**3GPP TSG-SA5 Meeting #137e *S5-213254rev1***

**electronic meeting, online, 10 - 19 May 2021** Revision of S5-20xxxx

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v11.4* | | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | | |
|  | | | | | | | | | |
|  | **32.255** | **CR** | **0307** | **rev** | **1** | **Current version:** | **17.1.1** |  |
|  | | | | | | | | | |
| *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)*.* | | | | | | | | | |
|  | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Add the definition for non-redandunt transmission | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_URLLC | | | | |  | ***Date:*** | | | 2021-04-13 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | As per TS 23.501 and TS 23.502, the SMF can perform or stop the redundant transmission for the QoS Flow. For the redundant transmission on N3/N9 interfaces and at transport layer scenarios, the CHF can grant the quota for the non-redundant transmission. The editor’s note about the non-redundant transmission definition should be solved. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add definition for non-redandunt transmission.  Remove the editor’s note. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Can not support the URLLC service charging. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.2.1.12 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |

|  |
| --- |
| **First change** |

#### 5.2.1.12 URLLC Charging

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, the CHF grants the quota regardless if packets were duplicated or not.
* For the redundant transmission at transport layer, the CHF grants the quota regardless if packets were duplicated or not.

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 usage reporting for the redundant transmission at transport layer and N3/N9 interface is ffs.

|  |
| --- |
| **End of change** |