**3GPP TSG-RAN3 Meeting # 123R3-240889**

**Athens, Greece, 26-02-2024 – 02-03-2024**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.413** | **CR** | **1085** | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *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 | **X** | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Introduction of separate uplink and downlink PDU set QoS parameters | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, Qualcomm Inc., Nokia, Nokia Shanghai Bell, Samsung, Xiaomi, China Telecom, ZTE, Huawei, CATT, CMCC | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_XR\_enh-Core | | | | |  | ***Date:*** | | | 2024-02-19 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Based on the SA2 reply LS in R3-240021 on RAN3’s previous LS in R3-235891 on UL and DL PDU Set QoS parameters, SA2 has agreed to introduce separate DL and UL PDU Set QoS parameters in the QoS flow QoS Parameters received by NG-RAN from 5GC. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add separate UL and DL PDU Set QoS parameters in the QoS Flow QoS Parameters IE | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Cannot support separate DL and UL PDU Set QoS Parameters | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.3.1.12, 9.3.1.264, ASN1 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 38.300 CR  TS 37.483 CR 0104  TS 38.473 CR 1278  TS 38.423 CR 1149 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Rev 1: updated based on online comments to reuse existing IE. | | | | | | | | |

**<Start of changes>**

#### 9.3.1.12 QoS Flow Level QoS Parameters

This IE defines the QoS parameters to be applied to a QoS flow.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| CHOICE *QoS Characteristics* | M |  |  |  | - |  |
| *>Non-dynamic 5QI* |  |  |  |  |  |  |
| >>Non Dynamic 5QI Descriptor | M |  | 9.3.1.28 |  | - |  |
| *>Dynamic 5QI* |  |  |  |  |  |  |
| >>Dynamic 5QI Descriptor | M |  | 9.3.1.18 |  | - |  |
| Allocation and Retention Priority | M |  | 9.3.1.19 |  | - |  |
| GBR QoS Flow Information | O |  | 9.3.1.10 | This IE shall be present for GBR QoS flows and is ignored otherwise. | - |  |
| Reflective QoS Attribute | O |  | ENUMERATED (subject to, …) | Details in TS 23.501 [9]. This IE may be present in case of Non-GBR QoS flows and is ignored otherwise. | - |  |
| Additional QoS Flow Information | O |  | ENUMERATED (more likely, …) | 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.  This IE may be present in case of Non-GBR QoS flows and is ignored otherwise. | - |  |
| QoS Monitoring Request | O |  | ENUMERATED (UL, DL, Both, …, stop) | Indicates to measure UL, or DL, or both UL/DL delays for the associated QoS flow or stop the corresponding QoS monitoring. | YES | ignore |
| QoS Monitoring Reporting Frequency | O |  | INTEGER (1.. 1800, …) | Indicates the reporting frequency for RAN part delay for QoS monitoring.  Units: second | YES | ignore |
| **PDU Set QoS Parameters** |  | ***0..1*** |  |  | YES | ignore |
| >UL PDU Set QoS Information | O |  | PDU Set QoS Information  9.3.1.264 |  | - |  |
| >DL PDU Set QoS Information | O |  | PDU Set QoS Information  9.3.1.264 |  | - |  |

**<Next change>**

#### 9.3.1.264 PDU Set QoS Information

This IE defines the PDU Set QoS Parameters to be applied to a QoS flow.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| PDU Set Packet Delay Budget | O |  | Extended Packet Delay Budget 9.3.1.135 | PDU Set Delay Budget as specified in TS 23.501 [9]. |
| PDU Set Error Rate | O |  | Packet Error Rate  9.3.1.81 | PDU Set Error Rate as specified in TS 23.501 [9]. |
| PDU Set Integrated Handling Information | O |  | ENUMERATED (true, false, …) | PDU Set Integrated Handling Information as specified in TS 23.501 [9]. |

**<Next change>**

**<Next change>**

PDUsetQoSParameters ::= SEQUENCE {

ulPDUSetQoSInformation PDUsetQoSInformation OPTIONAL,

dlPDUSetQoSInformation PDUsetQoSInformation OPTIONAL,

...

}

PDUsetQoSInformation ::= SEQUENCE {

pduSetDelayBudget ExtendedPacketDelayBudget OPTIONAL,

pduSetErrorRate PacketErrorRate OPTIONAL,

pduSetIntegratedHandlingInformation ENUMERATED {true, false, ...} OPTIONAL,

iE-Extensions ProtocolExtensionContainer { { PDUsetQoSInformation-ExtIEs } } OPTIONAL

}

PDUsetQoSInformation-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

...

}

**<End of changes>**