PCC-Policy-Service Configuration Mode Commands

Important

This configuration mode is supported from StarOS Release 12.1 onward.

Command Modes

The PCC-Policy-Service Configuration mode provides a mechanism for the Intelligent Policy Control Function (IPCF) to manage the external interfaces required for policy authorization purpose between IPCF and PCEF Bearer Binding and Event Reporting Function (BBERF). The PCC-Policy-Service manages Gx/Gx based on the Diameter dictionary used.

Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

configure > context context_name > pcc-policy-service service_name

Entering the above command sequence results in the following prompt:

[context_name]host_name(config-pccpolicy-service)#

Important

The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

- associate pcc-service, on page 2
- diameter dictionary, on page 3
- diameter origin end-point, on page 5
- ehrpd-access-bcm, on page 6
- end, on page 8
- exit, on page 9
- gprs-access-bcm, on page 10
- max policy-sessions, on page 12
- subscriber-binding-identifier, on page 13
- subscription-id-absence-action, on page 15
- unsolicited-provisioning, on page 17
associate pcc-service

This command associates a pre-configured PCC-Service with a PCC-Policy-Service for IPCF configuration.

**Product**
- IPCF

**Privilege**
- Security Administrator, Administrator

**Command Modes**
- Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration
- configure > context context_name > pcc-policy-service service_name

Entering the above command sequence results in the following prompt:

```
<context_name>host_name(config-pcppolicy-service)#
```

**Syntax Description**

```
associate pcc-service pcc_service_name

[no] associate pcc-service
```

- **no**
  - Removes/disassociate the configured PCC-Service from this PCC-Policy-Service instance configured for IPCF configuration.

- **pcc_service_name**
  - Specifies the name of a pre-configured PCC-Service configured in Context Configuration mode for IPCF configuration.
  - The `pcc_service_name` is name of a predefined PCC-Service instance and must be an alphanumerical string from 1 through 63 characters.

**Usage Guidelines**

Use this command to associate a pre-configured PCC-Service instance for IPCF configuration.

**Important**

For more information on PCC-Service configuration, refer [PCC-Service Configuration Mode Commands](#).

**Example**

Following command binds a PCC-Service named `pcc_svc1` with in a PCC-Policy-Service.

```
associate pcc-service pcc_svc1
```

Following command removes an associated PCC-Service named `pcc_svc1` from a PCC-Policy-Service.

```
no associate pcc-service pcc_svc1
```
diameter dictionary

This command assigns a Diameter dictionary for Gx/Gxa messaging with a PCC-Policy-Service for IPCF configuration.

**Product**  
IPCF

**Privilege**  
Security Administrator, Administrator

**Command Modes**  
Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration  
configure > context context_name > pcc-policy-service service_name

Entering the above command sequence results in the following prompt:  
[context_name]host_name(config-pccpolicy-service)#

**Syntax Description**

```
diameter dictionary (gxa-standard | r7-standard | standard)  
default diameter dictionary
```

**default**

Sets the Diameter Gx dictionary to default dictionary standard (3GPP Rel. 8 standard) for a PCC-Policy-Service instance configured for IPCF configuration.

**gxa-standard**

Default: Disabled

Sets the Diameter Gxa dictionary to be used by a PCC-Policy-Service instance configured for IPCF configuration over Gxa interface to 3GPP Rel. 8 standard.

**r7-standard**

Default: Disabled

Sets the Diameter Gx dictionary to be used by a PCC-Policy-Service instance configured for IPCF configuration over Gx interface to 3GPP Rel. 7 standard.

**standard**

Default: Enabled

Sets the Diameter Gx dictionary to be used by a PCC-Policy-Service instance configured for IPCF configuration over Gx interface to 3GPP Rel. 8 standard.

**Usage Guidelines**

Use this command to configure the PCC-Policy-Service to determine which of the 3GPP dictionary to be used for Gx or Gxa interface messaging for policy and/or quota management.

**Example**

Following command sets the PCC-Policy-Service to use 3GPP Rel. 8 standard dictionary for Gx interface and policy management related messaging in a PCC-Policy-Service.
default diameter dictionary
**diameter origin end-point**

This command binds/associates a pre-configured Diameter host/realm (PCEF/BBERF) over Gx/Gxa interface with a PCC-Policy-Service to be used for subscriber service control and policy profile management.

**Product**
IPCF

**Privilege**
Security Administrator, Administrator

**Command Modes**
Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

configure > context context_name > pcc-policy-service service_name

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-pccpolicy-service)#
```

**Syntax Description**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>diameter origin endpoint dia_endpoint_name</td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>Removes the associated Diameter Origin Endpoint configuration from PCC-Policy-Service instance configured for IPCF configuration.</td>
</tr>
<tr>
<td>any</td>
<td>Sets the PCC-Policy-Service instance to use any available PCEF/BBERF node for policy interfaces (Gx/Gx-like) support.</td>
</tr>
<tr>
<td>dia_endpoint_name</td>
<td>The dia_endpoint_name is a predefined Diameter origin endpoint node and must be an alphanumerical string from 1 through 63 characters.</td>
</tr>
</tbody>
</table>

**Usage Guidelines**
Use this command to bind the PCEF/BBERF node over Gx/Gx-like interface by associating a pre-configured Diameter Origin Endpoint with a PCC-Policy-Service.

The Diameter origin endpoint must be a pre-configured instance in the Context Configuration Mode. For more information on Diameter origin endpoint configuration, refer Diameter Endpoint Configuration Mode Commands chapter.

**Example**
Following command associates a pre-configured Diameter endpoint node configuration named pcef_1 with a PCC-Policy-Service for policy profile management.

```
diameter origin endpoint pcef_1
```

Following command removes the pre-associated Diameter endpoint node configuration named pcef_1 with a PCC-Policy-Service.

```
no diameter origin endpoint
```
ehrpd-access-bcm

This command configures the PCC-Policy-Service to accept the applicable Bearer-Control-Mode for eHRPD access over Gxa interface on IPCF.

**Product**

IPCF

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

```
configure > context context_name > pcc-policy-service service_name
```

Entering the above command sequence results in the following prompt:

```
(context_name)host_name(config-pccpolicy-service)#
```

**Syntax Description**

```
ehrpd-access-bcm (as-requested | ue-nw | ue-only)
default ehrpd-access-bcm
```

**default**

Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from Application Server (AS) for eHRPD access over Gxa interface on IPCF node.

**as-requested**

Default: Enabled.

Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from Application Server (AS) for eHRPD access over Gxa interface on IPCF node.

**ue-nw**

Default: Disabled.

Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from Application Server (AS) for eHRPD access over Gxa interface on IPCF node.

**ue-only**

Default: Disabled.

Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from UE only for eHRPD access over Gxa interface on IPCF node.

**Usage Guidelines**

Use this command to set the PCC-Policy-Service to accept the Bearer-Control-Mode request from AS or UE or Network for eHRPD access over Gxa interface on IPCF node.

**Example**

Following command sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from AS for eHRPD access over Gxa interface on IPCF node.
default ehrpd-access-bcm

Following command sets the PCC-Policy-Service to accept the Bearer-Control-Mode request only from UE for eHRPD access over Gxa interface on IPCF node.

ehrpd-access-bcm ue-only
end

Exits the current configuration mode and returns to the Exec mode.

**Product**
- All

**Privilege**
- Security Administrator, Administrator

**Syntax Description**
- `end`

**Usage Guidelines**
- Use this command to return to the Exec mode.
exit

Exits the current mode and returns to the parent configuration mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

exit

Usage Guidelines

Use this command to return to the parent configuration mode.
gprs-access-bcm

This command configures the PCC-Policy-Service to accept the applicable Bearer-Control-Mode for GPRS access over Gx interface on IPCF.

**Product**
IPCF

**Privilege**
Security Administrator, Administrator

**Command Modes**
Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

```
configure > context context_name > pcc-policy-service service_name
```

Entering the above command sequence results in the following prompt:

```
(context_name)host_name(config-pccpolicy-service)#
```

**Syntax Description**

```
gprs-access-bcm {as-requested | ue-nw | ue-only}
default gprs-access-bcm
```

**default**
Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from Application Server (AS) for GGSN access over Gx interface on IPCF node.

**as-requested**
Default: Enabled.
Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from Application Server (AS) for GGSN access over Gx interface on IPCF node.

**ue-nw**
Default: Disabled.
Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from UE and/or network element for GGSN access over Gx interface on IPCF node.

**ue-only**
Default: Disabled.
Sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from UE only for GGSN access over Gx interface on IPCF node.

**Usage Guidelines**
Use this command to set the PCC-Policy-Service to accept the Bearer-Control-Mode request from AS or UE or Network for GGSN access over Gx interface on IPCF node.

**Example**
Following command sets the PCC-Policy-Service to accept the Bearer-Control-Mode request from AS for GGSN access over Gx interface on IPCF node.
default gprs-access-bcm

Following command sets the PCC-Policy-Service to accept the Bearer-Control-Mode request only from UE for GGSN access over $Gx$ interface on IPCF node.

gprs-access-bcm ue-only
max policy-sessions

This command configures the maximum limit of the policy sessions allowed in a PCC-Policy-Service instance on IPCF.

**Product**
IPCF

**Privilege**
Security Administrator, Administrator

**Command Modes**
Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

```
configure > context context_name > pcc-policy-service service_name
```

Entering the above command sequence results in the following prompt:

```
(context_name)host_name(config-pccpolicy-service)#
```

**Syntax Description**

```
max policy-sessions max_session

default max policy-sessions

default
```

Sets the maximum policy sessions allowed in PCC-Policy-Service instance to default value of 10000 sessions.

```
max_session

Default: 10000
```

Specifies the maximum number of policy sessions configured in PCC-Policy-Service to allow to be connected in PCC-Quota service instance.

```
max_session

max_session must be an integer between 0 and 4000000.
```

**Usage Guidelines**

Use this command to set the maximum number of policy sessions allowed by a PCC-Policy-Service instance on IPCF.

```
Example

Following command sets the maximum number of policy sessions allowed in PCC-Policy-Service instance to 10000.

```
default max policy-sessions
```
subscriber-binding-identifier

This command specifies the subscriber binding identifier to be used by bindmux for binding different subscriber session to PCC-Policy-Service on IPCF node.

**Product**
IPCF

**Privilege**
Security Administrator, Administrator

**Command Modes**
Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

```bash
configure > context context_name > pcc-policy-service service_name
```

Entering the above command sequence results in the following prompt:

```bash
[context_name]host_name(config-pccpolicy-service)#
```

**Syntax Description**

```bash
subscriber-binding-identifier {imsi |msisdn |nai | sip-uri}
default subscriber-binding-identifier
```

**default**
Sets the subscriber binding identifier to default value; i.e. IMSI, to be used by bindmux for binding different subscriber session to PCC-Policy-Service on IPCF node.

**imsi**
Default: Enabled.
Sets the subscriber binding identifier as IMSI to be used by bindmux for binding different subscriber session to PCC-Policy-Service on IPCF node.

**msisdn**
Default: Disabled.
Sets the subscriber binding identifier as MSISDN to be used by bindmux for binding different subscriber session to PCC-Policy-Service on IPCF node.

**nai**
Default: Disabled.
Sets the subscriber binding identifier as Network Access Identifier (NAI) to be used by bindmux for binding different subscriber session to PCC-Policy-Service on IPCF node.

**sip-uri**
Default: Disabled.
Sets the subscriber binding identifier as SIP URI (Uniform Resource Identifier) to be used by bindmux for binding different subscriber session to PCC-Policy-Service on IPCF node.

**Usage Guidelines**
Use this command to configure the bindmux in PCC-Policy-Service instance on IPCF node to use specific subscriber identifier for binding different subscriber session to IP-CAN session.
Example

The following command sets the PCC-Policy-Service to use IMSI as subscriber binding identifier for IP-CAN session on an IPCF node.

```
default subscriber-binding-identifier
```
subscription-id-absence-action

This command configures the PCC-Policy-Service instance to handle the Initial Credit Control Request (CCR-I) messages during initial authentication over Gx interface when CCR-I message received by IPCF node is without a valid Subscription-Id AVP (IMSI, NAI, E164 etc.).

Product
IPCF

Privilege
Security Administrator, Administrator

Command Modes
Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

configure > context context_name > pcc-policy-service service_name

Entering the above command sequence results in the following prompt:

[context_name]host_name(config-pccpolicy-service)#

Syntax Description
(default) subscription-id-absence-action initial-auth {continue | reject}

default
Sets the PCC-Policy-Service instance to reject the CCR-I message during initial authentication over Gx interface if received without a valid Subscription-Id AVP (IMSI, NAI, E164 etc.) on IPCF node.

continue
Default: Disabled.
Sets the PCC-Policy-Service instance to accept the CCR-I message and continue with the session if CCR-I is received without a valid Subscription-Id AVP (IMSI, NAI, E164 etc.) on IPCF node.
In this case, IPCF accepts the CCR-I message and will do the PCC provisioning as per the operator configuration in associated PCC-Service.

reject
Default: Enabled.
Sets the PCC-Policy-Service instance to reject the CCR-I message and continue with the session if CCR-I is received without a valid Subscription-Id AVP (IMSI, NAI, E164 etc.) on IPCF node.
In this case, IPCF will send CCA-I message with Result-code as Permanent Error and rejects the session establishment with PCEF.

Usage Guidelines
Use this command to configure the PCC-Policy-Service instance to handle the Initial Credit Control Request (CCR-I) message processing during the initial authentication over Gx interface if CCR-I message received by IPCF node has no valid Subscription-Id AVP.

Example
The following command sets the PCC-Policy-Service to reject the CCR-I request and terminations the session establishment with PCEF.
default subscription-id-absence-action initial-auth
unsolicited-provisioning

This command is used to enable/disable the support for unsolicited time-of-day-based procedures to PCC-Policy-Service on IPCF node.

**Product**
IPCF

**Privilege**
Security Administrator, Administrator

**Command Modes**
Exec > Global Configuration > Context Configuration > PCC Policy Service Configuration

```
configure > context context_name > pcc-policy-service service_name
```

Entering the above command sequence results in the following prompt:

```
[context_name] host_name(config-pccpolicy-service) #
```

**Syntax Description**

```
[no | default] unsolicited-provisioning time-of-day
```

**default**
Sets the support for unsolicited time-of-day-based procedures to default mode; i.e. disabled, in PCC-Policy-Service instance on IPCF node.

**no**
Removes the configured support for unsolicited time-of-day-based procedures in PCC-Policy-Service instance on IPCF node.

**Usage Guidelines**

Use this command to enable/disable the support for unsolicited time-of-day-based procedures to PCC-Policy-Service on IPCF node.

By default this command is disabled.

**Example**

The following command enables the unsolicited time-of-day-based procedures to PCC-Policy-Service on an IPCF node.

```
unsolicited-provisioning time-of-day
```
unsolicited-provisioning