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; report in R2-2005897

 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]

* [AT110-e][609][POS] Stage 2 CR checking and update (Qualcomm)

 Scope: Confirm the changes from R2-2005210 and update to take into account decisions of this meeting

 Intended outcome: Agreeable CR in R2-2005888

 Deadline: Wednesday 2020-06-10 1000 UTC

* [AT110-e][610][POS] Stage 2 proposals (Huawei)

 Scope: Conclude on proposals related to the update of 38.305:

* Updates for request of posSI in different RRC states
* Determine where the ARFCN needs to be added to the information transferred between UE and LMF
* Whether to include the “same Rx beam indication” in the information transferred from UE to LMF for DL-AoD

 Intended outcome: Agreeable TP to be merged into the stage 2 running CR, in R2-2005889

 Deadline: Wednesday 2020-06-10 1000 UTC

* [AT110-e][611][POS] RRC positioning CR update (Ericsson)

 Scope: Update R2-2005718 with decisions of this meeting

 Intended outcome: Agreeable CR in R2-2005890

 Deadline: Wednesday 2020-06-10 1000 UTC

* [AT110-e][612][POS] TRP-ID continuation (Ericsson)

 Scope: Continue discussion of the open issues from R2-2004704 and converge where possible. Open issues identified:

* Name of the integer identifier for a TRP
* Unique identification of a DL-PRS resource between the UE and the LMF
* Need for an additional identifier in the measurement information
* Need for a cell identifier in DL-PRS assistance data
* Need for a cell identifier in UE-based assistance data

 Intended outcome: Report of discussion, in R2-2005894

 Deadline: Thursday 2020-06-04 1800 UTC

# 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

* Agreed in offline discussion [AT110-e][601]

[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

* Agreed in offline discussion [AT110-e][601]

[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

* Agreed in offline discussion [AT110-e][601]

[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

* Agreed in offline discussion [AT110-e][601]
* [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

* Revised in R2-2005891

[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

* Revised in R2-2005892
* [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

[R2-2005891](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38305_CR0018r2_%28Rel-15%29_R2-2005891.docx) Clarification on UE Positioning Architecture in 38 305 for Rel-15 CATT CR Rel-15 38.305 15.5.0 0018 2 F NR\_newRAT-Core R2-2004790

* Agreed in offline discussion [AT110-e][602]

[R2-2005892](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38305_CR0019r2_%28Rel-16%29_R2-2005892.docx) Clarification on UE Positioning Architecture in 38 305 for Rel-16 CATT CR Rel-16 38.305 16.0.0 0019 2 A NR\_newRAT-Core R2-2004791

* Agreed in offline discussion [AT110-e][602]

# 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

* Above 5 LSs are noted without presentation

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

* Noted (to be taken into account in discussion [608])
* [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

* Above 2 documents noted without presentation (to be taken into account in discussion [605])
* [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; report in R2-2005897

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

[R2-2005881](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005881.docx) Introduction of on-demand System Information functionality for Positioning Ericsson draftCR Rel-16 38.331 16.0.0 B NR\_pos-Core

[R2-2005897](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2005897.docx) [AT110-e][605][POS] On-demand posSIBs (Ericsson) Ericsson report Rel-16

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

* [AT110-e][609][POS] Stage 2 CR checking and update (Qualcomm)

 Scope: Confirm the changes from R2-2005210 and update to take into account decisions of this meeting

 Intended outcome: Agreeable CR in R2-2005888

 Deadline: Wednesday 2020-06-10 1000 UTC

R2-2005888 Corrections to NR Positioning Qualcomm Incorporated CR Rel-16 38.305 16.0.0 0025 1 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

Ericsson think we should have an RRC reference as well as the sibPos name is not used in 37.355.

Reference to 38.331 to be added in the new text.

* Agreed with this change in R2-2005887

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

P2:

 CATT think we can say “on-demand SI request in RRC\_CONNECTED” instead of “on-demand connected mode procedure”.

 Qualcomm don’t think we need a new section for the on-demand procedure as it does not add a different procedure for positioning. CATT agree that the new 7.5.x is not needed, and have additional comments on the details.

 We will not introduce the new section and just have a brief sentence in 7.5.1.

P3:

 CATT wonder if we will align stage 3 to the same wording.

 Ericsson think this may be in a RAN3 part. Intel agree it is in RAN3 scope but are OK to mention the NG-RAN measurements in the RRC description.

 Qualcomm think there is no stage 3 impact.

 OPPO wonder if we need to specify that the measurements are for positioning. Apple think it’s correct to capture “NG-RAN measurements for positioning”.

 Nokia think the proposal is OK as it is. Ericsson think we should give RAN3 some say.

P4:

 Qualcomm think the pathloss reference in the MAC CE is not for the positioning SRS; we can only change the spatial relation. Huawei agree for Rel-16 SRS, but point out for Rel-15 SRS used for positioning we have the Rel-15 a/d MAC CE. Qualcomm agree but the new MAC functionality is specific to Rel-16.

 Nokia think we should keep the existing text but just update “uplink positioning measurements” to “NG-RAN measurements”. They think the other aspects can stay in stage 3.

 Ericsson think it makes sense to have some generic description of the pathloss reference if RAN1 confirm that multi-RTT can be used with Rel-15 signals.

 Intel agree with Nokia that we should keep the text simple.

 Huawei think the description is incomplete without mentioning the spatial relation; it suggests that the functionality is just activation/deactivation.

 Qualcomm think there is no direct relationship to multi-RTT and the use of Rel-15 signals does not affect our stage 2. They would be OK with keeping the original text, but if we capture more details we should do it correctly.

P5:

 Nokia think this is RAN3 text and it should be addressed in RAN3. Intel agree.

P6:

 Qualcomm think the argumentation applies to all positioning methods, not just NR E-CID. Huawei think for other positioning methods it would be between gNB and LMF. Qualcomm understand that it is needed from UE to LMF for all methods (for the measured cell).

 CATT think this is in the scope of the TRP-ID discussion. Huawei do not think it is related because the ARFCN is needed either in or out of the TRP-ID container. Intel agree with Huawei.

P7:

 Nokia think RAN1 have discussed the same Rx beam indication, but not clear what the conclusion was. We may need time to check the RAN1 status.

 CATT wonder why we remove “quality of each measurement” since the quality of the RSRP should be included. Qualcomm understand that the quality is only for timing measurements. Huawei have the same view.

Agreements:

- Change the “UL positioning measurement” to “NG-RAN measurements for NR positioning” in the description for RRC and MAC protocols.

- Remove “Quality of each measurement” that may be transferred from UE to the LMF for NR DL AoD positioning in clause 8.11.2.2

* [AT110-e][610][POS] Stage 2 proposals (Huawei)

 Scope: Conclude on proposals related to the update of 38.305:

* Updates for request of posSI in different RRC states
* Determine where the ARFCN needs to be added to the information transferred between UE and LMF
* Whether to include the “same Rx beam indication” in the information transferred from UE to LMF for DL-AoD

 Intended outcome: Agreeable TP to be merged into the stage 2 running CR, in R2-2005889

 Deadline: Wednesday 2020-06-10 1000 UTC

R2-2005889 [TP from offline discussion #610] Huawei, HiSilicon draftCR Rel-16 38.305 NR\_pos-Core

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

Huawei think the changes from R2-2005089 need to be captured.

* Endorsed as baseline for further updates (R2-2005089 should be included)
* [AT110-e][611][POS] RRC positioning CR update (Ericsson)

 Scope: Update R2-2005718 with decisions of this meeting

 Intended outcome: Agreeable CR in R2-2005890

 Deadline: Wednesday 2020-06-10 1000 UTC

R2-2005890 Capturing RRC Positioning Impacts after RAN2-109bis Ericsson (Rapporteur) CR Rel-16 38.331 16.0.0 1592 2 F NR\_pos-Core

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

P1:

 Nokia think NRPPa has the option to stop broadcasting, and the requirements are not clear as to whether the gNB releases the stored posSIBs in this case—so can the UE still request them? If the UE includes the GNSS ID in the request, but the gNB has been asked to stop broadcasting for this GNSS, can the UE request it? Chair thinks this is a general issue and not specific to the GNSS/SBAS ID. Nokia clarify their concern is about the gNB being required to store multiple copies of the posSIB.

 Qualcomm think the problem is that we have only a GNSS positioning method, and the UE may need the assistance data for a specific GNSS. E.g. we have “GNSS ephemeris” SIB type, although the actual ephemeris is different for different GNSSs. They understand that the UE must be able to request AD for a particular GNSS.

 CATT wonder if the gNB has the option to stop broadcasting, why wouldn’t it just update SIB1 which will prevent the UE from seeing the GNSS that has stopped? Chair has the same understanding. Ericsson agree with CATT, and wonder if there will be actual cases of deploying multiple GNSSs in a single network—if so, it would be important to have this. Intel also wonder about the likelihood of deploying multiple GNSSs.

 Nokia understand that the GNSS/SBAS metadata are for the benefit of the UE and there is no requirement on the gNB to act on it. They see that this would create a requirement for the gNB to be sensitive to the metadata instead of passing it through transparently.

 Qualcomm think the metadata are already not transparent for the gNB, because the gNB needs to take it into account in formulating SIB1. They consider that the feature is broken if we do not have the ability to request AD for a specific GNSS/SBAS, because the AD are not meaningful without an associated GNSS ID.

P2:

 Ericsson think if we do not have a separate SI area ID for positioning, the use of this field is unclear, but they can accept the majority view.

 Intel also think it is not needed without the separate area ID.

 CATT think area scope still works without the separate area ID; it can be configured by OAM.

 QC understand that the SIBs already can be area-specific, so this adds nothing new. Ericsson think it relates to the LS from RAN3 which asked if there will be a cell list. So the question is whether we need NRPPa signalling. Nokia think this is already discussed in RAN3 and out of RAN2 scope.

 Qualcomm do not think it is related to the cell list, and understand the area scope flag is already part of the metadata. They do not think this is a RAN2 issue.

P3:

Agreements:

Agree with GNSS ID/SBAS ID in on-demand SI request (per SIB) to assistance data in RRC\_CONNECTED mode and merge it into running CR 38.331 for ASN.1 check.

Postpone the separate positioning system information area ID to Rel-17 and reuse the existing area ID.

[Discussion continued in next session]

D1 (cell list):

D2 (unicast tag):

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

* Noted (merged into R2-2005718)

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

* [AT110-e][612][POS] TRP-ID continuation (Ericsson)

 Scope: Continue discussion of the open issues from R2-2004704 and converge where possible. Open issues identified:

* Name of the integer identifier for a TRP
* Unique identification of a DL-PRS resource between the UE and the LMF
* Need for an additional identifier in the measurement information
* Need for a cell identifier in DL-PRS assistance data
* Need for a cell identifier in UE-based assistance data

 Intended outcome: Report of discussion, in R2-2005894

 Deadline: Thursday 2020-06-04 1800 UTC

R2-2005894 Report on TRP-ID continuation Ericsson report 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](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2006003_%28LPP%20Open%20Issues%20Summary%29.docx) 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

* Revised in R2-2005895

[R2-2005895](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C36%20305_CR0088_%28Rel-16%29_R2-2005895.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 1 F TEI16

* Agreed in offline discussion [AT110-e][603]

[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

* Revised in R2-2005893

[R2-2005893](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C37%20355_CR0259_%28Rel-16%29_R2-2005893.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 1 F TEI16

* Agreed in offline discussion [AT110-e][603]

[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

* Revised in R2-2005896

[R2-2005896](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5C38%20305_CR0024_%28Rel-16%29_R2-2005896.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 1 F TEI16

* Agreed in offline discussion [AT110-e][603]
* [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

* Not provided (two tdocs allocated and the other one is used)

[R2-2006043](file:///C%3A%5CUsers%5Cmtk16923%5CDocuments%5C3GPP%20Meetings%5C202006%20-%20RAN2_110-e%2C%20Online%5CExtracts%5CR2-2006043-%20Report%20of%20%5BAT110-e%5D%5B607%5D%5BOdSIB%5D%20Proposals%20for%20on-demand%20SI%20in%20connected.docx) Report of [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

* Agreed in offline discussion [AT110-e][604]
* [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