

Views on Release-17

Agenda Item: 15

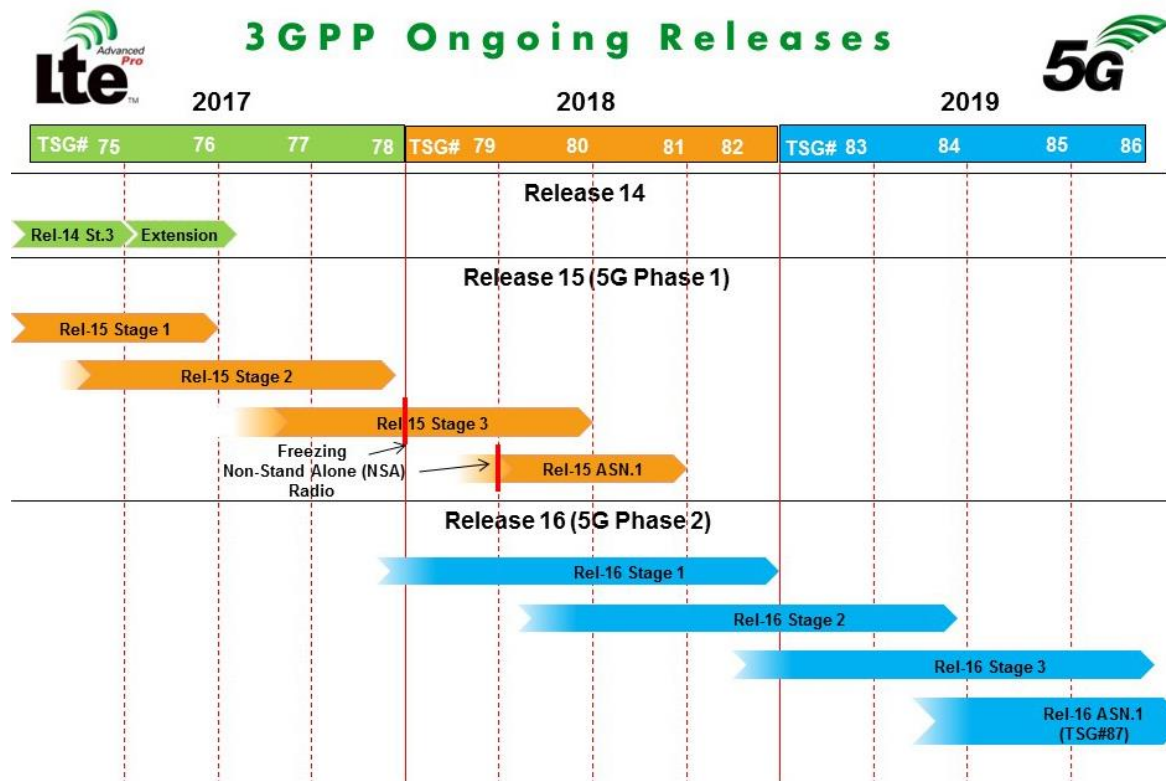
Source: KT Corp.

Document for: Discussion



Release-16 Stage-1 is expected to be completed at this plenary

- Timeline for Release-16
 - Stage-1 expected to be completed at TSG#82 (December 2018)
 - Stage-2 expected to be completed at TSG#84 (June 2019)
 - Stage-3 expected to be completed at TSG#86 (December 2019) with ASN.1 freeze by TSG#87 (March 2020)



Current Release-15 based 5G specification expected to fulfill various commercial needs

- Commercial 5G Deployments
 - Global 5G commercial deployment is expected as early as this month
 - Initial 5G commercial deployment will be based on “Early-drop” version of Release-15
 - 3GPP even provides option for non LTE operators to jump into commercial 5G deployment
 - Completion of “Late-drop” will provide various deployment options suiting every operators requirements
 - ➔ 3GPP Release-15 meets all necessary requirements for operators deploying commercial 5G network
- Release-16 Enhancements
 - While Release-15 already provide enough features for 5G commercial deployment, Release-16 provides necessary enhancements
 - Mobility, MIMO, Power consumption, positioning, CLI & RIM, DC & CA enhancements are some area targeted for eMBB
 - Also enhancements for mMTC and URLLC is on-going such as NR V2X, NR support for industrial IoT, etc.
 - Converging with new technology trends such as big-data collection is also on-going
 - ➔ With expected completion at the end of 2019, Release-16 commercial deployment is expected by the end of 2020

Global 5G commercial experience will drive various features to be added on

- Features from 5G commercial experiences
 - Global 5G commercial deployment will be based on Release-15 and Release-16
 - Operators will come out with what is missing from their actual commercial 5G network
 - Some Release-16 features may need further enhancements to meet the market requirements
 - New types of services and application will need some improvements from the existing specifications
- ➔ **3GPP Release-17 will be key enabler for incoming future services**
- Need for extension of Release timeline
 - Current 15 month per Release was to align with ITU-R submission
 - Also Operators requests for early 5G deployment were considered
 - Suggesting to extend timeline of each Release in order to capture emergent operator needs
 - Each WI/SI does not need to be approved as a “package” but can be added to each release at any stage
 - Deciding which Release a certain feature belongs is up to completion of WI/SI
- ➔ **Proposal to extend Release-17 timeline to 24 month (including ASN.1)**

Here are some candidate features for standardization in Release-17



Full Autonomous Driving



5G Dynamic Network Slicing



3GPP Support for A.I. based Intelligent NW



Private NR Network



Full Duplex Radio



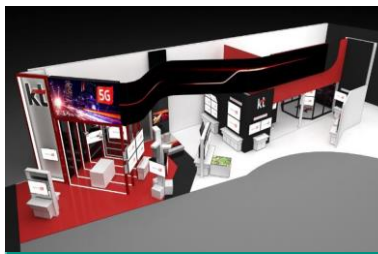
3GPP support for QKD



5G+LTE+WiFi Aggregation



5G eMBMS



UE-to-UE Relay for Coverage Enhancement



5G Satellite Support

Longer Release timeline to capture all the market needs coming from Global 5G commercial deployments

- 3GPP Release-15 & 16 will provide necessary requirements for 5G Commercial deployments
- 3GPP to capture market needs from 5G commercial deployments for future releases
- 24 month per Release (including ASN.1) to accommodate operators requirements from commercial experience
- Each WI/SI can start at any time upon Plenary approval. However, completion deadline shall be met in order to be included in the Release package

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