

Title: On work scope of Rel-18 XR enhancements for NR

Agenda item: 9.2.10
Source: Samsung
Document for: Decision

RAN1 progress

- **From RAN1 perspective, Rel-18 XR study can be considered complete.**
- **For XR-specific power saving, no RAN1 specific enhancement is necessary.**
 - In RAN1#110bis-e, enhancement of CDRX to align XR traffic periodicity was discussed and it was agreed to prioritize semi-static solutions over dynamic solutions.
 - In RAN1#111, it was concluded that other solutions including dynamic approaches had no consensus in RAN1.
 - TR38.xxx has captured semi-static solutions into Section 5.2.2 Layer 2 Enhancements.
- **For XR-specific capacity improvements, following enhancements are recommended in XR TR 38.835.**
 - Multiple CG PUSCH transmission occasions in a period of a single CG PUSCH configuration
 - Dynamic indication of unused CG PUSCH occasion(s) based on UCI (e.g., CG-UCI or a new UCI) by the UE
- **According to the above, RAN1 work scope in the normative work is reduced as compared to the original plan.**

RAN2 progress

- **XR SI includes three main objectives: XR-awareness, XR-power saving, and XR-capacity.**
 - The study on XR-power saving and XR-capacity is complete from RAN2 perspective.
 - However, majority of companies in RAN2 think that the objective on XR awareness is NOT complete because of SA2 progress. That is, the corresponding SI in SA2 was delayed three months, so RAN2 was not able to capture the XR-awareness aspects to the TR considering input from SA2. Hence, further discussion on how to handle RAN2 impacts of SA2 and SA4 decisions would be necessary (e.g. PDU set handling in AS) in the next quarter.
 - Since RAN2 was not able to complete the TR for the study item, it would be inevitable to extend the SI in practice. However, at the same time, we have concern that to extend the SI “only for XR-awareness” might result to delay the normative works for the other two objectives (i.e., XR-power saving, and XR-capacity).
- **Hence, from RAN2 perspective, we are fine to extend study item as long as RAN2 can start normative works on the other two objectives in the next quarter.**

- **Proposal #1: RAN1 TU for Rel-18 XR WI is reduced (currently 1 TU over 3 quarters)**
- **Proposal #2: If RAN concludes that XR SI is extended, XR-power saving and XR-capacity are also included in the scope to make further progress on those topics.**

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Thank you