**3GPP TSG-RAN2 Meeting # 131R2-25xxxxx**

**Bengaluru, India, 25 – 29 August, 2025**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
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|  | **38.300** | **CR** | 1010 | **rev** | 1 | **Current version:** | 18.6.0 |  |
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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 | **X** | Radio Access Network | **X** | Core Network |  |

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| ***Title:***  | Correction to the description of PDU set QoS parameter |
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| ***Source to WG:*** | Huawei, HiSilicon, Nokia (Rapporteur) |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** |  NR\_XR\_enh-Core |  | ***Date:*** | 2025-08-25 |
|  |  |  |  |  |
| ***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 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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | The current stage2 has provided descriptions for PDU set QoS parameters, which include PSDB, PSER, and PSIHI. While, the SA2's description in TS 23.501 is as follows. At least one of the following shall be sent to the NG-RAN/N3IWF/TNGF/W-AGF to enable PDU Set based handling: 1) a PSIHI and/or 2) both PSDB and PSER. For a given QoS Flow, the values of PSDB, PSER and PSIHI can be different for UL and DL.As can be seen, the stage2 description between 38300 and 23501 is currently not aligned. On top of that, in R19, SA2 has made clarification on the co-existence of PDU set information and PDU-set-based QoS parameter that the former can work without the latter. A simple way-forward for the current R18 XR description is to remove the sentence such that no wrong description is added. |
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| ***Summary of change:*** | Remove the part of the sentence that " and to enable PDU Set based QoS handling at least one of them shall be provided”**Inter-Operability analysis:**Impacted functionality:XR awarenessImpacted 5G architecture options:NR SAInter-operability: If the UE is implemented according to this CR while the NW is not, orIf the NW is implemented according to this CR while the UE is not, there is no inter-operability issue because there are SA2 spec TS 23501 and other stage3 spec showing the correct behavior. |
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| ***Consequences if not approved:*** | The description for PDU set based QoS handling is wrong. |
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| ***Clauses affected:*** | 16.15.2 |
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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's revision history:*** |  |

====================================CHANGE BEGINS==================================

### 16.15.2 Awareness

XR-Awareness relies on QoS flows, PDU Sets, Data Bursts and traffic assistance information (see TS 23.501 [3]).

The following **PDU Set QoS Parameters** may be provided by the SMF to the gNB as part of the QoS profile of the QoS flow:

- PDU Set Delay Budget (PSDB): as defined in TS 23.501 [3], upper bound for the duration between the reception time of the first PDU (at the UPF for DL, at the UE for UL) and the time when all PDUs of a PDU Set have been successfully received (at the UE in DL, at the UPF in UL). When available, supersedes the PDB of the QoS flow.

- PDU Set Error Rate (PSER): as defined in TS 23.501 [3], upper bound for a rate of non-congestion related PDU Set losses between RAN and the UE. When available, it supersedes the PER of the QoS flow.

NOTE 1: In this release, a PDU set is considered as successfully delivered only when all PDUs of a PDU Set are delivered successfully.

- PDU Set Integrated Handling Information (PSIHI): indicates whether all PDUs of the PDU Set are needed for the usage of PDU Set by application layer, as defined in TS 23.501 [3].

NOTE 2: For a given QoS flow, the PDU Set QoS parameters are common for all PDU Sets but can be different for UL and DL. PSDB and PSER, if provided, should be provided together.A

During the Xn-handover preparation procedure, the source gNB sends the stored PDU Set QoS Parameters as part of the QoS profile to the target NG-RAN node. For NG handover, the AMF provides the PDU Set QoS parameters to the target gNB by means of the NGAP HANDOVER REQUEST message.

In addition, the UPF can identify PDUs that belong to PDU Sets, and may indicate to the gNB the following **PDU Set Information** in the GTP-U header:

- PDU Set Sequence Number;

- Indication of End PDU of the PDU Set;

- PDU Sequence Number within a PDU Set;

- PDU Set Size in bytes;

- PDU Set Importance (PSI), which identifies the relative importance of a PDU Set compared to other PDU Sets within the same QoS Flow.

5GC may provide XR traffic assistance information to gNB through NG AP TSC Assistance Information (TSCAI) as specified in clause 5.37.8 of TS 23.501[3] (for both GBR and non-GBR QoS flows):

- UL and/or DL Periodicity;

- N6 Jitter Information (i.e. between UPF and Data Network) associated with the DL Periodicity.

This assistance information can be used by the gNB to configure DRX to enable better UE power saving.

In addition, 5GC may provide the following information through NG-U as specified in clause 5.37.5.2 of TS 23.501[3]:

- Indication of End of Data Burst in the GTP-U header of the last PDU in downlink.

This information can be used by the gNB to push the UE back to sleep when possible.

In the uplink, the UE needs to be able to identify PDU Sets and Data Bursts dynamically, including PSI. How this is done is left up to UE implementation but when possible for a QoS flow, this is indicated to the gNB via UE Assistance Information.

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