3GPP TSG RAN Meeting #102
Edinburgh, Scotland, December 11-15, 2023
Agenda Item: 9.1.1.3

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Consideration on NR Rel-19 Duplex Evolution

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Consideration on Rel-19 Duplex Evolution(1/4)

- Issue 1:Whether to have parallel SI on UE side SBFD operation with normative work on gNB side SBFD operation?
  - From our perspective, normative work on gNB side SBFD have high priority in Rel-19 due to the limited TU of Rel-19.
  - If necessary, the study on UE side SBFD should be started in later phase of Rel-19 or Rel-20 in order that normative work on gNB side SBFD can be completed on time in Rel-19.

Proposal 1: Study on UE side SBFD can be started in later phase of Rel-19 if normative work on gNB side SBFD can be completed before the end of Rel-19.

Consideration on Rel-19 Duplex Evolution(2/4)

- Issue2: Whether normative work on Duplex evolution in Rel-19 should include at least either gNB-to-gNB co-channel CLI handling or UE-to-UE co-channel CLI handling?
  - For SBFD operation at gNB, either gNB-to-gNB co-channel CLI handling or UE-to-UE co-channel CLI handling need be considered.
  - For dynamic TDD case, in terms of TR 38.858, we need consider the necessity of improving gNB-to-gNB co-channel CLI handling or UE-to-UE co-channel CLI handling mechanism.

Proposal 2: Study and if necessary specify enhancements for gNB-to-gNB CLI handling and UE-to-UE CLI handling at least for SBFD operation at gNB .

Consideration on Rel-19 Duplex Evolution(3/4)

❑Work scope for Rel-19 Duplex Evolution

- TDD Full Duplex feature should be enabled and considered as Rel-19 WI project, we support some specified work items from FL suggestion in the RAN#101 as follows:
  - ✓ Indication of time and frequency domain locations of SBFD subbands to UEs
  - ✓ UE transmission and reception behavior and procedures in SBFD symbols and/or non-SBFD symbols related to SBFD operation at gNB
  - ✓ RF requirements for SBFD operation at gNB

Proposal 3: support at least above 3 items are included in Rel-19 Duplex Evolution WI

Consideration on Rel-19 Duplex Evolution(4/4)

❑ Motivation

- Random access can potentially reduce the random access latency, reduce the PRACH collision probability and/or improve the coverage of PRACH and Msg3. although evaluation were not fully implemented in RAN1. So it is better to enable random access feature for SBFD in Rel-19

❑ Proposal4:

- **TDD Full Duplex feature should be enabled and considered as Rel-19 WI project, some specified items as follows:**
  - ✓ **Specify enhancement physical layer channels/signals and related procedures on random access for SBFD symbols in connection state/inactive state/idle state**

THANKS