**3GPP TSG-RAN WG3 #110-e R3-20xxxx**

**2 – 12 November 2020**

Title: Reply LS on Latency of NR Positioning Protocols

Response to: Reply LS on Latency of NR Positioning Protocols (R3-207042/ R2-2010873)

Release: Release 17

Work Item: FS\_NR\_pos\_enh

Source: RAN3

To: RAN2, RAN1

Cc: SA2

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Attachments:

**1. Overall Description:**

RAN3 would like to thank RAN2 for the Reply LS on Latency of NR Positioning Protocols

RAN3 noticed that RAN2 provided information on delay related to node processing and RAN3 interfaces ….

Considering the information provided and the “latencies include processing delays of the various involved nodes (UE, gNB, AMF, LMF) and signalling delays between nodes”, RAN3 would like to clarify that an suitable implementation associated to performant backhaul in a dedicated deployment the processing time and interface delay could like the performant radio reach the zero delay …

RAN3 kindly as then RAN2 and RAN1 to consider these corrections:

Table 1: Latency Components

|  |  |  |
| --- | --- | --- |
| Label | Latency  [ms] | Description |
| Processing Latencies | | |
| TUEProc-RRCReconf | 10 | RRC Reconfiguration processing |
| TUEProc-RRCDLInfo | 5 | RRC DL information transfer |
| TUEProc-RRCULInfo | 2-5 | RRC UL information transfer |
| TUEProc-RRCLocationMeas | 2-5 | RRC Location Measurement Indication |
| TUEProc-LPPCapab | 10-20 | LPP Provide Capabilities |
| TUEProc-LPPAssi | 10 | LPP Provide Assistance Data |
| TUEProc-LPPLocationRe | 5 | LPP Request/Provide Location Information |
| TUEProc-MAC-SRSAct | 1-3 | MAC-CE SRS Activation/Deactivation |
| TgNBProc-RRC | 3 | RRC Processing |
| TgNBProc-NRPPa | **0-**3 | NRPPa Processing |
| TgNBProc-NAS/LPP | 3 | NAS/LPP Processing |
| TAMFProc | **0-**3 | AMF Processing |
| TLMFProc | 3 | LMF Processing |
| Signalling Propagation Delays between Nodes | | |
| TUE-gNB | 0-0.5 |  |
| TgNB-AMF | **0-**-10 |  |
| TAMF-LMF | 1-10 |  |
| TAMF-GMLC | 3-10 |  |
| Positioning Measurement Latencies | | |
| TLMF-Calc | 2-30 | Position Calculation latency |
| TDL-Meas | Wait for RAN1 | PHY DL-PRS measurement time; best possible case |
| TUL-Meas | Wait for RAN1 | PHY UL-PRS measurement time; assume the same value as for DL-PRS. |

**2. Actions:**

**To** **SA WG2.**

**ACTION:** RAN3 kindly asks RAN1 and RAN2 to consider the corrected table above.

**3. Date of Next RAN3 Meetings:**

RAN3#111-e February 2021 Electronic meeting