

3GPP TSG RAN Meeting #78
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Mobility enhancement for NR

China Telecom

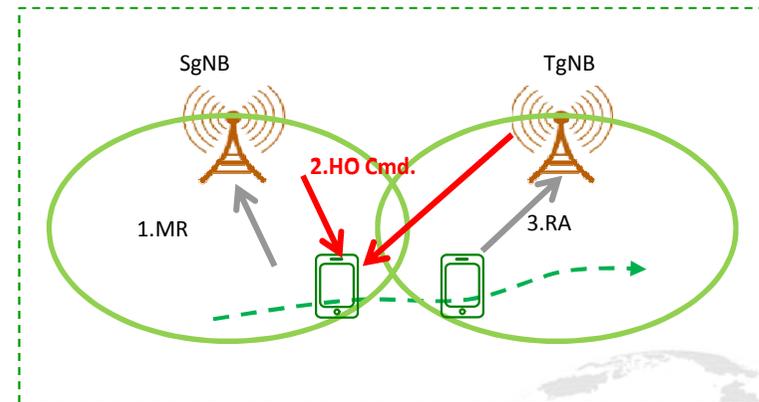
Motivation

- Potential URLLC requirements (3GPP 38.913) :
 - Target for mobility interruption time should be 0ms
 - Target for user plane reliability is $1-10^5$, which needs same strict reliability of mobility signaling
- More NR cells are expected due to the relatively small coverage, which would result in more handover
- NR shall be enhanced to support the new services with above requirements, e.g. remote control, drone, industrial automation and industrial control.



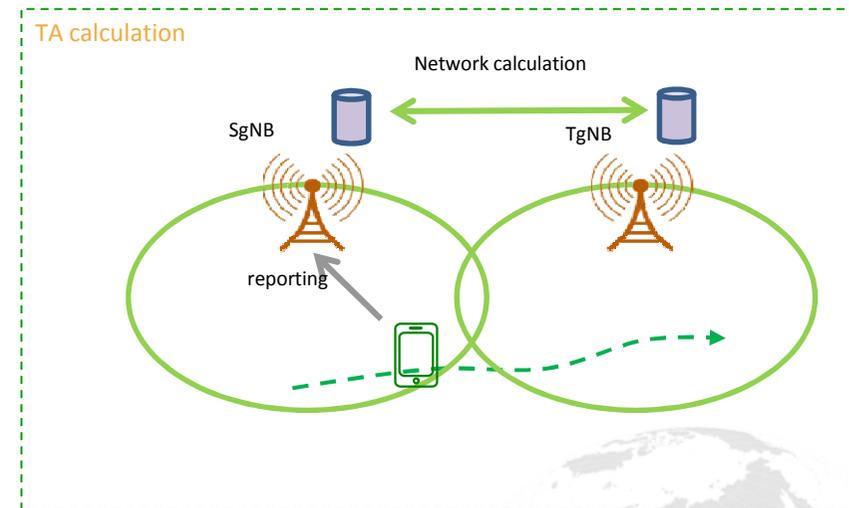
Make before break

- Based on Dual connectivity or multiple connectivity
 - Duplicated transmission of RRC message (e.g. measurement report, handover command) and data
- Increase the signaling reliability via several paths transmission



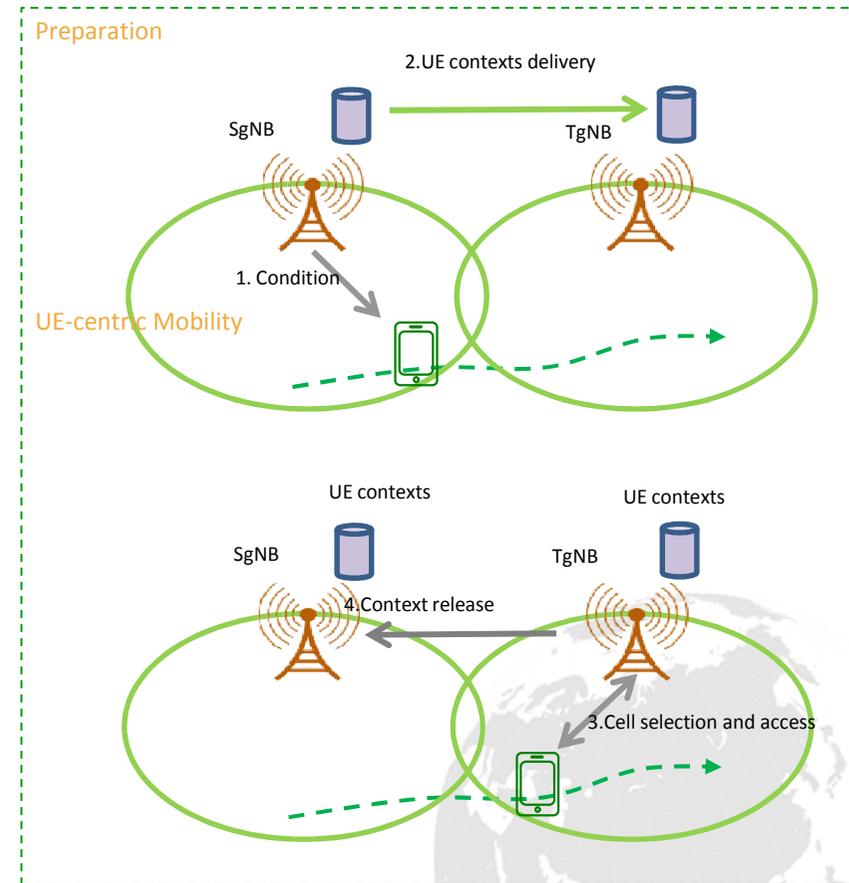
RACH-less handover

- TA calculation could be done by
 - ✓ UE reporting
 - ✓ Network calculation
- UE performs RACH-less handover based on the network configuration
- RACH-less handover to reduce the interruption time



UE centric mobility enhancement

- Handover condition can be configured to UE before handover
- UE performs network controlled forward handover based on the configured condition and prepared context
- Increase the mobility robustness



Objective

- Mobility robustness improvement and interruption time reduction
 - Make before break (e.g. duplicated RRC and data transmission during handover, multiple connectivity)
 - RACH-less handover
 - Specify the function split among the protocol layers and procedures to enable packet duplication
 - UE centric mobility with configured condition and prepared context



Thank you !



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