**3GPP TSG-WG SA2 Meeting #160 *S2-2313190***

**Chicago, USA, 13 - 17 Nov 2023 (revision of S2-2310794)**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **23.586** | **CR** | 0010 | **rev** | **1** | **Current version:** | **18.1.0** |  |
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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 | **x** |

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| ***Title:***  | Updates to QoS Handling |
|  |  |
| ***Source to WG:*** | Xiaomi, Huawei?, OPPO? |
| ***Source to TSG:*** | SA2 |
|  |  |
| ***Work item code:*** | Ranging\_SL |  | ***Date:*** | 2023-11-03 |
|  |  |  |  |  |
| ***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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| Reason for change: | Currently only the QoS mechanism of SLPP transport over PC5 is defined. The followings are missing:* - QoS mechanism of RSPP message transport between UE and LMF over UP
* - QoS mechanism of non-SLPP signalling over PC5-U

Additionally, RAN2 has the following agreement as stated in S2-2310123:*Define 8 priority levels for SL-PRS priority, same as the number of priority levels for SL-SCH. RAN2 understand that the SL-PRS priority levels are mapped from the sidelink positioning/ranging QoS.*It understood that the priority level needs to be considered as a Ranging/SL Positioning QoS parameter to be mapped to the SL-PRS priority for SL-PRS transmission. This priority level is included in the service request as the QoS requirement.It is proposed to define priority level as the Ranging/SL Positioning QoS parameter. |
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| ***Summary of change:*** | Add descriptions on * QoS mechanism of RSPP transport between UE and LMF over UP
* QoS mechanism of non-SLPP signalling over PC5-U
* priority level as the Ranging/SL Positioning QoS parameter
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| ***Consequences if not approved:*** | Imcomplete QoS handling mechnismUnalignment with RAN2 agreement |
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| ***Clauses affected:*** | 5.7.2, 5.7.3  |
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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:*** |  |

\* \* \* \* First change \* \* \* \*

### 5.7.2 Handling of Ranging/SL Positioning QoS

Ranging/SL Positioning QoS requirement may be provided in the Ranging/SL Positioning service request generated at the application layer, and is provided from the application layer to the Ranging/SL Positioning layer. Ranging/SL Positioning QoS requirement may be included in the Ranging/SL Positioning Service request from SL Positioning Client UE.

The Ranging/SL Positioning layer maps the Ranging/SL Positioning QoS requirement to the Ranging/SL Positioning QoS parameters and provides the Ranging/SL Positioning QoS parameters to the AS layer. If there is no received Ranging/SL Positioning QoS requirement from the application layer, the Ranging/SL Positioning layer determines the Ranging/SL Positioning QoS parameters based on the Ranging/SL positioning Policy/parameters as configured in the clause of 5.1.

Ranging/SL Positioning QoS information contains attributes defined in clause 4.1b of TS 23.273 [8] with the following additions:

- The accuracy attribute also includes

- the relative horizontal accuracy, and the relative vertical accuracy for relative positioning;

- the distance accuracy and direction accuracy for Ranging.

- Priority level, which indicates the SL-PRS priority in the Ranging/SL Positioning operation over PC5, as described in TS 38.355 [12].

- Range, which indicates the applicability of the QoS attributes in the Ranging/SL Positioning operation over PC5.

Ranging/SL Positioning QoS information is used for determination of Ranging/SL Positioning method. The Ranging/SL Positioning methods are defined in TS 38.355 [12].

\* \* \* \* Next change \* \* \* \*

### 5.7.3 Handling of RSPP transport QoS

For RSPP signalling transport over PC5, the V2X/ProSe layer handles the RSPP traffic as the V2X/ProSe application data packets for the QoS treatment. QoS handling mechanism of V2X as defined in clause 5.4 of TS 23.287 [6] or QoS handling mechanism of 5G ProSe as defined in clause 5.6.1 of TS 23.304 [7] is reused.

PQI values as defined in TS 23.287 [6] and TS 23.304 [7] may be reused for RSPP transport QoS over PC5.

For RSPP transport between UE and LMF over User Plane, the RSPP traffic is bound to a QoS flow as the application traffic transported over a PDU session between UE and LMF. QoS handling mechnism as defined in clause 5.7 of TS 23.501[2] applies.

\* \* \* \* End of changes \* \* \* \*