

RP-231591

3GPP RAN#101 | Sept. 11th - 15th 2023 | Bengaluru, India

**Deutsche Telekom's
NR NTN & IoT-NTN objectives**



It's simple:

NR NTN

Work Focus for Rel-19

We support the following objectives for a RAN WG WI

NTN Evolution

- Strong desire to further evolve Non-Terrestrial networks (NTN) in both NR and Internet of Things (IoT) areas
 - The proposed possible areas for enhancements are quite broad and heavy
- Need to focus on the critical needs for commercial deployments and maintain a reasonable workload
 - Especially considering it's a continuation from previous releases

Objective 1

Regenerative payload with full gNB on satellite, incl. usage of ISL (“Inter-Satellite Links”) for NG and Xn (incl. link changes)

Objective 2

Mobility Enhancements for TN/NTN

- Seamless mobility incl. connected mode from TN to NTN and back to TN*
- PCI unchanged for soft satellite switching

Objective 3

High UE Tx Power (26 dBm) for Automotive usage*, incl. related RAN4 work on coexistence

* 5GAA contribution in RWS-230164

IoT-NTN

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Objective 1

Regenerative payload with full eNB on satellite, incl. usage of ISL (“Inter-Satellite Links”) for S1 and X2 (incl. link changes)

Objective 2

Support of Store & Forward (requires regenerative payload)

Objective 3

Support of GNSS independent operation for UEs

Objective 4

Investigation of support and coexistence of NB-IoT in standalone, guardband and inband in NT NTN operation (RAN4 focused)

Let's start talking...