Qualcomm

3GPP TSG RAN Meeting #92-e

Electronic Meeting, June 14 - 18, 2021

RP-211302

Views on upper layer work on L1/L2 mobility

Status

- WID (RP-202024)
  - Extend specification support in the following areas [RAN1]
    1. Enhancement on multi-beam operation, mainly targeting FR2 while also applicable to FR1:
       a. Identify and specify features to facilitate more efficient (lower latency and overhead) DL/UL beam management to support higher intra- and L1/L2-centric inter-cell mobility and/or a larger number of configured TCI states:
  - Specify higher layer support of enhancements listed above [RAN2]
  - (No RAN3 objective)

- RAN1 LS in R1-2102248
  - Requested RAN2 and RAN3 to look into upper layer and network aspects of L1/L2-centric inter-cell mobility.

- RAN2 response in R2-2106787
  - Developed “Simplified procedures”, showing possible upper layer impacts.
  - Prefers addressing only intra-DU and intra-frequency mobility in release-17.
- RAN3 response in R3-212879
  - Intra-DU has smaller impact.

Proposal

- RAN2 to continue their work based on “simplified procedures” as presented in their LS R2-2106787.
  - Both “Inter-cell multi-TRP-like model” and “L1L2 mobility model” in RAN2 LS

- RAN3 to wait for the progress of RAN1 and RAN2
  - The assumption is only intra-DU case is supported in release-17 (see down-scoping below)

- Down-scoping
  - Architecture: Intra-DU only
  - Mobility scenario: Within the serving frequencies
    - Avoid the need for L1 measurements on non-serving frequencies
    - For “L1L2 mobility model”, inter-frequency PCell change within the serving frequencies of CA is supported
    - For “Inter-cell multi-TRP-like model”, mTRP operation on each serving frequency

- TU allocation
  - RAN2: Add 1 TU to all RAN2 meetings until release-17 completion
  - RAN3: Revisit in September plenary (review RAN1 and RAN2 progress)

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