



Some views on Release 17

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General principles

- 3GPP has adopted a phased approach to 5G development
 - Release 15: Defining the 5G/NR standard
 - Release 16: Expanding 5G to new verticals
- Short to medium term deployment considerations should weigh heavily towards Release 17 feature selection
 - The lead time between standards development and commercial realization has diminished
 - Release 17 is planned to be “short” (15 months)
- Release 17 package should include a combination of LTE features, Rel-16 enhancements, and new features
 - Factor sufficient time for Rel-15 and Rel-16 maintenance, and Rel-16 TEI
- A reasonable workload is essential to maintain the high quality of RAN standards
 - Carefully decide which Rel-16 features need to be enhanced
 - Defer more futuristic proposal to later releases

LTE features in Release 17 NR

- In-device coexistence (IDC)
 - Can think of simpler (subset of) Release 11 LTE IDC mechanisms
- NR-WLAN interworking
 - Too many options in LTE (RAIWK, RCLWI, LWA, LWIP,...)
 - NR presents a more compelling use case especially for FR2 deployments
- Coverage enhancement
 - Applying MTC and NB-IoT principles to NR
- Uplink data compression (UDC)
 - NR PDCP and LTE PDCP are very similar, and the adoption seems straightforward
- Broadcast
 - Based on industry/operator interest

Need to have	Nice to have
IDC	UDC
NR-WLAN IWK	Broadcast
Coverage enhancement	

NR Release 16 extensions

- Power saving
 - Critical consideration for UE performance, depends on Rel-16 scoping
 - Include data transmission in RRC_INACTIVE
- Non-terrestrial networking (NTN)
 - Explicitly consider HAPS use case in WI phase, include IAB architecture in the scope
- Positioning
 - Essential for many services
- NR-U enhancements
 - Include FR2, and coex with multi-operator deployments and WLAN
- URLLC and MIMO enhancements
 - Evolution of Rel-16 enhancements

Need to have	Nice to have
Power saving	eV2X
NTN	IAB
Positioning	
NR-U	
MIMO enhancements	
URLLC/IIoT	

New features in Release 17

- Multi-SIM
 - Most UE vendors already support some form of multi-SIM
 - Standards support for this feature will be complimentary
- Diverse UE types
 - Need for a lightweight NR protocol stack for supporting new verticals, e.g., wearables
- TCP enhancements
 - Seen as beneficial for high rate bidirectional traffic and FR2 scenarios
- UE coordination
 - Group communication for increased reliability, coverage, and throughput
- Shared spectrum access
 - 3GPP standardization can help pave the path for successful usage of these bands