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

RP-233278
Agenda Item 9.1.4.1

MediaTek Views on RAN4 Rel-19: General

MediaTek Inc.

Outline

- General views for Rel-19 RAN4 handling
- A summary of all MTK’s Rel-19 proposals

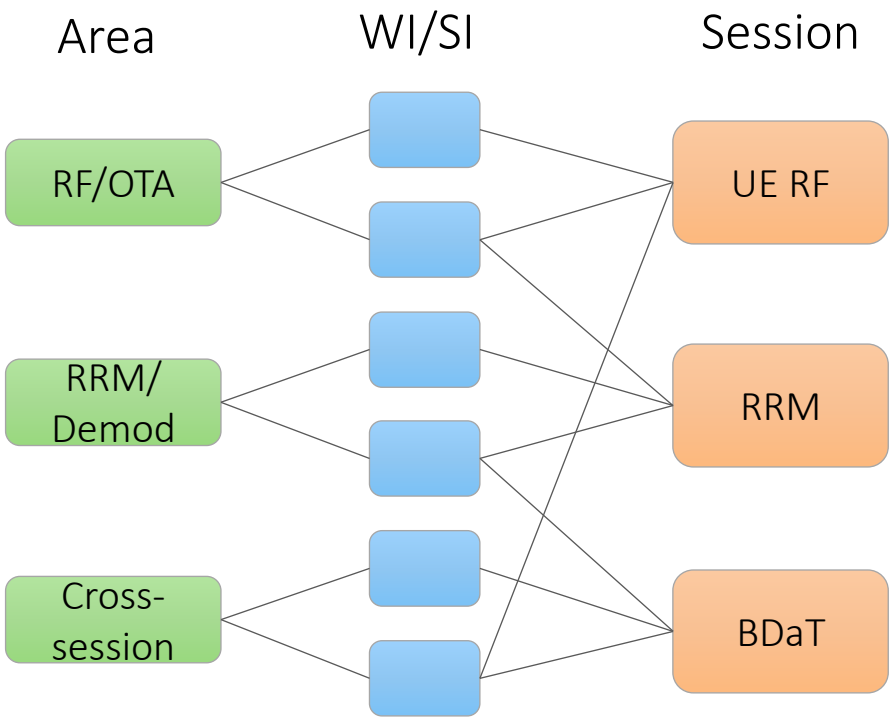
General views on handling RAN4-led WIs [1/3]

- [workload control] Adding an exact the same feature in Rel-19 requires far more efforts than adding it in previous releases due to complicated spec
  - In Rel-17/18 discussions, RAN4 spent a lot of time clarifying RAN1 and RAN2 specs. Several LS was sent to other WG for clarification, before really moving forward.
  - When checking legacy specs, sometime legacy problem were identified. When such a legacy problem has dependency to the ongoing discussions of new release, it is hugely complicated RAN4 discussions.
  - The current spec is already very complicated. Such that every time when adding a new feature, more and more efforts are needed to resolve the dependency and consistency to legacy features.
    - E.g., For Rel-18 MG enh, we need to consider Rel-18 MUSIM, Rel-17 NCSG and Rel-16 inter-freq wo gap all together
  - The 3 above overheads are expected to get larger and larger in future releases.
- ***Proposal***
  - ***No more than 12 non-spectrum WIs with ≤ 2 objectives for each WI to better control the workload***
    - Note: For RAN4-led Rel-18 items, total 16 WIs were approved in RP#95
  - ***Leave sufficient TU margin for maintenance, the uncertainty of RAN1/2/3-led work and RAN-tasks***

General views on handling RAN4-led WIs [2/3]

- [TU management] Current RAN4 TU are categorized into RF and RD (RRM+Demod). However, since Rel-15 3 parallel sessions have become a new normal. It is difficult for companies to prepare for the up-coming meetings. For example
  - With RD TU, it is not clear whether it is for RRM or Demod issue.
  - FS_NR_AIML_air SI has RD TU but was discussed in main session.

- ***Proposal***
  - ***It is suggested to figure our whether there is any possibility to improve current RAN4 TU management to reflect 3 parallel sessions***



A figure of concept on mapping from area to WI/SI and the impacted RAN4 sessions

General views on handling RAN4-led WIs [3/3]

- [Time frame of RAN4 WI]
  - For WIs led by other WGs,
    - the features are introduced by other WGs and RAN4 needs to define the requirements for it. Aligning the deadline with other WGs could lead to immature RAN4 discussions even in the last meeting of the release
  - For all WIs,
    - In the last meeting of a release, for agreements achieved during the meeting week (especially on Thursday or even Friday), there is no sufficient time to precisely implement those agreements into CR, nor sufficient time for careful review. This degrades spec quality.
    - It is suggested introduce a gap between open issues conclusions and the CR implementation deadline (e.g., 1 quarter). So that companies have sufficient time to focus on CR implementation for better spec quality.
      - This could be similar to RAN2 who delayed ASN.1 finalization by 1 quarter to WI completion
- ***Proposal***
  - ***It is suggested to set a delayed deadline to other WGs for RAN4 requirement CR implementation.***

A summary of all MediaTek Rel-19 RAN4 proposals

Area	Proposed objectives
RF & OTA (RP-233279)	Study on UE antenna correlation for FR1 multiple antennas (SI)
	MPR Reduction for RedCap (via relaxed emission requirements)
	3Tx for 2 bands with UL Tx switching between 1T2T and 2T1T

Area	Proposed objectives
RRM (RP-233280)	HO interruption minimization
	Relaxed RLM/BFD measurement for Redcap
	TS38.133 Spec clean-up (Kp calculation; MG integration)
	[MG] Pre-configured NCSG
	[MG] NCSG enh for SCell
Demod (RP-233280)	App layer throughput enh: OLLA and 4-layer
	CQI report for R-ML SU-MIMO receiver

Area	Proposed objectives
Cross-session (RP-233281)	Enhanced NTN testing for NGSO
	NTN RedCap UE Support
	NR NTN 3MHz channel bandwidth
	IoT NTN HPUE support
	In-band/guard-band co-existence of NB-IoT w/ NR

OLLA: Outer-Loop Link Adaptation

Thank you!