3GPP TSG-RAN WG2 #114-e Tdoc R2-21xxxxx

Electronic meeting, 2021-05-19 - 2021-05-27

**Title: DRAFT** Reply LS on PDB for new 5QI

**Reply to:** LS on PDB for new 5QI (S2-2103552)

**Release:** Release 17

**Work Item:** **5GSAT\_ARCH, NR\_NTN\_solutions-Core**

**Source:** Ericsson (to be: TSG RAN WG2)

**To:** SA2

**Cc:** RAN1, RAN3

**Contact Person:**

**Name:** Robert S Karlsson

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**Attachments:** None

**1. Overall Description:**

RAN2 would like to thank SA2 for sending their LS on PDB for new 5QI.

According to TR 38.821, the max round trip delay (propagation delay only) for GEO satellite access with transparent payload is 541.46 ms. Thus, the AN PDB of 812 ms is about 1.5 RTT of the maximum round trip delay.

RAN2 understands the procedure considered by SA2 is UE sends scheduling request to gNB, then gNB provides UL-Grant to UE, finally UE sends uplink data. Thus, for initial data transmission, no HARQ/RLC retransmission is counted in 1.5 RTT.

The PER of 10-6 while meeting a PDB of about 1.5 RTT will be challenging and will require excessive resources and thus lead to lower spectral efficiency.

**2. Actions:**

**To SA2 group.**

**ACTION:** RAN2 respectfully requests SA2 to take the above into account.

**3. Date of Next TSG-RAN WG2 Meetings:**

TSG-RAN WG1 Meeting #115-e 16 – 27 August 2021 Electronic Meeting

TSG-RAN WG1 Meeting #116-e 01 – 12 November 2021 Electronic Meeting