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Views on NR UDC

Qualcomm Incorporated

LTE vs NR

- While LTE UDC solution can be the baseline for NR UDC, there are fundamental **differences** in NR we ought to take into account.
- Especially, the required **processing** for NR at the UE and the network when considering support for high data rates, with low user plane latency and DRB integrity protection
- Capabilities of UE and network to meet those fundamental NR requirements should not be compromised by the additional support of UDC.
- Because of the additional processing load implied by LTE UDC, a UE supporting UDC may **declare a lower data rate** support in Uplink. Such UE capability limitation would need to be in place even in a network not supporting UDC
 - Note that DRB Integrity Protection is policy driven and based on security requirements, but compression is intended for performance benefits
- Ignoring these aspects will be detrimental to the eventual adoption of UDC in NR

Proposal

- It has to be possible to improve NR UDC, beyond the LTE UDC baseline.
- Enhancements for processing reduction at the compressor and the decompressor need to be considered in the Release-17 work on NR UDC.
- **Add the following objective** in the NR UDC WID.
 - *“Investigate and standardize, if deemed necessary, solutions to address processing limitations in high throughput scenarios (RAN2-led)”*



Thank you

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