**3GPP TSG-CT WG3 Meeting #135 *C3-243355***

**Hyderabad, IN, 27 - 31 May, 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **29.514** | **CR** | **0642** | **rev** | **-** | **Current version:** | **18.5.0** |  |
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| *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:*** | Correction on PDU Set QoS | | | | | | | | | |
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| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | XRM | | | | |  | ***Date:*** | | | 2024-04-29 |
|  |  | | | |  | |  | | |  |
| ***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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
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| ***Reason for change:*** | | CR 23.501 #5331 (S2-2403565) approved at SA#103 clarified that  At least one of the following shall be sent to the NG-RAN to enable PDU Set based handling: 1) a PSIHI and/or 2) both PSDB and PSER.  At least one of the following shall be included in the PCC rule to enable PDU Set based handling: 1) a PSIHI and/or 2) both PSDB and PSER  C4-241335 agreed in CT4#122 (Changsha) implements these conditions in TS 29.571.  However, these conditions are not still covered in the current specification | | | | | | | | |
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| ***Summary of change:*** | | During the provisioning, it is clarified that the NF service consumer shall provision a PSIHI and/or both PSDB and PSER.  Modification procedure is clarified, also considering the above conditions for the removal of PDU Set QoS parameters. | | | | | | | | |
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| ***Consequences if not approved:*** | | Inconsistent definition of presence conditions may bring interoperability issues. | | | | | | | | |
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| ***Clauses affected:*** | | 4.2.2.39, 4.2.3.38 | | | | | | | | |
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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 ... | | |
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| ***Other comments:*** | | This CR does not have any impact in the Npcf\_PolicyAuthorization API. | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

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

#### 4.2.2.39 Provisioning of PDU Set handling related data

If the "PDUSetHandling" feature is supported, the NF service consumer may provide PDU Set handling related data, i.e., PDU Set QoS related information and/or Protocol Description related information.

To indicate the PDU Set QoS related information for the PDU Set of a service data flow, the NF service consumer may include the "pduSetQosDl" and/or "pduSetQosUl" attribute(s) within a media component entry of the "medComponents" attribute. Within the "PduSetQosPara" data type, the NF service consumer may include:

- both:

a. the PDU Set Delay Budget (PSDB), i.e., the upper bound for the delay that a PDU Set may experience for the transfer between the UE and the N6 termination point at the UPF (see 3GPP TS 23.501 [2], clause 5.7.7.2) encoded in the "pduSetDelayBudget" attribute as described in 3GPP TS 29.571 [12]; and

b. the PDU Set Error Rate (PSER), i.e., the upper bound for the non-congestion related PDU Set loss rate (see 3GPP TS 23.501 [2], clause 5.7.7.3) encoded in the "pduSetErrRate" attribute as described in 3GPP TS 29.571 [12]; and/or

- the PDU Set Integrated Handling information (PSIHI), that indicates whether all PDUs of the PDU Set are needed for the usage of the PDU Set by the application layer in the receiver side (see 3GPP TS 23.501 [2], clause 5.7.7.4) in the "pduSetHandlingInfo" attribute as described in 3GPP TS 29.571 [12].

The NF service consumer may also include Protocol Description information for the downlink direction within the "protoDescDl" attribute (to indicate the transport protocol (e.g. RTP, SRTP) and additional information used for identifying the PDU Set information by the PSA UPF) and/or for the uplink direction within the "protoDescUl" attribute (to indicate the transport protocol and additional information used for identifying the PDU Set information by the UE).

The PCF shall reply to the NF service consumer as described in clause 4.2.2.2.

As result of this action, the PCF shall set the appropriate PDU Set handling parameters for the corresponding PCC rule(s) as described in 3GPP TS 29.512 [8].

\* \* \* Next Change \* \* \* \*

#### 4.2.3.38 Update of PDU Set handling related data

If the "PDUSetHandling" feature is supported, the NF service consumer may update the PDU Set handling related data held in an "Individual Application Session Context" resource using the Npcf\_PolicyAuthorization\_Update service operation to modify the PDU Set QoS characteristics and/or Protocol Description delivered to the SMF for PDU Set handling in the 5G System.

The NF service consumer may indicate PDU Set handling related data for new service data flow(s) by adding, in the "ascReqData" attribute, one or more media component entries within the "medComponents" attribute including the "pduSetQosDl" and/or "pduSetQosUl" attribute(s) to update PDU Set QoS related information and/or the "protoDescDl" and/or "protoDescUl" attribute(s) to update Protocol Description related information, as described in clause 4.2.2.39.

The NF service consumer may modify the previously provided PDU Set handling related information for one or more service data flow(s) by providing the updated attribute(s) of the "pduSetQosDl", "pduSetQosUl", "protoDescDl" and/or "protoDescUl" attribute(s) within the concerned entry(ies) of the "medComponents" map.

The NF service consumer may delete the PDU Set handling related information of service data flow(s) by removing the previously provided "pduSetQosDl", "pduSetQosUl", "protoDescDl" and/or "protoDescUl" attribute(s) of the corresponding media component entry(ies) within the "medComponents" attribute included in the "ascReqData" attribute. The "pduSetErrRate" and the "pduSetDelayBudget" attribute shall be deleted simultaneously.

The PCF shall reply to the NF service consumer as described in clause 4.2.3.2.

As result of this action, the PCF shall set the appropriate PDU Set handling parameters for the corresponding PCC rule(s) as described in 3GPP TS 29.512 [8].

\* \* \* End Change \* \* \* \*