Smarter technology for all

3GPP TSG RAN Meeting #101
Bangalore, India, September 11-15, 2023

RP-232184

Agenda Item:	8A.2.13.5
Source:	Lenovo
Document for:	Discussion

Views on MBS Enhancements in Rel-19

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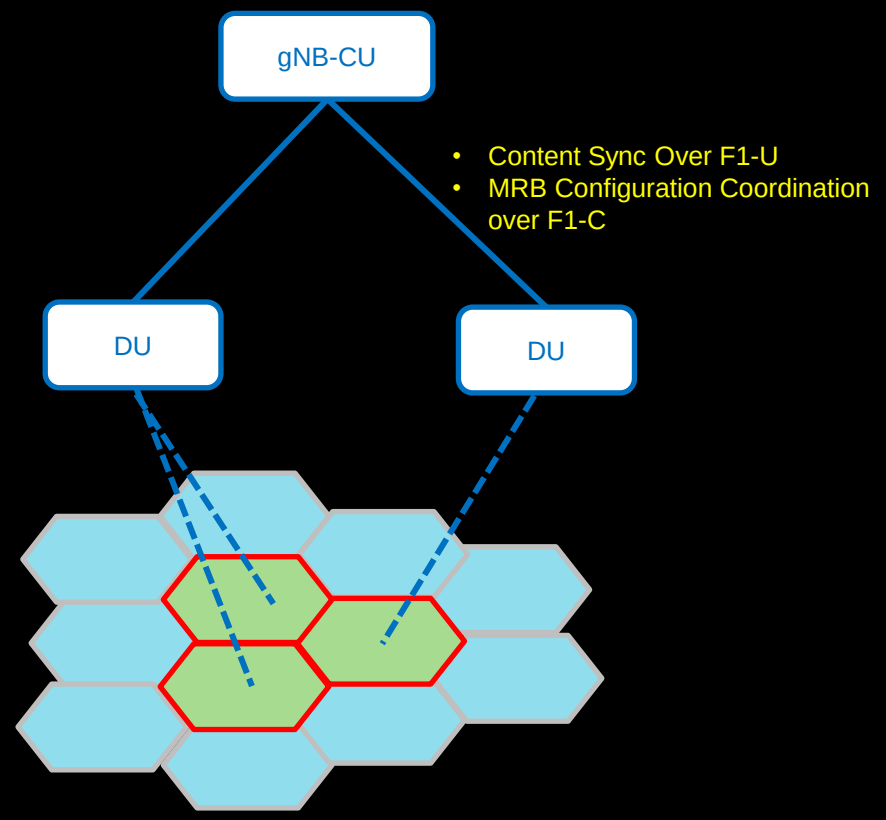
Motivations (1)

- The Rel-17/18 only supports multicast PTM reception in one cell or over multiple cells as a SFN area within one gNB-DU by implementation.

- A multicast session may be served by a small area of multiple cells across gNB-DUs, e.g., for mission communication in a certain area.

- Enabling SFN concept across gNB-DUs within one gNB-CU for a multicast session increase the spectrum efficiency and reliability without much standard impact:
  - Extended CP is not necessary for multicast reception in a certain area.
  - Specify necessary signaling and content sync over F1 interface.



SFN concept across gNB-DUs within one gNB-CU for a multicast session

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Motivations (2)

- Support radio resource optimization for multicast session in RAN sharing:
  - Rel-18 has only specified to support broadcast session in RAN sharing (i.e. MOCN and multi cell-IDs RAN sharing cases)
  - Similar with broadcast session, radio resource can also be sufficiently save for multicast session in case of RAN sharing.

- Extending MBS Deployment
  - Support MBS in NR-DC SCG is not supported in Rel-17.
  - Signalling enhancements in Xn interface to enhance MBS in SCG.

- Mobility Enhancement for Multicast
  - HO enhancements support for Multicast services, e.g., CHO, DAPS, to further enhance the mobility robustness and reduce the service interruption during mobility.

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Objectives

- Specify necessary signaling and content sync over F1 interface to support SFN concept across gNB-DUs within one gNB-CU for a multicast session [RAN3, RAN2];
- Specify signaling to support radio resource optimization for multicast session in RAN sharing [RAN3];
- Specify necessary enhancements to support MBS transmission via SCG [RAN3];
- Specify HO enhancements support for Multicast services, e.g., CHO, DAPS, to further enhance the mobility robustness and reduce the service interruption during mobility [RAN2].

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thanks.

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