3GPP TSG RAN#77
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TDoc RP-171902
Agenda Item 9.2.1

NR Prioritization

MediaTek

General

- Timely completion of Rel-15 NR is critical
  - Progressing and stabilizing NR work shall have the highest priority over any new work

- Proposals
  1. Postpone all NR SIs that are RAN1-led or with RAN1 impacts
  2. Clearly define and streamline NR content (next slides)

NR PHY [1/2]

Channel/Signal or Function	Features for de-prioritization	Motivations
Initial Access	Paging indication	Optimization for above-6GHz beam-sweeping with potential significant power consumption at UE. Solid study is needed before introduction. Legacy paging mechanism can work anyway.
	RACH capacity enhancement	Optimized feature with no clear justification. Other SI delivery can also be supported in broadcast approach.
Mobility	CSI-RS based RRM measurement for handover in asynchronous network	High UE complexity due to neighbor cell PBCH reading for SFN timing information in asynchronous network. Alternatively, UE can use SS block for handover. After handover with PBCH acquisition, CSI-RS can still be used.
DL Control	Control/data resource sharing	Optimized feature with high complexity and large standardization effort/impact. Dynamic sharing will require more standardization effort to address a lot of trivial issues.
	Non-SFI based Group common PDCCH	Quite diverse views with time-consuming discussion in RAN1.
	Wake-up & go-to-sleep signal based on DCI in DRX	Optimization of UE power consumption in DRX operation. Not a necessary function to enable non-standalone NR.

NR PHY [2/2]

Channel/Signal or Function	Features for de-prioritization	Motivations
UL Control	SR Enhancement, e.g., Multi-bits SR, underlay SR for URLLC	Optimized feature with high complexity and large standardization effort/impact. The existing RAN1 agreed solutions also work well, such as single-bit SR with multiple configurations, the dedicated resources for SR.
Scheduling/HARQ	Non-slot-based scheduling, grant-free transmission, self-contained operation,	High UE complexity with large standardization effort/impact. It can be built later on top of mature eMBB features. Besides, the large subcarrier spacing in eMBB can also serve most purposes.
Others	Duplexing, LTE-NR coexistence, ultra-reliability part of URLLC	Not necessary functions to enable non-standalone NR.

NR L2/L3

Channel/Signal or Function	Features for de-prioritization	Motivations
NR NSA	Simultaneous eMBB + URLLC	Simplification: No support for logical channel restrictions in logical channel prioritization. No support for multiple SR. SPS support restricted to ”UL grant free operation” for low latency i.e. no support for media applications
	Packet duplication	38.323 only supports DC duplication with MAC CE act/deactivation. No CA duplication over SRB and SCG bearer
	NR idle mode procedures are not needed	38.331: only support NR SCG – no MCG RRC connection handling, no RRC state handling. Mobility only by add(modify/release SCG and/or SCG cells. Only MIB, not other broadcast SI.
	Temporary UE capability	
	5GC support (incl. QoS etc)	By definiition EPS only (LTE anchor)
NR SA	0ms handover	Not deemed essential for the system to work
	Other	Premature to consider other aspects for now

Note: major NR differences between early and final Rel-15 drops may require non-backwards changes as previously indicated (slush)