**3GPP TSG-CT WG3 Meeting #122-eC3-223164**

**E-Meeting, 12th – 20th May 2022**

**Source: Nokia, Nokia Shanghai Bell**

**Title: Pseudo-CR on the Session rule update to Npcf\_MBSPolicyControl Create Service**

**Spec: 3GPP TS 29.537 V0.2.0**

**Agenda item: 17.31 (5MBS)**

**Document for: Approval**

**1. Introduction**

TS 29.537 has been allocated under the 5MBS work item to define the MBS Policy Control services.

**2. Reason for Change**

Session rule update for Npcf\_MBSPolicyControl\_Create service operation needs to be specified for the attributes marked as FFS.

Stage 2 requirements for policy data are defined in TS 23.247:

## *6.10    Policy control for Multicast and Broadcast services*

*The policy and charging control framework as defined in TS 23.503 [7] applies to Multicast and Broadcast services in the following aspects:*

*-     MBS Session binding: MBS Session binding is the association of an AF Session information to one and only one MBS Session. The PCF shall perform the session binding based on the MBS Session ID, i.e. TMGI or source specific IP multicast address.*

*-     QoS Flow binding: For an MBS Session, QoS Flow binding is the association of a PCC rule to a QoS Flow within an MBS Session. The MB-SMF performs QoS Flow binding for an MBS Session in the same way as the SMF for a PDU Session.*

*-* ***PCC rules for MBS Session are used to provide policy for QoS flows: The following PCC rule parameters defined in Table 6.3.1 of TS 23.503 [7] are applicable for MBS:***

***-     Rule identifier.***

***-     Service data flow detection: Precedence, Service data flow template (only for IP PDU traffic).***

***-     Policy Control: 5G QoS Identifier (5QI), DL-maximum bitrate, DL-guaranteed bitrate, ARP, Priority Level, Averaging Window, Maximum Data Burst Volume.***

***-     Policy information can also be applicable for an entire MBS session. The following parameters defined for a PDU session in Table 6.4.1 of TS 23.503 [7] are applicable for an entire MBS session:***

***-     Authorized Session-AMBR.***

***-     Explicitly signalled QoS Characteristics.***

**3. Conclusions**

N/A.

**4. Proposal**

It is proposed to agree the following changes to 3GPP TS 29.537 V0.2.0.

\* \* \* First Change \* \* \* \*

#### 5.2.1.a MBS Session rules definition

A session rule consists of policy information elements associated with MBS session. A session rule is dynamically provisioned by the PCF to the MB-SMF (i.e., there are only dynamic session rules). The encoding of the SessionRule data type is defined in subclause 6.1.6.2.z.

A session rule shall include:

-     Session Rule Identifer within the "sessRuleId" attribute.

A session rule may include:

-     Authorized Session-AMBR within the "authSessAmbr" attribute;

Editor's note: If Authorized default QoS is needed for MBS session is FFS.

\* \* \* Next Change \* \* \* \*

#### 5.2.1.b MBS Session rules operation

For MBS Session rules, the following applies:

-     Installation: to provision the MBS session rules.

-     Modification: to modify the MBS session rules.

-     Removal: to remove the MBS session rules.

\* \* \* Next Change \* \* \* \*

#### 6.1.6.1 General

This clause specifies the application data model supported by the API.

Table 6.1.6.1-1 specifies the data types defined for the Npcf\_MBSPolicyControl service based interface protocol.

Table 6.1.6.1-1: Npcf\_MBSPolicyControl specific Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Clause defined | Description | Applicability |
| MbsPolicyCtxtData | 6.1.6.2.2 | Contains the parameters used to request the creation of an Individual MBS Policy resource. |  |
| MbsPolicyData | 6.1.6.2.4 | Contains the MBS policy data of an Individual MBS Policy resource. |  |
| MbsPolicyDecision | 6.1.6.2.3 | Contains the MBS policies authorized by the PCF. |  |
| MbsPolicyNotif | 6.1.6.2.5 | Represents an MBS policy update notification. |  |
| MbsSessRule | 6.1.6.2.x | Contains the description of an MBS session rule |  |
| MbsTermNotif | 6.1.6.2.6 | Represents an MBS policy termination notification. |  |

Table 6.1.6.1-2 specifies data types re-used by the Npcf\_MBSPolicyControl service based interface protocol from other specifications, including a reference to their respective specifications and when needed, a short description of their use within the Npcf\_MBSPolicyControl service based interface.

Table 6.1.6.1-2: Npcf\_MBSPolicyControl re-used Data Types

|  |  |  |  |
| --- | --- | --- | --- |
| Data type | Reference | Comments | Applicability |
| Dnn | TS 29.571 [15] | Identifies a DNN. |  |
| MbsSessionId | TS 29.571 [15] | Represents an MBS Session Identifier. |  |
| RedirectResponse | TS 29.571 [15] | Contains redirection related information. |  |
| Snssai | TS 29.571 [15] | Identifies an S-NSSAI. |  |
| SupportedFeatures | TS 29.571 [15] | Represents the list of supported features. It is used to negotiate the applicability of the optional features. |  |
| Uri | TS 29.571 [15] | Represents a URI. |  |
| Ambr | TS 29.571 [15] | Indicates the Aggregate Maximum Bit Rate. |  |

\* \* \* Next Change \* \* \* \*

##### 6.1.6.2.z Type: MbsSessRule

Table 6.1.6.2.z-1: Definition of type MbsSessRule

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description | Applicability |
| authSessAmbr | Ambr | C | 0..1 | Authorized Session-AMBR. (NOTE) |  |
| sessRuleId | String | M | 1 | Univocally identifies the session rule within a MBS session. |  |
| NOTE: The PCF shall provide both "authSessAmbr" attribute the first time the session rule is provisioned. The PCF shall ensure that a session rule enforced in the MB-SMF contains the "authSessAmbr" attribute. | | | | | |

\* \* \* Next Change \* \* \* \*

# A.2 Npcf\_MBSPolicyControl API

openapi: 3.0.0

info:

title: Npcf\_MBSPolicyControl API

version: 1.0.0-alpha.2

description: |

MBS Session Policy Control Service

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externalDocs:

description: >

TS 29.537 V0.2.0; 5G System; Multicast/Broadcast Policy Control Services.

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.537/'

[…]

MbsSessRule:

description: Contains MBS session level policy information.

type: object

properties:

authSessAmbr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ambr'

sessRuleId:

type: string

description: Univocally identifies the session rule within a MBS session.

\* \* \* End of Changes \* \* \* \*