**3GPP TSG-SA5 Meeting #131e *S5-203087***

**e-meeting 25th May-3rd June 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **28.552** | **CR** |  | **rev** | **2** | **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 |  | Core Network | **X** |

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| ***Title:*** | Addition of QoS flow measurements for UPF | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | China Mobile, ZTE | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_SLICE\_ePA | | | | |  | ***Date:*** | | | 2020-05-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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:*** | | For better monitoring, the addition of QoS flow measurements for UPF is necessary. | | | | | | | | |
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| ***Summary of change:*** | | Add “Mean number of QoS flows” and “Maximum number of QoS flows” in clause 5.4. | | | | | | | | |
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| ***Consequences if not approved:*** | | It is not good enough to monitor UPF without QoS flow measurements. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.a (new), 5.4.a.1(new), 5.4.a.2(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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| **1st Modified Section** |

# 5.4.a QoS flow related measurements

## 5.4.a.1 Mean number of QoS flows

a) This measurement provides the mean number of QoS flows of UPF.

b) SI

c) This measurement is obtained by sampling at a pre-defined interval, the number of QoS flows and then taking the arithmetic mean.The measurement is optionally split into subcounters per S-NSSAI and per DNN.

d) A single integer value

e) UPF.MeanQosFlows  
UPF.MeanQosFlows.*SNSSAI ,*where *SNSSAI* identifies the S-NSSAI.  
UPF.MeanQosFlows.*Dnn ,*where *Dnn* identifies the Data Network Name.

f) UPFFunction

g) Valid for packet switching

h) 5GS

## 5.4.a.2 Maximum number of QoS flows

a) This measurement provides the max number of QoS flows of UPF.

b) SI

c) This measurement is obtained by sampling at a pre-defined interval, the number of QoS flows and then selecting the maximum value. The measurement is optionally split into subcounters per S-NSSAI and per DNN.

d) A single integer value

e) UPF.MaxQosFlows  
UPF.MaxQosFlows.*SNSSAI ,*where *SNSSAI* identifies the S-NSSAI.  
UPF.MaxQosFlows.*Dnn ,*where *Dnn* identifies the Data Network Name.

f) UPFFunction

g) Valid for packet switching

h) 5GS

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| **End of Modified Sections** |