



LTE UE capabilities for multi-mode LTE/NR UE

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5G deployment and multi-mode LTE/NR UEs

During 5G deployment time frame, especially the initial deployment of 5G, LTE network would still play an important role for the overall system performance as well as for the UE experience.

- In the current 4G deployment, multi-mode 2G/3G/4G UEs are typical types of UEs. Similarly, it can be predicted that multi-mode LTE/NR UEs would be widely used in 5G deployment.

- Furthermore, in some 5G architecture options, LTE and NR are operated jointly by dual connectivity.

LTE UE Capabilities

LTE has evolved for 8 releases since Rel-8. In the later releases, most of the features have been set to optional for the UEs.

Though having optional features would allow flexibilities for product planning, it also brings the uncertainty of feature availability in the UE implementation, even if the features are needed by operators.

Reconsidering of legacy LTE UE Capabilities

For Rel-15 multi-mode LTE/NR UEs, some of the legacy LTE features with UE capability signaling reports can be reconsidered as mandatory, to improve the overall system performance and the UE experience, since

- The availability of some legacy LTE features in the products have been changed compared to the time point when the mandatory/optional decisions were made
- The availability of some NR features in the same device may enable the implementation of the related LTE features
- The plan of some LTE features in the products and in the deployment may be changed compared to the time point when the mandatory/optional decisions were made

Proposals

- Identify the legacy features (Rel-8~Rel-14) with capability reports that can be set to mandatory for the Rel-15 multi-mode LTE/NR UEs, including optional features and mandatory features with capability signaling



Thank you !

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