**3GPP TSG-SA5 Meeting #155 *S5-243355***

Jeju, South Korea, 27 - 31 May 2024

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **28.552** | **CR** | **0568** | **rev** | **1** | **Current version:** | **18.6.0** |  |
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| *For* ***[HE](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)******[LP](http://www.3gpp.org/3G_Specs/CRs.htm" \l "_blank)*** *on using this form: comprehensive instructions can be found at  <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:*** | Rel-18 CR TS 28.552 add Use cases of GTP capacity performance measurements | | | | | | | | | |
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| ***Source to WG:*** | China Mobile | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | PM\_KPI\_5G\_Ph3 | | | | |  | ***Date:*** | | | 2024-05-17 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
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| ***Reason for change:*** | | Base on the request from SA2(S5-241324), the input data for the NWDAF to produce QoS sustainability analytics are missing, which are “UL and DL capacity GTP” . These measurement data are transmitted between UPF and gNB, and between UPF and UE.  In SA5 154 meeting, two related CRs(S5-242070 and S5-242071) were agreed to add the missing the performance measurement of “DL capacity GTP” for gNB in clause 5.1 and “UL/DL capacity GTP” for UPF in clause 5.4, to support NWDAF for QoS sustainability analytics.  This proposal is to supplement the use case description for the new performance measurements. | | | | | | | | |
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| ***Summary of change:*** | | Adding the use case of GTP capacity performance measurements to support NWDAF to produce QoS sustainability analytics. | | | | | | | | |
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| ***Consequences if not approved:*** | | If no use case is added, the purpose of GTP capacity related performance measurements will be unclear and their utility will be unknown. | | | | | | | | |
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| ***Clauses affected:*** | | A.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 28.554 ... CR 0194 | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st Modified Section** |

# A.x Use case for GTP capacity performance measurements

The performance measurements in clauses 5.1(GTP capacity) and 5.4 (GTP capacity) are needed for the NWDAF to produce QoS sustainability analytics.

As described in TS 23.288, the consumer of QoS Sustainability analytics may request NWDAF analytics information regarding the QoS change statistics for an Analytics target period in the past in a certain area or the likelihood of a QoS change for an Analytics target period in the future in a certain area. To improve QoS Sustainability analytics, the NWDAF may additionally collect GTP metrics.

Therefore, the GTP capacity performance measurements are defined to support NWDAF to produce QoS sustainability analytics according to the IP-layer clause capacity and IP-layer available clause capacity definition from ITU-T Y.1540 [40] between UE, NG-RAN, and UPF at the GTP level.

For available GTP capacity, we believe it can be obtained by subtracting the actual value of network data transmission from the maximum value of the defined GTP capacity, thus a separate definition is not necessary. Additionally, this available value may be limited by various factors such as capabilities of network equipments, network congestion, and whether the network is overloaded, and needs to be determined based on the circumstances at the time.

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| **End of modification** |