3GPP TSG-RAN WG2 Meeting #109bis-e R2-200xyzw

**Online, 20 April – 30 April 2020**

Source: Session Chair (MediaTek)

Title: Report of session on Rel-15 and -16 LTE and NR positioning

# Status of At-Meeting Email Discussions

This subclause is not an Agenda Item. It contains a running summary of the email discussions assigned to take place during the meeting weeks. This section will be moved to an appendix in the final version of the report.

* [AT109bis-e][600] Organisational Nathan - Positioning (MediaTek)

Status: Started

 Scope: Organisational discussions and announcements, as needed throughout the meeting weeks

 Intended outcome: Well-informed participants

 Deadline: Thursday 2020-04-30 1000 UTC

* [AT109bis-e][601][POS] LPP ASN.1 issue gathering and easy agreements (Qualcomm)

Status: Started

 Scope: Collect the issues from the contributions in agenda item 6.8.2.4, excluding R2-2003143 and R2-2003144

 Intended outcome: Endorsed baseline CR starting from R2-2003350 (R2-2003981) and list of open issues (R2-2003982) for continuing ASN.1 review after this meeting

 Deadline: Comments by Monday 2020-04-27 1000 UTC; final output documents by Wednesday 2020-04-29 1000 UTC

* [AT109bis-e][602][POS] LPP ASN.1 structural issues (Ericsson)

Status: Started

 Scope: Initial discussion on the issues raised in R2-2003144

 Intended outcome: Report of potential easy agreements and remaining open issues (R2-2003983) suitable for capture in the LPP ASN.1 issue list

 Deadline: Comments by Tuesday 2020-04-28 1000 UTC; output document Wednesday 2020-04-29 1000 UTC

* [AT109bis-e][603][POS] Introduction of NavIC Keplerian set IE (Reliance Jio)

Status: Started

 Scope: Review of the CR submitted in R2-2003821 to introduce the definition of NavModel-NavIC-KeplerianSet

 Intended outcome: Agreed-in-principle CR

 Deadline: Wednesday 2020-04-29 1000 UTC

# 4 EUTRA corrections Rel-15 and earlier

See Appendix A for reference to Work items, work item codes and WIDs.

No documents should be submitted to 4. Please submit to 4.x

NOTE For R2 109e for R15 and earlier releases, only documents on important and urgent issues shall be submitted and treated. No text enhancements without behavioural or functional change.

## 4.4 Positioning corrections Rel-15 and earlier

Documents in this agenda item will be handled by email. No web conference is planned for this agenda item.

# 5 WI: New Radio (NR) Access Technology

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; closed: Jun. 19: WID: RP-191971)

NOTE For R2 109bis-e for R15 and earlier releases, only documents on important and urgent issues shall be submitted and treated. No text enhancements without behavioural or functional change.

## 5.2 Stage 2

### 5.2.3 Positioning

Corrections to both the stage 2 and stage 3 aspects related to positioning. Stage 2 CRs should be discussed with the specification rapporteur before submission.

Documents in this agenda item will be handled in a break out session.

[R2-2002913](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002913%20Clarification%20on%20UE%20Positioning%20Architecture%20in%2038%20305%20for%20Rel-15.doc) Clarification on UE Positioning Architecture in 38.305 for Rel-15 CATT draftCR Rel-15 38.305 15.5.0 B NR\_newRAT-Core

[R2-2003479](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003479%20Correction%20to%20periodic%20reporting.docx) Correction to periodic reporting Huawei, HiSilicon CR Rel-15 37.355 15.0.0 0254 - F NR\_newRAT-Core

[R2-2003482](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003482%20Correction%20to%20periodic%20reporting.docx) Correction to periodic reporting Huawei, HiSilicon CR Rel-16 37.355 16.0.0 0255 - A NR\_newRAT-Core

## 6.8 NR Positioning Support

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: [RP-](file:///C%3A%5CData%5C3GPP%5CTSGR%5CTSGR_84%5Cdocs%5CRP-191156.zip)200218, SR: RP-200217). Documents in this agenda item will be handled in a break out session

Time budget: 1 TU

### 6.8.1 Organisational

Including incoming LSs, rapporteur inputs, etc.

[R2-2002520](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002520_R1-2001483.doc) LS on outcome of email discussions on aperiodic SRS for positioning configuration from RAN1#100e (R1-2001483; contact: Ericsson) RAN1 LS in Rel-16 NR\_pos To:RAN2

[R2-2002529](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002529_R4-2002280.doc) LS on gNB measurements report mapping for NR Positioning (R4-2002280; contact: Qualcomm) RAN4 LS in Rel-16 NR\_pos-Core To:RAN2, RAN3 Cc:RAN1

[R2-2003316](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003316%20Discussion%20on%20capabilities%20for%20NR%20positioning.docx) Discussion on capabilities for NR positioning Intel Corporation discussion Rel-16 NR\_pos-Core Late

[R2-2003317](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003317%20Introduction%20of%20UE%20positioning%20capabilities.DOCX) Introduction of UE positioning capabilities Intel Corporation draftCR Rel-16 37.355 16.0.0 NR\_pos-Core Late

### 6.8.2 Architecture and protocol aspects

No documents should be submitted to 6.8.2. Please submit to 6.8.2.x.

#### 6.8.2.1 Stage 2

Including impact to 36.305 and 38.305. This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on submitted tdocs).

Including outcome of email discussion [Post109e#30][NR/Pos] Non-periodic SRS for positioning (Huawei)

Including outcome of email discussion [Post109e#31][NR/Pos] Details of spatial relation for positioning (Huawei)

Contributions on issues already resolved in email discussions [Post109e#30] and [Post109e#31] are discouraged.

Tdoc limitation: 1 tdoc

Non-periodic SRS

[R2-2003068](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003068%20%5BPost109e-30%5D%5BPos%5D%20Non-periodic%20SRS%20for%20positioning%20%28Huawei%29.docx) [Post109e-30][NRPos] Non-periodic SRS for positioning (Huawei) Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2003054](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003054%20DraftLS_RAN3_non-periodicSRSPositioning.docx) DraftLS\_RAN3\_non-periodicSRSPositioning Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

Spatial relation and SSB configuration

[R2-2003069](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003069%20%5BPost109e-31%5D%5BPos%5D%20Details%20of%20spatial%20relation%20for%20positioning%20%28Huawei%29.docx) [Post109e-31][Pos] Details of spatial relation for positioning (Huawei) Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2003055](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003055%20DraftCR%20for%20SSB%20configuration%20in%20LPP%20spec.docx) DraftCR for SSB configuration in LPP spec Huawei, HiSilicon draftCR Rel-16 37.355 16.0.0 NR\_pos-Core

[R2-2003056](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003056%20DraftCR%20for%20SSB%20configuration%20in%20RRC%20spec.docx) DraftCR for SSB configuration in RRC spec Huawei, HiSilicon draftCR Rel-16 38.331 16.0.0 NR\_pos-Core

[R2-2003057](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003057%20DraftLS%20to%20RAN3%20on%20Spatial%20relations%20for%20positioning.docx) DraftLS\_RAN3\_On Spatial relations for positioning Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

Summary document

[R2-2003620](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003620%20Summary%20of%20AI%206_8_2_1.docx) Summary document for agenda item 6.8.2.1 - NR Positioning Stage 2 Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_pos-Core Late

The following documents will not be individually treated

[R2-2002914](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002914%20Clarification%20on%20UE%20Positioning%20Architecture%20in%2038%20305%20for%20Rel-16.doc) Clarification on UE Positioning Architecture in 38.305 for Rel-16 CATT draftCR Rel-16 38.305 16.0.0 B NR\_pos-Core

[R2-2002939](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002939.docx) Discussion on reusing Rel-15 SRS for Multi-RTT ZTE Corporation discussion

[R2-2003060](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003060%20Text%20proposal%20to%20stage-2%20specification.docx) Text proposal to stage-2 specification Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2003348](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003348_%2838305%20corrections%29.docx) Various Corrections to NR Positioning Qualcomm Incorporated discussion

[R2-2003396](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003396%20Text%20proposal%20to%20clarify%20the%20meaning%20of%20GNSS.docx) Text Proposal to clarify the meaning of GNSS term ESA, Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_pos-Core

[R2-2003731](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003731%20non-periodic%20SRS%20for%20positioning.docx) On supporting of non-periodic SRS for positioning Samsung R&D Institute UK discussion

#### 6.8.2.2 RRC

Including impact to 36.331 and 38.331. This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting.

Tdoc limitation: 1 tdoc

Summary document

[R2-2003769](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003769%20Summary%20of%20Agenda%20Item%206.8.2.2%20for%20RRC.DOCX) Summary of agenda item 6.8.2.2 for RRC Huawei discussion Rel-16 NR\_pos-Core

The following documents will not be individually treated

[R2-2002598](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002598.docx) Broadcast of additional assistance data NextNav, AT&T, FirstNet, Intel, Polaris Wireless CR Rel-16 38.331 16.0.0 1508 - C NR\_pos, NR\_pos-Core

[R2-2002617](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002617%20Discussion%20on%20gap%20configuration%20and%20request%20for%20NR%20positionin.docx) Discussion on GAP configuration and request for NR positioning vivo discussion Rel-16 NR\_pos-Core

[R2-2003059](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003059%20DraftCR%20on%20LocationMeasurementIndication.docx) DraftCR on LocationMeasurementIndication Huawei, HiSilicon draftCR Rel-16 38.331 16.0.0 NR\_pos-Core

[R2-2003136](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003136%20Recommendation.docx) Recommendation message from LMF to gNB for SRS configuration Ericsson discussion Rel-16

[R2-2003137](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003137%20UE%20Capability%20SRS.docx) UL SRS UE Capability Ericsson discussion

[R2-2003729](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003729%20SSB%20configuration.docx) SSB configuration for DL-/UL-only method in RRC Samsung R&D Institute UK discussion

#### 6.8.2.3 LPP

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting. Note that documents on specific ASN.1 issues should be submitted to AI 6.8.2.4.

Tdoc limitation: 1 tdoc

Summary document

[R2-2003783](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003783_%28Summary%20of%206.8.2.3%20LPP%29.docx) Summary of LPP agenda item 6.8.2.3 Qualcomm Incorporated discussion Rel-16 NR\_pos-Core

The following documents will not be individually treated

[R2-2002938](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002938.docx) Discussion on additional path reporting ZTE Corporation discussion

[R2-2003061](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003061%20Remaining%20issues%20with%20LPP.docx) Remaining issues with LPP Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2003130](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003130%20Measurement%20Reporting.docx) Measurement Reporting for UE based positioning Ericsson discussion Rel-16

* Revised in R2-2003811

[R2-2003811](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003811%20Measurement%20Reporting.docx) Measurement Reporting for UE based positioning Ericsson, Deutsche Telekom discussion Rel-16

=> Revised in R2-2003822

[R2-2003822](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003822%20Measurement%20Reporting.docx) Measurement Reporting for UE based positioning Ericsson, Deutsche Telekom discussion Rel-16 NR\_pos-Core

[R2-2003318](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003318%20Handling%20on%20TRP-ID.docx) Handling on TRP-ID Intel Corporation discussion Rel-16 NR\_pos-Core

[R2-2003730](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003730%20RxTxTimeDiff%20in%20LPP.docx) UE Rx – Tx time difference definition in LPP Samsung R&D Institute UK discussion

#### 6.8.2.4 LPP ASN.1 issues

Any issues related only to the details of ASN.1 in 37.355. CRs should not be submitted to this agenda item except by the specification rapporteur.

The ASN.1 review process for LPP will proceed from company contributions in this meeting. Issues should be submitted under this agenda item and will be collected by the specification rapporteur. The review process will proceed by email after this meeting with issues to be concluded at RAN2#110-e.

* [AT109bis-e][601][POS] LPP ASN.1 issue gathering and easy agreements (Qualcomm)

 Scope: Collect the issues from the contributions in agenda item 6.8.2.4, excluding R2-2003143 and R2-2003144

 Intended outcome: Endorsed baseline CR starting from R2-2003350 (R2-2003981) and list of open issues (R2-2003982) for continuing ASN.1 review after this meeting

 Deadline: Wednesday 2020-04-29 1000 UTC

* [AT109bis-e][602][POS] LPP ASN.1 structural issues (Ericsson)

 Scope: Initial discussion on the issues raised in R2-2003144

 Intended outcome: Report of potential easy agreements and remaining open issues (R2-2003983) suitable for capture in the LPP ASN.1 issue list

 Deadline: Comments by Tuesday 2020-04-28 1000 UTC; output document Wednesday 2020-04-29 1000 UTC

[R2-2002915](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002915%20Clarification%20on%20SFN0-Offset%20and%20DL-AoD%20report%20in%20LPP%20ASN.1.doc) Clarification on SFN0-Offset and DL-AoD report in LPP ASN.1 CATT draftCR Rel-16 37.355 16.0.0 B NR\_pos-Core

[R2-2003066](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003066%20DraftCR%20for%20NR-DL-PRS-Config.docx) DraftCR for NR-DL-PRS-Config Huawei, HiSilicon draftCR Rel-16 37.355 16.0.0 NR\_pos-Core

[R2-2003067](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003067%20Miscellaneous%20Corrections%20to%20LPP%20ASN.1.docx) Miscellaneous Corrections to LPP ASN.1 Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2003143](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003143%20Overhead.docx) Overhead in current structure Ericsson discussion Rel-16

[R2-2003144](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003144%20Important%20LPP%20structural%20aspects.docx) Important LPP structural aspects Ericsson discussion Rel-16

[R2-2003349](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003349_%28LPP%20Issues%29.docx) Various Corrections to NR Positioning Qualcomm Incorporated discussion

[R2-2003350](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CDocs%5CR2-2003350.zip) LPP clean-up Qualcomm Incorporated discussion Rel-16 NR\_pos-Core Late

[R2-2003781](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003781%20%20CR%2037.355%20Corrections%20to%20the%20introduction%20of%20NR%20positioning.docx) CR 37.355 V16.0.0, Corrections to the introduction of NR positioning Ericsson CR Rel-16 37.355 16.0.0 0256 - F NR\_pos-Core

#### 6.8.2.5 MAC

Including impact to 38.321.

Tdoc limitation: 1 tdoc

LCID/eLCID

[R2-2003135](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003135%20MAC%20CE.docx) Change LCID to eLCID for SP Positioning SRS Activation/Deactivation MAC CE Ericsson CR Rel-16 38.321 16.0.0 0720 - F NR\_pos-Core

[R2-2003062](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003062%20Correction%20to%20SP-SRS%20%28de-%29activation%20MAC%20CE.docx) Correction to SP SRS actication deactivation MAC CE Huawei, HiSilicon draftCR Rel-16 38.321 16.0.0 NR\_pos-Core

DRX

[R2-2002618](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002618%20Discussion%20on%20the%20impact%20of%20DRX%20on%20SRS%20for%20NR%20positioning.docx) Discussion on the impact of DRX on SRS for NR positioning vivo discussion Rel-16 NR\_pos-Core

Other

[R2-2003063](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003063%20Runnnig%20CR%20to%20MAC%20spec%20for%20R16%20Positioning.docx) Runnnig CR to MAC spec for R16 Positioning Huawei, HiSilicon draftCR Rel-16 38.321 16.0.0 NR\_pos-Core

=> Revised in R2-2003768

[R2-2003768](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003768%20Runnnig%20CR%20to%20MAC%20spec%20for%20R16%20Positioning.docx) Running CR to MAC spec for R16 Positioning Huawei, HiSilicon draftCR Rel-16 38.321 16.0.0 NR\_pos-Core

#### 6.8.2.6 Broadcast assistance data

This agenda item will utilize a summary document to facilitate treatment of topics during the e-meeting.

Tdoc limitation: 1 tdoc

Summary document

[R2-2003607](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003607%20Summary%20for%20Broadcast%20Assistance%20Data%28Agenda%206.8.2.6%29.doc) Summary for Broadcast of Assistance Data CATT discussion Late

The following documents will not be individually treated

[R2-2002916](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2002916.doc) Summary of the agreement and left issues on Broadcast Assistance Data CATT discussion Rel-16 38.331 NR\_pos-Core

[R2-2003058](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003058%20DraftCR%20for%20on-demand%20SI%20request%20for%20positioning%20in%20IDLE%20and%20INACTIVE.docx) DraftCR for on-demand SI request for positioning Huawei, HiSilicon draftCR Rel-16 38.331 16.0.0 NR\_pos-Core

[R2-2003132](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003132%20unicast%20tag.docx) On the need of unicast tag for positioning si-BroadcastStatus Ericsson discussion Rel-16

* Revised in R2-2003810

[R2-2003810](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003810%20unicast%20tag.docx) On the need of unicast tag for positioning si-BroadcastStatus Ericsson, Deutsche Telekom discussion Rel-16

Withdrawn/Not available

R2-2003140 On Relevance of Broadcast Ericsson discussion Rel-16 Withdrawn

#### 6.8.2.7 UE-based positioning

This agenda item may utilize a summary document to facilitate treatment of topics during the e-meeting (decision to be made based on submitted tdocs).

Tdoc limitation: 1 tdoc

[R2-2003064](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003064%20Discussion%20on%20UE-based%20positioning.docx) Discussion on UE-based positioning Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2003145](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003145%20Remaining%20issues%20UE-based.docx) Remaining issues with NR RAT dependent UE-based positioning Ericsson discussion Rel-16

### 6.8.3 Other

Tdoc limitation: 1 tdoc

R2-2003065 Discussion on UL-ECID Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2003376](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003376%20UE%20rxtx.docx) On UE RxTx Measurements Ericsson discussion Rel-16

## 6.20 NR TEI16 enhancements

Small Technical Enhancements to NR. TEI should be predominantly within a single WG and fully completed within the same quarter in all affected WGs. RAN2 impact of RAN1/4-led TEI shall be limited to RRC signalling of configuration parameters and UE capabilities (no MAC impact, no RRC procedural impact, etc). Please also see [RP-191602](file:///C%3A%5CData%5C3GPP%5CTSGR%5CTSGR_84%5Cdocs%5CRP-191602.zip) endorsed at RAN#84. Please submit to 6.20.x.

NOTE that proponent companies are responsible to ensure that correct CRs are provided in all groups for proposals that have impact in >1 working group.

Time budget: 1 TU

Tdoc Limitation: 2 tdocs. NOTE for TEI, the tdoc limitation applies to new proposals, not to open proposals since previous meeting(s)

### 6.20.1 RAN2 led TEI16 enhancements - Control plane related

#### 6.20.1.1 Open / ongoing proposals

[R2-2003142](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003142%20Transfer%20of%20unicast.docx) Transfer of unicast RS observations with GNSS integer ambiguity level information Ericsson

# 7 Rel-16 LTE Work Items

Documents in these agenda items will be handled in break out sessions

## 7.7 Support of Indian Navigation Satellite System NavIC

(LCS\_NAVIC; leading WG: RAN2; REL-16; started: Sept 19; target; March-20; WID: RP-192350)

Time budget: 0 TU Final agreement of CRs is expected

This item is 100%

[R2-2003821](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202004%20-%20RAN2_109bis-e%2C%20Online%5CExtracts%5CR2-2003821_%20Update%20missed%20out%20definition%20for%20Information%20Element%20NavModel-NavIC-KeplerianSet.docx) Update missed out definition for Information Element NavModel-NavIC-KeplerianSet Reliance Jio CR Rel-16 37.355 16.0.0 0257 - F LCS\_NAVIC-Core

* [AT109bis-e][603][POS] Introduction of NavIC Keplerian set IE (Reliance Jio)

 Scope: Review of the CR submitted in R2-2003821 to introduce the definition of NavModel-NavIC-KeplerianSet

 Intended outcome: Agreed-in-principle CR

 Deadline: Wednesday 2020-04-29 1000 UTC