**3GPP TSG-SA5 Meeting #135e *S5-211181***

**electronic meeting, online, 25 January - 3 February 2021** Revision of S5-20xxxx

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| *CR-Form-v11.4* | | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | | |
|  | | | | | | | | | |
|  | **32.255** | **CR** | **0276** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  | | | | | | | | | |
| *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:*** | Add the Quota Management for URLLC Charging | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_URLLC | | | | |  | ***Date:*** | | | 2021-01-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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)* | |
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| ***Reason for change:*** | | As per TS 23.501 and TS 23.502, the 5GS to support Ultra Reliable Low Latency Communication (URLLC) is specified. The corresponding quota management for URLLC serivces should be added. | | | | | | | | |
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| ***Summary of change:*** | | Add quota management for URLLC services charging. | | | | | | | | |
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| ***Consequences if not approved:*** | | The credit control for the URLLC services is absent. | | | | | | | | |
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| ***Clauses affected:*** | | 5.2.1.X (New) | | | | | | | | |
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|  | | **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 ... | | |
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| ***Other comments:*** | | Implement the 5.2.1.X after 5.2.1.11. | | | | | | | | |

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| **First change** |

#### 5.2.1.x Quota allocation and Usage Reporting for URLLC

The CHF can be aware of redundant transmission type (i.e.dual connectivity, redundant transmission on N3/N9 and redundant transmission at transport layer) and provide the quota allocation based on the redundant transmission type:

* For dual connectivity based end to end redundant user plane paths, the granted quotas is allocated for each PDU session.
* For the redundant transmission on N3/N9 interfaces and at transport layer, the CHF grants the quota for the non-redundant transmission.

For dual connectivity based end to end Redundant User Plane Paths, SMF shall collect and report the usage for each redundant PDU session.

For redundant transmission at transport layer and N3/N9 interface, the SMF shall collect and report the usage with redundant transmission indication to specify whether the usage is reported for redundant transmission.

During the PDU session life, the SMF may decide to active or deactive the redundant transmission and reports the usage based on the redundant transmission change trigger.

Editor’s note: the definition of "non-redundant transmission" is ffs

Editor’s note: the usage reporting for the redundant transmission at transport layer and N3/N9 interface is ffs.

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| **End of change** |