**3GPP TSG-CT WG3 Meeting #127eC3-231366**

**E-meeting, 17th – 21st, April, 2023 (revision of C3-231xxx)**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.512** | **CR** | **1073** | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  | | | | | | | | |
| *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:*** | Support of Uplink Downlink transmission coordination to meet RT latency requirement | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | XRM | | | | |  | ***Date:*** | | | 2023-03-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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:*** | | To support the XR and Interactive Media Services, the AF may provide the Round-Trip (RT) latency requirement with an RT latency indication via the AF session with required QoS procedure. This stage 2 requirement needs to be supported in stage 3. | | | | | | | | |
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| ***Summary of change:*** | | Update the policy provisioning and enforcement of the AF session with required QoS procedure to support the RT latency requirement. | | | | | | | | |
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| ***Consequences if not approved:*** | | When the RT latency requirement is received, the behavior of PCF is unclear. | | | | | | | | |
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| ***Clauses affected:*** | | 4.2.6.21.2 (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | The CR does not impact the OpenAPI file. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

##### 4.2.6.21.2 UL/DL policy control based on Round-Trip latency requirements

The Round-Trip (RT) latency indication indicates the service data flow needs to meet the RT latency requirement of the service, which is twice the single direction delay requirement between the UE and the PSA UPF described by the received QoS reference parameter or the received individual QoS parameter.

If the AF provided the RT latency indication as defined in 3GPP TS 29.514 [17], the PCF may split the RT latency requirement, i.e. the twice of the single direction delay, into two PDBs of two PCC rules, one for UL service data flow and the other for DL service data flow. The two PDBs can be unequal, but their sum shall not exceed the RT latency requirement.

NOTE: RT latency requirement may also be locally configured in the PCF together with delay requirement.

To enable RT latency tracking, the PCF shall generate associated QoS monitoring policies for the two correlated PCC rules as described in clause 4.2.3.25. The uplink and downlink delay for the two PCC rules shall be tracked by PCF independently with same reporting period. When the QoS monitoring results are reported to PCF, the PCF may update the two PCC rules to adjust the UL PDB and DL PDB.

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