**3GPP TSG RAN meeting #109 RP-251931**

**Beijing, China, September, 15-18th, 2025** *rev of RP-251003*

## Status Report to TSG

**Title: Status report for WID: Non-Terrestrial Networks (NTN) for NR Phase 3; rapporteur: Thales, CATT**

**Agenda item:** 9.6.2.2

|  |  |
| --- | --- |
| **WI / SI Name** | Rel-19 Non-Terrestrial Networks (NTN) for NR Phase 3 |
| included in this status report | Study Item: No | Core part: Yes | Performance part:Yes | Testing part:No |
| **Acronym** | NR\_NTN\_Ph3 |
| **Unique ID** | 1020097 |
| **TSG Tdoc of latest approved WI/SI description (if any)** | RP-243300 |
| **Target Completion Date****(indicate if changed)** | Study Item: N/A | Core part: 09/2025 | Performance part: 03/2026 | Testing part:  |
| **Overall Completion level** | Study Item: N/A  | Core part: Overall: 100%RAN1: 100%RAN2: 100%RAN3: 100%RAN4: 100% | Performance Part: Overall: 0%RAN4: 0% | Testing part:  |

Note: Overall completion level percentage numbers should use one of the colors below:

* xx%: Normal progress, no RAN plenary action needed
* xx%: Progress behind schedule, may need RAN plenary intervention. If so, SR should clearly define requested action
* xx%: Progress critically behind, RAN plenary shall intervene. SR should define requested action

**Source:**

|  |  |
| --- | --- |
| **Leading WG** | RAN2 |
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## 1 Work plan related evaluation

|  |  |
| --- | --- |
| **Do you want to modify the time budget for this WI/SI compared to what was endorsed at the last RAN meeting?** | No |

*If you answered No: Then please remove the Excel file from the zip file of this status report.*

*If you answered Yes: Then please fill out the attached Excel template to request a modification of the time budgets for your WI /SI. The Excel table has to be filled out for all affected RAN WGs and up to the target date of the WI/SI. The basis are the endorsed time budgets of the last RAN meeting. Please highlight all changes of the values.
 One time unit (TU) corresponds to ~ 2 hours in the meeting.
 If this status report covers a WI with Core and Performance part, then please have one line for each in the attached Excel table.
 Note: If no Excel table is attached, then this means no time budget change.*

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## 2. Detailed progress in RAN WGs since last TSG meeting (for all involved WGs)

 NOTE: Agreements and Open issues impacted cross-TSG aspects shall be explicitly highlighted

## 2.1 RAN1

#### 2.1.1 Agreements

#### 2.1.1.1 Decisions during RAN1#122

**2.1.1.1.1 NR-NTN downlink coverage enhancement**

Agreement

The TP in Proposal 6-1-v1 in section 11.1.1 of R1-2506442 for TS 38.213 is endorsed.

Agreement

Adopt the following TP for TS 38.213

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| **WI Code:** TEI19 [Common\_PDCCH\_Rep\_TN]**Reason for change**: In RAN#108, it was agreed to apply common PDCCH repetition for TN for FR1.**Summary of change:** Type0-PDCCH repetition introduced in Rel-19 NR NTN WI is also applicable for TN for FR1 only, “NTN” in “For an NTN cell in FR1” is removed.**Consequence if not approved:** Extension of common PDCCH repetition to TN is not captured in the specifications. |

|  |
| --- |
| **13 UE procedure for monitoring Type0-PDCCH CSS sets**\*\*\* Unchanged parts are omitted \*\*\*- For $μ\in \{0, 1, 2, 3\}$ and for a SS/PBCH block index $i$, the two slots including the associated Type0-PDCCH monitoring occasions are slots $n\_{0}$ and $n\_{0}+1$. $M$, $O$, and the index of the first symbol of the CORESET in slots $n\_{0}$ and $n\_{0}+1$ are provided by Table 13-11 and Table 13-12. For a~~n NTN~~ cell in FR1, if the PBCH payload bit $\bar{a}\_{\bar{A}+7}$ has value 1, the UE assumes that a same PDCCH candidate for a CCE aggregation level in slots $n\_{0}$ and $n\_{0}+1$ provides same information for DCI format 1\_0 with CRC scrambled by the SI-RNTI. \*\*\* Unchanged parts are omitted \*\*\* |

**Agreement**

Confirm the working assumption made in RAN1#121 with the following revision.

Working assumption

Inter-slot Type-0 CSS PDCCH repetition is only applicable to the SI-RNTI, and the following rule for BD counting is defined:

* 1 BD in first slot.
* 2 BD in the second slot. ~~: 2 BD~~ ~~in RRC connected mod.~~

Note: One BD for Type-0 CSS PDCCH repetition ~~with SI-RNTI~~ and one BD for PDCCH without repetition ~~other PDCCH Type-0.~~

**Agreement**

For intra-slot PDCCH repetition of PDCCH CSS other than Type-0 CSS and other than Type-3 CSS for common search spaces other than *SearchSpaceZero*,:

* Specify an explicit linkage of two SS for intra-slot PDCCH repetition. That is, a RRC parameter is introduced for SS linkage and enabling intra-slot PDCCH repetition. The starting symbol of monitoring occasion of the second SS is located right after the ending symbol of monitoring occasion of the first SS.
	+ A new parameter in SIB1 e.g. *searchSpaceLinkingId-r19 is introduced or Rel-17 parameter (i.e. SearchSpaceLinkingId) is re-interpreted with modification to capture RAN1 agreements.*

**Agreement**

The following TP is endorsed for TS 38.213

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| * **Reason for change:** Specify BD counting for inter-slot Type0 CSS repetition.
* **Summary of change:** For inter-slot PDCCH repetition for CSS type 0, 1 BD is counted for slot n0 and 2 BDs are counted for slot n0+1.
* **Consequence if not approved:** The BD counting for type0 CSS repetition is not clearly defined.
 |
| **10.1 UE procedure for determining physical downlink control channel assignment**\*\*\* Unchanged parts are omitted \*\*\*If a UE- is provided *monitoringCapabilityConfig* = *r16monitoringcapability* for a downlink cell,- is provided, by *searchSpaceLinkingId* a same value for search space sets $s\_{i}$ and $s\_{j}$ on the downlink cell, and- indicates *numBD-twoPDCCH-r17* with value of 3the UE counts each PDCCH candidate for the one of the search space sets $s\_{i}$ and $s\_{j}$ that the UE monitors PDCCH in the later span, as two PDCCH candidates. The UE does not expect a first PDCCH candidate from search space set $s\_{i}$ or $s\_{j}$ and a second PDCCH candidate from a search space set $s\_{k}$ that does not include *searchSpaceLinkingId* to use a same set of CCEs and same scrambling in a same CORESET, and provide respective first and second DCI formats with same size, in any span other than the first span in a slot.If a UE is provided the PBCH payload bit $\bar{a}\_{\bar{A}+7}$ with value of 1, subject to UE capability, the UE counts each PDCCH candidate for the Type0-PDCCH CSS set that the UE monitors PDCCH in slot $n\_{\bar{0}}+1$ as defined in clause 13 as two PDCCH candidates.A UE does not expect to be provided *freqMonitorLocations* for a search space set $s$ in a serving cell if *intraCellGuardBandsDL-List* indicates that no intra-cell guard-bands are configured for the serving cell.\*\*\* Unchanged parts are omitted \*\*\*-------------------- End of TP for 38.213 -------------------- |

**2.1.1.1.2 Support of RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands**

**Agreement**

The TP below for timeline clarification of case 4 is endorsed for TS38.213

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| ***Reason for change:*** The timeline condition for HD-UE on NTN is not correctly captured in current specifications.***Summary of change:*** define the timeline conditions for cancelling PUCCH, PUSCH or SRS for Redcap UE on NTN.***Consequences if not approved:*** unclear UE behaviour17.2 Half-Duplex UE in paired spectrum**<Unchanged parts omitted>**A HD-UE that operates on a non-NTN serving cell, or a HD-UE that operates on an NTN serving cell and does not indicate *CollisionHandlingOfHDFDDOperation*, does not expect to detect a DCI format scheduling a reception in a set of symbols and detect a DCI format scheduling a transmission in any symbol from the set of symbols. A HD-UE that operates on an NTN serving cell in the RRC\_CONNECTED state, indicates *CollisionHandlingOfHDFDDOperation*, is scheduled to receive a PDSCH or CSI-RS in a set of symbols based on an indication by a first DCI format, and is scheduled to transmit a PUSCH, PUCCH, ~~SRS,~~ or PRACH that overlap with any symbol from the set of symbols based on an indication by a second DCI format, determines- to either receive the PDSCH or the CSI-RS or transmit the PRACH based on the HD-UE implementation;- to either receive the PDSCH or transmit the PUSCH, or PUCCH~~, or SRS~~ based on the HD-UE implementation, if the first DCI format is provided by a PDCCH the HD-UE received according to a Type0/0A/1/2-PDCCH CSS set;- to receive the PDSCH or the CSI-RS if the first DCI format is not provided by a PDCCH the HD-UE received according to ~~a search space set other than~~ a Type0/0A/1/2-PDCCH CSS set, and the HD-UE is not provided *ntnRedCapCollisionCase4UlPriority*, and the transmission of the PUCCH or the PUSCH would not start before $T\_{proc,2}$ after the last symbol of the PDCCH reception providing the first DCI format ~~timeline conditions for cancellation of the UL transmission as defined in clause 17.2 are satisfied~~;- to transmit the PUSCH~~,~~ or PUCCH~~, or SRS~~, if the first DCI format is not provided by a PDCCH the HD-UE received according to a Type0/0A/1/2-PDCCH CSS set, and- the HD-UE is provided ntnRedCapCollisionCase4UlPriority, or- the HD-UE is not provided ntnRedCapCollisionCase4UlPriority and the transmission of the PUCCH or the PUSCH would start before $T\_{proc,2}$ after the last symbol of the PDCCH reception providing the first DCI format ~~timeline conditions for cancellation of the UL transmission as defined in clause 17.2 are not satisfied~~.A HD-UE that operates on an NTN serving cell in the RRC\_CONNECTED state, indicates *CollisionHandlingOfHDFDDOperation*, is scheduled to receive a PDSCH or CSI-RS based on an indication by a first DCI format, and is scheduled to transmit an SRS based on an indication by a second DCI format and the transmission of the SRS in a set of symbols overlaps with the PDSCH reception or CSI-RS reception, determines- to either receive the PDSCH or transmit the SRS based on the HD-UE implementation, if the first DCI format is provided by a PDCCH the HD-UE received according to a Type0/0A/1/2-PDCCH CSS set;- to receive the PDSCH or the CSI-RS if the first DCI format is not provided by a PDCCH the HD-UE received according to a Type0/0A/1/2-PDCCH CSS set, and the HD-UE is not provided *ntnRedCapCollisionCase4UlPriority*, and the first symbol from the set of symbols is not before $T\_{proc,2}$ after the last symbol of the PDCCH reception providing the first DCI format;- to transmit the SRS if the first DCI format is not provided by a PDCCH the HD-UE received according to a Type0/0A/1/2-PDCCH CSS set, and- the HD-UE is provided *ntnRedCapCollisionCase4UlPriority*, or- the HD-UE is not provided *ntnRedCapCollisionCase4UlPriority* and any symbol from the set of symbols is before $T\_{proc,2}$ after the last symbol of the PDCCH reception providing the first DCI format**<Unchanged parts omitted>** |

**Agreement**

Endorse the TP below for TS38.214 to support RV cycling and determine the initial transmission for CG-PUSCH when applying inter-slot OCC.

|  |  |
| --- | --- |
| **Reason for change:** | RV cycling for CG-PUSCH with inter-slot OCC is not defined; How to determine the first transmission occasion of CG-PUSCH is not defined when applying inter-slot OCC. |
| **Summary of Change:** | **:** Clarify that RV is still counted when PUSCH repetitions in a OCC group are dropped; The initial transmission occasion of CG-PUSCH should satisfy n mod L\_OCC = 1 when applying inter slot OCC. |
| **Consequences if not approved:** | RV cycling for CG-PUSCH with inter-slot OCC is not complete. |

-------------------- Start of TP#1 for 38.214 V19.0.0 --------------------

**6.1.2.3.1 Transport Block repetition for uplink transmissions of PUSCH repetition Type A with a configured grant**

\*\*\* Unchanged parts are omitted \*\*\*

The higher layer parameter *repK-RV* defines the redundancy version pattern to be applied to the repetitions. If *cg-RetransmissionTimer* is provided, the redundancy version for uplink transmission with a configured grant is determined by the UE. If the parameter *repK-RV* is not provided in the *configuredGrantConfig* and *cg-RetransmissionTimer* is not provided, the redundancy version for uplink transmissions with a configured grant shall be set to 0. If the parameter *repK-RV* is provided in the *configuredGrantConfig* and *cg-RetransmissionTimer* is not provided and OCC operation is not enabled, for the *n*th transmission occasion among *K* repetitions, *n*=1, 2, …, *K*, it is associated with *(mod(((n-mod(n, N))/N)-1,4)+1)th* value in the configured RV sequence, where *N*=1. When OCC operation is enabled, if the parameter *repK-RV* is provided in the *configuredGrantConfig* and *cg-RetransmissionTimer* is not provided, for the transmission occasions in the *m*th OCC group, *m=1,…*.$ \frac{K}{L\_{OCC}}$, these are associated with *((m-1)mod4+1)th* value in the configured RV sequence. If a configured grant configuration is configured with *startingFromRV0* set to *'off'*, the initial transmission of a transport block may only start at the first transmission occasion of the *K* repetitions. Otherwise, the initial transmission of a transport block may start at

- the first transmission occasion of the *K* repetitions if the configured RV sequence is {0,2,3,1},

- any of the transmission occasions of the *K* repetitions that are associated with RV=0 when OCC operation is not enabled, or any of the transmission occasions of the *K* repetitions that are associated with RV=0 and satisfy *n* mod *LOCC*=1 when OCC operation is enabled, if the configured RV sequence is {0,3,0,3},

- any of the transmission occasions of the *K* repetitions when OCC operation is not enabled, or any of the transmission occasions of the *K* repetitions that satisfy *n* mod *LOCC*=1 when OCC operation is enabled, if the configured RV sequence is {0,0,0,0}, except the last transmission occasion when *K≥8*.

\*\*\* Unchanged parts are omitted \*\*\*

-------------------- End of TP#1 for 38.214 V19.0.0 --------------------

Agreement

Endorse TP (copied from Apple R1-2505889) in R1-2506432 Section 11 to remove the brackets for [OCC group] in TS 38.214 Clause 6.1.2.1 and 6.1.2.3.1.

Agreement

Endorse TP#2 (Panasonic R1-2505976) in R1-2506432 Section 11 to revised first sentence and remove square brackets for OCC group in TS 38.214 Clause 6.1.2.3.1.

Agreement

Endorse TP (copied from ZTE R1-2505502) in R1-2506432 Section 11 for TS 38.211 Clause 6.2 to replace the placeholder “XXX” in the cross-reference to TS 38.214 with the correct clause number 6.1.2.1, ensuring accurate linkage between specifications.

Agreement

Endorse revised TP\_v1 (copied from CATT R1-2505317) for TS 38.214 Clause 6.1.2.1 in R1-2506432.

**Agreement**

**The following TP is endorsed for 38.214 Clause 6.1.2.1**

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| **Reason for change:** | When one or more repetitions of a PUSCH repetition with OCC are dropped, the remaining repetitions in the same OCC group lose the OCC orthogonality. The current specification does not prohibit the UE from transmitting those remaining repetitions when the drop occurs due to other than PUCCH overlap. |
| **Summary of change:** | Introduce a UE behavior in clause 6.1.2.1 of TS 38.214, which is a similar manner to PUSCH drop due to PUCCH overlap, that, if the UE would not transmit a repetition of the PUSCH transmission with repetition Type A with OCC operation enabled due to other than PUCCH overlap, the UE does not transmit all repetitions of the PUSCH transmission in the OCC group. |
| **Consequences if not approved:** | UEs may transmit PUSCH repetitions whose OCC orthogonality is broken, leading to inefficient use of radio resources. |

**6.1.2.1 Resource allocation in time domain**

==omitted==

For a PUSCH transmission with repetition Type A, a UE considers OCC operation enabled if it is configured with or indicated an OCC length, *LOCC* > *1*.

For a PUSCH transmission with repetition Type A and with OCC operation enabled, an OCC group is defined by *Locc* consecutive PUSCH repetitions and the integer number of OCC groups *M* is determined as *M*=*K*/*Locc* OCC group *m* includes PUSCH repetition *m* x *Locc*, *m* x *Locc*+1, .., (*m*+1) x *Locc*-1, where *m*=0,1, .., *M*-1, where repetition *i* within the OCC group will be multiplied with the OCC factor *wi*, where *i* is the repetition index within the OCC group. The OCC factor is for each repetition index *i*, based on the orthogonal sequence $w\_{n}\left(i\right)$ defined in Table 6.3.2.5A-1 and Table 6.3.2.5A-2 of [4, TS 38.211], where the sequence index *n* is derived from the DCI format scheduling the transmission for PUSCH or configured grant Type 2 PUSCH according to [5, TS 38.212, antenna port mapping to sequence], or provided by *OCCsequenceIndexCGType1-r19* for configured grant Type 1 PUSCH, and provided for actual transmission according to clause 6.3.1.2a in [4, TS 38.211], where *i*=0,1 for OCC length 2 and *i*=0,1,2,3 for OCC length 4.

If a UE would not transmit a PUSCH repetition of an OCC group of a PUSCH transmission with repetition Type A and with OCC operation enabled due to cell DRX operation, or due to overlapping with another PUSCH in the same serving cell, or according to Clause 17.2 of [6, TS 38.213], the UE does not transmit any repetition of the OCC group. The corresponding timeline conditions for determining the OCC group dropping are applicable with respect to the first repetition of the PUSCH transmission in the OCC group.

==omitted==

**2.1.1.1.3 NR-NTN uplink capacity/throughput enhancement**

None

#### 2.1.2 Remaining Open issues

None

## 2.2 RAN2

#### 2.2.1 Agreements

#### 2.2.1.1 Decisions during RAN2#131

CRs endorsed

* [R2-2506171](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2506171_was_4761%20Stage%202%20CR%20for%20NTN%20Ph3_clean.docx) Stage 2 Running CR for NR NTN phase 3 THALES (Rapporteur) CR Rel-19 38.300 18.6.0 1023 - B NR\_NTN\_Ph3-Core
* R2-2505828 Introduction of NTN Phase 3 enhancements Ericsson draftCR Rel-19 38.331 18.6.0 B NR\_NTN\_Ph3-Core
* R2-2505281 Introduction of Rel1-9 NR NTN in 38.304 ZTE Corporation, Sanechips CR Rel-19 38.304 18.4.0 0441 - B NR\_NTN\_Ph3-Core
* R2-2505489 Draft CR for Rel-19 NR NTN UE capabilities Apple draftCR Rel-19 38.331 18.6.0 B NR\_NTN\_Ph3-Core
* R2-2505490 Draft CR for Rel-19 NR NTN UE capabilities Apple draftCR Rel-19 38.306 18.6.0 B NR\_NTN\_Ph3-Core

These CRs may be further revised during short post meeting discussions.

Agreements related to RRC:

1. The maximum number configured SMTCs for idle/inactive is 7 and it also includes the SMTC of the serving cell (This updates a previous decision to have a maximum of 6 STMCs).

2. We don’t introduce new AS mechanisms to associate the ISA with relevant neighbour frequencies to perform MBS frequency prioritization

3. It is up to UE implementation how to use the ISA definition in SIB/USD to skip MCCH acquisition when it is outside the ISA of the MBS broadcast service(s) it is interested in (can further check the wording for the change in 38.300 and 38.331)

4. The Intended Service Area in the Service Announcement can be used for frequency prioritization in MBS NTN. Introduce a corresponding statement in TS 38.304 (FFS on the actual wording and whether it’s normative text or a note)

Agreements related to UE capability:

1. We introduce a capability to support STMC enhancements to FR1 (FFS on FR2 depending on RAN4 progress)

**2.2.1.1.1 Downlink coverage enhancement**

Agreements:

1. RAN2 supports to configure two different SMTC periodicities (with different offsets) for SMTCs per frequency layer for idle/inactive/connected mode, and UE capability will be introduced for this purpose (FFS if per UE or per band). If RAN4 cannot finish the corresponding RRM requirement design, we can introduce some statement in the specs in the future to limit the configuration to one periodicity only.

Agreements:

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

2 In connected mode the NW will only configure up to 4 STMC.

3. UE Assistance Information message will include information to the NW to (re)configure the most relevant SMTCs for the area where the UE is located

4. The procedure for UE assisted SMTC configuration in connected mode is follows:

 - For a UE indicating the relevant capability (FFS the name of the capability and it this is merged with some other capability) the network configures the UE via reconfiguration message with a list of reference locations and a parameter N, thereby configuring the UE to report the N closest reference locations (FFS whether also a distance threshold is indicated). If the list of reference locations is not provided, the list of reference locations provided in system information is reused.

 - The UE reports an indication of the N closest reference locations via UE assistance information, e.g. bitmap or list of indices of the locations.

 - The UE can report the N closest reference locations via the RRCReconfigurationComplete message.

 - The network configures the relevant SMTC(s). The maximum number of configured SMTCs is according to legacy UE capability in terms of SMTC support (same as legacy).

 - The UE provides an update on the set of the N closest reference locations, if changed, via UE assistance information. Upon receiving an update, the network reconfigures the relevant SMTC(s), if changed.

Agreements:

1. LCID in table 6.2.1-2C when LX field is set to 1 is used for UE to report capability/request of Msg4 PDSCH repetition.

2. No further conditions are introduced for the UE to report its capability/request for Msg4 PDSCH repetition (we can come back to this if we receive other indications from RAN1)

3. RAN2 assumes combination of below features are possible and will define a signalling to support any combination of below features using LCID values in Table 6.2.1-2c:

 - Msg4 PDSCH repetition

 - Msg4 HARQ-ACK PUCCH repetition

 - (e)RedCap

**2.1.1.1.2 Uplink capacity/throughput enhancement**

None

**2.1.1.1.3 Support of Broadcast**

Agreements:

1. RAN2 understands that for MII reporting when an ‘intended service area’ is signalled the term ‘broadcast service area’ refers to the ‘intended service area’ (no spec impact)

2. RAN2 understands that a UE may initiate MII upon entering or leaving the ISA (no spec impact)

3. RAN2 confirms that if no intended area ID is explicitly indicated in MCCH for an MBS broadcast service the UE is interested in, the UE considers the service is applicable for reception within the entire cell area, with legacy behavior applicable (FFS whether we capture this in the spec)

**2.1.1.1.4 Support of Regenerative payload**

None

#### 2.2.2 Remaining Open issues

None

## 2.3 RAN3

#### 2.3.1 Agreements

#### 2.3.1.1 Decisions during RAN3#129

Endorsed Baseline CRs:

* R3-255066 (BL CR to 38.410) Introduce NG Removal procedure (CMCC, Huawei, Nokia, Nokia Shanghai Bell, CATT, Ericsson, Qualcomm, Xiaomi, LG Electronics, China Telecom, Samsung, ZTE, NEC, ETRI) CR0051r6, TS 38.410 v18.3.0, Rel-19, Cat. B
* R3-255067 (BL CR to 38.300) Support for Regenerative Payload and MBS broadcast in NR NTN (Ericsson, Thales, Deutsche Telekom, Nokia, ESA, CATT, ZTE, Sateliot, Huawei, Dish Networks, Echostar, Eutelsat Group, Xiaomi, Samsung, CMCC, LG Electronics, NEC, Lenovo, ETRI, Jio Platforms) draftCR
* R3-255068 Support for Regenerative Payload and MBS broadcast in NR NTN (CATT, Thales, Nokia, Nokia Shanghai Bell, Ericsson, Huawei, ZTE, Qualcomm, Samsung, Xiaomi, CMCC, China Telecom, Jio Platforms, LG Electronics, NEC, ETRI, SES, ESA) CR1212r9, TS 38.413 v18.6.0, Rel-19, Cat. B

**2.3.1.1.1 Support MBS Broadcast service**

None

**2.3.1.1.2 Support of Regenerative payload**

Agreed TPs for BL CRs:

* R3-255947 (TP to BL CR for TS 38.300) Clarification on the OAM requirements (Nokia, Nokia Shanghai Bell)
* R3-255344 (TP for TS 38.410) NG Removal completion (Samsung, Huawei, Nokia, Nokia Shanghai Bell, Ericsson)
* R3-255506 (TP for TS 38.413) NG Removal completion (Huawei, LG Electronics, Nokia, Nokia Shanghai Bell, Ericsson, Thales, Jio Platforms, CATT, Qualcomm Incorporated, Deutsche Telekom,Samsung)
* R3-255948 (TP for NR\_NTN\_Ph3 TS 38.300 BL CR) Stage-2 capturing logical connection between NG Removal/Setup and ephemeris info (LG Electronics Inc., Ericsson, Nokia, Nokia Shanghai Bell, Huawei)
* R3-255949 (TP to BL CR for TS 38.300) Hard FLSO and AMF management (Huawei, Ericsson, Thales, Jio Platforms, Deutsche Telekom)

The common understandings in Chairman’s Note:

* OAM-based solution is not precluded(on provision of supported TAI list of the onboard gNB to the AMF)
* short NG/S1 interruption, causing e.g. packet loss, that may be predictable or unpredictable, e.g. hard FLSO to be further discussed in Q4

#### 2.3.2 Remaining Open issues

None

## 2.4 RAN4

#### 2.4.1 Agreements

#### 2.4.1.1 Decisions during RAN4#116

**2.4.1.1.1 Main session**

None

**2.4.1.1.2 BDaT session**

Agreed CRs

* R4-2510669 (NR\_NTN\_enh-Core) CR on phase continuity requirements for DMRS bundling, 38.101-5 v18.10.0 CR-0203 rev Cat: F (Rel-18), Source: LG Electronics
* R4-2510700 (NR\_NTN\_enh-Core) CR on phase continuity requirements for DMRS bundling, 38.101-5 v19.1.1 CR-0205 rev Cat: A (Rel-19), Source: LG Electronics France
* R4-2512634 (NR\_NTN\_enh-Core) Maintenance CR to TS 38.101-5 – Min Peak EIRP value for NTN UE in Ka-band – Cat F CR, 38.101-5 v18.10.0 CR-0211 rev Cat: F (Rel-18), Source: THALES
* R4-2512638 (NR\_NTN\_enh-Core) Maintenance CR to TS 38.101-5 – Min Peak EIRP value for NTN UE in Ka-band – Cat A CR, 38.101-5 v19.1.1 CR-0214 rev Cat: A (Rel-19), Source: THALES

**2.4.1.1.3 RRM session**

Agreed CRs

* R4-2511038 Change FR1 to FR1 NTN in NTN clause, 38.133 v19.1.0 CR-5959 rev Cat: A (Rel-19), Source: ZTECorporation,Sanechips
* R4-2509844 (NR\_NTN\_enh-Perf) CR on NTN test cases for FR2 SAN, 38.133 v19.1.0 CR-5798 rev Cat: A (Rel-19), Source: Samsung, Qualcomm Incorporated
* R4-2510636 (NR\_NTN\_enh-Core) CR on core requirements for Rel-18 NTN R19, 38.133 v19.1.0 CR-5903 rev Cat: A (Rel-19), Source: Huawei, HiSilicon
* R4-2510638 (NR\_NTN\_enh-Perf) CR on RRM test cases for Rel-18 NTN R19, 38.133 v19.1.0 CR-5905 rev Cat: A (Rel-19), Source: Huawei, HiSilicon
* R4-2511044 Modification on NR NTN measurement requirements in IDLE state, 38.133 v19.1.0 CR-5964 rev Cat: A (Rel-19), Source: ZTECorporation,Sanechips

#### 2.4.2 Remaining Open issues

None

## 3. Detailed progress in SA/CT WGs since last TSG meeting (for all involved WGs)

NOTE: This section only needs to be filled in for WI/SIs where there is a corresponding relevant WI/SI in SA/CT.

## 3.1 SA2

#### 3.1.1 Agreements with cross-TSG impacts

#### 3.1.2 Remaining Open issues with cross-TSG impacts

NOTE: This section should also flag any critical dependencies that need TSG attention.
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## 4. References

## 4.1 RAN1

**RAN1#122 meeting, Bengaluru, India, August 25-29th, 2025:**

* R1-2505282 discussion Maintenance on 3 MHz CBW and on Ku-band for NR-NTN Ericsson
* R1-2506563 other Session notes for 8.11 (Maintenance on Non-Terrestrial Networks (NTN) for NR Phase 3, Internet of Things (IoT) Phase 3, and IoT-NTN TDD mode) Ad-Hoc Chair (Huawei)
* R1-2505315 discussion Maintenance on NR-NTN downlink coverage enhancement CATT
* R1-2505387 discussion Maintenance on NR-NTN downlink coverage enhancement vivo
* R1-2505437 discussion Remaining issues on NR-NTN downlink coverage enhancement Xiaomi
* R1-2505216 discussion Maintenance on downlink coverage enhancements for NR NTN Huawei, HiSilicon
* R1-2505552 discussion Remaining issues on NR-NTN downlink coverage enhancement Samsung
* R1-2505500 discussion Remaining issues on DL coverage enhancement for NR NTN ZTE Corporation, Sanechips
* R1-2505360 discussion Maintenance on NR-NTN downlink coverage enhancement THALES
* R1-2505475 discussion Maintenance on NR-NTN downlink coverage enhancement Ericsson
* R1-2505620 discussion Maintenance on NR-NTN downlink coverage enhancement Spreadtrum, UNISOC
* R1-2505608 discussion Maintenance of Rel.19 NR-NTN Downlink Coverage Enhancement Panasonic
* R1-2505711 discussion Discussion on NR-NTN downlink coverage enhancement OPPO
* R1-2506189 discussion Downlink coverage enhancement for NR NTN Qualcomm Incorporated
* R1-2506332 discussion Discussion on Downlink Coverage Enhancement for NR NTN Google
* R1-2506280 discussion Maintenance of DL coverage enhancement for NR-NTN NTT DOCOMO, INC.
* R1-2506038 discussion NR-NTN downlink coverage enhancement MediaTek Inc.
* R1-2506045 discussion Maintenance of DL coverage enhancements for NTN operation Nokia
* R1-2506083 discussion Maintenance on NR-NTN DL coverage enhancement CMCC
* R1-2505887 discussion Maintenance of NR-NTN Downlink Coverage Enhancement Apple
* R1-2506442 discussion FL Summary #1 - maintenance on NR-NTN downlink coverage enhancements Moderator (Thales)
* R1-2506443 discussion FL Summary #2 - maintenance on NR-NTN downlink coverage enhancements Moderator (Thales)
* R1-2506444 discussion FL Summary #3 - maintenance on NR-NTN downlink coverage enhancements Moderator (Thales)
* R1-2506391 discussion Support of (e)RedCap UEs with NR NTN Sharp
* R1-2505888 discussion Remaining issues on support of RedCap UEs with NR NTN operation Apple
* R1-2506046 discussion Remaining issues related to support for RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands Nokia
* R1-2506281 discussion Maintenance of support of RedCap and eRedCap UEs in FR1-NTN NTT DOCOMO, INC.
* R1-2505712 discussion Discussion on supporting of RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands OPPO
* R1-2505501 discussion Remaining issues on RedCap/eRedCap UEs for NR NTN ZTE Corporation, Sanechips
* R1-2505553 discussion Remaining issues on RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands Samsung
* R1-2505217 discussion Maintenance on HD-FDD RedCap UEs and eRedCap UEs for FR1-NTN Huawei, HiSilicon
* R1-2505438 discussion Remaining issues on the support of RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands Xiaomi
* R1-2505388 discussion Maintenance on support of RedCap and eRedCap UEs with NR-NTN vivo
* R1-2505316 discussion Maintenance on Support of RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands CATT
* R1-2505277 discussion Maintenance on HD-FDD RedCap UEs for NTN Ericsson
* R1-2506526 discussion Summary #1 for Support of RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands Moderator (CATT)
* R1-2506527 discussion Summary #2 for Support of RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands Moderator (CATT)
* R1-2506613 discussion Summary #3 for Support of RedCap and eRedCap UEs with NR NTN operating in FR1-NTN bands Moderator (CATT)
* R1-2506591 discussion Feature lead summary #3: NR-NTN uplink capacity and throughput enhancements Moderator (MediaTek)
* R1-2505317 discussion Maintenance on NR-NTN uplink capacity/throughput enhancement CATT
* R1-2505389 discussion Maintenance on NR-NTN uplink capacity enhancement vivo
* R1-2505218 discussion Maintenance on uplink capacity/throughput enhancement for FR1-NTN Huawei, HiSilicon
* R1-2505141 discussion Maintenance on uplink capacity enhancements for NR-NTN Ericsson
* R1-2505554 discussion Remaining issues on NR-NTN uplink capacity/throughput enhancement Samsung
* R1-2505502 discussion Remaining issues on UL capacity enhancement for NR NTN ZTE Corporation, Sanechips
* R1-2505497 discussion NR-NTN uplink capacity/throughput enhancement Xiaomi
* R1-2505619 discussion Maintenance on NR-NTN uplink capacity and throughput enhancement Spreadtrum, UNISOC
* R1-2505713 discussion Discussion on NR-NTN uplink capacity/throughput enhancement OPPO
* R1-2506282 discussion Maintenance of NR-NTN uplink capacity/throughput enhancement NTT DOCOMO, INC.
* R1-2506190 discussion NR-NTN uplink capacity / throughput enhancement Qualcomm Incorporated
* R1-2506047 discussion Maintenance of UL capacity enhancements for NTN operation Nokia
* R1-2506084 discussion Maintenance of NR-NTN uplink capacity/throughput enhancement CMCC
* R1-2505889 discussion Maintenance of NR-NTN Uplink Capacity Enhancement Apple
* R1-2506432 discussion Feature lead summary #1: NR-NTN uplink capacity and throughput enhancements Moderator (MediaTek)
* R1-2506433 discussion Feature lead summary #2: NR-NTN uplink capacity and throughput enhancements Moderator (MediaTek)
* R1-2506434 discussion Feature lead summary #2: NR-NTN uplink capacity and throughput enhancements Moderator (MediaTek)
* R1-2505976 discussion Maintenance of uplink capacity/throughput enhancement for NR-NTN Panasonic

## 4.2 RAN2

**RAN2#131 meeting, Bengaluru, India, August 25-29th, 2025:**

* R2-2506054 CR ISA-aided frequency (de)prioritisation for MBS broadcast in NTN (RRC\_IDLE/INACTIVE) Jio Platforms Limited
* R2-2505747 CR Clarify UE use of SIBXX (ISA) to gate MCCH acquisition for MBS broadcast in NTN Jio Platforms Limited
* R2-2505748 CR ISA-aided frequency (de)prioritisation for MBS broadcast in NTN Jio Platforms
* R2-2505744 CR Clarify SMTC2-LP offset assumption for NTN (align with SMTC/SMTC4list) Jio Platforms
* R2-2505827 discussion Inclusion of the ISA in the Service Announcement Ericsson
* R2-2505828 draftCR Introduction of NTN Phase 3 enhancements Ericsson
* R2-2505825 discussion Remaining RRC open issues for NR NTN Rel-19 Ericsson
* R2-2506137 CR Introduction of stage 2 for LTE TN to NR NTN idle mode mobility Samsung
* R2-2506171 CR Stage 2 Running CR for NR NTN phase 3 THALES (Rapporteur)
* R2-2506175 CR k-Mac extension for NR NTN THALES, Samsung
* R2-2506144 CR Introduction of LTE TN to NR NTN IDLE mode mobility CATT
* R2-2505233 CR Introduction of LTE TN to NR NTN IDLE mode mobility CATT
* R2-2505281 CR Introduction of Rel1-9 NR NTN in 38.304 ZTE Corporation, Sanechips
* R2-2505283 CR Introduce UE capability signalling for NTN less than 5MHz ZTE Corporation, Xiaomi, Sanechips
* R2-2505282 CR Introduction of less than 5MHz in NTN ZTE Corporation, Xiaomi, Sanechips
* R2-2505147 CR Introduction of stage 2 for LTE TN to NR NTN idle mode mobility Samsung
* R2-2505067 LS in Reply on Inclusion of NTN intended service area in the Service Announcement (S4-251099; contact: Ericsson) SA4
* R2-2505050 LS in Reply LS on SMTC enhancements (R4-2508433; contact: Xiaomi) RAN4
* R2-2505023 LS in LS on NR-NTN TP for TS 38.300 (NR\_NTN\_Ph3; contact: Thales) RAN1
* R2-2505024 LS in LS on Msg4 PDSCH repetition (R1-2504936; contact: Thales) RAN1
* R2-2505489 draftCR Draft CR for Rel-19 NR NTN UE capabilities Apple
* R2-2505490 draftCR Draft CR for Rel-19 NR NTN UE capabilities Apple
* R2-2505389 CR Introduction of LTE TN to NR NTN Mobility UE Capability vivo
* R2-2505421 discussion Open issues on Downlink Coverage Enhancement Samsung
* R2-2505351 discussion Discussions on downlink coverage enhancement Fujitsu
* R2-2505491 discussion SMTC enhancement in NTN Apple
* R2-2505492 discussion Msg4 PDSCH repetition in NTN Apple
* R2-2505532 discussion Discussion on beam hopping with multiple SMTC offsets Qualcomm Incorporated
* R2-2505533 discussion Msg4 PDSCH repetition capability indication Qualcomm Incorporated
* R2-2505642 discussion Discussions on supporting multiple SMTC periodicities for inter-frequency neighbour cells ITRI
* R2-2505635 discussion Msg3 indication on support of Msg4 PDSCH repetition Nokia, Nokia Shanghai Bell
* R2-2505636 discussion Discussion on Remaining Issues of DL coverage enhancement Beijing Xiaomi Mobile Software
* R2-2505608 discussion Discussion on DL coverage enhancement for NTN OPPO
* R2-2505078 discussion Remaining Issues on SMTC Enhancements for NTN vivo
* R2-2505079 discussion Remaining Issues on Repetition Enhancements for NTN vivo
* R2-2505284 discussion Consideration on remaining issues on SMTC enhancements ZTE Corporation, Sanechips
* R2-2505285 discussion Consideration on Msg4 PDSCH repetition ZTE Corporation, Sanechips
* R2-2505293 discussion Remaining consideration on NR NTN downlink coverage enhancements DENSO CORPORATION
* R2-2505225 discussion Discussion on link level enhancement CATT
* R2-2505226 discussion Discussion on potential SMTC enhancements CATT
* R2-2506150 discussion Details on DL CE in NR NTN NERCDTV
* R2-2506153 discussion DL coverage enhancements Ericsson
* R2-2506154 discussion Discussion on Reply LS on SMTC enhancements Ericsson
* R2-2506052 discussion Discussion on DL coverage enhancements Huawei, HiSilicon
* R2-2505953 discussion Discussion on DL coverage enhancements due to extended SSB periodicity CMCC
* R2-2505925 discussion Remaining issues on Downlink coverage enhancements Nokia, Nokia Shanghai Bell
* R2-2505707 discussion Clarification on downlink coverage enhancement NEC
* R2-2505985 discussion Downlink coverage enhancement for NTN InterDigital, Inc.
* R2-2506013 discussion Open Issues for NR NTN DL Coverage Enhancements in Rel-19 ETRI
* R2-2506014 discussion Discussion on Downlink Coverage Enhancements CSCN, ZTE Corporation, Sanechips, Huawei, HiSilicon, CATT
* R2-2506018 discussion Discussion on Downlink Coverage Enhancements Sharp
* R2-2505688 discussion Some remaining issues for DL-CE in NTN Lenovo
* R2-2505922 discussion On OCC applicability to RACH-less handovers Samsung
* R2-2505956 discussion Remaining issues on uplink capacity and throughput enhancement for NR NTN CMCC
* R2-2505436 discussion Discussion on Uplink Capacity Enhancements Huawei, HiSilicon
* R2-2505422 discussion Open issues on Broadcast service area Samsung
* R2-2505352 discussion Discussions on supporting broadcast service Fujitsu, Ericsson
* R2-2505572 discussion Discussion on providing MBS service area in NTN network OPPO
* R2-2505227 discussion Further discussion on support of broadcast service in NR NTN CATT
* R2-2505286 discussion Consideration on remaining issues on broadcast service enhancements ZTE Corporation, Sanechips
* R2-2505080 discussion Remaining Issues on MBS Broadcast Provision in NTN vivo
* R2-2505149 discussion Remaining issues on the support of broadcast service in NTN ETRI
* R2-2505957 discussion Remaining issues on broadcast service for NR NTN CMCC
* R2-2506017 discussion Remaining issues on intended service area Sharp
* R2-2505716 discussion Remaining Issues for MBS in NTN Nokia, Nokia Shanghai Bell
* R2-2505689 discussion Some remaining issues for MBS and ETWS broadcast Lenovo
* R2-2505669 discussion The remaning issue of MBS in NTN China Telecommunications
* R2-2505767 discussion Remaining open issues for MBS service continuity over NTN Continental Automotive
* R2-2505979 discussion Discussion on the remaining issues on the MBS Xiaomi
* R2-2505822 discussion Support for broadcast services in NR NTN Ericsson
* R2-2505895 discussion Discussion on MBS broadcast over NTN Huawei, HiSilicon
* R2-2505879 discussion Remaining issues on support of regenerative payload ETRI, Korea University
* R2-2505660 discussion Satellite switch with re-sync in regenerative payload Sony
* R2-2505706 discussion Stage 2 updates for regenerative payload NEC

## 4.3 RAN3

**RAN3#129 meeting, Bengaluru, India, August 25-29th, 2025:**

* R3-255066 CR (BL CR to 38.410) Introduce NG Removal procedure CMCC, Huawei, Nokia, Nokia Shanghai Bell, CATT, Ericsson, Qualcomm, Xiaomi, LG Electronics, China Telecom, Samsung, ZTE, NEC, ETRI
* R3-255067 draftCR (BL CR to 38.300) Support for Regenerative Payload and MBS broadcast in NR NTN Ericsson, Thales, Deutsche Telekom, Nokia, ESA, CATT, ZTE, Sateliot, Huawei, Dish Networks, Echostar, Eutelsat Group, Xiaomi, Samsung, CMCC, LG Electronics, NEC, Lenovo, ETRI, Jio Platforms
* R3-255068 CR Support for Regenerative Payload and MBS broadcast in NR NTN CATT, Thales, Nokia, Nokia Shanghai Bell, Ericsson, Huawei, ZTE, Qualcomm, Samsung, Xiaomi, CMCC, China Telecom, Jio Platforms, LG Electronics, NEC, ETRI, SES, ESA
* R3-255179 other (TP to BL CR for TS38.300) Support of NG Suspend Resume CATT, ZTE, Nokia, Nokia Shanghai Bell, Qualcomm, CMCC, Samsung, China Telecom, LG Electronics, Xiaomi
* R3-255180 other (TP to BL CR for TS38.300) OAM configuration for supported TAI list CATT, Nokia, Nokia Shanghai Bell, ZTE, Samsung, China Telecom, CSCN, CMCC, LG Electronics, NEC, Xiaomi
* R3-255024 LS in Reply LS on OAM requirements to support regenerative payload transport links SA2(CATT)
* R3-255212 other (TP to BL CR for TS 38.300 on NR\_NTN\_Ph3) Discussion on NTN leftover issue NEC
* R3-255262 discussion Remaing issues for NR NTN ZTE Corporation
* R3-255263 other (TP to BL CR for 38.413) Support of NG Suspend and Resume Indication ZTE Corporation, CATT, Nokia, Nokia Shanghai Bell, Qualcomm, CMCC, Samsung, China Telecom, LG Electronics, Xiaomi
* R3-255264 other (TP to BL CR for 38.413) Support of MBS Broadcast ZTE Corporation
* R3-255287 discussion Remaining Issues on Support of NTN Regenerative Architecture TCL
* R3-255292 other (TP to BL CR for TS 38.300) Clarification on the OAM requirements Nokia, Nokia Shanghai Bell
* R3-255617 other (TP for NR\_NTN\_Ph3 TS 38.300 BL CR) Stage-2 capturing logical connection between NG Removal/Setup and ephemeris info LG Electronics Inc., Ericsson, Nokia, Nokia Shanghai Bell, Huawei
* R3-255602 discussion Reconsideration on NG Suspend/Resume Signaling for FLSO Jio Platforms
* R3-255545 discussion TAI Coordination and OAM Ericsson, Huawei
* R3-255546 discussion Downlink NG Transmission Suspend/Resume Ericsson, Thales, Huawei, Jio Platforms, Airbus, ESA, Sateliot, Deutsche Telekom
* R3-255547 other Downlink NG Transmission Suspend/Resume – Stage 2 TP Ericsson, Thales, Huawei, Jio Platforms, Airbus, ESA, Sateliot, Deutsche Telekom
* R3-255548 other Downlink NG Transmission Suspend/Resume – NGAP TP Ericsson, Thales, Huawei, Jio Platforms, Airbus, ESA, Sateliot, Deutsche Telekom
* R3-255510 other (TP to BLCR for TS 38.300) Further discussion on TAI configuration Huawei, Jio Platforms, Ericsson
* R3-255506 other (TP for TS 38.413) NG Removal completion Huawei, LG Electronics, Nokia, Nokia Shanghai Bell, Ericsson, Thales, Jio Platforms, CATT, Qualcomm Incorporated, Deutsche Telekom,Samsung
* R3-255508 other (TP to BL CR for TS 38.300) Hard FLSO and AMF management Huawei, Ericsson, Thales, Jio Platforms, Deutsche Telekom
* R3-255334 other (TP to BL CR TS 38.300) Support of NG suspend/resume Xiaomi
* R3-255335 LS out (Draft LS out) Support of NG suspend resume Xiaomi
* R3-255343 discussion Remaining issues on support of regenerative payload for NR NTN Samsung
* R3-255344 other (TP for TS 38.410) NG Removal completion Samsung, Huawei, Nokia, Nokia Shanghai Bell, Ericsson
* R3-255382 discussion NG transmission suspend resume procedure China Telecom
* R3-255442 discussion (TP for TS 38.413) Introduce gNB-initiated AMF switch signaling to support UE context transfer for regenerative NTN gNB mobility Jio Platforms
* R3-255702 other (TP to BLCR for TS 38.300) Indicator for NG Suspend/Resume CMCC
* R3-255640 CR Optional NGAP IEs for node-level indication of temporary NTN feeder-link outage via RAN CONFIGURATION UPDATE (gNBAMF) Jio Platforms Limited
* R3-255671 discussion Discussion on impacts on Xn interface with SMTC enhancment CSCN
* R3-255672 other (TP to BL CR for TS 38.300 on NR\_NTN\_Ph3) Stage 2 Updates for Regenerative Payload NEC
* R3-255310 CR nodelevel indication of temporary NTN feeder-link outage via RAN CONFIGURATION UPDATE Jio Platforms

## 4.4 RAN4

**RAN4#116 meeting, Bengaluru, India, August 25-29th, 2025:**

* R4-2509069 other Topic summary for [116][226] NR\_NTN\_Ph3\_Part1 Moderator (CATT)
* R4-2509070 other Topic summary for [116][227] NR\_NTN\_Ph3\_Part2 Moderator (Qualcomm)
* R4-2511455 other Topic summary for [116][309] NR\_NTN\_Ph3\_General\_UE\_SAN\_RF Moderator (Qualcomm)
* R4-2511477 other Topic summary for [116][331] NR\_NTN\_Ph3\_demod Moderator (Ericsson)
* R4-2512145 other Ad-hoc minutes for NR\_NTN\_Ph3 CATT
* R4-2512146 other WF on RRM requirements for NR\_NTN\_Ph3\_Part1 CATT
* R4-2512147 other WF on RRM requirements for NR\_NTN\_Ph3\_Part2 Qualcomm
* R4-2512605 other Topic summary for [116][331] NR\_NTN\_Ph3\_demod Moderator (Ericsson)
* R4-2510259 other Discussion on simultaneous operation between GNSS and UL transmission in NR NTN vivo
* R4-2510260 LS out Draft reply LS on simultaneous operation between GNSS and UL transmission in NR NTN vivo
* R4-2511444 LS out LS reply on IDC of GNSS Ericsson
* R4-2511399 CR Big CR to TS 38.101-5: NR\_NTN\_PH3-Core UE RF Qualcomm Incorporated
* R4-2511108 other Discussion on Tx requirements for NR NTN HPUE Huawei, HiSilicon
* R4-2510787 discussion Discussion on Rel-19 NR-NTN RedCap UE RF requirements MediaTek (Hefei) Inc.
* R4-2510306 other RedCap NTN UEs Nokia
* R4-2510363 other Discussion on UE RF for NR NTN phase 3 ZTE Corporation, Sanechips
* R4-2509359 other Discussion on RF requirements for NTN RedCap UE CATT
* R4-2511398 draftCR Draft CR to TS 38.101-5: Introduction of RedCap and eRedCap Qualcomm Incorporated
* R4-2511418 other On remaining open issues in NR NTN Ph3 Huawei, HiSilicon
* R4-2511396 other NR NTN UE RF requirements Qualcomm Incorporated
* R4-2511442 draftCR draftCR to 38.101-5 for power boosting Ericsson
* R4-2511440 other RedCap UE RF impact on HD-FDD Ericsson
* R4-2512536 draftCR draftCR to 38.101-5 for power boosting Ericsson
* R4-2509360 other Discussion on feature list for NR NTN Ph3 CATT
* R4-2510261 other Discussion on requirements for the phase continuity and power consistency for OCC with PUSCH in NR NTN Ph3 vivo
* R4-2510262 LS out Draft reply LS on requirements for the phase continuity and power consistency for OCC with PUSCH in NR NTN Ph3 vivo
* R4-2509938 discussion Phase continuity for OCC and GNSS IDC issue Sony
* R4-2512535 draftCR draftCR 38.101-5 Introduction of phase continuity requirement for OCC Huawei, HiSilicon
* R4-2512641 LS out reply LS on requirements for the phase continuity and power consistency for OCC with PUSCH in NR NTN Ph3 vivo
* R4-2511441 other Other NTN UE RF impact Ericsson
* R4-2511397 other NR NTN UL Capacity Enhancements Qualcomm Incorporated
* R4-2511419 draftCR draftCR 38.101-5 Introduction of phase continuity requirement for OCC Huawei, HiSilicon
* R4-2511050 CR Modification on NR frequency band groups for satellite access in FR1 ZTE Corporation, Sanechips
* R4-2511051 draftCR (NR\_NTN\_Ph3-Core) Cell Re-selection for RedCap UEs with NTN in IDLE state ZTECorporation,Sanechips
* R4-2511052 draftCR (NR\_NTN\_Ph3-Core) Cell Re-selection for RedCap UEs with NTN in INACTIVE state ZTECorporation,Sanechips
* R4-2511022 other Discussion on RRM requirements for RedCap NTN enhancement ZTECorporation,Sanechips
* R4-2511077 draftCR Draft CR38.133 CG-SDT requirements for RedCap in NTN Nokia
* R4-2511078 draftCR Draft CR38.133 RA-SDT requirements for RedCap in NTN Nokia
* R4-2511114 draftCR (NR\_NTN\_Ph3-Core) Cell Re-selection for RedCap UEs with NTN in IDLE state ZTECorporation,Sanechips
* R4-2511115 draftCR (NR\_NTN\_Ph3-Core) Cell Re-selection for RedCap UEs with NTN in INACTIVE state ZTECorporation,Sanechips
* R4-2510660 discussion Discussion on RRM requirements for RedCap UE in NTN Huawei, HiSilicon
* R4-2510661 draftCR draftCR on HO requirements for RedCap UE in NTN Huawei, HiSilicon
* R4-2509704 other On RRM requirements of (e)RedCap UEs with NR FR1-NTN OPPO
* R4-2509705 draftCR Draft CR for requirements of LR for RedCap UEs with NTN OPPO
* R4-2509708 draftCR (Netw\_Energy\_NR-Core) CR on intra-frequency definition for Rel-18 SSB-less SCell OPPO
* R4-2510490 discussion Discussion on RRM requirements on (e)RedCap for R19 NR NTN Phase 3 vivo
* R4-2510492 draftCR Draft CR for requirements in signalling characteristics for (e)Redcap UEs with FR1-NTN vivo
* R4-2509777 discussion Discussion on (e)RedCap RRM requirements in NTN for NR Phase 3 Xiaomi
* R4-2509778 draftCR (NR\_NTN\_Ph3) draftCR on 9.5E L1-RSRP measurements for Reporting for RedCap UEs with NTN Xiaomi
* R4-2509839 discussion Discussion on RRM requirements of RedCap in Rel-19 NTN phase 3 Samsung
* R4-2509955 discussion Discussion on RRM core requirements for (e)RedCap in NR NTN Nokia
* R4-2510033 discussion Discussion on the RRM requirement of (e)Redcap UE for NTN phase3 CMCC
* R4-2510034 draftCR (NR\_NTN\_Ph3-Core) draftCR on Introduce inter-frequency measurement requirements for RedCap UEs over NTN CMCC
* R4-2510035 draftCR (NR\_NTN\_Ph3-Core) draftCR on Introduce MDT requirements for RedCap UEs over NTN CMCC
* R4-2510381 discussion Discussion on RedCap RRM requirements for NTN for NR Phase 3 Ericsson
* R4-2509501 discussion On R19 NTN (e)RedCap RRM requirements Apple
* R4-2509502 draftCR draft CR for NR measurements for positioning for RedCap UEs with NTN Apple
* R4-2509240 draftCR Draft CR on RRC Connection Mobility Control for RedCap UEs with NTN Samsung
* R4-2509222 draftCR DraftCR on timing requirements for NTN Redcap MediaTek inc.
* R4-2509292 discussion Discussion on (e)RedCap RRM requirements for Rel-19 NTN phase3 CATT
* R4-2509293 draftCR Draft CR to TS 38.133 for RedCap UEs with NTN CATT
* R4-2509294 CR CR to TS 38.307 on introducing release independence for RedCap UEs with NTN CATT
* R4-2509295 CR Big CR for RRM requirements of NR NTN Phase 3 CATT
* R4-2511373 CR CR to TS 38.307 on introducing release independence for RedCap UEs with NTN CATT
* R4-2511511 draftCR draft Cat-B CR on 8.1E Radio Link Monitoring for RedCap UEs with NTN Qualcomm Incorporated
* R4-2511512 discussion RedCap for NTN Qualcomm Incorporated
* R4-2512290 draftCR DraftCR on timing requirements for NTN Redcap MediaTek inc.
* R4-2512291 draftCR Draft CR on RRC Connection Mobility Control for RedCap UEs with NTN Samsung
* R4-2512292 draftCR Draft CR to TS 38.133 for RedCap UEs with NTN CATT, Ericsson
* R4-2512298 draftCR Draft CR for requirements in signalling characteristics for (e)Redcap UEs with FR1-NTN vivo
* R4-2512296 draftCR (NR\_NTN\_Ph3-Core) draftCR on Introduce inter-frequency measurement requirements for RedCap UEs over NTN CMCC
* R4-2512297 draftCR (NR\_NTN\_Ph3-Core) draftCR on Introduce MDT requirements for RedCap UEs over NTN CMCC
* R4-2512293 draftCR draft CR for NR measurements for positioning for RedCap UEs with NTN Apple
* R4-2512294 draftCR Draft CR for requirements of LR for RedCap UEs with NTN OPPO
* R4-2512295 draftCR (NR\_NTN\_Ph3) draftCR on 9.5E L1-RSRP measurements for Reporting for RedCap UEs with NTN Xiaomi
* R4-2512302 draftCR (NR\_NTN\_Ph3-Core) Cell Re-selection for RedCap UEs with NTN in IDLE state ZTECorporation,Sanechips
* R4-2512303 draftCR (NR\_NTN\_Ph3-Core) Cell Re-selection for RedCap UEs with NTN in INACTIVE state ZTECorporation,Sanechips
* R4-2512300 draftCR Draft CR38.133 CG-SDT requirements for RedCap in NTN Nokia
* R4-2512301 draftCR Draft CR38.133 RA-SDT requirements for RedCap in NTN Nokia
* R4-2512299 draftCR draftCR on HO requirements for RedCap UE in NTN Huawei, HiSilicon
* R4-2512304 draftCR draft Cat-B CR on 8.1E Radio Link Monitoring for RedCap UEs with NTN Qualcomm Incorporated
* R4-2509296 discussion Discussion on other RRM requirements for Rel-19 NTN phase3 CATT
* R4-2509223 discussion Discussion on RRM requirements for SSB of 160 ms periodicity MediaTek inc.
* R4-2509503 discussion On R19 other NTN RRM requirements Apple
* R4-2509638 discussion Discussion on RRM requirements for downlink coverage enhancement in NTN LG Electronics Inc.
* R4-2510382 discussion Discussion on other RRM requirements for NTN for NR Phase 3 Ericsson
* R4-2510384 draftCR (NR\_NTN\_Ph3-Core) draft CR on Handover for SAN with 6 SMTCs and different periodicities Ericsson
* R4-2510036 discussion Discussion on the RRM requirement for NTN phase3 DL CE CMCC
* R4-2509840 discussion Discussion on RRM requirements of other aspects in Rel-19 NTN phase 3 Samsung
* R4-2509779 discussion Discussion on other RRM core requirements in NTN for NR Phase 3 Xiaomi
* R4-2509780 draftCR (NR\_NTN\_Ph3) draftCR on 4.2C Cell Re-selection requirememts for SMTC enhancement Xiaomi
* R4-2510491 discussion Discussion on RRM impacts on DL coverage for R19 NR NTN Phase 3 vivo
* R4-2510662 LS out Discussion on other RRM requirements for Rel-19 NTN Huawei, HiSilicon
* R4-2510663 draftCR draftCR on RRC re-establishement requirements for Rel-19 NTN Huawei, HiSilicon
* R4-2511021 other Discussion on RRM requirements for downlink coverage enhancement ZTECorporation,Sanechips
* R4-2511278 discussion Impact of DL coverage enhancement on SMTC configuration and measurement requirements Nokia
* R4-2512308 draftCR DraftCR to TS 38.133 on Measurmement Requirements under SMTC enhancements for DL Coverage Nokia
* R4-2512307 draftCR draftCR on RRC re-establishement requirements for Rel-19 NTN Huawei, HiSilicon
* R4-2512305 draftCR (NR\_NTN\_Ph3) draftCR on 4.2C Cell Re-selection requirememts for SMTC enhancement Xiaomi
* R4-2512306 draftCR (NR\_NTN\_Ph3-Core) draft CR on Handover for SAN with 6 SMTCs and different periodicities Ericsson
* R4-2511513 discussion Downlink coverage enhancement for NTN Qualcomm Incorporated
* R4-2511576 draftCR DraftCR to TS 38.133 on Measurmement Requirements under SMTC enhancements for DL Coverage Nokia
* R4-2511023 other Discussion on RRM performance requirements for NR NTN phase3 ZTECorporation,Sanechips
* R4-2510664 discussion Discussion on performance requirements for Rel-19 NTN Huawei, HiSilicon
* R4-2510493 discussion Discussion on RRM performance requirements of NTN for NR Phase 3 vivo
* R4-2509706 other On RRM performance requirements of (e)RedCap UEs with NR FR1-NTN OPPO
* R4-2509841 discussion Discussion on RRM performance requirements of Rel-19 NTN Phase3 Samsung
* R4-2510037 discussion Discussion on test cases for Rel-19 NTN Phase3 CMCC
* R4-2509956 discussion Discussion on RRM performance requirements for NR\_NTN\_Ph3 Nokia
* R4-2510383 discussion Discussion on RRM Performance requirements for NTN for NR Phase 3 Ericsson
* R4-2509297 discussion Discussion on Rel-19 NR NTN phase3 RRM performance requirements CATT
* R4-2509169 discussion Discussion on UE demodulation requirements for Rel-19 NR-NTN MediaTek inc.
* R4-2509110 discussion Discussion on Rel-19 NTN Demod performance requirements Nokia
* R4-2509489 discussion On UE Demodulation Requirements for NTN Phase 3 Apple
* R4-2509398 discussion Discussion and simulation results on demodulation requirement for NR NTN Samsung
* R4-2510397 discussion Discussion on Rel-19 NR NTN Phase 3 performance requirements Ericsson
* R4-2510398 discussion Simulation results for Rel-19 NR NTN Phase 3 performance requirements Ericsson
* R4-2510869 discussion Discussion on NR NTN Phase 3 demodulation performance requirements Huawei,HiSilicon
* R4-2511596 discussion Discussions on demodulation performance requirements for RedCap and eRedCap UEs over NR-NTN QUALCOMM Europe Inc. - Spain

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