**3GPP TSG RAN WG1 #112 R1-26nnnnn**

**Athens, Greece, February 27th – March 3rd, 2023**

**Source: Ad-Hoc Chair (AT&T)**

**Title: Session Notes of AI 8.16.2 (NR\_FeMIMO, NR\_ext\_to\_71GHz, NR\_NTN\_solutions, IoT over NTN, NR\_IAB\_enh, NR\_DSS, LTE\_NR\_DC\_enh2, NR\_pos\_enh, and NR\_DL1024QAM\_FR1)**

**Agenda Item:** **8.16.2**

**Document for:** **Endorsement**

### 5 Incoming Liaison Statements

**Rel-17 Positioning**

[R1-2300027](file:///C%3A%5CUsers%5Cyounsun%5CDocuments%5C3GPP%20documents%5CRAN1%20tdocs%5CTSGR1_112%5CDocs%5CR1-2300027.zip) Reply LS on capability for PRS measurement without MG RAN4, CATT

To be taken into account in agenda item 8.16.2.

**Conclusion: No RAN1 response needed. RAN1 should have been cc’ed. No Action for RAN1.**

### UE features topics 2

*For discussions on Rel-17 UE features for NR-MIMO, NR from 52.6GHz to 71 GHz, NR-NTN, positioning, eIAB, DSS, IoT over NTN, 1024QAM.*

[112-R17-UE\_features\_2] To be used for sharing updates on online/offline schedule, details on what is to be discussed in online/offline sessions, tdoc number of the moderator summary for online session, etc – Ralf (AT&T)

**Proposal:**

**Alt. 1**

* **Adopt the following** **changes highlighted in chromatic fonts, while keeping the yellow highlighting, if any, as shown**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27. NR\_pos\_enh | 27-13 | Additional path reporting for UE-assisted DL-TDOA | 1. Support of additional detected path timing reporting for K>2 additional paths for UE-assisted DL-TDOA2. Support of RSRPP reporting for additional paths if UE supports FG 27-13a |  | No |  | Additional path reporting for UE-assisted DL-TDOA is not supported | Per UE | No | No | No | Component 1 candidate values: {4, 6, 8}Component 2 candidate values: {1, 2, 4, 6, 8}Note: the reported value of the additional paths should be same for the timing report and the RSRPP report.Need for location server to know if the feature is supported. | Optional with capability signaling. |
| 27. NR\_pos\_enh | 27-14 | Additional path reporting for Multi-RTT | 1. Support of additional detected path timing reporting for K>2 additional paths for Multi-RTT2. Support of RSRPP reporting for additional paths if UE supports FG 27-14a |  | No |  | Additional path reporting for Multi-RTT is not supported | Per UE | No | No | No | Component 1 candidate values: {4, 6, 8}Component 2 candidate values: {1, 2, 4, 6, 8}Note: the reported value of the additional paths should be same for the timing report and the RSRPP report.Need for location server to know if the feature is supported. | Optional with capability signaling. |

* **Include the following TPs (changes highlighted in chromatic fonts) into the LS to RAN2 that accompanies every updated RAN1 UE features list for Rel-17 NR**
	+ For DL-TDOA

|  |
| --- |
| ***additionalPathsExtSupport***This field, if present, indicates that the target device supports the *nr-AdditionalPathListExt* reporting in IE *NR-DL-TDOA-SignalMeasurementInformation*. The enumerated value indicates the number of additional paths supported by the target device.NOTE: The *supportOfDL-PRS-FirstPathRSRP* in IE *NR-DL-TDOA-MeasurementCapability* also applies to the additional paths (including the number of additional paths supported in Rel-16 and Rel-17). |

* + For Multi-RTT

|  |
| --- |
| ***additionalPathsExtSupport***This field, if present, indicates that the target device supports the *nr-AdditionalPathListExt* reporting in IE *NR-Multi-RTT-SignalMeasurementInformation*. The enumerated value indicates the number of additional paths supported by the target device.NOTE: The *supportOfDL-PRS-FirstPathRSRP* in IE *NR-Multi-RTT-MeasurementCapability* also applies to the additional paths (including the number of additional paths supported in Rel-16 and Rel-17). |

**Alt. 2**

* **Send an LS to RAN2 that UEs supporting Rel-16 FG 16-1 and Rel-17 FGs 27-13a/14a should support RSRPP reporting for K=1 or 2 additional paths.**

R1-2301221 Summary of UE features topics 2 Moderator (AT&T)

[R1-2301243](file:///C%3A%5CUsers%5Cyounsun%5CDocuments%5C3GPP%20documents%5CRAN1%20tdocs%5CTSGR1_112%5CDocs%5CR1-2301243.zip) Discussions on Rel-17 UE features for NR positioning on additional path reporting Samsung

R1-2301393 Discussion on Rel-17 UE features topic 2 Qualcomm Incorporated

Withdrawn

1.