Basic Systems Configuration

Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Product(s) or Functional Area	5G-PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Configuration Required
Related Changes in this Release	Not Applicable
Related Documentation	Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2020.05.01

Overview

The PCF provides the Policy Builder as an interface for policy management. Policies translate a Service Provider's business rules into actionable, logical processing methods that the PCF enforces on the network.

The PCF ships with some standard base policies that serve as a starting point for customization to suit a Service Provider's specific business rules.

Adding a System

This section describes how to add a system.

After installation, use this procedure to set up your Policy Builder by using an example populated with default data. You can change anything that does not apply to your deployment.

1. Click the **Reference Data** tab, and then click the **Systems** node to display the **Systems** tree.

2. Click **System...** under **Create Child:** to open the **System** pane on the right side.

3. Fill in the **Name** field, and provide a description of this system. Enter the rest of the parameters based on your network requirements.

Table 3: System Parameters

Parameter	Description
Name	The name of the PCF system.
Description	Describes the system using which you can uniquely identify the system.
Session Expiration Hours	An event occurs whenever a session is updated, which in turn increments the session expiry duration. If no session update event occurs in the specified session expiration duration (combination of **Session Expiration Hours** and **Session Expiration Minutes**), then the session will be removed. **Note** The combined value of **Session Expiration Hours** multiplied by 60 plus **Session Expiration Minutes** should not exceed 35,400 minutes. Default value is 8.
Session Expiration Minutes	An event occurs whenever a session is updated, which in turn increments the session expiry duration. If no session update event occurs in the specified session expiration duration (combination of **Session Expiration Hours** and **Session Expiration Minutes**), then the session will be removed. **Note** The combined value of **Session Expiration Hours** multiplied by 60 plus **Session Expiration Minutes** should not exceed 35,400 minutes. Default value is 0.

Parameter	Description
Timeout for Unknown Session	Time in minutes that PCF keeps a session alive after the subscriber logs off. With this, other network entities involved in the session can let the session close gracefully. Default value is 0.
Timeout For Soft Delete	Determines the time in seconds during which a 'soft delete' session is maintained for a PCF session after session stop. Default value is 30.
Session Limit Overload Protection	This parameter is used to protect the session database from crashing. PCF does not allow session creation when a current system session count exceeds the **Session Limit Overload Protection** value. The default value is set to 0 which infinitely accepts the Diameter messages and PCF triggers alarms so that you change the value before session count goes beyond the database capacity. This value must be replaced by session capacity that is calculated for each deployment. Default value is 0. **Note** Session Limit Overload Protection value must be changed using the default value (0). **Note** The recommended value for **Session Limit Overload Protection** has to be derived by Cisco Account representative for each deployment.
Enable Multi Primary Key	Select this check box to allow two primary keys to be utilized by maintaining a map of each separate primary key and storing the 'true' multi-primary key as a UUID related to the two maps. Changing this setting has a negative performance impact and should only be done at the request of the BU. Recommendation is to keep Enable Multi Primary Key unchecked. Default is unchecked.
Enable Number Normalization	Select this check box to enable number normalization under system configuration. The following fields are displayed under **Number Normalization List**: • Number Type - Type of IMSI/MSISDN. • Number Length - Length of the normalized IMSI/MSISDN. • Number Prefix - Prefix to be normalized from the number.
Cluster link	Click this link to create a cluster under this system.
Current System Link	Click this link to make a copy of this system, with its clusters and instances.

4. If the created system needs to be used, then after publishing, the following property needs to be updated in the `qns.conf` configuration file:

```
-Dcom.broadhop.run.systemId=<system name>
```

where *<system name>* is the system name defined in the Step 3.