

**MEDIA**TEK

# Rel-17 Considerations on Coverage Enhancements

3GPP TSG RAN#85  
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A.I. 8.1.5

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# Background

- As agreed in RAN #84, NR coverage enhancement was identified as one RAN work area with email discussion for Rel-17.
- Two phases of discussions are planned by the moderator
  - Phase 1 (till RAN#85): Further clarify the requirement and deployment scenarios starting from initial email discussion in Rel-16 and outcome of link budget evaluation for ITU submission.
  - Phase 2 (from RAN#85 to RAN#86): Scope out the objectives for the SID or WID.

# Discussion (1/2)

## Problem statement

- To fulfill the existing requirements in the problematic scenarios/cases rather than introducing any new requirement.
- The typical deployment scenarios can be used as the starting point for evaluation, e.g.,
  - The outdoor-to-indoor scenario for FR1
  - The indoor-to-indoor scenario for FR2
- TR to first document/conclude
  - Relevant scenarios
  - Quantified problems in identified relevant scenarios

# Discussion (2/2)

## Potential solutions

- Identified relevant scenarios with practical settings should be used for performance evaluation and enhancement justification.
  - E.g. the data channel performance may depend on UL/DL slot configuration, bandwidth and the frequency band.
- TR to then document potential solutions to identified problems:
  - Enhancements to existing physical channels + evaluation vs problems
- Other related solutions to be documented in SL and IAB TRs
  - New physical channel e.g. relay-based approach using SL [document in SL enhancements]
  - IAB [document in IAB]
- Generic solutions should be sought when possible

# Proposals

- **Proposal 1:** Target common solutions independent of frequency range and scenarios.
- **Proposal 2:** To fulfill existing requirements rather than introducing any new ones.
- **Proposal 3:** The relevant scenarios with practical settings (e.g., UL/DL slot configuration, bandwidth) are used as the starting point for (data channel) performance evaluation and enhancement justification.
  - The outdoor-to-indoor scenario for FR1
  - The indoor-to-indoor scenario for FR2
- **Proposal 4:** No new physical channel.
- **Proposal 5:** Other related solutions with IAB and Sidelink to be documented in corresponding TRs.

# Thank You!