3GPP TSG-RAN WG3 Meeting #113-e R3-214341

16-26 Aug 2021

**Agenda item: 20.2.2**

**Source: Nokia, Nokia Shanghai Bell**

**Title: (TP for BL CR for TS 38.300) add the correspondence for TAI and geographical area**

**Document for: Discussion & decision**

Per the discussion on CB: # 2003\_NTN\_Reg\_Pag, this contribution proposes Stage-2 TP to the BL CR for TS 38.300.

**Update to BL CR TS38.300**

## 4.x Non-Terrestrial Networks

The Figure 4.x-1 below illustrates an example of a Non-Terrestrial Network (NTN) providing non-terrestrial NR access to the UE by means of an NTN payload and an NTN Gateway, depicting a service link between the NTN payload and a UE, and a feeder link between the NTN Gateway and the NTN payload.



**Figure 4.x-1: Overall illustration of an NTN**

NOTE: Figure 4.x-1 illustrates an NTN; RAN4 aspects are out of scope.

The NTN payload transparently forwards the radio protocol received from the UE (via the service link) to the NTN Gateway (via the feeder link) and vice-versa. The following connectivity is supported by the NTN payload:

- A gNB may serve multiple NTN payloads;

- An NTN payload may be served by multiple gNBs.

NOTE: In this release, the NTN-payload may change the carrier frequency, before re-transmitting it on the service link, and vice versa (respectively on the feeder link).

For NTN, the following applies in addition to Network Identities as described in clause 8.2:

- A Tracking Area corresponds to a fixed geographical area;

The respective correspondence is done by configuration in the RAN and Core Network.

- An NCGI provided to the 5GC within the User Location Information as specified in TS 38.413 [26] corresponds to a fixed geographical area.