NTN Comments file

Template:

# Xnnn

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| Xnnn | IoTTDD |  |  |  |  |  | vnnn | ToDo |

**[Description]**:

**[Proposed Change]**:

**[Comments]**:

Instructions:

1. Copy the template RIL comments fields above (including the Heading Xnnn)
2. Paste the RIL comments fields at its position while **respecting the order of the RILs in the Review file (i.e. keep the order of the spec).**
3. Fill in the fields, see R19 ASN.1 Guideline.
4. Companies may comment whether they agree or disagree.
5. Can copy spec text and use Word “Track changes”, etc.
6. Do not delete text added by other companies.

# H250

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H250 | NTN | 1 | Descriptions of UAI | R2-25xxxxx | Huawei (Lili) |  | V002 | ToDo |

**[Description]**: The closest reference location information in the UAI can be used for both SMTC configuration and gap configuration. Besides, it is preferred that we use “reference location information reporting” because it is different from directly reporting UE location. Similar changes (referring to gap configuration) need to be made to multiple other places.

**[Proposed Change]**:

2> if the *assisted-SSB-MTC-Config* is set to *setup*:

3> consider itself to be configured to provide closest reference location information for assisting SMTC and measurement gap configuration in RRC\_CONNECTED state in accordance with 5.7.4;

2> else:

3> consider itself not to be configured to provide closest reference location information for assisting SMTC and measurement gap configuration in RRC\_CONNECTED state.

**[Comments]**:

# X250

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X250 | NTN | 1 | Clarify the Note on UE using the Target Service Area in the USD to skip the MCCH acquisition | R2-25xxxxx | Xiaomi (Xiaolong Li) |  | V001 | ToDo |

**[Description]**: There is a note for the MCCH information acquisition as below:

NOTE 2: It is up to UE implementation to use the cell/tracking area list and/or the Target Service Area in the USD or the ISA(s) in *SIBXX* to avoid acquiring the MCCH when the UE is outside the MBS service area of the MBS broadcast service.

The Target Service Area is copied from the SA4 spec [S4-251482]:

### 5.2.9 Availability Information data type

The AvailabilityInformation data type provides additional information pertaining to the availability of the MBS Distribution Session within the 5G Network:

- The targetServiceAreas property declares the one or more service areas in which the MBS Session corresponding to this MBS Distribution Session is currently available. Each target service area is expressed as one of the following:

- A list of NR Cell Identifiers.

- A list of Tracking Area Identifiers.

- An area specified as a list of polygon or circle shapes.

Table 5.2.9-1: Semantics of AvailabilityInformation data type

| Property name | Type | P | Cardinality | Description |
| --- | --- | --- | --- | --- |
| mbsService‌Areas | array(Mbs‌Service‌Area) | O | 1..N | This property is deprecated. The property shall be absent in this release. |
| target‌Service‌Areas | array(Target‌Service‌Area) | O | 1..N | The *Target service areas* of this MBS Distribution Session, as defined in table 4.5.8‑1 of TS 26.502 [6]. |

According to the SA4 spec, the mbsServiceAreas is deprecated and it should be absent in this release, which means that the only the targetServiceAreas will be provided in the USD.

**[Proposed Change]**:

NOTE 2: It is up to UE implementation to use the Target Service Area in the USD or the ISA(s) in *SIBXX* to avoid acquiring the MCCH when the UE is outside the MBS service area of the MBS broadcast service.

**[Comments]**:

# H251

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H251 | NTN | 1 | SMTC for serving cell | R2-25xxxxx | Huawei (Lili) |  | V002 | ToDo |

**[Description]**: It was agreed to have 7 SMTCs altogether on a single frequency. Serving cell does not require a reference location, and in this case the legacy *smtc* is used for the serving cell measurement. However, this understanding is a bit different from legacy releases because *smtc* is now changed to a cell-specific SMTC rather than a frequency-specific SMTC. Also, the field description of *smtc* related to SMTC adjustment based on PDD needs to revised so that UE does not need to consider neighbour cell propagation delay.

**[Proposed Change]**: Measurement timing configuration for intra-frequency measurement. If this field is absent, the UE assumes that SSB periodicity is 5 ms for the intra-frequency cells. If the field is broadcast by an NTN cell and *smtc5list* is not configured, the *offset* (derived from parameter *periodicityAndOffset*) is based on the assumption that the gNB-UE propagation delay difference between the serving cell and neighbour cells equals to 0 ms, and UE can adjust the actual *offset* based on the actual propagation delay difference. If the field is broadcast by an NTN cell and *smtc5list* is configured, *smtc* is for serving cell measurements and the *offset* (derived from parameter *periodicityAndOffset*) is based on the assumption that the gNB-UE propagation delay difference equals to 0 ms.

**[Comments]**:

# X251

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| X251 | NTN | 1 | How the RRC idle/inactive UE selects up to 4 SMTCs based on its location is missing in the spec. |  | Xiaomi (Xiaolong Li) |  | V001 | ToDo |

**[Description]**: RAN2 made the following agreement on how the RRC idle/inactive UE selects up to 4 SMTCs.

RAN2 reconfirms the understanding that if the NW configures more than 4 STMCs the UE in idle/inactive the UE selects up to 4 SMTCs (or less, depending on the UE capability) based on location and only considers them for measurements.

According to the agreement, the RRC idle/inactive UE selects the SMTCs based on its location, but this is not specified in the current spec.

**[Proposed Change]**: Specify the UE behaviour on selecting up to 4 SMTCs based on its location in the field description of *smtc5list*.

**[Comments]**:

# H252

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| RIL Id | WI | Class | Title | Tdoc | Delegate | Misc | File version | Status |
| H252 | NTN | 1 | searchSpaceLinkingId-r19 | R2-25xxxxx | Huawei (Lili) |  | V002 | ToDo |

**[Description]**: RAN1 has included *searchSpaceLinkingId-r19* in the latest parameter list, but it was missing in the RAN2 RRC CR.

**[Proposed Change]**: Add *searchSpaceLinkingId-r19* to *PDCCH-ConfigCommon* based on RAN1 parameter list.

**[Comments]**: