**3GPP TSG-RAN2#118 Meeting *R2-220***

**Electronic, 9th– 20nd May, 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.822** | **CR** |  | **rev** | - | **Current version:** | **17.0.0** |  |
|  | | | | | | | | |
| *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 | **X** | Core Network |  |

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| ***Title:*** | [H022] Summary of R2-agreed capabilities for R17 POSenh | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | RAN2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_pos\_enh-Core | | | | |  | ***Date:*** | | | 2022-05-09 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***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:*** | | [H022] R17 introduced new UE capabilities, which should be updated to TS 38.822. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | This paper summarizes the UE capabilities agreed by R2 for R17 POSenh. | | | | | | | | |
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| ***Consequences if not approved:*** | | TR 38.822 will be incomplete for the lack of R17 capabilities introduced by R2  **Impact analysis**  **Impacted 5G architecture options:**  SA, NE-DC, NR-DC  **Impacted functionality:**  R2-agreed R17 Positioning capabilities  **Inter-operability:**  There is no inter-operatbility issues | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | Ver0 in RAN2#118e: | | | | | | | | |

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

### 6.x.y NR\_pos\_enh-Core

Table 6.x.y-1: Layer-2 and Layer-3 feature list for NR\_pos\_enh-Core

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Features | Index | Feature group | Components | Prerequisite feature groups | Field name in TS 37.355 | Parent IE in TS 37.355 | Need of FDD/TDD differentiation | Need of FR1/FR2 differentiation | Note | Mandatory/Optional |
| xx. NR\_Pos\_enh-Core | xx-1 | Scheduled Location Time | Indicates whether the target device supports scheduled location requests. |  | *scheduledLocationRequest-r17* | *OTDOA-ProvideCapabilities or*  *A-GNSS-ProvideCapabilities or*  *ECID-Provide-Capabilities or*  *TBS-ProvideCapabilities or*  *Sensor-ProvideCapabilities or*  *WLAN-ProvideCapabilities or*  *BT-ProvideCapabilities or*  *NR-ECID-ProvideCapabilities or*  *NR-DL-TDOA-ProvideCapabilities or*  *NR-DL-AoD-ProvideCapabilities or*  *NR-Multi-RTT-ProvideCapabilities* | N/A | N/A |  | Optional with capability signalling |
| xx-2 | 10 ms ganularity for response time | Indicates whether the '*ten-milli-seconds*' response time unit is supported by the target device. |  | *ten-ms-unit-ResponseTime-r17* | NR-ECID-ProvideCapabilities or  NR-DL-TDOA-ProvideCapabilities or  NR-DL-AoD-ProvideCapabilities or  *NR-Multi-RTT-ProvideCapabilities* | N/A | N/A |  | Optional with capability signalling |
| xx-3 | PRS validity area | Indicates whether the target device supports validity conditions for pre-configured assistance data. |  | *nr-dl-prs-AssistanceDataValidity-r17* | *NR-DL-TDOA-ProvideCapabilities or*  *NR-DL-AoD-ProvideCapabilities or*  *NR-Multi-RTT-ProvideCapabilities* | N/A | N/A |  | Optional with capability signalling |
| xx-4a | On-demand PRS for DL-TDOA | Indicates whether the target device supports on-demand DL-PRS requests for DL-TDOA. |  | *nr-DL-TDOA-On-Demand-DL-PRS-Support-r17* | *NR-DL-TDOA-ProvideCapabilities* | N/A | N/A |  | Optional with capability signalling |
| xx-4b | On-demand PRS request for DL-AoD | Indicates whether the target device supports on-demand DL-PRS requests for DL-AoD. |  | *nr-DL-AoD-On-Demand-DL-PRS-Support-r17* | *NR-DL-AoD-ProvideCapabilities* | N/A | N/A |  | Optional with capability signalling |
| xx-4c | On-demand PRS request for multi-RTT | Indicates whether the target device supports on-demand DL-PRS requests for Multi-RTT. |  | *nr-Multi-RTT-On-Demand-DL-PRS-Support-r17* | *NR-Multi-RTT-ProvideCapabilities* | N/A | N/A |  | Optional with capability signalling |
| xx-5 | Service parameters for GNSS Integrity | Indicates whether the target device supports the IE *GNSS-Integrity-ServiceParameters.* |  | *gnss-Integrity-ServiceParametersSupport-r17* | *GNSS-CommonAssistanceDataSupport* | N/A | N/A |  | Optional with capability signalling |
| xx-6 | Service alert for GNSS Integrity | Indicates whether the target device supports the IE *GNSS-Integrity-ServiceAlert.* |  | *gnss-Integrity-ServiceAlertSupport-r17* | *GNSS-CommonAssistanceDataSupport* | N/A | N/A |  | Optional with capability signalling |
| xx-7 | Orbit parameters for GNSS Integrity | Indicates whether the target device supports the IEs *ORBIT-IntegrityParameters* and *SSR-IntegrityOrbitBounds*. |  | *orbit-IntegritySup-r17* | *GNSS-SSR-OrbitCorrectionsSupport-r15* | N/A | N/A |  | Optional with capability signalling |
| xx-8 | Code bias bound for GNSS Integrity | Indicates whether the target device supports the IE *SSR-IntegrityCodeBiasBounds*. |  | *ssr-IntegrityCodeBiasBoundsSup-r17* | *GNSS-SSR-CodeBiasSupport-r15* | N/A | N/A |  | Optional with capability signalling |
| xx-9 | Phase bias bound for GNSS Integrity | Indicates whether the target device supported the IE *SSR-IntegrityPhaseBiasBounds.* |  | *ssr-IntegrityPhaseBiasBoundsSup-r17* | *GNSS-SSR-PhaseBiasSupport-r16* | N/A | N/A |  | Optional with capability signalling |
| xx-10 | STEC parameters for GNSS Integrity | Indicates whether the target device supported the IE *STEC-IntegrityParameters* and *STEC-IntegrityErrorBounds* |  | *stec-IntegritySup-r17* | *GNSS-SSR-STEC-CorrectionSupport-r16* | N/A | N/A |  | Optional with capability signalling |
| xx-11 | Gridded correction parameters for GNSS Integrity | Indicates whether the target device supports the IEs *SSR-GriddedCorrectionIntegrityParameters* and *TropoDelayIntegrityErrorBounds*. |  | *griddedCorrectionIntegritySup-r17* | *GNSS-SSR-GriddedCorrectionSupport-r16* | N/A | N/A |  | Optional with capability signalling |

======================================================================================END OF CHANGES======================================================================================