## Contents

1. **About Oracle Communications Policy Control Function** ........................................... 1-1

2. **Setting Up Services**
   - Configuration Service ........................................................................................................... 2-1
   - Configuration Management GUI ............................................................................................. 2-2
   - Database Service ....................................................................................................................... 2-2
   - Policy Engine Service .............................................................................................................. 2-2
   - Session Management Service .................................................................................................. 2-2

3. **Configuring Policy Control Function**
   - Creating a Session Rule ........................................................................................................... 3-1
   - Creating a Match List ............................................................................................................... 3-2

4. **Creating Policies**
   - Creating a Policy ................................................................................................................. 4-1

5. **Viewing Sessions** .............................................................................................................. 5-1

6. **Administering Policy Control Function**
   - Creating Users ....................................................................................................................... 6-1
   - Creating Roles .......................................................................................................................... 6-1
List of Figures

1-1 Policy Control Function Architecture Diagram

1-1
About Oracle Communications Policy Control Function

The Oracle Communications Policy Management solution is enhanced to add Policy Control Function that extends the functionality of PCRF as part of 5G core network. The Policy Control Function is a functional element for policy control decision and flow based charging control functionalities.

The PCF provides the following functions:

- Policy rules for application and service data flow detection, gating, QoS, and flow based charging to the SMF.
- Access and Mobility Management related policies to the AMF.

Following is the Policy Control Function Architecture diagram.

*Figure 1-1  Policy Control Function Architecture Diagram*
This section provides information for setting up services in Policy Control Function. You can set up following services:

- Configuration Service
- Configuration Management GUI
- Database Service
- Policy Engine Service
- Session Management Service

For more information, please refer to *Policy Control Function Installation Guide*.

**Configuration Service**

Configuration Service is a common service to provide configuration, notification, and versioning control functionalities which can be used by Configuration Management GUI and other micro services.
Configuration Management GUI

The Configuration Management GUI provides user interface to let customer configure microservices, policies, and other configuration items used by policy. It also provides PPI for test automation, and third party tools integration purpose.

The Configuration Management GUI also provides session viewer so it can be used to query any existing PCF session.

Database Service

Database Service provides CRUD operations via RESTful APIs. Currently, Configuration Management GUI uses Database Service for Session Viewer.

Policy Engine Service

Policy Engine Service provides policy evaluation functions for other services, such as SM service, AM service, and so on. Policy Engine Service gets provisioned policies from Configuration Service in real time.

Session Management Service

PCF shall extend SM Policy service over the N7 interface for session management. Session management in 5G network is service equivalent to Gx interface in traditional EPC core.

The session management supports following:

- PCC rule authorization
- QoS enforcement
- Subscriber specific policy enforcement
Configuring Policy Control Function

This section provides information for configuring Policy Control Function.
You can configure Policy Control Function for the following

• Session Rule Management
• Match List Management

Creating a Session Rule
You can create and manage session rules from Session Rule Management screen. The page provides information about the existing session rules. You can create or refresh the session rules from this page.

Note: Only administrators can create session rules.

To create a session rule:

1. From the navigation menu, under Configurations, click Session Rule.
   The Session Rule Management screen appears.
2. Click Create.
   The create session page appears.
3. In the ID field, enter the session ID details.
4. In the Name field, enter the name for session.
5. (Optional) In the Description field, enter the information about the session rule.
6. In Authorized Session AMBR section, enter the following:
   a. In the Up Link Bandwidth field, enter the bandwidth details.
   b. In the Down Link Bandwidth field, enter the bandwidth details.
      The bandwidth can be entered in bps, Kbps, Mbps, Gbps, and Tbps.
7. Click Save to create the session rule or click Cancel.
   If you have clicked Save, a new session rule is created.
8. Click Edit to edit the details of session rule.
9. Click Delete to delete the session rule.
Creating a Match List

You can create and manage match list from Match List Management screen. The page provides information about the existing match lists. You can create or refresh the match list from this page.

**Note:** Only administrators can create match lists.

To create a match list:

1. From the navigation menu, under **Configurations**, click **Match List**.
   The Match List Management screen appears.

2. Click **Create**.
   The create match list page appears.

3. In the **ID** field, enter the match ID details.

4. In the **Name** field, enter the name for match list.

5. (Optional) In the **Description** field, enter the information about the match list.

6. In the **Item** drop-down, select one of the following:
   - String
   - Wildcard String

7. Click **Save** to create the match list or click **Cancel**.
   If you have clicked **Save**, a new match list is created.

8. Click **Edit** to edit the details of match list.

9. Click **Delete** to delete the match list.
Creating Policies

This section provides information for creating policies.

Creating a Policy

To create a policy:

1. From the navigation menu, under Policy Management, click Policies.
   The Policies page appears. The page provides details of the existing policies.

2. Click Create Policy.
   The Create Policy page appears.

3. Under Basic Information section, fill the following details:
   a. In the Name field, enter the policy name.
   b. In the Code field, enter the code.
   c. Click Activate tab.
      You must activate the policy, so it can take into effect.
   d. (Optional) In the Description field, enter any information about the policy that is required for users.
   e. In the Tags field, enter the keyword for the policy, to appear in search results.

4. Under Conditions section, fill the following details:
   a. Click New Condition.
      The Condition window appears.
   b. From the Condition drop-down, select the condition.
      Based on the condition selected, the next fields appears.
   c. Enter details as per the condition and click OK.

5. Under Actions section,
   a. From the Message Action drop-down menu, select ACCEPT or REJECT.
   b. (Optional) Click Add Optional Action to add additional action.
      The Add Optional Action window appears.
c. Select the action and click OK.
   The action gets added.

6. Click **Save** to save the policy or click **Cancel**.

   The policy is created successfully and appears under policy list.
This section provides information about viewing the sessions.

To view the sessions:

1. From the navigation menu, click **Session Viewer**.
   The Session Viewer page appears.

2. From the **Session Type** drop-down menu, select the session type whose sessions you want to view.

3. In the **Session ID** field, enter the session ID number.

4. Click **Query**.

The session details appears.
This chapter provides information for administrators on how to manage users, permissions, and their roles.

Creating Users

The Manage Users page gives information about the users, their roles and the their permissions. You can create users, edit, delete, and assign permission from this page.

To create user:

1. From the Home page, navigate to System Administration, and click User Manage.
   The User Manage page appears.
2. Click New User.
   The Create New User page appears.
3. In the User Name field, enter the username.
4. In the Row field, select the appropriate role for the user.
   The available rows are:
   - Role 1
   - Role 2
   - Role 3
   - Role 4

Creating Roles

This section provides information for creating roles.

From Role Manage screen, you can view and create new roles.

To create roles:

1. From the Home page, navigate to System Administration, and click Role Manage.
   The Role Manage page appears.
2. Click New Role.
   The Create New Role page appears.
3. In the Role Name field, enter the name for role.
4. In the **Privileges** field, select the privileges for the role.

5. Click **Save** to create the role or click **Cancel**.

A new role will be created.