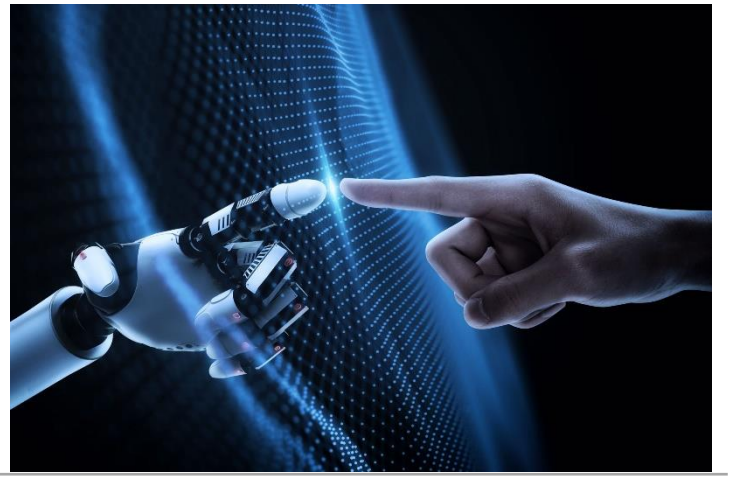
3GPP TSG RAN Meeting #104

Shanghai, China, June 17-20, 2024

Agenda item: 9.11

RP-241510



Views on Multi-carrier Enhancements in Rel-19

ZTE Corporation, China Unicom

Background

- Further multi-carrier enhancement in Rel-19 was supported by a large number of companies based on the discussion in RAN#101[1].

  - *Companies who are supportive of multi-carrier enhancement in Rel-19: Futurewei, Lenovo/Motorola, Huawei/HiSi, DCM, TELUS, Bell Mobility, ZTE, MTK, Telstra, Nokia (if it's a new proposal with sufficient operator demand), vivo, Xiaomi, Samsung (if scope is small)*
    - *Some of the companies indicated that it depends on the scope*
  - *Companies who disagree (i.e., multi-carrier enhancement should not be part of Rel-19):*
    - *Some of the companies indicated that it depends on the scope*

- Among all proposed enhancements, the following topic is the most popular one:
  - Enhancements on multi-cell/user scheduling via single DCI

[1] 3GPP RAN#101, RP-232626, Moderator's summary for REL-19 RAN1 additional topics

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Motivation

- The co-scheduled cells schduled by DCI format 0_3/1_3 is restricted to the same SCS and carrier type in Rel-18.
- Operators may have multiple bands with different SCS and/or carrier types, and we see commercial demands to deploy multi-cell scheduling for these bands. For instance, the following CA scenarios in China, as shown in Fig.1 and Fig.2 below.

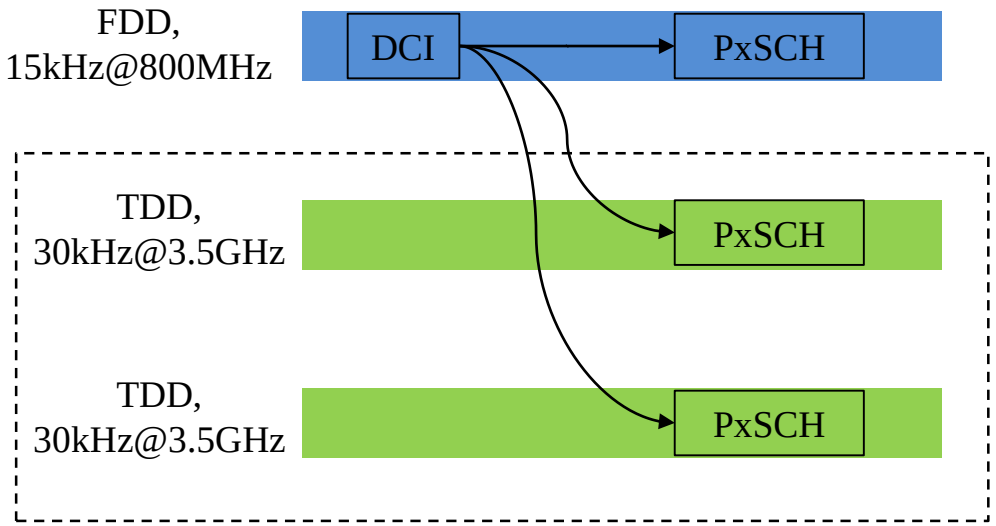

Fig. 1, 3CC case, where the co-scheduled cells may have different SCS

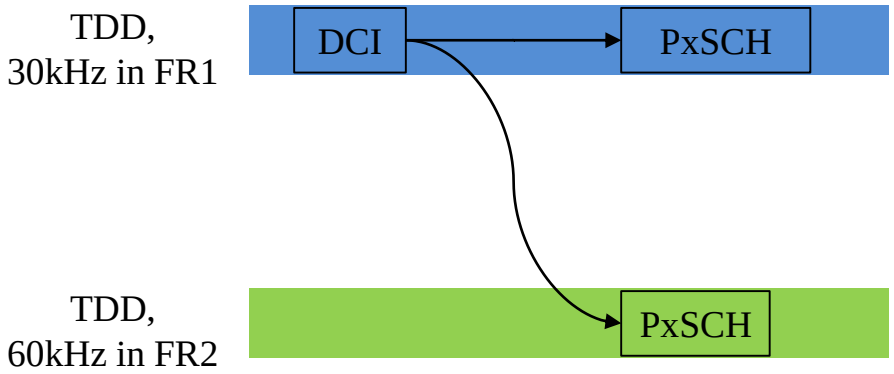

Fig. 2, FR1-FR2 CA, where the co-scheduled cells have different carrier types

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Proposal

- **For multi-cell PUSCH/PDSCH scheduling by a single DCI, support co-scheduled cells with different SCS and/or carrier types in Rel-19.**

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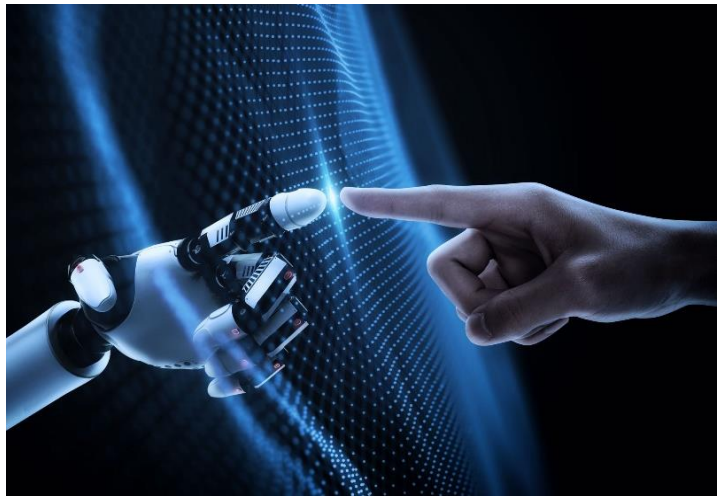
Thank You