# PCC-Service-Profile Configuration Mode Commands

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

**Command Modes**   The PCC-Service-Profile Configuration Mode is used to define the business logic used by the operator for managing the policy requirements and objectives for the network specific to a group of subscribers in the network. A PCC-Service-Profile manages multiple PCC-Conditions-Groups and associated PCC-Action-Sets pairs in an ordered manner. A maximum of 32 PCC-Service-Profile can be configured in a PCC-Service instance.

Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Service Profile Configuration

**configure > context** *context_name* **> pcc-service** *service_name* **> profile** *profile_name*

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-pcc-profile)#`

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

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

# default-rulebase-name

This command is used to associate the default PCC-Rulebase with a PCC-Service-Profile which is to use in Subscriber profile in PCC-Service instance on IPCF node.

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| **Product** | IPCF |
| **Privilege** | Security Administrator, Administrator |
| **Command Modes** | Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Service Profile Configuration |

**configure > context** *context_name* **> pcc-service** *service_name* **> profile** *profile_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-pcc-profile)#
```

**Syntax Description**    [**no**] **default-rulebase-name** *rulebase_name*

**no**

Removes the configured default PCC-Rulebase from PCC-Service-Profile instance on IPCF node.

**rulebase_name**

This keyword specifies the default PCC-Rulebase name to be associated with PCC-Service-Profile instance.

*rulebase_name* is the Rulebase name configured at PCEF and must be an alphanumeric string of 1 through 63 characters.

**Usage Guidelines**    Use this command to associate the default PCC-Rulebase configured on PCEF with a PCC-Service-Profile which is to use in Subscriber profile in PCC-Service instance on IPCF node.

**Example**

Following command associates the PCC-Rulebase named *pcc_rulebase1* for PCC-Profile instance on IPCF node.

**default-rulebase-name** *pcc_rulebase1*

# eval-priority

This command sets the priority for evaluation of PCC-Condition-Group with corresponding PCC-Action-Set in a PCC-Service-Profile which is to use in Subscriber profile in PCC-Service instance on IPCF node.

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| **Product** | IPCF |
| **Privilege** | Security Administrator, Administrator |

| Command Modes | Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Service Profile Configuration |
|---|---|
| | **configure > context** *context_name* **> pcc-service** *service_name* **> profile** *profile_name* |
| | Entering the above command sequence results in the following prompt: |
| | `[context_name]host_name(config-pcc-profile)#` |
| Syntax Description | [**no**] **eval-priority last action-set** *actionset_name*<br>[**no**] **eval-priority** *priority_value* **timedef** *timedef_name* [**condition-group** *cond_grp_name*] **action-set** *actionset_name*<br>[**no**] **eval-priority** *priority_value* **condition-group** *cond_grp_name* **action-set** *actionset_name* |

### no

Removes the configured evaluation priority for PCC-Condition-Group with corresponding PCC-Action-Set from PCC-Service-Profile instance on IPCF node.

### last

Sets last evaluation priority action-set configured for the PCC-Service-Profile instance.

**no** removes the last evaluation priority action-set.

### priority_value

Specifies the priority to be set for PCC-Condition-Group with corresponding PCC-Action-Set in a PCC-Service-Profile instance.

*priority_value* must be an integer from 1 through 1023.

### timedef timedef_name

Specifies a pre-configured time definition in *PCC-Timedef Configuration mode* and to be set for evaluation priority in a PCC-Service-Profile instance.

*timedef_name* is a pre-configured PCC-Timedef and must be an alphanumerical string of 1 through 63 characters.

### condition-group cond_grp_name

Specifies a pre-configured PCC-Condition-Group to be set for evaluation priority in a PCC-Service-Profile instance.

*cond_grp_name* is a pre-configured PCC-Condition-Group and must be an alphanumerical string of 1 through 63 characters.

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| Important | An special PCC-Condition-Group "none" can be used to set the default PCC-Condition-Group for **any-match** typically used for a default condition for a session which does not match any of the conditions specified with higher evaluation priority. |
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**action-set** *actionset_name*

Specifies a pre-configured PCC-Action-Set for PCC-Condition-Group to be set for evaluation priority in a PCC-Service-Profile instance.

*actionset_name* is a pre-configured PCC-Action-Set and must be an alphanumerical string of 1 through 63 characters.

**Usage Guidelines**

Use this command to set the priority for evaluation of PCC-Condition-Group with corresponding PCC-Action-Set in a PCC-Service-Profile which is to use in Subscriber profile in PCC-Service instance on IPCF node.

Additionally **timedef** is used to accept the Timedefs to support the time-of-day-based procedures to trigger an evaluation priority. The action is triggered only when the time of session lies in the time span defined in specific PCC-Timedef *timedef_name*.

Default **eval-priority** has the lowest priority in the PCC-Service-Profile and as default **eval-priority** does not have any PCC-Condition-Group associated with it, all the actions in the **action-set** always be applied.

A maximum of 64 PCC-Evaluation-Priorities can be configured in a PCC-Service-Profile.

**Example**

Following command sets the evaluation priority value as *1* for PCC-Condition-Group *cond_1* along with PCC-Action-Set *act_cond1* for PCC-Service-Profile instance on IPCF node:

**eval-priority** *1* **condition-group** *cond_1* **action-set** *act_cond1*

Following command sets the evaluation priority value as *2* for PCC-Condition-Group *none* for **any-match** typically used for a default condition for a session which does not match any of the conditions specified with higher evaluation priority.along with PCC-Action-Set *act_cond1* for PCC-Service-Profile instance on IPCF node:

**eval-priority** *1* **condition-group** *none* **action-set** *act_cond1*

# service-tag

This command configures the PCC-Service Tags to be used for PCC-Rulename or PCC-Rule-base in a PCC-Service-Profile which is to use in Subscriber profile in PCC-Service instance on IPCF node.

**Product**

IPCF

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Service Profile Configuration

**configure > context** *context_name* **> pcc-service** *service_name* **> profile** *profile_name*

Entering the above command sequence results in the following prompt:

[*context_name*]*host_name*(config-pcc-profile)#

**Syntax Description**

[**no**] **service-tag** *svc_tag* {**rule-name** *rule_name* | **rulebase-name** *rulebase_name*}

**no**

Removes the configured PCC-Service Tags for PCC-Rulename and PCC-Rulebase from PCC-Service-Profile instance on IPCF node.

***svc_tag***

Specifies the name of the PCC-Service Tag to be used for PCC-Rulename and PCC-Rulebase in a PCC-Service-Profile instance.

*svc_tag* must be an alphanumerical string of 1 through 63 characters.

**rule-name *rule_name***

Specifies a pre-defined PCC-Rulename on PCEF to be used with PCC-Service Tag *svc_tag* in a PCC-Service-Profile instance.

*rule_name* is a pre-defined PCC-Rulename on PCEF and must be an alphanumerical string of 1 through 63 characters.

**rulebase-name *rulebase_name***

Specifies a pre-defined PCC-Rulebase name pre-defined on PCEF to be used with PCC-Service Tag *svc_tag* in a PCC-Service-Profile instance.

*rulebase_name* is a pre-defined PCC-Rulebase name on PCEF and must be an alphanumerical string of 1 through 63 characters.

**Usage Guidelines**    Use this command to set the PCC-Service Tag for PCC-Rulename and PCC-Rulebase which are defined on PCEF with a PCC-Service-Profile which is to use in Subscriber profile in PCC-Service instance.

**Example**

Following command sets the PCC-Service Tag named *Rule1* for PCC-Rulebase named *pcc_rulebase1* for PCC-Service-Profile instance on IPCF node:

**service-tag** *Rule1* **rulebase-name** *pcc_rulebase1*

Following command sets the PCC-Service Tag named *Rule11* for PCC-Rulename *pcc_rule1* for PCC-Service-Profile instance on IPCF node:

**service-tag** *Rule11* **rule-name** *pcc_rule1*

# timeout long-duration

Configures the long duration timeout and inactivity duration for subscriber session before system notifies or terminates session in PCC Profile instance.

**Product**    IPCF

**Privilege**    Security Administrator, Administrator

| Command Modes | Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Service Profile Configuration |
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**configure > context** *context_name* **> pcc-service** *service_name* **> profile** *profile_name*

Entering the above command sequence results in the following prompt:

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

| Syntax Description | `timeout long-duration` *ldt_timeout* `[`**action** {**detection** | **disconnect**}`]`<br>`no timeout long-duration`<br>`default timeout long-duration` |
|---|---|

**no**

Removes the configured long duration timeout value and action in PCC Profile instance.

**default**

Sets the the long duration timeout value to the default value of '0' which disables the long duration timeout configuration in PCC Profile instance.

**long-duration *ldt_timeout***

Default: 0

Designates the maximum duration of the session, in seconds, before the system automatically reports/terminates the session.

Specifies the maximum amount of time, in seconds, before the specified timeout action is activated.

*ldt_timeout* must be a value in the range from 0 through 4294967295.

The special value 0 disables the timeout specified.

**action {detection | disconnect}**

Default: Detection

Specifies the action to be taken on expiry of long duration timeout duration *ldt_timeout* set with **timeout long-duration** command.

- **detection**: sets the system to detect the sessions for which long duration timeout timer is exceeded and sends the SNMP TRAP and CORBA notification. This is the default behavior.
- **disconnect**: sets the system to send SNMP TRAP and CORBA notification and disconnect the subscriber session once the long duration timeout timer is expired.

| Usage Guidelines | Use this command to set the long duration timeout period and actions to be taken on expiry of duration of timer for subscriber session. |
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| Important | Reduce the timeout duration to free session resources faster for use by new requests. |
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**Important**    In case of long-duration timeout configured at PCC Service Configuration mode as well as at the PCC-Profile Configuration mode level, the long-duration timeout and action set in PCC-Profile Configuration mode will prevail. This enables defining session behavior as per profile provisioning.

### Example

Following command sets the system to detect the subscriber sessions that exceeds the long duration timer of 6000 seconds and sends SNMP TRAP and CORBA notification:

**timeout long-duration** *6000* **action detection**

Following command sets the system to detect and disconnect the subscriber sessions that exceeds the long duration timer of 6000 seconds and disconnect the session after sending SNMP TRAP and CORBA notification:

**timeout long-duration** *6000* **action disconnect**

# usage-monitor

This command creates/modifies/deletes the PCC-Usage-Monitor Configuration instance to track the usage volume across the PCC-services based on the usage monitor settings in a PCC-service instance for IPCF configuration.

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| **Product** | IPCF |
| **Privilege** | Security Administrator, Administrator |
| **Command Modes** | Exec > Global Configuration > Context Configuration > PCC Service Configuration > PCC Service Profile Configuration |
| | **configure > context** *context_name* **> pcc-service** *service_name* **> profile** *profile_name* |
| | Entering the above command sequence results in the following prompt: |
| | [*context_name*]*host_name*(config-pcc-profile)# |
| **Syntax Description** | [**no**] **usage-monitor** *usage_mon_name* [**-noconfirm**] |

**no**

Removes the configured PCC-Usage-Monitor from PCC-Service-Profile instance for IPCF configuration.

**usage_mon_name**

Identifies the name of the PCC-Usage-Monitor instance which is to be created or modified through this command.

The *usage_mon_name* must be an alphanumerical string from 1 through 63 characters.

**-noconfirm**

Indicates that the command is to execute without any additional prompt and confirmation from the user.

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**Caution**    If this keyword option is used with **no usage-monitor** *usage_mon_name* command, the PCC-Usage-Monitor instance named *usage_mon_name* is deleted with all configured parameters without prompting any warning or confirmation.

**Usage Guidelines**    Use this command to create and configure a PCC-Usage-Monitor for PCC-Service-Profile in a PCC-service instance of IPCF configuration.

A maximum number of 8 PCC-Usage-Monitors can be configured per PCC-Service-Profile.

Entering this command results in the following prompt:

```
[context_name]hostname(config-pcc-profile-usage-mon)#
```

The commands configured in this mode are defined in the *PCC-Usage-Monitor Configuration Mode Commands* chapter of *Command Line Interface Reference*.

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**Caution**    This is a critical configuration. The PCC-Usage-Monitor for volume usage can not be configured without this configuration. Any change to this configuration would lead to removing or disabling configuration parameters defined here.

**Example**

Following command configures the PCC-Usage-Monitor named *pcc_usage1* to track the usage of service with in a PCC-Service-Profile instance.

**usage-monitor** *pcc_usage1*

# unknown-services-treatment

This command configures the PCC-Service for handling of unknown services at IPCF which is to be used in Subscriber profile in PCC-Service instance on IPCF node.

**Product**    IPCF

**Privilege**    Security Administrator, Administrator

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

**configure > context** *context_name* **> pcc-service** *service_name* **> profile** *profile_name*

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-pcc-profile)#
```

**Syntax Description**

[**default**] **unknown-services-treatment** {**not-allowed** | **qos-profile** *qos_prof_name*
**precedence from** *start_preced* **to** *end_preced* **order** {**ascending** | **descending**}}

### default

Sets the configured PCC-Service for handling of unknown services at IPCF to default value of "**Not allowed**" which is to be used in Subscriber profile in PCC-Service instance on IPCF node.

### not-allowed

Sets the PCC-Service-Profile instance to reject the packet filters and does not installs any dynamic rule when IPCF receives any request to authorize Packet Filters from PCEF and no matching service flow is found in data service list.

### qos-profile *qos_prof_name*

Specifies a pre-defined PCC-QoS profile name to be used to create dynamic rule when IPCF receives any request to authorize Packet Filters from PCEF and no matching service flow is found in data service list.

*qos_prof_name* is a pre-defined PCC-QoS Profile and must be an alphanumerical string of 1 through 63 characters.

### precedence from *start_preced* to *end_preced*

Specifies the precedence parameters to install dynamic rules for selection of QoS profile when QoS profile is configured to create dynamic rule when IPCF receives any request to authorize Packet Filters from PCEF and no matching service flow is found in data service list.

*start_preced* is an integer between 1 through 65535 and must be less than *end_preced* value where *end_preced* is an integer between 1 through 65535 and must be more than *start_preced* value

### order {ascending | descending}

Specifies the order of precedence for QoS profile to be used to install dynamic rule when IPCF receives any request to authorize Packet Filters from PCEF and no matching service flow is found in data service list.

- **ascending** sets the precedence setting in ascending order.
- **descending** sets the precedence setting in descending order.

**Usage Guidelines**

Use this command to set the PCC-Service Tag for PCC-Rulename and PCC-Rulebase which are defined on PCEF with a PCC-Service-Profile which is to use in Subscriber profile in PCC-Service instance.

Whenever IPCF receives any request to authorize Packet Filters from PCEF, it does a lookup in data service list to find a match. If **No** service flow is found matching then the requested filters are treated as **unknown service request** and handled as per the mentioned configuration.

When unknown-service-treatment is set to **not-allowed**, then Packet Filters are rejected and no dynamic rule is installed. Otherwise, dynamic rule is created using the requested packet filters, data rates mentioned in the QoS profile name *qos_prof_name* and precedence value derived from the configured values.

The precedence configuration works in following manner:

- If precedence limits are configured as 1000 to 2000 with order **ascending** then precedence of subsequent dynamic rules will go from 1000 to 2000.
- If precedence limits are configured as 1000 to 2000 with order **descending** then precedence of subsequent dynamic rules will go from 2000 to 1000.

### Example

Following command sets the PCC-Service for handling of unknown services for PCC-Service-Profile instance on IPCF node to default action of **not allowed**:

```
default unknown-services-treatment
```