**3GPP TSG-CT WG1 Meeting #131-eC1-214945**

**E-meeting, 19-27 August 2021 *was C1-214266***

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.193** | **CR** | **0053** | **rev** | **1** | **Current version:** | **17.1.0** |  |
|  | | | | | | | | |
| *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 | **X** | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** |  | | | | | | | | | |
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| ***Source to WG:*** | ZTE | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | ATSSS\_Ph2 | | | | |  | ***Date:*** | | | 2021-08-25 |
|  |  | | | |  | |  | | |  |
| ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | According to clause 5.32.5 of TS 23.501, the UE shall indicate in its ATSSS capabilities that it supports access performance measurements per QoS flow. Based on this UE capability and other information (such as local policy), the SMF determines whether access performance measurements per QoS flow shall be applied for the MA PDU Session or not.  The related EN in clause 5.4.1 can be resolved accordingly. | | | | | | | | |
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| ***Summary of change:*** | | Specify that if the UE supports performance measurement function protocol procedures for the QoS flow of a non-default QoS rule, the UE indicates its "access performance measurements per QoS flow" capability to the SMF. Then the SMF determines and indicates to the UE, by including within the MAI a list of QoS flows over which access performance measurements may be performed, whether PMFP using the QoS flow of the non-default QoS rule shall be applied to the MA PDU session or not. The UE performs the RTT measurement procedure or the PLR measurement procedure over the QoS flow(s) as indicated in the received MAI. | | | | | | | | |
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| ***Consequences if not approved:*** | | Unresolved editor's note remains. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.1 | | | | | | | | |
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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:*** | |  | | | | | | | | |

\* \* \* First Change \* \* \* \*

### 5.4.1 General

Performance measurement function protocol (PMFP) procedures are performed between a performance measurement function (PMF) in a UE and a PMF in the UPF.

The following UE-initiated PMFP procedures are specified:

a) UE-initiated RTT measurement procedure; and

b) access availability or unavailability report procedure;

c) UE-initiated PLR measurement procedure; and

d) UE assistance data provisioning procedure.

The following UPF-initiated PMFP procedures are specified:

a) UPF-initiated RTT measurement procedure; and

b) UPF-initiated PLR measurement procedure.

The UE-initiated PMFP procedures and the UPF-initiated PMFP procedures can be performed in an MA PDU session only when the MAI is provided to the UE during establishment of the MA PDU session.

PMFP messages are transported in an IP packet or an Ethernet frame according to clause 5.3.2.

If the UE supports performance measurement function protocol procedures for the QoS flow of a non-default QoS rule, the UE indicates its "access performance measurements per QoS flow" capability as defined in clause 9.11.4.1 of 3GPP TS 24.501 [6] to the SMF. If the SMF determines that PMFP using the QoS flow of the non-default QoS rule is applied to the MA PDU session for the UE, the SMF provides the UE with the MAI including a list of QoS flows over which access performance measurements may be performed. The UE performs the RTT measurement procedure or the PLR measurement procedure over the QoS flow(s) as indicated in the received MAI.

If the UPF receives the indication from the SMF that the performance measurement is for QoS flow(s) of the non-default QoS rule, the UPF performs the RTT measurement procedure or the PLR measurement procedure over the QoS flow(s) of non-default QoS rule as indicated by the SMF. Otherwise, the UPF performs the RTT measurement procedure or the PLR measurement procedure over the QoS flow of the default QoS rule.

Editor's Note: It is FFS how the PMFP messages are transported over the QoS flow of the non-default QoS rule.

PMFP messages transported between the UE and the UPF (and vice versa) are protected using the security mechanisms protecting the user data packets transported over NG-RAN or non-3GPP access connected to the 5GCN and over the N3 and N9 reference points, specified in 3GPP TS 33.501 [14]. A PMFP-specific security mechanism is not specified.

NOTE: Even though transport of PMFP messages between the UE and the UPF is protected, a compromised UE can send false or incorrect PMFP messages.

PMFP is a standard L3 protocol according to 3GPP TS 24.007 [13], PMFP messages are standard L3 messages according to 3GPP TS 24.007 [13] and error behaviour specified for L3 protocol in according to 3GPP TS 24.007 [13] applies for PMFP.

The access availability or unavailability report procedure is only performed over the QoS flow of the default QoS rule.

\* \* \* End of Changes \* \* \* \*