



Interface Configuration

- [Feature Summary and Revision History, on page 1](#)
- [PCF Architecture, on page 2](#)
- [Engine configuration to skip the RX_5G_TGPP NDM and enable RX_TGPP NDM, on page 2](#)
- [Gx Interface Configuration, on page 2](#)
- [Rx Interface Configuration, on page 3](#)
- [Sh Interface Configuration, on page 4](#)
- [Sy Interface Configuration, on page 5](#)

Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Always-on
Related Documentation	Not Applicable

Revision History

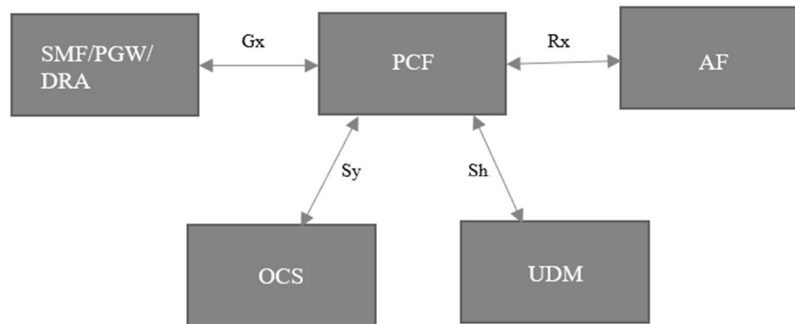
Table 2: Revision History

Revision Details	Release
First introduced.	2023.03.0

PCF Architecture

The following architecture shows the relationships between the different functional entities.

Figure 1: Reference Model for Gx, Rx, Sh and Sy



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Engine configuration to skip the RX_5G_TGPP NDM and enable RX_TGPP NDM

To enable the RX_TGPP NDM, use the following configuration:

```

config
  properties skipped.device.mgrs
  value RX_5G_TGPP,N36_TGPP
  exit
end
  
```



Note In PCF, Rx_5G_TGPP NDM gets enabled as default. Either RX_TGPP or Rx_5G_TGPP gets enabled one at a time, and both RX_TGPP or Rx_5G_TGPP cannot be enabled at the same time.

Gx Interface Configuration

Feature Description

The Gx reference point gets defined between the PCRF and the PCEF. Using the Gx reference point, the provisioning and removal of PCC rules from the PCRF get done from the PCRF to the PCEF. By applying AVPs relevant to the application, the Gx reference point gets used for charging control, policy control, or both. The Gx reference point also controls and detects the application's traffic.

How It Works

This section describes how Gx Interface Configuration feature works.

Feature Configuration

This section describes how to configure the Gx Interface.

To enable the Gx diameter endpoints, use the following configuration:

```
config
  diameter group groupgx
  mode server
  stack gx
  application gx
  bind-ip      <bind-ip>
  bind-port    <bind-port>
  fqdn         <gx-fqdn>
  realm        <gx-realm>
  settings timeouts-ms request <timeout>
  exit
  exit
end
```

Rx Interface Configuration

Feature Description

The Rx reference point gets defined between the Application Function (AF) and the Policy and Charging Rule Function (PCRF). The Rx reference point is used to exchange application-level session information between the Policy and Charging Rules Function (PCRF) and the Application Function (AF). The PCRF exchanges the PCC rules with the PCEF and QoS rules with the Bearer Binding and Event Reporting Function (BBERF).

How It Works

This section describes how Rx Interface Configuration feature works.

Feature configuration

This section describes how to configure the Rx Interface.

To enable the Rx diameter endpoints, use the following configuration:

```
config
  diameter group groupgx
  mode server
  stack rx
  application rx
  bind-ip      <bind-ip>
```

```
bind-port <bind-port>
fqdn      <rx-fqdn>
realm     <rx-realm>
settings timeouts-ms request <timeout>
exit
exit
end
```

Sh Interface Configuration

Feature Description

The Diameter application allows a Diameter server and a Diameter client to download and update transparent and non-transparent user data and requests and send notifications on changes to user data.

How It Works

This section describes how Sh Interface Configuration feature works.

Engine Configuration for Sh Interface

To enable the engine configuration for Sh interface, use the following configuration:

```
config
  properties loadByShSessionID
  value true
  exit
end
```

Feature Configuration

This section describes how to configure the Sh Interface.

To enable the Sh diameter endpoints, use the following configuration:

```
config
  diameter group groupsh
  mode server
  stack sh
  application sh
  fqdn      <local fqdn>
  realm     <local realm for sh server>
  peer-host <sh peer ip>
  peer-port <sh peer port>
  peer-realm <sh peer realm>
  exit
  exit
end
```

Sy Interface Configuration

Feature Description

The Sy reference point is located between the Policy and Charging Rules Function (PCRF) and the Online Charging System (OCS). The Sy reference point enables the transfer of information relating to subscriber spending from OCS to PCRF and supports the following functions:

- Request of policy counter status reporting from PCRF to OCS
- Notifications of policy counter status change from OCS to PCRF
- Cancellations of policy counter status reporting from PCRF to OCS

Since the Sy interface resides between PCRF and OCS in the HPLMN, roaming with home routed or visited access as well as non-roaming scenarios is supported in the same manner.

How It Works

This section describes how Sy Interface Configuration feature works.

Feature configuration

This section describes how to configure the Sy Interface.

To enable the Sy diameter endpoints, use the following configuration:

```
config
  diameter group grouppsy
  mode server
  stack sy
  application sy
  fqdn      <local fqdn>
  realm    <local realm for sy server>
  peer-host <sy peer ip>
  peer-port <sy peer port>
  peer-realm <sy peer realm>
  exit
  exit
end
```

