

3GPP TSG RAN Rel-19 workshop

Taipei, June 15 – 16, 2023

Agenda Item: 5

RWS-230350



# Further enhancement on mobility in Rel-19

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# Motivation on Mobility enhancement in Rel-19

- **Motivation 1:** In order to enable XR terminals to achieve better mobile performance with low interruption and high throughput over a wider range, inter-CU LTM is needed.

- Issue: LTM is limited to intra-CU operation in Rel-18 mobility.

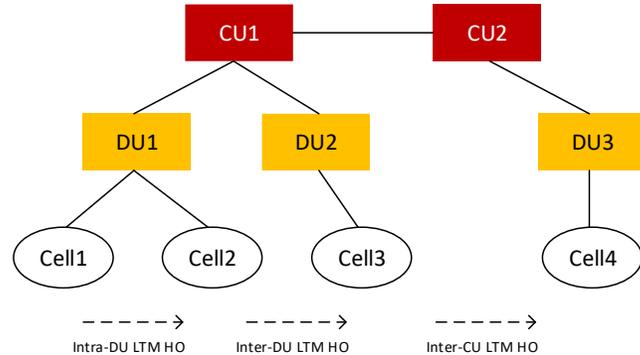


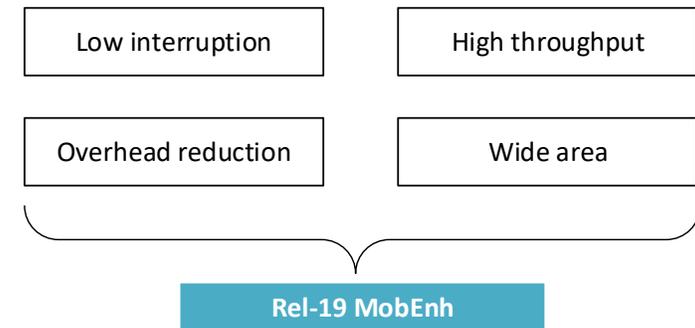
Fig.1 Different LTM Handover Approach

- **Motivation 2:** To enhance LTM in 5G networks and achieve seamless and reliable handover.

- Issue 1: The goal of 0ms interruption time is not achieved in Rel-18.
- Issue 2: Handover interruption time, RLFs and handover failure improvements.
- Issue 3: Handover successful probability needs to be improved in case of radio link degradation.

- **Motivation 3:** To reduce the signaling overhead for handover in 5G networks.

- Issue: Frequent update of handover parameters incurs high RRC signaling overhead.



# Scope and Objective

- To specify mechanism and procedures of L1/L2 based inter-cell mobility for inter-CU case.
  - Xn interaction for pre-configuration, data forwarding, etc.
  - Early DL/UL synchronization before L1/L2 HO command.
  - Security key update and L2 handling
- Specify DAPS enhancement:
  - Support DAPS for FR2 bands, CA scenario;
  - DAPS like for LTM, e.g. UE maintains the connection with source cell/TRP when connecting with target;
- Support handover failure handling for LTM.
- Support LTM-based CHO.
- Study and specify the group handover mechanism.

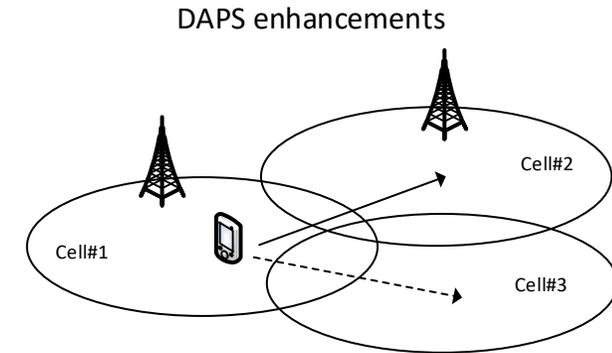


Fig.2 DAPS enhancements

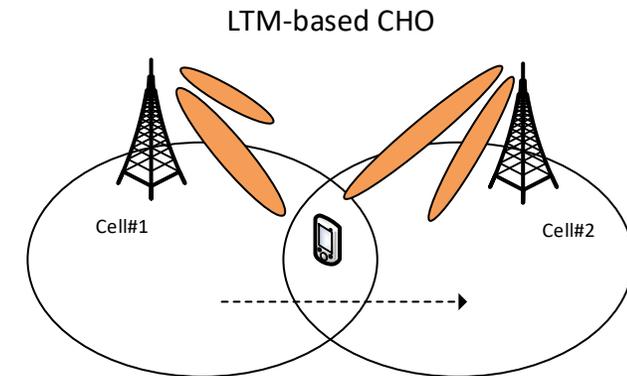


Fig.3 LTM-based CHO

Thanks