3GPP TSG RAN Meeting #94e
Electronic Meeting, Dec 6- 17, 2021

RP-213490

ZTE
Tomorrow never waits

Source: ZTE
Agenda: 8A.1

Highlights from Moderator's summary for discussion [94e-10-R18-SmartRepeater]

Objective of Scenarios and assumptions

- The study on NR smart repeaters is to focus on the following scenarios and assumptions:
  - *Smart repeaters are used for extension of network coverage on FR1 FDD/TDD and FR2 TDD bands, while during the study FR2 TDD deployments may be prioritized for both outdoor and O2I scenarios.* ~~Prioritize FR2 TDD deployments for both outdoor and O2I scenarios.~~
  - For only single hop stationary smart repeaters
  - ~~Assuming~~ Smart repeaters are transparent to UEs
  - Smart repeater can maintain the gNB-repeater link and repeater-UE link simultaneously

~~NOTE1: Consider smart repeaters used for extension of network coverage on FR1 and FR2 bands.~~

NOTE~~2~~: Cost efficiency is a key consideration point for smart repeaters.

Objective of Side control information

Study and identify which side control information below is necessary for smart repeaters including assumption of max transmission power [RAN1]

- Beamforming information
- Timing information to align transmission / reception boundaries of smart repeater
- Information on UL-DL TDD configuration
- ON-OFF information for efficient interference management and improved energy efficiency
- Power control information for efficient interference management (as the 2nd priority)

Study and identify L1/L2 signaling to carry the side control information [RAN1]

About 10 companies out of 23 companies want to keep the power control information.

2 companies may have concern on the bullet point related to "L1/L2 signaling".

Objective of Management of smart repeaters

Study the following aspects of smart repeater management

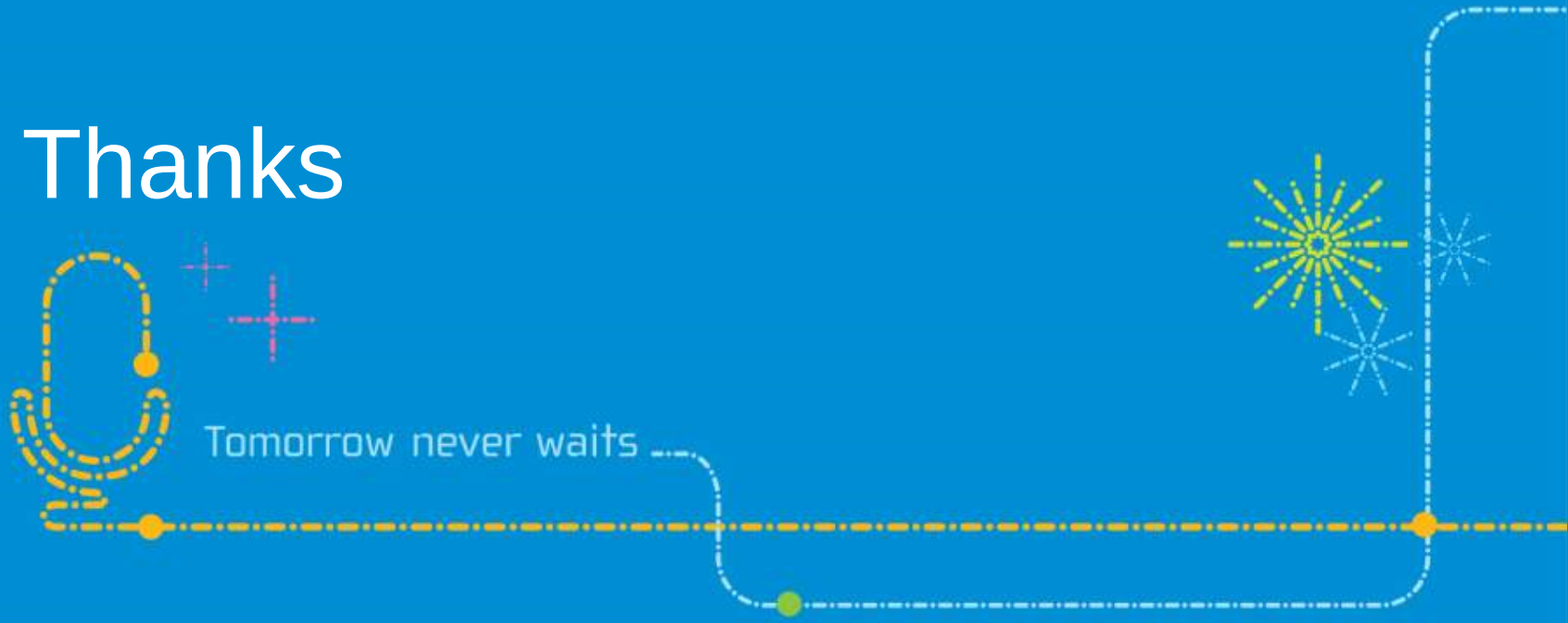
- Identification and authorization of smart repeaters [RAN2, RAN3]

One company proposed to add the following note under this objective:

*Note: **coordination with SA3** may be needed*

SI naming

- Nokia proposed to rename the SI title

  from “Study on NR Smart Repeaters” to “Study on NR network-controlled repeaters”

Thanks