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

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

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network | **x** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***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 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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| 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. | | | | | | | | |
|  | |  | | | | | | | | |
| ***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 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Imcomplete QoS handling mechnism  Unalignment with RAN2 agreement | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.7.2, 5.7.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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 \* \* \* \*

### 5.7.2 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 \* \* \* \*