3GPP TSG RAN meeting #102
Edinburgh, Scotland, December 11-15, 2023

RP-233774

Agenda Item: 9.1.4.3

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Views on RRM and Demod Topics for Release 19

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Summary

- Rel-19 RRM Related Proposals with high priority
- Views on other Rel-19 RRM proposals
- AI/ML Based Enhancements

Rel-19 RRM Related Proposals with high priority

- RedCap + NTN
  - Requirements for 1Rx for NTN
- FR2 multi-Rx enhancements
  - Many possible enhancements were discussed in Rel-18
  - Some enhancements are very complex for the network side to enable/support
  - Simple enhancements with lower network impact which bring direct throughput enhancements should be prioritized
  - Objectives should be simple and clear to avoid long RAN4 discussions
  - Possible objectives:
    - Enhancement of Rel-18 CSI-RS based measurement and scheduling restrictions across TRPs
    - Dual TCI state switching requirements for unified TCI based FR2 mTRP operation
    - Extension of Rel-18 RRM requirements to FR2 CA – multi-Rx based mTRP in a single CC and/or multiple CCs

RedCap + NTN

- Motivation
  - Support of NR NTN by RedCap UEs has not fully specified since both features were introduced simultaneously in Rel-17.
  - Many use cases applicable to RedCap UEs would benefit from NTN access. At the same time, extending NR NTN to RedCap would benefit the NTN ecosystem by providing a wider choice of device types and capabilities.
- Objective
  - Extend applicability of Rel-18 NTN requirements to 2Rx RedCap UEs (low/no spec impact expected)
  - Specify new RRM requirements for 1Rx RedCap UEs for both GSO and NGSO scenarios
  - Specify new demod requirements for 1Rx RedCap UEs only for NGSO scenarios

Views on other Rel-19 RRM proposals

- FR2 RRM enhancements
  - There have been multiple proposals for FR2 RRM enhancements, especially related to measurement delay reductions
  - No concrete problems were presented so far, no reduction target to be achieved
  - FR2 delays are longer than FR1, however, the target mobility scenarios are also different (FR2 does not need to support high speed mobility)
  - Concrete problem to be solved and targets are needed to start such work
- Measurement Gap enhancements
  - Several gap enhancements were already specified in previous releases
  - Only in Rel-19 WI 11 new features for gap enhancements were introduced
  - Any new proposal for Rel-19 should be very well justified (e.g. envisioned deployment scenario, commercial need, etc)

AI/ML Based Enhancements

- Many proposals presented in previous RAN plenaries
- Possible RAN4-led items should be discussed after the scope of RAN1/2 led AI/ML WIs/SIs are clear
- Preferably RAN4 time should be used for forward looking items(such as AI/ML driven features) instead of another round of measurement gaps/RRM enhancements

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Thank you

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