

Flexible QoS Actions

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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 – Configuration required to disable
Related Documentation	Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2020.01.0

Feature Description

PCF supports the Flexible QoS Actions feature on the N7 interface. During policy management on the N7 interface, PCF sends session rules that are based on the configured QoS to the SMF.

The following QoS actions are applicable to an uplink AMBR and downlink AMBR are configurable for calculating the session rules. The default configuration is QoS-Enforcement.

- QoS-Bounding facilitates PCF to calculate the minimum QoS between the Requested QoS (from the SMF) and the calculated QoS based on the internal logic, and authorize that in the response message to the SMF.
- QoS-Mirroring is the ability for the PCF to grant or authorize the requests from the SMF.
- QoS-Enforcement is the ability for the PCF to enforce the calculated QoS (computed based on PCF's internal logic) back to the SMF in the request or response message. This is the default configuration.

Configuring QoS Actions on N7 Interface

This section describes how to configure the QoS Actions on the N7 interface using the following service.

- OverrideSessionRule

OverrideSessionRule

This section describes the parameters for the OverrideSessionRule configurations.

The OverrideSessionRule service configuration is used to override the N7 default bearer QoS APN AMBR UL/DL values.

PCF first evaluates the derived QoS values for default bearer and then assesses the table provided in OverrideSessionRule service configuration using the key values. It further determines the result APN AMBR UL/DL values. If the "Condition to Override" is "LT", then PCF limits the derived QoS values with these override values. If the "Condition to Override" is "GT", then PCF selects the maximum UL/DL among the derived values and overrides these values.

Note The OverrideSessionRule configuration works in conjunction with the SessionRuleAction configuration.

For information on SessionRuleAction, see SessionRuleAction.

Before setting the service parameters, ensure that you create a use case template and add a service for this configuration. For details, see Configuring the Use Case Template and Adding a Service.

The following table describes the OverrideSessionRule service parameters.

Table 3: OverrideSessionRule Parameters

Parameters	Description
Priority	Indicates the priority of the server when sending requests. Higher number is equal to higher priority.
Stg Reference	Refers to the STG that contains the QoS reference and the QoS parameter values such as QCI and APN-MBRUL.

Parameters	Description
List Of Input Column Avp Pairs (List)	The list that specifies the mapping for input (key) columns to determine their values. Based on these values, the STG is queried. ColumnAndAvpPair • Avp Name: Specify the AVP name whose value is used to map to the corresponding key Column for querying the STG. • Column: The key column in the STG that corresponds to the specified AVP.
Apn Agg Max Bit Rate U L	Reference to the STG output column that gives the "APNAggregate-Max-Bitrate-UL" value for limiting QoS. This value and the corresponding value derived after QoS actions are compared to determine the final value for APN-Aggregate-Max-Bitrate-UL.
Apn Agg Max Bit Rate D L	Reference to the STG output column that gives the "APNAggregate-Max-Bitrate-DL" value for limiting QoS. This value and the corresponding value derived after QoS actions are compared to determine the final value for APN-Aggregate-Max-Bitrate-DL.
Condition to Override	Provides the condition to compare the values. Only two values are supported "LT" and "GT". If LT is selected, PCF uses the lowest QoS parameter value from the two QoS references. If GT is selected, PCF considers the highest QoS parameter value from the two QoS references. Possible Values: • LT: Less than (Default) • GT: Greater than