**3GPP TSG-SA5 Meeting #156 *S5-244771d1***

**Maastricht , NL, 19 - 23 Aug 2024**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **4** | **CR** | **0204** | **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 |  |

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| ***Title:***  | Rel-19 CR TS 28.554 Add use case for reliability KPI in RAN with time constranit |
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| ***Source to WG:*** | China Unicom |
| ***Source to TSG:*** | S5 |
|  |  |
| ***Work item code:*** | PM\_KPI\_5G\_Ph4 |  | ***Date:*** | 2024-08-09 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***Release:*** | Rel-19 |
|  | *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 canbe 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | Reliability KPI in RAN with time constraint over Uplink air-interface(Uu) and reliability KPI in RAN with time constraint over Downlink air-interface(Uu) have been added in TS 28.554 in recent meeting to represent the transmission reliability performance for delay critical services in which scenario the successful packets contain the concept of time constraint. However, the corresponding use case in A.18 doesn’t descript the application scenario of the new added reliability KPIs. In order to make the alignment between KPIs and corresponding use case, this contribution add the application scenario description of the newly added KPI |
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| ***Summary of change:*** | Add use case for reliability KPI in RAN with time constraint |
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| ***Consequences if not approved:*** | Lack of use case of reliability with time constraint. |
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| ***Clauses affected:*** | A.18 |
|  |  |
|  | **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's revision history:*** |  |

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| **1st Change** |

# A.18 Use case for end-to-end reliability measurements of 5G network-related KPI

The end-to-end reliability is an important performance parameter for operating 5G network. In some scenarios (e.g. uRLLC), if end-to-end reliability is insufficient, the 5G network customer cannot obtain guaranteed network performance provided by the network operator. So it is necessary to assess end-to-end reliability of network utilizing the packet delivery success rate measurements defined in clauses 6.8.1.1, 6.8.1.3,6.8.1.2, 6.8.1.4 and also clauses 6.8.1.5 and 6.8.1.6 if its split gNB. The same can be used to determine the end to end reliability of a slice.

The reliability KPIs with time constraint defined in clauses 6.8.1.7 and 6.8.1.8 can be used in delay critical scenario to provide the reliability performance of URLLC service to 5G network consumers. When a communication service has a requirement of delay criticality a time constrant or delay threshold can be configured as vendor or operator specific.

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| **End of Change** |