3GPP TSG-RAN WG2 Meeting #119 electronic R2-2208701

Online, Aug 2022

**Agenda item: 10.2**

**Source: Vice Chairman (ZTE Corporation)**

**Title: Report from Break-out session on NR-NTN, IoT-NTN, REDCAP and CE**

**Document for: Approval**

General

Recording of voice or video at meetings is not used in 3GPP. This applies also to this e-Meeting. At this e-Meeting, no specific actions are taken to prevent the recording of web conferences. Companies that have concerns related to recordings, if any, may express those by email in the main meeting organizational thread [AT119-e][000]

Organizational

1. All organization emails and notes will be shared over the following email discussion throughout the meeting:
* [AT119-e][100] ****Organizational – NR-NTN, IoT-NTN, REDCAP and CE session (RAN2 VC)****

Scope:

* + - Share plans for the meeting and list of ongoing email discussions for the sessions related to NR-NTN, IoT-NTN, REDCAP and CE
		- Share meetings notes and agreements for review and endorsement

Schedule/Plan

WEEK 1:

|  |  |  |  |
| --- | --- | --- | --- |
| **Time ZoneUTC** | **Web Conference R2 - Main** | **Web Conference R2 - BO1** | **Web Conference R2 - BO2** |
| **Wednesday** |  |  |  |
| 12:30-13:30 | NR17 IAB ePowSav (Johan) | NR17 MUSIM, Upto 71Ghz, RAN Slice Selected early Items (Tero) | SL Maintenance, if needed (Kyeongin)NR17 SL enh (Kyeongin) |
| 13:30-14:30 | NR17 feMIMO (Johan) | NR17 Small Data Enh (Diana)NR17 IIOT (Diana) | NR17 SL Relay (Nathan) |
| 14:30-15:30 | NR17 DCCA (Tero) | NR151617 UP, if needed (Diana)NR17 RACH indication / partitioning (Diana) | NR17 Pos (Nathan) |
| **Thursday** |  |  |  |
| 12:30-13:30 | NR17 MBS (Dawid) | **NR17 IoT-NTN (Sergio)****- 7.2.1****- 7.2.2: offline 104 (CR timer)****- 7.2.3: offline 105 (RRC corrections)****- 7.2.4****- 7.2.5** | EUTRA R17 and earlier, if needed (Tero)NR17 QoE (Tero) |
| 13:30-14:30 | NR151617 CP, if needed (Johan)NR17 MGE PRN Other (Johan) | **NR17 NTN (Sergio)****- 6.10.1****- 6.10.2: offline 101 (UP corrections)****- 6.10.3.2.1: offline 102 (SMTC and gaps)****- 6.10.3.2.3: offline 103 (Other RRC corrections)****- 6.10.3.1** | NR17 Pos (Nathan) |
| 14:30-15:30 | NR18 Mobile IAB (Johan) | **NR17 Cov Enh (Sergio)****- 6.19.1****- 6.19.2****NR17 Redcap (Sergio)****- 6.12.1****- 6.12.2****- 6.12.3** | NR17 SON MDT (HuNan) |
| **Friday** |  |  |  |
| 03:30-04:30 | NR18 Mobility (Johan) | NR18 XR (Tero) | NR18 Enh SL relay (Nathan) |
| 04:30-05:30 | NR18 MBS (Dawid) | **NR18 NR NTN (Sergio)****- 8.7.1****- 8.7.2****- 8.7.3** | NR18 Enh Pos (Nathan) |

WEEK 2:

|  |  |  |  |
| --- | --- | --- | --- |
| **Time ZoneUTC** | **Web Conference R2 - Main** | **Web Conference R2 - BO1** | **Web Conference R2 - BO2** |
| **Monday** |  |  |  |
| 12:30-13:30 | NR18 Mobility (Johan) | NR18 XR (Tero)  | NR18 Enh Pos (Nathan) |
| 13:30-14:30 | NR18 Mobility (Johan) | NR18 XR (Tero)  | NR18 Enh Pos (Nathan) |
| 14:30-15:30 | NR18 Mobility (Johan) | NR18 QoE (Tero)  | NR18 Network Energy Saving (Diana) |
| **Tuesday** |  |  |  |
| 12:30-13:30 | NR18 Other (Johan) | **EUTRA18 IoT NTN (Sergio)****- 8.6.2** | NR18 NC repeater (Sasha) |
| 13:30-14:30 | NR18 SONMDT (HuNan) | **EUTRA18 IoT NTN (Sergio)****- 8.6.3****- 8.6.4** | NR18 UAV (Diana) |
| 14:30-15:30 | NR18 SONMDT (HuNan) | **NR18 NR NTN (Sergio)****- 8.7.4** | NR18 Network Energy Saving (Diana) |
| **Wednesday** |  |  |  |
| 12:30-13:30 | NR18 IDC (Yi)  | NR18 XR (Tero) | NR18 Enh SL relay (Nathan) |
| 13:30-14:30 | NR18 IDC (Yi) (+30min if needed)NR17 MBS CB (Dawid) | NR17 CB (Diana) | NR17 CB (Nathan) |
| 14:30-15:30 | NR17 feMIMO CB (Johan) | NR17 CB (Diana) | NR17 CB (Kyeongin) |
| **Thursday** |  |  |  |
| 03:30-04:30 | NR151617 CP Centric CB (Johan) | NR17 CB (Sergio) | NR17/EUTRA CB (Tero) |
| 04:30-05:30 | NR17 CB (Johan) | NR17/E17 CB (Sergio) | NR17 TBD |
| **Friday** |  |  |  |
| 03:30-04:30 | TBD | TBD | TBD |
| 04:30-05:30 | TBD | TBD | TBD |

WEEK 3 (optional):

|  |  |  |  |
| --- | --- | --- | --- |
| **Time ZoneUTC** | **Web Conference R2 - Main** | **Web Conference R2 - BO1** |  |
| **Monday** |  |  |  |
| 12:30 - 15:30 | Related to Late R17 LS ins, if needed | Related to Late R17 LS ins, if needed |  |

List and status of offline email discussions

NOTE: No offline email discussions will be kicked off before Tuesday Aug 16th, 19:00 UTC

* [AT119-e][101][NR-NTN] UP corrections (Interdigital)

Initial scope: Discuss UP corrections based on contributions in 6.10.2

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0200 UTC

Initial deadline (for rapporteur's summary in R2-2208751): Thursday 2022-08-18 1000 UTC

* [AT119-e][102][NR-NTN] SMTC and gaps (Intel)

Initial scope: Discuss corrections related to remaining SMTC and gaps issues (from proposals in R2-2207068, R2-2207149, R2-2207243, R2-2207268, R2-2207269, R2-2207270, R2-2207271, R2-2208214, R2-2208466)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208752): Thursday 2022-08-18 1000 UTC

* [AT119-e][103][NR-NTN] Other RRC corrections (Oppo)

Initial scope: Discuss corrections related to validity timer (from proposals in R2-2207053, R2-2207063, R2-2207066, R2-2207631, R2-2208362, R2-2208363, R2-2208378, R2-2208657, R2-2208659)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208753): Thursday 2022-08-18 1000 UTC

* [AT119-e][104][IoT-NTN] CR timer (ZTE)

Initial scope: Discuss corrections related to contention resolution timer (from proposals in R2-2207056, R2-2207351, R2-2207600, R2-2207824, R2-2208563)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208754): Thursday 2022-08-18 1000 UTC

* [AT119-e][105][IoT-NTN] RRC corrections (Huawei)

Initial scope: Discuss corrections related to pre-compensation gaps for segmented transmission, coarse UE location reporting and neighbour cell ephemeris (from proposals in R2-2207059, R2-2207308, R2-2208684, R2-2208294, R2-2208574, R2-2207150, R2-2207151)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208755): Thursday 2022-08-18 1000 UTC

## 6.10 NR Non-Terrestrial Networks (NTN)

(NR\_NTN\_solutions-Core; leading WG: RAN2; REL-17; WID: [RP-211557](file:///C%3A%5CData%5C3GPP%5Carchive%5CRAN%5CRAN%2392%5CTdocs%5CRP-211557.zip))

Tdoc Limitation: 5 tdocs

### 6.10.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

#### 6.10.1.1 LS in

For LSes that need action: one tdoc by contact company to address the LS and potential reply is considered.

Rapporteur input may be provided.

Measurement gap enhancements

[R2-2206948](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206948_R4-2210611.docx) Reply LS on measurement gap enhancements for NTN (R4-2210611; contact: Intel) RAN4 LS in Rel-17 NR\_NTN\_solutions, NR\_MG\_enh To:RAN2

* Noted

[R2-2207271](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207271%20Discussion%20on%20RAN4%20reply%20LS%20on%20measurement%20gaps.docx) Discussion on RAN4 reply LS on measurement gaps Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

* Discussed in offline 102

User Consent

[R2-2206968](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206968_S3-221268.docx) LS reply on Reply LS on NTN specific User Consent and UE location in connected mode in NTN (S3-221268; contact: Ericsson) SA3 LS in Rel-17 NR\_NTN\_solutions-Core To:RAN2 Cc:SA2, RAN3, CT1, CT4

Other

[R2-2207067](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207067%20NTN%20not%20allowed%20PLMN.doc) Discussion on CT1 LS on not allowed PLMN at the current location OPPO discussion Rel-17 NR\_NTN\_solutions-Core

#### 6.10.1.2 Rapporteur inputs

CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

Stage 2

[R2-2207065](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207065NTN%20stage-2%20correction.docx) NTN Stage-2 correction OPPO, Thales CR Rel-17 38.300 17.1.0 0494 - F NR\_NTN\_solutions-Core

[R2-2207322](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207322%20Rel-17%20NTN%20Stage-2%20%28Rapporteur%29%20corrections.docx) Rel-17 NTN Stage-2 (Rapporteur) corrections Nokia, Nokia Shanghai Bell CR Rel-17 38.300 17.1.0 0509 - F NR\_NTN\_solutions-Core

MAC CR

[R2-2208272](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208272%20NTN%20Corrections%20for%20TS%2038321_%5BR2-119e%5D.docx) Corrections to Release-17 NR Non-Terrestrial Networks (NTN): RAN2#119e InterDigital CR Rel-17 38.321 17.1.0 1378 - F NR\_NTN\_solutions-Core

38.304 CR

[R2-2208329](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208329_REL-17_CR0277_Miscellaneous%20corrections%20on%2038.304.docx) Miscellaneous corrections on 38.304 ZTE Corporation, Sanechips, CMCC, vivo, Apple CR Rel-17 38.304 17.1.0 0277 - F NR\_NTN\_solutions-Core

RRC CR

Moved here from 6.0.1

[R2-2207927](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207927%20-%20R17%20NR%20NTN%20RRC%20Corrections.docx) Corrections for Release-17 NTN RRC  Ericsson          discussion   NR\_NTN\_solutions-Core

[R2-2207924](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207924%20CR3326%2038331%20Rel-17%20CR%20NTN.docx) Corrections for Release-17 NTN Ericsson CR Rel-17 38.331 17.1.0 3326 - F NR\_NTN\_solutions-Core

Other

[R2-2207097](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207097-Rel-17%20NR_NTN_solutions%20WI_Summary_v3.doc) Draft Summary for NR support for Non-Terrestrial Networks (NTN) THALES WI summary Rel-17 NR\_NTN\_solutions

* Revised in [R2-2208925](file:///C%3A%5CData%5C3GPP%5CRAN2%5CInbox%5CR2-2208925.zip)

[R2-2208925](file:///C%3A%5CData%5C3GPP%5CRAN2%5CInbox%5CR2-2208925.zip) Draft Summary for NR support for Non-Terrestrial Networks (NTN) THALES WI summary Rel-17 NR\_NTN\_solutions

### 6.10.2 User Plane

#### 6.10.2.1 MAC corrections

All contributions initially discussed in offline [101]

[R2-2207240](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207240%206.10.2.1%20TA%20report.docx) Discussion on TA report Samsung Research America discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2207241](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207241%206.10.2.1%20MAC%20other.docx) Discussion on remaining MAC issues Samsung Research America discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2207443](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207443_38.321CR1317_NTN%20UL%20synchronization%20correction%20in%20MAC.docx) NTN UL synchronization correction in MAC Apple CR Rel-17 38.321 17.1.0 1317 - F NR\_NTN\_solutions-Core

[R2-2207596](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207596%20Discussion%20on%20the%20issue%20of%20outdated%20UE%20TA%20at%20NW%20side.doc) Discussion on the issue of outdated UE TA at NW side Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2207598](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207598%20Correction%20on%20maintenance%20of%20UL%20synchronization%20in%20MAC.docx) Correction on maintenance of UL synchronization in MAC Huawei, HiSilicon CR Rel-17 38.321 17.1.0 1326 - F NR\_NTN\_solutions-Core

[R2-2207628](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207628%20Remaining%20issue%20on%20UL%20synchronization%20in%20NR%20NTN.docx) Remaining issue on UL synchronization in NR NTN vivo discussion

[R2-2207629](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207629%20On%20corrections%20to%20random%20access%20procedure%20in%20NR%20NTN.docx) On corrections to random access procedure in NR NTN vivo discussion

[R2-2208273](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208273%20%28R17%20NTN%20WI%20AI%206.10.2.1%29%20Msg3%20blind%20retx.docx) Blind Msg3 retransmission in Rel-17 NTN InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208274](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208274%20%28R17%20NTN%20WI%20AI%206.10.2.1%29%20SR%20configuration.docx) SR configuration for Timing Advance MAC CE InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208275](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208275%20%28R17%20NTN%20WI%20AI%206.10.2.1%29%20TAR%20clarifications.docx) Clarifications to the Timing Advance reporting procedure InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208382](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208382%20Correction%20on%20TA%20Reporting%20Triggering%20Condition%20for%20NTN%20in%20TS%2038.321.docx) Correction on TA Reporting Triggering Condition for NTN in TS 38.321 CATT CR Rel-17 38.321 17.1.0 1384 - F NR\_NTN\_solutions-Core

[R2-2208560](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208560%20On%20issues%20for%20Timing%20Advance%20Report%20MAC%20CE.docx) On issues for Timing Advance Report MAC CE Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208569](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208569%20On%20remaining%20UP%20issues%20in%20NTN.doc) Remaining UP issues in NTN ZTE Corporation, Sanechips discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208570](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208570.docx) Correction to 38321 on TA report ZTE Corporation, Sanechips CR Rel-17 38.321 17.1.0 1391 - F NR\_NTN\_solutions-Core

[R2-2208571](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208571.docx) Correction to 38321 on ra-ContentionResolutionTimer ZTE Corporation, Sanechips CR Rel-17 38.321 17.1.0 1392 - F NR\_NTN\_solutions-Core

[R2-2208576](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208576%2038.321%20cr%20Clarification%20on%20the%20condition%20of%20contention%20resolution%20not%20successful.docx) Clarification on the condition of contention resolution not successful Xiaomi CR Rel-17 38.321 17.1.0 1393 - F NR\_NTN\_solutions-Core

[R2-2208675](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208675%20-%20R17%20NR%20NTN%20User%20Plane%20issues.docx) R17 NR NTN User Plane issues Ericsson discussion Rel-17

* [AT119-e][101][NR-NTN] UP corrections (Interdigital)

Initial scope: Discuss UP corrections based on contributions in 6.10.2

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0200 UTC

Initial deadline (for rapporteur's summary in R2-2208751): Thursday 2022-08-18 1000 UTC

R2-2208751 [offline-101] UP Corrections InterDigital discussion Rel-17 NR\_NTN\_solutions-Core

#### 6.10.2.2 Other

Contributions on any other UP issues.

All contributions initially discussed in offline [101]

[R2-2207052](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207052-%20left%20issues%20on%20UP%20in%20NTN.doc) left issues on UP in NTN OPPO discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2207341](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207341%20TA%20report.doc) Outdated UE specific Koffset Qualcomm Incorporated discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2207671](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207671%20Discussion%20on%20the%20RA%20counter%20in%20case%20of%20ephemeris%20update.doc) Discussion on the RA counter in case of ephemeris update Spreadtrum Communications discussion Rel-17

[R2-2208561](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208561%20On%20Msg3%20blind%20retransmission%20and%20UE%20behaviour%20upon%20validity%20timer%20expiry.docx) On Msg3 blind retransmission and UE behaviour upon validity timer expiry Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208678](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208678%20-%20R17%20NR%20NTN%20stage%202%20corrections.docx) R17 NR NTN stage 2 corrections Ericsson discussion Rel-17

### 6.10.3 Control Plane

#### 6.10.3.1 Idle inactive mode corrections

Contributions on 38.304 impacts.

[R2-2207323](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207323%20Rel-17%20NTN%20IDLE%20mode%20corrections.docx) Rel-17 NTN IDLE mode corrections Nokia, Nokia Shanghai Bell CR Rel-17 38.304 17.1.0 0258 - F NR\_NTN\_solutions-Core

[R2-2207440](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207440_38.304CR0260_%28Rel-17%29_Clarification%20on%20the%20suitable%20cell%20in%20NTN_v0.docx) Clarification on the suitable cell in NTN Apple CR Rel-17 38.304 17.1.0 0260 - F NR\_NTN\_solutions-Core

[R2-2207632](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207632%20Clarification%20on%20time-based%20cell%20reselection%20in%20TS%2038.304.docx) Clarification on time-based cell reselection in TS 38.304 vivo CR Rel-17 38.304 17.1.0 0266 - F NR\_NTN\_solutions-Core

[R2-2207863](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207863.docx) Discussion on the acquisition and prediction of ephemeris for SIB19 BUPT discussion Rel-17

[R2-2208094](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208094%20-%20R17%20NR%20NTN%20Idle%20mode%20issues.docx) R17 NR NTN Idle mode corrections Ericsson discussion NR\_NTN\_solutions-Core

[R2-2208137](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208137.docx) Correction on Measurement rules for cell re-selection for NR NTN Samsung R&D Institute UK CR Rel-17 38.304 17.1.0 0272 - F NR\_NTN\_solutions-Core

[R2-2208379](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.304_CR0278%28Rel-17%29_R2-2208379%20%7FMiscellaneous%20corrections%20on%2038.304.docx) Miscellaneous corrections on 38.304 CATT CR Rel-17 38.304 17.1.0 0278 - F NR\_NTN\_solutions-Core

#### 6.10.3.2 RRC corrections

##### 6.10.3.2.1 SMTC and gaps

SMTC and gaps related corrections

Two concurrent gaps for one frequency layer

Moved here from 6.10.3.2.3

[R2-2207068](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207068%20NTN%2038.306%20CR.docx) Correction on NTN UE capabiltiy OPPO CR Rel-17 38.306 17.1.0 0758 - F NR\_NTN\_solutions-Core

* Discussed in offline 102

[R2-2207149](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207149%20Remaining%20issues%20on%20SMTCs%20and%20gaps.doc) Remaining issues on SMTCs and gaps Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

* Discussed in offline 102

[R2-2207243](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207243%206.10.3.2.1%20331%20CR%20for%20SMTC.docx) Draft 331 CR for NR NTN SMTC Samsung Research America draftCR Rel-17 38.331 17.1.0 F NR\_NTN\_solutions-Core

* Discussed in offline 102

Moved here from 6.10.3.2.3

[R2-2207268](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207268%20Draft%20331%20CR%20for%20NR%20NTN%20measurement%20related%20UE%20capabilities.docx) Draft 331 CR for NR NTN measurement related UE capabilities Intel Corporation draftCR Rel-17 38.331 17.1.0 F NR\_NTN\_solutions-Core

* Discussed in offline 102

[R2-2207269](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207269%20Draft%20306%20CR%20for%20NR%20NTN%20measurement%20related%20UE%20capabilities.docx) Draft 306 CR for NR NTN measurement related UE capabilities Intel Corporation draftCR Rel-17 38.306 17.1.0 F NR\_NTN\_solutions-Core

* Discussed in offline 102

[R2-2207270](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207270%20Discussion%20on%20UE%20capability%20for%202%20SMTC%20in%20parallel.docx) Discussion on UE capability for 2 SMTC in parallel Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

* Discussed in offline 102

[R2-2208214](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208214%20Correction%20to%20associate%20two%20concurrent%20measurement%20gaps%20to%20one%20frequency%20layer%20for%20NR%20NTN.docx) Correction to associate two concurrent measurement gaps to one frequency layer for NR NTN Nokia, Nokia Shanghai Bell CR Rel-18 38.331 17.1.0 3382 - F NR\_NTN\_solutions-Core

* Discussed in offline 102

[R2-2208466](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208466%2038331%20draftCR%20Correction%20for%20measurement%20gap.docx) Correction for measurement gap Xiaomi draftCR Rel-17 38.331 17.1.0 NR\_NTN\_solutions-Core

* Discussed in offline 102
* [AT119-e][102][NR-NTN] SMTC and gaps (Intel)

Initial scope: Discuss corrections related to remaining SMTC and gaps issues (from proposals in R2-2207068, R2-2207149, R2-2207243, R2-2207268, R2-2207269, R2-2207270, R2-2207271, R2-2208214, R2-2208466)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208752): Thursday 2022-08-18 1000 UTC

R2-2208752 [offline-102] SMTC and gaps Intel Corporation discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2207242](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207242%206.10.3.2.1%20SMTC%20discussion.docx) Discussion on SMTC related issues Samsung Research America discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2207344](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR3251_%28Rel-17%29_R2-2207344%20Boundary%20alignment.docx) Correction to the frame boundary alignment indication from the source Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3251 - F NR\_NTN\_solutions-Core

[R2-2207345](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR3252_%28Rel-17%29_R2-2207345%20Report%20SMTC%20error.docx) Reporting SMTC issue in measurement results Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3252 - F NR\_NTN\_solutions-Core

##### 6.10.3.2.2 CHO

CHO related corrections

[R2-2207672](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207672%20Discussion%20on%20the%20ephemeris%20information%20in%20CHO%20procedure.doc) Discussion on the ephemeris information in CHO procedure Spreadtrum Communications discussion Rel-17

[R2-2208534](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.331_CR3433_Rel-17_R2-2208534%20Correction%20of%20entering%20and%20leaving%20condition%20of%20CondEventT1.docx) Correction of entering and leaving condition of CondEventT1 LG Electronics France CR Rel-17 38.331 17.1.0 3433 - F NR\_NTN\_solutions-Core

##### 6.10.3.2.3 Other

Contributions on any other RRC issues.

Validity timer for neighbour cells

[R2-2207053](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207053-%20Correction%20to%20RRC-MAC%20interaction%20on%20UL%20synchronisation%20in%20NTN.doc) Correction to RRC-MAC interaction on UL synchronisation in NTN OPPO CR Rel-17 38.331 17.1.0 3212 - F NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2207063](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207063%20Discussion%20on%20how%20to%20handle%20the%20validity%20timer%20for%20neighbor%20cells.doc) Discussion on how to handle the validity timer for neighbor cells OPPO discussion Rel-17 NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2207066](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207066%20NTN%20RRC%20correction.docx) NTN RRC correction OPPO CR Rel-17 38.331 17.1.0 3214 - F NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2207441](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207441_The%20impact%20on%20HO%20by%20the%20validity%20of%20the%20UL%20sync%20assistance%20info_v0.doc) The impact on HO by the validity of the UL sync assistance info Apple discussion Rel-17 NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2207631](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207631%20Remaining%20issues%20on%20validity%20timer%20in%20NR%20NTN.docx) Remaining issues on validity timer in NR NTN vivo discussion

* Discussed in offline 103

[R2-2208362](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208362%20Discussion%20on%20validity%20timer%20for%20serving%20cell%20and%20neighbour%20cell.docx) Discussion on validity timer for serving cell and neighbour cell ASUSTeK discussion Rel-16 38.331 NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2208363](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208363%20Discussion%20on%20T430%20for%20handover.docx) Discussion on T430 for handover ASUSTeK discussion Rel-16 38.331 NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2208378](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208378%20Discussion%20on%20Neighbor%20Satellite%20Assistance%20Information.docx) Discussion on Neighbor Satellite Assistance Information CATT discussion Rel-17 NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2208657](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208657_Issues%20related%20to%20NR%20NTN%20epoch%20time.docx) Issues related to NR NTN epoch time Sequans Communications discussion Rel-17 38.331 NR\_NTN\_solutions-Core

* Discussed in offline 103

[R2-2208659](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208659_NTN%20Configuration%20at%20Handover%20and%20CHO.docx) NTN Configuration at Handover and CHO Sequans Communications discussion Rel-17 38.331 NR\_NTN\_solutions-Core

* Discussed in offline 103
* [AT119-e][103][NR-NTN] Other RRC corrections (Oppo)

Initial scope: Discuss corrections related to validity timer (from proposals in R2-2207053, R2-2207063, R2-2207066, R2-2207631, R2-2208362, R2-2208363, R2-2208378, R2-2208657, R2-2208659)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208753): Thursday 2022-08-18 1000 UTC

R2-2208753 [Offline-103] Other RRC corrections OPPO discussion Rel-17 NR\_NTN\_solutions-Core

UE location

[R2-2207141](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207141_corrections%20of%20UE%20location%20aspects_v02.doc) Correction of UE location aspects in NTN Thales, Xiaomi discussion Rel-17 38.300 NR\_NTN\_solutions

[R2-2207144](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207144_NR-NTN%20Stg2%20CR_v02.docx) Correction of UE location aspects in NTN Thales, Xiaomi draftCR Rel-17 38.300 17.1.0 NR\_NTN\_solutions

[R2-2207597](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207597%20Discussion%20on%20the%20UE%20location%20reporting.doc) Discussion on the UE location reporting Huawei, HiSilicon discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208575](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208575%2038.331%20cr%20correction%20on%20coarselocationrequest.docx) correction on coarselocationrequest Xiaomi, Thales CR Rel-17 38.331 17.1.0 3444 - F NR\_NTN\_solutions-Core

[R2-2208288](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208288%20CR%2038331-3399%20Rel-17%20NR%20NTN%20coarse%20location.docx) Correction to coarseLocationInfo field description for NR NTN Eutelsat S.A. CR Rel-17 38.331 17.1.0 3399 - F NR\_NTN\_solutions-Core

Neighbour cell list

[R2-2207343](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR3250_%28Rel-17%29_R2-2207343%20List%20of%20NTN%20freq.docx) List of frequencies and satellite index for a neighbor satellite in SIB19 Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3250 - F NR\_NTN\_solutions-Core

[R2-2207148](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207148%20Remaining%20issues%20on%20ephemeris%20provision.doc) Remaining issues on ephemeris provision Huawei, HiSilicon, Thales discussion Rel-17 NR\_NTN\_solutions-Core

Necessity of SIB19

[R2-2207439](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207439_38.331CR3263_%28Rel-17%29_Clarification%20on%20the%20necessity%20of%20SIB19%20in%20NTN%20cell_v0.docx) Clarification on the necessity of SIB19 in NTN cell Apple CR Rel-17 38.331 17.1.0 3263 - F NR\_NTN\_solutions-Core

[R2-2208578](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208578%20Correction%20on%20missing%20the%20action%20upon%20not%20being%20able%20to%20acquire%20SIB19.docx) Correction on missing the action upon not being able to acquire SIB19 Xiaomi CR Rel-17 38.331 17.1.0 3446 - F NR\_NTN\_solutions-Core

Access restriction

[R2-2207630](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207630%20Correction%20on%20access%20restriction%20for%20NR%20NTN%20in%20TS%2038.331.docx) Correction on access restriction for NR NTN in TS 38.331 vivo CR Rel-17 38.331 17.1.0 3299 - F NR\_NTN\_solutions-Core

TA report

[R2-2207769](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR3311_%28Rel-17%29_R2-2207769%20Corrections%20to%20TA%20Report%20in%20RRC%20Connection%20Reestablishment.docx) Corrections to TA Report in RRC Connection Reestablishment Google Inc. CR Rel-17 38.331 17.1.0 3311 - F NR\_NTN\_solutions-Core

[R2-2207777](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR3313_%28Rel-17%29_R2-2207777%20Corrections%20to%20TA%20Report%20in%20RRC%20Connection%20Resume.docx) Corrections to TA Report in RRC Connection Resume Google Inc. CR Rel-17 38.331 17.1.0 3313 - F NR\_NTN\_solutions-Core

[R2-2208577](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208577%2038.331%20cr%20correction%20on%20triggering%20TA%20report%20during%20HO.docx) correction on triggering TA report during HO Xiaomi CR Rel-17 38.331 17.1.0 3445 - F NR\_NTN\_solutions-Core

Misc RRC corrections

[R2-2207324](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2207324.zip) Rel-17 NTN corrections to NR RRC Nokia, Nokia Shanghai Bell CR Rel-17 38.331 17.1.0 3247 - F NR\_NTN\_solutions-Core Late

* Validity timer aspects handled in offline 103

[R2-2208381](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208381%20Miscellaneous%20corrections%20on%2038.331.docx) Miscellaneous corrections on 38.331 CATT discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208538](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.331_CR3434_Rel-17_R2-2208538_Miscellaneous%20corrections%20for%20NTN.docx) Miscellaneous corrections for NTN LG Electronics CR Rel-17 38.331 17.1.0 3434 - F NR\_NTN\_solutions-Core

Misc 38.306 corrections

[R2-2208537](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.306_CR0794_Rel-17_R2-2208537_CorrectionNTNCapabilities.docx) Corrections to NTN capabilities LG Electronics CR Rel-17 38.306 17.1.0 0794 - F NR\_NTN\_solutions-Core, NR\_redcap-Core

[R2-2208679](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208679%20-%20R17%20NR%20NTN%20UE%20Capability%20issues.docx) R17 NR NTN UE Capability issues Ericsson discussion Rel-17

Misc Stage 2 corrections

[R2-2207442](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207442_Clarification%20on%20the%20features%20supported%20in%20NTN%20network_v0.doc) Clarification on the features supported in NTN network Apple discussion Rel-17 NR\_NTN\_solutions-Core

[R2-2208380](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.300_CR0538%28Rel-17%29_R2-2208380%20%7FMiscellaneous%20corrections%20on%2038.300.docx) Miscellaneous corrections on 38.300 CATT CR Rel-17 38.300 17.1.0 0538 - F NR\_NTN\_solutions-Core

harq-ProcessNumberSizeDCI-0-2

[R2-2208364](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208364%20Discussion%20on%20configuration%20of%20harq-ProcessNumberSizeDCI-0-2.docx) Discussion on configuration of harq-ProcessNumberSizeDCI-0-2 ASUSTeK discussion Rel-16 38.331 NR\_NTN\_solutions-Core

Other enhancements

[R2-2207342](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38331_CR3249_%28Rel-17%29_R2-2207342%20Same%20ULTSRP.docx) Same ULTSRP indication of the target cell during handover Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3249 - F NR\_NTN\_solutions-Core

[R2-2207889](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207889.docx) Discussion on whether the inactive state of RRC enables in specific scenarios for NTN BUPT discussion Rel-17

## 6.12 Reduced Capability

(NR\_redcap-Core; leading WG: RAN1; REL-17; WID: [RP-211574](file:///C%3A%5CData%5C3GPP%5Carchive%5CRAN%5CRAN%2392%5CTdocs%5CRP-211574.zip))

Tdoc Limitation: 4 tdocs

### 6.12.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

#### 6.12.1.1 LS in

For LSes that need action: one tdoc by contact company to address the LS and potential reply is considered.

Rapporteur input may be provided.

Offset to transmit CD-SSB and NCD-SSB at different times

[R2-2206924](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206924_R1-2205535.docx) Reply LS on introduction of an offset to transmit CD-SSB and NCD-SSB at different times (R1-2205535; contact: Ericsson) RAN1 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:RAN4

* Noted (already considered at RAN2#118-e)

[R2-2206944](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206944_R4-2210599.docx) Reply LS on introduction of an offset to transmit CD-SSB and NCD-SSB at different times (R4-2210599; contact: Ericsson) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:RAN1

* Noted (already considered at RAN2#118-e)

CGI reading

[R2-2206941](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206941_R4-2210593.docx) LS on CGI reading with autonomous gaps for RedCap (R4-2210593; contact: Ericsson) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2

Measurement capability

[R2-2206942](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206942_R4-2210594.docx) LS on measurement capability for RedCap (R4-2210594; contact: CMCC) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2 Cc:RAN1

RRM relaxation

[R2-2206943](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206943_R4-2210598.docx) Reply LS on RRM relaxation for Redcap (R4-2210598; contact: vivo) RAN4 LS in Rel-17 NR\_redcap-Core To:RAN2

#### 6.12.1.2 Rapporteur inputs

CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

Stage 2

[R2-2208219](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208219%20-%20RedCap%20corrections%20in%20TS%2038300.docx) Corrections on RedCap in TS 38.300 Nokia, Nokia Shanghai Bell, Huawei CR Rel-17 38.300 17.1.0 0535 - F NR\_redcap-Core

MAC CR

[R2-2207746](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.321_CR1336_%28Rel-17%29_R2-2207746_Miscellaneous%20CR%20on%20TS%2038.321%20for%20RedCap.docx) Miscellaneous CR on TS 38.321 for RedCap vivo CR Rel-17 38.321 17.1.0 1336 - F NR\_redcap-Core

RRC CR

[R2-2208306](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208306%20-%20Miscellaneous%20corrections%20for%20RedCap%20WI%20-%20TS%2038.331.docx) Miscellaneous corrections for RedCap WI Ericsson CR Rel-17 38.331 17.1.0 3400 - F NR\_redcap-Core

38.304 CR

[R2-2208307](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208307%20-%20Miscellaneous%20corrections%20for%20RedCap%20WI%20-%20TS%2038.304.docx) Miscellaneous corrections for RedCap WI Ericsson CR Rel-17 38.304 17.1.0 0276 - F NR\_redcap-Core

### 6.12.2 Control Plane

#### 6.12.2.1 NCD-SSB aspects

Corrections/clarifications on NCD-SSB aspects

SSB time offset

[R2-2207464](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207464-CR-331-redcap-tdd-offset.docx) CR on handling time domain offset of CD and NCD-SSB Apple CR Rel-17 38.331 17.1.0 3267 - F NR\_redcap-Core

[R2-2207465](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207465-CR-306-redcap-tdd-offset.docx) CR on handling time domain offset of CD and NCD-SSB Apple CR Rel-17 38.306 17.1.0 0768 - F NR\_redcap-Core

[R2-2208136](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208136%20Correction%20to%20definition%20and%20values%20of%20ssb-TimeOffset%20for%20NCD-SSB.doc) Correction to definition and values of ssb-TimeOffset for NCD-SSB Qualcomm Incorporated CR Rel-17 38.331 17.1.0 3360 - F NR\_redcap-Core

[R2-2207619](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207619%20Remaining%20issues%20on%20NCD-SSB%20for%20RedCap.docx) Remaining issues on NCD-SSB for RedCap Huawei, HiSilicon discussion Rel-17 NR\_redcap-Core

Measurement related issues

[R2-2207041](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207041%20Clarification%20on%20reference%20SSB%20for%20intra-frequency%20and%20inter-frequency%20measurements.docx) Clarification on reference SSB for intra- and inter-frequency measurements for RedCap UEs Qualcomm Incorporated CR Rel-17 38.300 17.1.0 0508 - F NR\_redcap-Core

[R2-2208383](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208383%20Correction%20on%20description%20of%20SSB%20based%20intra-frequency%20measurement%20for%20RedCap%20UE.docx) Correction on description of SSB based intra-frequency measurement for RedCap UE CATT CR Rel-17 38.300 17.1.0 0539 - F NR\_redcap-Core

Corrections on initial BWP and rach-ConfigCommon

[R2-2208308](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208308%20-%20Clarification%20on%20the%20field%20description%20of%20rach-ConfigCommon%20for%20RedCap%20UEs.docx) Clarification on the field description of rach-ConfigCommonfor for RedCap UEs Ericsson CR Rel-17 38.331 17.1.0 3401 - F NR\_redcap-Core

[R2-2207748](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.331_CR3307%28Rel-17%29_%20R2-2207748_Correction%20on%20RRC%20for%20RedCap.docx) Correction on RRC for RedCap vivo, Guangdong Genius CR Rel-17 38.331 17.1.0 3307 - F NR\_redcap-Core

Other

Moved here from 6.12.2.2

[R2-2207747](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207747_Discussion%20on%20NCD-SSB%20for%20RedCap.docx) Discussion on NCD SSB for RedCap UEs vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

[R2-2207995](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207995%20Clarification%20of%20BWP%20operation%20in%20Connected%20mode.docx) Clarification of BWP operation in Connected mode MediaTek Inc. discussion Rel-17 NR\_redcap-Core

[R2-2208111](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208111%20Correction%20on%20RedCap-specific%20initial%20BWP.docx) Correction on RedCap-specific initial BWP ZTE Corporation, Sanechips CR Rel-17 38.300 17.1.0 0529 - F NR\_redcap-Core

[R2-2208311](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2208311.zip) Introducing capability bit for RedCap UEs to indicate NCD-SSB support Ericsson discussion Rel-17 NR\_redcap-Core Late

[R2-2208398](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208398%20CR%20for%20RACH%20operation%20during%20SI%20update%20when%20the%20active%20BWP%20contains%20no%20CD-SSB_v1.docx) CR for RACH operation during SI update when the active BWP contains no CD-SSB LG Electronics Inc. CR Rel-17 38.331 17.1.0 3414 - F NR\_redcap-Core

#### 6.12.2.2 Other RRC corrections

Contributions on any other RRC issues.

SI request on SUL

[R2-2208386](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208386%20Discussion%20and%20TP%20on%20the%20SI%20request%20on%20SUL%20for%20RedCap.docx) Discussion and TP on the SI request on SUL for RedCap CATT discussion Rel-17 NR\_redcap-Core

Proposal 1: RAN2 discuss the behavior of RedCap UE for SI request in the following scenario:

* SUL is configured, the bandwidth of which is not larger than the maximum bandwidth of RedCap, and
* RedCap-specific initial UL BWP is configured

And two optional solutions are:

Option 1: clarify that the configured supplementary uplink can also be used by RedCap UE for SI request or positioning SI request, even the RedCap-specific initial UL BWP is configured.

Option 2: update the corresponding the procedure to preclude Redcap UE using configured supplementary uplink, if RedCap-specific initial UL BWP is configured.

Inter-RAT mobility

[R2-2207230](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207230%20-%20Correction%20on%20inter-RAT%20handover%20from%20E-UTRA%20to%20NR%20for%20RedCap.docx) Correction on inter-RAT handover from E-UTRA to NR for RedCap Sequans Communications, Huawei, HiSilicon CR Rel-17 38.300 17.1.0 0505 - F NR\_redcap-Core

[R2-2207069](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207069%20RedCap%20HO.doc) Discussion on inter-RAT mobility from LTE to NR OPPO discussion Rel-17 NR\_redcap-Core

[R2-2207996](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207996%20Inter%20RAT%20handover%20from%20LTE%20to%20NR.docx) Inter-RAT handover from LTE to NR MediaTek Inc. discussion Rel-17 NR\_redcap-Core

eDRX

[R2-2207054](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207054-%20Clarification%20on%20support%20of%20eDRX.doc) Clarification on support of eDRX OPPO CR Rel-17 38.331 17.1.0 3213 - F NR\_redcap-Core

[R2-2207055](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207055-%20Clarification%20on%20UE%20support%20of%20eDRX.doc) Clarification on UE support of eDRX OPPO CR Rel-17 38.306 17.1.0 0757 - F NR\_redcap-Core

[R2-2208631](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208631%20Correction%20on%20eDRX%20allowed%20indication%20and%20PDCCH-ConfigCommon.docx) Correction on eDRX allowed indication and PDCCH-ConfigCommon ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3456 - F NR\_redcap-Core

[R2-2208632](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208632%20Correction%20on%20eDRX%20allowed%20indication%20and%20BFD.docx) Correction on eDRX allowed indication and BFD ZTE Corporation, Sanechips CR Rel-17 38.300 17.1.0 0544 - F NR\_redcap-Core

Corrections on PDCCH-ConfigCommon

[R2-2207620](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207620%20Corrections%20on%20PDCCH-ConfigCommon%20for%20RedCap%20initial%20BWP.docx) Corrections on PDCCH-ConfigCommon for RedCap initial BWP Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3297 - F NR\_redcap-Core

[R2-2207209](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207209%2038.331%20Corrections%20on%20PDCCH-ConfigCommon%20for%20Redcap.docx) 38.331 Corrections on PDCCH-ConfigCommon for Redcap Xiaomi Communications draftCR Rel-17 38.331 17.1.0 NR\_redcap-Core

[R2-2208309](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208309%20-%20Clarification%20on%20the%20field%20description%20of%20commonControlResourceSet%20for%20RedCap%20UEs.docx) Clarification on the field description of commonControlResourceSet for RedCap UEs Ericsson CR Rel-17 38.331 17.1.0 3402 - F NR\_redcap-Core

[R2-2208924](file:///C%3A%5CData%5C3GPP%5CRAN2%5CInbox%5CR2-2208924.zip) Correction on PUCCH-ConfigCommon for RedCap UE ZTE Corporation, Sanechips CR Rel-17 38.331 17.1.0 3463 - F NR\_redcap-Core Late

UE capabilities

[R2-2207386](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207386%20_%202TX%20and%202UL%20MIMO%20for%20RedCap%20UEs.docx) Alignment on the support of 2TX and 2UL MIMO for RedCap UEs Intel Corporation, Huawei discussion Rel-17 NR\_redcap-Core

Initial DL BWP

[R2-2208385](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208385%20Corrections%20on%20RedCap%20specific%20initial%20DL%20BWP%20related%20description.docx) Corrections on RedCap specific initial DL BWP related description CATT CR Rel-17 38.331 17.1.0 3413 - F NR\_redcap-Core

[R2-2208438](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208438%C2%A0Remaining%C2%A0aspect%C2%A0on%C2%A0RedCap%C2%A0initial%C2%A0DL%C2%A0BWP.docx) Remaining aspect on RedCap initial DL BWP CMCC discussion Rel-17 NR\_redcap-Core

[R2-2208439](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2208439.zip) Corrections on RedCap initial DL BWP CMCC CR Rel-17 38.331 17.1.0 3420 - F NR\_redcap-Core

Other

[R2-2207621](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207621%20Corrections%20on%20the%20relaxed%20measurement%20criterion%20and%20smtc%20field%20for%20RedCap.docx) Corrections on the relaxed measurement criterion and smtc field for RedCap Huawei, HiSilicon CR Rel-17 38.331 17.1.0 3298 - F NR\_redcap-Core

[R2-2208310](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2208310.zip) Paging configuration for RedCap UEs in the initial DL BWP Ericsson discussion Rel-17 NR\_redcap-Core Late

Other Stage 2

[R2-2207751](file:///C%3A%5CData%5C3GPP%5CExtracts%5C38.300_CR0517%28Rel-17%29_%20R2-2207751_Correction%20on%20TS%2038.300%20for%20RedCap.docx) Correction on TS 38.300 for RedCap vivo CR Rel-17 38.300 17.1.0 0517 - F NR\_redcap-Core

Withdrawn

[R2-2208155](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208155%20-%20Correction%20of%20need%20codes%20and%20field%20descriptions%20for%20DMRS%20bundling.docx) Correction on UERadioPagingInformation and UERadioPagingInfo container Ericsson CR Rel-17 38.331 17.1.0 3364 - F NR\_newRAT-Core, NR\_redcap-Core Withdrawn

R2-2207749 Correction on capability for RedCap vivo, Guangdong Genius CR Rel-17 38.306 17.1.0 0777 - F NR\_redcap-Core Late

#### 6.12.2.3 Idle inactive mode corrections

Contributions on 38.304 issues

[R2-2207007](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207007_DraftCR_38304_Correction%20to%20description%20of%20first-PDCCH-MonitoringOccasionOfPO.docx) Correction to description of first-PDCCH-MonitoringOccasionOfPO Samsung Electronics Co., Ltd draftCR Rel-17 38.304 17.1.0 NR\_redcap-Core

[R2-2207207](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207207%2038.304%20Correction%20on%20the%20e-DRX%20for%20Redcap.docx) 38.304 Correction on the e-DRX for Redcap Xiaomi Communications draftCR Rel-17 38.304 17.1.0 NR\_redcap-Core

[R2-2207622](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207622%20Corrections%20on%20the%20intra-FreqReselection%20and%20eDRX%20supporting%20for%20RedCap.docx) Corrections on the intra-FreqReselection and eDRX supporting for RedCap Huawei, HiSilicon CR Rel-17 38.304 17.1.0 0265 - F NR\_redcap-Core

[R2-2207750](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207750_Discussion%20on%20CellBar%20for%20RedCap.docx) Discussion on cellBar for RedCap vivo, Guangdong Genius discussion Rel-17 NR\_redcap-Core

[R2-2208112](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208112%20Miscellaneous%20correction%20on%20eDRX%281%29.docx) Miscellaneous correction on eDRX ZTE Corporation, Sanechips CR Rel-17 38.304 17.1.0 0271 - F NR\_redcap-Core

[R2-2208221](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208221%20-%20Correction%20on%20eDRX%20allowed%20indication%20in%20TS%2038304.docx) Correction on eDRX-Allowed indication Nokia, Nokia Shanghai Bell CR Rel-17 38.304 17.1.0 0274 - F NR\_redcap-Core

### 6.12.3 User Plane

#### 6.12.3.1 MAC aspects

[R2-2207008](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207008_DraftCR_38321_BWP%20Switching%20upon%20SI%20request%20ack.docx) BWP Switching upon SI request ack Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

[R2-2207009](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207009_DraftCR_38321_BWP%20Switching%20in%20RRC_IDLE_RRC_INACTIVE_upon%20RA%20initiation.docx) BWP Switching in RRC\_IDLE\_RRC\_INACTIVE\_upon RA initiation Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

[R2-2207010](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207010_DraftCR_38321_Corrections%20to%20BWP%20inactivity%20timer%20%28re%29start%20criteria%20upon%20reception%20of%20PDCCH%20for%20BWP%20switching.docx) Corrections to BWP inactivity timer (re)start criteria upon reception of PDCCH for BWP switching Samsung Electronics Co., Ltd draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

[R2-2207208](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207208%2038.321%20Correction%20on%20the%20BWP%20operations%20for%20Redcap.docx) 38.321 Correction on the BWP operations for Redcap Xiaomi Communications draftCR Rel-17 38.321 17.1.0 NR\_redcap-Core

[R2-2207903](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207903%20RedCap%20support%20for%20sending%20BFR%20MAC%20CE%20for%20SpCell%20BFR.docx) RedCap support for sending BFR MAC CE for SpCell BFR Nokia, Nokia Shanghai Bell discussion Rel-17 NR\_redcap-Core

[R2-2207904](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207904%20Correction%20on%20RedCap%20support%20for%20sending%20BFR%20MAC%20CE%20for%20SpCell%20BFR.docx) Correction on RedCap support for sending BFR MAC CE for SpCell BFR Nokia, Nokia Shanghai Bell CR Rel-17 38.306 17.1.0 0782 - F NR\_redcap-Core

[R2-2208384](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208384%20Correction%20on%20dormantBWP%20for%20RedCap%20in%20TS%2038.321.docx) Correction on dormantBWP for RedCap in TS 38.321 CATT CR Rel-17 38.321 17.1.0 1385 - F NR\_redcap-Core

## 6.19 Coverage Enhancements

(NR\_cov\_enh-Core; leading WG: RAN1; REL-17; WID: [RP-211566](file:///C%3A%5CData%5C3GPP%5Carchive%5CRAN%5CRAN%2392%5CTdocs%5CRP-211566.zip))

Tdoc Limitation: 2 tdoc

Common aspects related to RACH indication (in MSG1) / RACH partitioning shall be submitted to 6.18

### 6.19.1 Organizational

Rapporteur input, incoming LS etc. CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

Incoming LS

[R2-2206960](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206960_R4-2211225.docx) Reply LS to RAN1/RAN2 on DMRS bundling (R4-2211225; contact: MediaTek) RAN4 LS in Rel-17 NR\_cov\_enh To:RAN1, RAN2

RRC CR

[R2-2207891](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207891%20Miscellaneous%20corrections%20to%20NR%20coverage%20enhancements.doc) Miscellaneous corrections to NR coverage enhancements Huawei, HiSilicon, China Telecom, ZTE Corporation CR Rel-17 38.331 17.1.0 3323 - F NR\_cov\_enh-Core

### 6.19.2 General

All aspects.

DMRS bundling

[R2-2207130](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207130%20Discussion%20on%20Capability%20of%20DMRS%20Bundling.docx) Discussion on Capability of DMRS Bundling vivo discussion Rel-17 NR\_cov\_enh

Proposal 1: RAN2 captures in 38.306 that DM-RS bundling for PUSCH and PUCCH is only applicable for UL transmissions with pi/2 BPSK, BPSK, and QPSK modulation orders.

Proposal 2: RAN2 captures in RRC spec that dmrs-BundlingPUCCH-Config or dmrs-BundlingPUSCH-Config can only be configured for a single uplink NR carrier at a time in the case of FR1+FR2 UL CA, FR1+FR2 DC, and EN-DC with NR on FR2.

Proposal 3: RAN2 captures in RRC spec that neither dmrs-BundlingPUCCH-Config nor dmrs-BundlingPUSCH-Config is applicable for FR2-2.

Proposal 4: Adopt the text proposals in Annex.

[R2-2208184](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208184%20-%20Correction%20of%20need%20codes%20and%20field%20descriptions%20for%20DMRS%20bundling.docx) Correction of need codes and field descriptions for DMRS bundling Ericsson CR Rel-17 38.331 17.1.0 3375 - F NR\_cov\_enh-Core

Other

[R2-2207132](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207132_CR0497_38300_Clarification%20on%20only%20CE%20RACH%20Resources.docx) Clarification on only CE RACH Resources vivo CR Rel-17 38.300 17.1.0 0497 - F NR\_cov\_enh

## 7.2 NB-IoT and eMTC support for NTN

Tdoc Limitation: 5 tdocs

### 7.2.1 Organizational

LSs, rapporteur inputs and other organizational documents. CR Rapporteurs may provide baseline correction CRs containing smaller corrections, text clarifications, etc - please contact the CR rapporteurs before providing contributions on those aspects.

Incoming LS

[R2-2206933](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206933_R3-224007.doc) Reply LS on open issues for NB-IoT and eMTC support for NTN (R3-224007; contact: ZTE) RAN3 LS in Rel-17 LTE\_NBIOT\_eMTC\_NTN To:RAN2, SA2

[R2-2206938](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206938_R4-2210571.docx) LS reply on UE capability for 16QAM for NB-IoT (R4-2210571; contact: Ericsson) RAN4 LS in Rel-16 NB\_IOTenh4\_LTE\_eMTC6-Core To:RAN1 Cc:RAN2

* Noted

[R2-2206961](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2206961_S1-221290.docx) Reply LS on Emergency services and UE rejected with "PLMN not allowed to operate in the country of the UE’s location" (S1-221290; contact: Apple) SA1 LS in Rel-17 5GSAT\_ARCH-CT To:CT1, RAN2 Cc:SA2, SA3LI

RRC CR

[R2-2207153](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207153%20Miscellaneous%20corrections%20to%20TS%2036.331%20for%20IoT%20NTN.docx) Miscellaneous corrections to TS 36.331 for IoT NTN Huawei, HiSilicon CR Rel-17 36.331 17.1.0 4832 - F LTE\_NBIOT\_eMTC\_NTN

### 7.2.2 User Plane

Impacts to 36.321, 36.322, 36.323, 37.324

Contention resolution timer

[R2-2207056](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207056-%20Discussion%20on%20mac-ContentionResolutionTimer%20in%20IoT%20NTN.doc) Discussion on mac-ContentionResolutionTimer in IoT NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 104

[R2-2207351](file:///C%3A%5CData%5C3GPP%5CExtracts%5C36321_CR1544_%28Rel-17%29_R2-2207351%20CR%20timer%20expiry.docx) Clarification on the expiry of the contention resolution timer. Qualcomm Incorporated CR Rel-17 36.321 17.1.0 1544 - F LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 104

[R2-2207600](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207600%20Discussion%20on%20the%20mac-ContentionResolutionTimer.doc) Discussion on MSG3 retransmission Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 104

[R2-2207824](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207824%20Discussion%20on%20contention%20resolution%20timer%20in%20IoT%20NTN.docx) Discussion on contention resolution timer in IoT NTN ZTE Corporation, Sanechips discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

* Discussed in offline 104

[R2-2208563](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208563%20Issue%20on%20false%20claiming%20of%20contention%20resolution%20failure.docx) Issue on false claiming of contention resolution failure for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 104
* [AT119-e][104][IoT-NTN] CR timer (ZTE)

Initial scope: Discuss corrections related to contention resolution timer (from proposals in R2-2207056, R2-2207351, R2-2207600, R2-2207824, R2-2208563)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208754): Thursday 2022-08-18 1000 UTC

R2-2208754 [offline-104] CR timer ZTE Corporation discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

deltaPDCCH

[R2-2207064](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207064%20Correction%20on%20the%20definition%20of%20deltaPDCCH%20in%20%28UL%29%20HARQ%20RTT%20Timer%20for%20NB-IoT%20NTN.docx) Correction on the definition of deltaPDCCH in (UL) HARQ RTT Timer for NB-IoT NTN OPPO CR Rel-17 36.321 17.1.0 1542 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2207817](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207817%2036321CR_Correction%20for%20RTToffset%20in%20HARQ%20RTT%20timers.docx) 36321CR\_Corrections for RTToffset in HARQ RTT timers ZTE Corporation, Sanechips CR Rel-17 36.321 17.1.0 1545 - F LTE\_NBIOT\_eMTC\_NTN-Core

Triggering of TA reporting

[R2-2207599](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207599%20Discussion%20on%20the%20triggering%20of%20TA%20reporting.doc) Discussion on the triggering of TA reporting Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2208387](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208387%20Correction%20on%20TA%20Reporting%20Triggering%20Condition%20for%20IoT%20NTN%20in%20TS%2036.321%20final%20clean.docx) Correction on TA Reporting Triggering Condition for IoT NTN in TS 36.321 CATT CR Rel-17 36.321 17.1.0 1546 - F LTE\_NBIOT\_eMTC\_NTN

PDCCH-based HARQ feedback

[R2-2207349](file:///C%3A%5CData%5C3GPP%5CExtracts%5C36321_CR1543_%28Rel-17%29_R2-2207349%20PDCCH%20based%20HQ%20FB.docx) Clarification on PDCCH-based HARQ feedback Qualcomm Incorporated CR Rel-17 36.321 17.1.0 1543 - F LTE\_NBIOT\_eMTC\_NTN

Misc issues

[R2-2208664](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208664%20-%20R17%20IoT%20NTN%20User%20Plane%20issues.docx) R17 IoT NTN User Plane issues Ericsson discussion Rel-17

### 7.2.3 RRC

Impacts to 36.331

Pre-compensation gaps for segmented transmission

[R2-2207059](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207059-%20Discussion%20on%20segmented%20precompensation%20gap%20configuration%20in%20IoT%20NTN.doc) Discussion on segmented precompensation gap configuration in IoT NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 105

[R2-2207308](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207308%20Add%20TX%20gap%20parameter%20and%20capability%20for%20IoT%20NTN%2036.331.docx) Add TX gap parameter and capability for IoT NTN MediaTek Inc. CR Rel-17 36.331 17.1.0 4833 - F LTE\_NBIOT\_eMTC\_NTN-Core

* Discussed in offline 105

[R2-2208684](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2208684.zip) RRC changes for Gap configuration for uplink segemented tansmission in IoT-NTN Nokia, Nokia SHanghai Bell CR Rel-17 36.331 17.1.0 4852 2 B LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 105

coarse UE location reporting

[R2-2208294](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208294%20CR%2036331-4856%20Rel-17%20IoT%20NTN%20coarse%20location.docx) Correction to coarseLocationInfo field description for IoT NTN Eutelsat S.A. CR Rel-17 36.331 17.1.0 4856 - F LTE\_NBIOT\_eMTC\_NTN-Core

* Discussed in offline 105

[R2-2208574](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208574%2036.331%20cr%20correction%20on%20coarselocationreq.docx) correction on coarselocationreq Xiaomi, Thales CR Rel-17 36.331 17.1.0 4863 - F LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 105

neighbour cell ephemeris

[R2-2207150](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207150%20Discussion%20on%20neighbour%20cell%20ephemeris.doc) Discussion on neighbour cell ephemeris Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 105

[R2-2207151](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207151%20Correction%20to%2036.331%20on%20neighbour%20cell%20ephemeris.docx) Correction to 36.331 on neighbour cell ephemeris Huawei, HiSilicon CR Rel-17 36.331 17.1.0 4831 - F LTE\_NBIOT\_eMTC\_NTN

* Discussed in offline 105
* [AT119-e][105][IoT-NTN] RRC corrections (Huawei)

Initial scope: Discuss corrections related to pre-compensation gaps for segmented transmission, coarse UE location reporting and neighbour cell ephemeris (from proposals in R2-2207059, R2-2207308, R2-2208684, R2-2208294, R2-2208574, R2-2207150, R2-2207151)

Initial intended outcome: Summary of the offline discussion with e.g.:

* List of proposals for agreement (if any)
* List of proposals that require online discussions
* List of proposals that should not be pursued (if any)

Initial deadline (for companies' feedback): Thursday 2022-08-18 0600 UTC

Initial deadline (for rapporteur's summary in R2-2208755): Thursday 2022-08-18 1000 UTC

R2-2208755 [offline-105] RRC corrections Huawei discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

Other SIB31 related issues

[R2-2207057](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207057-%20Correction%20to%20RRC-MAC%20interaction%20on%20UL%20synchronisation%20in%20IoT%20NTN.doc) Correction to RRC-MAC interaction on UL synchronisation in IoT NTN OPPO CR Rel-17 36.331 17.1.0 4827 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2207790](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207790%20Discussion%20on%20epochTime%20in%20SIB31.docx) Discussion on epochTime in SIB31 ZTE Corporation, Sanechips discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2207311](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207311%20Trigger%20RLF%20when%20determining%20SIB31%20cannot%20be%20acquired%20during%20T318.docx) Trigger RLF when SIB31 cannot be acquired during T318 MediaTek Inc. CR Rel-17 36.331 17.1.0 4836 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2207350](file:///C%3A%5CData%5C3GPP%5CExtracts%5C36331_CR4840_%28Rel-17%29_R2-2207350%20Koffset%20update.docx) Indication of Koffset update in SIB31 Qualcomm Incorporated CR Rel-17 36.331 17.1.0 4840 - F LTE\_NBIOT\_eMTC\_NTN

SIB32 related issues

[R2-2207152](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207152%20Discussion%20on%20parameters%20for%20discontinuous%20coverage.doc) Discussion on parameters for discontinuous coverage Huawei, HiSilicon discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2207789](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207789%20Discussion%20on%20footprint%20parameters%20in%20SIB32.docx) Discussion on footprint parameters in SIB32 ZTE Corporation, Sanechips discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN-Core

Mobility related issues

[R2-2207353](file:///C%3A%5CData%5C3GPP%5CExtracts%5C36331_CR4842_%28Rel-17%29_R2-2207353%20TN%20redirection.docx) RRC Release with redirection to TN Qualcomm Incorporated CR Rel-17 36.331 17.1.0 4842 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2208564](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208564%20Issue%20on%20GNSS%20measurement%20during%20eMTC%20handover.docx) Issue on GNSS measurement during eMTC handover Nokia, Nokia Shanghai Bell discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2208681](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208681_NTN%20Configuration%20at%20CHO.docx) NTN Configuration at CHO Sequans Communications discussion Rel-17 36.331 LTE\_NBIOT\_eMTC\_NTN-Core

Misc issues

[R2-2207309](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207309%20Correction%20on%20IoT%20NTN%20ASN.1.docx) Correction on IoT NTN ASN.1 MediaTek Inc. CR Rel-17 36.331 17.1.0 4834 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2207310](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207310%20Specify%20ECI%20to%20the%20reference%20frame%20of%20orbital%20parameters.docx) Specify ECI to the reference frame of orbital parameters MediaTek Inc. CR Rel-17 36.331 17.1.0 4835 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2207791](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207791%2036331CR_RRC%20miscellaneous%20corrections.docx) 36331CR\_RRC miscellaneous corrections ZTE Corporation, Sanechips CR Rel-17 36.331 17.1.0 4851 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2208129](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208129_36331-Misc-Correction.docx) Miscellanious Corrections to RRC for IoT-NTN Nokia, Nokia Shanghai Bell CR Rel-17 36.331 17.1.0 4853 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2208665](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208665%20-%20R17%20IoT%20NTN%20RRC%20Corrections.docx) R17 IoT NTN RRC Corrections Ericsson discussion Rel-17

Revised / Withdrawn

[R2-2208043](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208043-36331-RRC-Changes-Precomp-Gap.docx) RRC changes for Gap configuration for uplink segemented tansmission in IoT-NTN Nokia, Nokia SHanghai Bell CR Rel-18 36.331 17.1.0 4852 - B LTE\_NBIOT\_eMTC\_NTN

=> Revised in R2-2208682

R2-2208682 RRC changes for Gap configuration for uplink segemented tansmission in IoT-NTN Nokia, Nokia SHanghai Bell CR Rel-18 36.331 17.1.0 4852 1 B LTE\_NBIOT\_eMTC\_NTN

=> Revised in [R2-2208684](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2208684.zip)

R2-2208038 Miscellanious corrections to RRC for for IoT-NTN Nokia Solutions & Networks (I) CR Rel-18 38.331 17.1.0 3345 - F LTE\_NBIOT\_eMTC\_NTN Withdrawn

### 7.2.4 Idle Inactive mode

Impacts to 36.304

[R2-2208138](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208138.docx) Correction on Measurement rules for cell re-selection for IoT NTN Samsung R&D Institute UK CR Rel-17 36.304 17.1.0 0851 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2208669](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208669%20-%20R17%20IoT%20NTN%20Idle%20mode%20issues.docx) R17 IoT NTN Idle mode issues Ericsson discussion Rel-17

### 7.2.5 UE capabilities

Pre-compensation gaps for segmented transmission

[R2-2207058](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207058-%20Discussion%20on%20UE%20capability%20on%20segmented%20precompensation%20gap%20in%20IoT%20NTN.doc) Discussion on UE capability on segmented precompensation gap in IoT NTN OPPO discussion Rel-17 LTE\_NBIOT\_eMTC\_NTN

[R2-2207307](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207307%20Add%20TX%20gap%20capability%20for%20IoT%20NTN%2036.306.docx) Add TX gap capability for IoT NTN MediaTek Inc. CR Rel-17 36.306 17.1.0 1854 - F LTE\_NBIOT\_eMTC\_NTN-Core

[R2-2208044](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208044_36306-UE-Capability-correction.docx) New UE capability for Pre-compensation-gap for IoT-NTN Nokia, Nokia Shanghai Bell CR Rel-18 36.306 17.1.0 1855 - B LTE\_NBIOT\_eMTC\_NTN

Other

[R2-2207352](file:///C%3A%5CData%5C3GPP%5CExtracts%5C36331_CR4841_%28Rel-17%29_R2-2207352%20TN%20support%20indication.docx) Reporting the support of TN bands to NTN Qualcomm Incorporated CR Rel-17 36.331 17.1.0 4841 - F LTE\_NBIOT\_eMTC\_NTN

[R2-2208666](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208666%20-%20R17%20IoT%20NTN%20UE%20Capabilities%20corrections.docx) R17 IoT NTN UE Capabilities corrections Ericsson discussion Rel-17

[R2-2208700](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2208700.zip) LS On UE capability signalling for IoT-NTN Nokia LS out Rel-17 LTE\_NBIOT\_eMTC\_NTN To:SA2 Cc:CT1 Late

* Handled in the main session

### 7.2.6 Other

[R2-2208667](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208667%20-%20R17%20IoT%20NTN%20stage%202%20corrections.docx) R17 IoT NTN stage 2 corrections Ericsson discussion Rel-17

## 8.6 IoT NTN enhancements

(xx-Core; leading WG: RAN1; REL-18; WID: RP-221806)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.6.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

### 8.6.2 Performance Enhancements

[R2-2207060](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207060-%20Discussion%20on%20HARQ%20enhancement%20for%20IoT%20NTN.doc) Discussion on HARQ enhancement for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207075](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207075%20GNSS%20operation.doc) Discussion on GNSS operation in connected mode OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207300](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207300_On%20Disabling%20HARQ%20in%20IoT-NTN.docx) On Disabling HARQ Feedback in IoT-NTN MediaTek Inc. discussion

[R2-2207354](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207354%20IoT%20HARQ%20process.doc) HARQ process enhancements Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207484](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207484%20Discussion%20on%20HARQ%20feedback%20disabling.docx) Discussion on HARQ feedback disabling Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh

[R2-2207647](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207647%20Discussion%20on%20performance%20enhancement%20for%20IoT%20NTN.docx) Discussion on performance enhancement for IoT NTN Transsion Holdings discussion Rel-18

[R2-2207710](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207710%20Considerations%20on%20reducing%20UE%20GNSS%20operations%20in%20long%20connection%20time.docx) Considerations on reducing UE GNSS operations in long connection time Lenovo discussion Rel-18

[R2-2207841](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207841%20Consideration%20on%20HARQ%20and%20GNSS%20enhancements.docx) Consideration on HARQ and GNSS enhancements ZTE Corporation, Sanechips discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2208187](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208187%20%28R18%20IoT-NTN%20WI%20AI%208.6.2%29%20-%20disabling%20HARQ%20feedback.docx) Disabling HARQ feedback for IoT-NTN Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2208388](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208388%20Discussion%20on%20the%20HARQ%20disabling%20in%20IoT%20NTN.docx) Discussion on the HARQ disabling in IoT NTN CATT discussion Rel-18 IoT\_NTN\_enh

[R2-2208448](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208448%20Discussion%20on%20the%20performance%20enhancement%20for%20IoT-NTN.docx) Discussion on the performance enhancement for IoT-NTN CMCC discussion Rel-18 IoT\_NTN\_enh

[R2-2208565](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208565%20Discussion%20on%20HARQ%20feedback%20disabling%20for%20IoT%20NTN.docx) Discussion on HARQ feedback disabling for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh

[R2-2208585](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208585%20Discussion%20on%20disabling%20of%20HARQ%20feedback.doc) Discussion on disabling of HARQ feedback Xiaomi discussion Rel-18

### 8.6.3 Mobility Enhancements

[R2-2207061](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207061-%20Discussion%20on%20mobility%20enhancement%20for%20IoT%20NTN.doc) Discussion on mobility enhancement for IoT NTN OPPO discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207275](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207275%20Discussion%20on%20neighbour%20cell%20measurements%20in%20IoT%20NTN.docx) Discussion on neighbour cell measurements in IoT NTN Intel Corporation discussion Rel-18 IoT\_NTN\_enh

[R2-2207299](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207299_Mobility%20Enhancements%20in%20IoT-NTN.docx) On Mobility Enhancements in IoT-NTN MediaTek Inc. discussion

[R2-2207355](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207355%20IoT%20mobility.doc) Connected mode mobility enhancements Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207500](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207500%20Discussion%20on%20mobility%20enhancements%20for%20IoT%20NTN.DOC) Discussion on mobility enhancements for IoT NTN Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh

[R2-2207648](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207648%20Discussion%20on%20mobility%20enhancement%20for%20IoT%20NTN.docx) Discussion on mobility enhancement for IoT NTN Transsion Holdings discussion Rel-18

[R2-2207682](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207682.doc) Discussion on triggering neighbour cell measurement before RLF Spreadtrum Communications discussion Rel-18

[R2-2207711](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207711%20Considerations%20on%20neighbour%20cell%20measurement%20for%20NB-IoT%20in%20NTN%20scenario.docx) Considerations on neighbour cell measurement for NB-IoT in NTN scenario Lenovo discussion Rel-18

[R2-2207842](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207842%20Consideration%20on%20mobility%20enhancements.docx) Consideration on mobility enhancements ZTE Corporation, Sanechips discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207913](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207913%20Discussion%20on%20mobility%20enhancements%20for%20IoT%20NTN.doc) Discussion on mobility enhancements to IoT NTN Xiaomi discussion

[R2-2207931](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207931.docx) Mobility Enhancement for IoT NTN Samsung R&D Institute UK discussion

[R2-2207939](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207939_RLF%20in%20IoT%20NTN.doc) Neighbour cell measurements before RLF Apple discussion Rel-18 IoT\_NTN\_enh

[R2-2208037](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208037-Mobility-Enhancements-IoT-NTN.docx) Changes to current mobility enhancement procedures for IoT-NTN Nokia, Nokia Shanghai Bell discussion Rel-18

[R2-2208146](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208146.docx) Discussion on Mobility Enhancements TURKCELL discussion Rel-18

[R2-2208188](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208188%20%28R18%20IoT-NTN%20WI%20AI%208.6.3%29%20-%20mobility%20enhancements.docx) IoT-NTN mobility enhancements Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2208389](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208389%20Discussion%20on%20the%20mobility%20enhancements%20in%20eMTC.docx) Discussion on the mobility enhancements in eMTC CATT discussion Rel-18 IoT\_NTN\_enh

[R2-2208449](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208449%20Discussion%20on%20the%20mobility%20enhancement%20for%20IoT-NTN.docx) Discussion on the mobility enhancement for IoT-NTN CMCC discussion Rel-18 IoT\_NTN\_enh

[R2-2208518](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208518.docx) Use of Elevation Angle Threshold for IoT NTN Neighbour Cell Measurements SHARP Corporation discussion Rel-18

[R2-2208673](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208673%20-%20R18%20IoT%20NTN%20Mobility%20enhancements.docx) R18 IoT NTN Mobility enhancements Ericsson discussion

### 8.6.4 Enhancements to discontinuous coverage

[R2-2207301](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207301_Enhancements%20to%20discontinuous%20coverage%20in%20IoT-NTN.docx) Enhancements to discontinuous coverage in IoT-NTN MediaTek Inc. discussion

[R2-2207356](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207356%20DC%20enhancement.doc) RRC release procedure in discontinuous coverage Qualcomm Incorporated discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207483](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207483%20Discussion%20on%20the%20discontinuous%20coverage.doc) Discussion on the discontinuous coverage Huawei, HiSilicon discussion Rel-18 IoT\_NTN\_enh

[R2-2207649](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207649%20Discussion%20on%20enhancement%20to%20discontinuous%20coverage%20for%20IoT%20NTN.docx) Discussion on enhancement to discontinuous coverage for IoT NTN Transsion Holdings discussion Rel-18

[R2-2207683](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207683.doc) Discussion on power saving mechanism for supporting discontinuous coverage Spreadtrum Communications discussion Rel-18

[R2-2207712](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207712%20Considerations%20on%20mobility%20management%20and%20power%20saving%20for%20discontinuous%20coverage.docx) Considerations on mobility management and power saving for discontinuous coverage Lenovo discussion Rel-18

[R2-2207778](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207778%20Power%20Saving%20Enhancement%20for%20Discontinuous%20Coverage.docx) Power Saving Enhancement for Discontinuous Coverage Google Inc. discussion Rel-18

[R2-2207843](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207843%20Consideration%20on%20discontinuous%20coverage%20enhancements.docx) Consideration on discontinuous coverage enhancements ZTE Corporation, Sanechips discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2207914](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207914%20Discussion%20on%20enhancements%20to%20discontinuous%20coverage.doc) Discussion on enhancements to discontinuous coverage Xiaomi discussion

[R2-2208023](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208023.docx) Enhancements to discontinuous coverage Samsung R&D Institute UK discussion

[R2-2208115](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208115.docx) Power Saving Enhancement for Discontinuous Coverage Samsung R&D Institute UK discussion

[R2-2208189](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208189%20%28R18%20IoT-NTN%20WI%20AI%208.6.4%29%20-%20discontinuous%20coverage.docx) IoT-NTN discontinuous coverage enhancements Interdigital, Inc. discussion Rel-18 IoT\_NTN\_enh-Core

[R2-2208450](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208450%20Discussion%20on%20the%20discontinuous%20coverage%20for%20IoT-NTN.docx) Discussion on the discontinuous coverage for IoT-NTN CMCC discussion Rel-18 IoT\_NTN\_enh

[R2-2208566](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208566%20Discussion%20on%20discontinuous%20coverage%20for%20IoT%20NTN.docx) Discussion on Discontinuous Coverage for IoT NTN Nokia, Nokia Shanghai Bell discussion Rel-18 IoT\_NTN\_enh

[R2-2208663](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2208663.zip) Discussion on Enhancements related to discontinuous coverage Rakuten Mobile, Inc discussion Rel-18 [R2-2201620](file:///C%3A%5CData%5C3GPP%5Carchive%5CRAN2%5CRAN2%23116bis%5CTdocs%5CR2-2201620.zip)

[R2-2208672](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208672%20-%20R18%20IoT%20NTN%20Enhancements%20to%20discontinuous%20coverage.docx) R18 IoT NTN Enhancements to discontinuous coverage Ericsson discussion

## 8.7 NR NTN enhancements

(xx-Core; leading WG: RAN1; REL-18; WID: RP-221819)

Time budget: 1 TU

Tdoc Limitation: 3 tdocs

### 8.7.1 Organizational

LSs, rapporteur inputs and other organizational documents. Rapporteur inputs and other pre-assigned documents in this AI do not count towards the tdoc limitation.

[R2-2207096](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207096%20-%20R18%20WI%20NR-NTN-enh%20workplan.docx) R18 WI NR-NTN-enh work plan at RAN1, 2 and 3 THALES Work Plan Rel-18 NR\_NTN\_enh

### 8.7.2 Coverage Enhancements

[R2-2207346](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207346%20protocol%20overhead%20reduction.doc) Protocol overhead reduction for coverage enhancements Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207633](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207633%20Discussion%20on%20RAN%20overhead%20reduction%20for%20VoNR%20support%20in%20NR%20NTN.docx) Discussion on RAN overhead reduction for VoNR support in NR NTN vivo discussion

[R2-2207713](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207713%20Potential%20issues%20for%20Msg3%20repetition%20in%20NTN.docx) Potential issues for Msg3 repetition in NTN Lenovo discussion Rel-18

[R2-2208276](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208276%20%28R18%20NTN%20WI%20AI%208.7.2%29%20Msg3%20blind%20retx.docx) Blind Msg3 retransmission in Rel-18 NTN InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2208323](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208323_Discussion%20on%20the%20coverage%20enhancement%20in%20NTN_r1.docx) Discussion on the coverage enhancement in NTN LG Electronics Inc. discussion NR\_NTN\_enh-Core

[R2-2208375](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208375%20Analysis%20on%20NTN%20coverage%20enhancement.docx) Analysis on NTN Coverage Enhancement CATT discussion Rel-18 NR\_NTN\_enh

[R2-2208567](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208567%20On%20coverage%20enhancement%20for%20NR%20NTN.docx) On Coverage Enhancements for NR NTN Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh

[R2-2208586](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208586%20Discussion%20on%20coverage%20enhancement%20for%20NR%20NTN.doc) Discussion on coverage enhancement for NR NTN Xiaomi discussion Rel-18

[R2-2208612](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208612%20Discussion%20on%20RAN%20protocol%20overhead%20reduction.doc) Discussion on RAN protocol overhead reduction Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh

### 8.7.3 Network verified UE location

[R2-2207074](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207074%20NW%20verified%20UE%20location.doc) Discussion on network verified UE location OPPO discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207098](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207098%20Network%20verified%20UE%20location%20aspects.docx) Network verified UE location aspects THALES discussion Rel-18 NR\_NTN\_enh

[R2-2207274](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207274%20Discussion%20on%20network%20verified%20UE%20location.docx) Discussion on network verified UE location Intel Corporation discussion Rel-18 NR\_NTN\_enh

[R2-2207296](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207296_Assumptions%20on%20Network%20verified%20location.docx) Assumptions on Network verified location NEC Telecom MODUS Ltd. discussion

[R2-2207302](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207302-Network%20verification%20of%20UE%20location.docx) On Network Verified UE Location in NR-NTN MediaTek Inc. discussion

[R2-2207326](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207326%20Considerations%20on%20NW-verified%20UE%20location.docx) Considerations on NW-verified UE location Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207444](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207444_Consideration%20on%20NTN%20Network%20Verified%20UE%20Location_v0.doc) Consideration on NTN Network Verified UE Location Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207482](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207482%20Discussion%20on%20the%20network%20verified%20UE%20location.doc) Discussion on the network verfied UE location Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh

[R2-2207634](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207634%20Discussion%20on%20NW%20verification%20of%20UE%20location%20in%20Rel-18%20NR%20NTN.docx) Discussion on NW verification of UE location in Rel-18 NR NTN vivo discussion

[R2-2207645](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207645%20Discussion%20of%20Network%20verified%20UE%20location%20in%20NTN.doc) Discussion of Network verified UE location in NTN China Telecom discussion Rel-18

[R2-2207675](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207675%20Discussion%20on%20UE%20location%20verify%20procedure.doc) Discussion on UE location verify procedure Spreadtrum Communications discussion Rel-18

[R2-2207779](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207779.docx) Network Verified UE Location Samsung R&D Institute UK discussion

[R2-2207866](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207866_NTN_NW_Verified_Loc_Lenovo.docx) On NTN NW verified UE location aspects Lenovo discussion Rel-18

[R2-2207915](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207915%20Discussion%20on%20network%20verified%20UE%20location%20.doc) Discussion on network verified UE location Xiaomi discussion

[R2-2208022](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208022.docx) UE location verification in NTN Deutsche Telekom, Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh-Core

[R2-2208328](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208328%20Discussion%20on%20Network%20Verified%20UE%20Location.docx) Discussion on Network Verified UE Location NTT DOCOMO INC. discussion Rel-18

[R2-2208376](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208376%20Discussion%20on%20UE%20Location%20Verification.docx) Discussion on UE Location Verification CATT discussion Rel-18 NR\_NTN\_enh

[R2-2208444](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208444%20Consideration%20on%20UE%20Location%20Verification%20via%20Network.doc) Consideration on UE Location Verification via Network CMCC discussion Rel-18 NR\_NTN\_enh-Core

[R2-2208546](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208546%20Consideration%20on%20NW%20verified%20UE%20location.doc) Consideration on NW verified UE location ZTE Corporation, Sanechips discussion Rel-18

[R2-2208674](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208674%20-%20R18%20NR%20NTN%20Network%20verified%20UE%20location.docx) R18 NR NTN Network verified UE location Ericsson discussion

### 8.7.4 NTN-TN and NTN-NTN mobility and service continuity enhancements

[R2-2207022](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207022_NTN_mobility.docx) Discussion on assistance information of cell reselection for NTN-TN mobility ITRI discussion NR\_NTN\_enh

[R2-2207048](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207048%20Discussion%20on%20mobility%20enhancements%20in%20Rel-18%20NTN.docx) Discussion on mobility enhancements in Rel-18 NTN New H3C Technologies Co., Ltd. discussion NR\_NTN\_enh

[R2-2207062](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207062%20Discussion%20on%20mobility%20enhancements%20for%20idle%20and%20inactive%20UEs.doc) Discussion on mobility enhancements for idle and inactive UEs OPPO discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207073](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207073%20NTN%20connected%20mode%20mobility.doc) Discussion on NTN handover enhancements OPPO discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207195](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207195_Discussion%20on%20NTN-TN%20and%20NTN-NTN%20mobility.doc) Discussion on NTN-TN and NTN-NTN mobility NTT DOCOMO, INC. discussion Rel-18

[R2-2207244](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207244%208.7.4%20NTN%20connected%20MobEnh_v2.docx) NTN mobility enhancements in connected mode Samsung Research America discussion Rel-18

[R2-2207245](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207245%208.7.4%20cell%20reselection%20enhancement_v3.docx) NTN cell reselection enhancements Samsung Research America discussion Rel-18

[R2-2207272](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207272%20Discussion%20on%20NTN%20handover%20enhancements.docx) Discussion on NTN handover enhancements Intel Corporation discussion Rel-18 NR\_NTN\_enh

[R2-2207273](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207273%20Discussion%20on%20NTN%20cell%20reselection%20enhancements.docx) Discussion on NTN cell reselection enhancements Intel Corporation discussion Rel-18 NR\_NTN\_enh

[R2-2207297](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207297_NTN-NTN%20handover%20enhancement%20for%20RRC_CONNECTED%20UEs.docx) NTN-NTN handover enhancement for RRC\_CONNECTED UEs NEC Telecom MODUS Ltd. discussion

[R2-2207298](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207298_Solutions%20to%20reduce%20UE%20power%20consumption%20for%20NTN%20to%20TN%20mobility%20in%20Idle%20or%20Inactive%20mode.docx) Solutions to reduce UE power consumption for NTN to TN mobility in Idle or Inactive mode NEC Telecom MODUS Ltd. discussion

[R2-2207303](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207303_Improving%20Cell%20Reseelction%20using%20Next%20Cell%20Information%20in%20NTN.docx) Improving Cell Reselection in NR-NTN MediaTek Inc. discussion

[R2-2207304](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207304_HO%20enhancement%20in%20LEO-NTN%20with%20Earth-moving%20Cells.docx) Handover Enhancement in LEO NTN with Earth-moving Cells MediaTek Inc. discussion

[R2-2207327](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207327%20On%20NTN-NTN%20and%20TN-NTN%20mobility%20in%20Rel-18.docx) On NTN-NTN and TN-NTN mobility in Rel-18 Nokia, Nokia Shanghai Bell discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207347](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207347%20Mobility%20enhancements.doc) Signaling and congestion reduction in satellite switch Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207348](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207348%20IDLE%20mode%20enhancements.doc) IDLE mode TN-NTN mobility enhancement Qualcomm Incorporated discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207445](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207445_%20NTN-NTN%20Mobility%20Enhancement_v0.doc) NTN-NTN Mobility Enhancement Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207446](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207446_%20NTN-TN%20Mobility%20Enhancement_v0.doc) NTN-TN Mobility Enhancement Apple discussion Rel-18 NR\_NTN\_enh-Core

[R2-2207499](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207499%20Discussion%20on%20NTN%20mobility%20enhancements.doc) Discussion on NTN mobility enhancements Huawei, HiSilicon discussion Rel-18 NR\_NTN\_enh

[R2-2207635](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207635%20Discussion%20on%20mobility%20and%20service%20continuity%20enhancement.docx) Discussion on mobility and service continuity enhancement vivo discussion

[R2-2207646](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207646%20Discussion%20of%20NTN-TN%20mobility.doc) Discussion of NTN-TN mobility China Telecom discussion Rel-18

[R2-2207650](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207650%20Discussion%20on%20NTN%20mobility%20and%20service%20continuity%20enhancements.doc) Discussion on NTN mobility and service continuity enhancements Transsion Holdings discussion Rel-18

[R2-2207676](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207676%20Some%20enhancements%20in%20NTN%20handover.doc) Some enhancements in NTN Handover Spreadtrum Communications discussion Rel-18

[R2-2207714](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207714%20Issue%20analysis%20for%20service%20continuity%20in%20TN-NTN%20and%20NTN-NTN%20scenarios.docx) Issue analysis for service continuity in TN-NTN and NTN-NTN scenarios Lenovo discussion Rel-18

[R2-2207767](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207767.docx) Discussion on NTN-TN mobility and NTN-NTN mobility ITL discussion Rel-18

[R2-2207834](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207834.docx) NTN-TN mobility enhancements Sony discussion Rel-18 NR\_NTN\_enh

[R2-2207835](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207835.docx) Signaling overhead reduction during NTN-NTN HOs Sony discussion Rel-18 NR\_NTN\_enh

[R2-2207894](file:///C%3A%5CData%5C3GPP%5CRAN2%5CDocs%5CR2-2207894.zip) Network-driven NTN-NTN Mobility Considerations Lockheed Martin discussion Late

[R2-2207916](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207916%20Discussion%20on%20mobility%20and%20service%20continuity%20enhancements.doc) Discussion on mobility and service continuity enhancements Xiaomi discussion

[R2-2207986](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2207986.docx) Discussion on target cell's timing for intra-satellite and inter-satellite handover under users of non-uniform spatio -temporal distribution BUPT discussion

[R2-2208147](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208147.docx) Discussion on ephemeris usage for NR NTN TURKCELL discussion Rel-18 Withdrawn

[R2-2208277](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208277%20%28R18%20NTN%20WI%20AI%208.7.4%29%20Idle-Inactive%20enhancements.docx) RRC Idle/Inactive measurement, mobility, and service continuity InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2208278](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208278%20%28R18%20NTN%20WI%20AI%208.7.4%29%20Connected%20enhancements.docx) RRC Connected measurement, mobility, and service continuity InterDigital discussion Rel-18 NR\_NTN\_enh-Core

[R2-2208280](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208280_final.docx) Discussion on cell reselection enhancement for NTN LG Electronics France discussion Rel-18 NR\_NTN\_enh

[R2-2208282](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208282_final.docx) Reducing UE power consumption in idle inactive mode LG Electronics France discussion Rel-18 NR\_NTN\_enh

[R2-2208332](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208332_Cell%20reselection%20enhancements%20in%20NTN-NTN%20and%20NTN-TN%20mobility.docx) Cell reselection enhancements in NTN-NTN and NTN-TN mobility ZTE corporation, Sanechips discussion Rel-18

[R2-2208333](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208333_Discussion%20on%20NTN-NTN%20handover%20enhancement.docx) Discussion on NTN-NTN handover enhancement ZTE corporation, Sanechips discussion Rel-18

[R2-2208377](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208377%20Discussion%20on%20NTN%20Mobility%20Enhancements.docx) Discussion on NTN Mobility Enhancements CATT discussion Rel-18 NR\_NTN\_enh

[R2-2208424](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208424%20Discussion%20on%20cell%20reselection%20enhancements.docx) Discussion on cell reselection enhancements CMCC discussion Rel-18 NR\_NTN\_enh-Core

[R2-2208425](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208425%20Discussion%20on%20mobility%20enhancements%20for%20connected%20mode.docx) Discussion on mobility enhancements for connected mode CMCC discussion Rel-18 NR\_NTN\_enh-Core

[R2-2208641](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208641.docx) Discussion on ephemeris usage for NR NTN TURKCELL, Deutsche Telekom discussion Rel-18

[R2-2208670](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208670%20-%20R18%20NR%20NTN%20Mobility%20enhancements.docx) R18 NR NTN Mobility enhancements Ericsson discussion

[R2-2208671](file:///C%3A%5CData%5C3GPP%5CExtracts%5CR2-2208671%20-%20R18%20NR%20NTN%20Idle%20mode%20Mobility%20enhancements.docx) R18 NR NTN Idle mode Mobility enhancements Ericsson discussion

Withdrawn

R2-2207732 Discussion on handover for NTN BUPT discussion Withdrawn

R2-2207892 Discussion on handover for NTN BUPT discussion Withdrawn

## Summary

Agreed CRs

Approved LSs out

[POST119-e] Email discussions

Short

Long