Oracle ® Communications Policy Management

Feature Notice Release 9.7.x

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Release Content

Introduction

The Policy Management solution for Release 9.7 introduces the following changes:

- *PCRF Enhancements for PCC Upgrade (PR 232770, 232798, and 235217)*
- *KT Message Distribute Function (PR 232771, 232796, 232797, 232798, and 235216)*
- *Mediation Statistics (PR 232799)*
- ▷ *Message Distribute Function Enhancements (Bugs 19117463, 19319239, and 19516722)* ◁

PCRF Enhancements for PCC Upgrade (PR 232770, 232798, and 235217)

The following Policy and Charging Rules Function (PCRF) features are added for the Packet Call Center (PCC) upgrade:

- **Customized quota reset** — Adds the following changes to the quota reset function:

  - PCRF self-triggered quota reset.
  - Re-Authorization Request (RAR) without Usage Monitoring report
  - Discarding next quota usage

- **Fixed quota grant size** — Adds the capability to specify the minimum or maximum of fixed bytes and percentage used/total quotas in a policy action to control the amount of quota granted.
- **Avoid unnecessary quota grant** — Adds conditions within a policy rule that specify the grant of a quota for a certain monitoring key. These conditions check to see if a monitoring key is reporting quota usage when an update is received (that is, ccr-u) or if a quota-grant is necessary when performing re-authorization. Based on the results of the check, the PCRF can determine when grant a quota for a monitoring key.
- **Provision APN-level QoS parameters against requested QoS** — Adds flexibility in the way the Multimedia Policy Engine (MPE) authorizes Access Point Name-Level (APN-Level) QoS (APN-Level) and the way the APN-based QoS is specified. This feature provides the user better control, by moving the QoS authorization logic from within the policy engine into the policy wizard. In addition, the APN-Level QoS is no longer specified in the subscriber profile but in the policy table.
- **Support of pool dynamic grant pass** — Adds the sharing of the pass quota into a shared quota-pool.
- **Support of IP-CAN session re-authorization at pool level** — Enhances the existing pool quota to support IP-CAN session re-authorization at the pool level when the shared quota limit is reached. The policy action was updated so pool related actions can be specified using the policy wizard.
- **Dynamic quota-limit** — Enables a service to be provided with several quota limit choices. The subscriber can choose one of the limit choices if it is purchased. This limit choice is added to the profile for the subscriber. Therefore, the quota limit for a service in the profile for the subscriber is

different for each subscriber. To support dynamic quota-limit, the MPE device uses a variable in the quota profile to obtain the information from the subscriber profile.

- **Handling multiple PNRs triggered by provisioning subscriber data** — Adds policy conditions to check if an RAR is triggered by Push Notification Requests (PNRs) with any of the specified types. In addition, any values changed by provisioning are identified by policy conditions.
- **Transferring quota usage between quotas** — Adds a policy action to transfer quota usage between quotas.
- **Inter-working with MDF using the Sh interface** — Adds communication between the MPE device and the Samsung Subscriber Profile Repository (SPR) using the Message Distribution Function (MDF). This enables the MPE device to see the MDF as an Sh data source allowing inter-working through the Sh interface.
- **Add new data fields in PER** — Enhances Policy Event Record (PER) to support Call Detail Record (CDR) generation. The information is added to PER:

  - User Location Information
  - Access Network Charging Address
  - Access Network Charging ID
  - Installed rules of current session (CRN, CRBN)
  - Origin host of Gx session
  - Framed IP Address of Gx session
  - Access Network Gateway Address
  - QoS information
  - Default EPS Bearer QoS information
  - SOC field of user

- **Filtering unnecessary PER messages** — Adds the following filter criteria for users

  - SOC_TYPE and LTE fields of user from Subscriber Data Management (SDM) messages
  - APN from Gx CCR messages

- **Support for multiple ADS clients** — Adds the capability to send each Analytic Data Stream (ADS) client with a different clientID all PER messages, and to apply load balancing on all connections belonging to the same client.
- **Send PER message for reporting usage when quota usage is ignored by PCRF** — Adds the PER message reporting usage when quota usage is ignored by the MPE.
- **Disable quota management for Gx sessions on IMS APN** — Adds a configuration setting to disable quota management for IP-CAN sessions created on an IMS APN.
- **Miscellaneous customized behavior** — Adds the following code changes and policy configuration changes:

  - Refined session release behavior referring to value change of the fields of user profile
  - Added control for the quota discard behavior including quota reset and quota recovery by editing the user profile
  - Customized processing of the QoS_IND field
  - Added extra IP-CAN session validation for OPMD sub-users

KT Message Distribute Function (PR 232771, 232796, 232797, 232798, and 235216)

This feature adds the capability to have a standalone Message Distribute Function (MDF) server deployed on a separate hardware cluster between the Mediation Gateway (MGW) and Oracle SPR. The MDF provisions subscriber data from the MGW to the Oracle SPR and bridges the cross Subscriber Profile Repository (SPR) One Person, Multiple Devices (OPMD) quota lookup and quota report.

Mediation Statistics (PR 232799)

The Mediation server collects Subscriber Profile Reposition (SPR) Key Performance Indicators (KPI) and historical protocol reports and stores the information in the CMP database. The CMP has an Operation Support System Interface (OSSI) so that the Element Management System (EMS) can query the information. Using the OSSI, the EMS can also access information about CPU, memory, and disk usage.

Additionally the mediation server tracks the following statistics:

- Number of Diameter Sh messages sent and received for an OPMD sharable quota request
- Number or SOAP messages received from provisioning

Message Distribute Function Enhancements (Bugs 19117463, 19319239, and 19516722)

▷ The Message Distribute Function (MDF) enhancements include the following features:

- **Coupon Service**—This is a free or purchasable data service. For example, a Coupon Service could be a prize to an individual subscriber, or the service could be purchased by a business unit that offers the coupon to an individual subscriber. Coupons are typically valid for 1 year from the time of activation.The Coupon Service is not available to subscribers that are configured with a SOC_TYPE of METER.The coupon can be shared from the main subscriber of an Oracle SPR (SDM or UDR) to the subordinate subscriber in a Samsung SPR.
- **Oracle Communications User Data Repository (UDR)**—Adds support for the Oracle Communications User Data Repository (UDR) provisioning interface.
- **One Person, Multiple Devices (OPMD) synchronous call flow**—Changes the handling of the add subscriber and update subscriber calls from asynchronous to synchronous to avoid request failures.

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Tekelec References and Services

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.

Related Publications

The Policy Management product set includes the following publications, which provide information for the configuration and use of Policy Management products in the following environments:

Cable

- *Feature Notice*
- *Cable Release Notes*
- *Roadmap to Hardware Documentation*
- *Policy Wizard*
- *CMP Cable User's Guide*
- *Troubleshooting Reference*
- *SNMP User's Guide*
- *OSSI XML Interface Definitions Reference*
- *Platform Configuration User's Guide*
- *Bandwidth on Demand Application Manager User's Guide*
- *PCMM specification PKT-SP-MM-I06* (third-party document, used as reference material for PCMM)

Wireless

- *Feature Notice*
- *Wireless Release Notes*
- *Roadmap to Hardware Documentation*
- *Policy Wizard*
- *CMP Wireless User's Guide*
- *Multi-Protocol Routing Agent User's Guide*
- *Troubleshooting Reference*
- *SNMP User's Guide*
- *OSSI XML Interface Definitions Reference*
- *Analytics Data Stream Reference*
- *Platform Configuration User's Guide*
- *Message Distribution Function Reference*

Wireline

- *Feature Notice*
- *Wireline Release Notes*
- *Roadmap to Hardware Documentation*
- *CMP Wireline User's Guide*
- *Troubleshooting Reference*
- *SNMP User's Guide*
- *OSSI XML Interface Definitions Reference*
- *Platform Configuration User's Guide*

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 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*.
2. 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**.