



# Dynamic ARP Functionality for PL

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## Feature Summary and Revision History

### Summary Data

*Table 1: Summary Data*

Applicable Product(s) 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.	2022.02.0

## Feature Description

PCF supports Dynamic QoS ARP feature to calculate ARP (Priority Level) based on dynamic expression.

## How it Works

This section describes how this feature works.

When PCF evaluates Rx\_QoS\_Table or N5\_QoS\_Table to derive QoS for dedicated bearer PCC rules, if a dynamic value expression is configured for ARP Priority-Level, then PCF evaluates the expression and set the result as Priority-Level.

## Feature Configuration

To configure this feature, use N5STGConfiguration for Dynamic QoS ARP

### Configuring N5STGConfiguration for Dynamic QoS ARP

This section describes the parameters that can be configured for N5STGConfiguration.

The N5STGConfiguration service configuration supports the following output AVPs that allow the dynamic value expression and their ranges to be defined.

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 N5STGConfiguration service parameters.

**Table 3: N5STGConfiguration Parameters**

Parameters	Description
Dynamic-QoS-ARP-Priority-Level	<p><b>Note</b> This is a mandatory parameter if the Dynamic QoS ARP feature is enabled.</p> <p>This AVP is bound to the dynamic expression Priority-Level column. If the value is null/not configured, then Dynamic QoS ARP feature is disabled. If the value is configured, it overrides the integer PL value (if configured). The dynamic PL expression is either expected to match the java regex:  <code>^[dD](\\s*([+/*])\\s*([0-9]+))?\$</code> or must be an offset value (of syntax: <code>[+][0-9]+</code>). In case the value is provided in offset form, the “D” is implicit. Thus “+8” corresponds to “D+8” in expression form, “-5” corresponds to “D-5” and similarly, “0” corresponds to “D”.</p>
Dynamic-QoS-ARP-Priority-Level-Default	If the default bearer doesn't have a Priority-Level, this value is used as dedicated bearer PL. If the value is null/not configured, the default value (15) is used.
Dynamic-QoS-ARP-Priority-Level-Min	This output AVP provides upper/lower bound for the calculated PL value using the Dynamic expression provided under Dynamic-QoS-ARP-Priority-Level. If the value is null/not configured, the default value (1) is used.

Parameters	Description
Dynamic-QoS-ARP-Priority-Level-Max	The upper end of the valid PL range. If the value is null/not configured, the default value (15) is used.
Dynamic-QoS-Update-On-Change	This AVP controls whether the PCC rules must be updated on change in the dynamic PL value (for example, due to change in default bearer PL value). If value is null/not configured, the PCC rules are not updated with new dynamic PL value once installed.

**Note**

- Using the offset form may have minor performance gains as compared to a full expression.
- Range limits are not applied for the default dynamic values.
- Dynamic expression has an implicit “Enforce” QoS action. The Action column value is ignored.
- If dynamic expression configured for Priority-Level is invalid, PCF ignores the expression and does not include the ARP parameters (since PL is set as null) in the rule install. This is true even if absolute PL value is configured (absolute value is ignored).

