3GPP TSG-RAN WG2 Meeting #110-e R2-200xyzw

**Online, 1-12 June 2020**

Source: Session Chair (MediaTek)

Title: Report from session on positioning and on-demand SI in connected

# 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.

* [AT110-e][600] Organisational Nathan – Positioning/OdSIB (MediaTek)

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

 Intended outcome: Well-informed participants

 Deadline: Friday 2020-06-12 1000 UTC

* [AT110-e][601][POS] AIP CRs on GNSS terminology (ESA)

 Scope: Confirm agreement on documents R2-2004734, R2-2004735, R2-2004745, and R2-2004746

 Intended outcome: Agreed CRs

 Deadline: Wednesday 2020-06-03 1000 UTC

* [AT110-e][602][POS] AIP CRs on UE positioning architecture in 38.305 (CATT)

 Scope: Confirm agreement on documents R2-2004790 and R2-2004791

 Intended outcome: Agreed CRs

 Deadline: Wednesday 2020-06-03 1000 UTC

* [AT110-e][603][POS] CRs on B1I signal ICD file version (CATT)

 Scope: Discuss and agree on documents R2-2004792, R2-2004793, and R2-2004794

 Intended outcome: Agreed CRs

 Deadline: Wednesday 2020-06-03 1000 UTC

* [AT110-e][604][POS] AIP CR on NavIC Keplerian set IE (Reliance Jio)

 Scope: Confirm agreement on document R2-2004595

 Intended outcome: Agreed CR

 Deadline: Wednesday 2020-06-03 1000 UTC

* [AT110-e][605][POS] On-demand posSIBs (Ericsson)

 Scope: Discuss the open issues for on-demand posSIBs:

* How many posSIBs can the UE request at a time?
* Is the request for posSIBs on SUL supported in Rel-16?
* Is T351 timer handling required also in 5.2.2.3.5 apart from 5.2.2.4.2?

 Intended outcome: Agreeable text proposal to be merged into the OdSIB running CR, in R2-2005881

 Deadline: Comments Wednesday 2020-06-03 1000 UTC; report Thursday 2020-06-04 1000 UTC

* [AT110-e][606][POS] Open issues in LPP ASN.1 review (Qualcomm)

 Scope: Discuss and resolve remaining open issues identified in the LPP ASN.1 review process, and determine which issues need online discussion

 Intended outcome: Update of open issues from R2-2005212, in R2-2005882

 Deadline: Thursday 2020-06-04 1000 UTC

* [AT110-e][607][OdSIB] Proposals for on-demand SI in connected (Ericsson)

 Scope: Condense the proposals from documents under agenda item 6.21, and identify any easy agreements

 Intended outcome: Summary of issues and agreements, in R2-2005883

 Deadline: Comments Wednesday 2020-06-03 1000 UTC; report Thursday 2020-06-04 1000 UTC

* [AT110-e][608][POS] Positioning capabilities (Intel)

 Scope: Discuss and conclude on the agreeable UE capabilities for positioning in RRC and LPP, considering the common capability email discussion as well as capability-related inputs to the positioning session

 Intended outcome: Agreeable TPs to 38.306 (in R2-2005884), 38.331 (in R2-2005885), and 37.355 (in R2-2005886)

 Deadline: Comments Tuesday 2020-06-09 1000 UTC; output Wednesday 2020-06-10 1000 UTC [note: subject to adjustment based on the general capability discussion]

# 4 EUTRA corrections Rel-15 and earlier

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

Only essential corrections. No documents should be submitted to 4. Please submit to 4.x

## 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.

### 4.4.0 In-principle agreed CRs

### 4.4.1 Other

# 5 WI: New Radio (NR) Access Technology

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

Only essential corrections

## 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.

#### 5.2.3.0 In-principle agreed CRs

[R2-2004734](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004734%20CR%20to%20clarify%20the%20meaning%20of%20GNSS%20term%20in%2036.305%20Rel-15.docx) CR to clarify the meaning of GNSS term in 36.305 Rel-15 ESA, Nokia, Nokia Shanghai Bell CR Rel-15 36.305 15.4.0 0086 1 F NR\_pos-Core R2-2003991

[R2-2004735](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004735%20CR%20to%20clarify%20the%20meaning%20of%20GNSS%20term%20in%2036.305%20Rel-16.docx) CR to clarify the meaning of GNSS term in 36.305 Rel-16 ESA, Nokia, Nokia Shanghai Bell CR Rel-16 36.305 16.0.0 0087 1 A NR\_pos-Core R2-2003992

[R2-2004745](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004745%20CR%20to%20clarify%20the%20meaning%20of%20GNSS%20term%20in%2038.305%20Rel-15.docx) CR to clarify the meaning of GNSS term in 38.305 Rel-15 ESA, Nokia, Nokia Shanghai Bell CR Rel-15 38.305 15.5.0 0020 1 F NR\_pos-Core R2-2003993

[R2-2004746](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004746%20CR%20to%20clarify%20the%20meaning%20of%20GNSS%20term%20in%2038.305%20Rel-16.docx) CR to clarify the meaning of GNSS term in 38.305 Rel-16 ESA, Nokia, Nokia Shanghai Bell CR Rel-16 38.305 16.0.0 0021 1 A NR\_pos-Core R2-2003994

* [AT110-e][601][POS] AIP CRs on GNSS terminology (ESA)

 Scope: Confirm agreement on documents R2-2004734, R2-2004735, R2-2004745, and R2-2004746

 Intended outcome: Agreed CRs

 Deadline: Wednesday 2020-06-03 1000 UTC

[R2-2004790](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38305_CR0018r1_%28Rel-15%29_R2-2004790.docx) Clarification on UE Positioning Architecture in 38 305 for Rel-15 CATT CR Rel-15 38.305 15.5.0 0018 1 F NR\_newRAT-Core R2-2004143

[R2-2004791](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38305_CR0019r1_%28Rel-16%29_R2-2004791.docx) Clarification on UE Positioning Architecture in 38 305 for Rel-16 CATT CR Rel-16 38.305 16.0.0 0019 1 A NR\_newRAT-Core R2-2004144

* [AT110-e][602][POS] AIP CRs on UE positioning architecture in 38.305 (CATT)

 Scope: Confirm agreement on documents R2-2004790 and R2-2004791

 Intended outcome: Agreed CRs

 Deadline: Wednesday 2020-06-03 1000 UTC

# 6 Rel-16 NR Work Items

## 6.8 NR Positioning Support

(NR\_pos-Core; leading WG: RAN1; REL-16; started: Mar 19; target; Jun 20; WID: RP-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.

Incoming LSs

[R2-2004319](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004319_S2-2003341.doc) Reply LS on Local NR positioning in NG-RAN (S2-2003341; contact: Nokia) SA2 LS in Rel-16 5G\_eLCS To:RAN Cc:RAN3, RAN2

[R2-2004332](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004332_R3-202646.doc) LS on support for UL NR E-CID (R3-202646; contact: Nokia) RAN3 LS in Rel-16 NR\_pos-Core To:RAN1, RAN2

[R2-2004333](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004333_R3-202749.docx) LS on support for Area Scope in Assistance Information metadata (R3-202749; contact: Ericsson) RAN3 LS in Rel-16 NR\_pos-Core To:RAN2

[R2-2004376](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004376_R4-2005841.doc) LS on NR Positioning gNB measurement report range and granularity (R4-2005841; contact: Intel) RAN4 LS in Rel-16 NR\_pos-Core To:RAN2, RAN3 Cc:RAN1

[R2-2004383](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004383_R4-2005845.doc) LS on report mapping for UE positioning measurement (R4-2005839; contact: Huawei) RAN4 LS in Rel-16 NR\_pos-Core To:RAN2 Cc:RAN1, RAN3

UE capability

[R2-2004635](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004635%20CR%20UE%20Capabilities.docx) Introduction of UE capability for Positioning Ericsson draftCR Rel-16 38.331 16.0.0 B NR\_pos-Core

* [AT110-e][608][POS] Positioning capabilities (Intel)

 Scope: Discuss and conclude on the agreeable UE capabilities for positioning in RRC and LPP, considering the common capability email discussion as well as capability-related inputs to the positioning session

 Intended outcome: Agreeable TPs to 38.306 (in R2-2005884), 38.331 (in R2-2005885), and 37.355 (in R2-2005886)

 Deadline: Comments Tuesday 2020-06-09 1000 UTC; output Wednesday 2020-06-10 1000 UTC [note: subject to adjustment based on the general capability discussion]

R2-2005884 Introduction of UE capability for Positioning Intel Corporation draftCR Rel-16 38.306 16.0.0 B NR\_pos-Core

R2-2005885 Introduction of UE capability for Positioning Intel Corporation draftCR Rel-16 38.331 16.0.0 B NR\_pos-Core

R2-2005886 Introduction of UE capability for Positioning Intel Corporation draftCR Rel-16 37.355 16.0.0 B NR\_pos-Core

On-demand SI

[R2-2004639](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004639%20Open%20issues.docx) Report Open issues on on-demand SI for positioning Ericsson report Rel-16

[R2-2004653](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004653%20CR%20on-demand.docx) Introduction of on-demand System Information functionality for Positioning Ericsson draftCR Rel-16 38.331 16.0.0 B NR\_pos-Core

* [AT110-e][605][POS] On-demand posSIBs (Ericsson)

 Scope: Discuss the open issues for on-demand posSIBs:

* How many posSIBs can the UE request at a time?
* Is the request for posSIBs on SUL supported in Rel-16?
* Is T351 timer handling required also in 5.2.2.3.5 apart from 5.2.2.4.2?

 Intended outcome: Agreeable text proposal to be merged into the OdSIB running CR, in R2-2005881

 Deadline: Comments Wednesday 2020-06-03 1000 UTC; report Thursday 2020-06-04 1000 UTC

R2-2005881 Introduction of on-demand System Information functionality for Positioning Ericsson draftCR Rel-16 38.331 16.0.0 B NR\_pos-Core

Withdrawn

[R2-2004377](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004377_R4-2005845.doc) LS on report mapping for UE positioning measurement (R4-2005839; contact: Huawei) RAN4 LS in Rel-16 NR\_pos-Core To:RAN2 Cc:RAN1, RAN3 Withdrawn

### 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 corrections

Including impact to 36.305 and 38.305. Stage 2 corrections should be discussed with the specification rapporteur before submission.

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

Tdoc limitation: 1 tdoc

Running CR to 38.305

[R2-2005210](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005210_%2838305%20corrections%29_v3.docx) Corrections to NR Positioning Qualcomm Incorporated CR Rel-16 38.305 16.0.0 0025 - F NR\_pos-Core

CR to 38.300

[R2-2004517](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004517%20Stage%202%20Missing%20Positionning%20SIB.docx) Missing SIB for positioning Nokia (Rapporteur) CR Rel-16 38.300 16.1.0 0227 - F NR\_pos-Core

Summary document

[R2-2005103](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CDraft%20R2-2005103%20Summary%20of%20stage-2%20AI%206.8.2.1.DOCX) Summary of stage-2 AI 6.8.2.1 Huawei, HiSilicon discussion Rel-16 NR\_pos-Core Late

The following tdocs will not be individually treated

[R2-2004638](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004638%20CR%20Stage2.docx) Text Proposal for on demand system information procedure Ericsson discussion Rel-16 38.305 NR\_pos-Core

[R2-2005094](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005094%20Corrections%20to%20stage-2%20v02.docx) Corrections to stage-2 spec Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005700](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005700%20SUL%20support%20for%20Rel-16%20positioning.docx) SUL support for Rel-16 positioning purpose Samsung R&D Institute UK discussion

Withdrawn:

R2-2004727 Introduction of UL NR E-CID Intel Corporation CR Rel-16 38.305 16.0.0 0023 - F NR\_pos-Core

#### 6.8.2.2 RRC corrections

Including impact to 36.331 and 38.331. Issues for correction in RRC should be raised as class 3 issues in the ASN.1 review process. For accepted RIL issues, the proponent company can provide a discussion doc with an annex TP (if needed). Documents on issues outside the ASN.1 review (aside from email discussion summaries) may be deprioritised.

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

Including outcome of email discussion [Post109bis-e][950][POS] Remaining issues on broadcast (CATT)

Running CR

[R2-2005718](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005718.docx) Capturing RRC Positioning Impacts after RAN2-109bis Ericsson (Rapporteur) CR Rel-16 38.331 16.0.0 1592 1 F NR\_pos-Core R2-2003880

Email discussion summary

[R2-2004796](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004796_Report%20of%20%5BPost109bis-e%5D%5B950%5D%5BPOS%5D%20Remaining%20issues%20on%20broadcast%20%28CATT%29.doc) Report of [Post109bis-e][950][POS] Remaining issues on broadcast (CATT) CATT discussion Rel-16 NR\_pos-Core

=> Revised in R2-2006012.

[R2-2006012](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2006012_Report%20of%20%5BPost109bis-e%5D%5B950%5D%5BPOS%5D%20Remaining%20issues%20on%20broadcast%20%28CATT%29.doc) Report of [Post109bis-e][950][POS] Remaining issues on broadcast (CATT) CATT discussion Rel-16 NR\_pos-Core

AIP CR

[R2-2004707](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004707.docx) Broadcast of additional assistance data NextNav, AT&T, FirstNet, Intel, Polaris Wireless CR Rel-16 38.331 16.0.0 1508 1 C NR\_pos, NR\_pos-Core R2-2002598

Summary document

[R2-2005714](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005714.docx) Summary for RRC Corrections for Positioning Ericsson discussion Rel-16 NR\_pos-Core Late

The following tdocs will not be individually treated

[R2-2004637](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004637%20RIL%20E259.docx) Solution for RIL E259 to remove cond on ServingCell ID Ericsson draftCR Rel-16 38.331 16.0.0 F NR\_pos-Core

[R2-2004708](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004708.docx) Removal of CSI-RS as pathloss reference for positioning SRS [M111] MediaTek Inc. discussion Rel-16 NR\_pos-Core

[R2-2005089](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005089%20DraftCR%20for%20SSB%20configuration%20in%20RRC%20spec.docx) DraftCR for SSB configuration in RRC spec Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005090](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005090%20DraftCR%20for%20introduction%20of%20new%20posSib.doc) DraftCR for introduction of new posSIB Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005091](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005091%20DraftCR%20for%2038.331%20on%20location%20measurement%20indication-v2.docx) DraftCR for 38.331 on location measurement indication Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005093](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005093%20Discussion%20on%20SRS%20spitial%20direction%20configuration_final%20%28003%29.doc) Discussion on SRS spitial relation configuration Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005095](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005095%20DraftCR%20for%20posSI-SchedulingInfo.doc) DraftCR for posSI-SchedulingInfo Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005096](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005096%20DraftCR%20for%20on%20demand%20Positioning%20system%20information.doc) DraftCR for onDemand Positioning system information Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005097](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005097%20Correction%20on%20prohibit%20timer%20for%20SI%20request%20for%20positioning.doc) Correction on prohibit timer for SI request for positioning Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005098](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005098%20DraftCR%20for%20duplicated%20description%20for%20SI%20request%20for%20positioning.doc) DraftCR for duplicated description for SI request for positioning Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005099](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005099%20Text%20proposal%20for%20positioning%20system%20information.doc) Text proposal for positioning system information Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005100](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005100%20Draft%20CR%20the%20resourceType%20under%20SRS-PosResource.doc) Draft CR the resourceType under SRS-PosResource Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005106](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005106%20Corrections%20to%20SSB%20configuration%20in%20RRC_final.docx) Corrections to SSB configuration in RRC Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005316](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005316%20unicast%20tag.docx) [E271] unicast tag for positioning posSI-BroadcastStatus Ericsson discussion Rel-16

[R2-2005394](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005394%20LocationMeasurementIndication.docx) [N043] Location Measurement Indication updates for NR inter-frequency RSTD Nokia, Nokia Shanghai Bell discussion Rel-16 NR\_pos-Core

#### 6.8.2.3 LPP corrections

Issues for correction in LPP should be raised as part of the LPP ASN.1 review process. Documents on issues outside the ASN.1 review (aside from email discussion summaries) may be deprioritised.

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

Including outcome of email discussion [Post109bis-e][946][POS] Reference for additional path reporting (Ericsson)

Including outcome of email discussion [Post109bis-e][947][POS]TRP-ID structure (Ericsson)

Including outcome of email discussion [Post109bis-e][948][POS] LPP ASN.1 review (Qualcomm)

Including outcome of email discussion [Post109bis-e][949][POS] Structure of UE-based assistance data (Ericsson)

Including outcome of email discussion [Post109bis-e][951][POS] Remaining issues on UE-based positioning (Huawei)

Running CR

[R2-2005213](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CDocs%5CR2-2005213.zip) LPP Clean-Up Qualcomm Incorporated discussion Late

R2-2005215 LPP Clean-Up Qualcomm Incorporated CR Rel-16 37.355 16.0.0 0260 - F NR\_pos Late

Email discussion summaries

[R2-2004702](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004702%20Report%20additional%20path.docx) Report on Reference for additional path reporting Ericsson report Rel-16

[R2-2004703](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004703%20Summary.docx) Summary and Text Proposal Reference for additional path reporting Ericsson discussion Rel-16

[R2-2004701](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004701%20Report%20TRP-ID.docx) Report on TRP-ID structure Ericsson report Rel-16

[R2-2004704](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004704%20Summary.docx) Summary and Text Proposal on TRP-ID structure Ericsson discussion Rel-16

[R2-2004700](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004700%20Report.docx) Report on Structure of UE-based assistance data Ericsson report Rel-16

[R2-2004705](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004705%20Summary.docx) Summary and Text Proposal on Structure of UE-based assistance data Ericsson discussion Rel-16

[R2-2005104](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005104%20Post109bis-e%5B951%5D%5BPOS%5D%20Remaining%20issues%20on%20UE-based%20positioning%20%28Huawei%29.docx) [Post109bis-e][951][POS] Remaining issues on UE-based positioning (Huawei) Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005105](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005105%20Draft%20CR%20on%20UE-based%20positioning%20v01.docx) DraftCR on UE-based positioning Huawei, HiSilicon draftCR Rel-16 37.355 16.0.0 NR\_pos-Core

[R2-2005212](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005212_%28LPP%20Open%20Issues%20Summary%29.docx) Email discussion report: [Post109bis-e][948][POS] LPP ASN.1 review Qualcomm Incorporated discussion Late

* Revised in R2-2006003

R2-2006003 Email discussion report: [Post109bis-e][948][POS] LPP ASN.1 review Qualcomm Incorporated discussion Late

* [AT110-e][606][POS] Open issues in LPP ASN.1 review (Qualcomm)

 Scope: Discuss and resolve remaining open issues identified in the LPP ASN.1 review process, and determine which issues need online discussion

 Intended outcome: Update of open issues from R2-2005212, in R2-2005882

 Deadline: Thursday 2020-06-04 1000 UTC

R2-2005882 Report of offline discussion [AT110-e][606][POS] Open issues in LPP ASN.1 review Qualcomm Incorporated discussion

Summary document

[R2-2004730](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004730%20summary%20of%206.8.2.3%20v02.doc) "summary of 6.8.2.3 LPP corrections" Intel Corporation discussion Rel-16 NR\_pos-Core Late

The following tdocs will not be individually treated

[R2-2004460](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004460.docx) Editorial and other minor updates Spirent Communications CR Rel-16 37.355 16.0.0 0258 - F NR\_pos-Core

[R2-2005088](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005088%20DraftCR%20for%20SSB%20configuration%20in%20LPP%20spec.docx) DraftCR for SSB configuration in LPP spec Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005101](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005101%20Corrections%20on%20the%20positioning%20measurement%20report%20in%2037.355%20v02.docx) Corrections on the positioning measurement report in 37.355 Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005107](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005107%20Remaining%20issues%20in%20LPP_final.docx) Remaining issues in LPP Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005108](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005108%20Remaining%20issues%20in%20LPP%20ASN.1%20issues_final.docx) Remaining issues in LPP ASN.1 Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2005305](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005305%20UE%20Capability%20SRS.docx) UL SRS UE Capability Ericsson discussion Rel-16 R2-2003137

[R2-2006013](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2006013%20Structure%20of%20UE-based%20beam%20information%20assistance%20data%20%28Extension%20to%20email%20discussion%20949%29.docx) Structure of UE-based beam information assistance data (Extension to email discussion 949) Ericsson discussion Rel-16 NR\_pos-Core Late

#### 6.8.2.4 MAC corrections

Including impact to 38.321.

Tdoc limitation: 1 tdoc

Running CR

[R2-2005087](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005087%20Runnnig%20CR%20to%20MAC%20spec%20for%20R16%20Positioning.docx) Runnnig CR to MAC spec for R16 Positioning Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

SRS during DRX inactive period

[R2-2005092](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005092%20Remaining%20issues%20in%20MAC%20spec_final.doc) Remaining issues in MAC spec Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2004461](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004461%20Discussion%20on%20SRS%20for%20positioning%20during%20the%20DRX%20inactive%20period.docx) Discussion on SRS for positioning during the DRX inactive period vivo discussion Rel-16 NR\_pos-Core

[R2-2005046](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005046-Discussion%20on%20positioning%20SRS%20during%20DRX%20inactive%20period.docx) Discussion on positioning SRS during DRX inactive period Spreadtrum Communications discussion

Other

[R2-2004636](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004636%20MAC%20CE.docx) Discussion and corrections for MAC CE Design for Positioning Ericsson discussion Rel-16

[R2-2005211](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005211_%2838321%20PHR%20corrections%29.docx) Corrections to Power Headroom Reporting for SRS for positioning Qualcomm Incorporated discussion

### 6.8.3 Other

Tdoc limitation: 1 tdoc

[R2-2005304](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005304%20UE%20Rx%20Tx%20measurements.docx) DL PRS and UL SRS Coupling for UE Rx Tx measurements for NR positioning Ericsson discussion Rel-16

Withdrawn:

R2-2004797 UE capabilities on supporting positioning SRS during DRX inactive period CATT discussion Rel-16 NR\_pos-Core

## 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 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), nor to corrections.

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

#### 6.20.1.3 Corrections

Corrections to functionality previously introduced as TEI16

[R2-2004792](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C36%20305_CR0088_%28Rel-16%29_R2-2004792.docx) Update B1I signal ICD file to v3.0 in BDS system in A-GNSS CATT, CAICT, Huawei, ZTE Corporation CR Rel-16 36.305 16.0.0 0088 - F TEI16

[R2-2004793](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C37%20355_CR0259_%28Rel-16%29_R2-2004793.docx) Update B1I signal ICD file to v3.0 in BDS system in A-GNSS CATT, CAICT, Huawei, ZTE Corporation CR Rel-16 37.355 16.0.0 0259 - F TEI16

[R2-2004794](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38%20305_CR0024_%28Rel-16%29_R2-2004794.docx) Update B1I signal ICD file to v3.0 in BDS system in A-GNSS CATT, CAICT, Huawei, ZTE Corporation CR Rel-16 38.305 16.0.0 0024 - F TEI16

* [AT110-e][603][POS] CRs on B1I signal ICD file version (CATT)

 Scope: Discuss and agree on documents R2-2004792, R2-2004793, and R2-2004794

 Intended outcome: Agreed CRs

 Deadline: Wednesday 2020-06-03 1000 UTC

## 6.21 On demand SI in connected

On demand SI reception in RRC\_CONNECTED is relevant to several Rel-16 WIs (e.g. V2X, positioning). This agenda item is for the discussion of the generic procedure for on demand SI in RRC\_CONNECTED; WI specific details of the SI content should be discussed within the appropriate AI for that WI.

Tdoc Limitation: 1 tdoc

Running CRs

[R2-2005173](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38.300_CR0237%28Rel-16%29_R2-2005173-%20Introduction%20of%20on-demand%20SIB%28s%29%20procedure%20in%20CONNECTED.docx) Introduction of on-demand SIB(s) procedure in CONNECTED Ericsson (Rapporteur) CR Rel-16 38.300 16.1.0 0237 - B 5G\_V2X\_NRSL-Core, NR\_pos-Core

[R2-2005172](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38.331_CR1657%28Rel-16%29_R2-2005172-%20Introduction%20of%20on-demand%20SIB%28s%29%20procedure%20in%20CONNECTED.docx) Introduction of on-demand SIB(s) procedure in CONNECTED Ericsson (Rapporteur) CR Rel-16 38.331 16.0.0 1657 - B 5G\_V2X\_NRSL-Core, NR\_pos-Core

* [AT110-e][607][OdSIB] Proposals for on-demand SI in connected (Ericsson)

 Scope: Condense the proposals from documents under agenda item 6.21, and identify any easy agreements

 Intended outcome: Summary of issues and agreements, in R2-2005883

 Deadline: Comments Wednesday 2020-06-03 1000 UTC; report Thursday 2020-06-04 1000 UTC

R2-2005883 Report of offline discussion [AT110-e][607][OdSIB] Proposals for on-demand SI in connected Ericsson discussion Rel-16

Prohibit timer

[R2-2004530](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004530_Corrections%20for%20onDemandSIB-RequestProhibitTimer%20operation.doc) Corrections for onDemandSIB-RequestProhibitTimer operation Samsung Electronics Co., Ltd discussion Rel-16

[R2-2004604](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004604_ProhibitTimer_open_issues.doc) Open issues on Prohibit timer Lenovo, Motorola Mobility discussion Rel-16 TEI16

[R2-2004795](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004795%20%5BC701%5D%20Prohibit%20Timer%20for%20on%20Demand%20SIB%20Request%20in%20RRC_CONNECTED.docx) [C701]Prohibit Timer for on Demand SIB Request in RRC\_CONNECTED CATT discussion Rel-16 NR\_pos-Core, 5G\_V2X\_NRSL-Core Late

[R2-2005696](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005696%20Condition%20for%20T350%20stop.doc) Condition for T350 stop LG Electronics Inc. discussion

UE capability and which SIBs

[R2-2004641](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004641_Remaining%20issues%20of%20on-demand%20SI%20in%20RRC_CONNECTED.doc) Remaining issues of on-demand SI in RRC\_CONNECTED vivo discussion Rel-16 TEI16

[R2-2005102](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005102%20Discussion%20on%20on-demand%20SIB10%20in%20RRC_CONNECTED.DOC) Discussion on the remaining issue of on-demand SI in RRC\_CONNECTED Huawei, HiSilicon discussion Rel-16 NR\_pos-Core

[R2-2004706](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004706.docx) On-demand request for SIB9 (for reasons beyond IIoT) [M118] MediaTek Inc. discussion Rel-16

Other

[R2-2004986](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004986%20%5BH780%5D%20Text%20Proposal%20on%20PDCCH%20monitoring%20for%20SI%20request%20in%20RRC_CONNECTED.doc) [H780] Text Proposal on PDCCH monitoring for SI request in RRC\_CONNECTED Huawei, HiSilicon discussion Rel-16 NR\_pos-Core Late

[R2-2004987](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004987%20%5BH781-783%5D%20Correction%20on%20OnDemandSIB-Request.doc) [H781-783] Correction on OnDemandSIB-Request Huawei, HiSilicon draftCR Rel-16 38.331 16.0.0 NR\_pos-Core Late

[R2-2005174](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005174-%20%5BE243%5D%20ASN.1%20remaining%20issues%20on%20on-demand%20SIBs%20in%20CONNECTED.docx) [E243, E244] ASN.1 remaining issues on on-demand SIBs in CONNECTED Ericsson draftCR Rel-16 38.331 16.0.0 B 5G\_V2X\_NRSL-Core, NR\_pos-Core Late

[R2-2005597](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005597_%5BZ113%5D%20%5BZ117%5D%20Text%20proposal%20for%20accepted%20RIL%20issues.docx) [Z113] [Z117] Text proposal for accepted RIL issues ZTE Corporation, Sanechips discussion Rel-16

# 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

This item is 100%

[R2-2004595](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2004595_Introduction%20of%20NavIC%20Keplerian%20set%20IE.docx) Introduction of NavIC Keplerian set IE Reliance Jio CR Rel-16 37.355 16.0.0 0257 2 F LCS\_NAVIC-Core R2-2003998

* [AT110-e][604][POS] AIP CR on NavIC Keplerian set IE (Reliance Jio)

 Scope: Confirm agreement on document R2-2004595

 Intended outcome: Agreed CR

 Deadline: Wednesday 2020-06-03 1000 UTC