**3GPP TSG-CT WG4 Meeting #99eC4-204xxx**

**E-Meeting, 18th – 28th August 2020 *Revision of C4-204179***

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.571** | **CR** | **0371** | **rev** | **1** | **Current version:** | **16.4.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | QoS Monitoring | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_URLLC, ETSUN | | | | |  | ***Date:*** | | | 2020-08-24 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | PCF may stop the QoS monitoring in SMF/UPF/NG-RAN, when modifying a QoS flow, qosFlowProfile with the qosMonitoringReq only include the QoS Flow profile's attributes which are modified, currently, there is no mechanism to stop the QoS Monitoring in NG-RAN.  Propose to add stopQoSMonitoring indication in qosFlowProfile, either stopQoSMonitoring or qosMonitoringReq may be included in qosFlowProfile when modifying a QoS Flow. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add stopQoSMonitoring indication in qosFlowProfile | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | QoS Monitoring in NG-RAN can not be stopped. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.1.6.2.22, A.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR introduces backward compatible corrections to the OpenAPI file for *Nsmf\_PDUSession* API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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

##### 6.1.6.2.22 Type: QosFlowProfile

Table 6.1.6.2.22-1: Definition of type QosFlowProfile

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | P | Cardinality | Description |
| 5qi | 5Qi | M | 1 | This IE shall contain the 5G QoS Identifier (5QI) of the QoS flow. |
| nonDynamic5Qi | NonDynamic5Qi | C | 0..1 | When present, this IE shall indicate the QoS Characteristics for a standardized or pre-configured 5QI for downlink and uplink.  See NOTE 1. |
| dynamic5Qi | Dynamic5Qi | C | 0..1 | When present, this IE shall indicate the QoS Characteristics for a Non-standardised or not pre-configured 5QI for downlink and uplink.  See NOTE 1. |
| arp | Arp | C | 0..1 | This IE shall be present when establishing a QoS flow; it may be present when modifying a QoS flow.  When present, this IE shall contain the Allocation and Retention Priority (ARP) assigned to the QoS flow. |
| gbrQosFlowInfo | GbrQosFlowInformation | C | 0..1 | This IE shall be present when establishing a GBR QoS flow or if the GBR QoS flow information is modified. |
| rqa | ReflectiveQoSAttribute | O | 0..1 | This IE may be present for a non-GBR QoS flow and it shall be ignored otherwise. When present, it shall indicate whether certain traffic on this QoS flow may be subject to Reflective QoS. |
| additionalQosFlowInfo | AdditionalQosFlowInfo | O | 0..1 | This IE may be present for a non-GBR QoS flow. When present, this IE indicates that traffic for this QoS flow is likely to appear more often than traffic for other flows established for the PDU session. See clause 9.3.1.12 of 3GPP TS 38.413 [9]. |
| qosMonitoringReq | QosMonitoringReq | O | 0..1 | This IE may be present to indicate the measurement of UL, or DL, or both UL/DL delays for the associated QoS flow. See clause 9.3.1.12 of 3GPP TS 38.413 [9].  See NOTE 2. |
| stopQosMonitoring | boolean | O | 0..1 | This IE may be present to stop the measurement of delays for the associated QoS flow.  When present, it shall be set to true to indicate that the measurement of delays for the associated QoS flow shall be stopped.  See NOTE 2. |
| NOTE 1: Either the nonDynamic5Qi IE or the dynamic5Qi IE may be present when establishing a QoS flow. Either the nonDynamic5Qi IE or the dynamic5Qi IE may be present when modifying a QoS flow; when present, the received nonDynamic5Qi IE or dynamic5Qi IE shall replace any value received previously for this IE.  NOTE 2: Only the qosMonitoringReq IE may be present when establishing a QoS flow. Either the qosMonitoringReq IE or the stopQosMonitoring IE may be present when modifying a QoS flow. | | | | |

Editor's note: It is FFS how to support the QoS Monitoring Reporting Frequency on N16a for QoS Flow QoS Monitoring, the QoS monitoring policy and QoS Monitoring Result on N16a for GTP-U Path QoS Monitoring.

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

## A.2 Nsmf\_PDUSession API

openapi: 3.0.0

info:

version: '1.1.0'

title: 'Nsmf\_PDUSession'

description: |

SMF PDU Session Service.

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[…]

QosFlowProfile:

type: object

properties:

5qi:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/5Qi'

nonDynamic5Qi:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/NonDynamic5Qi'

dynamic5Qi:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Dynamic5Qi'

arp:

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

gbrQosFlowInfo:

$ref: '#/components/schemas/GbrQosFlowInformation'

rqa:

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

additionalQosFlowInfo:

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

qosMonitoringReq:

$ref: '#/components/schemas/QosMonitoringReq'

stopQosMonitoring:

type: boolean

required:

- 5qi

[…]

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