK does not work for Pass
4	22198143	3-11223566191	User Object Refactoring and Cleanup
4	22483905	3-11926500071 3-12931308251	Disk Space Shortage Warning
4	22574973	3-11919741491 3-13454759661 3-12107927111	Major alarm: 70013 A scheduled backup failed to run
4	22617962	3-12062596271	Alarm 32305 tklcTpdCardCfgSubagent failed
4	22877810	3-12227501451	Recovery procedures in E62458-01 are not clear nor adequate
4	23037723	3-12440090831	Custom Trending report on MRA not working as expected
4	23274457	3-12674123171	Spare blade went OOS after removing from FS

Customer-Known Bugs

Table 5: Oracle Communications Policy Management 12.2.0 Customer-Known Bugs lists known bugs in this release:

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

Table 5: Oracle Communications Policy Management 12.2.0 Customer-Known Bugs

Severity	Bug Number	Title	Impact Statement	Work Around
3	22366950	[Advance setting] Export to CSV file button invalid in IE browse	It is not possible to export an MPE's advanced settings as a CSV file using the Internet Explorer browser.	Use Firefox or Chrome when exporting MPE advanced settings as CSV.
3	22586595	OSSI Exception is thrown while importing Network Element	The sytem cannot support the import of a large XML file with thousands of network elements.	Do not make so many elements in one xml when creating/editing a xml manually instead of exporting files from CMP. Separate them into many xml files.

Severity	Bug Number	Title	Impact Statement	Work Around
3	22648385	[Upgrade] Upgrade manager doesn't timeout the backout operation when blade is not reachable	The Upgrade or Backout progress status on a cluster will remain the same as long as the impacted server loses connectivity with the CMP.	Contact Oracle Technical Support for appropriate recovery procedure.
3	23712373	[Quota] Inconsistent UMCH usage report to Sh wit rollover at bill cycle reset	Incorrect rollover usage reported after bill cycle reset for monthly usage quota plan.	N/A
3	24298127	NF Mgmt: Alarm 78850 Not Cleared When Alarmed VM Deleted	Alarm 78850 is persistent when its associated NF Agent managed VM is deleted from CMP topology.	N/A. The alarm can be removed manually.
3	24341240	NF Mgmt, OpenStack Heat: Unable to Modify NF Agent Managed non-Active VM	Once a VM is created in OpenStack with Heat VIM Connection, the topology VIPs, static IPs, network ports cannot be changed any more. The OpenStack Heat API doesn't support modifying the existing VM settings.	If a VM created with Heat needs to be modified, it should be deleted and then recreated.
3	24461364	NF Mgmt: Unable to Modify NF Agent Managed VM Network Ports	It is not possible to modify the network ports of a VM created with the OpenStack API.	If a network port needs to be modified once the VM has been created, delete the port first and then recreate it.
3	24583979	[ORPF] DB.User.EnableBillingStartDate = false, factor of prorate is wrong	Prorated quota is calculated incorrectly When billing start date is disabled and reset time configured in quota profile is reached.	N/A
3	24706231	[VNF, HEAT] VM's fields display blank, after update staticIP/VIP	Once a VM is created in OpenStack with Heat VIM Connection, the topology VIPs, static IPs, network ports cannot be changed any more. The OpenStack Heat API doesn't support	If a VM created with Heat needs to be modified, it should be deleted and then recreated.

Severity	Bug Number	Title	Impact Statement	Work Around
			modifying the existing VM settings.	
3	24799330	PCD: KPI Dashboard and OSSI support for PCD TPS Stats	It is not possbile to view PCD TPS stats on the KPI dashboard nor can they be fetched via OSSI.	N/A
3	24840672	[Netbackup] NetBackup client upgrade from 7.1 to 7.5 has a error	This only impacts the Netbackup Client upgrade path from version 7.1 to 7.5. Other upgrade paths and new install of version 7.1, 7.5 & 7.6 work as expected.	Contact Oracle Technical Support for appropriate recovery procedure.
3	24938562	[Browser IE] Expert Settings and Service Overrides cannot be exported by IE	MRA advanced Expert Settings and Service Overrides configuration cannot be exported (Save as CSV file) by using Internet Explorer browser IEv10 and IEv11.	Use supported Firefox or Chrome Browser when exporting MRA advanced Expert Settings and Service Overrides as CSV file.
3	24952886	After upgrading CMP from 11.5 to 12.2, the CCR stats is not correct in mix-mode	After upgrading CMP from 11.5 to 12.2, In mix-mode, the stats data shown on CMP side have incorrect order.	Upgrade MPE to be the same version as CMP, then Stats data will become correct.
3	24958962	[Performance] G9 MPE goes busy and dumps threads at 13k tps	Policy Server gets into busy state when surpassing simultaneous 13000 TPS of only create and delete requests on HP Gen9 H/W .	In real network the update requests are much more than create and delete requests. Increasing the ratio of update requests to alleviate the process load.
3	25026307	[MPE] [UMCH] After resettime "2016-10-31T05:48:32" passed how to calculate UMCH	Policy Servers sets next reset time for monthly quota incorrectly impacting quota calculation when the number of days of following month is less than current month (i.e. January 31 days and following month	Configure reset time for monthly quota to the beginning of the following month instead of the end of the month.

Severity	Bug Number	Title	Impact Statement	Work Around
			February 27/28/29 days).	
3	25035110	[Quota] Incorrect NRT for option to Reset Freq when time specified in BillDateEff	Reset quota frequency does not work correctly When billing start date is enabled with effective date and time configured in other value than midnight .	Use midnight time to reset quota frequency.
3	25050650	No Audit Log when editing network ports of vMPE/vMRA cluster	It is not possible to generate an audit log when the user creates/edits/deletes network ports on vMRA/vMPE cluster.	N/A
3	25096011	[Perf] MPE runs on HP G8 cannot support 8K TPS which dropped much more than expected	In normal traffic scenarios expected TPS are achieved. Lower TPS limits are seen on the HP G8 under this limited test scenario.	Consider limiting policies that install more than 35 PCC rules in one policy.
3	25110017	[Loadshedding] Loadsheding rules need to set consistently	Load shedding rules in Cable Mode are the same for Level 1 thru Level 3 congestion. In future relase load shedding rules may undergo further differentiation.	N/A
3	25111807	PCD:Reg:TDF stats increment in secondary MRA during Gx-Sd flow is misleading	TSR messages received counter in secondary MRA is inaccurately incremented twice to every one TSR received via PCD link from the primary MRA.	N/A
3	25117130	[KPI dashborad] The benchmark of G8 Rx TPS is not consistent with test result	The benchmark of G8 Rx TPS was defined to 6500 instead of 6300. No impact to customer.	N/A
3	25126189	[VNF] alarm78850 generate when delete standby-server from MPE cluster	Deleting a server in a cluster may result in a minor alarm being raised. If the alarm can not be cleared manually	At this point the only way to clear the alarm is to delete the entire cluster. Or if it can be cleared manually through the CMP.

Severity	Bug Number	Title	Impact Statement	Work Around
			through the CMP then it can be ignored.	
3	25139910	[Failover] Standby server failed go to active due to inactive route on SigA VIP	Occasionally, failover of Active server in a cluster may fail when static route is configured for SIG-A Networking.	No need for manual workaround, system will recover automatically as either the active server will regain his active role or standby server will assume the Active role.
3	25146774	MPE-R cannot get update subnets when MA enable but MA don't associate with MPE-S	When MA is enabled and not associate with MPE-S,MPE-R routing to MPE-S, MPE-R cannot get the updated subnets	In the imported xml, control the name of service class less than 18 bytes.
3	25161115	TPS has a high peak every 6 hours caused by session cleanup (default settings)	If a customer has more than 720,000 stale sessions, a TPS spike can be seen during stale session cleanup.	Change the pool size for scheduled task by setting DIAMETER.Cleanup. SchedulerThreadCount as 3; then restart QPprocmgr to reactivate policy service.
3	25191836	[Option to Reset Quota Frequency] Billing cycle not same as quota reset cycle	This is a bug to update documentation.	N/A
4	23717438	Cable mode should not show Sig-C in MPE/BoD/MA	"SIG-C" network path is still displayed for OCPM running in Cable mode, even though it's not supported. However, it is supported for non-Cable OCPM modes.	N/A
4	24706902	[Browser IEv11] Data of PDN Connection Report will be implicit if click button Save as CSV or Export PDF.	The data for PDN Connection Report window disappears upon clicking on either "save as CSV", or "export PDF" option, and this only happens with Internet Explorer version 11.x browser.	Use supported Firefox or Chrome browser versions.
4	25183785	Incorrect MIB labelling for "pcrfMIBNotifications	When the 70017 alarm is raised, in SNMP trap viewer, it's displayed as	N/A

Severity	Bug Number	Title	Impact Statement	Work Around
		QPNoVip ForRouteNotify"	pcrfMIBNotifications QPNoVip ForRouteNotify, which may be misleading.	

Chapter

8

Oracle References and Services

Topics:

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

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: *education.oracle.com/communication*. 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 Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) 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 appears. Most products covered by these documentation sets will appear under the headings "Network Session Delivery and Control Infrastructure" or "Platforms."
4. Click on your Product and then the Release Number.
   A list of the entire documentation set for the selected product and release appears.
5. To download a file to your location, right-click the **PDF** link, select **Save target as** (or similar command based on your browser), and save to a local folder.

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.