PCC-Data-Service Configuration Mode Commands

☞

Important   This configuration mode is supported from StarOS Release 12.1 onward.

Command Modes   The PCC-Data-Service Configuration Mode is used to configure the data flow parameters for the media data, as well as corresponding attributes that are necessary for charging and policy enforcement decisions for the media parameters represented by its service flows in the PCC-service. A maximum of ten service data flows can be configured in a PCC-Data-Service instance.

Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration

configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*

Entering the above command sequence results in the following prompt:

`[`*context_name*`]`*host_name*`(config-pcc-data-service)#`

☞

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

☞

Important   For information on common commands available in this configuration mode, refer to the Common Commands chapter.

- flow direction in, on page 2
- flow direction out, on page 3
- metering-method, on page 4
- monitoring-key, on page 5
- precedence, on page 6
- qos-profile, on page 7
- rating-group, on page 8
- reporting-level, on page 8

- service-identifier, on page 9

flow direction in

This command configures the flow service parameters for incoming data flow in PCC-Data-Service instance.

Product	IPCF
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration

configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-pcc-data-service)#
```

Syntax Description

```
[no] flow direction in protocol {ip | tcp | udp} from {src_ip_addr[/maskbit] |
any} port {src_port_num | any} to {dest_ip_addr/maskbit | any} port {dest_port_num |
any}
```

no

Removes the configured data service flow parameters from PCC-Data-Service instance for IPCF configuration.

protocol {ip | tcp | udp}

This keyword configures the data flow parameters for specific protocol.

Following protocols are supported through this keyword:

- **ip**: Sets the parameters for IP traffic.
- **tcp**: Sets the parameters for TCP traffic.
- **UDP**: Sets the parameters for UDP traffic.

from {*src_ip_addr*[*/maskbit*] | any} port {*src_port_num* | any}

This keyword configures the data flow condition parameters for specific protocol through IP address and port as source of flow.

Following parameters are defined with this keyword:

- *src_ip_addr*: specifies the specific IP address in IPv4/IPv6 notation as source of flow.
- *maskbit*: Specifies the IP address suffix in IPv4 or IPv6 notation.
- **any**: specifies that flow from any source IP address/port can be analyzed or considered.
- **port** *src_port_num*: specifies the specific source port parameter for flow.

  src_port_num is the source port number of flow and must be an integer from 1 through 65535.

to {*dest_ip_addr*[*/maskbit*] | any} port {*dest_port_num* | any}

This keyword configures the data flow condition parameters for specific protocol through IP address and port as source of flow.

Following parameters are defined with this keyword:

- *dest_ip_addr*: specifies the specific IP address in IPv4/IPv6 notation as destination of flow.
- *maskbit*: Specifies the IP address suffix in IPv4 or IPv6 notation.
- **any**: specifies that flow to any destination IP address/port can be analyzed or considered.
- **port** *dest_port_num*: specifies the specific destination port parameter for flow.

  dest_port_num is the destination port number of flow and must be an integer from 1 through 65535.

Usage Guidelines

Use this command to configure the flow service parameters for incoming data flow in PCC-Data-Service instance for IPCF Configuration.

Example

Following command sets the data service parameters for **tcp** type protocol from **any** IP/port source to **any** IP/port in incoming direction with in a PCC-Data-Service.

```
flow direction in protocol tcp from any port any to any port any
```

flow direction out

This command configures the flow service parameters for outgoing data flow in PCC-Data-Service instance.

Product	IPCF
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration
	configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*
	Entering the above command sequence results in the following prompt:
	[*context_name*]*host_name*(config-pcc-data-service)#
Syntax Description	[**no**] **flow direction in protocol** {**ip** | **tcp** | **udp**} **from** {*src_ip_addr*[*/maskbit*] | **any**} **port** {*src_port_num* | **any**} **to** {*dest_ip_addr*[*/maskbit*] | **any**} **port** {*dest_port_num* | **any**}

no

Removes the configured data service flow parameters from PCC-Data-Service instance on IPCF node.

protocol {ip | tcp | udp}

This keyword configures the data flow parameters for specific protocol.

Following protocols are supported through this keyword:

- **ip**: Sets the parameters for IP traffic.
- **tcp**: Sets the parameters for TCP traffic.
- **UDP**: Sets the parameters for UDP traffic.

from {*src_ip_addr* | any} port {*src_port_num* | any}

This keyword configures the data flow condition parameters for specific protocol through IP address and port as source of flow.

Following parameters are defined with this keyword:

- *src_ip_addr*: specifies the specific IP address in IPv4/IPv6 notation as source of flow.
- *maskbit*: Specifies the IP address suffix in IPv4 or IPv6 notation.
- **any**: specifies that flow from any source IP address/port can be analyzed or considered.
- **port** *src_port_num*: specifies the specific source port parameter for flow.

  src_port_num is the source port number of flow and must be an integer from 1 through 65535.

to {*dest_ip_addr* | any} port {*dest_port_num* | any}

This keyword configures the data flow condition parameters for specific protocol through IP address and port as source of flow.

Following parameters are defined with this keyword:

- *dest_ip_addr*: specifies the specific IP address in IPv4/IPv6 notation as destination of flow.
- *maskbit*: Specifies the IP address suffix in IPv4 or IPv6 notation.
- **any**: specifies that flow to any destination IP address/port can be analyzed or considered.
- **port** *dest_port_num*: specifies the specific destination port parameter for flow.

  dest_port_num is the destination port number of flow and must be an integer from 1 through 65535.

Usage Guidelines   Use this command to configure the flow service parameters for outgoing data flow in PCC-Data-Service instance on IPCF node.

Example

Following command sets the data service parameters for **tcp** type protocol from **any** IP/port source to **any** IP/port in outgoing direction with in a PCC-Data-Service.

```
flow direction out protocol tcp from any port any to any port any
```

metering-method

This command specifies the metering method to be used by PCEF for offline charging in a PCC-Data-Service instance on IPCF node.

Product   IPCF

Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration
	configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*
	Entering the above command sequence results in the following prompt:
	[*context_name*]*host_name*(config-pcc-data-service)#
Syntax Description	[**no**] **metering-method** {**both-duration-volume** | **duration** | **volume**}

no

Removes the configured metering method from PCC-Data-Service instance on IPCF node.

In such scenario, the metering method pre-configured at PCEF is considered.

both-duration-volume

Specifies the metering method as based on volume of data usage and duration of session, both for offline charging in a PCC-Data-Service instance on IPCF node.

duration

Specifies the metering method as based on the duration of session usage for offline charging in a PCC-Data-Service instance on IPCF node.

volume

Specifies the metering method as based on the volume of data usage for offline charging in a PCC-Data-Service instance on IPCF node.

Usage Guidelines	Use this command to define the metering method to be used for offline charging in a PCC-Data-Service instance on IPCF node.
	If no metering method is defined, the metering method preconfigured at PCEF is considered.

Example

Following command sets the metering method as based on volume of data usage and duration of session, both for offline charging in a PCC-Data-Service instance on IPCF node.

metering-method both-duration-volume

monitoring-key

This command defines the monitoring key under which data is monitored for the PCC-Data-Service instance.

Product	IPCF
Privilege	Security Administrator, Administrator

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

configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*

Entering the above command sequence results in the following prompt:

[*context_name*]*host_name*(config-pcc-data-service)#

Syntax Description	**monitoring-key** *mon_key_value* [**no**] **monitoring-key**

no

Removes the configured monitoring-key from PCC-Data-Service instance on IPCF node.

mon_key_value

Specifies the monitoring key value under which data usage is monitored for the PCC-Data-Service instance and must be an integer from 1 through 65535.

Usage Guidelines	Use this command to define the monitoring key under which data is monitored for the PCC-Data-Service instance on IPCF node.

Example

Following command sets the monitoring key *123* for data monitoring in PCC-Data-Service instance on IPCF node.

monitoring-key *123*

precedence

This command defines the precedence that is assigned to the Dynamic PCC rule created for a PCC-Data-Service instance.

Product	IPCF
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration

configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*

Entering the above command sequence results in the following prompt:

[*context_name*]*host_name*(config-pcc-data-service)#

Syntax Description	**precedence** *preced_value* [**no**] **precedence**

no

Removes the configured precedence value from PCC-Data-Service instance on IPCF node.

preced_value

Specifies the precedence that is assigned to the dynamic PCC rule created for a PCC-Data-Service instance and must be an integer from 1 through 65535.

Usage Guidelines   Use this command to define the precedence value that is assigned to the Dynamic PCC rule created for a PCC-Data-Service instance on IPCF node.

Example

Following command sets the precedence value*2* to assign to the dynamic PCC rule created for a PCC-Data-Service instance on IPCF node.

precedence *2*

qos-profile

This command defines the PCC-QoS-Profile which is to use for the PCC-Data-Service instance on IPCF node.

Product   IPCF

Privilege   Security Administrator, Administrator

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

configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*

Entering the above command sequence results in the following prompt:

[*context_name*]*host_name*(config-pcc-data-service)#

Syntax Description   **qos-profile** *qos_prof_name*
[**no**] **qos-profile**

no

Removes the configured PCC-QoS-Profile from PCC-Data-Service instance on IPCF node.

qos_prof_name

Specifies the pre-configured PCC-QoS-Profile name which is to use for the PCC-Data-Service instance.

Usage Guidelines   Use this command to define the PCC-QoS-Profile for a PCC-Data-Service instance on IPCF node.

Example

Following command sets the PCC-QoS-Profile *ipcf_qos_prof1* for PCC-Data-Service instance on IPCF node.

qos-profile *ipcf_qos_prof1*

rating-group

This command defines the PCC-Rating-Group that is assigned for a PCC-Data-Service instance.

Product	IPCF
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration
	configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*
	Entering the above command sequence results in the following prompt:
	[*context_name*]*host_name*(config-pcc-data-service)#
Syntax Description	**rating-group** *rating_grp_id*
	[**no**] **rating-group**

no

Removes the configured PCC-Rating-Group Id from PCC-Data-Service instance on IPCF node.

rating_grp_id

Specifies the PCC-Rating-Group Id that is assigned to the PCC-Data-Service instance and must be an integer from 1 through 99.

Usage Guidelines	Use this command to define the PCC-Rating Id value for a PCC-Data-Service instance on IPCF node.

Example

Following command sets the Rating Group id *11* for a PCC-Data-Service instance on IPCF node.

rating-group *11*

reporting-level

This command specifies the reporting level to be used by PCEF to report the data usage for the related PCC rule in a PCC-Data-Service instance on IPCF node.

Product	IPCF
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration

configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*

Entering the above command sequence results in the following prompt:

`[`*context_name*`]`*host_name*`(config-pcc-data-service)#`

Syntax Description	[**no**] **reporting-level** {**service-identifier-level** `|` **rating-group-level**}

no

Removes the configured usage reporting level from PCC-Data-Service instance on IPCF node.

In such scenario, the reporting level configured at PCEF is considered.

service-identifier-level

Sets the data usage reporting level to be used by PCEF to report the data usage for the related PCC rule at the service identifier level in a PCC-Data-Service instance on IPCF node.

rating-group-level

Sets the data usage reporting level to be used by PCEF to report the data usage for the related PCC rule at the Rating-group level in a PCC-Data-Service instance on IPCF node.

Usage Guidelines	Use this command to define the reporting level to be used by PCEF to report the data usage for the related PCC rule in a PCC-Data-Service instance on IPCF node.

If no reporting level is defined, the reporting level preconfigured at PCEF is considered.

Example

Following command sets the reporting level at 'Rating-group' level which is to be used by PCEF to report the data usage for the related PCC rule in a PCC-Data-Service instance on IPCF node.

```
reporting-level rating-group-level
```

service-identifier

This command defines the service identifier for a PCC-Data-Service instance.

Product	IPCF
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Data Service Configuration

configure > context *context_name* **> pcc-service** *service_name* **> data-service** *service_name*

Entering the above command sequence results in the following prompt:

[*context_name*]*host_name*(config-pcc-data-service)#

Syntax Description

```
service-identifier svc_id
[no] service-identifier
```

no

Removes the configured Service Identifier from PCC-Data-Service instance on IPCF node.

svc_id

Specifies the Service Identifier that is assigned to the PCC-Data-Service instance and must be an integer from 1 through 65535.

Usage Guidelines   Use this command to define the Service Identifier for a PCC-Data-Service instance on IPCF node.

Example

Following command sets the Service Identifier *1011* for a PCC-Data-Service instance on IPCF node.

service-identifier *1011*