3GPP TSG-RAN WG2 Meeting #101bis

Sanya, China, 16th - 20th April 2018

Source: RAN2 Chairman (Intel)

Title: Chairman Notes

# 1 Opening of the meeting (9 AM)

## 1.1 Call for IPR

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| The attention of the delegates of this Working Group is drawn to the fact that **3GPP Individual Members have the obligation** under the IPR Policies of their respective Organizational Partners **to inform their respective Organizational Partners of Essential IPRs** they become aware of.  The delegates were asked to take note that they were hereby invited:   * to investigate whether their organization or any other organization owns IPRs which were, or were likely to become Essential in respect of the work of 3GPP. * to notify their respective Organizational Partners of all potential IPRs, e.g., for ETSI, by means of the IPR Statement and the Licensing declaration forms (http://webapp.etsi.org/Ipr/). |

NOTE: IPRs may be declared to the Director-General or Chairman of the SDO, but not to the RAN WG2 Chairman.

## 1.2 Network usage conditions

The PCG has laid down the following network usage conditions

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| 1. **Users shall not use the network to engage in illegal activities. This includes activities such as copyright violation, hacking, espionage or any other activity that may be prohibited by local laws.**  2. **Users shall not engage in non-work related activities that consume excessive bandwidth** or cause significant degradation of the performance of the network.  Since the network is a shared resource, users should exercise some basic etiquette when using the 3GPP network at a meeting. It is understood that high bandwidth applications such as downloading large files or video streaming might be required for business purposes, but delegates should be strongly discouraged in performing these activities for personal use. Downloading a movie or doing something in an interactive environment for personal use essentially wastes bandwidth that others need to make the meeting effective. The meeting chairman should remind end users that the network is a shared resource; the more one user grabs, the less there is for another. Email and its attachments already take up significant bandwidth (certain email programs are not very bandwidth efficient). In case of need the chair can ask the delegates to restrict IT usage to things that are essential for the meeting itself.  **1. DON’T place your WiFi device in ad-hoc mode**  **2. DON’T set up a personal hotspot in the meeting room**  **3. DO try 802.11a if your WiFi device supports it**  **4. DON’T manually allocate an IP address**  **5. DON’T be a bandwidth hog by streaming video, playing online games, or downloading huge files**  **6. DON’T use packet probing software which clogs the local network (e.g., packet sniffers or port scanners)** |

## 1.3 Other

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| In accordance with the Working Procedures it is reaffirmed that:  (i) compliance with all applicable antitrust and competition laws is required;  (ii) timely submissions of work items in advance of TSG or WG meetings are important to allow for full and fair consideration of such matters; and  (iii) the chairman will conduct the meeting with strict impartiality and in the interests of 3GPP |

Note on (i): In case of question please contact your legal counsel.

Note on (ii): WIDs don’t need to be submitted to the RAN2 meeting and will typically not be discussed here either.

# 2 General

THANK YOU to companies that request TDoc numbers and submit contributions early before deadline (really appreciated). Will start to refrain from treating late documents.

## 2.1 Approval of the agenda

A draft schedule for the week is provided as a separate document, distributed via the RAN2 email reflector and made available during the meeting week in the RAN2\Inbox\Chairmans\_Notes folder.

[R2-1804200](file:///C:\Data\3GPP\Extracts\R2-1804200.doc) Agenda for RAN2#101bis Chairman agenda

=> Approved

## 2.2 Approval of the report of the previous meeting

[R2-1804201](file:///C:\Data\3GPP\RAN2\Docs\R2-1804201.zip) RAN2#101 Meeting Report MCC report Late

- MediaTek think that the agreement last time is that TDM and FDM of paging and SSB should be a RAN1 decision and not RAN2. So should be part of the RAN2 working assumption.

=> Approved

## 2.3 Reporting from other meetings

**NR**

**ASN.1 freeze for EN-DC**: RAN agreed to freeze the March 2018 ASN.1

**Architecture options 4 and 7**: RAN agreed a plan for a Release 15 late drop that will add support for architecture options 4 and 7. Completion is scheduled for December 2018 with ASN.1 freeze in March 2019. No functionality other than architecture options 4 and 7, and possibly NR-NR DC (see bullet below), will be added by the Release 15 late drop. This is described in [RP-180554](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180554.zip)

**NR-NR DC**: The addition of NR-NR DC to the Release 15 late drop will be considered at RAN#80 and the scope of NR-NR DC will be defined in such a way to minimise the impact to RAN1. RAN WGs will not work any items specific to NR-NR DC during Q2 2018. This is also described [RP-180554](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180554.zip)

**NR Study Items**: The NR unlicensed and NR IAB study items are now targeted for completion in December 2018. In the 2 meeting of Q2 2018, the unlicensed SI will be discussed in RAN2 with 0.5 and 1 TU respectively, and IAB will be discussed with 1 TU in each meeting (Endorsed in [RP-180592](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180592.zip))

**Voice over NR**: RAN confirmed RAN2's agreements related to voice support for NR, i.e. to support the MAC CE based rate adaption and UE reporting of air interface delay budget features but to discuss them with lower priority than essential functionality for SA.

**Guidance relating to requirements from external bodies**: RAN confirmed that " RAN2 works to address 3GPP agreed requirements. Everything else is discussed based on usual 3GPP process, with no special weight given to requirements from external bodies (companies supporting those requirements can bring them to the appropriate 3GPP group - e.g. RAN, SA, SA1, etc)."

**Beam management**: Some inconsistency between RAN1 and RAN2 agreements related to beam failure and recovery where addressed within the endorsed [RP-180597](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180597.zip). No change to current RAN2 specifications required as a result of this but some action on RAN1 for further discussion.

**UE ID based capability reporting**: An LS approved in R2-180598 requests SA2 and RAN2 to work on a UE ID based capability reporting scheme with the aim to introduce this in the release 15 timeframe. RAN2 is also requested to continue its ongoing work on optimising the UE capability structure.

**LTE**

**HRLLC**: A reduced scope and prioritisation for the WI was endorsed in [RP-180586](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180586.zip). The reduction in scope mainly effects physical layer features and the PDCP data duplication objective remains within RAN2 scope. The provision of time reference objective is a second priority to be discussed in RAN2 on a best effort basis.

## 2.4 Others

Rapporteur changes

Spec former rapporteur proposed new rapporteur

Isolated impact analysis

Note that an isolated impact analysis is required for Rel-8 to Rel-14 CRs from Q3 2017 onwards.

Only corrections where there is a proven problem are allowed for frozen releases (Rel-8 to Rel-14).

RAN2 WG compendium

Latest version can always be found at ftp://ftp.3gpp.org/tsg\_ran/WG2\_RL2/Org/RAN2\_Compendium/

Drafting rules

Note that specification drafting rules in TR 21.801 must be followed when drafting a CR and draft TS/TR.

Latest version can always be found at http://www.3gpp.org/ftp/specs/archive/21\_series/21.801/

Time Budget

The time budget endorsed at RAN-78 is available in [RP-180566](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180566.zip)

Offline discussion during RAN2 meeting

Chairs will allocate a number for offline discussions during the meeting. Create a folder starting with this number within inbox/drafts and use this to share any documents relating to the offline discussion (please use format "nnn ....", i.e. a 3 digit number). Also use this number in the title of any reflector emails relating to this offline discussion. (please use format "[101 Offline#nnn]....."). Do not share documents over the reflector during the meeting

# 3 Incoming liaisons

Note: LSs are moved to the respective agenda items if any.

Liaisons to RAN2

[R2-1804247](file:///C:\Data\3GPP\Extracts\R2-1804247_R5-181240.doc) LS on Test applicability about early implementation features (R5-181240; contact: NTT DOCOMO) RAN5 LS in Rel-8 To:RAN2 Cc:RAN4

- Intel think there is a draft LS response with our previous agreement that we will not list these features but just use the coversheet. Samsung think we just agreed not to change our way of working but just use the coversheet.

- Ericsson think we could start to do this from now on but not go back to previous decisions. DOCOMO think RAN5 wanted it from R12 onwards.

- Intel think sometimes early implementation is just based on bi lateral discussions and not always captured. Ericsson think RAN5 only want to know the ones we have captured on the coversheet.

- Qualcomm wonder if this is for all small corrections or just for features

=> Offline to discuss whether we could capture some information in a spec for decisions made from now onwards. (Offline discussion #01, DOCOMO)

=> Draft response can be handled in the legacy session (AI6)

[R2-1806494](file:///C:\Data\3GPP\Extracts\R2-1806494.doc) Reply LS to RAN5 on early implementation

=> Change to " as early implementable "

=> Approved in R2-1806499

[R2-1804260](file:///C:\Data\3GPP\Extracts\R2-1804260_S2-183032.doc) LS on UE WLAN MAC address inclusion in E911 location information (S2-183032; contact: Nokia) SA2 LS in To:SA1, RAN2

=> Noted

[R2-1804261](file:///C:\Data\3GPP\Extracts\R2-1804261_SP-180234.doc) LS on Guidance on UE WiFi MAC Address inclusion in LTE Positioning Protocol (SP-180234; contact: MediaTek) SA LS in To:SA1, SA2, SA3, RAN2 Cc:RAN

=> Noted

[R2-1806356](file:///C:\Data\3GPP\Extracts\R2-1806356_S5-182392.doc) LS to RAN2 on adding measurements on average number of total active UEs (S5-1812392; contact: Huawei) SA5 LS in Rel-15 TEI15 To:RAN2

=> Noted

[R2-1806357](file:///C:\Data\3GPP\RAN2\Docs\R2-1806357.zip) Reply LS to RAN2 on adding PRB usage distribution and IP throughput distribution measurements (S5-182571; contact: Huawei) SA5 LS in Rel-15 TEI15 To:RAN2

=> Noted

[R2-1806360](file:///C:\Data\3GPP\Extracts\R2-1806360_S4-180574.doc) Reply LS on adding new service type in QMC reporting (S4-180574; contact: Ericsson) SA4 LS in Rel-15 QOED To:RAN2 Cc: RAN3, RAN6, SA5

=> Noted

[R2-1806361](file:///C:\Data\3GPP\RAN2\Docs\R2-1806361.zip) LS on FS\_eVoLP (S4-180631; contact: Qualcomm) SA4 LS in Rel-15 FS\_eVoLP TEI15 To:RAN2, SA2, CT1, CT3, CT4

=> Noted

Liaisons with RAN2 in CC

[R2-1804205](file:///C:\Data\3GPP\Extracts\R2-1804205_C4-182388.doc) LS on Clarification on GTP-U "Long PDCP PDU Number" extension header (C4-182388; contact: NTT DOCOMO) CT4 LS in Rel-13 To:RAN3 Cc:RAN2

[R2-1804248](file:///C:\Data\3GPP\Extracts\R2-1804248_R6-180049.doc) Reply LS on adding new service type in QMC reporting (R6-180049; contact: Ericsson) RAN6 LS in Rel-15 QOED To:SA4 Cc:RAN3, SA5, CT1, RAN2

[R2-1804253](file:///C:\Data\3GPP\RAN2\Docs\R2-1804253.zip) LS on Differentiation of LTE-M (eMTC) traffic from other LTE data traffic (S2-182411; contact: Nokia) SA2 LS in To:RAN3, CT3, CT4, SA5 Cc:RAN2

[R2-1806362](file:///C:\Data\3GPP\Extracts\R2-1806362_S4-180633.doc) LS on the transmission of video over PC5 interface (S4-180633; contact: Samsung) SA4 LS in Rel-15 FS\_mV2X To:RAN1 Cc: RA2, SA1

[R2-1806363](file:///C:\Data\3GPP\Extracts\R2-1806363_S5-182334.doc) LS Reply to SA2 on Differentiation of LTE-M (eMTC) traffic from other LTE data traffic (S2-182334; contact: Nokia) SA5 LS in To:SA2 Cc: RAN3, CT3, CT4, RAN2

=> All LS above noted without presentation

New LS in (during RAN2#101) to RAN2

New LSs to RAN2

[R2-1806381](file:///C:\Data\3GPP\Extracts\R2-1806381_CVD%20Doc%201804_001%20LS%20to%203GPP.doc) LTE and the upcoming 5G standard (contact: Telecom Italia) GSMA LS in To:SA3, RAN2 Cc:RAN

- DOCOMO think this can be addressed by DRB IP for NR. And think even for LTE it could be supported in future.

- Vodafone think that SA3 have been discussing it in detail. It will have to be SA3 to decide what we need to put into our specs.

- Telecom Italia

=> RAN2 will leave this to SA3 to discuss and respond and will not take any action until SA3 have provided recommendations on what should be done.

[R2-1806423](file:///C:\Data\3GPP\Extracts\R2-1806423_R4-1805695.doc) LS to RAN2 on P-max procedure for high-power UEs (R4-1805695; contact: CMCC) RAN4 LS in Rel-13 To:RAN2 Cc:RAN5 TEI13

=> CR can be submitted to the next meeting to ensure that the RAN4 desired behaviour is correctly specified by RAN2/4 specs.

New LS in (during RAN2#101) cc RAN2

New LSs cc RAN2

[R2-1806209](file:///C:\Data\3GPP\Extracts\R2-1806209_R5-182022.doc) Clarifications on the applicable requirements of the PC2 UE (R5-182022; contact: CMCC) RAN5 LS in To: RAN4 cc: RAN2

[R2-1806398](file:///C:\Data\3GPP\Extracts\R2-1806398_C1-182471.doc) Reply LS on INOBEAR (C1-182471; contact: Samsung) CT1 LS in Rel-15 To:SA2 Cc:CT4, RAN2, RAN3 INOBEAR-CT

[R2-1806399](file:///C:\Data\3GPP\Extracts\R2-1806399_R3-182366.doc) Reply LS on INOBEAR (R3-182366; contact: Samsung) RAN3 LS in Rel-15 To:SA2 Cc:CT1, CT4, RAN2 INOBEAR

[R2-1806404](file:///C:\Data\3GPP\Extracts\R2-1806404_C4-183279.doc) LS On INOBEAR (C4-183279; contact: Huawei) CT4 LS in Rel-15 To:SA2 Cc:CT1, RAN2, RAN3 INOBEAR

=> Noted without presentation

# 4 Void

# 5 Void

# 6 LTE: Rel-12 and earlier releases

Including corrections related to the following WIs:

(LTE-L23, leading WG: RAN2, REL-8, started: Sep. 06, closed: Dec. 08, WID: [RP-080747](file:///C:\Data\3GPP\Extracts\RP-080747%20Revised%20LTE%20WID.doc))

(LTE\_CA-Core, leading WG: RAN1, REL-10, started: Dec. 09, closed: June 11, WID: [RP-100661](file:///C:\Data\3GPP\archive\TSGR\TSGR_48\Docs\RP-100661.zip))

(LTE\_UL\_MIMO-Core, leading WG: RAN1, REL-10, started: Dec.09, closed: June 11, WID: [RP-100959](file:///C:\Data\3GPP\archive\TSGR\TSGR_49\Docs\RP-100959.zip))

(LTE\_eDL\_MIMO-Core, leading WG: RAN1, REL-10, started: Dec.09, closed: March 11, WID: [RP-100196](file:///C:\Data\3GPP\archive\TSGR\TSGR_47\Docs\RP-100196.zip))

(LTE\_Relay-Core, leading WG: RAN1, REL-10, started: Dec. 09, closed: June 11, WID: [RP-110911](file:///C:\Data\3GPP\archive\TSGR\TSGR_52\Docs\RP-110911.zip))

(MBMS\_LTE\_enh-Core, leading WG: RAN2, REL-10, started: June 10, closed: March 11, WID: [RP-101244](file:///C:\Data\3GPP\archive\TSGR\TSGR_50\Docs\RP-101244.zip))

(MDT\_UMTSLTE-Core, leading WG: RAN2, REL-10, started: Dec. 09, closed: June 11, WID: [RP-100360](file:///C:\Data\3GPP\Extracts\RP-100360.doc))

(eICIC\_LTE-Core, leading WG: RAN1, REL-10, started: March 10, closed: June 11, WID: [RP-100383](file:///C:\Data\3GPP\archive\TSGR\TSGR_47\Docs\RP-100383.zip))

(SONenh\_LTE-Core, leading WG: RAN3, REL-10, started: March 10, closed: June 11, WID: [RP-101004](file:///C:\Data\3GPP\archive\TSGR\TSGR_49\Docs\RP-101004.zip))

(LTE\_CA\_enh-Core, leading WG: RAN1, REL-11, started: March 11, closed: Mar.13, WID: [RP-121999](file:///C:\Data\3GPP\archive\TSGR\TSGR_58\Docs\RP-121999.zip))

(MBMS\_LTE\_SC-Core, leading WG: RAN2, REL-11, started: June 10, closed: Sep.12, WID: [RP-120258](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120258.zip))

(LTE\_eDDA-Core, leading WG: RAN2, REL-11, started: March 11, closed: Dec.12, WID: [RP-120256](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120256.zip))

(LCS\_LTE-NBPS-Core, leading WG: RAN2, REL-11, started: March 09, closed: June. 13, WID: [RP-131259](file:///C:\Data\3GPP\archive\TSGR\TSGR_61\Docs\RP-131259.zip))

(eICIC\_enh\_LTE-Core, leading WG: RAN1, REL-11, started: March 11, closed: Dec. 12, WID: [RP-120860](file:///C:\Data\3GPP\archive\TSGR\TSGR_56\Docs\RP-120860.zip))

(SPIA\_IDC\_LTE-Core, leading WG: RAN2, REL-11, started: Sep.11, closed: Dec. 12, WID: [RP-111355](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111355.zip))

(COMP\_LTE\_DL-Core, leading WG: RAN1, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-111365](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111365.zip))

(COMP\_LTE\_UL-Core, leading WG: RAN1, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-111365](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111365.zip))

(LTE\_TDD\_add\_subframe, leading WG: RAN1, REL-11, started: March 12; closed: Sep. 12, WID: [RP-120384](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120384.zip))

(FS\_HetNet\_eMOB\_LTE, leading WG: RAN2, REL-11, started: March 11, closed: Sep. 12, WID: [RP-110709](file:///C:\Data\3GPP\Extracts\RP-110709.doc))

(LTE\_enh\_dl\_ctrl-Core, leading WG: RAN1, REL-11, started: Dec. 11, closed: Dec. 12, WID: [RP-120871](file:///C:\Data\3GPP\archive\TSGR\TSGR_56\Docs\RP-120871.zip))

(LTE\_SC\_enh\_dualC-Core, leading WG: RAN2, REL-12, started: Dec.13, closed: Dec.14, WID: [RP-141797](file:///C:\Data\3GPP\archive\TSGR\TSGR_66\Docs\RP-141797.zip))

(LTE\_SC\_enh\_L1-Core, leading WG: RAN1, REL-12, started: Dec.13, closed: Dec.14, WID: [RP-132073](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132073.zip))

(LTE\_D2D\_Prox-Core, leading WG: RAN1, REL-12, started: Mar.14, closed: Mar.15, WID: [RP-142043](file:///C:\Data\3GPP\Extracts\RP-142043%20LTE%20Device%20to%20Device%20Proximity%20Services%20-%20Work%20Item.doc))

(MBMS\_LTE\_OS-Core, leading WG: RAN2, REL-12, started: Sep.13, closed: Dec.14, WID: [RP-140282](file:///C:\Data\3GPP\Extracts\RP-140282_RevWID_MBMS_MDT.doc))

(LTE\_NAICS-Core, leading WG: RAN1, Rel-12, started: Mar 14, closed: Dec.14, WID: [RP-140519](file:///C:\Data\3GPP\Extracts\RP-140519.doc))

(LC\_MTC\_LTE-Core, leading WG: RAN1, REL-12, started: Jun 13, closed: Dec 14, WID: [RP-140522](file:///C:\Data\3GPP\Extracts\RP-140522.doc))

(GCSE\_LTE-MBMS\_CM-Core, leading WG: RAN3, started: Sep. 14, closed: Mar. 2015, WID: [RP-141035](file:///C:\Data\3GPP\Extracts\RP-141035.doc))

(LTE\_CA\_TDD\_FDD-Core, leading WG: RAN1, REL-12, started: Jun 13, closed: Jun 14, WID: [RP-140465](file:///C:\Data\3GPP\Extracts\RP-140465%20Revised%20WID%20TDD-FDD%20joint%20operation%20including%20CA.doc))

(LCS\_BDS-LTE-Core, leading WG: RAN2, REL-12, started: Mar 13, closed: Dec 13, WID: [RP-130416](file:///C:\Data\3GPP\archive\TSGR\TSGR_59\Docs\RP-130416.zip))

(LTE\_eDL\_MIMO\_enh-Core, leading WG: RAN1, REL-12, started: Sep 12, closed: June 14, WID: [RP-121416](file:///C:\Data\3GPP\archive\TSGR\TSGR_57\Docs\RP-121416.zip))

(HetNet\_eMOB\_LTE-Core, leading WG: RAN2, REL-12, started: Dec.12, , closed: Sep 14, WID: [RP-122007](file:///C:\Data\3GPP\archive\TSGR\TSGR_58\Docs\RP-122007.zip))

(Cov\_Enh\_LTE-Core, leading WG: RAN1, REL-12, started: Jun.13, closed: Jun.14, WID: [RP-130833](file:///C:\Data\3GPP\archive\TSGR\TSGR_60\Docs\RP-130833.zip))

(LTE\_TDD\_eIMTA-Core, leading WG: RAN1, REL-12, started: Dec 12, closed: Jun.14, WID: [RP-121772](file:///C:\Data\3GPP\archive\TSGR\TSGR_58\Docs\RP-121772.zip))

(SCM\_LTE-Core, leading WG: RAN2, REL-12, started: Mar.14, closed: Sep.14, WID: [RP-140434](file:///C:\Data\3GPP\Extracts\RP-140434_SCM%20WID.doc))

Including any LTE corrections related to the following joint UMTS/LTE WIs:

(SIMTC-RAN\_OC-Core, leading WG: RAN2, REL-11, started: Sep.11, closed: Sep. 12, WID: [RP-111373](file:///C:\Data\3GPP\archive\TSGR\TSGR_53\Docs\RP-111373.zip))

(eMDT\_UMTSLTE-Core, leading WG: RAN2, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-121204](file:///C:\Data\3GPP\archive\TSGR\TSGR_57\Docs\RP-121204.zip))

(SONenh2\_LTE\_UTRA-Core, leading WG: RAN3, REL-11, started: Sep.11, closed: Dec.12, WID: [RP-120314](file:///C:\Data\3GPP\archive\TSGR\TSGR_55\Docs\RP-120314.zip))

(rSRVCC-GERAN, leading WG: GERAN2, REL-11, started: Sep.11, closed: Nov.13, WID: GP-111290)

(EHNB\_enh3-Core, leading WG: RAN3, REL-12, started: Sep.12, closed: Dec 13, WID: [RP-130741](file:///C:\Data\3GPP\archive\TSGR\TSGR_60\Docs\RP-130741.zip))

(MTCe\_RAN-Core, leading WG: RAN2, REL-12, started: Dec.13, closed: Sep.14, WID: [RP-132053](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132053.zip))

(UTRA\_LTE\_WLAN\_interw-Core, leading WG: RAN2, REL-12, started: Dec.13, closed: Sep.14, WID: [RP-132101](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132101.zip))

(LTE\_UTRA\_IncMon-Core, leading: RAN4, REL-12, started: Dec.13, closed: Dec. 14, WID: [RP-132061](file:///C:\Data\3GPP\archive\TSGR\TSGR_62\Docs\RP-132061.zip))

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

[R2-1805605](file:///C:\Data\3GPP\Extracts\36321_CR1227R1_(Rel-14)_R2-1805605%20-%20Correction%20to%20MAC%20Entity%20modelling.docx) Correction to MAC Entity modelling Ericsson CR Rel-14 36.321 14.6.0 1227 1 A LTE\_CA\_enh-Core [R2-1803476](file:///C:\Data\3GPP\Extracts\36321_CR1227_(Rel-14)_R2-1803476%20-%20Correction%20to%20MAC%20Entity%20modelling.docx)

[R2-1805606](file:///C:\Data\3GPP\Extracts\36321_CR1228R1_(Rel-15)_R2-1805606%20-%20Correction%20to%20MAC%20Entity%20modelling.docx) Correction to MAC Entity modelling Ericsson CR Rel-15 36.321 15.1.0 1228 1 A LTE\_CA\_enh-Core [R2-1803477](file:///C:\Data\3GPP\Extracts\36321_CR1228_(Rel-15)_R2-1803477%20-%20Correction%20to%20MAC%20Entity%20modelling.docx)

[R2-1805670](file:///C:\Data\3GPP\Extracts\R2-1805670%20UL%20CA%20IDC%20during%20HO.docx) UL CA IDC during HO Nokia, Nokia Shanghai Bell discussion Rel-11 SPIA\_IDC\_LTE-Core

[R2-1805671](file:///C:\Data\3GPP\Extracts\R2-1805671%20Correction%20to%20UL%20CA%20IDC%20upon%20measurement%20object%20change%20Rel-11.doc) Correction to UL CA IDC upon measurement object change Nokia, Nokia Shanghai Bell CR Rel-11 36.331 11.18.0 3350 - F SPIA\_IDC\_LTE-Core

[R2-1805672](file:///C:\Data\3GPP\Extracts\R2-1805672%20Correction%20to%20UL%20CA%20IDC%20upon%20measurement%20object%20change%20Rel-12.doc) Correction to UL CA IDC upon measurement object change Nokia, Nokia Shanghai Bell CR Rel-12 36.331 12.16.0 3351 - A SPIA\_IDC\_LTE-Core

[R2-1805673](file:///C:\Data\3GPP\Extracts\R2-1805673%20Correction%20to%20UL%20CA%20IDC%20upon%20measurement%20object%20change%20Rel-13.doc) Correction to UL CA IDC upon measurement object change Nokia, Nokia Shanghai Bell CR Rel-13 36.331 13.9.1 3352 - A SPIA\_IDC\_LTE-Core

[R2-1805674](file:///C:\Data\3GPP\Extracts\R2-1805674%20Correction%20to%20UL%20CA%20IDC%20upon%20measurement%20object%20change%20Rel-14.doc) Correction to UL CA IDC upon measurement object change Nokia, Nokia Shanghai Bell CR Rel-14 36.331 14.6.2 3353 - A SPIA\_IDC\_LTE-Core

[R2-1805675](file:///C:\Data\3GPP\Extracts\R2-1805675%20Correction%20to%20UL%20CA%20IDC%20upon%20measurement%20object%20change%20Rel-15.doc) Correction to UL CA IDC upon measurement object change Nokia, Nokia Shanghai Bell CR Rel-15 36.331 15.1.0 3354 - A SPIA\_IDC\_LTE-Core

[R2-1805676](file:///C:\Data\3GPP\Extracts\R2-1805676%20Correction%20for%20IDC%20harware%20sharing%20problems%20Rel-13.doc) Correction for IDC harware sharing problems Nokia, Nokia Shanghai Bell CR Rel-13 36.331 13.9.1 3355 - F SPIA\_IDC\_LTE-Core

[R2-1805677](file:///C:\Data\3GPP\Extracts\R2-1805677%20Correction%20for%20IDC%20harware%20sharing%20problems%20Rel-14.doc) Correction for IDC harware sharing problems Nokia, Nokia Shanghai Bell CR Rel-14 36.331 14.6.2 3356 - A SPIA\_IDC\_LTE-Core

[R2-1805678](file:///C:\Data\3GPP\Extracts\R2-1805678%20Correction%20for%20IDC%20harware%20sharing%20problems%20Rel-15.doc) Correction for IDC harware sharing problems Nokia, Nokia Shanghai Bell CR Rel-15 36.331 15.1.0 3357 - A SPIA\_IDC\_LTE-Core

[R2-1805692](file:///C:\Data\3GPP\Extracts\R2-1805692.docx) Removal of the FDD/TDD diff restriction for crs-InterfHandl IE Qualcomm Incorporated CR Rel-11 36.331 11.18.0 3288 1 F TEI11, eICIC\_enh\_LTE-Core [R2-1803598](file:///C:\Data\3GPP\Extracts\R2-1803598.docx) Revised

[R2-1805693](file:///C:\Data\3GPP\Extracts\R2-1805693.docx) Removal of the FDD/TDD diff restriction for crs-InterfHandl IE Qualcomm Incorporated CR Rel-15 36.331 15.1.0 3293 1 A TEI11, eICIC\_enh\_LTE-Core [R2-1803616](file:///C:\Data\3GPP\Extracts\R2-1803616.docx)

[R2-1805718](file:///C:\Data\3GPP\Extracts\R2-1805718.docx) Removal of the FDD/TDD diff restriction for crs-InterfHandl IE Qualcomm Incorporated CR Rel-12 36.331 12.16.0 3289 1 A TEI11, eICIC\_enh\_LTE-Core [R2-1803600](file:///C:\Data\3GPP\Extracts\R2-1803600.docx)

[R2-1805759](file:///C:\Data\3GPP\Extracts\R2-1805759.docx) Removal of the FDD/TDD diff restriction for crs-InterfHandl IE Qualcomm Incorporated CR Rel-13 36.331 13.9.1 3290 1 A TEI11, eICIC\_enh\_LTE-Core [R2-1803602](file:///C:\Data\3GPP\Extracts\R2-1803602.docx)

[R2-1805768](file:///C:\Data\3GPP\Extracts\R2-1805768.docx) Removal of the FDD/TDD diff restriction for crs-InterfHandl IE Qualcomm Incorporated CR Rel-14 36.331 14.6.2 3291 1 A TEI11, eICIC\_enh\_LTE-Core [R2-1803614](file:///C:\Data\3GPP\Extracts\R2-1803614.docx)

[R2-1805799](file:///C:\Data\3GPP\Extracts\R2-1805799%20Handling%20on%20FDD%20and%20TDD%20diff.doc) Handling on FDD and TDD diff Huawei, HiSilicon discussion Rel-12 TEI

[R2-1805800](file:///C:\Data\3GPP\Extracts\R2-1805800%20Correction%20on%20UE%20capabilities.doc) Correction on UE capabilities Huawei, HiSilicon CR Rel-12 36.331 12.16.0 3362 - F TEI

[R2-1805801](file:///C:\Data\3GPP\Extracts\R2-1805801%20Correction%20on%20UE%20capabilities.doc) Correction on UE capabilities Huawei, HiSilicon CR Rel-13 36.331 13.9.1 3363 - F TEI

[R2-1805802](file:///C:\Data\3GPP\Extracts\R2-1805802%20Correction%20on%20UE%20capabilities.doc) Correction on UE capabilities Huawei, HiSilicon CR Rel-14 36.331 14.6.2 3364 - F TEI

[R2-1805803](file:///C:\Data\3GPP\Extracts\R2-1805803%20Correction%20on%20UE%20capabilities.doc) Correction on UE capabilities Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3365 - A TEI

[R2-1805979](file:///C:\Data\3GPP\Extracts\R2-1805979.docx) Removal of the FDD/TDD diff restriction for crs-InterfHandl IE Qualcomm Incorporated CR Rel-11 36.331 11.18.0 3288 2 F TEI11, eICIC\_enh\_LTE-Core [R2-1805692](file:///C:\Data\3GPP\Extracts\R2-1805692.docx)

[R2-1806179](file:///C:\Data\3GPP\Extracts\R2-1806179.doc) Draft Reply LS on early implementation NTT DOCOMO INC. LS out Rel-8 [R2-1804938](file:///C:\Data\3GPP\Extracts\R2-1804938.docx) To:RAN5 Cc:RAN4

Withdrawn

[R2-1804938](file:///C:\Data\3GPP\Extracts\R2-1804938.docx) Draft Reply LS on early implementation NTT DOCOMO INC. LS out Rel-8 To:RAN5 Cc:RAN4 Withdrawn

# 7 LTE: Rel-13

## 7.1 WI: Further LTE Physical Layer Enhancements for MTC

(LTE\_MTCe2\_L1-Core, leading WG: RAN1, REL-13; started: Sep. 14, closed: Mar. 16, WID: [RP-150492](file:///C:\Data\3GPP\Extracts\RP-150492.doc))

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

*Including ou*tput of email discussion [101#51][LTE/MTC R13] DRX for MTC (DOCOMO)

[R2-1804225](file:///C:\Data\3GPP\Extracts\R2-1804225_R3-181530.doc) Reply LS on Paging failures for CE Capable UEs (R3-181530; contact: Huawei) RAN3 LS in Rel-13 TEI13 To:SA2 Cc:RAN2

[R2-1805187](file:///C:\Data\3GPP\Extracts\R2-1805187.doc) Report of email discussion [101#51][LTE/MTC R13] DRX for MTC NTT DOCOMO INC. report LTE\_MTCe2\_L1-Core

=> Revised in [R2-1806193](file:///C:\Data\3GPP\Extracts\R2-1806193.doc)

[R2-1806193](file:///C:\Data\3GPP\Extracts\R2-1806193.doc) Report of email discussion [101#51][LTE/MTC R13] DRX for MTC NTT DOCOMO INC. report LTE\_MTCe2\_L1-Core

[R2-1805188](file:///C:\Data\3GPP\Extracts\R2-1805188.docx) Clarification on DRX timer counting NTT DOCOMO INC. CR Rel-14 36.321 14.6.0 1255 - F LTE\_MTCe2\_L1-Core

[R2-1805189](file:///C:\Data\3GPP\Extracts\R2-1805189.docx) Clarification on DRX timer counting NTT DOCOMO INC. CR Rel-15 36.321 15.1.0 1256 - A LTE\_MTCe2\_L1-Core

## 7.2 WI: Narrowband IOT

(NB\_IOT-Core; leading WG: RAN1; started: Sep. 15; target: Jun. 16; WID: [RP-152284](file:///C:\Data\3GPP\Extracts\RP-152284.docx))

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

[R2-1804952](file:///C:\Data\3GPP\Extracts\R2-1804952.doc) Way forward on PH update when random access fails Ericsson discussion Rel-13 NB\_IOTenh-Core

[R2-1804953](file:///C:\Data\3GPP\Extracts\R2-1804953.doc) Clarification for DPR MAC CE Ericsson CR Rel-13 36.321 13.8.0 1250 - F NB\_IOTenh-Core

[R2-1804954](file:///C:\Data\3GPP\Extracts\R2-1804954.doc) Correction to DPR MAC CE Ericsson CR Rel-14 36.321 14.6.0 1251 - F NB\_IOTenh-Core

[R2-1804955](file:///C:\Data\3GPP\Extracts\R2-1804955.doc) Correction to DPR MAC CE Ericsson CR Rel-15 36.321 15.1.0 1252 - A NB\_IOTenh-Core

[R2-1805087](file:///C:\Data\3GPP\Extracts\R2-1805087.doc) Clarifiication on measurement units for NB-IoT NTT DOCOMO INC. discussion Rel-13 36.331

[R2-1805095](file:///C:\Data\3GPP\Extracts\36321_CR1206r2_(Rel-13)_R2-1805095_Updating%20Power%20Headroom%20upon%20RAR%20Reception.docx) Updating Power Headroom upon RAR Reception MediaTek Inc. CR Rel-13 36.321 13.8.0 1206 2 F NB\_IOT-Core [R2-1804001](file:///C:\Data\3GPP\Extracts\36321_CR1206_(Rel-13)_R2-1804001_Updating%20Data%20Volume%20and%20Power%20Headroom%20upon%20RAR%20Reception.docx)

[R2-1805096](file:///C:\Data\3GPP\Extracts\36321_CR1207r2_(Rel-14)_R2-1805096_Updating%20Power%20Headroom%20upon%20RAR%20Reception.docx) Updating Power Headroom upon RAR Reception MediaTek Inc. CR Rel-14 36.321 14.6.0 1207 2 A NB\_IOT-Core R2-1804002

[R2-1805098](file:///C:\Data\3GPP\RAN2\Docs\R2-1805098.zip) Updating Power Headroom upon RAR Reception MediaTek Inc. CR Rel-15 36.321 15.1.0 1243 1 A NB\_IOT-Core R2-1804003

=> Revised in [R2-1806192](file:///C:\Data\3GPP\Extracts\36321_CR1243r2_(Rel-15)_R2-1806192_Updating%20Power%20Headroom%20upon%20RAR%20Reception.docx)

[R2-1806192](file:///C:\Data\3GPP\Extracts\36321_CR1243r2_(Rel-15)_R2-1806192_Updating%20Power%20Headroom%20upon%20RAR%20Reception.docx) Updating Power Headroom upon RAR Reception MediaTek Inc. CR Rel-15 36.321 15.1.0 1243 2 A NB\_IOT-Core [R2-1805098](file:///C:\Data\3GPP\RAN2\Docs\R2-1805098.zip)

## 7.3 Other LTE Rel-13 WIs

Including corrections related to the following WIs:

(LTE\_LAA-Core, leading WG: RAN1, REL-13; started: June 15, closed: Dec. 15, WID: [RP-151045](file:///C:\Data\3GPP\Extracts\RP-151045.doc))

(LTE\_CA\_enh\_b5C-Core, leading WG: RAN1, REL-13; started: Dec. 14, closed: Dec. 15, WID: [RP-151984](file:///C:\Data\3GPP\Extracts\RP-151984.doc))

(LTE\_SC\_PTM-Core, leading WG: RAN2, REL-13; started: June 15, closed: Dec. 15, WID: [RP-151110](file:///C:\Data\3GPP\Extracts\RP-151110%20New%20WI%20proposal%20on%20SC-PTM%20v3.doc))

(LTE\_eD2D\_Prox-Core, leading WG: RAN2, REL-13; started: Dec. 14, closed: Mar. 16, WID: [RP-150441](file:///C:\Data\3GPP\Extracts\RP-150441%20Revised%20WID%20Enhanced%20LTE%20Device%20to%20Device%20Proximity%20Services.doc))

(LTE\_MC\_load-Core, leading WG: RAN2, started: Mar. 15, closed: Dec. 15, WID: [RP-152181](file:///C:\Data\3GPP\Extracts\RP-152181%20Revised%20WI%20Multicarrier%20Load%20Distribution%20of%20UEs%20in%20LTE.doc))

(LTE\_dualC\_enh-Core, leading WG: RAN2, started: Mar. 15, closed: Dec. 15, WID: [RP-151739](file:///C:\Data\3GPP\archive\TSGR\TSGR_70\Docs\RP-151739.zip))

(LTE\_extDRX-Core; leading WG: RAN2; started: Mar. 15; closed: Mar. 16; WID: [RP-150493](file:///C:\Data\3GPP\Extracts\RP-150493-WID_Extended-DRX.doc))

(LTE\_EBF\_FDMIMO-Core; leading WG: RAN1; started: June. 15; closed: Dec. 15; WID: [RP-151085](file:///C:\Data\3GPP\Extracts\RP-151085%20WID_EBF_FD-MIMO.doc))

(LTE\_eMDT2-Core; leading WG: RAN2; started: Sep. 15; closed: Dec 15; WID: [RP-151611](file:///C:\Data\3GPP\Extracts\RP-151611.docx))

(UTRA\_LTE\_iPos\_enh-Core; leading WG: RAN2; started: Sep. 15; closed: Dec 15; WID: [RP-152251](file:///C:\Data\3GPP\Extracts\RP-152251%20(revision%20of%20RP-152008)%20Revised%20work%20item%20proposal%20Positioning%20enhancements%20for%20UTRA%20and%20LTE.doc))

(LTE\_WLAN\_radio-Core, leading WG: RAN2, started: Mar. 15, closed: Mar. 16, WID: [RP-152213](file:///C:\Data\3GPP\Extracts\RP-152213%20Revised-LTE-WIFI-WI-RAN-70-v2.doc))

(LTE\_WLAN\_radio\_legacy-Core; leading WG: RAN2; started: Sep. 15; closed: Mar 15; WID: [RP-151615](file:///C:\Data\3GPP\archive\TSGR\TSGR_69\Docs\RP-151615.zip))

Including any LTE corrections related to the following joint UMTS/LTE WIs:

(ACDC-RAN-Core; leading WG: RAN2; REL-13; started: Mar. 15; closed: Dec. 15; [RP-150662](file:///C:\Data\3GPP\Extracts\RP-150662%20RAN%20ACDC%20WID%20Rev.doc))

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

[R2-1804319](file:///C:\Data\3GPP\Extracts\R2-1804319_CR_HPUE_ULCA_Rel-13.doc) Handling of Pmax for PC2 and uplink intra-band contiguous CA capable UEs KDDI Corporation CR Rel-13 36.331 13.9.0 3308 - F LTE\_CA\_C\_B41\_PC2

[R2-1804320](file:///C:\Data\3GPP\Extracts\R2-1804320_CR_HPUE_ULCA_Rel-14.doc) Handling of Pmax for PC2 and uplink intra-band contiguous CA capable UEs KDDI Corporation CR Rel-14 36.331 14.6.0 3309 - A LTE\_CA\_C\_B41\_PC2

[R2-1804321](file:///C:\Data\3GPP\Extracts\R2-1804321_CR_HPUE_ULCA_Rel-15.doc) Handling of Pmax for PC2 and uplink intra-band contiguous CA capable UEs KDDI Corporation CR Rel-15 36.331 15.1.0 3310 - A LTE\_CA\_C\_B41\_PC2

[R2-1804902](file:///C:\Data\3GPP\Extracts\R2-1804902.doc) Correction on reducedIntNonContComb-r13 description Intel Corporation CR Rel-13 36.306 13.8.0 1573 - F LTE\_CA\_enh\_b5C-Core

[R2-1804903](file:///C:\Data\3GPP\Extracts\R2-1804903.doc) Correction on reducedIntNonContComb-r13 description Intel Corporation CR Rel-14 36.306 14.6.0 1574 - F LTE\_CA\_enh\_b5C-Core

[R2-1804904](file:///C:\Data\3GPP\Extracts\R2-1804904.doc) Correction on reducedIntNonContComb-r13 description Intel Corporation CR Rel-15 36.306 15.0.0 1575 - F LTE\_CA\_enh\_b5C-Core

[R2-1804932](file:///C:\Data\3GPP\Extracts\R2-1804932%20Draft%20CR%20release%2013%20CA%20power%20class.doc) Power class support capability per band combination to 36.306 Nokia, Nokia Shanghai Bell, Sprint CR Rel-13 36.306 13.8.0 1576 - C TEI13

[R2-1804933](file:///C:\Data\3GPP\Extracts\R2-1804933%20Draft%20CR%20release%2014%20CA%20power%20class.doc) Power class support capability per band combination to 36.306 Nokia, Nokia Shanghai Bell, Sprint CR Rel-14 36.306 14.6.0 1577 - A TEI13

[R2-1804934](file:///C:\Data\3GPP\Extracts\R2-1804934%20Draft%20CR%20release%2015%20CA%20power%20class.doc) Power class support capability per band combination to 36.306 Nokia, Nokia Shanghai Bell, Sprint CR Rel-15 36.306 15.0.0 1578 - A TEI13

[R2-1805917](file:///C:\Data\3GPP\Extracts\R2-1805917_36331_CR3368_(Rel-13)%20clarification%20on%20ue-TxAntennaSelectionSupported.doc) Clarification on ue-TxAntennaSelectionSupported when bandParameterList-v1380 is included Qualcomm Incorporated, SoftBank CR Rel-13 36.331 13.9.1 3368 - F LTE\_CA\_TDD\_FDD-Core

[R2-1805918](file:///C:\Data\3GPP\Extracts\R2-1805918_36331_CR3369_(Rel-14)%20clarification%20on%20ue-TxAntennaSelectionSupported.doc) Clarification on ue-TxAntennaSelectionSupported when bandParameterList-v1380 is included Qualcomm Incorporated, SoftBank CR Rel-14 36.331 14.6.2 3369 - A LTE\_CA\_TDD\_FDD-Core

[R2-1805919](file:///C:\Data\3GPP\Extracts\R2-1805919_36331_CR3370_(Rel-15)%20clarification%20on%20ue-TxAntennaSelectionSupported.doc) Clarification on ue-TxAntennaSelectionSupported when bandParameterList-v1380 is included Qualcomm Incorporated, SoftBank CR Rel-15 36.331 15.1.0 3370 - A LTE\_CA\_TDD\_FDD-Core

# 8 LTE Rel-14

## 8.1 WI: Enhanced LAA for LTE

(LTE\_eLAA-Core; leading WG: RAN1; REL-14; started: Dec. 15; closed: Mar. 17; WID:[RP-162229](file:///C:\Data\3GPP\archive\TSGR\TSGR_74\Docs\RP-162229.zip))

This agenda item is for correction CRs to the closed WI.

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

[R2-1805795](file:///C:\Data\3GPP\Extracts\R2-1805795%20Correction%20on%20eLAA.doc) Correction on eLAA Huawei, HiSilicon CR Rel-14 36.300 14.6.0 1092 1 F LTE\_eLAA-Core [R2-1802242](file:///C:\Data\3GPP\Extracts\R2-1802242%20Correction%20on%20eLAA.doc)

[R2-1805796](file:///C:\Data\3GPP\Extracts\R2-1805796%20Correction%20on%20eLAA.doc) Correction on eLAA Huawei, HiSilicon CR Rel-15 36.300 15.1.0 1093 1 A LTE\_eLAA-Core [R2-1802243](file:///C:\Data\3GPP\Extracts\R2-1802243%20Correction%20on%20eLAA.doc)

## 8.2 WI: Support for V2V services based on LTE sidelink

(LTE\_SL\_V2V-Core; leading WG: RAN1; started: Dec. 15; closed: Sept 16; WID: [RP-161603](file:///C:\Data\3GPP\archive\TSGR\TSGR_73\Docs\RP-161603.zip))

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

## 8.3 Void

## 8.4 Void

## 8.5 WI: Enhanced LTE-WLAN Aggregation (eLWA)

(LTE\_WLAN\_aggr-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Mar. 17; WID: [RP-160923](file:///C:\Data\3GPP\Extracts\RP-160923%20eLWA-WID.doc))

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

## 8.6 WI: Further mobility enhancements in LTE

(LTE\_eMob-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Mar. 17; WID:[RP-162503](file:///C:\Data\3GPP\Extracts\RP-162503%20Revised%20WID%20Mobility%20enhancements%20for%20LTE.docx))

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

## 8.7 WI: Further Indoor Positioning enhancements for UTRA and LTE

(UTRA\_LTE\_iPos\_enh2-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Dec. 16; WID: [RP-162026](file:///C:\Data\3GPP\Extracts\RP-162026_Revised%20Work%20Item_Further%20Indoor%20Positioning%20enhancements.doc))

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

## 8.8 WI: L2 latency reduction techniques for LTE

(LTE\_LATRED\_L2-Core; leading WG: RAN2; REL-14; started: Mar. 16; closed: Sep. 16; WID: [RP-160667](file:///C:\Data\3GPP\Extracts\RP-160667%20L2%20New%20WID%20for%20L2%20latency%20reduction%20techniques%20for%20LTE.doc))

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

[R2-1805426](file:///C:\Data\3GPP\Extracts\36321_CR0001_(Rel-14)_R2-1805426%20Flush%20HARQ%20buffer%20upon%20skipping%20a%20UL%20transmission.doc) Flush HARQ buffer upon skipping a UL transmission Google, Nokia, Nokia Shanghai Bell, LG Electronics Inc, Lenovo, HTC, Panasonic CR Rel-14 36.321 14.6.0 1259 - F TEI14, LTE\_LATRED\_L2-Core

## 8.9 Void

## 8.10 WI: eMBMS enhancements for LTE

(MBMS\_LTE\_enh2-Core; leading WG: RAN1; REL-14; started: Mar. 16; closed: Sep. 17; WID:[RP-162231](file:///C:\Data\3GPP\Extracts\RP-162231%20updated%20WID%20eMBMS%20enhancements%20for%20LTE.doc))

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

[R2-1804207](file:///C:\Data\3GPP\Extracts\R2-1804207_R1-1803116.doc) LS on handling of multiple numerologies in FeMBMS (R1-1803116; contact: Qualcomm) RAN1 LS in Rel-14 MBMS\_LTE\_enh2-Core To:RAN2

[R2-1805619](file:///C:\Data\3GPP\Extracts\R2-1805619_eMBMS%20Capability%20%20Signaling%20Indication_v3.docx) eMBMS Capability & Signaling Indication Qualcomm India Pvt Ltd discussion Rel-14 MBMS\_LTE\_enh2-Core

[R2-1805691](file:///C:\Data\3GPP\Extracts\R2-1805691_Draft%20LS%20on%20handling%20of%20multiple%20numerologies%20in%20FeMBMS%20_v2.docx) Draft LS on handling of multiple numerologies in FeMBMS Qualcomm India Pvt Ltd LS out Rel-14 MBMS\_LTE\_enh2-Core To:SA4 Cc:SA2, RAN1

## 8.11 WI: Enhancements of NB-IoT

(NB\_IOTenh-Core; leading WG: RAN1; REL-14; started: June 16; closed: Jun. 17; WID: [RP-171060](file:///C:\Data\3GPP\Extracts\RP-171060.doc))

Note: SC-PTM for eNB-IoT is handled under 8.12.1

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

[R2-1804737](file:///C:\Data\3GPP\Extracts\R2-1804737%20-%20Background%20to%20early%20contention%20resolution.doc) Background to early contention resolution Qualcomm Incorporated discussion

[R2-1804738](file:///C:\Data\3GPP\Extracts\R2-1804738_36300_R14_CR1070r5.doc) Introduction of support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Qualcomm Incorporated CR Rel-14 36.300 14.6.0 1070 5 C NB\_IOTenh-Core, TEI14 [R2-1804133](file:///C:\Data\3GPP\Extracts\R2-1804133_36300_R14_CR1070r4.doc)

[R2-1804739](file:///C:\Data\3GPP\Extracts\R2-1804739_36331_R14_CR3302r3.doc) Introduction of support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Qualcomm Incorporated CR Rel-14 36.331 14.6.0 3302 3 C NB\_IOTenh-Core, TEI14 [R2-1804131](file:///C:\Data\3GPP\Extracts\R2-1804131_36331_R14_CR3302r2.doc)

[R2-1804740](file:///C:\Data\3GPP\Extracts\R2-1804740_36306_R14_CR1567r1.doc) Introduction of support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Qualcomm Incorporated CR Rel-14 36.306 14.6.0 1567 1 C NB\_IOTenh-Core, TEI14 [R2-1803946](file:///C:\Data\3GPP\Extracts\R2-1803946.doc)

[R2-1804741](file:///C:\Data\3GPP\Extracts\R2-1804741_36300_R15_CR1102r4.doc) Introduction of support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Qualcomm Incorporated CR Rel-15 36.300 15.1.0 1102 4 A NB\_IOTenh-Core, TEI14 [R2-1804134](file:///C:\Data\3GPP\Extracts\R2-1804134_36300_R15_CR1102r3.doc)

[R2-1804742](file:///C:\Data\3GPP\Extracts\R2-1804742_36331_R15_CR3303%20r3.doc) Introduction of support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Qualcomm Incorporated CR Rel-15 36.331 15.1.0 3303 3 A NB\_IOTenh-Core, TEI14 [R2-1804132](file:///C:\Data\3GPP\Extracts\R2-1804132_36331_R15_CR3303%20r2.doc)

[R2-1804743](file:///C:\Data\3GPP\Extracts\R2-1804743_36306_R15_CR1570r0.doc) Introduction of support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Qualcomm Incorporated CR Rel-15 36.306 15.0.0 1570 - A NB\_IOTenh-Core, TEI14

[R2-1804963](file:///C:\Data\3GPP\Extracts\R2-1804963.doc) Measurement reporting in NB-IoT Ericsson discussion Rel-14 NB\_IOTenh-Core

[R2-1804964](file:///C:\Data\3GPP\Extracts\R2-1804964.doc) Introduction of Idle mode measurements reporting Ericsson draftCR Rel-14 36.306 14.6.0 C NB\_IOTenh-Core, TEI14

[R2-1804965](file:///C:\Data\3GPP\Extracts\R2-1804965.doc) Introduction of Idle mode measurements reporting Ericsson draftCR Rel-14 36.331 14.6.2 C NB\_IOTenh-Core, TEI14

[R2-1805072](file:///C:\Data\3GPP\Extracts\R2-1805072%20Correction%20to%20T310%20timer%20Description.doc) Correction to T310 timer Description Huawei, HiSilicon CR Rel-14 36.331 14.6.2 3326 - F NB\_IOTenh-Core

[R2-1805073](file:///C:\Data\3GPP\Extracts\R2-1805073%20Serving%20cell%20measurement%20reporting.doc) Serving cell measurement reporting Huawei, HiSilicon discussion Rel-14 NB\_IOTenh-Core

[R2-1805074](file:///C:\Data\3GPP\Extracts\R2-1805074%20Serving%20cell%20measurement%20reporting%20in%2036.331.doc) Introduction of serving cell measurement reporting in 36.331 Huawei, HiSilicon CR Rel-14 36.331 14.6.2 3327 - C NB\_IOTenh-Core

[R2-1805075](file:///C:\Data\3GPP\Extracts\R2-1805075%20Serving%20cell%20measurement%20reporting%20in%2036.306.doc) Introduction of serving cell measurement reporting in 36.306 Huawei, HiSilicon CR Rel-14 36.306 14.6.0 1579 - C NB\_IOTenh-Core

[R2-1805076](file:///C:\Data\3GPP\Extracts\R2-1805076%20DL%20channel%20quality%20reporting.doc) DL channel quality reporting Huawei, HiSilicon discussion Rel-14 NB\_IOTenh-Core

[R2-1805077](file:///C:\Data\3GPP\Extracts\R2-1805077%20Correction%20to%20enhanced%20RACH%20power%20control.doc) Correction to enhanced RACH power control Huawei, HiSilicon CR Rel-14 36.321 14.6.0 1253 - F NB\_IOTenh-Core

[R2-1805515](file:///C:\Data\3GPP\Extracts\R2-1805515.doc) Further discussion on Measurement Report for NB-IoT CMCC discussion Rel-14 NB\_IOTenh-Core

[R2-1805516](file:///C:\Data\3GPP\Extracts\R2-1805516.doc) Introduction of NRSRP and NRSRQ reporting in MSG5 CMCC draftCR Rel-14 36.331 14.6.1 C NB\_IOTenh-Core

[R2-1805968](file:///C:\Data\3GPP\Extracts\R2-1805968%20-%20Support%20for%20early%20contention%20resolution%20in%20NB-IoT%20-%2036300%20Rel%2014.doc) Support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Ericsson, SoftBank Corp. CR Rel-14 36.300 14.6.0 1132 - C NB\_IOTenh-Core, TEI14

[R2-1805969](file:///C:\Data\3GPP\Extracts\R2-1805969%20-%20Support%20for%20early%20contention%20resolution%20in%20NB-IoT%20-%2036306%20Rel%2014.doc) Support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Ericsson, SoftBank Corp. CR Rel-14 36.306 14.6.0 1587 - C NB\_IOTenh-Core, TEI14

[R2-1805970](file:///C:\Data\3GPP\Extracts\R2-1805970%20-%20Support%20for%20early%20contention%20resolution%20in%20NB-IoT%20-%2036331%20Rel%2014.doc) Support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Ericsson, SoftBank Corp. CR Rel-14 36.331 14.6.2 3371 - C NB\_IOTenh-Core, TEI14

[R2-1805971](file:///C:\Data\3GPP\Extracts\R2-1805971%20-%20Support%20for%20early%20contention%20resolution%20in%20NB-IoT%20-%2036300%20Rel%2015.doc) Support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Ericsson, SoftBank Corp. CR Rel-15 36.300 15.1.0 1133 - A NB\_IOTenh-Core, TEI14

[R2-1805972](file:///C:\Data\3GPP\Extracts\R2-1805972%20-%20Support%20for%20early%20contention%20resolution%20in%20NB-IoT%20-%2036306%20Rel%2015.doc) Support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Ericsson, SoftBank Corp. CR Rel-15 36.306 15.0.0 1588 - A NB\_IOTenh-Core, TEI14

[R2-1805973](file:///C:\Data\3GPP\Extracts\R2-1805973%20-%20Support%20for%20early%20contention%20resolution%20in%20NB-IoT%20-%2036331%20Rel%2015.doc) Support for MAC PDU containing UE contention resolution identity MAC control element without RRC response message in NB-IoT Ericsson, SoftBank Corp. CR Rel-15 36.331 15.1.0 3372 - A NB\_IOTenh-Core, TEI14

[R2-1806035](file:///C:\Data\3GPP\Extracts\36331_CR3379_(Rel-14)_%20R2-1806035%20Paging%20repetition%20in%20case%20of%20EC%20Restriction.docx) Paging repetition in case of EC Restriction ZTE, Sanechips CR Rel-14 36.331 14.6.2 3379 - C NB\_IOTenh-Core

[R2-1806043](file:///C:\Data\3GPP\Extracts\36331_CR3380_(Rel-15)_%20R2-1806043%20Paging%20repetition%20in%20case%20of%20EC%20Restriction.docx) Paging repetition in case of EC Restriction ZTE, Sanechips CR Rel-15 36.331 15.1.0 3380 - C NB\_IOTenh-Core

[R2-1806073](file:///C:\Data\3GPP\Extracts\36321_CR1269_(Rel-14)_R2-1806073_Regenerating%20a%20MAC%20PDU%20for%20Msg3%20to%20change%20PH%20reporting.docx) Regenerating a MAC PDU for Msg3 to change PH reporting LG Electronics Inc. CR Rel-14 36.321 14.6.0 1269 - F NB\_IOTenh-Core

[R2-1806074](file:///C:\Data\3GPP\Extracts\36321_CR1270_(Rel-15)_R2-1806074_Regenerating%20a%20MAC%20PDU%20for%20Msg3%20to%20change%20PH%20reporting.docx) Regenerating a MAC PDU for Msg3 to change PH reporting LG Electronics Inc. CR Rel-15 36.321 15.1.0 1270 - A NB\_IOTenh-Core

[R2-1806075](file:///C:\Data\3GPP\Extracts\36322_CR0136_(Rel-14)_R2-1806075_Regenerating%20a%20MAC%20PDU%20for%20Msg3%20to%20change%20PH%20reporting.docx) Regenerating a MAC PDU for Msg3 to change PH reporting LG Electronics Inc. CR Rel-14 36.322 14.1.0 0136 - F NB\_IOTenh-Core

[R2-1806076](file:///C:\Data\3GPP\Extracts\36322_CR0137_(Rel-15)_R2-1806076_Regenerating%20a%20MAC%20PDU%20for%20Msg3%20to%20change%20PH%20reporting.docx) Regenerating a MAC PDU for Msg3 to change PH reporting LG Electronics Inc. CR Rel-15 36.322 15.0.0 0137 - A NB\_IOTenh-Core

[R2-1806180](file:///C:\Data\3GPP\Extracts\R2-1806180_Correction%20on%20RA-RNTI%20Range%20for%20Non%20Anchor%20Carrier.docx) Correction on RA-RNTI Range for Non Anchor Carrier ROHDE & SCHWARZ CR Rel-14 36.321 14.6.0 1271 - F NB\_IOTenh-Core Late

=> Revised in [R2-1806195](file:///C:\Data\3GPP\Extracts\R2-1806195_Correction%20on%20RA-RNTI%20Range%20for%20Non%20Anchor%20Carrier.docx)

[R2-1806195](file:///C:\Data\3GPP\Extracts\R2-1806195_Correction%20on%20RA-RNTI%20Range%20for%20Non%20Anchor%20Carrier.docx) Correction on RA-RNTI Range for Non Anchor Carrier ROHDE & SCHWARZ CR Rel-14 36.321 14.6.0 1271 1 F NB\_IOTenh-Core Late

[R2-1806184](file:///C:\Data\3GPP\Extracts\36331_CR3307r2_(Rel-15)_R2-1806184_Small%20correction%20on%20PhysicalConfigDedicated-NB.docx) Small correction on PhysicalConfigDedicated-NB ZTE Corporation, Sanechips CR Rel-15 36.331 15.1.0`3307 1 F \_IOTenh-Core [R2-1804124](file:///C:\Data\3GPP\Extracts\R2-1804124.doc) Late

## 8.12 WI: Further Enhanced MTC for LTE

(LTE\_feMTC-Core; leading WG: RAN1; REL-14; started: June 16; closed: Jun. 17; WID: [RP-170532](file:///C:\Data\3GPP\Extracts\RP-170532%20Revised%20WID%20for%20Further%20Enhanced%20MTC.doc))

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

[R2-1804921](file:///C:\Data\3GPP\Extracts\R2-1804921_SR_prohibit_timer_extension.doc) SR prohibit timer extension for CE ModeB Nokia, Nokia Shanghai Bell discussion Rel-14 LTE\_feMTC-Core [R2-1802066](file:///C:\Data\3GPP\Extracts\R2-1802066_SR_prohibit_timer_extension.doc)

[R2-1804922](file:///C:\Data\3GPP\Extracts\36331_CR3212_(Rel-14)_R2-1804922_SR%20prohibit%20timer.doc) Extension of SR prohibit timer Nokia, Nokia Shanghai Bell CR Rel-14 36.331 14.6.0 3212 1 F LTE\_feMTC-Core [R2-1802067](file:///C:\Data\3GPP\Extracts\36331_CR3212_(Rel-14)_R2-1802067_SR%20prohibit%20timer.doc)

[R2-1804923](file:///C:\Data\3GPP\Extracts\36306_CR1544_(Rel-14)_R2-1804923_SR%20prohibit%20timer.doc) Extension of SR prohibit timer Nokia, Nokia Shanghai Bell CR Rel-14 36.306 14.6.0 1544 1 F LTE\_feMTC-Core [R2-1802068](file:///C:\Data\3GPP\Extracts\36306_CR1544_(Rel-14)_R2-1802068_SR%20prohibit%20timer.doc)

[R2-1804969](file:///C:\Data\3GPP\Extracts\R2-1804969.doc) Successful acknowledgement of RRCConnectionRelease for BL and CE UE Ericsson, Sierra Wireless, Sequans Communications, Intel Corporation, BlackBerry UK Limited, Gemalto N.V, LG Electronics Inc CR Rel-14 36.331 14.6.2 3323 - F LTE\_feMTC-Core, TEI14

[R2-1804970](file:///C:\Data\3GPP\Extracts\R2-1804970.doc) Successful acknowledgement of RRCConnectionRelease for BL and CE UE Ericsson, Sierra Wireless, Sequans Communications, Intel Corporation, BlackBerry UK Limited, Gemalto N.V, LG Electronics Inc CR Rel-15 36.331 15.1.0 3324 - A LTE\_feMTC-Core, TEI14

[R2-1805547](file:///C:\Data\3GPP\Extracts\36331_CR3344_(REL-14)_R2-1805547%20extended%20RSRP%20reporting.doc) Correction on extended RSRP measurement reporting for BL UE or UE in CE Intel Corporation CR Rel-14 36.331 14.6.2 3344 - F LTE\_feMTC-Core

[R2-1805548](file:///C:\Data\3GPP\Extracts\36331_CR3345_(REL-14)_R2-1805548_CR_Switch_NC_EC.doc) Clarification on RRC reconfiguration without handover for switching EC to NC Intel Corporation CR Rel-14 36.331 14.6.2 3345 - F LTE\_feMTC-Core

[R2-1806000](file:///C:\Data\3GPP\Extracts\R2-1806000%20Discussion%20on%20paging%20repetition%20in%20case%20of%20Enhanced%20Coverage%20Restriction%20and%20CE%20mode%20B%20restriction.doc) Discussion on paging repetition in case of Enhanced Coverage Restriction and CE mode B restriction ZTE, Sanechips discussion Rel-14 LTE\_feMTC-Core, NB\_IOTenh-Core

[R2-1806003](file:///C:\Data\3GPP\Extracts\36331_CR3374_(Rel-14)_%20R2-1806003%20Paging%20repetition%20in%20case%20of%20EC%20Restriction%20and%20CE%20mode%20B%20restriction.docx) Paging repetition in case of EC Restriction and CE mode B restriction ZTE, Sanechips CR Rel-14 36.331 14.6.2 3374 - C LTE\_feMTC-Core

[R2-1806012](file:///C:\Data\3GPP\Extracts\36331_CR3375_(Rel-15)_%20R2-1806012%20Paging%20repetition%20in%20case%20of%20EC%20Restriction%20and%20CE%20mode%20B%20restriction.docx) Paging repetition in case of EC Restriction and CE mode B restriction ZTE, Sanechips CR Rel-15 36.331 15.1.0 3375 - C LTE\_feMTC-Core

## 8.13 WI: LTE-based V2X Services

(LTE\_V2X-Core, leading WG: RAN1; REL-14; started: June 16; closed: Mar. 17; WID: [RP-162519](file:///C:\Data\3GPP\archive\TSGR\TSGR_74\Docs\RP-162519.zip))

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

### 8.13.1 Stage 2

[R2-1804297](file:///C:\Data\3GPP\Extracts\36300_CR1123_(REL-14)_R2-1804297_Correction%20to%20V2X%20descriptions%20in%20TS%2036.300.doc) Correction to V2X descriptions in TS 36.300 Huawei, HiSilicon CR Rel-14 36.300 14.6.0 1123 - F LTE\_V2X-Core

[R2-1804298](file:///C:\Data\3GPP\Extracts\36300_CR1124_(REL-15)_R2-1804298_Correction%20to%20V2X%20descriptions%20in%20TS%2036.300.doc) Correction to V2X descriptions in TS 36.300 Huawei, HiSilicon CR Rel-15 36.300 15.1.0 1124 - A LTE\_V2X-Core

### 8.13.2 User plane

[R2-1804299](file:///C:\Data\3GPP\Extracts\36321_CR1244_(REL-14)_R2-1804299_Correction%20to%20MCS%20selection%20for%20V2X%20sidelink%20communicaiton.doc) Correction to MCS selection for V2X sidelink communication Huawei, HiSilicon CR Rel-14 36.321 14.6.0 1244 - F LTE\_V2X-Core

[R2-1804300](file:///C:\Data\3GPP\Extracts\36321_CR1245_(REL-15)_R2-1804300_Correction%20to%20MCS%20selection%20for%20V2X%20sidelink%20communicaiton.doc) Correction to MCS selection for V2X sidelink communication Huawei, HiSilicon CR Rel-15 36.321 15.1.0 1245 - A LTE\_V2X-Core

### 8.13.3 Control plane

[R2-1804301](file:///C:\Data\3GPP\Extracts\36306_CR1568_(REL-14)_R2-1804301_Addition%20of%20the%20number%20of%20SL%20processes%20for%20V2X%20sidelink%20communication.doc) Addition of the number of SL processes for V2X sidelink communication Huawei, HiSilicon CR Rel-14 36.306 14.6.0 1568 - F LTE\_V2X-Core

[R2-1804302](file:///C:\Data\3GPP\Extracts\36306_CR1569_(REL-15)_R2-1804302_Addition%20of%20the%20number%20of%20SL%20processes%20for%20V2X%20sidelink%20communication.doc) Addition of the number of SL processes for V2X sidelink communication Huawei, HiSilicon CR Rel-15 36.306 15.0.0 1569 - A LTE\_V2X-Core

[R2-1804364](file:///C:\Data\3GPP\Extracts\36331_CR3311_(REL-14)_R2-1804364_Correction%20on%20SPS%20assistance%20information%20in%20TS%2036.331.docx) Correction on SPS assistance information in TS 36.331 OPPO, LG Electronics Inc. CR Rel-14 36.331 14.6.0 3311 - F LTE\_V2X-Core

[R2-1804365](file:///C:\Data\3GPP\Extracts\36331_CR3312_(REL-15)_R2-1804365_Correction%20on%20SPS%20assistance%20information%20in%20TS%2036.331.docx) Correction on SPS assistance information in TS 36.331 OPPO, LG Electronics Inc. CR Rel-15 36.331 15.1.0 3312 - A LTE\_V2X-Core

[R2-1805745](file:///C:\Data\3GPP\Extracts\36331_CR3358_(Rel-14)_R2-1805745%20-%20Corrections%20to%20syncOffsetIndicator%20Configuration.doc) Corrections to syncOffsetIndicator Configuration Ericsson CR Rel-14 36.331 14.6.2 3358 - F LTE\_V2X-Core

[R2-1805747](file:///C:\Data\3GPP\Extracts\36331_CR3360_(Rel-15)_R2-1805747%20-%20Corrections%20to%20syncOffsetIndicator%20Configuration.doc) Corrections to syncOffsetIndicator Configuration Ericsson CR Rel-15 36.331 15.1.0 3360 - A LTE\_V2X-Core

[R2-1806028](file:///C:\Data\3GPP\Extracts\R2-1806028%20SLSS%20resource%20configuration.doc) SLSS resource configuration LG Electronics Inc. discussion Rel-14 LTE\_V2X-Core

[R2-1806029](file:///C:\Data\3GPP\Extracts\36331_CR(3376)_(REL-14)_R2-1806029_Correction%20to%20SLSS%20resource%20configuration.doc) Correction to SLSS resource configuration LG Electronics Inc. CR Rel-14 36.331 14.6.1 3376 - F LTE\_V2X-Core

[R2-1806030](file:///C:\Data\3GPP\Extracts\36331_CR(3377)_(REL-15)_R2-1806030_Correction%20to%20SLSS%20resource%20configuration.doc) Correction to SLSS resource configuration LG Electronics Inc. CR Rel-15 36.331 15.1.0 3377 - A LTE\_V2X-Core

## 8.14 WI: SRS switching between LTE component carriers

(LTE\_SRS\_switch; leading WG: RAN1; REL-14; started: Mar.16: closed: Dec. 16; WID: [RP-160935](file:///C:\Data\3GPP\Extracts\RP-160935%20WI%20on%20SRS%20carrier%20switching.doc))

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

## 8.15 WI: Measurement Gap Enhancement for LTE

(LTE\_meas\_gap\_enh-Core; leading WG: RAN4; REL-14; started: Mar. 16; closed: Jun. 17; WID: [RP-160912](file:///C:\Data\3GPP\Extracts\RP-160912.doc))

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

## 8.16 Void

## 8.17 WI: Performance enhancements for high speed scenario in LTE

(LTE\_high\_speed-Core; leading WG: RAN4; REL-14; started: Dec. 15. 16; closed: Dec. 16; WID: [RP-160172](file:///C:\Data\3GPP\archive\TSGR\TSGR_71\Docs\RP-160172.zip))

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

## 8.18 WI: Voice and Video enhancement for LTE

(LTE\_VoLTE\_ViLTE\_enh; leading WG: RAN2; REL-14; started: Sep. 16; closed: Mar. 17: WID: [RP-161856](file:///C:\Data\3GPP\archive\TSGR\TSGR_73\Docs\RP-161856.zip))

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

## 8.19 New UE category with single receiver based on Category 1 for LTE

(LTE\_UE\_cat\_1Rx-Core; leading WG: RAN4; REL-14; started: Sep. 16; closed: Jun. 17: WID: [RP-171149](file:///C:\Data\3GPP\archive\TSGR\TSGR_76\Docs\RP-171149.zip))

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

## 8.20 Uplink Capacity Enhancements for LTE

LTE\_UL\_CAP\_enh-Core; leading WG: RAN1; REL-14; started: Mar. 16; closed: Mar. 17: WID: [RP-162488](file:///C:\Data\3GPP\Extracts\RP-162488%20WID.doc)

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

## 8.21 WI: Enhancements on Full-Dimension (FD) MIMO for LTE

(LTE\_eFD\_MIMO-Core; leading WG: RAN1; REL-14; started: Mar. 2016; closed: Mar. 17: WID: [RP-160623](file:///C:\Data\3GPP\Extracts\RP-160623%20WID_eFD-MIMO.doc))

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

## 8.22 Void

## 8.23 WI: Downlink Multiuser Superposition Transmission for LTE

(LTE\_MUST-Core; leading WG: RAN1; REL-14; started: Mar. 16; closed: Dec. 16: WID: [RP-161019](file:///C:\Data\3GPP\archive\TSGR\TSGR_72\Docs\RP-161019.zip))

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

## 8.24 Other LTE Rel-14 WIs

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

This agenda item may be used for documents relating to Rel-14 WIs with no allocated RAN2 time but which might have minor RAN2 impact.

Including any LTE corrections related to the following joint UMTS/LTE WI:

(eDECOR-UTRA\_LTE-Core; leading WG: RAN3; REL-14; started: Dec. 16; closed: Mar. 17: WID: [RP-162543](file:///C:\Data\3GPP\archive\TSGR\TSGR_74\Docs\RP-162543.zip))

[R2-1805838](file:///C:\Data\3GPP\Extracts\R2-1805838.docx) Clarification on UL/DL UE fallback categories Qualcomm Incorporated CR Rel-15 36.306 15.0.0 1586 - A TEI14

[R2-1805842](file:///C:\Data\3GPP\Extracts\R2-1805842.docx) Clarification on UL/DL UE fallback categories Qualcomm Incorporated CR Rel-14 36.306 14.6.0 1565 1 F TEI14 [R2-1803596](file:///C:\Data\3GPP\Extracts\R2-1803596.docx)

[R2-1806196](file:///C:\Data\3GPP\Extracts\R2-1806196%20-%20Clarifying%20fallback%20UE%20categories%2036306%20CR%20(Rel-14).doc) Clarifying fallback UE categories Ericsson CR Rel-14 36.306 14.6.0 1589 - F TEI14 Late

[R2-1806197](file:///C:\Data\3GPP\Extracts\R2-1806197%20-%20Clarifying%20fallback%20UE%20categories%2036306%20CR%20(Rel-15).doc) Clarifying fallback UE categories Ericsson CR Rel-14 36.306 15.0.0 1590 - A TEI14 Late

## 8.25 LTE TEI14 enhancements

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

Small Technical Enhancements affecting LTE Rel-14 that do not belong to any Rel-14 WI.

Note: A TEI enhancement proposal should be treated for only one meeting cycle and involve only one WG. Otherwise, a WI should be proposed at RAN plenary!

This agenda item is for items already discussed under TEI14. New proposals should be submitted to TEI15, AI 9.19.

# 9 LTE Rel-15

## 9.1 Void

## 9.2 WI: Shortened TTI and processing time for LTE

(LTE\_STTIandPT-core; leading WG: RAN1; REL-15; started: June 16; target: Jun. 18; WID: [RP-171468](file:///C:\Data\3GPP\archive\TSGR\TSGR_76\Docs\RP-171468.zip))

Time budget: 0 TU

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

This WI is complete from RAN2 point of view but RAN2 CRs have not been implemented to the specification as described in [RP-172755](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172755.zip). The CRs will be maintained as running CRs and then agreed again in RAN2#102. This AI is for corrections to the running CRs.

Including output of email discussion [101#66][LTE/sTTI] Running 36.331 – Ericsson

Including output of email discussion [101#67][LTE/sTTI] Running 36.306 – Ericsson

[R2-1804210](file:///C:\Data\3GPP\Extracts\R2-1804210_R1-1803167.doc) LS on additional agreements for shortened TTI and processing time for LTE (R1-1803167; contact: Ericsson) RAN1 LS in Rel-15 LTE\_sTTIandPT-Core To:RAN2

[R2-1804672](file:///C:\Data\3GPP\Extracts\R2-1804672%20Discussion%20on%20the%20period%20of%20BSR%20reporting.doc) Discussion on the period of BSR reporting Huawei, HiSilicon discussion Rel-15 LTE\_sTTIandPT-Core

[R2-1805130](file:///C:\Data\3GPP\Extracts\R2-1805130%20%20Sanya%20Removal%20of%20figure%20in%2036.300%20v1.doc) Removal of figure in 36.300 Ericsson discussion Rel-15 LTE\_sTTIandPT

[R2-1805445](file:///C:\Data\3GPP\Extracts\R2-1805445%20CR%20on%2036331%20Introduction%20of%20sTTI%20and%20SPT.doc) Introduction of shortened TTI and processing time for LTE Ericsson CR Rel-15 36.331 15.1.0 3202 1 B LTE\_sTTIandPT-Core [R2-1714265](file:///C:\Data\3GPP\Extracts\R2-1714265%20CR%20on%2036331%20Introduction%20of%20sTTI%20and%20SPT.doc)

[R2-1805458](file:///C:\Data\3GPP\Extracts\R2-1805458%20CR%20on%2036321%20Introduction%20of%20sTTI%20and%20SPT.doc) Introduction of shortened TTI and processing time for LTE Ericsson CR Rel-15 36.321 15.1.0 1203 1 B LTE\_sTTIandPT-Core [R2-1714266](file:///C:\Data\3GPP\Extracts\R2-1714266%20CR%20on%2036321%20Introduction%20of%20sTTI%20and%20SPT.doc)

[R2-1805501](file:///C:\Data\3GPP\Extracts\R2-1805501%20CR%20on%2036306%20Introduction%20of%20sTTI%20and%20SPT.doc) Introduction of shortened TTI and processing time for LTE Ericsson CR Rel-15 36.306 15.0.0 1542 1 B LTE\_sTTIandPT-Core [R2-1714267](file:///C:\Data\3GPP\Extracts\R2-1714267%20CR%20on%2036306%20Introduction%20of%20sTTI%20and%20SPT.doc)

[R2-1805502](file:///C:\Data\3GPP\Extracts\R2-1805502%20CR%20on%2036302%20Introduction%20of%20sTTI%20and%20SPT.doc) Introduction of shortened TTI and processing time for LTE Ericsson CR Rel-15 36.302 14.4.0 1192 1 B LTE\_sTTIandPT-Core [R2-1714268](file:///C:\Data\3GPP\Extracts\R2-1714268%20CR%20on%2036302%20Introduction%20of%20sTTI%20and%20SPT.doc)

[R2-1805503](file:///C:\Data\3GPP\Extracts\R2-1805503%20CR%20on%2036300%20Introduction%20of%20sTTI%20and%20SPT.doc) Introduction of shortened TTI and processing time for LTE Ericsson CR Rel-15 36.300 15.1.0 1084 1 B LTE\_sTTIandPT-Core [R2-1714269](file:///C:\Data\3GPP\Extracts\R2-1714269%20CR%20on%2036300%20Introduction%20of%20sTTI%20and%20SPT.doc)

[R2-1805549](file:///C:\Data\3GPP\Extracts\R2-1805549.doc) UE capability for joint sTTI length combinations Intel Corporation discussion Rel-15 LTE\_sTTIandPT-Core

[R2-1805914](file:///C:\Data\3GPP\Extracts\R2-1805914_Switching%20between%20SPS%20and%20sSPS.doc) Switching between SPS and sSPS LG Electronics Mobile Research discussion LTE\_sTTIandPT-Core

[R2-1805951](file:///C:\Data\3GPP\Extracts\R2-1805951%20TP%20on%20the%20period%20of%20BSR%20reporting%20for%20TS%2036.331.doc) TP on the period of BSR reporting for TS 36.331 Huawei, HiSilicon discussion Rel-15 LTE\_sTTIandPT-Core

[R2-1806185](file:///C:\Data\3GPP\Extracts\R2-1806185_TP%20on%20switching%20between%20SPS%20and%20sSPS.doc) TP on switching between SPS and sSPS LG Electronics Mobile Research discussion LTE\_sTTIandPT-Core Late

Withdrawn

[R2-1804673](file:///C:\Data\3GPP\Extracts\R2-1804673%20TP%20on%20the%20period%20of%20BSR%20reporting%20for%20TS%2036.331.doc) TP on the period of BSR reporting for TS 36.331 Huawei, HiSilicon discussion Rel-15 LTE\_sTTIandPT-Core Withdrawn

## 9.3 Void

## 9.4 Void

## 9.5 Further video enhancements for LTE

(LTE\_ViLTE\_enh2-Core; leading WG: RAN2; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-172726](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172726.zip))

Time budget: 0 TU

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

This WI is complete from RAN2 point of view but RAN2 CRs have not been implemented to the specification as described in [RP-172755](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172755.zip). The CRs will be maintained as running CRs and then agreed again in RAN2#102. This AI is for corrections to the running CRs.

[R2-1805558](file:///C:\Data\3GPP\Extracts\36300_CR1076_(Rel-15)_R2-1805558%20Introduction%20of%20assistance%20information%20for%20local%20cache.doc) Introduction of assistance information for local cache CMCC, Intel Corporation CR Rel-15 36.300 15.1.0 1076 3 B LTE\_ViLTE\_enh2-Core [R2-1714179](file:///C:\Data\3GPP\Extracts\36300_CR1076_(Rel-15)_R2-1714179%20Introduction%20of%20assistance%20information%20for%20local%20cache.doc)

[R2-1805559](file:///C:\Data\3GPP\Extracts\36323_CR0211_(Rel-15)_R2-1805559%20Introduction%20of%20assistance%20information%20for%20local%20cache.doc) Introduction of assistance information for local cache CMCC, Intel Corporation CR Rel-15 36.323 14.5.0 0211 3 B LTE\_ViLTE\_enh2-Core [R2-1714282](file:///C:\Data\3GPP\Extracts\36323_CR0211_(Rel-15)_R2-1714282%20Introduction%20of%20assistance%20information%20for%20local%20cache.doc)

## 9.6 QoE Measurement Collection for streaming services in E-UTRAN

(LTE\_QMC\_Streaming; leading WG: RAN2; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-170956](file:///C:\Data\3GPP\archive\TSGR\TSGR_76\Docs\RP-170956.zip))

Time budget: 0 TU

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

This WI is complete from RAN2 point of view but RAN2 CRs have not been implemented to the specification as described in [RP-172755](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172755.zip). The CRs will be maintained as running CRs and then agreed again in RAN2#102. This AI is for corrections to the running CRs.

[R2-1805469](file:///C:\Data\3GPP\Extracts\R2-1805469%20Running%20CR%20on%20Introduction%20of%20QoE%20Measurement%20Collection%20for%20LTE_36300.doc) Running CR on Introduction of QoE Measurement Collection for LTE Huawei, HiSilicon draftCR Rel-15 36.300 15.1.0 B LTE\_QMC\_Streaming-Core

[R2-1805470](file:///C:\Data\3GPP\Extracts\R2-1805470%20Running%20CR%20on%20Introduction%20of%20QoE%20Measurement%20Collection%20for%20LTE_36306.doc) Running CR on Introduction of QoE Measurement Collection for LTE Huawei, HiSilicon draftCR Rel-15 36.306 15.0.0 B LTE\_QMC\_Streaming-Core

[R2-1805471](file:///C:\Data\3GPP\Extracts\R2-1805471%20Running%20CR%20on%20Introduction%20of%20QoE%20Measurement%20Collection%20for%20LTE_36331.doc) Running CR on Introduction of QoE Measurement Collection for LTE Huawei, HiSilicon draftCR Rel-15 36.331 15.1.0 B LTE\_QMC\_Streaming-Core

## 9.7 LTE connectivity to 5G-CN

(LTE\_5GCN\_connect-Core; leading WG: RAN2; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-180064](file:///C:\Data\3GPP\Extracts\RP-180064%20Revision%20of%20WID%20LTE%20connectivity%20to%205G-CN.doc))

Time budget: 1.5 TU

At this meeting, due to the commonality with NR, this WI will be handled in the main session.

### 9.7.1 Organisational

Including incoming LSs, rapporteur inputs, running CRs

Principles on what to specify in which specs, terminology, etc

[R2-1805459](file:///C:\Data\3GPP\Extracts\R2-1805459%20Running%2036.300%20CR%20for%20LTE%20connectivity%20to%205GCN.doc) Running 36.300 CR for LTE connectivity to 5GCN Huawei, HiSilicon draftCR Rel-15 36.300 15.1.0 B LTE\_5GCN\_connect-Core

- OPPO thinks the agreement on PDPC type for SRB is not correctly reflected

- Intel think the security agreements are not reflected.

- Ericsson think some changes were not agreed about the CN type being considered for PLMN selection. Qualcomm have the same concern

=> Revised to [R2-1806364](file:///C:\Data\3GPP\Extracts\R2-1806364%20Running%2036.300%20CR%20for%20LTE%20connectivity%20to%205GCN.doc) to address comments received. Additional comments can also be discussed offline. (Offline discussion #02, Huawei)

[R2-1806364](file:///C:\Data\3GPP\Extracts\R2-1806364%20Running%2036.300%20CR%20for%20LTE%20connectivity%20to%205GCN.doc) Running 36.300 CR for LTE connectivity to 5GCN Huawei, HiSilicon draftCR Rel-15 36.300 15.1.0 LTE\_5GCN\_connect-Core B

=> Endorsed as running CR

=> Text relating to submission to lower layers should be changed to appropriate stage 2 text at the next meeting.

[R2-1805461](file:///C:\Data\3GPP\Extracts\R2-1805461%20TP%20on%20changes%20on%20security%20parts.doc) TP on changes on security parts Huawei, HiSilicon discussion Rel-15 LTE\_5GCN\_connect-Core

- Vodafone wonder if we agreed to have no DRB IP for LTE/5GC. Intel confirm that we did agree not to use DRB IP based on the SA3 LS saying there was no requirement.

=> Discuss offline how to expand the security description, to refer to LTE security or NR security stage 2.

=> Outcome of offline discussion to be captured in [R2-1806364](file:///C:\Data\3GPP\Extracts\R2-1806364%20Running%2036.300%20CR%20for%20LTE%20connectivity%20to%205GCN.doc).

[R2-1805460](file:///C:\Data\3GPP\Extracts\R2-1805460%20Running%2036.304%20CR%20for%20LTE%20connectivity%20to%205GCN.doc) Running 36.304 CR for LTE connectivity to 5GCN Huawei, HiSilicon draftCR Rel-15 36.304 14.6.0 B LTE\_5GCN\_connect-Core

- No changes compared to last time when it was endorsed

=> Noted

[R2-1805008](file:///C:\Data\3GPP\Extracts\R2-1805008%20Running%2036.331%20CR%20for%20eLTE.DOC) Running 36.331 CR for E-UTRA connected to 5GC Intel Corporation draftCR Rel-15 36.331 15.1.0 B LTE\_5GCN\_connect-Core

- Ericsson think the ASN.1 is missing some agreement related to info per PLMN. Also need to address the name of 5G--S-TMI in the ASN.1

- Intel think we still need to wait before concluding the coding of the PLMN information.

=> Revised to [R2-1806365](file:///C:\Data\3GPP\Extracts\R2-1806365%20Running%2036.331%20CR%20for%20eLTE_v01.doc) to address comments received. Additional comments can also be discussed offline. (Offline discussion #03, Intel)

[R2-1806365](file:///C:\Data\3GPP\Extracts\R2-1806365%20Running%2036.331%20CR%20for%20eLTE_v01.doc) Running 36.331 CR for E-UTRA connected to 5GC Intel Corporation draftCR Rel-15 36.331 15.1.0 LTE\_5GCN\_connect-Core B

=> Endorsed as running CR

### 9.7.2 Aspects independent from NR/5GC

[R2-1804568](file:///C:\Data\3GPP\Extracts\R2-1804568.docx) Consideration on PLMNs Connected to both 5GC and EPC CATT discussion Rel-15 LTE\_5GCN\_connect-Core

- Qualcomm think that the PLMN connected to both could be included only in the legacy list and not repeated. PLMNs connected to 5GC only would be in the new list.

- Ericsson agree with Qualcomm, but think it depends on the TAC discussion about 2/3 byte TAC.

- Samsung have some sympathy with the CATT proposal. Intel also support the CATT proposal and think the legacy lists needs to be extended to include indication whether the PLMN connects to both core and then add the extra TAC, etc

- Lenovo thinks that we should not touch the legacy list. Could have indexing to the legacy list for some information.

- Nokia have a similar view as Lenovo and think we should touch the legacy list. Something should be in the legacy list for case that only 5GCs are used by the cell. Also concerned about SIB size and wonder if we can really support 12.

- ZTE think the CATT proposal works and some bits could be reduce with the Ericsson and Qualcomm optimisations. Prefer not to over optimise.

- Huawei also think that the CATT approach works. the other approach would also add complexity to the indication of the selected PLMN to the network

- LG also prefer to use the CATT proposal.

- ZTE think if we have a new larger TAC then we should only use it in the new list.

=> Offline discussion to progress the coding of the PLMN lists. Also conclude on the number of PLMNs to be supported. Can also take into account the outcome of the TAC discussion. (Offline discussion #08, CATT)

[R2-1806439](file:///C:\Data\3GPP\Extracts\R2-1806439.docx) Summary of Offline discussion #08 on coding of PLMNs list CATT discussion Rel-15 LTE\_5GCN\_connect-Core

=> To be discussed again at the next meeting

[R2-1805006](file:///C:\Data\3GPP\Extracts\R2-1805006%20Open%20issues%20on%20running%20TS36.331%20CR.doc) Open issues on running TS36.331 CR Intel Corporation discussion Rel-15 LTE\_5GCN\_connect-Core

P3

- CATT think we need to align with NE and support 12 PLMNS. LG agree. Vodafone see no reason to go beyond the legacy value of 6 unless we also increase the number that can be supported in LTE/EPC.

- ZTE also think that across the 2 lists the maximum should be 6. Qualcomm also agree.

Agreements

1 Extend security algorithm fields cipheringAlgorithm and integrityProtAlgorithm to add NR security algorithm identifiers neaX and niaX separately; (this doesn’t prevent independent evolution of algorithms for LTE and NR)

[R2-1804855](file:///C:\Data\3GPP\Extracts\R2-1804855.docx) Principles of E-UTRA Handover involving CN change Ericsson discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1805462](file:///C:\Data\3GPP\Extracts\R2-1805462%20Initial%20CN%20type%20selection%20procedure.doc) Initial CN type selection procedure Huawei, HiSilicon discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1802514](file:///C:\Data\3GPP\Extracts\R2-1802514%20Initial%20CN%20type%20selection%20procedure.doc)

[R2-1804449](file:///C:\Data\3GPP\Extracts\R2-1804449%20Enhancements%20on%20ANR%20functionality%20for%20eLTE.doc) Enhancements on ANR functionality for eLTE ZTE Corporation, Sanechips discussion

[R2-1804538](file:///C:\Data\3GPP\Extracts\R2-1804538%20Discussion%20CN%20Type%20Indication%20for%20CN%20Node%20Selection%20and%20Handover%20in%20eLTE.docx) Discussion CN Type Indication for CN Node Selection and Handover in eLTE OPPO discussion LTE\_5GCN\_connect [R2-1801779](file:///C:\Data\3GPP\Extracts\eLTE%20R2-1801779%20-%20Discussion%20UE%20assistance%20for%20CN%20Node%20Indication%20in%20eLTE.docx)

[R2-1804539](file:///C:\Data\3GPP\Extracts\R2-1804539%20Discussion%20on%20ANR%20Functionality%20for%20eLTE.doc) Discussion on ANR Functionality for eLTE OPPO discussion LTE\_5GCN\_connect [R2-1801782](file:///C:\Data\3GPP\Extracts\eLTE%20R2-1801782%20Discussion%20on%20ANR%20Functionality%20for%20eLTE.doc)

[R2-1804549](file:///C:\Data\3GPP\Extracts\R2-1804549_Access_Stratum_Security_Aspects_of_%20LTE%20connectivity%20to%205G-CN_v1.doc) Access Stratum Security aspects of E-UTRAN connected to 5GCN Qualcomm India Pvt Ltd discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1804550](file:///C:\Data\3GPP\Extracts\R2-1804550_Optimization%20of%20SIB1%20PLMN%20database%20configuration%20_v1.doc) Optimization of SIB1 PLMN database configuration Qualcomm India Pvt Ltd discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1802063](file:///C:\Data\3GPP\Extracts\R2-1802063_Preventing%20Legacy%20LTE%20UEs%20from%20camping%20on%20eLTE%20Cells%20&%20PLMNs%20connected%20to%20New%205G%20Core_v1.doc)

[R2-1804754](file:///C:\Data\3GPP\Extracts\R2-1804754-PLMNID_eLTE-v0.docx) Advertisement of PLMN IDs and cell access information in eLTE Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1804851](file:///C:\Data\3GPP\Extracts\R2-1804851.docx) Implicit target CN Type indication during a handover command Ericsson discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1804854](file:///C:\Data\3GPP\Extracts\R2-1804854.docx) Message 3.5 in LTE connected to 5GC Ericsson discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1804886](file:///C:\Data\3GPP\Extracts\R2-1804886_Consideration%20on%20coding%20details%20of%20PLMN%20ID.doc) Consideration on coding details of PLMN ID vivo discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1802109](file:///C:\Data\3GPP\Extracts\R2-1802109_Consideration%20on%20coding%20details%20of%20PLMN%20ID.doc)

[R2-1804887](file:///C:\Data\3GPP\Extracts\R2-1804887_CN%20selection%20for%20LTE%20connected%20to%205GC.doc) CN selection for LTE connected to 5GC vivo discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1802110](file:///C:\Data\3GPP\Extracts\R2-1802110_CN%20selection%20for%20LTE%20connected%20to%205GC.doc)

[R2-1805160](file:///C:\Data\3GPP\Extracts\R2-1805160_Coexistence%20of%205GC%20and%20legacy%20eNB%20in%20the%20network.doc) Coexistence of 5GC and legacy eNB in the same network Sony discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1803131](file:///C:\Data\3GPP\Extracts\R2-1803131_Coexistence%20of%205GC%20and%20legacy%20eNB%20in%20the%20network.doc)

[R2-1805463](file:///C:\Data\3GPP\Extracts\R2-1805463%20Draft%20LS%20on%20CN%20type%20information%20provided%20by%20AS%20to%20NAS.doc) Draft LS on CN type information provided by AS to NAS Huawei LS out Rel-15 LTE\_5GCN\_connect-Core To:CT1 [R2-1802515](file:///C:\Data\3GPP\Extracts\R2-1802515%20Draft%20LS%20on%20CN%20type%20information%20provided%20by%20AS%20to%20NAS.doc)

[R2-1805464](file:///C:\Data\3GPP\Extracts\R2-1805464%20Discussion%20on%20PLMN%20list%20design.doc) Discussion on PLMN list design Huawei, HiSilicon discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1802518](file:///C:\Data\3GPP\Extracts\R2-1802518%20Discussion%20on%20PLMN%20list%20design.doc)

[R2-1805465](file:///C:\Data\3GPP\Extracts\R2-1805465%20TP%20on%20changes%20due%20to%20CN%20type%20selection.doc) TP on changes due to CN type selection Huawei, HiSilicon discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1805466](file:///C:\Data\3GPP\Extracts\R2-1805466%20Discussion%20on%20RRC%20Connection%20Reestablishment%20procedure%20for%20E-UTRA%20connected%20to%205GC.doc) Discussion on reestablishment procedure due to Intra E-UTRA inter system HO failure Huawei, HiSilicon discussion Rel-15 LTE\_5GCN\_connect-Core

5G-S-TMSI

[R2-1804461](file:///C:\Data\3GPP\Extracts\R2-1804461%20Consideration%20on%20extending%20the%20code%20space%20for%205G-S-TMSI.doc) Consideration on extending the code space for 5G-S-TIMSI ZTE Corporation, Sanechips discussion

[R2-1804462](file:///C:\Data\3GPP\Extracts\R2-1804462_ReplyLSOn5G-S-TMSICodeSpace(Reply%20to%20S2-182964).doc) Draft reply LS on 5G-S-TIMSI Code Space (reply to S2-182964) ZTE LS out Rel-15 NR\_newRAT-Core To:SA2 Cc:RAN3, CT1, CT4

[R2-1804755](file:///C:\Data\3GPP\Extracts\R2-1804755-STMSI-v1.docx) Discussion on 5G-S-TMSI code space Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1804758](file:///C:\Data\3GPP\Extracts\R2-1804758-DraftReplyS2-182964.docx) [DRAFT] Reply LS on 5G-S-TMSI code space Nokia LS out Rel-15 To:SA2, RAN3 Cc:CT1, CT4

[R2-1805161](file:///C:\Data\3GPP\Extracts\R2-1805161_Increasing%20the%20size%20of%20TMSI.doc) 5G-S-TMSI size in LTE Sony discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1804888](file:///C:\Data\3GPP\Extracts\R2-1804888_Discussion%20on%20the%20larger%20space%20of%205G-S-TMSI%20in%20eLTE.doc) Discussion on the larger space of 5G-S-TMSI in eLTE vivo discussion Rel-15 LTE\_5GCN\_connect-Core

moved from 9.7.7 to 9.7.2

TAC

[R2-1804535](file:///C:\Data\3GPP\Extracts\R2-1804535%20Further%20Discussion%20on%20ng-eNB%20TAC%20Format%20and%20Potential%20Impacts.docx) Further Discussion on ng-eNB TAC Format and Potential Impacts OPPO discussion

[R2-1804744](file:///C:\Data\3GPP\Extracts\R2-1804744-TAC_eLTE-v1.docx) TACs in eLTE Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1804753](file:///C:\Data\3GPP\Extracts\R2-1804753-DraftReplyC1-181790.docx) [DRAFT] Reply LS on TAI and forbidden TAI list for 5GS Nokia LS out Rel-15 To:CT1, SA2, RAN3 Cc:CT4

[R2-1804852](file:///C:\Data\3GPP\Extracts\R2-1804852.docx) Draft Reply LS to CT1 on TAI Ericsson LS out Rel-15 LTE\_5GCN\_connect-Core To:CT1

[R2-1804602](file:///C:\Data\3GPP\Extracts\R2-1804602_Discussion%20on%20extended%20TAC%20for%205GC.doc) Discussion on extended TAC for 5GC vivo discussion Rel-15 LTE\_5GCN\_connect-Core

moved from 9.7.7 to 9.7.2

[R2-1804603](file:///C:\Data\3GPP\Extracts\R2-1804603-%20Draft%20Reply%20LS%20on%20Extending%20TAC%20for%20NR%20and%20NG-RAN.doc) DRAFT Reply LS on Extending TAC for NR and NG-RAN vivo LS out Rel-15 LTE\_5GCN\_connect-Core To:CT1, SA2, RAN3

moved from 9.7.7 to 9.7.2

Late

R2-1804448 Signaling of UE temporary identifier ZTE Corporation, Sanechips discussion Late

### 9.7.3. Inactive state

Including output of email discussion [101#33][LTE/5GC] Inactive (Intel)

[R2-1805007](file:///C:\Data\3GPP\Extracts\R2-1805007_EmailDisc-33_Report_v01_summary%20v02.docx) Report of [101#33][LTE/5GC] Inactive (Intel) Intel Corporation discussion Rel-15 LTE\_5GCN\_connect-Core

=> Agreements only from the version edited online by the chairman to be submitted in [R2-1806366](file:///C:\Data\3GPP\Extracts\R2-1806366%20Agreements%20on%20E-UTRA%20RRC_INACTIVE.doc) (Offline discussion #04, Intel)

[R2-1806366](file:///C:\Data\3GPP\Extracts\R2-1806366%20Agreements%20on%20E-UTRA%20RRC_INACTIVE.doc) Report of [101#33][LTE/5GC] Inactive (Intel) Intel Corporation discussion Rel-15 LTE\_5GCN\_connect-Core

=> All the agreements listed in the documents are agreed

[R2-1805043](file:///C:\Data\3GPP\Extracts\R2-1805043%2036.300%20CR%20for%20LTE%20RRC_INACTIVE%20state%20v0.2.DOC) Stage 2 TP on RRC\_INACTIVE state for E-UTRA connected to 5GC Intel Corporation draftCR Rel-15 36.300 15.1.0 LTE\_5GCN\_connect-Core

- Nokia prefer the version of 10.1.x which relies on references. Will be easier in future to maintain. Intel think the benefit of the other version is that it doesn't give a misleading impression that it is the same as NR which it will not be at the stage 3 level.

- Huawei wonder if the NR spec would have to mention that it covers LTE as well. Nokia think we already have some examples of this.

=> Use the alternative of 10.1.x that relies on references to NR stage 2 as much as possible and just state the differences.

=> Update 38.300 to state that inactive section covered LTE/5GC.

=> Revised in [R2-1806367](file:///C:\Data\3GPP\Extracts\R2-1806367%2036.300%20CR%20for%20LTE%20RRC_INACTIVE%20state%20v0.4.doc) with the correct alternative for 10.1.x (Offline discussion #05, Intel)

[R2-1806367](file:///C:\Data\3GPP\Extracts\R2-1806367%2036.300%20CR%20for%20LTE%20RRC_INACTIVE%20state%20v0.4.doc) Stage 2 TP on RRC\_INACTIVE state for E-UTRA connected to 5GC Intel Corporation draftCR Rel-15 36.300 15.1.0 LTE\_5GCN\_connect-Core

=> Agreed to be merged into the running CR to 36.300

[R2-1805050](file:///C:\Data\3GPP\Extracts\R2-1805050_Open%20issues%20on%20E-UTRA%20RRC_INACTIVE.doc) Open issues on E-UTRA RRC\_INACTIVE Intel Corporation discussion Rel-15 LTE\_5GCN\_connect-Core

P1

- Samsung wonder whether we should discuss messages after the NR discussion on messages and harmonisation, etc.

- Ericsson think that even in NR we have an agreement to progress on separate messages.

- Intel think for LTE we have existing messages and we should reuse as much as possible but these agreements do not impact NR. Qualcomm think we can still follow NR principles but reuse the existing LTE messages.

- Huawei think some things are under discussion for NR.

- LG wonder why the I-RNTI needs to be FFS, the length could be the same as current resume ID

P2

- Samsung think that the release may not be appropriate for moving the UE to inactive. It is more like a reconfiguration. Samsung think that some of the UE's configuration might want to be changed when the UE is moved to inactive.

- Huawei agree that this is not concluded in NR

Agreements for LTE messages used for RRC\_INACTIVE:

1 MSG3 on SRB0: use RRCConnectionResumeRequest message,

FFS how to handle I-RNTI/resume ID, size of the ID, short MAC-I, and additional cause value;

2 MSG4 on SRB0 (fall back): use RRCConnectionSetup message;

3 MSG4 on SRB1 (successful case): use RRCConnectionResume message, but we still need to consider how to handle mandatory field NCC;

4 MSG4 on SRB1(RNAU case stay in INACTIVE): use RRCConnectionRelease like message, and add I-RNTI, RNAU configuration and NCC in this message;

5 MSG4 on SRB1(move to IDLE): use RRCConnectionRelease message;

6 MSG5 on SRB1(successful case for INACTIVE to CONNECTED): use RRCConnectionResumeComplete message;

7 MSG5 on SRB1(fallback case): use RRCConnectionSetupComplete message;

FSS: Whether the RRCConnectionSetupComplete used for fallback case used NR-PDCP or LTE-PDCP.

8 MSG4 on SRB0 (Reject): Follow conclusion of NR discussion n security related issues

9 RRC\_Connected to RRC\_INACTIVE: use RRCConnectionRelease like message including at least handle I-RNTI/Resume, RNA configuration and NCC (NCC is a working assumption as in NR);

10 If UE in INACTIVE state (re-)selects to a cell that only connects to EPC then the UE shall enter the IDLE, releases the UE context and informs UE NAS (assumption that NAS will trigger an EPC NAS procedure)

[R2-1804850](file:///C:\Data\3GPP\Extracts\R2-1804850.docx) Mobility between LTE/5GC to LTE/EPC for inactive UEs Ericsson discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1805945](file:///C:\Data\3GPP\Extracts\R2-1805945_DataInactivityTimer%20for%20INACTIVE%20in%20eLTE.doc) DataInactivityTimer for INACTIVE in eLTE LG Electronics France discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1802495](file:///C:\Data\3GPP\Extracts\R2-1802495_DataInactivityTimer%20for%20INACTIVE%20in%20eLTE.doc)

[R2-1805985](file:///C:\Data\3GPP\Extracts\R2-1805985_Support%20for%20PLMN%20selection%20while%20in%20INACTIVE%20state%20in%20eLTE.doc) Support for PLMN selection while in INACTIVE state in eLTE LG Electronics Inc. discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1802510](file:///C:\Data\3GPP\Extracts\R2-1802510_Support%20for%20PLMN%20selection%20while%20in%20INACTIVE%20state%20in%20eLTE.doc)

[R2-1805051](file:///C:\Data\3GPP\Extracts\R2-1805051%2036.331%20CR%20for%20LTE%20RRC_INACTIVE%20state%20v0.3.doc) Stage 3 RRC TP on RRC\_INACTIVE state for E-UTRA connected to 5GC Intel Corporation draftCR Rel-15 36.331 15.1.0 LTE\_5GCN\_connect-Core Late

=> Companies are invited to provide comments offline

* => Revised in R2-1806371 (Offline discussion #06, Intel)

[R2-1806371](file:///C:\Data\3GPP\Extracts\R2-1806371%2036.331%20CR%20for%20LTE%20RRC_INACTIVE%20state%20v0.4.doc) Stage 3 RRC TP on RRC\_INACTIVE state for E-UTRA connected to 5GC Intel Corporation draftCR Rel-15 36.331 15.1.0 LTE\_5GCN\_connect-Core

* [101bis#xx][eLTE] RRC baseline TP for inactive (Intel)

Intended outcome: Endorsed TP

Deadline: Thursday 2018-04-26

* [101bis#xx][eLTE] Inactive and RRC open issues ()

Confirm whether new agreements for NR inactive are applicable to eLTE and update the TP for inactive

Address open issues not related to NR discussions (apart from the PLMN coding) can be progressed.

Intended outcome: Report to next meeting

Deadline: Thursday 2018-05-10

### 9.7.4 Flow based QoS

Including output of email discussion [101#35][LTE/5GC] Flow based QoS (Huawei)

[R2-1805467](file:///C:\Data\3GPP\Extracts\R2-1805467%20Email%20discussion%20summary%20on%20101%2335%20LTE5GC%20Flow%20based%20QoS.doc) Email discussion summary on [101#35][LTE/5GC] Flow based QoS Huawei discussion Rel-15 LTE\_5GCN\_connect-Core

Agreements

1 LTE/5GC will reuse the SDAP specification TS 37.324

[R2-1805468](file:///C:\Data\3GPP\Extracts\R2-1805468%20TP%20for%2036.331%20on%20Flow%20based%20QoS.doc) TP on TS 36.331 on flow based QoS for LTE to 5GC Huawei, HiSilicon discussion Rel-15 LTE\_5GCN\_connect-Core

- Huawei prefer the option to reuse what was added for EN-DC in nr-RadioBearerConfig1, nr-RadioBearerConfig2. Ericsson is also ok with this approach. Huawei think that either container can be used for the LTE/5GC case. Intel have the same view that either can be used and when DC is added we would not want to differentiate the case.

- Ericsson think the definition of reflective QoS is not needed

Agreements

1 Use nr-RadioBearerConfig1 and nr-RadioBearerConfig2 to provide the SDAP and NR-PDCP configurations (hence no changes to 36.331 needed to provide the SDAP and NR-PDCP configs)

FFS whether there are any constraints on which container is used.

### 9.7.5 Slicing

Including output of email discussion [101#34][LTE/5GC] Slicing (Ericsson)

[R2-1804853](file:///C:\Data\3GPP\Extracts\R2-1804853.docx) Email discussion report on RAN Slicing Ericsson discussion Rel-15 LTE\_5GCN\_connect-Core

- Vodafone think P3 is not clear even for NR, and think P7 should say S-NSSAI.

-

Agreements

1 RAN2 targets that RAN solutions for network slicing should be able to support a large number of slices (e.g. hundreds of slices).

2 Number of slices supported by UE in parallel is 8.

3 From UE perspective, the UE can be configured to support the requirements of the supported slices (e.g. by appropriate configuration of different DRBs of different PDU sessions).

4 We will not support additional functionality for RACH resource isolation/differentiated treatment for slicing for Rel-15

5 For intra-freq cell reselection the UE try to always camp on the best cell.

6 For needs of slicing, appropriate configuration of the dedicated priorities provided from the ng-eNB can be used to control the frequency on which the UE camps. (i.e. reuse of same mechanism as in LTE). No additional mechanisms for frequency prioritisation with respect to slicing will be specified for Rel-15

7 For connection establishment case the NSSAI info is included in MSG5 if provided by upper layers.

8 RAN2 understanding of SA3 agreement is that no privacy protection for NSSAI is standardized in Rel-15.

=> For stage 2 TP, only the first 2 sentences are agreed.

=> For stage 3 TP, wait for the corresponding stage 3 for NR to be discussed before concluding for LTE.

[R2-1806446](file:///C:\Data\3GPP\Extracts\R2-1806446.docx) [LTE/5GC] Email discussion report on RAN Slicing Ericsson discussion

=> TP is agreed

[R2-1805923](file:///C:\Data\3GPP\Extracts\R2-1805923_S-NSSAI%20length.doc) RRC signalling for S-NSSAI NEC discussion Rel-15 LTE\_5GCN\_connect-Core

### 9.7.6 Access control

Including output of email discussion [101#36][LTE/5GC] Access Control (China Telecom)

[R2-1804327](file:///C:\Data\3GPP\Extracts\R2-1804327.docx) " Report of email discussion [101#36][LTE/5GC] Access Control" China Telecom Corporation Ltd. discussion Late

Agreements for UEs connected to or accessing 5GC.

1: All NR agreement in the table in [R2-1804327](file:///C:\Data\3GPP\Extracts\R2-1804327.docx) are confirmed (intention is also to ensure consistency with future agreements)

2: AS triggered event, RNA update shall be controlled by UAC.

=> Offline discussion on the stage 2 TP

=> Revised in R2-1806372 with intention to refer to NR stage 2 as much as possible. (Offline discussion #07, CTC)

[R2-1806372](file:///C:\Data\3GPP\Extracts\R2-1806372%20TP%20on%20unified%20access%20control%20for%2036.300.doc) Report of email discussion [101#36][LTE/5GC] Access Control China Telecom Corporation Ltd. discussion

=> Change indicated to selected

=> TP is agreed

* [101bis#xx][LTE/5GC] Access control stage 3 (CTC)

Draft TP for 36.331 based on progress on NR access control stage 3.

Intended outcome: TP to next meeting

Deadline: Thursday 2018-05-10

### 9.7.7 Other

[R2-1804429](file:///C:\Data\3GPP\Extracts\R2-1804429.docx) Support voice in LTE connected to 5GCN China Unicom discussion Rel-15

[R2-1805839](file:///C:\Data\3GPP\Extracts\R2-1805839_Support%20of%20out%20of%20order%20delivery%20for%20eLTE_v1.doc) Support of out of order delivery for eLTE Apple Inc. discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1805009](file:///C:\Data\3GPP\Extracts\R2-1805009_%20Positioning%20for%20eLTE.doc) Support of positioning for E-UTRA connected to 5GC Intel Corporation discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1805159](file:///C:\Data\3GPP\Extracts\R2-1805159_ANR%20enhancements%20for%205GC%20connectivity.doc) ANR enhancements involving 5GC Sony discussion Rel-15 LTE\_5GCN\_connect-Core [R2-1803130](file:///C:\Data\3GPP\Extracts\R2-1803130_ANR%20enhancements%20for%205GC%20connectivity.doc)

[R2-1805203](file:///C:\Data\3GPP\Extracts\R2-1805203%20ANR%20in%20eLTE%20system.doc) ANR in eLTE system Lenovo, Motorola Mobility discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1805428](file:///C:\Data\3GPP\Extracts\R2-1805428%20-%20Number%20of%20DRBs%20in%20E-UTRA%20connected%20to%205GC.docx) Number of DRBs in E-UTRA connected to 5GC Ericsson discussion Rel-15 LTE\_5GCN\_connect-Core

[R2-1805950](file:///C:\Data\3GPP\Extracts\R2-1805950%20Network%20controlled%20mobility%20to%205GC%20or%20EPC.doc) Network controlled mobility to 5GC or EPC HTC Corporation discussion Rel-15 [R2-1803269](file:///C:\Data\3GPP\Extracts\R2-1803269%20Network%20controlled%20selection%20to%205GC%20or%20EPC.doc)

## 9.8 Positioning Accuracy Enhancements for LTE

(LCS\_LTE\_acc\_enh-Core; leading WG: RAN2; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-172313](file:///C:\Data\3GPP\Extracts\RP-172313%20Update%20of%20RP-171508.doc))

Time budget: 1 TU

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

### 9.8.1 Organisational

Including incoming LSs, rapporteur inputs, running CRs

Including output of email discussion [101#78][LTE/Positioning] Stage 2 CR on positioning (ESA)

[R2-1804204](file:///C:\Data\3GPP\Extracts\R2-1804204_C4-182150.doc) LS on encrypting broadcasted positioning data and on provisioning of positioning assistance data via LPPa for broadcast (C4-182150; contact: Qualcomm) CT4 LS in Rel-15 LCS\_LTE\_acc\_enh-Core To:SA2 Cc:RAN2, RAN3, CT1, SA3

[R2-1804254](file:///C:\Data\3GPP\RAN2\Docs\R2-1804254.zip) LS on encrypting broadcasted positioning data and LS on provisioning of positioning assistance data via LPPa for broadcast (S2-182415; contact: Qualcomm) SA2 LS in Rel-15 LCS\_LTE\_acc\_enh-Core To:RAN2, RAN3, CT4, CT1 Cc:SA3

[R2-1804776](file:///C:\Data\3GPP\Extracts\R2-1804776_(Running%20LPP%20CR%20for%20RTK%20GNSS%20positioning)_v6.doc) Running LPP CR for RTK GNSS positioning Qualcomm Incorporated draftCR Rel-15 36.355 14.5.1 B LCS\_LTE\_acc\_enh-Core

[R2-1804777](file:///C:\Data\3GPP\Extracts\R2-1804777_(RTK-LPP-Open-Issues).doc) Status of Running LPP CR for RTK GNSS Positioning Qualcomm Incorporated discussion

[R2-1805252](file:///C:\Data\3GPP\Extracts\R2-1805252_(Reply%20to%20SA3%20encrypting%20broadcast%20data)%20v3.docx) Report of email discussion [LTE/Positioning] [101#79] Reply to SA3 on encrypting broadcasted positioning data Ericsson report Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805874](file:///C:\Data\3GPP\Extracts\R2-1805874%20Work%20Plan%20LTE_iPos_enh_r15.docx) Updated work plan for UE Positioning Accuracy Enhancements for LTE work item Nokia, Nokia Shanghai Bell discussion Rel-15 LCS\_LTE\_acc\_enh-Core

### 9.8.2 GNSS positioning enhancements

RTK payload transmission, transparent or not? Supported RTK techniques, SSR, VRS, PPP, etc? The details on the support of UE based and UE assisted; The details about unicast and broadcast of RTK assistance data;

Including output of email discussion [101#77][LTE/Positioning] Shape recommendations (Nokia)

[R2-1804428](file:///C:\Data\3GPP\Extracts\R2-1804428.doc) Report of email discussion [99bis#57][LTE/Positioning] Future phase support of SSR u-blox AG discussion

[R2-1804778](file:///C:\Data\3GPP\Extracts\R2-1804778_(MAC-NRTK).doc) TP for MAC support in LPP Qualcomm Incorporated discussion

[R2-1805117](file:///C:\Data\3GPP\Extracts\R2-1805117.docx) Additional Stage-2 Considerations for RTK Assistance Data Deutsche Telekom discussion Rel-15 [R2-1802710](file:///C:\Data\3GPP\Extracts\R2-1802710.docx)

[R2-1805258](file:///C:\Data\3GPP\Extracts\R2-1805258.docx) Signaling of Multiple GNSS RTK Reference Stations and Associated Observations Ericsson discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805259](file:///C:\Data\3GPP\Extracts\R2-1805259.docx) On Remaining Issues of GNSS RTK Information via LPP Ericsson discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805505](file:///C:\Data\3GPP\Extracts\R2-1805505%20Remaining%20issues%20on%20GNSS%20positioning%20enhancement.doc) Remaining issues on GNSS positioning enhancement Huawei, HiSilicon discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805648](file:///C:\Data\3GPP\Extracts\R2-1805648_Stage%203%20running%20CR_additional%20comments.docx) Stage 3 running CR: additional comments ESA discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805649](file:///C:\Data\3GPP\Extracts\R2-1805649_EmailDiscussion_on_Stage2_for_RTKandPPP.docx) Report of email discussion [101#78][LTE/Positioning]on Draft Stage 2 CR for RTK and PPP positioning ESA discussion Rel-15

[R2-1805650](file:///C:\Data\3GPP\Extracts\R2-1805650_Stage2_DraftCR_for_RTKandPPP.doc) Draft Stage 2 CR for RTK and PPP positioning ESA draftCR Rel-15 36.305 14.3.0 B LCS\_LTE\_acc\_enh-Core

[R2-1805876](file:///C:\Data\3GPP\Extracts\R2-1805876%20Email%20Discussion%20Report%20on%20Shape%20Recommendations%20v4.1.docx) Summary of email discussion [101#77][LTE/Positioning] – Shape recommendations Nokia, Nokia Shanghai Bell discussion Rel-15 LCS\_LTE\_acc\_enh-Core

### 9.8.3 Support for IMU positioning

The details of IMU raw data; the scenario and benefits on how to use IMU raw data;

Including output of email discussion [101#80][LTE/Positioning] UE movement model (Fraunhofer)

Including output of email discussion [101#81][LTE/Positioning] Details of reporting acceleration and displacement (Sony)

[R2-1804332](file:///C:\Data\3GPP\Extracts\R2-1804332.doc) Discussion on IMU positioning ZTE Corporation discussion Rel-15 [R2-1801966](file:///C:\Data\3GPP\Extracts\R2-1801966.doc) Late

[R2-1804333](file:///C:\Data\3GPP\Extracts\R2-1804333.doc) Support IMU positioning ZTE Corporation draftCR Rel-15 36.305 14.3.0 LCS\_LTE\_acc\_enh-Core [R2-1801972](file:///C:\Data\3GPP\Extracts\R2-1801972.doc) Late

[R2-1804334](file:///C:\Data\3GPP\Extracts\R2-1804334.doc) Supoort IMU positioning over LPP ZTE Corporation draftCR Rel-15 36.355 14.5.0 B LCS\_LTE\_acc\_enh-Core [R2-1801973](file:///C:\Data\3GPP\TSGR2\TSGR2_101\Docs\R2-1801973.zip) Late

[R2-1804335](file:///C:\Data\3GPP\Extracts\R2-1804335.doc) Local NED coordinates frame for IMU positioning ZTE Corporation draftCR Rel-15 23.032 14.1.0 B LCS\_LTE\_acc\_enh-Core [R2-1801974](file:///C:\Data\3GPP\Extracts\R2-1801974.doc) Late

[R2-1804780](file:///C:\Data\3GPP\Extracts\R2-1804780_(IMU%20Positioning).doc) Mitigating Movement of a UE during Positioning using IMUs Qualcomm Incorporated discussion

[R2-1804781](file:///C:\Data\3GPP\Extracts\R2-1804781_(Draft%20LPP%20CR%20for%20IMU%20support).doc) Draft CR 36.355: Introduction of IMU support for OTDOA Qualcomm Incorporated draftCR Rel-15 36.355 14.5.1 B LCS\_LTE\_acc\_enh-Core

[R2-1805166](file:///C:\Data\3GPP\Extracts\R2-1805166_Summary_Email%20Disc_Meas_Param_IMU%20Pos_v1.0.docx) Summary Email Discussion [101#81][LTE/Positioning] Details of reporting acceleration and displacement(Sony) Sony discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805202](file:///C:\Data\3GPP\Extracts\R2-1805202%20(101%2380%20UE%20movementmodel%20Summary%20Email%20Discussion).docx) Summary Email Discussion [101#80][LTE/Positioning] UE movement model Fraunhofer IIS discussion Rel-15

[R2-1805208](file:///C:\Data\3GPP\Extracts\R2-1805208-(Introduction%20of%20motion%20states%20over%20LPP).docx) Introduction of motion states over LPP Fraunhofer IIS draftCR Rel-15 36.355 14.5.1 B LCS\_LTE\_acc\_enh-Core

[R2-1805260](file:///C:\Data\3GPP\Extracts\R2-1805260.docx) Addition of a new positioning method based on additional sensors measurements Ericsson,Sony CR Rel-15 36.355 14.5.1 0197 - B LCS\_LTE\_acc\_enh-Core

[R2-1805261](file:///C:\Data\3GPP\Extracts\R2-1805261.doc) draft LS on describing displacement and acceleration as a universal GAD Ericsson,Sony LS out Rel-15 LCS\_LTE\_acc\_enh-Core To:SA2

[R2-1805334](file:///C:\Data\3GPP\Extracts\R2-1805334%20-%20CR%2036.305%20IMU%20Sensor%20Support_v2.docx) Support of additional sensor methods (IMU) Sony, Ericsson CR Rel-15 36.305 14.3.0 0072 - B LCS\_LTE\_acc\_enh-Core

Withdrawn

R2-1804329 Discussion on IMU positioning ZTE Corporation discussion Rel-15 [R2-1707994](file:///C:\Data\3GPP\Extracts\R2-1707994.doc) Withdrawn

### 9.8.4 UE-based OTDOA positioning

What additional assistance information is required? Note, as second priority

[R2-1804783](file:///C:\Data\3GPP\Extracts\R2-1804783_(UE-Based%20OTDOA).doc) Introduction of UE-Based OTDOA Positioning Qualcomm Incorporated discussion

[R2-1804784](file:///C:\Data\3GPP\Extracts\R2-1804784_(Draft%20Stage%202%20UEB%20OTDOA).doc) Draft CR 36.305: Introduction of UE-based OTDOA Positioning Qualcomm Incorporated draftCR Rel-15 36.305 14.3.0 B LCS\_LTE\_acc\_enh-Core

[R2-1805884](file:///C:\Data\3GPP\Extracts\R2-1805884%20Consideration%20on%20UE-based%20OTDOA%20positioning.docx) Consideration on UE-based OTDOA positioning LG Electronics Inc. discussion Rel-15 LCS\_LTE\_acc\_enh-Core [R2-1802921](file:///C:\Data\3GPP\Extracts\R2-1802921%20Consideration%20on%20UE-based%20OTDOA%20positioning.docx)

### 9.8.5 Broadcasting of assistance data

SIB design for the transmission of A-GNSS, RTK and, as second priority, UE-based OTDOA assistance information. Encryption of assistance data broadcasting (SA3 input is needed);

Including output of email discussion [101#76][LTE/Postioning] Reply to SA2 on provisioning of keys for broadcast assistance data (Qualcomm)

Including output of email discussion [101#79][LTE/Positioning] Reply to SA3 on encrypting broadcasted positioning data (Ericsson)

[R2-1804786](file:///C:\Data\3GPP\Extracts\R2-1804786_(pseudo-segmentation%20of%20SIBs).doc) SIB Segmentation Qualcomm Incorporated discussion

[R2-1804787](file:///C:\Data\3GPP\Extracts\R2-1804787_(Draft%20CR%2036331%20broadcast%20AD).doc) Draft CR 36.331: Addition of broadcast of positioning assistance data Qualcomm Incorporated draftCR Rel-15 36.331 15.1.0 B LCS\_LTE\_acc\_enh-Core

[R2-1804788](file:///C:\Data\3GPP\Extracts\R2-1804788_(Draft%20CR%2036355%20broadcast%20AD).doc) Draft CR 36.355: Addition of broadcast of positioning assistance data Qualcomm Incorporated draftCR Rel-15 36.355 14.5.1 B LCS\_LTE\_acc\_enh-Core

[R2-1804789](file:///C:\Data\3GPP\Extracts\R2-1804789_(CipheringKeyDistribution-Email_discussion-report).doc) Report of email discussion [101#76][LTE/Positioning] Reply to SA2 on provisioning of keys for broadcast assistance data Qualcomm Incorporated discussion

[R2-1804790](file:///C:\Data\3GPP\Extracts\R2-1804790_(Draft_Response_LS_to_SA2_on_23271_CR).doc) DRAFT Response to LS on encrypting broadcasted positioning data and LS on provisioning of positioning assistance data via LPPa for broadcast Qualcomm Incorporated LS out To:SA2 Cc:RAN3, CT1, CT4

[R2-1805253](file:///C:\Data\3GPP\RAN2\Docs\R2-1805253.zip) draft reply LS to SA3 on encryption of broadcast positioning information Ericsson LS out Rel-15 LCS\_LTE\_acc\_enh-Core To:SA3 Cc:RAN3, SA2

[R2-1805254](file:///C:\Data\3GPP\Extracts\R2-1805254_CR-36331_SIB.doc) SIB design for Positioning Broadcast Information Ericsson CR Rel-15 36.331 15.1.0 3332 - B LCS\_LTE\_acc\_enh-Core

[R2-1805255](file:///C:\Data\3GPP\Extracts\R2-1805255-%20SIB%20Design%20Discussion.docx) SIB design discussion for positioning broadcast information Ericsson discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805256](file:///C:\Data\3GPP\Extracts\R2-1805256%20On%20the%20details%20of%20broadcast%20and%20ciphering.docx) On the details of broadcast and ciphering Ericsson discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805257](file:///C:\Data\3GPP\Extracts\R2-1805257.docx) Positioning assistance data segmentation and grouping Ericsson discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805504](file:///C:\Data\3GPP\Extracts\R2-1805504%20Discussion%20on%20the%20broadcasting%20of%20assistance%20data.doc) Discussion on the broadcasting of assistance data Huawei, HiSilicon discussion Rel-15 LCS\_LTE\_acc\_enh-Core

[R2-1805506](file:///C:\Data\3GPP\Extracts\R2-1805506%20Switch%20between%20unicast%20and%20broadcast.doc) Switch between unicast and broadcast Huawei, HiSilicon discussion Rel-15 LCS\_LTE\_acc\_enh-Core

## 9.9 Enhancing CA Utilization

(LTE\_euCA-Core; leading WG: RAN2; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-180561](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180561.zip))

Time budget: 1 TU

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

### 9.9.1 General

Including incoming LSs, work plan, rapporteur inputs, running CRs

[R2-1804212](file:///C:\Data\3GPP\Extracts\R2-1804212_R1-1803170.doc) Response to LS about LTE CA SCell New State agreements (R1-1803170; contact: Qualcomm) RAN1 LS in Rel-15 LTE\_euCA-Core To:RAN2

[R2-1804760](file:///C:\Data\3GPP\Extracts\R2-1804760_euCA%20Stage-2%20running%20CR%20(Rel-15).doc) Running Stage-2 CR Nokia, Nokia Shanghai Bell discussion Rel-15 36.300 LTE\_euCA-Core

[R2-1804761](file:///C:\Data\3GPP\Extracts\R2-1804761_euCA%20UE%20capability%20running%20CR%20(Rel-15).doc) Running 36.306 CR Nokia, Nokia Shanghai Bell discussion Rel-15 36.306 LTE\_euCA-Core

[R2-1804762](file:///C:\Data\3GPP\Extracts\R2-1804762_euCA%20RRC%20running%20CR%20(Rel-15).doc) Running RRC CR Nokia, Nokia Shanghai Bell discussion Rel-15 36.331 LTE\_euCA-Core

[R2-1804763](file:///C:\Data\3GPP\Extracts\R2-1804763_euCA%20MAC%20running%20CR%20(Rel-15).doc) Running MAC CR Nokia, Nokia Shanghai Bell discussion Rel-15 36.321 LTE\_euCA-Core

### 9.9.2 Delay reduction for SCell set-up

Including output of email discussion [101#42][LTE/euCA] Introducing valid area mechanism (vivo)

[R2-1804529](file:///C:\Data\3GPP\Extracts\R2-1804529%20%20Discussion%20on%20Validity%20Timer%20and%20Area%20for%20euCA%20Measurement.docx) Discussion on Validity Timer and Area for euCA Measurement OPPO discussion

[R2-1804546](file:///C:\Data\3GPP\Extracts\R2-1804546_FastScellConfiguration_through_quick_scell_measurement_reporting_v1.doc) Fast SCell Configuration through Quick SCell Measurement Reporting Qualcomm India Pvt Ltd discussion Rel-15 LTE\_euCA-Core

[R2-1804547](file:///C:\Data\3GPP\Extracts\R2-1804547_Scell%20New%20Dormant%20State%20CQI%20Periodicity_v3.doc) SCell New Dormant State CQI reporting periodicity Qualcomm India Pvt Ltd discussion Rel-15 LTE\_euCA-Core

[R2-1804548](file:///C:\Data\3GPP\Extracts\R2-1804548_Scell%20New%20State%20Transitions%20and%20Signaling_v1.doc) SCell New State Transitions, New MAC-CE and Signalling Procedures Qualcomm India Pvt Ltd discussion Rel-15 LTE\_euCA-Core

[R2-1804653](file:///C:\Data\3GPP\Extracts\R2-1804653%20Discussion%20on%20Dormant%20SCell%20state%20configuration%20upon%20Cell%20Addtition.docx) Discussion on Dormant SCell state configuration upon Cell Addtition Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

[R2-1804654](file:///C:\Data\3GPP\Extracts\R2-1804654%20Remaining%20issues%20of%20temporary%20CQI%20reporting.docx) Remaining issues of temporary CQI reporting Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

[R2-1804656](file:///C:\Data\3GPP\Extracts\R2-1804656%20Discussion%20on%20new%20MAC%20CE%20for%20state%20transition.docx) Discussion on new MAC CE for state transition Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

[R2-1804657](file:///C:\Data\3GPP\Extracts\R2-1804657%20Correction%20on%20the%20MAC%20CE%20for%20new%20SCell%20state%20transition%20for%20running%20CR.docx) Correction on the MAC CE for new SCell state transition for running CR Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

[R2-1804679](file:///C:\Data\3GPP\Extracts\R2-1804679_Fallback%20to%20long%20CQI%20report.doc) fallback to long period CSI report vivo discussion [R2-1802004](file:///C:\Data\3GPP\Extracts\R2-1802004_Fallback%20to%20long%20CQI%20report.doc)

[R2-1804680](file:///C:\Data\3GPP\Extracts\R2-1804680_MAC%20CE%20for%20the%20new%20SCell%20state_v1.docx) MAC CE for the new Scell state vivo discussion [R2-1802002](file:///C:\Data\3GPP\Extracts\R2-1802002_MAC%20CE%20for%20the%20new%20SCell%20state.docx)

[R2-1804681](file:///C:\Data\3GPP\Extracts\R2-1804681%20101%2342euCA%20Introducing%20valid%20area%20mechanism.docx) Report of email discussion [100#42][LTE/euCA] Introducing valid area mechanism vivo discussion

[R2-1804682](file:///C:\Data\3GPP\Extracts\R2-1804682%20Validity%20timer%20for%20early%20measurement_v3.docx) Validity timer for early measurement vivo discussion

[R2-1804683](file:///C:\Data\3GPP\Extracts\R2-1804683_The%20timing%20of%20SCell%20state%20and%20RRC%20configures%20SCell%20dormant%20state.doc) The timing of SCell state and RRC configures SCell dormant state vivo discussion

[R2-1804684](file:///C:\Data\3GPP\Extracts\R2-1804684_Draft%20LS%20to%20RAN1%20on%20potential%20progress%20for%20the%20timing%20of%20SCell%20state.doc) Draft LS to RAN1 on potential progress for the timing of SCell state vivo LS out Rel-15 LTE\_euCA To:RAN1

[R2-1804687](file:///C:\Data\3GPP\Extracts\R2-1804687_Consideration%20on%20PUCCH-SCell%20in%20the%20Dormant%20Scell%20state_v2.docx) Consideration on PUCCH-SCell in the Dormant Scell state vivo discussion

[R2-1804764](file:///C:\Data\3GPP\Extracts\R2-1804764%20Configuration%20of%20IDLE%20mode%20measurements.docx) Configuration of IDLE mode measurements Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core

R2-1804765 Stage-3 details of IDLE mode measurements Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core Late

[R2-1804766](file:///C:\Data\3GPP\Extracts\R2-1804766%20Reporting%20of%20IDLE%20mode%20measurements.docx) Reporting of IDLE mode measurements Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core

[R2-1804767](file:///C:\Data\3GPP\Extracts\R2-1804767%20Details%20of%20Direct%20SCell%20activation.docx) Details of Direct activation for Scells Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core

[R2-1804768](file:///C:\Data\3GPP\Extracts\R2-1804768%20Details%20of%20Dormant%20SCell%20state.docx) Details of Dormant Scell state Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core

[R2-1804769](file:///C:\Data\3GPP\Extracts\R2-1804769%20SCell%20Dormant%20State%20and%20UL%20synchronization.docx) SCell Dormant State and UL synchronization Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core

[R2-1804770](file:///C:\Data\3GPP\Extracts\R2-1804770%20Remaining%20details%20on%20temporary%20CQI%20reporting.docx) Details on CQI burst Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core

[R2-1804901](file:///C:\Data\3GPP\Extracts\R2-1804901.doc) Handling of CSI for SCell activation in euCA Intel Corporation discussion Rel-15 LTE\_euCA-Core

[R2-1804993](file:///C:\Data\3GPP\Extracts\R2-1804993%20Reporting%20condition%20of%20IDLE%20measurements.doc) Reporting condition of IDLE measurements LG electronics inc discussion [R2-1803660](file:///C:\Data\3GPP\Extracts\R2-1803660.doc)

[R2-1805191](file:///C:\Data\3GPP\Extracts\R2-1805191.doc) Discussion on state transitions of new SCell state KT Corp. discussion

[R2-1805826](file:///C:\Data\3GPP\Extracts\R2-1805826%20-%20Direct%20SCell%20transition%20to%20dormant%20state%20at%20configuration.docx) Direct SCell transition to Dormant state at configuration Ericsson discussion Rel-15 LTE\_euCA-Core

[R2-1805827](file:///C:\Data\3GPP\Extracts\R2-1805827%20-%20Fallback%20to%20long%20CQI%20reporting%20period.docx) Fallback to long CQI reporting period Ericsson discussion Rel-15 LTE\_euCA-Core

[R2-1805828](file:///C:\Data\3GPP\Extracts\R2-1805828%20-%20MAC%20CE%20design%20for%20dormant%20SCell%20state.docx) MAC CE design for dormant SCell state Ericsson discussion Rel-15 LTE\_euCA-Core

[R2-1805829](file:///C:\Data\3GPP\Extracts\R2-1805829%20-%20RRC%20Suspended%20and%20CA%20establishment.docx) RRC Suspended and CA establishment Ericsson discussion Rel-15 LTE\_euCA-Core

[R2-1805911](file:///C:\Data\3GPP\Extracts\R2-1805911_State%20transition%20between%20legacy%20SCell%20state%20and%20dormant%20state.doc) State transition between legacy state and dormant state LG Electronics Mobile Research discussion LTE\_euCA-Core

[R2-1805913](file:///C:\Data\3GPP\Extracts\R2-1805913_MAC%20CE%20for%20dormant%20state.doc) MAC CE for dormant state LG Electronics Mobile Research discussion LTE\_euCA-Core

### 9.9.3 Signalling overhead reduction for configuration activation

[R2-1804655](file:///C:\Data\3GPP\Extracts\R2-1804655%20Discussion%20on%20Aperiodic%20Idle%20Mode%20Measurements.docx) Discussion on Aperiodic Idle Mode Measurements Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

[R2-1804658](file:///C:\Data\3GPP\Extracts\R2-1804658%20Signalling%20overhead%20reduction%20for%20SCell%20Configuration.docx) Signalling overhead reduction for SCell Configuration Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

[R2-1804659](file:///C:\Data\3GPP\Extracts\R2-1804659%20TP%20of%20signalling%20overhead%20reduction%20for%20SCell%20configuration%20for%20TS%2036.331.doc) TP of signalling overhead reduction for SCell configuration for TS 36.331 Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

R2-1804771 Signalling details Common SCell configuration Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_euCA-Core Late

### 9.9.4 Others

[R2-1804436](file:///C:\Data\3GPP\Extracts\R2-1804436%20-%20SCell%20dormant%20state%20control%20using%20new%20MAC%20CE.doc) SCell dormant state control using new MAC CE OPPO discussion

[R2-1804545](file:///C:\Data\3GPP\Extracts\R2-1804545_euCA_UE_Capabilities_v4.doc) euCA UE Capabilities Qualcomm discussion Rel-15 LTE\_euCA-Core

[R2-1804660](file:///C:\Data\3GPP\Extracts\R2-1804660%20Discussion%20on%20continuing%20idle%20mode%20measurement%20after%20cell%20reselection.docx) Discussion on continuing idle mode measurement after cell reselection Huawei, HiSilicon discussion Rel-15 LTE\_euCA-Core

## 9.10 Enhancements on LTE-based V2X Services

(LTE\_eV2X-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-171740](file:///C:\Data\3GPP\Extracts\RP-171740%20Revision%20of%20V2X%20phase%202%20WID.doc))

Time budget: 1 TU

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

### 9.10.1 General

Including incoming LSs, work plan and rapporteur inputs.

Including output of email discussion [101#74][LTE/V2X] 36.300 running CR (Huawei)

Including any initial UP/CP running CR if provided.

[R2-1804206](file:///C:\Data\3GPP\RAN2\Docs\R2-1804206.zip) LS on PSCCH/PSSCH subframe numbering issue in partial network coverage (R1-1803078; contact: LGE) RAN1 LS in Rel-14 LTE\_V2X-Core To:RAN2

[R2-1804642](file:///C:\Data\3GPP\Extracts\36300_CR1126_(REL-15)_R2-1804642_TS%2036.300%20Running%20CR%20for%20eV2X.doc) TS 36.300 running CR for eV2X Huawei, HiSilicon CR Rel-15 36.300 15.1.0 1126 - B LTE\_eV2X-Core

[R2-1805763](file:///C:\Data\3GPP\Extracts\R2-1805763%20Open%20issue%20list%20for%20Rel-15%20eV2X.doc) Open issue list for Rel-15 eV2X Huawei (Rapporteur) discussion Rel-15 LTE\_eV2X-Core

[R2-1806027](file:///C:\Data\3GPP\Extracts\36321_CR(1267)_(REL-15)_R2-1806027_Running%20CR%20of%2036.321%20for%20eV2X.doc) Running CR of 36.321 for eV2X LG Electronics Inc. CR Rel-15 36.321 15.1.0 1267 - B LTE\_eV2X-Core Late

### 9.10.2 Carrier aggregation (up to 8 PC5 carriers)

[R2-1804496](file:///C:\Data\3GPP\Extracts\R2-1804496.doc) carrier re-selection in CA CATT discussion

[R2-1806025](file:///C:\Data\3GPP\Extracts\R2-1806025%20V2X%20sidelink%20transmission%20procedure%20considering%20packet%20duplication.doc) V2X sidelink transmission procedure considering packet duplication LG Electronics Inc. discussion Rel-15 LTE\_eV2X-Core

#### 9.10.2.1 Stage 2 discussion

Focus should be on RAN2 aspects.

Including output of email discussion [101#72][LTE/V2X] Packet duplications (Ericsson).

Including remaining issues for Tx carrier selection:

1) To choose one of two options for final Tx carrier selection among the multiple candiate carriers

a. Option1: based on CBR

b. Option2: leaving it to UE implementation

2) How to implement PPPR in Tx carrier selection.

Including output of email discussion [101#75][LTE/V2X] Additional carrier reselection triggering (Qualcomm).

[R2-1804360](file:///C:\Data\3GPP\Extracts\R2-1804360%20-%20Discussion%20on%20eV2x%20mode-3.doc) Discussion on eV2x mode-3 OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804362](file:///C:\Data\3GPP\Extracts\R2-1804362%20-%20Discussion%20on%20carrier%20selection%20in%20eV2x%20mode-4.doc) Discussion on carrier selection in eV2x mode-4 OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804368](file:///C:\Data\3GPP\Extracts\R2-1804368.docx) Discussion on carrier selection based on CBR ITRI discussion

[R2-1804510](file:///C:\Data\3GPP\Extracts\R2-1804510%20Discussion%20on%20remaining%20issues%20of%20carrier%20selection(reselection).doc) Discussion on remaining issues of carrier selection(reselection) ZTE discussion Rel-15

[R2-1804512](file:///C:\Data\3GPP\Extracts\R2-1804512-Report%20of%20101%2375%20eV2X%20Additional%20carrier%20reselection%20triggering.doc) Summary of [101#75][eV2x] Additional carrier reselection triggering Qualcomm Incorporated discussion LTE\_eV2X-Core

[R2-1804540](file:///C:\Data\3GPP\Extracts\R2-1804540.docx) Discussion on reliable transmission aspects for SPS over PC5 carriers Hyundai Motors discussion Rel-15 LTE\_eV2X-Core

[R2-1804638](file:///C:\Data\3GPP\Extracts\R2-1804638%20Remaining%20issues%20on%20Tx%20carrier%20selection.doc) Remaining issue on Tx carrier selection Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804640](file:///C:\Data\3GPP\Extracts\R2-1804640%20On%20sidelink%20packet%20duplication%20for%20Mode%204.doc) On sidelink packet duplication for Mode 4 Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804873](file:///C:\Data\3GPP\Extracts\R2-1804873-On%20remaining%20issues%20in%20TX%20carrier%20selection%20for%20CA%20in%20eV2X.doc) On remaining issues in TX carrier selection for CA in eV2X Qualcomm Incorporated discussion LTE\_eV2X-Core

[R2-1805195](file:///C:\Data\3GPP\Extracts\R2-1805195%20remaining%20issues%20for%20Tx%20carrier%20selection-v1.0.doc) Remaining issues for Tx carrier selection Lenovo, Motorola Mobility discussion Rel-15 LTE\_eV2X-Core [R2-1802307](file:///C:\Data\3GPP\Extracts\R2-1802307%20Details%20on%20carrier%20selection%20and%20handling%20Rx%20limited%20V2X%20UE-v1.0.doc)

[R2-1805197](file:///C:\Data\3GPP\Extracts\R2-1805197%20Buffer%20status%20reporting%20for%20packet%20duplication%20in%20sidelink-v1.0.doc) Buffer status reporting for packet duplication in sidelink Lenovo, Motorola Mobility discussion Rel-15 LTE\_eV2X-Core

[R2-1805350](file:///C:\Data\3GPP\Extracts\R2-1805350%20Discussion%20on%20sidelink%20packet%20duplication%20for%20Mode%203.doc) Discussion on sidelink packet duplication for Mode 3 Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1805542](file:///C:\Data\3GPP\Extracts\R2-1805542.docx) Packet duplication for Mode 4 UEs Intel Corporation discussion Rel-15 LTE\_eV2X-Core

[R2-1805543](file:///C:\Data\3GPP\Extracts\R2-1805543.docx) On carrier selection for CA over PC5 Intel Corporation discussion Rel-15 LTE\_eV2X-Core

[R2-1805640](file:///C:\Data\3GPP\Extracts\R2-1805640%20PPPR%20and%20PPPP%20to%20LCG%20Mapping%20for%20Mode%203%20resource%20allocation.docx) PPPR and PPPP to LCG Mapping for Mode 3 resource allocation Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_eV2X-Core

[R2-1805660](file:///C:\Data\3GPP\Extracts\R2-1805660-Semi-static-configutration%20for%20carrier%20selection%20in%20V2X%20Phase%202.doc) Semi-static configuration used in carrier selection for CA in eV2X Qualcomm Incorporated discussion Rel-15 LTE\_eV2X-Core [R2-1803618](file:///C:\Data\3GPP\Extracts\R2-1803618-Semi-static-configutration%20for%20carrier%20selection%20in%20V2X%20Phase%202.doc)

[R2-1805719](file:///C:\Data\3GPP\Extracts\R2-1805719%20-%20Report%20from%20%5b101%2372%5d%5bLTE%20V2X%5d%20Packet%20duplication.doc) Report from [101#72][LTE/V2X] Packet duplication Ericsson discussion LTE\_eV2X-Core

[R2-1805721](file:///C:\Data\3GPP\Extracts\R2-1805721%20-%20Analysis%20of%20Existing%20Resource%20Reselection%20Triggering%20Conditions.doc) Analysis of Existing Resource Reselection Triggering Conditions Ericsson discussion LTE\_eV2X-Core

[R2-1805722](file:///C:\Data\3GPP\Extracts\R2-1805722%20-%20Avoid%20Frequent%20Sidelink%20Carrier%20Switching.doc) Avoid Frequent Sidelink Carrier Switching Ericsson discussion LTE\_eV2X-Core

[R2-1805738](file:///C:\Data\3GPP\Extracts\R2-1805738%20-%20Packet%20Duplication%20for%20PC5.doc) Packet Duplication for PC5 Ericsson discussion LTE\_eV2X-Core

[R2-1805741](file:///C:\Data\3GPP\Extracts\R2-1805741%20-%20Sidelink%20Carrier%20Selection%20Criteria%20for%20TX.doc) Sidelink Carrier Selection Criteria for TX Ericsson discussion LTE\_eV2X-Core

[R2-1805870](file:///C:\Data\3GPP\Extracts\R2-1805870%20Remaining%20issue%20for%20carrier%20selection.docx) Remaining issue for carrier selection LG Electronics Inc. discussion Rel-15 LTE\_eV2X-Core

[R2-1805882](file:///C:\Data\3GPP\Extracts\R2-1805882%20Coexistence%20with%20DSRC%20carrier.docx) Coexistence with DSRC carrier LG Electronics Inc. discussion Rel-15 LTE\_eV2X-Core [R2-1802499](file:///C:\Data\3GPP\Extracts\R2-1802499%20Coexistence%20with%20DSRC%20carrier.docx)

[R2-1806087](file:///C:\Data\3GPP\Extracts\R2-1806087_was_R2-1803013_Carrier%20aggregation%20with%20both%20of%20carriers%20provided%20by%20eNB%20and%20only%20allowed%20to%20use%20in%20OOC.doc) Carrier aggregation with both of carriers provided by eNB and only allowed to use in OOC LG Electronics discussion Rel-15

[R2-1806110](file:///C:\Data\3GPP\Extracts\R2-1806110_Packet%20Duplication%20for%20the%20Sidelink%20Carrier%20Aggregation.docx) Packet Duplication for the Sidelink Carrier Aggregation Samsung discussion Rel-15

[R2-1806115](file:///C:\Data\3GPP\Extracts\R2-1806115_Operation%20of%20Carrier%20Reselection%20during%20Resource%20Reselection.docx) Operation of Carrier Reselection during Resource Reselection Samsung discussion Rel-15

[R2-1806117](file:///C:\Data\3GPP\Extracts\R2-1806117_Carrier%20selection%20among%20multiple%20candidate%20carriers.docx) Carrier selection among multiple candidate carriers Samsung discussion Rel-15

[R2-1806131](file:///C:\Data\3GPP\Extracts\R2-1806131%20-%20Considerations%20on%20signalling%20for%20SL%20packet%20duplication%20operation.doc) Considerations on signalling for SL packet duplication operation ITL discussion Rel-15 LTE\_eV2X

#### 9.10.2.2 User plane details

Including need of LCP change with Tx carrier selection.

Including LCID mapping for packet duplication.

Including packet duplication detection behaviors in Rx UE.

Including other UP details.

[R2-1804357](file:///C:\Data\3GPP\Extracts\R2-1804357%20-%20LCP%20impact%20in%20eV2x.doc) LCP impact in eV2x OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804361](file:///C:\Data\3GPP\Extracts\R2-1804361%20-%20Discussion%20on%20duplication%20in%20eV2x%20mode-4.doc) Discussion on duplication in eV2x mode-4 OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804508](file:///C:\Data\3GPP\Extracts\R2-1804508_Discussion%20on%20LCIDissue%20for%20data%20duplication.doc) Discussion on LCID issue for data duplication ZTE discussion Rel-15

[R2-1804509](file:///C:\Data\3GPP\Extracts\R2-1804509_Discussion%20on%20LCPprocedure%20for%20PC5%20CA.doc) Discussion on LCP procedure for PC5 CA ZTE discussion Rel-15

[R2-1804634](file:///C:\Data\3GPP\Extracts\R2-1804634%20SL%20LCP%20change%20for%20eV2X.doc) SL LCP change for eV2X Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804635](file:///C:\Data\3GPP\Extracts\R2-1804635%20Consideration%20on%20resource%20allocation%20for%20PC5%20CA.doc) Consideration on resource allocation for PC5 CA Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804636](file:///C:\Data\3GPP\Extracts\R2-1804636%20Further%20discussion%20on%20LCID%20configuration%20for%20sidelink%20PDCP%20duplication.doc) Further Discussion on LCID configuration for sidelink PDCP duplication Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804697](file:///C:\Data\3GPP\Extracts\R2-1804697%20Packet%20duplication%20detection%20in%20sidelink%20PDCP.doc) Packet duplication detection in sidelink PDCP vivo discussion

[R2-1804698](file:///C:\Data\3GPP\Extracts\R2-1804698%20Potential%20issue%20on%20the%20hard-coded%20LCIDs%20for%20packet%20duplication.doc) Potential issue on hard-coded LCIDs for packet duplication vivo discussion

[R2-1805544](file:///C:\Data\3GPP\Extracts\R2-1805544.docx) User Plane aspects for carrier aggregation over PC5 Intel Corporation discussion Rel-15 LTE\_eV2X-Core

[R2-1805662](file:///C:\Data\3GPP\Extracts\R2-1805662-Supporting%20mode%203%20CA%20operation%20in%20eV2X.doc) Signaling to support mode 3 CA operation in eV2X Qualcomm Incorporated discussion Rel-15 LTE\_eV2X-Core

[R2-1805725](file:///C:\Data\3GPP\Extracts\R2-1805725%20-%20Configuration%20of%20LCIDs%20for%20Sidelink%20Packet%20Duplication.doc) Configuration of LCIDs for Sidelink Packet Duplication Ericsson discussion LTE\_eV2X-Core

[R2-1805731](file:///C:\Data\3GPP\Extracts\R2-1805731%20-%20MAC%20Impact%20of%20UE%20Capability%20Limitation%20in%20TX%20Carrier%20Selection.doc) MAC Impact of UE Capability Limitation in TX Carrier Selection Ericsson discussion LTE\_eV2X-Core

[R2-1805737](file:///C:\Data\3GPP\Extracts\R2-1805737%20-%20Other%20MAC%20Miscellaneous%20Impact.doc) Other MAC Miscellaneous Impact Ericsson discussion LTE\_eV2X-Core

[R2-1805932](file:///C:\Data\3GPP\Extracts\R2-1805932%20deprioritization%20of%20duplicated%20transmission.doc) De-prioritization of duplicated transmission for V2X sidelink communication LG Electronics Inc. discussion Rel-15 LTE\_eV2X-Core [R2-1802732](file:///C:\Data\3GPP\Extracts\R2-1802732%20deprioritization%20of%20duplicated%20transmission_R1.doc)

[R2-1806111](file:///C:\Data\3GPP\Extracts\R2-1806111_LCID%20Mapping%20for%20Packet%20Duplication.docx) LCID Mapping for Packet Duplication Samsung discussion Rel-15

[R2-1806116](file:///C:\Data\3GPP\Extracts\R2-1806116_Consideration%20on%20LCP%20for%20eV2X.DOCX) Consideration on LCP for eV2X Samsung discussion Rel-15

#### 9.10.2.3 Control plane details

Including new Rel-15 parameters to be introduced.

Including detailed UE behaviors at the reception of SIB or RRC connection reconfiguration for PC5 CA.

Including other CP details.

[R2-1804363](file:///C:\Data\3GPP\Extracts\R2-1804363%20-%20Discussion%20on%20carrier%20configuration%20in%20SIB-eV2X.doc) Discussion on carrier configuration in SIB-eV2X OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804699](file:///C:\Data\3GPP\Extracts\R2-1804699_Signaling%20of%20CBR-PPPP-TxConfigList%20parameters.docx) Signaling of CBR-PPPP-TxConfigList parameters vivo discussion

[R2-1805545](file:///C:\Data\3GPP\Extracts\R2-1805545.docx) On additional parameter for carrier selection over PC5 Intel Corporation discussion Rel-15 LTE\_eV2X-Core

[R2-1805760](file:///C:\Data\3GPP\Extracts\R2-1805760%20Discussion%20on%20the%20new%20parameter%20for%20Tx%20carrier%20selection.doc) Discussion on the new parameter for Tx carrier selection Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1805761](file:///C:\Data\3GPP\Extracts\36331_CRabcd_(REL-15)_R2-1805761_Draft%20CR%20on%20the%20new%20parameter%20for%20Tx%20carrier%20selection(Option%201).doc) Draft CR on the new parameter for Tx carrier selection (Option 1) Huawei, HiSilicon draftCR Rel-15 36.331 15.1.0 LTE\_eV2X-Core

[R2-1805762](file:///C:\Data\3GPP\Extracts\36331_CRabcd_(REL-15)_R2-1805762_Draft%20CR%20on%20the%20new%20parameter%20for%20Tx%20carrier%20selection(Option%202).doc) Draft CR on the new parameter for Tx carrier selection (Option 2) Huawei, HiSilicon draftCR Rel-15 36.331 15.1.0 LTE\_eV2X-Core

[R2-1805764](file:///C:\Data\3GPP\Extracts\R2-1805764%20Potential%20RRC%20impact%20for%20eV2X.doc) Potential RRC impacts for eV2X Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

Withdrawn

R2-1804641 Discussion on the new parameter for Tx carrier selection Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core Withdrawn

### 9.10.3 Radio resource pool sharing between UEs using mode 3 and mode 4

[R2-1804497](file:///C:\Data\3GPP\Extracts\R2-1804497.doc) mode 3&4 resource pool sharing CATT discussion

#### 9.10.3.1 Stage 2 discussion

Focus should be on RAN2 aspects.

Including need of support of new mode-3 sensing report for resource pool sharing.

[R2-1804369](file:///C:\Data\3GPP\Extracts\R2-1804369.docx) Discussion on coexistence of mode 3 and mode 4 in V2X communications ITRI discussion

[R2-1804507](file:///C:\Data\3GPP\RAN2\Docs\R2-1804507.zip) Consideration on resource pool sharing ZTE discussion Rel-15

[R2-1804637](file:///C:\Data\3GPP\Extracts\R2-1804637%20Issue%20on%20the%20full%20resource%20sharing.doc) Issue on the full resource pool sharing Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804821](file:///C:\Data\3GPP\Extracts\R2-1804821%20(R15%20LTE%20WI%20A91031%20Open%20Issues%20on%20Pool%20Sharing).doc) Open Issues on Mode 3 and Mode 4 Pool Sharing InterDigital discussion Rel-15 LTE\_eV2X-Core

[R2-1805200](file:///C:\Data\3GPP\Extracts\R2-1805200%20Further%20discussion%20on%20resource%20pool%20sharing-v1.0.doc) Further discussion on resource pool sharing Lenovo, Motorola Mobility discussion Rel-15 LTE\_eV2X-Core

[R2-1805349](file:///C:\Data\3GPP\Extracts\R2-1805349%20Mode-3%20sensing%20and%20reporting%20for%20resource%20pool%20sharing.doc) Mode-3 sensing and reporting for resource pool sharing Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1805403](file:///C:\Data\3GPP\Extracts\R2-1805403_Mode3Mode4ResourceSharing.docx) Resource Pool Sharing between Mode 3 and Mode 4 UEs Fraunhofer HHI, Fraunhofer IIS discussion Rel-15 [R2-1803342](file:///C:\Data\3GPP\Extracts\R2-1803342-Mode3Mode4ResourceSharing.docx)

[R2-1805546](file:///C:\Data\3GPP\Extracts\R2-1805546.docx) On resource pool sharing between mode 3 and 4 Intel Corporation discussion Rel-15 LTE\_eV2X-Core

[R2-1805617](file:///C:\Data\3GPP\Extracts\R2-1805617%20Pool%20sharing%20between%20Mode%203%20and%20Mode%204.doc) Resource pool sharing between Mode 3 and Mode 4 Qualcomm Incorporated discussion Rel-15 LTE\_eV2X-Core [R2-1803623](file:///C:\Data\3GPP\Extracts\R2-1803623%20Mode%203%20and%20Mode%204.doc)

[R2-1805639](file:///C:\Data\3GPP\Extracts\R2-1805639%20On%20the%20resource%20pool%20sharing%20and%20sensing%20for%20Mode%203%20eV2X%20UEs.docx) On the resource pool sharing and sensing for Mode 3 eV2X UEs Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_eV2X-Core

[R2-1805739](file:///C:\Data\3GPP\Extracts\R2-1805739%20-%20Pool%20Sharing%20Between%20Mode-3%20and%20Mode-4.doc) Pool Sharing Between Mode-3 and Mode-4 Ericsson discussion LTE\_eV2X-Core

[R2-1806026](file:///C:\Data\3GPP\Extracts\R2-1806026%20Need%20of%20sensing%20report%20for%20mode%203%20scheduling.doc) Need of sensing report for mode 3 scheduling LG Electronics Inc. discussion Rel-15 LTE\_eV2X-Core

[R2-1806112](file:///C:\Data\3GPP\Extracts\R2-1806112_Mode%203%20UE%20behaviour%20for%20resource%20pool%20sharing.doc) Mode 3 UE behaviour for resource pool sharing Samsung discussion Rel-15 [R2-1803038](file:///C:\Data\3GPP\Extracts\R2-1803038_Mode%203%20behaviour%20in%20shared%20resource%20pools%20for%20V2X%20phase%202.doc)

[R2-1806113](file:///C:\Data\3GPP\Extracts\R2-1806113_Mode%204%20behaviour%20in%20shared%20resource%20pools%20for%20V2X%20phase%202.doc) Mode 4 behaviour in shared resource pools for V2X phase 2 Samsung discussion Rel-15

#### 9.10.3.2 User plane details

Including UP details.

#### 9.10.3.3 Control plane details

Including new consideration to RRC configuration and UE behivors aspects.

Including other CP details.

[R2-1806114](file:///C:\Data\3GPP\Extracts\R2-1806114_Shared%20resource%20pool%20configuration%20for%20mode%204.doc) Shared resource pool configuration for mode 4 Samsung discussion Rel-15 [R2-1803145](file:///C:\Data\3GPP\Extracts\R2-1803145_Shared%20resource%20pool%20configuration%20for%20mode%204.doc)

### 9.10.4 Others

Including RAN2 aspects, if any, on the WI objectives 1b (64 QAM), 1c (delay reduction at layer 1), 2 (transmit diversity), and 3 (short TTI).

Including output of email discussion [101#73][LTE/V2X] Destination address enhancements (ZTE).

[R2-1804355](file:///C:\Data\3GPP\Extracts\R2-1804355%20-%20UL-SL%20prioritization%20in%20eV2x.doc) UL-SL prioritization in eV2x OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804358](file:///C:\Data\3GPP\Extracts\R2-1804358%20-%20Latency%20reduction%20in%20eV2x.doc) Latency reduction in eV2x OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804359](file:///C:\Data\3GPP\Extracts\R2-1804359%20-%20Discussion%20on%20impact%20due%20to%20MCS%20table%20revision.doc) Discussion on impact due to MCS table revision OPPO discussion Rel-15 LTE\_eV2X-Core

[R2-1804506](file:///C:\Data\3GPP\Extracts\R2-1804506_Report%20of%20email%20discussion%20101%2373%20Destination%20address%20enhancements.doc) Report of 101#73 destination address enhancements ZTE discussion Rel-15

[R2-1804511](file:///C:\Data\3GPP\Extracts\R2-1804511_Discussion%20on%20latency%20reduction.doc) Discussion on latency reduction ZTE discussion Rel-15

[R2-1804633](file:///C:\Data\3GPP\Extracts\R2-1804633%20Coexistence%20of%20R14%20UEs%20and%20R15%20UEs%20regarding%2064QAM.doc) Coexistence of R14 UEs and R15 UEs regarding 64QAM Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804639](file:///C:\Data\3GPP\Extracts\R2-1804639%20Consideration%20on%20latency%20related%20aspects%20in%20LTE%20eV2X.doc) Consideration on latency related aspects in LTE eV2X Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1804871](file:///C:\Data\3GPP\Extracts\R2-1804871-Co-existing%20Rel-14%20and%20Rel-15%20V2X%20UEs.doc) Coexistence between Rel-14 and Rel-15 V2X UEs Qualcomm Incorporated discussion LTE\_eV2X-Core [R2-1803621](file:///C:\Data\3GPP\Extracts\R2-1803621-Co-existing%20Rel-14%20and%20Rel-15%20V2X%20UEs.doc)

[R2-1805622](file:///C:\Data\3GPP\Extracts\R2-1805622%20Latency%20reduction.doc) Latency reduction for packet transmission in eV2X Qualcomm Incorporated discussion Rel-15 LTE\_eV2X-Core [R2-1803624](file:///C:\Data\3GPP\Extracts\R2-1803624%20Latency%20reduction.doc)

[R2-1805641](file:///C:\Data\3GPP\Extracts\R2-1805641%20Discussion%20on%20the%20Destination%20Index%20in%20SL%20BSR.docx) Discussion on the Destination Index in SL BSR Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_eV2X-Core

[R2-1805642](file:///C:\Data\3GPP\Extracts\R2-1805642%20On%20the%20co-existence%20of%20Rel-14%20and%20Rel-15%20V-UEs.docx) On the co-existence of Rel-14 and Rel-15 V-UEs Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_eV2X-Core [R2-1803351](file:///C:\Data\3GPP\Extracts\R2-1803351%20On%20the%20co-existence%20of%20Rel-14%20and%20Rel-15%20V-UEs.docx)

[R2-1805661](file:///C:\Data\3GPP\Extracts\R2-1805661-CA_Synchronisation.doc) Synchronization for V2X PC5 Carrier Aggregation Qualcomm Incorporated discussion Rel-15 LTE\_eV2X-Core

[R2-1805730](file:///C:\Data\3GPP\Extracts\R2-1805730%20-%20Latency%20reduction%20for%20eV2V.doc) Latency reduction for eV2V Ericsson discussion LTE\_eV2X-Core

[R2-1805736](file:///C:\Data\3GPP\Extracts\R2-1805736%20-%20On%20the%20Support%20of%2064%20QAM%20and%20TX%20Diversity.doc) On the Support of 64 QAM and TX Diversity Ericsson discussion LTE\_eV2X-Core

[R2-1805765](file:///C:\Data\3GPP\Extracts\R2-1805765%20UE%20capability%20aspects%20for%20eV2X.doc) UE capability aspects for eV2X Huawei, HiSilicon discussion Rel-15 LTE\_eV2X-Core

[R2-1805820](file:///C:\Data\3GPP\Extracts\R2-1805820-GNSS_Sync_indication.doc) Discussion on Indication of GNSS Synchronization for V2X Sidelink Communication Qualcomm Incorporated discussion Rel-15 LTE\_eV2X-Core

[R2-1806088](file:///C:\Data\3GPP\Extracts\R2-1806088_V2X%20service%20differentiation%20in%20UE-AS%20layer_v1.doc) V2X service differentiation in UE-AS layer LG Electronics discussion Rel-15

[R2-1806089](file:///C:\Data\3GPP\Extracts\R2-1806089_draft%20LS%20on%20V2X%20service%20differentiation%20in%20AS%20layer_v1.docx) LS on V2X service differentiation in AS layer LG Electronics LS out Rel-15 [R2-1803013](file:///C:\Data\3GPP\Extracts\R2-1806087_was_R2-1803013_Carrier%20aggregation%20with%20both%20of%20carriers%20provided%20by%20eNB%20and%20only%20allowed%20to%20use%20in%20OOC.doc) To:SA2

[R2-1806106](file:///C:\Data\3GPP\Extracts\R2-1806106_Latency%20reduction%20for%20sidelink%20SPS%20UEs.doc) Latency reduction for sidelink SPS UEs Samsung discussion Rel-15 [R2-1802453](file:///C:\Data\3GPP\Extracts\R2-1802453_Latency%20reduction%20on%20V2X%20phase%202%20for%20sidelink%20SPS%20UEs.doc)

[R2-1806107](file:///C:\Data\3GPP\Extracts\R2-1806107_Latency%20reduction%20for%20UEs%20using%20mode%204.doc) Latency reduction for UEs using mode 4 Samsung discussion Rel-15 [R2-1802454](file:///C:\Data\3GPP\Extracts\R2-1802454_Latency%20reduction%20on%20V2X%20phase%202%20for%20UEs%20using%20mode%204.doc)

[R2-1806108](file:///C:\Data\3GPP\Extracts\R2-1806108_Discussion%20on%20SPS%20support%20with%20enhanced%20Carrier%20Aggregation.docx) Discussion on SPS support with enhanced Carrier Aggregation Samsung discussion Rel-15

[R2-1806109](file:///C:\Data\3GPP\Extracts\R2-1806109_Sidelink%20SPS%20confirmation%20for%20multiple%20SPS%20configurations.doc) Sidelink SPS confirmation for multiple SPS configurations Samsung discussion Rel-15 [R2-1802456](file:///C:\Data\3GPP\Extracts\R2-1802456_Sidelink%20SPS%20confirmation%20for%20multiple%20SPS%20configurations.doc)

## 9.11 High capacity stationary wireless and 1024 QAM

(LTE\_1024QAM\_DL-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Mar. 18: WID: [RP-171738](file:///C:\Data\3GPP\Extracts\RP-171738.doc))

Time budget: 0 TU

This WI is complete from RAN2 point of view but RAN2 CRs have not been implemented to the specification as described in [RP-172755](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172755.zip). The CRs will be maintained as running CRs and then agreed again in RAN2#102. This AI is for corrections to the running CRs.

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

### 9.11.1 General

Including incoming LSs, work plan, rapporteur inputs, running CRs

### 9.11.2 UE capability and potential new categories

### 9.11.3 Corresponding higher-layer procedures and signalling

[R2-1805816](file:///C:\Data\3GPP\Extracts\R2-1805816%20Discussion%20for%201024QAM%20in%20TS%2036.331.doc) Discussion for 1024QAM in TS 36.331 Huawei, HiSilicon discussion Rel-15 LTE\_1024QAM\_DL-Core

## 9.12 Enhancements to LTE operation in unlicensed spectrum

(LTE\_unlic-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-180402](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180402.zip))

Time budget: 1 TU

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

### 9.12.1 General

Including incoming LSs, work plan, rapporteur inputs, running CRs

[R2-1804208](file:///C:\Data\3GPP\Extracts\R2-1804208_R1-1803128.doc) LS on Autonomous Uplink Access HARQ for FeLAA (R1-1803128; contact: Nokia) RAN1 LS in Rel-15 LTE\_unlic-Core To:RAN2

[R2-1804211](file:///C:\Data\3GPP\RAN2\Docs\R2-1804211.zip) LS on RRC parameters for FeLAA (R1-1803168; contact: Nokia) RAN1 LS in Rel-15 LTE\_unlic-Core To:RAN2

[R2-1805744](file:///C:\Data\3GPP\Extracts\36321_CR1263_(Rel-15)_R2-1805744%20-%20Introduce%20feLAA%20in%20TS%2036.321.doc) Introduce feLAA in TS 36.321 Ericsson CR Rel-15 36.321 15.1.0 1263 - B LTE\_unlic-Core

### 9.12.2 Autonomous uplink access on Frame structure type 3

[R2-1804893](file:///C:\Data\3GPP\Extracts\R2-1804893_HARQ%20%20aspects%20of%20AUL.docx) HARQ aspect of AUL Intel Corporation discussion Rel-15 LTE\_unlic-Core

[R2-1804894](file:///C:\Data\3GPP\Extracts\R2-1804894%20Other%20MAC%20aspects%20of%20AUL.docx) Other MAC aspects of AUL Intel Corporation discussion Rel-15 LTE\_unlic-Core

[R2-1804895](file:///C:\Data\3GPP\Extracts\R2-1804895%20SUL%20and%20AUL%20coexistence.docx) SUL and AUL coexistence Intel Corporation discussion Rel-15 LTE\_unlic-Core

[R2-1804927](file:///C:\Data\3GPP\Extracts\R2-1804927%20%20Autonomous%20UL%20Access%20details%20in%20MAC.doc) Open issues on MAC Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_unlic-Core

[R2-1804928](file:///C:\Data\3GPP\Extracts\R2-1804928%20%20Autonomous%20UL%20Access%20details%20in%20RRC.doc) Open issues on RRC Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_unlic-Core

[R2-1805094](file:///C:\Data\3GPP\Extracts\R2-1805094_eLAA_AUL.doc) Remaining Open Issues for AUL Qualcomm Incorporated discussion

[R2-1805282](file:///C:\Data\3GPP\Extracts\R2-1805282.docx) Remaining HARQ Aspects for Autonomous Uplink Motorola Mobility discussion Rel-15 [R2-1803181](file:///C:\Data\3GPP\Extracts\R2-1803181.docx)

[R2-1805720](file:///C:\Data\3GPP\Extracts\R2-1805720%20-%20%5bDRAFT%5d%20LS%20on%20LBT%20Outcome%20Feedback.doc) [DRAFT] LS on LBT Outcome Feedback Ericsson LS out Rel-15 LTE\_unlic-Core To:RAN1

[R2-1805723](file:///C:\Data\3GPP\Extracts\R2-1805723%20-%20Channel%20Access%20Priority%20Classes%20for%20feLAA.doc) Channel Access Priority Classes for feLAA Ericsson discussion LTE\_unlic-Core

[R2-1805724](file:///C:\Data\3GPP\Extracts\R2-1805724%20-%20Coexistence%20Between%20AUL%20and%20Dynamically%20Scheduled%20UL%20Grants.doc) Coexistence Between AUL and Dynamically Scheduled UL Grants Ericsson discussion LTE\_unlic-Core

[R2-1805727](file:///C:\Data\3GPP\Extracts\R2-1805727%20-%20Handling%20of%20LBT%20Outcome%20Feedback.doc) Handling of LBT Outcome Feedback Ericsson discussion LTE\_unlic-Core

[R2-1805728](file:///C:\Data\3GPP\Extracts\R2-1805728%20-%20HARQ%20Buffer%20Flushing.doc) HARQ Buffer Flushing Ericsson discussion LTE\_unlic-Core

[R2-1805729](file:///C:\Data\3GPP\Extracts\R2-1805729%20-%20Impact%20on%20BSR%20PHR%20for%20feLAA.doc) Impact on BSR/PHR for feLAA Ericsson discussion LTE\_unlic-Core

[R2-1805733](file:///C:\Data\3GPP\Extracts\R2-1805733%20-%20On%20AUL%20Confirmation.doc) On AUL Confirmation Ericsson discussion LTE\_unlic-Core

[R2-1805742](file:///C:\Data\3GPP\Extracts\R2-1805742%20-%20Timer%20X%20Handling.doc) Timer X Handling Ericsson discussion LTE\_unlic-Core

[R2-1805804](file:///C:\Data\3GPP\Extracts\R2-1805804%20Remaining%20issues%20with%20AUL%20activation%20and%20deactivation.doc) Remaining issues with AUL activation and deactivation Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805805](file:///C:\Data\3GPP\Extracts\R2-1805805%20Remaining%20issues%20with%20%20LBT%20feedback.doc) Remaining issues with LBT feedback Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805806](file:///C:\Data\3GPP\Extracts\R2-1805806%20Issues%20with%20RLC%20reordering.doc) Issues with RLC reordering Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805807](file:///C:\Data\3GPP\Extracts\R2-1805807%20Remaining%20issues%20with%20Timer%20X.doc) Remaining issues with Timer X Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805808](file:///C:\Data\3GPP\Extracts\R2-1805808%20Issues%20on%20coexistence%20between%20AUL%20and%20SUL.doc) Issues on coexistence between AUL and SUL Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core [R2-1802254](file:///C:\Data\3GPP\Extracts\R2-1802254%20Issues%20on%20coexistence%20between%20AUL%20and%20SUL.doc)

[R2-1805809](file:///C:\Data\3GPP\Extracts\R2-1805809%20Issues%20on%20BS%20and%20PH%20calculation%20for%20AUL.doc) Issues on BS and PH calculation for AUL Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805810](file:///C:\Data\3GPP\Extracts\R2-1805810%20Disucssion%20on%20the%20priority%20class%20for%20AUL.doc) Disucssion on the priority class for AUL Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805811](file:///C:\Data\3GPP\Extracts\R2-1805811%20Handling%20on%20simultaneous%20scheduled%20grant%20and%20configured%20AUL%20grant.doc) Handling on simultaneous scheduled grant and configured AUL grant Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805812](file:///C:\Data\3GPP\Extracts\R2-1805812%20Impact%20on%20DRX%20with%20AUL.doc) Impact on DRX with AUL Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

[R2-1805928](file:///C:\Data\3GPP\Extracts\R2-1805928_Multi-bit%20confimation%20MAC%20CE%20modeling.doc) Multi-bit confirmation MAC CE modeling LG Electronics Inc. discussion Rel-15 LTE\_unlic-Core

[R2-1805929](file:///C:\Data\3GPP\Extracts\R2-1805929_Remaining%20AUL%20open%20issues.doc) Remaining AUL open issues LG Electronics Inc. discussion Rel-15 LTE\_unlic-Core

[R2-1805931](file:///C:\Data\3GPP\Extracts\R2-1805931_HARQ%20process%20collision%20between%20AUL%20and%20SUL.doc) HARQ process collision between AUL and SUL LG Electronics Inc. discussion Rel-15 36.321 LTE\_unlic-Core [R2-1802919](file:///C:\Data\3GPP\Extracts\R2-1802919_HARQ%20process%20collision%20between%20AUL%20and%20SUL.doc)

### 9.12.3 Other operation on Frame structure type 3

### 9.12.4 Others

## 9.13 Further NB-IoT enhancements

(NB\_IOTenh2-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-172063](file:///C:\Data\3GPP\archive\TSGR\TSGR_77\Docs\RP-172063.zip))

Time budget: 3 TU

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

Some sub-items in 9.13 and 9.14 may be treated jointly.

[R2-1805337](file:///C:\Data\3GPP\Extracts\R2-1805337.doc) Introduction of further NB-IoT enhancements in 36.306 Ericsson CR Rel-15 36.306 15.0.0 1581 - B NB\_IOTenh2-Core [R2-1803007](file:///C:\Data\3GPP\Extracts\R2-1803007.doc)

### 9.13.1 Organisational

Including incoming LSs, rapporteur inputs, running CRs

[R2-1804209](file:///C:\Data\3GPP\Extracts\R2-1804209_R1-1803150.doc) LS on wake-up signal (R1-1803150; contact: HiSilicon) RAN1 LS in Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core To:RAN4 Cc:RAN2

[R2-1804232](file:///C:\Data\3GPP\Extracts\R2-1804232_R4-1803078.doc) LS on EARFCN provisioning for Release 15 MTC and Release 15 NB-IOT UE (R4-1803078; contact: Qualcomm) RAN4 LS in Rel-15 LTE\_eMTC4-Core, NB\_IOTenh2-Core To:RAN2, CT1 Cc:RAN1, CT6

[R2-1805266](file:///C:\Data\3GPP\Extracts\R2-1805266%20Introduction_of_NB-IoT_Enhancements_other_than_EDT_in%2036.331.doc) Introduction of NB-IoT Enhancements other than EDT in 36.331 Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3333 - B NB\_IOTenh2-Core [R2-1803929](file:///C:\Data\3GPP\Extracts\R2-1803929%20Introduction_of_NB-IoT_Enhancements_other_than_EDT_in%2036.331_v5.doc)

[R2-1805267](file:///C:\Data\3GPP\Extracts\R2-1805267%20Introduction_of_NB-IoT_Enhancements_other_than_EDT_in%2036.300.doc) Introduction of NB-IoT Enhancements excluding EDT in 36.300 Huawei, HiSilicon CR Rel-15 36.300 15.1.0 1127 - B NB\_IOTenh2-Core [R2-1803930](file:///C:\Data\3GPP\Extracts\R2-1803930%20Introduction_of_NB-IoT_Enhancements_including_EDT_in%2036.300_v4.doc)

[R2-1805335](file:///C:\Data\3GPP\Extracts\R2-1805335.doc) Introduction of further NB-IoT enhancements in 36.322 Ericsson CR Rel-15 36.322 15.0.0 0133 - B NB\_IOTenh2-Core [R2-1803006](file:///C:\Data\3GPP\Extracts\R2-1803006.doc)

[R2-1805607](file:///C:\Data\3GPP\Extracts\R2-1805607%20Running%2036304%20CR%20for%20Further%20NB-IoT%20enhancements.doc) Running 36.304 CR for Further NB-IoT enhancements Nokia, Nokia Shanghai Bell CR Rel-15 36.304 14.6.0 0413 - B NB\_IOTenh2-Core

Withdrawn

R2-1805070 Introduction of NB-IoT Enhancements other than EDT in 36.331 Huawei, HiSilicon draftCR Rel-15 36.331 15.1.0 B NB\_IOTenh2-Core [R2-1803929](file:///C:\Data\3GPP\Extracts\R2-1803929%20Introduction_of_NB-IoT_Enhancements_other_than_EDT_in%2036.331_v5.doc) Withdrawn

R2-1805071 Introduction of NB-IoT Enhancements including EDT in 36.300 Huawei, HiSilicon draftCR Rel-15 36.300 15.1.0 B NB\_IOTenh2-Core [R2-1803930](file:///C:\Data\3GPP\Extracts\R2-1803930%20Introduction_of_NB-IoT_Enhancements_including_EDT_in%2036.300_v4.doc) Withdrawn

### 9.13.2 Early Data Transmission

Early Data transmission for NB-IoT is treated jointly with MTC under AI 9.14.2. Do not use this AI for any item that can be discussed jointly.

### 9.13.3 System Acquisition Enhancements

System acquisition Enhancements for NB-IoT is treated jointly with MTC under AI 9.14.3. Do not use this AI for any item that can be discussed jointly.

### 9.13.4 Relaxed Monitoring for cell reselection

Relaxed monitoring for cell reselection for MTC and NB-IoT is treated jointly under this AI. Problem fixing/corrections, no new solutions.

### 9.13.5 Semi-Persistent Scheduling

[R2-1805953](file:///C:\Data\3GPP\Extracts\R2-1805953%20Consideration%20on%20SPS%20for%20SC-PTM%20in%20FeNB-IoT.doc) Consideration on SPS for SC-PTM in FeNB-IoT ZTE, Sanechips discussion Rel-15 NB\_IOTenh2-Core

[R2-1805974](file:///C:\Data\3GPP\Extracts\R2-1805974%20-%20Introducing%20SPS%20for%20NB-IoT%20SC-PtM.docx) Introducing SPS for NB-IoT SC-PtM Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1806081](file:///C:\Data\3GPP\Extracts\R2-1806081%20Further%20consideration%20on%20SPS%20for%20NB-IoT.docx) Further consideration on SPS for NB-IoT LG Electronics Inc. discussion Rel-15 NB\_IOTenh2-Core

### 9.13.6 RRC Connection Release Enhancements

Problem fixing and Limited treatement of items previously on the table, no new solutions.

### 9.13.7 UE differentiation

### 9.13.8 TDD

[R2-1805061](file:///C:\Data\3GPP\Extracts\R2-1805061%20Configuration%20of%20TDD%20mode%20in%20NB-IoT.doc) Configuration of TDD mode in NB-IoT Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core

[R2-1805062](file:///C:\Data\3GPP\Extracts\R2-1805062%20Random%20access%20and%20paging%20in%20TDD%20mode.doc) Random access and paging in TDD mode Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core

[R2-1805063](file:///C:\Data\3GPP\Extracts\R2-1805063%20Timer%20extension%20in%20TDD%20mode.doc) Timer extension in TDD mode Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core

[R2-1805280](file:///C:\Data\3GPP\Extracts\R2-1805280.docx) Impact Analysis on NB-TDD MAC RAR Window Size and Contention Resolution Timers Ericsson discussion Rel-15

=> Revised in [R2-1806194](file:///C:\Data\3GPP\Extracts\R2-1806194%20-Analysis%20RARNTI%20formula.docx)

[R2-1806194](file:///C:\Data\3GPP\Extracts\R2-1806194%20-Analysis%20RARNTI%20formula.docx) Analysis of RA-RNTI Formula for TDD Ericsson discussion Rel-15

[R2-1805281](file:///C:\Data\3GPP\Extracts\R2-1805281.docx) RRC Timer extended value And TDD UE capabilities Ericsson discussion Rel-15

[R2-1805967](file:///C:\Data\3GPP\Extracts\R2-1805967%20Downlink%20aspects%20to%20support%20TDD%20NB-IoT.doc) Downlink aspects to support TDD NB-IoT ZTE, Sanechips discussion Rel-15 NB\_IOTenh2-Core

### 9.13.9 Wake Up Signal

Wake Up Signal etc for MTC and NB-IoT is treated jointly under this Agenda Item.

[R2-1804897](file:///C:\Data\3GPP\Extracts\R2-1804897%20WUS.docx) WUS consideration for eFeMTC Intel Corporation discussion Rel-15 LTE\_eMTC4-Core

[R2-1804962](file:///C:\Data\3GPP\Extracts\R2-1804962.doc) Wake Up Signal Ericsson discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

[R2-1805082](file:///C:\Data\3GPP\Extracts\R2-1805082%20Wake-up%20signal%20in%20NB-IoT%20and%20eMTC.doc) Wake-up signal in NB-IoT and eMTC Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

[R2-1805163](file:///C:\Data\3GPP\Extracts\R2-1805163%20WUS%20aspect%20on%20mobility.docx) WUS aspects on mobility Sony discussion Rel-15 NB\_IOTenh2-Core [R2-1712993](file:///C:\Data\3GPP\Extracts\R2-1712993%20WUS%20aspects.docx)

[R2-1805608](file:///C:\Data\3GPP\Extracts\R2-1805608%20-%20WUS%20considerations.doc) Wakeup Signal Considerations Qualcomm Incorporated discussion Rel-15 LTE\_eMTC4-Core [R2-1803280](file:///C:\Data\3GPP\Extracts\R2-1803280%20-%20WUS%20considerations.doc)

[R2-1805955](file:///C:\Data\3GPP\Extracts\R2-1805955%20Further%20consideration%20on%20wake-up%20signal.doc) Further consideration on wake-up signal ZTE, Sanechips discussion Rel-15 LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1806134](file:///C:\Data\3GPP\Extracts\R2-1806134.doc) Consideration of WUS enabled and disabled LG Electronics Inc. discussion Rel-15 NB\_IOTenh2-Core [R2-1802704](file:///C:\Data\3GPP\Extracts\R2-1802704.doc)

### 9.13.10 Enhancements to standalone Operation

Including output of email discussion [101#55][NB-IoT R15] Enhancements to standalone Operation (Huawei)

[R2-1804948](file:///C:\Data\3GPP\Extracts\R2-1804948.doc) Standalone enhancements Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1804949](file:///C:\Data\3GPP\Extracts\R2-1804949.doc) Introduction of standalone enhancements Ericsson draftCR Rel-15 36.300 15.1.0 B NB\_IOTenh2-Core

[R2-1804950](file:///C:\Data\3GPP\Extracts\R2-1804950.doc) Introduction of standalone enhancements Ericsson draftCR Rel-15 36.306 15.0.0 B NB\_IOTenh2-Core

[R2-1804951](file:///C:\Data\3GPP\Extracts\R2-1804951.doc) Introduction of standalone enhancements Ericsson draftCR Rel-15 36.331 15.1.0 B NB\_IOTenh2-Core

[R2-1805066](file:///C:\Data\3GPP\Extracts\R2-1805066%20Report%20of%20email%20discussion%20%5b101%2355%5d%20Enhancements%20to%20standalone%20operation.doc) Report of email discussion [101#55] Enhancements to standalone operation mode Huawei report Rel-15 NB\_IOTenh2-Core

[R2-1805067](file:///C:\Data\3GPP\Extracts\R2-1805067%20Introduction%20of%20enhancements%20to%20standalone%20operation%20mode%20in%2036.300.doc) Introduction of enhancements to standalone operation mode in 36.300 Huawei, HiSilicon draftCR Rel-15 36.300 15.1.0 B NB\_IOTenh2-Core

[R2-1805068](file:///C:\Data\3GPP\Extracts\R2-1805068%20Introduction%20of%20enhancements%20to%20standalone%20operation%20mode%20in%2036.306.doc) Introduction of enhancements to standalone operation mode in 36.306 Huawei, HiSilicon draftCR Rel-15 36.306 15.0.0 B NB\_IOTenh2-Core

[R2-1805069](file:///C:\Data\3GPP\Extracts\R2-1805069%20Introduction%20of%20enhancements%20to%20standalone%20operation%20mode%20in%2036.331.doc) Introduction of enhancements to standalone operation mode in 36.331 Huawei, HiSilicon draftCR Rel-15 36.331 15.1.0 B NB\_IOTenh2-Core

### 9.13.11 PHR enhancements

Including output of email discussion [101#56][NB-IoT R15] PHR enhancements (Ericsson)

[R2-1804956](file:///C:\Data\3GPP\Extracts\R2-1804956.doc) Email report [101#56] PHR enhancements Ericsson report Rel-15 NB\_IOTenh2-Core

[R2-1804957](file:///C:\Data\3GPP\Extracts\R2-1804957.doc) Enhanced PHR reporting Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1804958](file:///C:\Data\3GPP\Extracts\R2-1804958.doc) Introduction of enhanced PHR reporting Ericsson draftCR Rel-15 36.306 15.0.0 C NB\_IOTenh2-Core

[R2-1804959](file:///C:\Data\3GPP\Extracts\R2-1804959.doc) Introduction of enhanced PHR reporting Ericsson draftCR Rel-15 36.321 15.1.0 C NB\_IOTenh2-Core

[R2-1804960](file:///C:\Data\3GPP\Extracts\R2-1804960.doc) Introduction of enhanced PHR reporting Ericsson draftCR Rel-15 36.331 15.1.0 C NB\_IOTenh2-Core

[R2-1804961](file:///C:\Data\3GPP\Extracts\R2-1804961.doc) LS on enhanced PHR reporting in NB-IoT Ericsson LS out Rel-15 NB\_IOTenh2-Core To:RAN4

### 9.13.12 Other

E.g. UE Feedback, Support for physical layer SR, Measurement Accuracy Enhancements, NPRACH reliability, NPRACH range, small cell support, Support for RLC-UM, other.

Access baring enhancement for NB-IoT is treated jointly with MTC under AI 9.14.5. Do not use this AI for any item that can be discussed jointly

[R2-1804966](file:///C:\Data\3GPP\Extracts\R2-1804966.doc) Measurement accuracy improvements in NB-IoT Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1804967](file:///C:\Data\3GPP\Extracts\R2-1804967.doc) Introduction of NSSS measurements enhancements Ericsson draftCR Rel-15 36.306 15.0.0 B NB\_IOTenh2-Core

[R2-1804968](file:///C:\Data\3GPP\Extracts\R2-1804968.doc) Introduction of NSSS measurements enhancements Ericsson draftCR Rel-15 36.331 15.1.0 B NB\_IOTenh2-Core

[R2-1804975](file:///C:\Data\3GPP\Extracts\R2-1804975.doc) High quality criterion in NB-IoT Ericsson discussion Rel-15 NB\_IOTenh2-Core [R2-1802581](file:///C:\Data\3GPP\Extracts\R2-1802581%20High%20quality%20criterion%20in%20NB-IoT.doc)

[R2-1804976](file:///C:\Data\3GPP\Extracts\R2-1804976.doc) LS on high quality signal threshold in NB-IoT and EC-GSM Ericsson LS out Rel-15 NB\_IOTenh2-Core [R2-1802582](file:///C:\Data\3GPP\Extracts\R2-1802582%20LS%20on%20high%20quality%20signal%20threshold%20in%20NB-IoT%20and%20EC-GSM.doc) To:RAN4, RAN6 Cc:CT1

[R2-1804977](file:///C:\Data\3GPP\Extracts\R2-1804977.doc) Small cells in NB-IoT Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1804978](file:///C:\Data\3GPP\Extracts\R2-1804978.docx) RLC UM for NB-IoT open issues Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1805064](file:///C:\Data\3GPP\Extracts\R2-1805064%20RLC%20UM%20remaining%20issues.doc) RLC UM remaining issues Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core

[R2-1805065](file:///C:\Data\3GPP\Extracts\R2-1805065%20Small%20cell%20support%20in%20NB-IoT.doc) Small cell support in NB-IoT Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core

[R2-1805922](file:///C:\Data\3GPP\Extracts\R2-1805922_Stopping%20contention%20resolution%20timer%20based%20on%20retransmission%20scheduling.doc) Stopping contention resolution timer based on retransmission scheduling LG Electronics Inc. discussion Rel-15 36.321 NB\_IOTenh2-Core [R2-1802838](file:///C:\Data\3GPP\Extracts\R2-1802838_Stopping%20contention%20resolution%20timer%20based%20on%20retransmission%20scheduling.doc)

[R2-1805927](file:///C:\Data\3GPP\Extracts\36321_CR1158_(Rel-15)_R2-1805927_Stopping%20contention%20resolution%20timer%20based%20on%20retransmission%20scheduling.doc) Stopping contention resolution timer based on retransmission scheduling LG Electronics Inc. CR Rel-15 36.321 15.1.0 1158 4 F LTE\_eMTC4-Core, NB\_IOTenh2-Core [R2-1802839](file:///C:\Data\3GPP\Extracts\36321_CR1158_(Rel-15)_R2-1802839_Stopping%20contention%20resolution%20timer%20based%20on%20retransmission%20scheduling.doc)

[R2-1805960](file:///C:\Data\3GPP\Extracts\R2-1805960%20Consideration%20on%20SR%20transmission%20enhancement%20in%20FeNB-IoT.doc) Consideration on SR transmission enhancement in FeNB-IoT ZTE, Sanechips discussion Rel-15 NB\_IOTenh2-Core

[R2-1805961](file:///C:\Data\3GPP\Extracts\R2-1805961%20Further%20consideration%20on%20supporting%20small%20cell%20in%20FeNB-IoT.doc) Further consideration on supporting small cell in FeNB-IoT ZTE, Telekom R&D Sdn. Bhd. discussion Rel-15 NB\_IOTenh2-Core

[R2-1805966](file:///C:\Data\3GPP\Extracts\R2-1805966%20Consideration%20on%20NPRACH%20range%20enhancements%20in%20FeNB-IoT.doc) Consideration on NPRACH range enhancements in FeNB-IoT ZTE, Sanechips discussion Rel-15 NB\_IOTenh2-Core

[R2-1805975](file:///C:\Data\3GPP\Extracts\R2-1805975%20-%20NB-IoT%20PHY%20Scheduling%20Request.doc) NB-IoT PHY Scheduling Request Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1805976](file:///C:\Data\3GPP\Extracts\R2-1805976%20-%20NB-IoT%20PHY-SR%20vs%20HL-BSR.doc) NB-IoT PHY Scheduling Request vs. Higher-layer Buffer Status Report Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1805977](file:///C:\Data\3GPP\Extracts\R2-1805977%20-%20NPRACH%20reliability%20and%20range%20enhancement.docx) NPRACH reliability and range enhancement for NB-IoT Ericsson discussion Rel-15 NB\_IOTenh2-Core

[R2-1805990](file:///C:\Data\3GPP\Extracts\draft%2036331_(Rel-15)_R2-1805990%20Supporting%20NPRACH%20range%20enhancements%20in%20FeNB-IoT.doc) Supporting NPRACH range enhancements in FeNB-IoT ZTE, Sanechips draftCR Rel-15 36.331 15.1.0 B NB\_IOTenh2-Core

[R2-1805991](file:///C:\Data\3GPP\Extracts\draft%2036321_(Rel-15)_R2-1805991%20Supporting%20NPRACH%20range%20enhancements%20in%20FeNB-IoT.doc) Supporting NPRACH range enhancements in FeNB-IoT ZTE, Sanechips draftCR Rel-15 36.321 15.1.0 B NB\_IOTenh2-Core

[R2-1805992](file:///C:\Data\3GPP\Extracts\draft%2036304_(Rel-15)_R2-1805992%20Supporting%20NPRACH%20range%20enhancements%20in%20FeNB-IoT.doc) Supporting NPRACH range enhancements in FeNB-IoT ZTE, Sanechips draftCR Rel-15 36.304 14.6.0 B NB\_IOTenh2-Core

[R2-1806046](file:///C:\Data\3GPP\Extracts\Draft%20CR_36323_CR(yyyy)_(Rel-15)_R2-1806046_Introduction%20of%20RLC%20UM%20for%20NB-IoT.doc) Introduction of RLC UM for NB-IoT LG Electronics Inc. draftCR Rel-15 36.323 14.5.0 F NB\_IOTenh2-Core [R2-1803000](file:///C:\Data\3GPP\Extracts\Draft%20CR_36323_CR(yyyy)_(REL-15)_R2-1803000_Introduction%20of%20RLC%20UM%20for%20NB-IoT.doc)

[R2-1806048](file:///C:\Data\3GPP\Extracts\R2-1806048%20Remaining%20details%20of%20RLC%20UM%20for%20NB-IoT.docx) Remaining details of RLC UM for NB-IoT LG Electronics Inc. discussion Rel-15 NB\_IOTenh2-Core [R2-1802998](file:///C:\Data\3GPP\Extracts\R2-1802998%20Remaining%20details%20of%20RLC%20UM%20for%20NB-IoT.docx)

## 9.14 Even further enhanced MTC for LTE

(LTE\_eMTC4-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-172811](file:///C:\Data\3GPP\Extracts\RP-172811%20Revised%20WID%20on%20Even%20further%20enhanced%20MTC%20for%20LTE.doc))

Time budget: 3 TU

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

### 9.14.1 Organisational

Including incoming LSs, rapporteur inputs, running CRs

Including output of email discussion [101#60][LTE/MTC R15] Running 36.331 CR non EDT (Quacomm)

Including output of email discussion [101#62][LTE/MTC R15] Running 36.321 CR non EDT (Intel)

[R2-1804218](file:///C:\Data\3GPP\Extracts\R2-1804218_R1-1803519.doc) LS on System acquisition time reduction for Rel-15 NB-IoT and eMTC (R1-1803519; contact: LGE) RAN1 LS in Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core To:RAN2

[R2-1804228](file:///C:\Data\3GPP\Extracts\R2-1804228_R3-181573.doc) Reply LS on EDT procedures and AS NAS interaction (R3-181573; contact: Huawei) RAN3 LS in Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core To:SA2, RAN2, CT1 Cc:SA3

[R2-1804241](file:///C:\Data\3GPP\Extracts\R2-1804241_R4-1803492.doc) LS on signalling CRS muting information for Release 15 MTC UE (R4-1803492; contact: Ericsson) RAN4 LS in Rel-15 LTE\_eMTC4-Core To:RAN2

[R2-1804330](file:///C:\Data\3GPP\Extracts\R2-1804330%20RRC%20running%20CR%20eMTC%20non-EDT-v3.doc) Introduction of Rel-15 eMTC enhancements (other than EDT) Qualcomm Incorporated draftCR Rel-15 36.331 15.1.0 B LTE\_eMTC4-Core

### 9.14.2 Early data transmission

Early Data transmission for NB-IoT and MTC is treated jointly under this AI.

Including output of email discussion [101#59][NB-IoT/MTC R15] Running 36.331 CR for EDT (Qualcomm)

Including output of email discussion [101#61][NB-IoT/MTC R15] Running 36.321 CR for EDT(Intel)

Including output of email discussion [101#57][NB-IoT/MTC R15] EDT remaining issues (Huawei)

Including output of email discussion [101#58][NB-IoT/MTC R15] EDT security issues (Intel)

[R2-1804331](file:///C:\Data\3GPP\Extracts\R2-1804331%20Introduction_of_EDT_in_36.331-v8.doc) Introduction of EDT for eMTC and NB-IoT enhancements Qualcomm Incorporated, Huawei, HiSilicon draftCR Rel-15 36.331 15.1.0 B LTE\_eMTC4-Core, NB\_IOTenh2-Core [R2-1803443](file:///C:\Data\3GPP\Extracts\R2-1803443%20Introduction_of_EDT_in_36.331-v3.doc)

[R2-1804756](file:///C:\Data\3GPP\Extracts\R2-1804756%20-%20Size%20of%20downlink%20PDU%20in%20EDT.doc) Size of downlink PDU in EDT Qualcomm Incorporated discussion

[R2-1804757](file:///C:\Data\3GPP\Extracts\R2-1804757%20-%20%20LS%20on%20MSG4%20size.doc) LS on MSG4 size for EDT Qualcomm Incorporated LS out Rel-15 LTE\_eMTC4-Core, NB\_IOTenh2-Core To:RAN3 Cc:CT1

[R2-1804896](file:///C:\Data\3GPP\Extracts\R2-1804896%20Fallback%20in%20EDT.doc) Handling fallback issues in EDT Intel Corporation discussion Rel-15 LTE\_eMTC4-Core

[R2-1804899](file:///C:\Data\3GPP\Extracts\R2-1804899%20101%2358%20EDT%20security%20issues.DOC) [101#58][NB-IoT/MTC R15] EDT security issues Intel Corporation discussion Rel-15 LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1804900](file:///C:\Data\3GPP\Extracts\36321_CR1249_(REL-15)_R2-1804900_CR_EDT.DOC) Introduction of EDT for eMTC and NB-IoT in Rel-15 TS 36.321 Intel Corporation, Ericsson CR Rel-15 36.321 15.1.0 1249 - B LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1804925](file:///C:\Data\3GPP\Extracts\R2-1804925%20EDT%20in%20RA.docx) Early Data Transmission in RA Procedure Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_eMTC4-Core

[R2-1805078](file:///C:\Data\3GPP\Extracts\R2-1805078%20Report%20of%20e-mail%20discussion%20%5b101%2357%5d%20on%20EDT%20remaining%20issues.doc) Report of the Email discussion [101#57][NB-IoT MTC R15] EDT remaining issues Huawei report Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

[R2-1805079](file:///C:\Data\3GPP\Extracts\R2-1805079%20Remaining%20issues%20for%20EDT.doc) Remaining issues for EDT Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

[R2-1805080](file:///C:\Data\3GPP\Extracts\R2-1805080%20MAC-RRC%20interactions%20and%20fallback%20for%20EDT.doc) MAC-RRC interactions and fallback for EDT Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core [R2-1802219](file:///C:\Data\3GPP\Extracts\R2-1802219%20MAC-RRC%20interactions%20and%20fallback%20for%20EDT.doc)

[R2-1805081](file:///C:\Data\3GPP\Extracts\R2-1805081%20Early%20DL%20data%20transmission.doc) Early DL data transmission Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core [R2-1802222](file:///C:\Data\3GPP\Extracts\R2-1802222%20Early%20DL%20data%20transmission.doc)

[R2-1805175](file:///C:\Data\3GPP\Extracts\R2-1805175-%20Msg3%20handling%20in%20early%20data%20transmission.docx) Msg3 handling in early data transmission Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805176](file:///C:\Data\3GPP\Extracts\R2-1805176-%20Security%20for%20Msg3%20in%20early%20data%20transmission.docx) Security for Msg3 in early data transmission Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805177](file:///C:\Data\3GPP\Extracts\R2-1805177-%20Remaining%20issues%20on%20early%20data%20transmisison.docx) Remaining issues in early data transmission Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805178](file:///C:\Data\3GPP\Extracts\R2-1805178%20-%20TB%20sizes%20and%20UL%20grant%20for%20Msg3.docx) TB sizes and UL grant for Msg3 Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805268](file:///C:\Data\3GPP\Extracts\R2-1805268%20Introduction_of_EDT_in%2036.300.doc) Introduction of EDT for eMTC and NB-IoT enhancements in 36.300 Huawei, HiSilicon CR Rel-15 36.300 15.1.0 1128 - B NB\_IOTenh2-Core, LTE\_eMTC4-Core [R2-1803930](file:///C:\Data\3GPP\Extracts\R2-1803930%20Introduction_of_NB-IoT_Enhancements_including_EDT_in%2036.300_v4.doc)

[R2-1805270](file:///C:\Data\3GPP\Extracts\R2-1805270_Further%20discussion%20regarding%20%5b101%2357%5d%20Email%20discussion.docx) Further discussion regarding [101#57] Email discussion LG Electronics UK discussion Rel-15

[R2-1805530](file:///C:\Data\3GPP\Extracts\R2-1805530_EDT_timer.doc) Consideration of T300 and Contention Resolution Timer for EDT in eFeMTC and FeNB-IoT Kyocera discussion

[R2-1805532](file:///C:\Data\3GPP\Extracts\R2-1805532_EDT_TBS.doc) Consideration of optimal TBS configuration for EDT Kyocera discussion

[R2-1805564](file:///C:\Data\3GPP\Extracts\R2-1805564%20Capture%20proposals%20of%20%5b101-57%5d%20in%20EDT%20CR.doc) Capture the proposals of [101#57]E-mail discussion on EDT remaining issues Huawei Technologies R&D UK draftCR Rel-15 36.331 15.1.0 B LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805658](file:///C:\Data\3GPP\Extracts\R2-1805658.doc) Indication of EDT message TB size Sierra Wireless, S.A. discussion Rel-15

[R2-1805915](file:///C:\Data\3GPP\Extracts\R2-1805915_EDT%20MT%20scenarios.docx) EDT MT scenarios LG Electronics UK discussion Rel-15

[R2-1805916](file:///C:\Data\3GPP\Extracts\R2-1805916_RRC-MAC%20interaction%20for%20fallback%20decision.docx) RRC-MAC interaction for fallback decision LG Electronics UK discussion Rel-15

[R2-1806040](file:///C:\Data\3GPP\Extracts\R2-1806040%20EDT-(N)PRACH-ASN.1.docx) ASN.1 for (N)PRACH partitioning Qualcomm Incorporated discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core [R2-1803493](file:///C:\Data\3GPP\Extracts\R2-1803493%20EDT-prach-ASN.docx)

[R2-1806044](file:///C:\Data\3GPP\Extracts\R2-1806044%20EDT%20releaseCause.docx) releaseCause in RRCEarlyDataComplete Qualcomm Incorporated discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1806080](file:///C:\Data\3GPP\Extracts\R2-1806080%20New%20data%20arrival%20after%20transmitting%20Msg1%20for%20EDT.docx) New data arrival after transmitting Msg1 for EDT LG Electronics Inc. discussion Rel-15 LTE\_eMTC4-Core

[R2-1806084](file:///C:\Data\3GPP\Extracts\R2-1806084_To%20resume%20only%20bearer%20corresponding%20to%20UP%20EDT%20data_v1.doc) To resume only bearer corresponding to UP EDT data LG Electronics discussion Rel-15

[R2-1806085](file:///C:\Data\3GPP\Extracts\R2-1806085_MO%20CP%20EDT%20in%20suspended%20RRC%20connection_v2.doc) MO CP EDT in suspended RRC connection LG Electronics discussion Rel-15

[R2-1806086](file:///C:\Data\3GPP\Extracts\R2-1806086_draft%20LS%20on%20MO%20CP%20EDT%20in%20suspended%20RRC%20connection.docx) LS on MO CP EDT in suspended RRC connection LG Electronics LS out Rel-15 To:CT1

[R2-1806133](file:///C:\Data\3GPP\Extracts\R2-1806133.doc) Early Data Transmission Failure Handling in IOT LG Electronics Inc. discussion Rel-15 LTE\_eMTC4-Core [R2-1713787](file:///C:\Data\3GPP\Extracts\R2-1713787%209.14.2%20Early%20Data%20Transmission%20Failure%20Handling%20in%20MTC.doc)

Withdrawn

R2-1805271 R2-180xxxx\_RRC-MAC interaction for fallback decision LG Electronics UK discussion Rel-15 Withdrawn

### 9.14.3 System acquisition time enhancements

System acquisition Enhancements for NB-IoT and MTC is treated jointly under this AI.

[R2-1804829](file:///C:\Data\3GPP\Extracts\R2-1804829%20revision%20of%20R2-1802179%20Skip%20system%20information%20reading%20for%20MTC%20based%20on%20MIB%20indication.doc) Skip system information reading for MTC based on neighbor cell indication Huawei, HiSilicon discussion Rel-15 LTE\_eMTC4-Core

[R2-1804830](file:///C:\Data\3GPP\Extracts\R2-1804830%20revision%20of%20R2-1802178%20Skip%20system%20information%20reading%20for%20MTC%20based%20on%20neighbor%20cell%20indication.doc) Skip system information reading for MTC based on MIB indication Huawei, HiSilicon discussion Rel-15 LTE\_eMTC4-Core

[R2-1804831](file:///C:\Data\3GPP\Extracts\R2-1804831%20resubmission%20of%20R2-1802181%20Introduction%20of%20system%20information%20acquisition%20optimisation%20in%20MIB..doc) Introduction of system information acquisition optimisation in MIB Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3319 - B LTE\_eMTC4-Core [R2-1802181](file:///C:\Data\3GPP\Extracts\R2-1804831%20resubmission%20of%20R2-1802181%20Introduction%20of%20system%20information%20acquisition%20optimisation%20in%20MIB..doc)

[R2-1804832](file:///C:\Data\3GPP\Extracts\R2-1804832%20resubmission%20of%20R2-1802180%20%20Introduction%20of%20system%20information%20acquisition%20optimisation%20in%20MIB%20and%20SIB4..doc) Introduction of system information acquisition optimisation in MIB and SIB4 Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3320 - B LTE\_eMTC4-Core [R2-1802180](file:///C:\Data\3GPP\Extracts\R2-1804832%20resubmission%20of%20R2-1802180%20%20Introduction%20of%20system%20information%20acquisition%20optimisation%20in%20MIB%20and%20SIB4..doc)

[R2-1805083](file:///C:\Data\3GPP\Extracts\R2-1805083%20Skipping%20MIB%20reading%20in%20NB-IoT%20and%20eMTC.doc) Skipping MIB reading in NB-IoT and eMTC Huawei, HiSilicon discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

[R2-1805172](file:///C:\Data\3GPP\Extracts\R2-1805172%20-%20Temporary%20SI%20densification%20for%20efeMTC%20and%20feNB-IoT.docx) Temporary SI densification for efeMTC and feNB-IoT Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core [R2-1803070](file:///C:\Data\3GPP\Extracts\R2-1803070%20-%20Temporary%20SI%20densification%20for%20efeMTC%20and%20feNB-IoT.docx)

[R2-1805174](file:///C:\Data\3GPP\RAN2\Docs\R2-1805174.zip) Neighbor cell SI provisioning Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805567](file:///C:\Data\3GPP\Extracts\R2-1805567%20-%20Remaining%20issues%20on%20SI%20aquisition%20for%20feNB-IoT%20and%20efeMTC.docx) Remaining issues on SI acquisition for feNB-IoT and efeMTC Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805836](file:///C:\Data\3GPP\Extracts\R2-1805836%20Optimization%20of%20SI%20acquisition%20in%20MTC.doc) Optimization of SI acquisition in MTC LG Electronics Inc. discussion Rel-15 [R2-1802124](file:///C:\Data\3GPP\Extracts\R2-1802124%20Optimization%20of%20SI%20acquisition%20in%20MTC.doc)

[R2-1805837](file:///C:\Data\3GPP\Extracts\R2-1805837%20MIB%20skipping%20schemes%20using%20Direct%20Indication%20Information.doc) MIB skipping schemes using Direct Indication Information LG Electronics Inc. discussion Rel-15

Withdrawn

R2-1805173 Temporary SI densification for efeMTC and feNB-IoT Ericsson draftCR Rel-15 36.331 15.1.0 LTE\_eMTC4-Core, NB\_IOTenh2-Core Withdrawn

### 9.14.4 Relaxed monitoring for cell reselection

Relaxed monitoring for cell reselection for MTC is treated jointly with NB-IoT under AI 9.13.4. Do not use this AI for any item that can be discussed jointly.

### 9.14.5 Access/load control of idle mode UEs

[R2-1804827](file:///C:\Data\3GPP\Extracts\R2-1804827%20resubmission%20of%20R2-1802173%20Existing%20solutions%20for%20accessload%20control%20of%20idle%20mode%20UEs.doc) Existing solutions for access/load control of idle mode UEs for MTC and NB-IOT Huawei, HiSilicon discussion Rel-15 NB\_IOTenh-Core, LTE\_eMTC4-Core [R2-1802173](file:///C:\Data\3GPP\Extracts\R2-1804827%20resubmission%20of%20R2-1802173%20Existing%20solutions%20for%20accessload%20control%20of%20idle%20mode%20UEs.doc)

[R2-1804828](file:///C:\Data\3GPP\Extracts\R2-1804828%20resubmission%20of%20R2-1802174%20Improved%20accessload%20control%20of%20idle%20mode%20UEs.doc) Improved access/load control of idle mode UEs for MTC and NB-IOT Huawei, HiSilicon discussion Rel-15 NB\_IOTenh-Core, LTE\_eMTC4-Core [R2-1802174](file:///C:\Data\3GPP\Extracts\R2-1804828%20resubmission%20of%20R2-1802174%20Improved%20accessload%20control%20of%20idle%20mode%20UEs.doc)

[R2-1804898](file:///C:\Data\3GPP\Extracts\R2-1804898%20access%20barring.doc) CE level based access barring and load control for eFeMTC Intel Corporation discussion Rel-15 LTE\_eMTC4-Core

[R2-1804926](file:///C:\Data\3GPP\Extracts\R2-1804926%20CE-based%20access%20barring.docx) CE-based Access Barring Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_eMTC4-Core

[R2-1804940](file:///C:\Data\3GPP\Extracts\R2-1804940%20%20-%20Improved%20Access%20and%20Load%20Control%20for%20Idle%20Mode%20UEs.doc) Improved Access and Load control for Idle Mode UEs Fujitsu discussion Rel-15 LTE\_eMTC4-Core

[R2-1805186](file:///C:\Data\3GPP\Extracts\R2-1805186%20-%20Improved%20Idle%20Mode%20Access%20Control%20for%20efeMTC%20and%20feNB-IoT%20UEs.docx) Improved Idle Mode Access control for efeMTC and feNB-IoT UEs Ericsson discussion LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805272](file:///C:\Data\3GPP\Extracts\R2-1805272_The%20UE%20operation%20applying%20CE%20level%20based%20access%20barring.docx) The UE operation applying CE level based access barring LG Electronics UK discussion Rel-15

[R2-1805529](file:///C:\Data\3GPP\Extracts\R2-1805529_Load-balancing.doc) CEL-based access class barring and load balancing for idle mode UEs for eFeMTC Kyocera discussion

[R2-1805906](file:///C:\Data\3GPP\Extracts\R2-1805906.doc) Access/Load control indication for CE control in SIB14 Sierra Wireless, S.A. discussion Rel-15

[R2-1805946](file:///C:\Data\3GPP\Extracts\R2-1805946%20Necessity%20of%20supporting%20CE-level-based%20access%20barring.doc) Necessity of supporting CE-level-based access barring ZTE, Ericsson, LG, Intel Corporation discussion Rel-15 LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805981](file:///C:\Data\3GPP\Extracts\R2-1805981%20Technical%20issues%20of%20supporting%20CE-level-based%20access%20barring.doc) Technical issues of supporting CE-level-based access barring ZTE, Sanechips discussion Rel-15 LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805983](file:///C:\Data\3GPP\Extracts\R2-1805983%20Impacts%20on%20PRACH%20procedure%20of%20CE-level-based%20access%20barring.doc) Impacts on PRACH procedure of CE-level-based access barring ZTE, Sanechips response Rel-15 LTE\_eMTC4-Core, NB\_IOTenh2-Core

[R2-1805987](file:///C:\Data\3GPP\Extracts\36331_(Rel-15)_R2-1805987%20Supporting%20CE-level-based%20access%20barring%20for%20eFeMTC.doc) Supporting CE-level-based access barring for eFeMTC ZTE, Sanechips draftCR Rel-15 36.331 15.1.0 B LTE\_eMTC4-Core

### 9.14.6 Uplink HARQ-ACK feedback

[R2-1804833](file:///C:\Data\3GPP\Extracts\R2-1804833%20Uplink%20HARQ-ACK%20feedback%20for%20early%20termination%20of%20MPDCCH%20monitoring.doc) Uplink HARQ-ACK feedback for early termination of MPDCCH monitoring Huawei, HiSilicon discussion Rel-15 LTE\_eMTC4-Core

[R2-1804834](file:///C:\Data\3GPP\Extracts\R2-1804834%20Uplink%20HARQ-ACK%20feedback%20for%20early%20termination%20of%20PUSCH%20transmission.doc) Uplink HARQ-ACK feedback for early termination of PUSCH transmission Huawei, HiSilicon discussion Rel-15 LTE\_eMTC4-Core [R2-1802184](file:///C:\Data\3GPP\Extracts\R2-1802184%20Uplink%20HARQ-ACK%20feedback%20for%20early%20termination%20of%20PUSCH%20transmission%20(resubmission%20of%20R2-1713115).doc)

[R2-1804835](file:///C:\Data\3GPP\Extracts\R2-1804835%20DRAFT%20Reply%20LS%20on%20HARQ-ACK%20feedback%20for%20eFeMTC.doc) draft Reply LS on HARQ-ACK feedback for eFeMTC Huawei, HiSilicon LS out Rel-15 LTE\_eMTC4-Core To:RAN1

[R2-1804836](file:///C:\Data\3GPP\Extracts\R2-1804836.doc) Introduction of uplink HARQ-ACK feedback in Rel-15 MTC Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3321 - B LTE\_eMTC4-Core

[R2-1804837](file:///C:\Data\3GPP\Extracts\R2-1804837.doc) Introduction of uplink HARQ-ACK feedback in Rel-15 MTC Huawei, HiSilicon CR Rel-15 36.321 15.1.0 1248 - B LTE\_eMTC4-Core

[R2-1804838](file:///C:\Data\3GPP\Extracts\R2-1804838.doc) Introduction of uplink HARQ-ACK feedback in Rel-15 MTC Huawei, HiSilicon CR Rel-15 36.306 15.0.0 1571 - B LTE\_eMTC4-Core

[R2-1805179](file:///C:\Data\3GPP\Extracts\R2-1805179%20-%20Uplink%20HARQ-ACK%20feedback%20for%20MTC.docx) Uplink HARQ ACK feedback for MTC Ericsson discussion LTE\_eMTC4-Core

[R2-1805180](file:///C:\Data\3GPP\Extracts\R2-1805180%20-%20Uplink%20HARQ-ACK%20feedback%20for%20MTC%20in%2036.306.doc) Uplink HARQ ACK feedback for MTC Ericsson draftCR Rel-15 36.306 15.0.0 B LTE\_eMTC4-Core

[R2-1805181](file:///C:\Data\3GPP\Extracts\R2-1805181%20-%20Uplink%20HARQ-ACK%20feedback%20for%20MTC%20in%2036.321.doc) Uplink HARQ ACK feedback for MTC Ericsson draftCR Rel-15 36.321 15.1.0 B LTE\_eMTC4-Core

[R2-1805182](file:///C:\Data\3GPP\Extracts\R2-1805182%20-%20Uplink%20HARQ-ACK%20feedback%20for%20MTC%20in%2036.331.doc) Uplink HARQ ACK feedback for MTC Ericsson draftCR Rel-15 36.331 15.1.0 B LTE\_eMTC4-Core

[R2-1805943](file:///C:\Data\3GPP\Extracts\R2-1805943_Need%20for%20uplink%20HARQ%20ACK%20feedback%20for%20last%20PUSCH%20repetition.doc) Need for uplink HARQ-ACK feedback for last PUSCH repetition LG Electronics Inc. discussion Rel-15 36.321 LTE\_eMTC4-Core

[R2-1805944](file:///C:\Data\3GPP\Extracts\R2-1805944%20Draft%20LS%20on%20uplink%20HARQ-ACK%20feedback.doc) Draft LS on uplink HARQ-ACK feedback LG Electronics Inc. LS out Rel-15 LTE\_eMTC4-Core To:RAN1

[R2-1805949](file:///C:\Data\3GPP\Extracts\R2-1805949%20Further%20consideration%20on%20Uplink%20HARQ-ACK%20feedback%20in%20eFeMTC.doc) Further consideration on Uplink HARQ-ACK feedback in eFeMTC ZTE, Sanechips discussion Rel-15 LTE\_eMTC4-Core

### 9.14.7 Increased PDSCH spectral efficiency

Including output of email discussion [101#63][NB-IoT/MTC R15] PDSCH spectral efficiency (Huawei)

[R2-1804839](file:///C:\Data\3GPP\Extracts\R2-1804839%20Summary%20of%20email%20discussion%20101%2363,%20Increased%20PDSCH%20spectral%20efficiency%20for%20Rel-15%20MTC.doc) Summary of email discussion 101#63, Increased PDSCH spectral efficiency for Rel-15 MTC Huawei, HiSilicon discussion Rel-15 LTE\_eMTC4-Core

### 9.14.8 Increased PUSCH spectral efficiency

Including output of email discussion [101#64][NB-IoT/MTC R15] PUSCH spectral efficiency (Ericsson)

[R2-1805185](file:///C:\Data\3GPP\Extracts\R2-1805185%20-%20Report%20on%20%5b101%2364%5d%5bLTE-MTC%20R15%5d%20PUSCH%20spectral%20efficiency.docx) Report of email discussion [101#64] on PUSCH spectral density Ericsson discussion LTE\_eMTC4-Core

### 9.14.9 Wake Up Signal

Wake Up Signal etc for MTC is treated jointly with NB-IoT under AI 9.13.9 Do not use this AI for any item that can be discussed jointly.

[R2-1805101](file:///C:\Data\3GPP\Extracts\R2-1805101%20Miscellaneous%20Issues%20of%20NB-IOT%20Wake%20Up%20Signal.docx) Miscellaneous Issues of NB-IOT Wake Up Signal MediaTek Inc. discussion Rel-15

### 9.14.10 Other

Including higher UE velocity, lower UE power class, CRS muting etc.

Including output of email discussion [101#65][NB-IoT/MTC R15] Lower power class UE [ZTE]

[R2-1804840](file:///C:\Data\3GPP\Extracts\R2-1804840%20On%20CRS%20muting%20for%20BL%20UEs.doc) On CRS muting for BL UEs Huawei, HiSilicon discussion Rel-15 LTE\_eMTC4-Core

[R2-1804841](file:///C:\Data\3GPP\Extracts\R2-1804841%20DRAFT%20Reply%20LS%20on%20signalling%20CRS%20muting%20information%20for%20Rel-15%20MTC%20UE%20-bm.doc) [DRAFT] Reply LS on signalling CRS muting information for Rel-15 MTC UE Huawei, HiSilicon LS out Rel-15 LTE\_eMTC4-Core To:RAN4

[R2-1804842](file:///C:\Data\3GPP\Extracts\R2-1804842%20EARFCN%20provisioning%20for%20Release%2015%20MTC%20and%20Release%2015%20NB-IOT%20UE%20-bm.doc) EARFCN provisioning for Release 15 MTC and Release 15 NB-IOT UE Huawei, HiSilicon discussion Rel-15 NB\_IOTenh-Core, LTE\_eMTC4-Core

[R2-1804843](file:///C:\Data\3GPP\Extracts\R2-1804843%20%5bDRAFT%5d%20Reply%20LS%20on%20EARFCN%20provisioning%20for%20Release%2015%20MTC%20and%20Release%2015%20NB-IOT%20UE%20-bm.doc) [DRAFT] Reply LS on EARFCN provisioning for Release 15 MTC and Release 15 NB-IOT UE Huawei, HiSilicon LS out Rel-15 NB\_IOTenh-Core, LTE\_eMTC4-Core To:RAN4

[R2-1804844](file:///C:\Data\3GPP\Extracts\R2-1804844.doc) Introduction of flexible starting PDSCH/PUSCH PRB for Rel-15 MTC Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3322 - B LTE\_eMTC4-Core

[R2-1804845](file:///C:\Data\3GPP\Extracts\R2-1804845.doc) Introduction of flexible starting PDSCH/PUSCH PRB for Rel-15 MTC Huawei, HiSilicon CR Rel-15 36.306 15.0.0 1572 - B LTE\_eMTC4-Core

[R2-1804971](file:///C:\Data\3GPP\Extracts\R2-1804971.doc) EARFCN provisioning for initial cell search Ericsson discussion Rel-15 NB\_IOTenh2-Core, LTE\_eMTC4-Core

[R2-1804972](file:///C:\Data\3GPP\Extracts\R2-1804972.doc) EARFCN provisioning for BL and NB-IoT UE Ericsson CR Rel-15 36.304 14.6.0 0411 - B NB\_IOTenh2-Core, LTE\_eMTC4-Core

[R2-1804973](file:///C:\Data\3GPP\Extracts\R2-1804973.doc) Dense PRS configurations Ericsson discussion Rel-15 LTE\_eMTC4-Core

[R2-1804974](file:///C:\Data\3GPP\Extracts\R2-1804974.doc) RSTD measurements with dense PRS configurations Ericsson draftCR Rel-15 36.331 15.1.0 C LTE\_eMTC4-Core

[R2-1805171](file:///C:\Data\3GPP\Extracts\R2-1805171%20-%20Lower%20power%20class%20UE.docx) Remaining issues for lower power class UE for LTE-MTC Ericsson discussion LTE\_eMTC4-Core

[R2-1805183](file:///C:\Data\3GPP\Extracts\R2-1805183%20-%20Signaling%20aspects%20of%20CRS%20muting%20in%20eMTC.docx) Signalin aspects of CRS muting in eMTC Ericsson discussion LTE\_eMTC4-Core

[R2-1805184](file:///C:\Data\3GPP\Extracts\R2-1805184%20-%20DRAFT%20reply%20LS%20CRS%20muting%20.doc) Draft reply LS on CRS muting Ericsson LS out LTE\_eMTC4-Core To:RAN4

[R2-1805963](file:///C:\Data\3GPP\Extracts\R2-1805963%20Report%20of%20email%20discussion%20%5b101%2365%5d%20Lower%20power%20class%20UE.doc) Report of email discussion [101#65] Lower power class UE ZTE, Sanechips report Rel-15 LTE\_eMTC4-Core

## 9.15 Highly Reliable Low Latency Communication for LTE

LTE\_HRLLC-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-172845](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172845.zip)

Time budget: 1.0 TU

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

[R2-1804526](file:///C:\Data\3GPP\Extracts\R2-1804526.doc) Discussion on remaining issues for PDCP packet duplication ZTE discussion Rel-15

### 9.15.1 Organisational

Including incoming LSs, rapporteur inputs, running CRs

Including output of email discussion [101#50][LTE/URLLC] Introduction of URLLC in LTE in TS 36.300 (Ericsson)

Including output of email discussion [101#46][LTE/HRLLC] Introduction of URLLC in LTE in TS 36.321 (Ericsson)

Including output of email discussion [101#47][LTE/HRLLC] Introduction of URLLC in LTE in TS 36.323 (Ericsson)

Including output of email discussion [101#48][LTE/HRLLC] Introduction of URLLC in LTE in TS 36.322 (Ericsson)

Including output of email discussion [101#49][LTE/URLLC] Introduction of URLLC in LTE in TS 36.331 (Ericsson)

[R2-1804213](file:///C:\Data\3GPP\Extracts\R2-1804213_R1-1803171.doc) LS on Ultra Reliable Low Latency Communication for LTE (R1-1803171; contact: Ericsson) RAN1 LS in Rel-15 LTE\_HRLLC-Core To:RAN2, RAN4

[R2-1804257](file:///C:\Data\3GPP\Extracts\R2-1804257_S2-183015.doc) Reply LS on URLLC (S2-183015; contact: Nokia) SA2 LS in Rel-15 LTE\_HRLLC-Core To:SA1 Cc:RAN2

[R2-1805144](file:///C:\Data\3GPP\Extracts\R2-1805144%20Running%20CR%20for%20introduction%20of%20Ultra%20Reliable%20Low%20Latency%20Communicaton%20for%20LTE%2036300.doc) Running CR for introduction of Ultra Reliable Low Latency Communicaton for LTE Ericsson draftCR Rel-15 36.300 15.1.0 B LTE\_HRLLC

[R2-1805145](file:///C:\Data\3GPP\Extracts\R2-1805145%20Running%20CR%20for%20introduction%20of%20Ultra%20Reliable%20Low%20Latency%20Communicaton%20for%20LTE%2036321.doc) Running CR for introduction of Ultra Reliable Low Latency Communicaton for LTE Ericsson draftCR Rel-15 36.321 15.1.0 B LTE\_HRLLC

[R2-1805146](file:///C:\Data\3GPP\Extracts\R2-1805146%20Running%20CR%20for%20introduction%20of%20Ultra%20Reliable%20Low%20Latency%20Communication%20for%20LTE%2036323.doc) Running CR for introduction of Ultra Reliable Low Latency Communicaton for LTE Ericsson draftCR Rel-15 36.323 14.5.0 B LTE\_HRLLC

[R2-1805147](file:///C:\Data\3GPP\Extracts\R2-1805147%20Running%20CR%20for%20introduction%20of%20Ultra%20Reliable%20Low%20Latency%20Communication%20for%20LTE%2036331.doc) Running CR for introduction of Ultra Reliable Low Latency Communicaton for LTE Ericsson draftCR Rel-15 36.331 15.1.0 B LTE\_HRLLC

### 9.15.2 Packet Duplication

[R2-1804351](file:///C:\Data\3GPP\Extracts\R2-1804351%20-%20Left%20issues%20on%20MAC%20layer%20for%20URLLC.doc) Left issues on MAC layer for URLLC OPPO discussion Rel-15 LTE\_HRLLC-Core

[R2-1804352](file:///C:\Data\3GPP\Extracts\R2-1804352%20-%20Left%20issues%20on%20PDCP%20layer%20for%20URLLC.doc) Left issues on PDCP layer for URLLC OPPO discussion Rel-15 LTE\_HRLLC-Core

[R2-1804353](file:///C:\Data\3GPP\Extracts\R2-1804353%20-%20Left%20issues%20on%20RLC%20layer%20for%20URLLC.doc) Left issues on RLC layer for URLLC OPPO discussion Rel-15 LTE\_HRLLC-Core

[R2-1804354](file:///C:\Data\3GPP\Extracts\R2-1804354%20-%20Left%20issues%20on%20RLF%20handling%20for%20CA%20duplication.doc) Left issues on RLF handling for CA duplication OPPO discussion Rel-15 LTE\_HRLLC-Core

[R2-1804661](file:///C:\Data\3GPP\Extracts\R2-1804661%20Impact%20on%20CA%20Cell%20State%20of%20the%20PDCP%20duplication.doc) Impact on CA Cell State of the PDCP duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804662](file:///C:\Data\3GPP\Extracts\R2-1804662%20TP%20for%20TS%2036.321%20on%20PDCP%20duplication%20(de)activation.doc) TP for TS 36.321 on PDCP duplication (de)activation Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804663](file:///C:\Data\3GPP\Extracts\R2-1804663%20Logical%20Channel%20ID%20allocation%20for%20PDCP%20Duplication.doc) Logical Channel ID allocation for PDCP Duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804664](file:///C:\Data\3GPP\Extracts\R2-1804664%20Packet%20duplication%20over%20MAC.doc) Packet duplication over MAC Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804665](file:///C:\Data\3GPP\Extracts\R2-1804665%20Leftover%20Issues%20of%20MAC%20CE%20activationdeactivation%20of%20PDCP%20duplication.doc) Leftover Issues of MAC CE activation/deactivation of PDCP duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804666](file:///C:\Data\3GPP\Extracts\R2-1804666%20TP%20for%20TS%2036.321%20on%20the%20usage%20of%20PDCP%20duplication%20(de)activation%20MAC%20CE.doc) TP for TS 36.321 on the usage of PDCP duplication (de)activation MAC CE Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804667](file:///C:\Data\3GPP\Extracts\R2-1804667%20TP%20for%20TS%2036.300%20on%20the%20usage%20of%20PDCP%20duplication%20(de)activation%20MAC%20CE.doc) TP for TS 36.300 on the usage of PDCP duplication (de)activation MAC CE Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804668](file:///C:\Data\3GPP\Extracts\R2-1804668%20BSR%20procedure%20for%20data%20duplication.doc) BSR procedure for data duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804669](file:///C:\Data\3GPP\Extracts\R2-1804669%20Remaining%20PDCP%20issues%20%20for%20packet%20duplication.doc) Remaining PDCP issues for packet duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1805131](file:///C:\Data\3GPP\Extracts\R2-1805131%20Open%20issues%20for%20PDCP%20duplication.doc) Open issues for PDCP duplication in LTE Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805132](file:///C:\Data\3GPP\Extracts\R2-1805132%20-%20RLC%20failure%20for%20Duplication.docx) RLC failure for duplication Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805133](file:///C:\Data\3GPP\Extracts\R2-1805133%20TP%20for%20RLC%20failure%20for%20duplication.doc) TP for RLC failure for duplication Ericsson draftCR Rel-15 36.331 15.1.0 B LTE\_HRLLC

[R2-1805134](file:///C:\Data\3GPP\Extracts\R2-1805134%20-%20Modelling%20of%20PDCP-duplication%20bearers%20and%20logical%20channel%20restrictions.docx) Modelling of PDCP duplication bearers and logical channel restrictions Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805351](file:///C:\Data\3GPP\Extracts\R2-1805351%20TP%20for%20out-of-order%20delivery%20from%20RLC%20to%20PDCP.doc) TP for out-of-order delivery from RLC to PDCP Ericsson India Private Limited draftCR Rel-15 36.322 15.0.0 B LTE\_HRLLC

[R2-1805472](file:///C:\Data\3GPP\Extracts\R2-1805472%20Discussion%20on%20supporting%20RLC%20AM%20for%20PDCP%20duplication.doc) Discussion on supporting RLC AM for PDCP duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1805473](file:///C:\Data\3GPP\Extracts\R2-1805473%20Discussion%20on%20the%20RLC%20impact%20from%20PDCP%20duplication.doc) Discussion on the RLC impact from PDCP duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core [R2-1802883](file:///C:\Data\3GPP\Extracts\R2-1802883%20Discussion%20on%20the%20RLC%20impact%20from%20PDCP%20duplication.doc)

[R2-1806069](file:///C:\Data\3GPP\Extracts\R2-1806069_Remaining%20issues%20for%20PDCP%20duplication.docx) Remaining issues for PDCP duplication LG Electronics Inc. discussion Rel-15 LTE\_HRLLC-Core

[R2-1806070](file:///C:\Data\3GPP\Extracts\36323_CR(0230)_(REL-15)_R2-1806070_Introduction%20of%20PDCP%20duplication%20for%20LTE.docx) Introduction of PDCP duplication for LTE LG Electronics Inc. CR Rel-15 36.323 14.5.0 0230 - B LTE\_HRLLC-Core

### 9.15.3 Other Priority Items

Other priority items for Rel-15 as identified in RAN plenary endorsed [RP-180586](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180586.zip)

[R2-1804670](file:///C:\Data\3GPP\Extracts\R2-1804670%20Discussion%20on%20Semi-static%20configuration%20of%20PCFICH%20duration.doc) Discussion on Semi-static configuration of PCFICH duration Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1804671](file:///C:\Data\3GPP\Extracts\R2-1804671%20Introduction%20of%20Semi-static%20configuration%20of%20PCFICH%20duration%20for%20TS%2036.331.doc) Introduction of Semi-static configuration of PCFICH duration for TS 36.331 Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3316 - B LTE\_HRLLC-Core

[R2-1804846](file:///C:\Data\3GPP\Extracts\R2-1804846%20LTE%20URLLC%20UL%20SPS%20repetition.docx) On repetition enhancements for UL SPS Qualcomm Incorporated discussion LTE\_HRLLC-Core

[R2-1804867](file:///C:\Data\3GPP\Extracts\R2-1804867%20LTE%20URLLC%20DL-UL%20blind%20repetition.docx) Blind/HARQ-less repetition for scheduled DL-SCH and UL-SCH Qualcomm Incorporated discussion LTE\_HRLLC-Core

[R2-1805122](file:///C:\Data\3GPP\Extracts\R2-1805122%20Discussion%20on%20DL%20duplication.doc) Discussion on DL duplication Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1805126](file:///C:\Data\3GPP\Extracts\R2-1805126%20Discussion%20on%20SPS%20for%20URLLC.doc) Discussion on SPS for URLLC Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1805135](file:///C:\Data\3GPP\Extracts\R2-1805135%20semi-static%20configuration%20of%20PCFICH.docx) Semi-configuration of PCFICH Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805136](file:///C:\Data\3GPP\Extracts\R2-1805136%20draft%20LS%20to%20RAN1%20on%20Semi-static%20configuration%20of%20PCFICH.docx) Draft LS Semi-static configuration of PCFICH Ericsson LS out Rel-15 LTE\_HRLLC To:RAN1

[R2-1805137](file:///C:\Data\3GPP\Extracts\R2-1805137%20Reliability%20for%20PHICH-less%20UL%20SPS.docx) Reliability for PHICH-less UL SPS Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805138](file:///C:\Data\3GPP\Extracts\R2-1805138%20TP%20for%20repetition%20enhancement%20for%20UL%20SPS%20operation.doc) TP for repetition enhancement for UL SPS operation Ericsson draftCR Rel-15 36.321 15.1.0 B LTE\_HRLLC

[R2-1805139](file:///C:\Data\3GPP\Extracts\R2-1805139%20Remaining%20issues%20on%20multiple%20SPS%20configurations.docx) Remaining issues on multiple SPS configurations Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805140](file:///C:\Data\3GPP\Extracts\R2-1805140%20Repetition%20enhancements%20for%20UL%20SPS%20operation.docx) Repetition enhancements for UL SPS operation Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805141](file:///C:\Data\3GPP\Extracts\R2-1805141%20Support%20periodic%20URLLC%20traffic%20with%20SPS.docx) Support periodic URLLC traffic with SPS Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805250](file:///C:\Data\3GPP\Extracts\R2-1805250%20TP%20of%20SPS%20based%20repetition%20for%20URLLC%20in%20LTE%20for%2036.331.doc) TP of SPS based repetition for URLLC in LTE for 36.331 Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1805474](file:///C:\Data\3GPP\Extracts\R2-1805474%20Potential%20enhancements%20for%20HRLLC%20based%20on%20sTTI.doc) Potential enhancements for HRLLC based on sTTI Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core [R2-1802884](file:///C:\Data\3GPP\Extracts\R2-1802884%20Potential%20enhancements%20for%20HRLLC%20based%20on%20sTTI.doc)

[R2-1805475](file:///C:\Data\3GPP\Extracts\R2-1805475%20TB%20repetition%20for%20HRLLC.doc) TB repetition for HRLLC Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core [R2-1802885](file:///C:\Data\3GPP\Extracts\R2-1802885%20TB%20repetition%20for%20HRLLC.doc)

[R2-1805908](file:///C:\Data\3GPP\Extracts\R2-1805908_SPS%20for%20HRLLC.doc) SPS for HRLLC LG Electronics Mobile Research discussion LTE\_HRLLC-Core

[R2-1805910](file:///C:\Data\3GPP\Extracts\R2-1805910_Adaptive%20TTI%20bundling%20for%20HRLLC.doc) Adaptive TTI bundling for HRLLC LG Electronics Mobile Research discussion LTE\_HRLLC-Core

[R2-1806001](file:///C:\Data\3GPP\Extracts\R2-1806001%20URLLC%20PCFICH%20enh.docx) PCFICH Enhancements for URLLC Qualcomm Incorporated discussion LTE\_HRLLC-Core

Withdrawn

[R2-1805127](file:///C:\Data\3GPP\Extracts\R2-1805127%20Introduction%20of%20SPS%20based%20repetition%20for%20URLLC%20in%20LTE.doc) Introduction of SPS based repetition for URLLC in LTE Huawei, HiSilicon CR Rel-15 36.331 15.1.0 B LTE\_HRLLC-Core Withdrawn

### 9.15.4 Provision of Time Reference

Provision of time reference is a second priority item for Rel-15 as identified in RAN plenary endorsed [RP-180586](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180586.zip)

Including output of email discussion [101#45][LTE/HRLLC] The granularity of time reference discussion (Huawei)

[R2-1804939](file:///C:\Data\3GPP\Extracts\R2-1804939%20URLLC_Time_Sync.doc) Time Synchronization for URLLC Qualcomm Incorporated discussion LTE\_HRLLC-Core

[R2-1805142](file:///C:\Data\3GPP\Extracts\R2-1805142%20UE%20Time%20Synchronization.doc) UE Time Synchronization Ericsson discussion Rel-15 LTE\_HRLLC

[R2-1805143](file:///C:\Data\3GPP\Extracts\R2-1805143%20Draft%20CR%20for%20introduction%20of%20Granular%20UE%20Time%20Reference%20for%20LTE.doc) Draft CR for introduction of Granular UE Time Reference for LTE Ericsson draftCR Rel-15 36.331 15.1.0 B LTE\_HRLLC

[R2-1805476](file:///C:\Data\3GPP\Extracts\R2-1805476%20Email%20discussion%20summary%20on%20101%2345%20LTEHRLLC%20The%20granularity%20of%20time%20reference%20discussion.DOC) Email discussion summary on [101#45][LTE/HRLLC] The granularity of time reference discussion Huawei discussion Rel-15 LTE\_HRLLC-Core

[R2-1805477](file:///C:\Data\3GPP\Extracts\R2-1805477%20Discussion%20on%20time%20reference%20information.doc) Discussion on time reference information Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1805478](file:///C:\Data\3GPP\Extracts\R2-1805478%20Discussion%20on%20solutions%20on%20transmission%20of%20time%20reference%20information.doc) Discussion on solutions on transmission of time reference information Huawei, HiSilicon discussion Rel-15 LTE\_HRLLC-Core

[R2-1805479](file:///C:\Data\3GPP\Extracts\R2-1805479%20Introduction%20of%20providing%20sufficiently%20granular%20time%20reference%20information_36300.doc) Introduction of providing sufficiently granular time reference information Huawei, HiSilicon CR Rel-15 36.300 15.1.0 1129 - B LTE\_HRLLC-Core

[R2-1805480](file:///C:\Data\3GPP\Extracts\R2-1805480%20Introduction%20of%20providing%20sufficiently%20granular%20time%20reference%20information_36331.doc) Introduction of providing sufficiently granular time reference information Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3341 - B LTE\_HRLLC-Core

## 9.16 UL data compression in LTE

(LTE\_UDC-Core; leading WG: RAN2; Rel-15; started Sep 17; target: Mar 18; WID [RP-172365](file:///C:\Data\3GPP\Extracts\RP-172365-revised%20WID_on%20UDC.doc))

Time budget: 0 TU

This WI is complete from RAN2 point of view but RAN2 CRs have not been implemented to the specification as described in [RP-172755](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172755.zip). The CRs will be maintained as running CRs and then agreed again in RAN2#102. This AI is for corrections to the running CRs.

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

[R2-1804564](file:///C:\Data\3GPP\Extracts\36323_CR0217r2_(Rel-15)_R2-1804564.doc) Introduction of DEFLATE based UDC Solution CATT draftCR Rel-15 36.323 14.5.0 B LTE\_UDC-Core

[R2-1804565](file:///C:\Data\3GPP\Extracts\36331_CR3211r2_(Rel-15)_R2-1804565.docx) Introduction of DEFLATE based UDC Solution CATT draftCR Rel-15 36.331 15.1.0 B LTE\_UDC-Core

[R2-1804566](file:///C:\Data\3GPP\Extracts\36300_CR1090r2_(Rel-15)_R2-1804566.doc) Introduction of DEFLATE based UDC Solution CATT draftCR Rel-15 36.300 15.1.0 B LTE\_UDC-Core

[R2-1804567](file:///C:\Data\3GPP\Extracts\36306_CR1543r2_(Rel-15)_R2-1804567.doc) Introduction of DEFLATE based UDC Solution CATT draftCR Rel-15 36.306 15.0.0 B LTE\_UDC-Core

[R2-1805274](file:///C:\Data\3GPP\Extracts\R2-1805274_UDC.docx) Update of UDC PDCP Control PDU Ericsson discussion Rel-15

[R2-1805481](file:///C:\Data\3GPP\Extracts\R2-1805481%20Discussion%20on%20description%20of%20supportedUDC-r15.doc) Discussion on description of supportedUDC-r15 Huawei, HiSilicon discussion Rel-15 LTE\_UDC-Core

[R2-1805482](file:///C:\Data\3GPP\Extracts\R2-1805482%20Discussion%20on%20corrections%20to%20TS%2036.300%20for%20UDC.doc) Discussion on corrections to TS 36.300 for UDC Huawei, HiSilicon discussion Rel-15 LTE\_UDC-Core

[R2-1805483](file:///C:\Data\3GPP\Extracts\R2-1805483%20Discussion%20on%20corrections%20to%20TS%2036.323%20for%20UDC.doc) Discussion on corrections to TS 36.323 for UDC Huawei, HiSilicon discussion Rel-15 LTE\_UDC-Core

[R2-1805484](file:///C:\Data\3GPP\Extracts\R2-1805484%20Discussion%20on%20corrections%20to%20TS%2036.331%20for%20UDC.doc) Discussion on corrections to TS 36.331 for UDC Huawei, HiSilicon discussion Rel-15 LTE\_UDC-Core

## 9.17 Further enhancements to CoMP for LTE

(feCOMP\_LTE-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Mar. 18: WID: [RP-180584](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180584.zip))

Time budget: 0 TU

This WI is complete from RAN2 point of view but RAN2 CRs have not been implemented to the specification as described in [RP-172755](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172755.zip). The CRs will be maintained as running CRs and then agreed again in RAN2#102. This AI is for corrections to the running CRs.

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

## 9.18 Enhanced LTE Support for Aerial Vehicles

(LTE\_Aerial-Core;leading WG: RAN2; REL-15; started: Dec. 17; target: June. 18: WID: [RP-172826](file:///C:\Data\3GPP\TSGR\TSGR_78\Docs\RP-172826.zip))

Time budget: 1.0 TU

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

[R2-1804826](file:///C:\Data\3GPP\Extracts\R2-1804826%20(R15%20NR%20WI%20AI918%20Aerials%20Measurements).doc) Measurement reporting enhancements for Aerials InterDigital discussion Rel-15 LTE\_Aerial-Core [R2-1802806](file:///C:\Data\3GPP\Extracts\R2-1802806%20(R15%20NR%20WI%20AI918%20Aerials%20Measurements).doc)

[R2-1805521](file:///C:\Data\3GPP\Extracts\R2-1805521 (Resubmission of R2-1803218) MDT-based air-borne UE identification.doc) MDT-based air-borne UE identification CMCC discussion Rel-15 LTE\_Aerial-Core [R2-1803218](file:///C:\Data\3GPP\Extracts\R2-1805521 (Resubmission of R2-1803218) MDT-based air-borne UE identification.doc)

[R2-1805522](file:///C:\Data\3GPP\Extracts\R2-1805522 (Revision of R2-1803217) Air-borne UE dedicated mobility management v1.1.doc) Air-borne UE dedicated mobility management CMCC discussion Rel-15 LTE\_Aerial-Core [R2-1803217](file:///C:\Data\3GPP\Extracts\R2-1805522 (Revision of R2-1803217) Air-borne UE dedicated mobility management v1.1.doc)

[R2-1805993](file:///C:\Data\3GPP\Extracts\R2-1805993.doc) Introduce a new measurement triggering mechanism NTT DOCOMO INC. CR Rel-15 36.331 15.1.0 3373 - F LTE\_Aerial-Core

[R2-1806042](file:///C:\Data\3GPP\Extracts\R2-1806042.doc) Discussion on identification of airborne status, interference detection and mobility enhancement for aerial UE NTT DOCOMO INC. discussion Rel-15 36.331 LTE\_Aerial-Core

[R2-1806067](file:///C:\Data\3GPP\Extracts\R2-1806067.doc) Mobility Enhancement for UAV UE NTT DOCOMO INC. discussion Rel-15 36.331 LTE\_Aerial-Core

### 9.18.1 Organisational

Including incoming LSs, rapporteur inputs, running CRs

### 9.18.2 Subscription based identification

[R2-1804649](file:///C:\Data\3GPP\Extracts\R2-1804649%20Subscription%20based%20identification%20of%20Air-borne%20UE.docx) Subscription based Identification of Air-borne UE Huawei, HiSilicon discussion Rel-15 LTE\_Aerial-Core

[R2-1804652](file:///C:\Data\3GPP\Extracts\R2-1804652%20Discussion%20on%20enhancement%20of%20measurement%20reporting%20mechanism.docx) Discussion on enhancement of measurement reporting mechanism Huawei, HiSilicon discussion Rel-15 LTE\_Aerial-Core

[R2-1805627](file:///C:\Data\3GPP\Extracts\R2-1805627%20On%20flying%20UE%20without%20subscription.docx) On flying UE without subscription Ericsson discussion

### 9.18.3 Mobility enhancement for connected mode

[R2-1804409](file:///C:\Data\3GPP\Extracts\R2-1804409%20Consideration%20on%20the%20DC%20based%20enhancement%20for%20the%20mobility%20of%20aerial%20vehicles.docx) Consideration on the DC based enhancement for the mobility of aerial vehicles ZTE, Sanechips discussion Rel-15 LTE\_Aerial-Core

[R2-1804647](file:///C:\Data\3GPP\Extracts\R2-1804647%20Introduction%20of%20height%20dependant%20TTT%20for%20Aerial%20Vehicles%20for%20TS%2036.331.doc) Introduction of height dependant TTT for Aerial Vehicles for TS 36.331. Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3314 - B LTE\_Aerial-Core

[R2-1804650](file:///C:\Data\3GPP\Extracts\R2-1804650%20Potential%20enhancements%20for%20drones%20in%20idle%20state.docx) Potential enhancements for drones in idle state Huawei, HiSilicon discussion Rel-15 LTE\_Aerial-Core [R2-1802663](file:///C:\Data\3GPP\Extracts\R2-1802663%20Potential%20enhancements%20for%20drones%20in%20idle%20state.docx)

[R2-1804651](file:///C:\Data\3GPP\Extracts\R2-1804651%20Introduction%20of%20drone%20related%20SIBs%20for%20Aerial%20Vehicles%20for%20TS%2036.331.doc) Introduction of drone related SIBs for Aerial Vehicles for TS 36.331. Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3315 - B LTE\_Aerial-Core

[R2-1805121](file:///C:\Data\3GPP\Extracts\R2-1805121%20Discussion%20on%20new%20measurement%20events%20for%20Drones.docx) Discussion on new measurement events for Drones Huawei, HiSilicon discussion Rel-15 LTE\_Aerial-Core

[R2-1805123](file:///C:\Data\3GPP\Extracts\R2-1805123%20Introduction%20of%20flight%20path%20for%20Aerial%20Vehicles%20for%20TS%2036.331.doc) Introduction of flight path for Aerial Vehicles for TS 36.331 Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3328 - B LTE\_Aerial-Core

[R2-1805124](file:///C:\Data\3GPP\Extracts\R2-1805124%20Introduction%20of%20flight%20path%20for%20Aerial%20Vehicles%20for%20TS%2036.306.doc) Introduction of flight path for Aerial Vehicles for TS 36.306 Huawei, HiSilicon CR Rel-15 36.306 15.0.0 1580 - B LTE\_Aerial-Core

[R2-1805125](file:///C:\Data\3GPP\Extracts\R2-1805125%20Introduction%20of%20flight%20path%20for%20Aerial%20Vehicles.docx) Introduction of flight path for Aerial Vehicles Huawei, HiSilicon, CMCC, Fraunhofer, Nokia, Nokia Shanghai Bell,Lenovo, Motorola Mobility,InterDigital, KDDI discussion Rel-15 LTE\_Aerial-Core

[R2-1805155](file:///C:\Data\3GPP\Extracts\R2-1805155.docx) Location based mobility enhancements for UAVs Sony discussion Rel-15 LTE\_Aerial-Core [R2-1803129](file:///C:\Data\3GPP\Extracts\R2-1803129%20-%20UAV.docx)

[R2-1805157](file:///C:\Data\3GPP\Extracts\R2-1805157_Potential%20mobility%20enhancements%20for%20aerial%20UE.doc) Potential mobility enhancements for aerial UE Sony discussion Rel-15 LTE\_Aerial-Core [R2-1803138](file:///C:\Data\3GPP\Extracts\R2-1803138-Potential%20handover%20enhancements%20for%20aerial%20UE.doc)

[R2-1805190](file:///C:\Data\3GPP\Extracts\R2-1805190%20Discussion%20on%20potential%20mobility%20enhancement%20for%20aerial%20UE-v2.doc) Discussion on potential mobility enhancement for aerial UE Lenovo, Motorola Mobility discussion Rel-15 LTE\_Aerial-Core [R2-1802304](file:///C:\Data\3GPP\Extracts\R2-1802304%20Discussion%20on%20potential%20mobility%20enhancement%20for%20aerial%20UE-v1.1.doc)

[R2-1805536](file:///C:\Data\3GPP\Extracts\R2-1805536_aerials_reestablishment.doc) Connection re-establishment with UAVs Kyocera, KDDI discussion

[R2-1805610](file:///C:\Data\3GPP\Extracts\R2-1805610%20Measurement%20reporting%20enhancement%20for%20mobility%20enhancement.docx) Measurement framework enhancement for mobility for aerial UEs while airborne Ericsson discussion Rel-15 LTE\_Aerial-Core

[R2-1805624](file:///C:\Data\3GPP\Extracts\R2-1805624%20Flight%20path%20plan.docx) Flight path plan Ericsson discussion

[R2-1805625](file:///C:\Data\3GPP\Extracts\R2-1805625%20Conditional%20handover%20for%20drones.docx) Conditional Handover for Drones Ericsson discussion

[R2-1805626](file:///C:\Data\3GPP\Extracts\R2-1805626%20LocationInfo%20reporting%20for%20Drones.docx) LocationInfo reporting for Drones Ericsson discussion

[R2-1805633](file:///C:\Data\3GPP\Extracts\36331_CR3347_R2-1805633_Draft%20CR%20for%20Prohibit%20timer%20for%20measurement%20reporting.docx) Prohibit timer for measurement reporting Ericsson CR Rel-15 36.331 15.1.0 3347 - F LTE\_Aerial-Core

[R2-1805634](file:///C:\Data\3GPP\Extracts\36331_CR3348_R2-1805634_Draft%20CR%20for%20Prohibit%20counter%20for%20measurement%20reporting.docx) Prohibit counter for measurement reporting Ericsson CR Rel-15 36.331 15.1.0 3348 - F LTE\_Aerial-Core

[R2-1806135](file:///C:\Data\3GPP\Extracts\R2-1806135.doc) Mobility Enhancement using MR Triggering LG Electronics Inc. discussion Rel-15 LTE\_Aerial-Core [R2-1802706](file:///C:\Data\3GPP\Extracts\R2-1802706.doc)

[R2-1806136](file:///C:\Data\3GPP\Extracts\R2-1806136.doc) HOF or RLF Handling of Aerial UE LG Electronics Inc. discussion Rel-15 LTE\_Aerial-Core [R2-1802707](file:///C:\Data\3GPP\Extracts\R2-1802707.doc)

R2-1806150 Measurement enhancement for Aerial Vehicles KDDI Corporation discussion Late

### 9.18.4 Airborne status/interference detection and indication

[R2-1804648](file:///C:\Data\3GPP\Extracts\R2-1804648%20Detection%20of%20Air-borne%20UE's%20Interference.docx) Detection of Air-borne UE's Interference Huawei, HiSilicon discussion Rel-15 LTE\_Aerial-Core

[R2-1804891](file:///C:\Data\3GPP\RAN2\Docs\R2-1804891.zip) Discussion on interference detections and reduce measurement reporting Intel Corporation discussion Rel-15 LTE\_Aerial-Core

[R2-1805156](file:///C:\Data\3GPP\Extracts\R2-1805156.docx) Discussion on airborne status changing from flying mode to non-flying mode Sony discussion Rel-15 LTE\_Aerial-Core [R2-1803129](file:///C:\Data\3GPP\Extracts\R2-1803129%20-%20UAV.docx)

[R2-1805158](file:///C:\Data\3GPP\Extracts\R2-1805158_Discussion%20on%20altitude%20threshold%20of%20aerial%20UE.doc) Discussion on altitude threshold of aerial UE Sony discussion Rel-15 LTE\_Aerial-Core

[R2-1805192](file:///C:\Data\3GPP\Extracts\R2-1805192%20Further%20discussion%20on%20airborne%20status%20management%20for%20aerial%20UE-v1.0.doc) Further discussion on airborne status management for aerial UE Lenovo, Motorola Mobility discussion Rel-15 [R2-1802305](file:///C:\Data\3GPP\Extracts\R2-1802305%20Discussion%20on%20airborne%20status%20management%20for%20aerial%20UE-v1.1.doc)

[R2-1805193](file:///C:\Data\3GPP\Extracts\R2-1805193%20Further%20discussion%20on%20measurement%20enhancements%20for%20aerial%20UE-v1.0.doc) Further discussion on measurement enhancements for aerial UE Lenovo, Motorola Mobility discussion Rel-15 LTE\_Aerial-Core [R2-1802306](file:///C:\Data\3GPP\Extracts\R2-1802306%20Potential%20measurement%20enhancements%20for%20aerial%20UE-v1.0.doc)

[R2-1805276](file:///C:\Data\3GPP\Extracts\R2-1805276%20UEs%20airborne%20status%20indication.docx) UE’s airborne status indication Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_Aerial

[R2-1805277](file:///C:\Data\3GPP\Extracts\R2-1805277%20UAV_Interference_detection.docx) Interference detection for UAVs Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_Aerial

[R2-1805609](file:///C:\Data\3GPP\Extracts\R2-1805609%20airborne%20status%20indication.docx) Airborne status/height information upon RRC configuration setup/reestablishement Ericsson discussion Rel-15 LTE\_Aerial-Core

[R2-1805611](file:///C:\Data\3GPP\Extracts\R2-1805611%20Measurement%20reporting%20enhancements%20for%20interference%20and%20flying%20status%20detection.docx) Measurement for interference and flying status detection Ericsson discussion Rel-15 LTE\_Aerial-Core

[R2-1805628](file:///C:\Data\3GPP\Extracts\R2-1805628%20Reference%20altitude%20for%20airborne%20status%20reporting.docx) Reference altitude for airborne status reporting Ericsson discussion

[R2-1805629](file:///C:\Data\3GPP\Extracts\R2-1805629%20draft%20CR%20for%20introducing%20barometric%20measurements%20in%20RRC.doc) Draft CR for introducing barometric measurements in RRC Ericsson draftCR Rel-15 36.331 15.1.0 LTE\_Aerial-Core

[R2-1805638](file:///C:\Data\3GPP\Extracts\R2-1805638%20On%20the%20reference%20altitude%20versus%20height%20threshold.docx) On the reference altitude versus height threshold Nokia, Nokia Shanghai Bell discussion Rel-15 LTE\_Aerial-Core

[R2-1805647](file:///C:\Data\3GPP\Extracts\36331_CR3349_R2-1805647_Draft%20CR%20for%20Introducing%20height%20info%20in%20RRC%20complete%20messages.doc) Introduction of airborne status indication upon RRC connection setup and reestablishement Ericsson CR Rel-15 36.331 15.1.0 3349 - F LTE\_Aerial-Core

[R2-1805771](file:///C:\Data\3GPP\Extracts\R2-1805771%20Compromised%20solution%20of%20measurement%20report%20for%20aerial%20UE.doc) Compromised solution of measurement report for aerial UE LG Electronics Mobile Research discussion LTE\_Aerial-Core

[R2-1805773](file:///C:\Data\3GPP\Extracts\R2-1805773%20airborne-indication.docx) Airborne status indication and capability Qualcomm Incorporated discussion LTE\_Aerial-Core

[R2-1806138](file:///C:\Data\3GPP\Extracts\R2-1806138.doc) Airborne Indication and Location Reporting in Aerial LG Electronics Inc. discussion Rel-15 LTE\_Aerial-Core

### 9.18.5 Others

[R2-1805194](file:///C:\Data\3GPP\Extracts\R2-1805194%20Signaling%20exchange%20issues%20for%20UL%20interference%20detection-v1.0.doc) Signaling exchange issues for UL interference detection Lenovo, Motorola Mobility discussion Rel-15 LTE\_Aerial-Core [R2-1802303](file:///C:\Data\3GPP\Extracts\R2-1802303%20Discussion%20on%20signaling%20exchange%20issues%20for%20UL%20interference%20detection-v1.1.doc)

[R2-1805621](file:///C:\Data\3GPP\Extracts\36300_CR1131_R2-1805621_Running%20CR%20for%20enhanced%20LTE%20support%20for%20aerial%20vehicles.doc) Stage-2 running CR for Aerials Ericsson CR Rel-15 36.300 15.1.0 1131 - B LTE\_Aerial-Core

[R2-1805772](file:///C:\Data\3GPP\Extracts\R2-1805772%20Enhanced%20MSE%20using%20tier%20for%20aerial%20UE.doc) Enhanced MSE using tier for aerial UE LG Electronics Mobile Research discussion LTE\_Aerial-Core [R2-1802538](file:///C:\Data\3GPP\Extracts\R2-1802538%20Enhanced%20MSE%20using%20tier%20for%20aerial%20UE.doc)

[R2-1806137](file:///C:\Data\3GPP\Extracts\R2-1806137.doc) Enhancement to History Information for Aerial UE LG Electronics Inc. discussion Rel-15 LTE\_Aerial-Core [R2-1802708](file:///C:\Data\3GPP\Extracts\R2-1802708.doc)

## 9.19 Bluetooth/WLAN measurement collection in MDT

(LTE\_MDT\_BT\_WLAN-Core; leading WG: RAN2; REL-15; started: Dec. 17; target: June. 18: WID: [RP-180306](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180306.zip))

Time budget: 0.5 TU

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

Including output of email discussion [101#19][LTE/BT/WLAN MDT] 36.306 CR (CMCC)

Including output of email discussion [101#20][LTE/BT/WLAN MDT] 36.331 CR (Huawei)

Including output of email discussion [101#21][LTE/BT/WLAN MDT] 37.320 CR (CMCC)

[R2-1804459](file:///C:\Data\3GPP\Extracts\R2-1804459%20Position%20Assistant%20information%20for%20BluetoothWLAN%20measurement%20collecti.doc) Position Assistant information for Bluetooth/WLAN measurement collection in MDT ZTE Corporation, Sanechips discussion

[R2-1805377](file:///C:\Data\3GPP\Extracts\R2-1805377%20-%20Additional%20UE%20capability%20bits%20for%20WLAN-BT%20measurements%20in%20MDT.docx) Additional UE capability bits for WLAN/BT measurements in MDT Ericsson discussion Rel-15 LTE\_MDT\_BT\_WLAN-Core

[R2-1805485](file:///C:\Data\3GPP\Extracts\R2-1805485%20Email%20disc%20on%20impacts%20to%2036.331.doc) Email discussion summary on [101#20][LTE/BT/WLAN MDT] 36.331 CR Huawei discussion Rel-15 LTE\_MDT\_BT\_WLAN-Core

[R2-1805486](file:///C:\Data\3GPP\Extracts\R2-1805486%20Introduction%20of%20Bluetooth%20and%20WLAN%20measurement%20collection%20in%20MDT_36331.doc) Introduction of Bluetooth and WLAN measurement collection in MDT Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3342 - B LTE\_MDT\_BT\_WLAN-Core

[R2-1805487](file:///C:\Data\3GPP\Extracts\R2-1805487%20Discussion%20on%20UE%20capability%20on%20MDT%20enhancements%20in%20Rel-15.doc) Discussion on UE capability on MDT enhancements in Rel-15 Huawei, HiSilicon discussion Rel-15 LTE\_MDT\_BT\_WLAN-Core

[R2-1805510](file:///C:\Data\3GPP\Extracts\R2-1805510.docx) Overhead reduction on WLAN/Bluetooth measurement reporting CMCC discussion Rel-15 LTE\_MDT\_BT\_WLAN-Core

[R2-1805511](file:///C:\Data\3GPP\Extracts\37320_CR0071_(Rel-15)_R2-1805511_Introduction of new measurement collection in MDT.doc) Introduction of Bluetooth and WLAN measurement collection in MDT CMCC CR Rel-15 37.320 14.0.0 0071 - B LTE\_MDT\_BT\_WLAN-Core

[R2-1805512](file:///C:\Data\3GPP\Extracts\36306_CR1584_(Rel-15)_R2-1805512_Introduction of new measurement collection in MDT.doc) Introduction of Bluetooth and WLAN measurement collection in MDT CMCC CR Rel-15 36.306 15.0.0 1584 - B LTE\_MDT\_BT\_WLAN-Core

[R2-1805769](file:///C:\Data\3GPP\Extracts\R2-1805769%20Clarification%20of%20location%20information%20measurement%20for%20MDT.doc) Clarification of location information measurement for MDT LG Electronics Mobile Research discussion LTE\_MDT\_BT\_WLAN-Core

## 9.20 Increased number of E-UTRAN data bearers

(INOBEAR-Core [??] ; leading WG: RAN2; REL-15; started: Dec. 17; target: June. 18: WID: [RP-180569](file:///C:\Data\3GPP\Extracts\RP-180569_INOBEARRAN_WID_v04.doc))

Time budget: 0.5 TU

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

[R2-1804493](file:///C:\Data\3GPP\Extracts\R2-1804493_lte_inobear_wp_v02.doc) Workplan for increased number of E-UTRAN data bearers Samsung discussion Rel-15 INOBEARRAN-Core

[R2-1804494](file:///C:\Data\3GPP\Extracts\R2-1804494_lte_inobear_mac_v02.doc) MAC specification impact analysis Samsung discussion Rel-15 INOBEARRAN-Core

[R2-1804495](file:///C:\Data\3GPP\Extracts\R2-1804495_lte_inobear_rrc_v02.doc) RRC specification impact analysis Samsung discussion Rel-15 INOBEARRAN-Core

R2-1804498 Introduction of increased number of E-UTRAN data bearers Samsung draftCR Rel-15 36.321 15.1.0 B INOBEARRAN-Core Late

[R2-1804499](file:///C:\Data\3GPP\Extracts\R2-1804499_36321_CRxxxx_(Rel-15)_v02.doc) Introduction of increased number of E-UTRAN data bearers Samsung draftCR Rel-15 36.321 15.1.0 B INOBEARRAN-Core Late

[R2-1804500](file:///C:\Data\3GPP\Extracts\R2-1804500_36331_CRxxxx_(Rel-15)_v04.doc) Introduction of increased number of E-UTRAN data bearers Samsung draftCR Rel-15 36.331 15.1.0 B INOBEARRAN-Core Late

[R2-1804890](file:///C:\Data\3GPP\Extracts\R2-1804890.docx) Supporting larger number of DRBs for LTE Intel Corporation discussion Rel-15 INOBEARRAN-Core

[R2-1805001](file:///C:\Data\3GPP\Extracts\R2-1805001_lte_inobear_ls_v02.doc) Draft Response LS on INOBEAR Samsung LS out Rel-15 INOBEARRAN-Core To:SA2, CT1 Cc:RAN3, CT4 Late

[R2-1805118](file:///C:\Data\3GPP\Extracts\R2-1805118%20The%20impact%20on%20user%20plane%20to%20extend%20the%20DRB%20number.docx) The impact on user plane to extend the DRB number ZTE, Sanechips discussion Rel-15 INOBEARRAN-Core

[R2-1805119](file:///C:\Data\3GPP\Extracts\R2-1805119%20Introduction%20of%20DRB%20number%20extension.doc) Introduction of DRB number extension ZTE, Sanechips CR Rel-15 36.321 15.1.0 1254 - B INOBEARRAN-Core

[R2-1805372](file:///C:\Data\3GPP\Extracts\R2-1805372%20-%20LCID%20space%20extension.docx) LCID space extension Ericsson discussion Rel-15 INOBEARRAN-Core

[R2-1805373](file:///C:\Data\3GPP\Extracts\R2-1805373%20-%20LCID%20space%20extension.doc) LCID space extension Ericsson CR Rel-15 36.321 15.1.0 1258 - B INOBEARRAN-Core

[R2-1805374](file:///C:\Data\3GPP\Extracts\R2-1805374%20-%20Introduction%20of%20INOBEAR%20in%2036.331.doc) Introduction of INOBEAR in 36.331 Ericsson CR Rel-15 36.331 15.1.0 3337 - B INOBEARRAN-Core

[R2-1805375](file:///C:\Data\3GPP\Extracts\R2-1805375%20-%20Introduction%20of%20INOBEAR%20in%2036.306.doc) Introduction of INOBEAR in 36.306 Ericsson CR Rel-15 36.306 15.0.0 1583 - B INOBEARRAN-Core

[R2-1805376](file:///C:\Data\3GPP\Extracts\R2-1805376%20-%20Draft%20LS%20reply%20on%20INOBEAR.docx) Draft LS reply on INOBEAR Ericsson LS out Rel-15 INOBEARRAN-Core To:SA2 Cc:CT1, CT4, RAN3

[R2-1806036](file:///C:\Data\3GPP\Extracts\R2-1806036%20LCID%20extension%20for%20increased%20number%20of%20RB.docx) Extended number of bearers for LTE LG Electronics Inc. discussion Rel-15 INOBEARRAN-Core

[R2-1806037](file:///C:\Data\3GPP\Extracts\R2-1806037%20Draft%20CR%20to%2036.321%20on%20Introduction%20of%20extended%20LCID%20field.docx) CR to 36.321 on introduction of extended LCID field LG Electronics Inc. CR Rel-15 36.321 15.1.0 1268 - B INOBEARRAN-Core

## 9.21 Other LTE Rel-15 WIs

This agenda item may be used for documents relating to Rel-15 WIs with no allocated RAN2 time but which might have minor RAN2 impact (e.g. CT/SA WIs for which we have received an LS requesting RAN2 action)

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

[R2-1805148](file:///C:\Data\3GPP\Extracts\R2-1805148%20%20Sanya%20-Disc%20new%20measurement%20type.doc) New service type in QMC reporting Ericsson discussion Rel-15 TEI15

[R2-1805149](file:///C:\Data\3GPP\Extracts\R2-1805149%20Draft%20reply%20LS%20on%20adding%20new%20service%20type%20in%20QMC%20reporting.doc) DRAFT Reply LS on adding new service type in QMC reporting Ericsson LS out Rel-15 QOED To:SA4 Cc:RAN3, SA5

[R2-1805150](file:///C:\Data\3GPP\Extracts\R2-1805150%20CR%20on%2036.300%20adding%20new%20service%20type.doc) Introduction of QoE Measurement Collection for MTSI services Ericsson draftCR Rel-15 36.300 15.1.0 B TEI15

[R2-1805151](file:///C:\Data\3GPP\Extracts\R2-1805151%20CR%20on%2036.306%20adding%20new%20service%20type.doc) Introduction of QoE Measurement Collection for MTSI services Ericsson draftCR Rel-15 36.306 15.0.0 B TEI15

[R2-1805152](file:///C:\Data\3GPP\Extracts\R2-1805152%20CR%20on%2036.331%20adding%20new%20service%20type.doc) Introduction of QoE Measurement Collection for MTSI services Ericsson draftCR Rel-15 36.331 15.1.0 B TEI15

## 9.22 LTE TEI15 enhancements

Small Technical Enhancements affecting LTE Rel-15 that do not belong to any Rel-15 WI.

Note: A TEI enhancement proposal should be treated for only one meeting cycle and involve only one WG. Otherwise, a WI should be proposed at RAN plenary!

Time budget: 1 TU

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

[R2-1805620](file:///C:\Data\3GPP\Extracts\36300_CR1130_R2-1805620_eMBMS.doc) Enabling MBMS Bearer Event Notification Ericsson CR Rel-15 36.300 15.1.0 1130 - F MBMS\_LTE\_enh2-Core

[R2-1805683](file:///C:\Data\3GPP\Extracts\R2-1805683%20Throughput%20measurement%20for%20Carrier%20Aggregation.doc) Throughput measurement for Carrier Aggregation Nokia, Nokia Shanghai Bell discussion Rel-15 TEI15

[R2-1805684](file:///C:\Data\3GPP\Extracts\R2-1805684%20Scheduled%20IP%20Throughput%20for%20inter%20eNB%20CA.doc) Scheduled IP Throughput for inter eNB CA Nokia, Nokia Shanghai Bell CR Rel-15 36.314 15.0.0 0054 - F TEI15

[R2-1805871](file:///C:\Data\3GPP\Extracts\36323_CR0227_(Rel-15)_R2-1805871.doc) Selective retransmission for PDCP data recovery SAMSUNG Electronics Co., Ltd. CR Rel-15 36.323 14.5.0 0227 - B TEI15

[R2-1806006](file:///C:\Data\3GPP\Extracts\R2-1806006%20Draft%20CR%20to%2036.321%20on%20Start%20of%20HARQ%20RTT%20Timer%20for%20multiple%20SPS.docx) CR to 36.321 on start of HARQ RTT Timer for multiple SPS LG Electronics Inc. CR Rel-15 36.321 15.1.0 1266 - C TEI15

### 9.22.1 CP latency for LTE

Contributions related to the task given to RAN2 from RAN#78 as described in LS [RP-172840](file:///C:\Data\3GPP\Extracts\RP-172840%20LS%20on%20CP%20latency%20reduction.doc).

[R2-1804468](file:///C:\Data\3GPP\Extracts\R2-1804468%20IMT2020%20LTE%20CP%20latency.docx) Achieving LTE CP latency target for IMT-2020 Qualcomm Incorporated discussion TEI15

[R2-1804569](file:///C:\Data\3GPP\Extracts\R2-1804569.docx) Control Plane Latency Reduction in LTE for TDD CATT discussion Rel-15 TEI15

[R2-1804631](file:///C:\Data\3GPP\Extracts\R2-1804631%20Further%20Discussion%20on%20CP%20Latency%20Reduction.docx) Further Discussion on CP Latency Reduction MediaTek Inc. discussion Rel-15

[R2-1805726](file:///C:\Data\3GPP\Extracts\R2-1805726%20-%20Control%20Plane%20Latency%20Reduction.doc) Control Plane Latency Reduction Ericsson discussion TEI15

[R2-1805743](file:///C:\Data\3GPP\Extracts\36306_CR1585_(Rel-15)_R2-1805743%20-%20Control%20Plane%20latency%20reduction.doc) Control Plane latency reduction Ericsson CR Rel-15 36.306 15.0.0 1585 - B TEI15

[R2-1805746](file:///C:\Data\3GPP\Extracts\36331_CR3359_(Rel-15)_R2-1805746%20-%20Control%20Plane%20latency%20reduction.doc) Control Plane latency reduction Ericsson CR Rel-15 36.331 15.1.0 3359 - B TEI15

### 9.22.2 Other

Including output of email discussion [101#43][LTE/TEI15] HSDN Running 36.304 CR (OPPO)

Including output of email discussion [101#44][LTE/TEI15] HSDN Running 36.331 CR (CMCC)

[R2-1804541](file:///C:\Data\3GPP\Extracts\R2-1804541%20TS%2036.304%20running%20CR%20for%20HSDN.doc) TS 36.304 Running CR for HSDN OPPO, Intel, CMCC CR Rel-15 36.304 14.6.0 0410 - B TEI15

[R2-1804562](file:///C:\Data\3GPP\Extracts\R2-1804562-Clarification%20on%20Delivering%20UL%20Data%20with%20Complete%20Message.doc) Clarification on Delivering UL Data with Complete Message OPPO discussion Late

[R2-1804563](file:///C:\Data\3GPP\Extracts\R2-1804563-Corrections%20on%20Delivering%20Data%20with%20Complete%20Message.doc) Corrections on Delivering Data with Complete Message OPPO, ZTE Corporation CR Rel-15 36.300 15.1.0 1125 - C TEI15 Late

[R2-1804570](file:///C:\Data\3GPP\Extracts\R2-1804570.docx) Cell Reselection in HSDN Station CATT discussion Rel-15 TEI15

[R2-1804892](file:///C:\Data\3GPP\Extracts\R2-1804892.doc) Discussion on content of HSDN neighboring cell list and new cell count for HSDN cell Intel Corporation discussion Rel-15 TEI15

[R2-1804917](file:///C:\Data\3GPP\Extracts\R2-1804917%20Clarification%20on%20RSTD%20Reporting%20for%20Assistance%20Data%20Reference%20Cell.doc) Clarification on RSTD Reporting for Assistance Data Reference Cell Samsung Electronics France SA discussion Rel-15 TEI15

[R2-1804920](file:///C:\Data\3GPP\Extracts\36.355_CR0196_(Rel-15)_R2-1804920%20CR%20for%20Calarification%20on%20RSTD%20Reporting%20for%20Assistance%20Data%20Reference%20Cell.doc) CR for Calarification on RSTD Reporting for Assistance Data Reference Cell Samsung Electronics France SA CR Rel-15 36.355 14.5.1 0196 - C TEI15

[R2-1805369](file:///C:\Data\3GPP\Extracts\R2-1805369%20-%20FGI20%20limitation%20for%20DRBs.docx) FGI20 limitation for DRBs Ericsson discussion Rel-15 TEI15

[R2-1805370](file:///C:\Data\3GPP\Extracts\R2-1805370%20-%20Avoiding%20FGI20%20limitation.doc) Avoiding FGI20 limitation Ericsson CR Rel-15 36.306 15.0.0 1582 - B TEI15

[R2-1805371](file:///C:\Data\3GPP\Extracts\R2-1805371%20-%20Avoiding%20FGI20%20limitation.doc) Avoiding FGI20 limitation Ericsson CR Rel-15 36.331 15.1.0 3336 - B TEI15

[R2-1805488](file:///C:\Data\3GPP\Extracts\R2-1805488%20Discussion%20on%20additional%20PDCP%20discard%20timer.doc) Discussion on additional PDCP discard timer Huawei, HiSilicon, OPPO, LG Electronics Inc. discussion Rel-15 TEI15 [R2-1802870](file:///C:\Data\3GPP\Extracts\R2-1802870%20Discussion%20on%20additional%20PDCP%20discard%20timer.doc)

[R2-1805489](file:///C:\Data\3GPP\Extracts\R2-1805489%20Additional%20PDCP%20discard%20timer_36300.doc) Introduction of additional PDCP discard timer Huawei, HiSilicon, OPPO, LG Electronics Inc. CR Rel-15 36.300 15.1.0 1097 1 B TEI15 [R2-1802871](file:///C:\Data\3GPP\Extracts\R2-1802871%20additional%20PDCP%20discard%20timer.doc)

[R2-1805490](file:///C:\Data\3GPP\Extracts\R2-1805490%20Additional%20PDCP%20discard%20timer_36306.doc) Introduction of additional PDCP discard timer Huawei, HiSilicon, OPPO, LG Electronics Inc. CR Rel-15 36.306 15.0.0 1557 1 B TEI15 [R2-1802872](file:///C:\Data\3GPP\Extracts\R2-1802872%20additional%20PDCP%20discard%20timer.doc)

[R2-1805491](file:///C:\Data\3GPP\Extracts\R2-1805491%20Additional%20PDCP%20discard%20timer_36323.doc) Introduction of additional PDCP discard timer Huawei, HiSilicon, OPPO, LG Electronics Inc. CR Rel-15 36.323 14.5.0 0224 1 B TEI15 [R2-1802873](file:///C:\Data\3GPP\Extracts\R2-1802873%20additional%20PDCP%20discard%20timer.doc)

[R2-1805492](file:///C:\Data\3GPP\Extracts\R2-1805492%20Additional%20PDCP%20discard%20timer_36331.doc) Introduction of additional PDCP discard timer Huawei, HiSilicon, OPPO, LG Electronics Inc. CR Rel-15 36.331 15.1.0 3248 1 B TEI15 [R2-1802874](file:///C:\Data\3GPP\Extracts\R2-1802874%20additional%20PDCP%20discard%20timer.doc)

[R2-1805493](file:///C:\Data\3GPP\Extracts\R2-1805493%20Discussion%20on%20new%20measurements%20based%20on%20SA5%20LS.doc) Discussion on new measurements based on SA5 LS Huawei, HiSilicon discussion Rel-15 TEI15

[R2-1805494](file:///C:\Data\3GPP\Extracts\R2-1805494%20CR%20on%20distribution%20of%20PRB%20usage%20per%20traffic%20class_36314.doc) CR on distribution of PRB usage per traffic class Huawei, HiSilicon CR Rel-15 36.314 15.0.0 0051 - F TEI15

[R2-1805495](file:///C:\Data\3GPP\Extracts\R2-1805495%20CR%20on%20distribution%20of%20scheduled%20IP%20throughput%20per%20QCI_36314.doc) CR on distribution of scheduled IP throughput per QCI Huawei, HiSilicon CR Rel-15 36.314 15.0.0 0052 - F TEI15

[R2-1805496](file:///C:\Data\3GPP\Extracts\R2-1805496%20CR%20on%20new%20measurement%20on%20number%20of%20active%20UEs_36314.doc) CR on new measurement on number of active UEs Huawei, HiSilicon CR Rel-15 36.314 15.0.0 0053 - F TEI15

[R2-1805497](file:///C:\Data\3GPP\Extracts\R2-1805497%20Discussion%20on%20dual%20registration%20and%20issues%20in%20LTE.doc) Discussion on dual registration and issues in LTE Huawei, HiSilicon discussion Rel-15 TEI15 [R2-1802869](file:///C:\Data\3GPP\Extracts\R2-1802869%20Discussion%20on%20dual%20registration%20and%20issues%20in%20LTE.doc)

[R2-1805498](file:///C:\Data\3GPP\Extracts\R2-1805498%20Discussion%20on%20enhancements%20on%20setup%20and%20release%20of%20UDC.doc) Discussion on enhancements on setup and release of UDC Huawei, HiSilicon discussion Rel-15 TEI15 [R2-1802855](file:///C:\Data\3GPP\Extracts\R2-1802855%20Discussion%20on%20setup%20and%20release%20of%20UDC.doc)

[R2-1805499](file:///C:\Data\3GPP\Extracts\R2-1805499%20CR%20on%20UDC%20configuration_36323.doc) CR on UDC configuration Huawei, HiSilicon CR Rel-15 36.323 14.5.0 0220 1 B TEI15 [R2-1802856](file:///C:\Data\3GPP\Extracts\R2-1802856%20CR%20on%20UDC%20configuration.doc)

[R2-1805500](file:///C:\Data\3GPP\Extracts\R2-1805500%20CR%20on%20UDC%20configuration_36331.doc) CR on UDC configuration Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3246 1 B TEI15 [R2-1802857](file:///C:\Data\3GPP\Extracts\R2-1802857%20CR%20on%20UDC%20configuration.doc)

[R2-1805513](file:///C:\Data\3GPP\Extracts\36331_CR3343_(Rel-15)_R2-1805513_CR%20to%20TS%2036.331%20on%20Cell%20Reselection%20Issues%20for%20HSDN.doc) CR to TS 36.331 on Cell Reselection Issues for HSDN CMCC, Intel Corporation, OPPO CR Rel-15 36.331 15.1.0 3343 - B TEI15

[R2-1805514](file:///C:\Data\3GPP\Extracts\R2-1805514.doc) Trigger for HSDN-based cell reselection CMCC, OPPO discussion Rel-15 TEI15

[R2-1805774](file:///C:\Data\3GPP\Extracts\R2-1805774%20Discussion%20on%20the%20issue%20of%20MSE%20for%20HSDN%20capable%20UE.doc) Discussion on the issue of MSE for HSDN capable UE LG Electronics Mobile Research discussion TEI15

[R2-1805797](file:///C:\Data\3GPP\Extracts\R2-1805797%20Enhancement%20of%20SRS%20antenna%20switching%20in%20TS%2036.331.doc) Enhancement of SRS antenna switching in TS 36.331 Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3226 1 B TEI15 [R2-1802244](file:///C:\Data\3GPP\Extracts\R2-1802244%20Enhancement%20of%20SRS%20antenna%20switching%20in%20TS%2036.331.doc)

[R2-1805798](file:///C:\Data\3GPP\Extracts\R2-1805798%20Enhancement%20of%20SRS%20antenna%20switching%20in%20TS%2036.306.doc) Enhancement of SRS antenna switching in TS 36.306 Huawei, HiSilicon CR Rel-15 36.306 15.0.0 1546 1 B TEI15 [R2-1802245](file:///C:\Data\3GPP\Extracts\R2-1802245%20Enhancement%20of%20SRS%20antenna%20switching%20inTS%2036.306.doc)

[R2-1805813](file:///C:\Data\3GPP\Extracts\R2-1805813%20Discussion%20on%20the%20issues%20for%20UE%20on%20HSDN.doc) Discussion on the issues for UE on HSDN Huawei, HiSilicon discussion Rel-15 TEI15

[R2-1805814](file:///C:\Data\3GPP\Extracts\R2-1805814%20Text%20proposal%20on%20cell%20reselection%20for%20HSDN%20in%20TS%2036.304.doc) Text proposal on cell reselection for HSDN in TS 36.304 Huawei, HiSilicon discussion Rel-15 TEI15

[R2-1805815](file:///C:\Data\3GPP\Extracts\R2-1805815%20Text%20proposal%20on%20cell%20reselection%20for%20HSDN%20in%20TS%2036.331.doc) Text proposal on cell reselection for HSDN in TS 36.331 Huawei, HiSilicon discussion Rel-15 TEI15

[R2-1805823](file:///C:\Data\3GPP\Extracts\R2-1805823%20-%20Discarding%20configured%20grants%20and%20assignments%20when%20receiving%20RRC%20reconfiguration%20of%20SPS-Config.docx) Discarding configured grants and assignments when receiving RRC reconfiguration of SPS-Config Ericsson discussion Rel-15 TEI15

[R2-1805824](file:///C:\Data\3GPP\Extracts\36321_CR1264_(Rel-15)_R2-1805824%20-Discarding%20configured%20grants%20and%20assignments%20when%20receiving%20RRC%20reconfiguration%20of%20SPS-Config.docx) Discarding configured grants and assignments when receiving RRC reconfiguration of SPS-Config Ericsson CR Rel-15 36.321 15.1.0 1264 - C TEI15

[R2-1805825](file:///C:\Data\3GPP\Extracts\36331_CR3366_(Rel-15)_R2-1805825%20-Discarding%20configured%20grants%20and%20assignments%20when%20receiving%20RRC%20reconfiguration%20of%20SPS-Config.docx) Discarding configured grants and assignments when receiving RRC reconfiguration of SPS-Config Ericsson CR Rel-15 36.331 15.1.0 3366 - C TEI15

[R2-1806041](file:///C:\Data\3GPP\Extracts\36322_CR(0134)_(REL-15)_R2-1806041_Introduction%20of%20PDCP%20data%20recovery%20for%20UM%20DRBs.docx) Introduction of PDCP data recovery for UM DRBs LG Electronics Inc. CR Rel-15 36.322 15.0.0 0134 - B TEI15

[R2-1806045](file:///C:\Data\3GPP\Extracts\36323_CR(0228)_(REL-15)_R2-1806045_Introduction%20of%20PDCP%20data%20recovery%20for%20UM%20DRBs.docx) Introduction of PDCP data recovery for UM DRBs LG Electronics Inc. CR Rel-15 36.323 14.5.0 0228 - B TEI15

[R2-1806047](file:///C:\Data\3GPP\Extracts\36304_CRxxxx_(Rel-15)_R2-1806047_hybirdHSDN.doc) Introduction of hybrid-HSDN cell for TS36.304 SoftBank, KDDI, NTT DOCOMO draftCR Rel-15 36.304 14.6.0 B TEI15

[R2-1806049](file:///C:\Data\3GPP\Extracts\36331_CRxxxx_(Rel-15)_R2-1806049_hybirdHSDN.doc) Introduction of hybrid-HSDN cell for TS36.331 SoftBank, KDDI, NTT DOCOMO draftCR Rel-15 36.331 15.1.0 B TEI15

[R2-1806051](file:///C:\Data\3GPP\Extracts\R2-1806051_hybridHSDN.docx) Further consideration on HSDN scenario SoftBank, KDDI, NTT DOCOMO discussion Rel-15 TEI15

[R2-1806052](file:///C:\Data\3GPP\Extracts\R2-1806052_Need%20for%20PDCP%20and%20RLC%20release%20procedure.docx) Need for PDCP and RLC release procedure LG Electronics Inc. discussion Rel-15 TEI15

[R2-1806065](file:///C:\Data\3GPP\Extracts\36322_CR(0135)_(REL-15)_R2-1806065_Introduction%20of%20RLC%20release.docx) Introduction of RLC release LG Electronics Inc. CR Rel-15 36.322 15.0.0 0135 - B TEI15

[R2-1806066](file:///C:\Data\3GPP\Extracts\36323_CR(0229)_(REL-15)_R2-1806066_Introduction%20of%20PDCP%20release.docx) Introduction of PDCP release LG Electronics Inc. CR Rel-15 36.323 14.5.0 0229 - B TEI15

[R2-1806139](file:///C:\Data\3GPP\Extracts\36331_CR3383_(Rel-15)_R2-1806139.doc) MDT Enhancement for Logging OOS LG Electronics Inc., SK Telecom Co. Ltd CR Rel-15 36.331 15.1.0 3383 - B TEI15

[R2-1806140](file:///C:\Data\3GPP\Extracts\36304_CR0414_(Rel-15)_R2-1806140.doc) MDT Enhancement for Logging OOS LG Electronics Inc., SK Telecom Co. Ltd CR Rel-15 36.304 14.6.0 0414 - B TEI15

[R2-1806167](file:///C:\Data\3GPP\Extracts\R2-1806167_Discussion%20on%20data%20recovery%20procedure%20for%20UM%20DRBs.docx) Discussion on data recovery procedure for UM DRBs LG Electronics Inc. discussion Rel-15 TEI15

[R2-1806186](file:///C:\Data\3GPP\Extracts\R2-1806186%20-%20L2%20differentiated%20handling%20of%20critical%20data.doc) L2 differentiated handling of critical data Ericsson discussion Rel-15 LTE\_ViLTE\_enh2-Core [R2-1803756](file:///C:\Data\3GPP\Extracts\R2-1803756%20-%20L2%20differentiated%20handling%20for%20critical%20data.doc) late

[R2-1806187](file:///C:\Data\3GPP\Extracts\R2-1806187%20-%20L2%20differentiated%20handling%20of%20critical%20data%20-%2036%20306%20CR.doc) L2 differentiated handling for critical data LEricsson CR Rel-15 36.306 15.0.0 1539 2 B LTE\_ViLTE\_enh2-Core [R2-1803757](file:///C:\Data\3GPP\Extracts\R2-1803757%20-%20L2%20differentiated%20handling%20of%20critical%20data.doc) Late

[R2-1806188](file:///C:\Data\3GPP\Extracts\R2-1806188%20-%20L2%20differentiated%20handling%20of%20critical%20data%20-%2036%20323.doc) L2 differentiated handling for critical data LEricsson CR Rel-15 36.323 14.5.0 0213 2 B LTE\_ViLTE\_enh2-Core [R2-1803758](file:///C:\Data\3GPP\Extracts\R2-1803758%20-%20L2%20differentiated%20handling%20of%20critical%20data.doc) Late

[R2-1806189](file:///C:\Data\3GPP\Extracts\R2-1806189%20-%20L2%20differentiated%20handling%20of%20critical%20data%20-%2036.331.doc) L2 differentiated handling for critical data LEricsson CR Rel-15 36.331 15.1.0 3185 2 B LTE\_ViLTE\_enh2-Core [R2-1803759](file:///C:\Data\3GPP\Extracts\R2-1803759%20-%20L2%20differentiated%20handling%20of%20critical%20data.doc) Late

Withdrawn

R2-1804919 CR for Calarification on RSTD Reporting for Assistance Data Reference Cell Samsung Electronics France SA CR Rel-15 36.355 14.5.1 0195 - C TEI15 Withdrawn

[R2-1806034](file:///C:\Data\3GPP\Extracts\R2-1806034_Discussion%20on%20data%20recovery%20procedure%20for%20UM%20DRBs.docx) Discussion on PDCP data recovery for UM DRBs LG Electronics Inc. discussion Rel-15 TEI15 Withdrawn

# 10 WI: New Radio (NR) Access Technology

(NR\_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: [RP-180536](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180536.zip))

## 10.1 Organisational

Incoming LSs, work plan, status from other groups, etc.

Liaisons to RAN2

[R2-1804202](file:///C:\Data\3GPP\Extracts\R2-1804202_C1-181763.doc) LS on DRX parameters negotiation (C1-181763; contact: vivo) CT1 LS in Rel-15 5GS\_Ph1-CT To:SA2 Cc:RAN2

=> Noted

[R2-1804203](file:///C:\Data\3GPP\Extracts\R2-1804203_C1-181790.doc) LS on TAI and forbidden TAI list for 5GS (C1-181790; contact: Intel) CT1 LS in Rel-15 5GS\_Ph1-CT To:SA2, RAN2, RAN3 Cc:CT4

=> Noted

[R2-1804215](file:///C:\Data\3GPP\Extracts\R2-1804215_R1-1803351.doc) Reply LS on PHR (R1-1803351; contact:NTT DOCOMO) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

=> Noted

[R2-1804216](file:///C:\Data\3GPP\RAN2\Docs\R2-1804216.zip) LS on NR UE feature list (R1-1803480; contact: NTT DOCOMO, AT&T) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN, RAN2, RAN4 Cc:RAN3

=> Noted

[R2-1804217](file:///C:\Data\3GPP\Extracts\R2-1804217_R1-1803510.doc) LS on time domain resource allocation (R1-1803510; contact: Nokia) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

- Nokia thinks this is still to be captured

- DOCOMO think the time domain allocated is included in the common configuration

=> Noted

[R2-1804219](file:///C:\Data\3GPP\RAN2\Docs\R2-1804219.zip) LS on L1 parameters (R1-1803530; contact: Ericsson) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

=> Noted

[R2-1804220](file:///C:\Data\3GPP\Extracts\R2-1804220_R1-1803537.doc) LS on Simultaneous PDSCH Reception with Paging (R1-1803537; contact: Qualcomm) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

- Ericsson think the DCI contains either these 3 bits or it contains the assignment for a paging message. Think the network can choose to contact the connected UEs at a later stage. Chairman thinks in LTE the UE can choose its paging occasion in connected and it might choose at unlucky locations.

- LG think sometime the network will need to use dedicated signalling if it can’t send the SI notification on DCI.

- Nokia wonder what was the motivation for this agreement.

=> Offline discussion to conclude whether there is any impact to RAN2. (Offline discussion #12, Qualcomm)

- Update from offline: P-RNTI can only schedule short or long message. Understand that the restriction in RAN1 is to avoid UE decoding PDSCH for paging all the time. If a lot of idle mode UEs need to be paged then either a paging or an SI update notification needs to be delayed

[R2-1804221](file:///C:\Data\3GPP\Extracts\R2-1804221_R1-1803538.doc) LS on UE HARQ Capability (R1-1803538; contact: Qualcomm) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

- DOCOMO think that RAN1 have not concluded to have a capability.

- Huawei think this is a UE behaviour but not a capability. Nokia think the consequence would be that we cannot mix eMBB and URLLC.

=> Noted

[R2-1804222](file:///C:\Data\3GPP\Extracts\R2-1804222_R1-1803540.doc) Reply LS on Clarifications in MAC (BWP inactivity timer) (R1-1803540; contact: MediaTek) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

=> Noted

[R2-1804223](file:///C:\Data\3GPP\Extracts\R2-1804223_R1-1803541.doc) LS on Simultaneous PDSCH Reception with System Information (R1-1803541; contact: Qualcomm) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

- Nokia wonder what is the consequence on ETWS, CMAS etc, Qualcomm think the RAN1 agreements doesn’t forbid a UE from receiving SI.

- Nokia suggest to RAN1 what we want to achieve. Qualcomm think it is simply impossible in the case of FR2.

- LG think a smart network can solve the problems by sending messages at appropriate times.

- Ericsson think this is still being discussed in RAN1

=> Offline discussion to consider how this would impact our specs and how we could reply to RAN1. (Offline discussion #13, Qualcomm)

- Update from offline: For impact on ETWS 4 companies think the RAN1 agreement has not impact. 2 companies think there is an impact. Almost all companies think it is not necessary to add a UE capability to inform the network about the support of simultaneous reception. Hence nothing for RAN to do.

- Ericsson think for FR1 there is no issue. For FR2 ETWS delivered cannot be ensured by broadcast until dedicated delivery is used.

=> SI reception for in dedicated for FR2 (e.g. for ETWS case) can be considered further at the next meeting

R2-1806444 Reply LS on Simultaneous PDSCH Reception with Paging Qualcomm Incorporated LS out Rel-15 To:RAN1 NR\_newRAT-Core

=> Correct PDDCH

=> Correct the next meetings

=> Approved in R2-1806500

[R2-1806474](file:///C:\Data\3GPP\Extracts\R2-1806474_offline%20discussion%20%2313-Impact%20of%20simultaneous%20reception%20of%20PDSCH%20with%20SI-Summary.doc) Offline discussion #13: impact of simultaneous reception of PDSCH with system information nQualcomm Incorporated discussion

=> Noted

[R2-1804226](file:///C:\Data\3GPP\RAN2\Docs\R2-1804226.zip) LS on SpCell selection in gNB-CU/DU configuration (R3-181535; contact: Nokia) RAN3 LS in Rel-15 NR\_newRAT-Core To:RAN2

- Nokia thinks there is an impact on the inter-node messages but more checking is needed.

=> Offline discussion to check the impact in RAN2 specs and draft response LS in [R2-1806376](file:///C:\Data\3GPP\Extracts\R2-1806376%20-%20Reply%20LS%20on%20SpCell%20selection%20in%20gNB-CUDU.docx) (Offline discussion #14, Nokia)

[R2-1806376](file:///C:\Data\3GPP\Extracts\R2-1806376%20-%20Reply%20LS%20on%20SpCell%20selection%20in%20gNB-CUDU.docx) [DRAFT] Reply LS on SpCell selection in gNB-CU/DU configuration Nokia LS out Rel-15 NR\_newRAT-Core To:RAN3

=> Approved

[R2-1804227](file:///C:\Data\3GPP\Extracts\R2-1804227_R3-181557.doc) Reply LS on coexistence between RRC inactive and dual connectivity (R3-181557; contact: Ericsson) RAN3 LS in Rel-15 5GS\_Ph1 To:SA2, RAN2

=> Noted

[R2-1804229](file:///C:\Data\3GPP\Extracts\R2-1804229_R4-1802690.doc) Reply LS on clarification in MAC (R4-1802690; contact: Huawei) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2 Cc:RAN1

=> Noted

[R2-1804231](file:///C:\Data\3GPP\Extracts\R2-1804231-R4-1802708.doc) LS reply on UE RF related parameters, capabilities and features for NR standalone ( R4-1802708; contact: NTT DOCOMO) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2 Cc:RAN1, RAN3

- Qualcomm things the NS handling was ambiguous. Should we have a cleaner approach for NR. DOCOMO think it would be good to consider cleaner approaches.

=> Noted

[R2-1804233](file:///C:\Data\3GPP\Extracts\R2-1804233_R4-1803122.doc) LS reply on UE baseband processing capability (R4-1803122; contact: Intel) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2 Cc:RAN1

=> Noted

[R2-1804235](file:///C:\Data\3GPP\Extracts\R2-1804235_R4-1803254.doc) LS reply on In-Device Coexistence solution for EN-DC (R4-1803254; contact: NTT DOCOMO) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2

- Vivo there are also issues of interference to NR DL that are not covered by the current solution. DOCOMO understand that the RAN4 response say the same IDC issues also in the EN-DC.

- Ericsson think that IDC should not cover the intermod interfering to the DL as we have the 1tx solution for that. DOCOMO agree that or IDC the issue involves other systems.

=> Noted

[R2-1804236](file:///C:\Data\3GPP\Extracts\R2-1804236_R4-1803276.doc) Reply LS on NR Idle Mode Measurements (R4-1803276; contact: CMCC) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2 Cc:RAN1

=> Noted

[R2-1804238](file:///C:\Data\3GPP\Extracts\R2-1804238_R4-1803363.doc) LS on signalling on intra-band NC CA (R4-1803363; contact: NTT DOCOMO) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2

=> Noted

[R2-1804243](file:///C:\Data\3GPP\Extracts\R2-1804243_R4-1803506.doc) LS reply on LTE measurement gap patterns for SSTD measurement (R4-1803506; contact: Ericsson) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2

- Qualcomm wonder if there are any conditions when this mechanism can be used. It seems to be using the EN-DC capability but it is not clear exactly what capability is used. And also wonder if we will eventually have gap assisted measurements.

=> Noted

[R2-1804244](file:///C:\Data\3GPP\Extracts\R2-1804244_R4-1803563.doc) Reply LS on Baseband Processing Capabilities (R4-1803563; contact: Qualcomm) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2

- Qualcomm think it is already captured apart from the maximum channel bandwidth for the single carrier case. DOCOMO think for the single BW case the signalling is not needed as all current bandwidths are mandatory. Qualcomm think RAN2 way forward still requested signalling.

=> Noted

[R2-1804245](file:///C:\Data\3GPP\RAN2\Docs\R2-1804245.zip) LS on UE feature list (R4-1803564; contact: NTT DOCMO, Intel) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN1, RAN2 Cc:RAN3

=> Noted

[R2-1804246](file:///C:\Data\3GPP\Extracts\R2-1804246_R4-1803570.doc) Acquisition of N\_(TA\_Offset) for Uplink Transmission (R4-1803570; contact: Ericsson) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2 Cc:RAN1

=> Noted

[R2-1804250](file:///C:\Data\3GPP\RAN2\Docs\R2-1804250.zip) LS on NR UE feature list ([RP-180596](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180596.zip); contact: NTT DOCOMO) RAN LS in Rel-15 NR\_newRAT-Core To:RAN1, RAN2, RAN4 Cc:RAN3

- DOCOMO things this doesn’t affect ASN1 but only 38.306 to capture mandatory or optional.

=> Noted

[R2-1804251](file:///C:\Data\3GPP\Extracts\R2-1804251_RP-180598.doc) LS on optimisation of UE capability signalling ([RP-180598](file:///C:\Data\3GPP\Extracts\R2-1804251_RP-180598.doc); contact: Deutsche Telekom, Vodafone) RAN LS in Rel-15 TEI15 To:SA, RAN2 Cc:SA2, RAN3, CT1

- Vivo think SA2 agreed today that they will not do it for release 15. Vodafone think it may still be possible for us to introduce a mechanism that only affects RAN2/3.

=> Noted

[R2-1804252](file:///C:\Data\3GPP\RAN2\Docs\R2-1804252.zip) LS on Summary of email discussion “[ITU-R AH 01] Calibration for self-evaluation (RT-180011; contact: Huawei) RAN ITU-R Ad Hoc LS in Rel-15 FS\_5G\_eval To:RAN, RAN1, RAN2, RAN4

=> Noted

[R2-1804255](file:///C:\Data\3GPP\RAN2\Docs\R2-1804255.zip) LS reply to LS from RAN WG2: LS on QoS (S2-182856; contact: Ericsson) SA2 LS in Rel-15 NR\_newRAT-Core To:RAN2, CT1, RAN3

- OPPO wonder if we should discuss the remapping issue in RAN2.

- Ericsson think we can go ahead without discussion based on the use of 6 bits. MediaTek have the same understanding. Nokia also agree but think we might still need a flow ID remapping mechanism.

- Huawei think the mapping of flows to down to 64 could be in CN or in the RAN and RAN2 could discuss it. MediaTek think a possible SA2 outcome is they also go for a 6bit QFI field and then nothing is needed in RAN2. Samsung think we know we have 64 flows at most and the Flow ID remapping is a SA2 discussion

=> QoS flow remapping between DRB is RAN2 issue to be discussed in UP session

=> Flow ID remapping (to the 6bits used in RAN) requires input from SA2, and we wait for their input.

[R2-1804256](file:///C:\Data\3GPP\RAN2\Docs\R2-1804256.zip) LS on 5G-S-TMSI code space (S2-182964; contact: Ericsson) SA2 LS in Rel-15 5GS\_Ph1 To:RAN2, RAN3 Cc:CT1, CT4

- LG wonder why with slice info included in MSG5 does slicing also need the S-TMSI space to be increased. Ericsson explain the info requested in MSG5 and what the CN supports are different things and S-TMSI relates to the slice support in the network

=> Noted

[R2-1804259](file:///C:\Data\3GPP\RAN2\Docs\R2-1804259.zip) LS response on User Plane Security Policy (S2-182787; contact: Qualcomm) SA2 LS in Rel-15 5GS\_Ph1 To:SA3, RAN2, RAN3 Cc:CT3

=> Noted

[R2-1806352](file:///C:\Data\3GPP\Extracts\R2-1806352_R5-182107.doc) LS on IMS Voice over NR in EN-DC (R5-182107; contact: Qualcomm) RAN5 LS in Rel-15 5GS\_NR\_LTE-UEConTest To:RAN2 Cc:CT1

- Qualcomm understand that this should not impact IMS PDN that are not for voice.

- Qualcomm think the capabilities just indicate that the UE is optimised to handle voice traffic over the bearer but it should not be used to reject the bearers.

- Samsung thinks the UE must just follow the network command as it doesn’t know what the bearer will be used for.

=> Respond to RAN5 to clarify exactly what the capability means (to be discussed offline) and that the UE should not reject the bearer setup for any of the cases described where the bearer is used for IMS services other than voice.

=> Draft response in [R2-1806377](file:///C:\Data\3GPP\Extracts\R2-1806377.doc) (Offline discussion #15, Qualcomm)

[R2-1806377](file:///C:\Data\3GPP\Extracts\R2-1806377.doc) [DRAFT] Response LS on IMS Voice over NR in EN-DC Qualcomm Incorporated LS out Rel-15 5GS\_NR\_LTE-UEConTest To:RAN5

=> Approved in R2-1806478

[R2-1806358](file:///C:\Data\3GPP\RAN2\Docs\R2-1806358.zip) LS on L2 measurement specification for NR in R15 (S5-182574; contact: Ericsson) SA5 LS in Rel-15 NETSLICE-ADPM5G To:RAN2 Cc:RAN1

- Huawei think we agreed not to discuss the L2 measurements in R15.

- Ericsson these measurements are much simpler than the measurements we discussed last time. And we could look offline and give feedback.

- CMCC think we can agree this temporary way of working as these are critical to have in R15.

- Vivo think the measurements will be difficult to conclude in RAN2.

- Huawei have a similar understanding as Vivo. Think we have no time to do this.

- LG also prefer not to change our previous agreement.

- Verizon assume that we should be able to agree some measurements during this week

=> Offline discussion to see which measurements can be quickly agreed. If any need a lot of discussion we can feed back to SA5 that we can’t conclude them for R15.

=> Draft response in R2-1806378 (Offline discussion #16, Ericsson)

R2-1806378 [DRAFT][Response LS on [R2-1806358](file:///C:\Data\3GPP\RAN2\Docs\R2-1806358.zip)] Ericsson LS out Rel-15 NR\_newRAT-Core To:SA5 Cc:RAN1

=> Postponed to the next meeting

Liaisons to RAN2 with copy of agreements to take into account

[R2-1804214](file:///C:\Data\3GPP\Extracts\R2-1804214_R1-1803350.doc) Reply LS on Clarifications in MAC (DELTA\_PREAMBLE) (R1-1803350; contact: Ericsson) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN2

[R2-1804240](file:///C:\Data\3GPP\Extracts\R2-1804240_R4-1803466.doc) LS reply to RAN1 on P\_0 ranges on UL power control (R4-1803466; contact: Huawei) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN1, RAN2

[R2-1804242](file:///C:\Data\3GPP\Extracts\R2-1804242_R4-1803498.doc) Reply LS on field length of Pcmax,c and PHR (R4-1803498; contact: NTT DOCOMO) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN2

=> All above LSs noted without presentation

[R2-1804239](file:///C:\Data\3GPP\Extracts\R2-1804239_R4-1803441.doc) Reply LS on NR SS Raster Shift for Frequency Range 0-2700MHz (R4-1803441; contact: ZTE) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN1, RAN2

- ZTE think this might mean that we need to remove the frequency offset from SIB1

=> Can be discussed offline and ASN.1 aligned when the conclusion is clear from any discussion in this week's RAN1.

Liaisons with RAN2 in CC

[R2-1804224](file:///C:\Data\3GPP\Extracts\R2-1804224_R1-1803549.doc) LS on SRS switching (R1-1803549; contact: Qualcomm) RAN1 LS in Rel-15 NR\_newRAT-Core To:RAN4 Cc:RAN2

[R2-1804230](file:///C:\Data\3GPP\Extracts\R2-1804230_R4-1802691.doc) Reply LS on NR interworking with GSM and UMTS (R4-1802691; contact: Huawei) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN Cc:SA1, SA2, RAN2, RAN3, RAN4, RAN5, RAN6, SA, CT

[R2-1804234](file:///C:\Data\3GPP\Extracts\R2-1804234_R4-1803174.doc) LS on SFTD measurement before EN-DC (R4-1803174; contact: Huawei) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN1 Cc:RAN2

[R2-1804249](file:///C:\Data\3GPP\Extracts\R2-1804249_RP-180590.doc) LS on secured Signalling-only connection ([RP-180590](file:///C:\Data\3GPP\Extracts\R2-1804249_RP-180590.doc); contact: Nokia) RAN LS in Rel-15 NR\_newRAT-Core To:RAN3, SA2, SA3 Cc:RAN2, SA

[R2-1804258](file:///C:\Data\3GPP\Extracts\R2-1804258_S2-183025.doc) LS on Allowed NSSAI indication to RAN (S2-183025; contact: Ericsson) SA2 LS in Rel-15 5GS\_Ph1 To:RAN3 Cc:RAN2

=> All above LSs noted without presentation

[R2-1804237](file:///C:\Data\3GPP\Extracts\R2-1804237_R4-1803283.doc) LS on BWP switching delay (R4-1803283; contact: Intel) RAN4 LS in Rel-15 NR\_newRAT-Core To:RAN1 Cc:RAN2

- Ericsson think we had assumed shorter times than in this LS. And it also says there will be additional time before the UE can receive PDCCH.

=> Noted

New LS in (during RAN2#101bis)

[R2-1806392](file:///C:\Data\3GPP\RAN2\Docs\R2-1806392.zip) LS on security aspects of supporting LTE connected to 5GC (C1-182485; contact: Qualcomm) CT1 LS in Rel-15 To:RAN2 Cc:RAN3, SA3 5GS\_Ph1-CT

[R2-1806393](file:///C:\Data\3GPP\Extracts\R2-1806393_C1-182603.doc) LS on UE capability related to integrity protection of DRBs (C1-182603; contact: Qualcomm) CT1 LS in Rel-15 To:RAN2, SA2 Cc:RAN3, SA3 5GS\_Ph1-CT

[R2-1806417](file:///C:\Data\3GPP\Extracts\R2-1806417_R1-1805657.doc) Reply LS on Message 3 size for NR RAN WG

- Huawei think that RAN1 did not consider phy layer repetitions so wonder if RAN1 can increase coverage.

- Ericsson think we have much wider bandwidths and wonder if they considered this.

- Vodafone care that NR should provide equivalent coverage to LTE in the same spectrum. We should look at our agreement and see what we can reduce in MSG3 and think we have scope to optimise the size.

- DOCOMO almost agree with Vodafone. Think RAN1 compared to assumption of Rel8 LTE.

- DOCOMO remind that even in LTE we have the ability to support different MSG3 sizes and we should consider those first.

=> Offline discussion to try to conclude what we do with this information and whether we need to revisit any of our agreements. Focus the discussion first on the content of the Resume Request, then RRC Connection Request (MAC header may be relevant for both cases) (Offline discussion #40, Huawei, Thursday morning coffee break)

- Update from offline: 2 LS will be sent to RAN1, ask then to consider a slightly larger size, and RAN3, to ask if the gNB ID size can be reduced.

[R2-1806471](file:///C:\Data\3GPP\Extracts\R2-1806471%20offline%2340%20Evaluation%20of%20MSG3%20size.doc) [Summary of offline#40] Huawei discussion

[R2-1806472](file:///C:\Data\3GPP\Extracts\R2-1806472%20LS%20to%20RAN1%20on%20MSG3%20for%20NR.doc) [DRAFT] Reply LS on MSG3 size for NR Huawei LS out Rel-15 To:RAN1 NR\_newRAT-Core

=> Remove "Also, RAN 2 would request RAN1 to consider if there are any optimizations possible to enhance the message 3 size support with same coverage as LTE."

=> Change action to " RAN2 respectfully asks RAN1 to take the above into account"

=> Approved in R2-1806501

[R2-1806473](file:///C:\Data\3GPP\Extracts\R2-1806473%20Draft%20LS%20to%20RAN3%20MSG3%20size%20reduction.doc) [DRAFT] LS on MSG3 size reduction Huawei LS out Rel-15 To:RAN3 NR\_newRAT-Core

=> Approved in R2-1806502

[R2-1806447](file:///C:\Data\3GPP\Extracts\R2-1806447_S3-181448.doc) Reply LS to LS on Security aspects of supporting LTE connected to 5GC (S3-181448; contact: Qualcomm) SA3 LS in Rel-15 To:RAN2 Cc:CT1 NR\_newRAT-Core

=> Noted

[R2-1806392](file:///C:\Data\3GPP\RAN2\Docs\R2-1806392.zip) LS R2-1804108 on security aspects of supporting LTE connected to 5GC from RAN2 CT1 LS i

=> Noted

=> Both LSs from SA3 and CT1 should be considered to see if there is any further actions required in RAN2 to ensure consistency and allows independent evolution of algorithms. Contributions can be submitted to the next meeting.

[R2-1806448](file:///C:\Data\3GPP\Extracts\R2-1806448_S2-184501.doc) Reply LS on 5G-S-TMSI (S2-184501; contact: Ericsson) SA2 LS in Rel-15 To:RAN2 Cc:CT1, RAN3, CT4 5GS\_Ph1, NR\_newRAT-Core, LTE\_5G-CN

=> Noted

[R2-1806421](file:///C:\Data\3GPP\Extracts\R2-1806421_S3-181450.doc) Reply LS on security for inactive state (S3-181450; contact: Huawei) SA3 LS in Rel-15 To:RAN2 5GS\_Ph1-SEC

- ZTE think one impact is that if the algorithm has to be changed then the resume must be rejected and fall back to setup.

* [101bis#xx][NR] Discussion of inactive security LS (Huawei)

Discuss the 3 requirements in SA3 LS and check that they can all be addressed by the working assumption for the security in inactive. Draft LS to SA3 to explain how the requirements are addressed. If requirements cannot be addressed then further discussion to take place at next meeting.

Intended outcome: LS to SA3

Deadline: Thursday 2018-05-03

Rapporteur inputs

[R2-1804394](file:///C:\Data\3GPP\Extracts\R2-1804394.docx) RAN WG’s progress on NR WI in the February meeting 2018 NTT DOCOMO, INC. (Rapporteur) discussion Rel-15 NR\_newRAT-Core

=> Noted

## 10.2 Stage 2 and common UP/CP aspects

### 10.2.1 Stage 2 TSs and running CR

TS 38.300, TS 37.340 rapporteur inputs (e.g. FFS lists, etc) and running CR to 36.300. Please submit proposed corrections to the appropriate agenda item.

[R2-1804906](file:///C:\Data\3GPP\Extracts\R2-1804906%20NR%20Stage%202%20Open%20Issues.docx) Stage 2 Open Issues Rapporteur (Nokia) discussion Rel-15 NR\_newRAT

=> Revised in [R2-1806181](file:///C:\Data\3GPP\Extracts\R2-1806181%20NR%20Stage%202%20Open%20Issues.docx)

[R2-1806181](file:///C:\Data\3GPP\Extracts\R2-1806181%20NR%20Stage%202%20Open%20Issues.docx) Stage 2 Open Issues Rapporteur (Nokia) discussion Rel-15 NR\_newRAT

=> Noted

[R2-1804905](file:///C:\Data\3GPP\Extracts\R2-1804905%20Stage%202%20Misc%20Corrections.doc) Miscellaneous Corrections Rapporteur (Nokia) CR Rel-15 38.300 15.1.0 0011 - F NR\_newRAT

=> Revised in R2-1806379 to address minor comments (Offline discussion #17, Nokia).

[R2-1806379](file:///C:\Data\3GPP\Extracts\R2-1806379%20Stage%202%20Misc%20Corrections.doc) Miscellaneous Corrections Rapporteur (Nokia) CR Rel-15 38.300 15.1.0 NR\_newRAT 0011 1 F

=> Agreed in principle

[R2-1805643](file:///C:\Data\3GPP\Extracts\R2-1805643%2037.340CR%20%20Further%20misc%20corrections.doc) Further miscellaneus corrections Rapporteur (ZTE Corporation) CR Rel-15 37.340 15.1.0 0012 - F NR\_newRAT-Core

=> Agreed in principle in R2-12-1806479

[R2-1805055](file:///C:\Data\3GPP\Extracts\R2-1805055.docx) Introduction of New Radio Access Technology in TS 36.300 NTT DOCOMO, INC., Rapporteur (Nokia) CR Rel-15 36.300 15.1.0 0998 4 B NR\_newRAT-Core [R2-1803742](file:///C:\Data\3GPP\Extracts\R2-1803742.docx) Late

=> Endorsed as the current version of running CR.

### 10.2.2 Stage 2 corrections for EN-DC

No documents should be submitted to 10.2.2. Please submit to 10.2.2.x.

#### 10.2.2.1 User plane

Corrections to 38.300 or 37.340 for EN-DC related to user plane or common UP/CP aspects (i.e. that should be discussed with both user plane control plane people present)

38.300 corrections

[R2-1804628](file:///C:\Data\3GPP\Extracts\R2-1804628%20NR%20CA%20model.docx) NR CA model MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

=> Noted

[R2-1804629](file:///C:\Data\3GPP\Extracts\R2-1804629%2038300v1510%20CR0010_(REL-15).doc) Clarification on NR Carrier Aggregation MediaTek Inc. CR Rel-15 38.300 15.1.0 0010 - F NR\_newRAT-Core

=> Agreed in principle

[R2-1805421](file:///C:\Data\3GPP\Extracts\38300_CR0015_R2-1805421%20-%20Corrections%20on%20deactivation%20of%20PUCCH%20SCell.docx) Corrections on deactivation of PUCCH SCell Ericsson CR Rel-15 38.300 15.1.0 0015 - F NR\_newRAT-Core

=> Agreed in principle

[R2-1805780](file:///C:\Data\3GPP\Extracts\38300_CR0018_(REL-15)_R2-1805780_CR%20for%20cell%20definition.doc) Addition of cell definition Huawei, HiSilicon CR Rel-15 38.300 15.1.0 0018 - F NR\_newRAT-Core

- Nokia think the definition in LTE applies but we don't need all the extra text.

- ZTE think we should have a cell definition and might have a different definition in idle and connected, but we need more discussion first.

- Samsung think we have not had a cell definition since 2000.

- DOCOMO think there is a definition 21.905 and it should probably be updated to make sure it covers NR.

=> Not agreed

37.340 corrections

[R2-1805238](file:///C:\Data\3GPP\Extracts\R2-1805238%20CR%2037.340%20Radio%20Protocol%20Architecture%20for%20non%20EN-DC%20clarification.doc) TS 37.340 CR to clarify the radio interface protocol architecture with SDAP Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

=> Agreed in principle

[R2-1806018](file:///C:\Data\3GPP\Extracts\R2-1806018%20SRB%20PDCP%20version%20change%20without%20mobilityContrlInfo.doc) Consideration on SRB’s PDCP version change without mobility Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

- ZTE wonder if there would be any stage 3 change. Think in stage 3 this is neither explicitly allowed or disallowed.

- Intel think normally SA3 use the algorithm ID in the ciphering algorithm but in this case SA3 did not decide to use the algorithm as an input. So this issue does exist. But wonder if the reconfiguration could be done before SMC.

- Qualcomm think that before SMC there is no service so there is no strong motivation to avoid the handover.

- Samsung's concern as latency increase due to handover.

=> Offline discussion to conclude. (Offline discussion #18, Qualcomm)

[R2-1806470](file:///C:\Data\3GPP\Extracts\R2-1806470%20Report%20of%20Offline%20Discussion%2018%20SRB%20PDCP%20version%20change%20without%20mobility.doc) Report of Offline Discussion #18 SRB PDCP version change without mobility Qualcomm

Agreements

1 SRB PDCP version change before SecurityModeCommand is always without mobility procedure

2 SRB PDCP version change after SecurityModeCommand is always with mobility procedure

=> TP agreed to be added to revision of CR in R2-1805643

[R2-1806019](file:///C:\Data\3GPP\Extracts\37.340_CR0013_R2-1806019%20removal%20of%20SRB's%20PDCP%20version%20change%20without%20mobility.doc) Removal of SRB’s PDCP version change without mobility Qualcomm Incorporated CR Rel-15 37.340 15.1.0 0013 - F NR\_newRAT-Core

[R2-1806129](file:///C:\Data\3GPP\Extracts\R2-1806129_CR%20on%20ENDC%20bearer%20type%20changes%20(37.340)_r2.docx) CR on EN-DC bearer type changes in TS 37.340 Samsung Electronics GmbH CR Rel-15 37.340 15.1.0 0014 - F NR\_newRAT-Core

- Intel think this was discussed before but the change is reasonable. ZTE agree

=> Agreed in principle

Other corrections (not stage 2 but impacting CP and UP)

[R2-1805844](file:///C:\Data\3GPP\Extracts\R2-1805844%20RRC-triggered%20BWP%20activation.docx) RRC-triggered BWP activation Samsung discussion Rel-15

- Nokia think the intent is that n/w can configure where the UE does RA for the PSCell. Why not use initial BWP and not add first active BWP. Samsung think the problem with initial BWP is that it is limited in BW. Huawei agree with Samsung and think we need to use first active BWP.

- Qualcomm support the proposal. This aim is also to give a unified solution for NSA and SA. For the SA case the network must not configure a wider BW for the initial BWP.

- Ericsson think there is mis-match between RAN1 and RAN2. Think the proposal is agreeable but it should be for all sync reconfig

- Nokia wonder why there is a BW limitation in the initial BWP. Think RAN1 created two terms for the same thing. ZTE have a similar view and proposed in the past to remove the first active BWP concept.

=> Offline discussion to conclude (Offline discussion #19, Samsung)

[R2-1806441](file:///C:\Data\3GPP\RAN2\Docs\R2-1806441.zip) Offline discussion #19 [RRC-triggered BWP activation and L1 parameters related issues] Samsung discussion Rel-15 NR\_newRAT-Core

=> At P/SCell addition and at HO it shall be possible that the UE immediately uses a BWP as configured by the network and not be limited to initially using the Initial BWP as in system information (which may be limited in bandwidth).

* [101bis#xx][NR] RRC triggered BWP activation (Samsung)

To ensure common understanding, and address how the RRC triggered BWP activation his is specified by the procedure text and whether there needs to be any change to the signalling.

Intended outcome: TP

Deadline: Thursday 2018-05-10

[R2-1805845](file:///C:\Data\3GPP\Extracts\R2-1805845%20Further%20considerations%20for%20bandwidth%20part.docx) Further considerations for bandwidth part Samsung discussion Rel-15

moved from 10.2.2.2 to 10.2.2.1

- Huawei think for SUL RAN1 agreed that the UE can have an active BWP in both the UL and SUL. Intel ask if the question only for the first RACH when SCell is added. Samsung think this is not just about the case of initial random access.

- Qualcomm think this does need to be clarified. Think the first active BWP could be indicated in just one of SUL and UL.

- Huawei think there is no issue for SCell activation and network can give PDCCH order after activation.

- Vivo wonder if SUL requires 2 active BWPs for periodical transmissions.

- OPPO think if nothing is given to the UE the carrier selection will be based on threshold

- IDC think everything is clear and nothing needs to be clarified.

=> Noted

[R2-1806005](file:///C:\Data\3GPP\Extracts\R2-1806005_Disc%20on%20release%20of%20CSI%20reporting%20resources_r2.doc) Discussion on release of CSI reporting resources NTT DOCOMO INC. discussion Rel-15

- Nokia think there is nothing to be released in this case. DOCOMO agree for aperiodic case but for semi persistent there are resources to be released.

- Nokia see no need to release entire CSI-ReportConfig when TAT expires. There is nothing reserved in the network side and the network can reconfigure the UE if it wants.

- Ericsson think the release of any configuration is not needed.

- ZTE think when TAT expires the UE should not report but the UE keeps the configuration and avoid having to reconfigure.

=> Noted

[R2-1805427](file:///C:\Data\3GPP\Extracts\R2-1805427%20-%20Notification%20Control.docx) Notification control Ericsson discussion Rel-15 NR\_newRAT-Core

=> Noted

Optimisations

[R2-1805995](file:///C:\Data\3GPP\Extracts\R2-1805995%20Support%20for%20TM%20DRB.docx) Support for TM DRB LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805996](file:///C:\Data\3GPP\Extracts\R2-1805996%2038323_CR(0005)_(REL-15)_Introducing%20TM%20DRB%20in%20PDCP.docx) Introducing TM DRB in PDCP LG Electronics Inc. CR Rel-15 38.323 15.1.0 0005 - B NR\_newRAT-Core

[R2-1805997](file:///C:\Data\3GPP\Extracts\R2-1805997%2038322_CR(0006)_(REL-15)_Introducing%20TM%20DRB%20in%20RLC.docx) Introducing TM DRB in RLC LG Electronics Inc. CR Rel-15 38.322 15.1.0 0006 - B NR\_newRAT-Core

#### 10.2.2.2 Other

Corrections to 38.300 or 37.340 for EN-DC other than those that fall into 10.2.2.2

[R2-1804941](file:///C:\Data\3GPP\Extracts\R2-1804941%20The%20guidance%20of%20how%20to%20measure%20secondary%20RAT%20data%20volume%20for%20EN-DC.doc) The guidance of how to measure secondary RAT data volume for EN-DC Fujitsu discussion Rel-15 NR\_newRAT-Core

=> We leave the " The guidance of how to measure secondary RAT data volume for EN-DC will be described in TS 37.340" as agreed last meeting to be discussed in RAN3.

=> Draft LS to RAN3 in R2-1806383 (Offline discussion #20, Fujitsu)

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[R2-1806383](file:///C:\Data\3GPP\Extracts\R2-1806383%20-%20LS%20on%20secondary%20RAT%20data%20volume%20counting.doc) [DRAFT] LS on secondary RAT data volume counting for EN-DC Fujitsu LS out Rel-15 NR\_newRAT-Core To:RAN3

=> Approved in R2-1806481

[R2-1806141](file:///C:\Data\3GPP\Extracts\R2-1806141_CR%20on%20ENDC%20reconfiguration%20via%20SRB3%20(37.340)_r2.docx) CR on EN-DC reconfiguration procedure via SRB3 in TS 37.340 Samsung Electronics GmbH CR Rel-15 37.340 15.1.0 0015 - F NR\_newRAT-Core

=> Agreed in principle

### 10.2.3 Stage 2 corrections for non EN-DC

Correction 38.300 or 37.340 not related to EN-DC

[R2-1804463](file:///C:\Data\3GPP\Extracts\R2-1804463%20Further%20discussion%20on%20information%20for%20handover.doc) Further discussion on information for handover Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1802468](file:///C:\Data\3GPP\Extracts\R2-1802468%20Further%20discussion%20on%20information%20for%20handover.doc)

- Vivo think the number should be 32 instead of 31 but think it is not needed in stage 2.

- Huawei think the principle is to follow the number from SCG change.

- Samsung think the key issue to decide is whether the source or target node decides the target cell for HO. Assume we should follow LTE where the source selects and the target can overrule.

- Ericsson think if one is provided then it is clear the source is selecting and the target can accept or not. If we provide more than one then the target can select among them.

- Samsung think that additional info would have to be provided for the cells , security info and not just measurements.

- LG suggest we don’t need to optimise for R15 and the source can decide a single cell.

=> FFS: Whether the source gNB decides a single target cell for HO, or the source gNB can provide a list of target cells for HO and the target gNB decides the target cell for HO.

=> FFS to be discussed offline (Offline discussion #21, Huawei)

[R2-1806415](file:///C:\Data\3GPP\RAN2\Docs\R2-1806415.zip) Candidate Cell Determination for HO Huawei report Rel-15 NR\_newRAT-Core

Agreements

1: For HO preparation, the source gNB selects the one candidate PCell for HO and the target gNB accept or rejects the HO preparation (as in LTE). The source gNB can provide additional preparation information including security information to be possibly used in the event of re-establishment (as in LTE). (This doesn’t change the previous agreements on provision of measurement information)

[R2-1804610](file:///C:\Data\3GPP\Extracts\R2-1804610.docx) TP to 38.300 on Cell-Defining SSB MediaTek Inc. discussion

- ZTE think we need some text on cell defining SSB. Wonder what is the reference between cell ID and SSBs in a wideband carrier.

=> Offline discussion produce appropriate text for stage 2 to describe the cell defining SSB. CR to 38.300 to be provided in R2-1806384 (CR# to be provided by MCC,) (Offline discussion #22, MediaTek)

[R2-1806384](file:///C:\Data\3GPP\Extracts\R2-1806384.docx) CR to TS38.300 for CD-SSB MediaTek CR Rel-15 38.300 NR\_newRAT-Core 0023 F

* [101bis#xx][NR] SSB and Cell relationship (ZTE)

Establish a common understanding regarding the relation between cell and SSB for idle and connected UEs. Draft TP to stage 2 to ensure clarity of the specifications.

Intended outcome: Report and draft TP to next meeting

Deadline: Thursday 2018-05-10

[R2-1804907](file:///C:\Data\3GPP\Extracts\R2-1804907%20Stage%202%20Paging.doc) Paging Mechanisms Nokia, Nokia Shanghai Bell, OPPO CR Rel-15 38.300 15.1.0 0012 - F NR\_newRAT

=> Agreed in principle

[R2-1804991](file:///C:\Data\3GPP\Extracts\R2-1804991%20-%20TP%20to%2038300%20on%20System%20Information.docx) TP to 38.300 on System Information Ericsson discussion

- Samsung think the SIBs is not needed in stage 2. Ericsson think it was there in LTE and give a good overview.

=> Revise final para of scheduling section.

=> Add text to reflect that DCI can indicate SI change.

=> To be included in the rapporteur CR. Detail comments can also be addressed offline.

[R2-1805109](file:///C:\Data\3GPP\Extracts\R2-1805109%20Clarification%20on%20the%20maximum%20number%20of%20DRBs%20configured%20for%20CA%20duplication.docx) Clarification on the maximum number of DRBs configured for CA duplication MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

- CATT think this needs to be discussed in the user plane as it assumes the same bit map for both CGs.

- Vodafone ask why the limit of 8. MediaTek think it was agreed for DC to be 8 and there is not use case to do more for CA.

- LG is ok with the proposal but wonder of the SCG knows if a bearer is configured for duplication by the MCG. So first need to decide if the situation in the other node must be node.

- Samsung agree with MediaTek. Vivo also agree and think more than 8 would also impact the buffer size requirement

- Nokia would prefer to avoid coordination between MN and SN and so would support 16.

- Huawei think that even for the DC case some coordination is needed.

=> Noted

[R2-1805873](file:///C:\Data\3GPP\Extracts\R2-1805873%20Correction%20to%20RA%20on%20SCell%20for%20TA%20alignment%20in%20TS%2038.300.doc) Correction to RA on SCell for TA alignment in TS 38.300 Huawei, HiSilicon CR Rel-15 38.300 15.1.0 0020 - F NR\_newRAT-Core

=> Only add "to establish time alignment at SCell addition" to the list of cases for which RA can be performed in the current stage 2

=> Can be included in the rapporteur CR.

[R2-1805679](file:///C:\Data\3GPP\Extracts\R2-1805679%20Remaining%20clarifications%20on%20Slice%20Assistance%20Information%20with%20TP.docx) Remaining clarifications on Slice Assistance Information with TP Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

moved from 10.2.2.2 to 10.2.3

=> Removed " instances simultaneously "

=> Agreed in principle in [R2-1806385](file:///C:\Data\3GPP\Extracts\R2-1806385%20Slicing%20assistance%20information.doc)

Withdrawn

[R2-1805819](file:///C:\Data\3GPP\Extracts\R2-1805819%20Correction%20to%20RA%20on%20SCell%20for%20TA%20alignment%20in%20TS%2038.300.doc) Correction to RA on SCell for TA alignment in TS 38.300 HUAWEI TECH. GmbH CR Rel-15 38.300 15.1.0 0019 - F NR\_newRAT-Core Withdrawn

### 10.2.4 Mobility - RLM,RLF

Any remaining stage 2 aspects of radio link monitoring procedure and criteria for declaring radio link failure, including impact of beam failure/recovery. This AI will be discussed after receiving input from RAN1 on the questions we asked.

Maximum 1 tdoc per company

[R2-1806054](file:///C:\Data\3GPP\Extracts\R2-1806054%20%20Discussion%20on%20aperiodic%20indications%20from%20beam%20failure%20recovery%20related%20with%20RLF.doc) Discussion on aperiodic indications from beam failure recovery related with RLF Samsung Electronics discussion [R2-1802459](file:///C:\Data\3GPP\Extracts\R2-1802459%20%20Discussion%20on%20aperiodic%20indications%20from%20beam%20failure%20recovery%20to%20assist%20RLF.doc)

P1

- Vivo support the proposal.

- Samsung think one concern of the low period of the periodic in sync. But LTE has a same situation in LTE. Think if BFR is successful but the periodic indication still indicate out of sync is a situation that should not happen.

- Ericsson think both cases discussed are optimisation because RLM running on periodic indications is running anyway. Would prefer it to be configurable whether the network wants to use it or not as it would be risky to direct to RLF.

- OPPO support the proposal as it is an optimisation to use the success indication.

- LG also support the proposal.

- ZTE think we should as much as possible to keep beam management out of RRC. If we don’t agree this then we risk that RRC is involved. Nokia agree with ZTE and think that the beam and RLM measurements are based on different RSs so it is not safe to rely only on the beam failure success.

- Huawei think Nokia comments suggest that BFR doesn't work if there could still be RL problems after the recovery.

- Ericsson think the BFR is useless unless it can reliably result in a good radio link that can avoid RLF.

- MediaTek think if the some indication is needed if the RSs are different. Maybe the configurable is a good approach.

- CMCC support that the indication is used by RRC.

P2

- Nokia think in this case if the RACH fails then we already have the case that it is indicated to upper layers and triggers an RLF. So alt 2 is already supported by MAC.

- ZTE think the RACH for BFR will be triggered and when it fails the only indication is RACH failure and this will trigger RLF but there is no differentiation between this and any other RACH failure. The question would be whether RRC needs to differentiate between this case and other RACH failures, and report to the network.

- MediaTek think that BFR different from other RACH failures and so it is important to differentiate in RRC.

- Intel think we have not yet discussed the need for an RLF cause to be reported to the network.

- LG think in the past we have never differentiated different RACH failure cases before. It is not essential to do this for R15.

- Nokia think it might be useful for the network to know the reason but not essential.

- ZTE think if the cause was indicated then the network could provide a different beam configuration after the RLF

- ZTE ask if UE continues to receive anything on DL after BFR. Ericsson thinks the UE will keep monitoring the DL and doing RLM.

- Ericsson think the case where beam failure results in the UE finding no beam on which to attempt recovery is not covered in this case. Samsung think if no beam is detected then UE will attempt CBRA.

- ZTE think there might be a case where RLM is good but RACH cannot be performed.

Agreements:

1: No aperiodic indication of a successful beam recovery will be reported to RRC.

2: BFR failure will result in a RACH failure reported to RRC and will trigger RRC to perform either re-establishment or SCG failure. This is already the behaviour according to the current MAC and RRC specs (nothing extra to specify)

[R2-1805201](file:///C:\Data\3GPP\Extracts\R2-1805201-%20Discussion%20of%20RLF%20caused%20by%20beam%20failure%20recovery.doc) Discussion of RLF caused by beam failure recovery Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1805380](file:///C:\Data\3GPP\Extracts\R2-1805380%20-%20Beam%20recovery%20impact%20to%20RLF%20triggering.docx) Beam recovery impact to RLF triggering Ericsson discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.4.1 to 10.2.4

[R2-1804477](file:///C:\Data\3GPP\Extracts\R2-1804477_Discussions%20on%20the%20IS%20and%20OOS%20counting%20procedure.doc) Discussions on the IS and OOS counting procedure Spreadtrum Communications discussion Rel-15 [R2-1801975](file:///C:\Data\3GPP\Extracts\R2-1801975_Discussions%20on%20the%20IS%20and%20OOS%20counting%20procedure.doc)

[R2-1804582](file:///C:\Data\3GPP\Extracts\R2-1804582_RLM%20RLF%20in%20NR.doc) RLM/RLF in NR vivo discussion Rel-15 NR\_newRAT-Core [R2-1802083](file:///C:\Data\3GPP\Extracts\R2-1802083_RLM%20RLF%20in%20NR.doc)

[R2-1804612](file:///C:\Data\3GPP\Extracts\R2-1804612.docx) RLF Report in NR MediaTek Inc. discussion

[R2-1804924](file:///C:\Data\3GPP\Extracts\R2-1804924%20BFR_RLF.docx) Impact of Beam Failure Recovery on RLF related actions Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core [R2-1802071](file:///C:\Data\3GPP\Extracts\R2-1802071_Impact%20of%20Beam%20Failure%20Recovery%20on%20RLF%20related%20actions.docx)

[R2-1805957](file:///C:\Data\3GPP\Extracts\R2-1805957%20-%20Beam%20Failure%20and%20RLM.docx) Impact of beam failure and recovery on RLM procedures AT&T discussion

### 10.2.5 Mobility - Inter-RAT

Any remaining stage 2 aspect of connected mode mobility between NR and E-UTRA, including capturing of agreements from RAN2#101 in the specification.

[R2-1804464](file:///C:\Data\3GPP\Extracts\R2-1804464%20TP%20on%20message%20content%20in%20inter-RAT%20handover.doc) TP on Message content in inter-RAT handover Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

=> TP to be revised to cover all agreements from last meeting and also check consistent level of coverage compared to LTE stage 2.

=> Revised in R2-1806386 (Offline discussion #23, Huawei)

[R2-1806386](file:///C:\Data\3GPP\Extracts\R2-1806386%20TP%20for%20TS%2038.300%20on%20inter-RAT%20handover.doc) TP on Message content in inter-RAT handover Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

=> Some tidy up to be done

=> To be submitted as a CR to the next meeting

[R2-1804465](file:///C:\Data\3GPP\Extracts\R2-1804465%20Inter-RAT%20handover%20between%20LTE%20and%20NR.doc) Inter-RAT handover between LTE and NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1802479](file:///C:\Data\3GPP\Extracts\R2-1802479%20Inter-RAT%20handover%20between%20LTE%20and%20NR.doc)

[R2-1804589](file:///C:\Data\3GPP\Extracts\R2-1804589_Discussion%20on%20supporting%20delta%20configuration%20and%20TP%20for%20inter-RAT%20mobility.doc) Discussion on supporting delta configuration and TP for inter-RAT mobility vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804802](file:///C:\Data\3GPP\Extracts\R2-1804802%20-%20UE%20context%20handling%20at%20IRAT%20handover.docx) UE context handling during inter RAT handover Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805833](file:///C:\Data\3GPP\Extracts\R2-1805833%20NR%20inter-RAT%20mobility%20to%20CSG%20cell.doc) NR inter-RAT mobility to CSG cell LG Electronics Inc. discussion Rel-15 [R2-1802121](file:///C:\Data\3GPP\Extracts\R2-1802121%20NR%20inter-RAT%20mobility%20to%20CSG%20cell.doc)

### 10.2.6 Security (non EN-DC)

Any remaining stage 2 aspects of security for cases other than EN-DC. Including addressing the FFS points from RAN#101 on reporting of DRB IP failure to the network

DRB IP check failure

[R2-1805023](file:///C:\Data\3GPP\Extracts\R2-1805023_DRB-IP_NR.docx) Integrity protection failure reporting for DRBs Intel Corporation, ZTE Corporation discussion Rel-15 NR\_newRAT-Core

- Nokia agree with the analysis and are not aware of any SA3 requirements to report anything so we don't need to do anything for R15.

- LG don’t understand why CRC failure is cause of security failure. Intel explain the case is CRC not detecting a radio error.

- Qualcomm think this might make sense from security point of view. But we need to think of the HFN desync case.

- Vodafone would like to double check with SA3, so if this is agreed then we should send LS to SA3.

- Ericsson think we have an opportunity to use this for HFN desync. Also the network might need to know there is an attack happening. For a persistent attach the network could have a configurable parameter.

- DOCOMO think it is helpful for network to know if there is a fake gNB in the network. Also understand there is a GSMA LS about fake node B.

- Vivo also agree with Ericsson and that discarding resolves part of the problem.

- OPPO think we have already agreed that the packet will be discarded and wonder if the discard will impact the QoS. Think some information to the network will be useful.

- ZTE think it is not easy to reliably detecting the cause is HFN desync or security attack is not possible. This mechanism should focus on the security aspects.

- Samsung think some reporting to the network is useful.

- Lenovo agree with the proposal.

- LG share the view of Ericsson.

- Sony think it is useful for the network to know but the timing is not important. For HFN desync we can rely on other mechanism.

- Huawei wonder why we would not inform the network.

- Nokia think with the data rate limit we will not end up with a useful mechanism at the end of the day. This is more like an MDT like mechanism.

- Ericsson think that including COUNT information can help the network detect the HFN desync.

- Intel think if we define a mechanism then we must ensure that the network receives it, and this will add complexity.

- Broadcom think that reporting to the network is a problem. A fake gNB can cause extra signalling to the network. We should not do this without asking SA3.

- Vodafone support Broadcom's proposal.

- Qualcomm think the only security requirement from SA3 is to discard.

=> Send LS to SA3 to inform them that we have discussed proposal for reporting DRB IP failure to the network but could not reach consensus. Ask if SA3 have requirements for reporting the failure and explain a reporting mechanism can be defined they have such requirements.

=> Draft LS in R2-1806387 (Offline discussion #24, Intel)

[R2-1806387](file:///C:\Data\3GPP\Extracts\R2-1806387-LS_IP_reporting%20_v3.doc) [DRAFT] LS on reporting Integrity check failure for DRB to network Intel LS out Rel-15 To:SA3 Cc:SA1, SA2 NR\_newRAT-Core

=> Approved in R2-1806490

[R2-1804795](file:///C:\Data\3GPP\Extracts\R2-1804795%20-%20Handling%20of%20UP%20integrity%20protection%20failure.docx) Handling of UP integrity protection failure Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804262](file:///C:\Data\3GPP\Extracts\R2-1804262%20Mechanism%20of%20Report%20DRB%20IP%20check%20failure.docx) Mechanism of Report DRB IP check failure CATT discussion [R2-1801825](file:///C:\Data\3GPP\Extracts\R2-1801825.docx) Late

[R2-1804554](file:///C:\Data\3GPP\Extracts\R2-1804554-Discussion%20on%20DRB%20IP%20failure%20handling%20and%20data%20recovery.doc) Discussion on DRB IP failure handling and data recovery OPPO discussion Late

[R2-1804604](file:///C:\Data\3GPP\Extracts\R2-1804604_UE%20Behavior%20and%20indication%20DRB%20IP%20check%20failure.doc) UE Behavior and indication of DRB IP check failure vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804605](file:///C:\Data\3GPP\Extracts\R2-1804605_Draft%20LS%20on%20DRB%20integrity%20check%20failure%20indication.doc) Draft LS on DRB integrity check failure indication vivo LS out Rel-15 NR\_newRAT-Core To:RAN3

[R2-1805164](file:///C:\Data\3GPP\Extracts\R2-1805164_DRB%20IP%20check.doc) HFN desync and DRB IP check failure reporting Sony discussion Rel-15 NR\_newRAT-Core

[R2-1805989](file:///C:\Data\3GPP\Extracts\R2-1805989_DRB_IP_Check_Failure.doc) UE behaviour for DRB IP Check Failure Samsung discussion

[R2-1805994](file:///C:\Data\3GPP\Extracts\R2-1805994_DRB%20integrity%20verification%20failure%20handling.docx) DRB integrity verification failure handling LG Electronics Inc. discussion NR\_newRAT-Core

Other

[R2-1804908](file:///C:\Data\3GPP\Extracts\R2-1804908%20Security%20Principles%20for%20SA.docx) Security Principles for Stand Alone Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

=> Noted

[R2-1804909](file:///C:\Data\3GPP\Extracts\R2-1804909%20Stage%202%20Security.doc) Security Mechanisms Nokia, Nokia Shanghai Bell CR Rel-15 38.300 15.1.0 0013 - F NR\_newRAT

- Qualcomm wonder why we need to repeat information from SA3 instead of referencing.

- Nokia explain the intention is to align with LTE and also similar approach as for QoS, etc

=> Some detail comments to be addressed offline

=> Revised in R2-1806388 (Offline discussion #25, Nokia)

[R2-1806388](file:///C:\Data\3GPP\Extracts\R2-1806388%20Stage%202%20Security.doc) Security Mechanisms Nokia, Nokia Shanghai Bell CR Rel-15 38.300 15.1.0 0013 1 F NR\_newRAT

=> Agreed in principle

[R2-1805538](file:///C:\Data\3GPP\Extracts\R2-1805538.doc) Stage 2 corrections on security Huawei, HiSilicon CR Rel-15 38.300 15.1.0 0016 - F NR\_newRAT-Core

- Nokia prefer the number to be in 36.306. Huawei think this is a NAS capability so 306 might not be the correct place.

- Qualcomm think this is a system requirement and so should be captured by 38.300

=> The text should not be a note. Can be merged into an appropriate location in the CR in R2-1806388

[R2-1804399](file:///C:\Data\3GPP\Extracts\R2-1804399%20UP%20Security%20activation%20deactivation.doc) UP Security activation/deactivation ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

- Nokia think that for R15 we could still assume per PDU session for activation of ciphering.

- LG think the DRBs of one PDU session should be configured in the same way and we should avoid that option. Ericsson also agreed that there is no need to differentiate between DRBs of a session. Samsung also agree and even for SRBs it should be consistent. Intel also prefer consistent configuration from the network

P4

- Intel wonder why the network would ever need to change the security configuration. LG also think it should be the same for the lifetime of the DRB.

- Huawei think with the preferred security policy it is necessary for the network to be able to change it. Nokia think this is needed as the RAN has to manage the data rate limitation for DRB IP

- ZTE think the CN can change the security policy.

- Lenovo think if the policy doesn't change often we can use release and add.

- Vodafone is concerned that disabling might have security risks. Would like to check with SA3.

- OPPO wonder if a policy change has to be applied immediately or next RRC connection would be ok. Samsung agree that if this is infrequent the release and add can be used. ZTE think it might be needed to release and add many DRBs.

Agreements

1: In RRC signalling the encryption [On Off] should be added in the PDCP-config (i.e. per RB) (as for DRB IP)

2 The DRBs associated to a PDU session should be configured with encryption in a consistent way. SRBs should be configured with encryption in a consistent way.

3 The SRB security configuration (encryption) and DRB security configuration (IP and encryption) does not change in the lifetime of the RB (if there is a change needed then release and add of DRB is available)

[R2-1804400](file:///C:\Data\3GPP\Extracts\R2-1804400%20Ensuring%20that%20the%20UE%20supported%20Max%20data%20rate%20for%20integrity%20protection.doc) Ensuring that the UE supported Max data rate for integrity protection is not exceeded ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1805534](file:///C:\Data\3GPP\Extracts\R2-1805534.doc) Integrity protection and Counter Check Procedure for NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805539](file:///C:\Data\3GPP\Extracts\R2-1805539.doc) Re-establishment upon integrity check failure Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1802801](file:///C:\Data\3GPP\Extracts\R2-1802801.doc)

[R2-1805540](file:///C:\Data\3GPP\Extracts\R2-1805540.doc) [DRAFT] LS to SA3 on re-establishment upon integrity check failure Huawei LS out Rel-15 NR\_newRAT-Core [R2-1802802](file:///C:\Data\3GPP\Extracts\R2-1802802.doc) To:SA3

[R2-1806017](file:///C:\Data\3GPP\Extracts\38300_CR0021_R2-1806017%20DRB-IP%20data%20rate%20requirement.doc) Clarification on DRB-IP aggregated data rate requirement Qualcomm Incorporated CR Rel-15 38.300 15.1.0 0021 - F NR\_newRAT-Core

### 10.2.7 Positioning

Report from NR positioning session

[R2-1806414](file:///C:\Data\3GPP\Extracts\R2-1806414.docx) Notes of session on NR Positioning Session Chair (Huawei) report Rel-15 NR\_newRAT-Core

=> Approved

[R2-1805562](file:///C:\Data\3GPP\Extracts\R2-1805562_(38305%20clean-up).doc) TP for TS 38.305 Qualcomm Incorporated discussion

[R2-1805263](file:///C:\Data\3GPP\Extracts\R2-1805263%20On%20the%20addition%20of%20NR%20CID%20to%20LPP.docx) On the addition of NR CID to LPP Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805011](file:///C:\Data\3GPP\Extracts\R2-1805011_%20Support%20of%20inter%20RAT%20E-CID.doc) Support of inter RAT E-CID Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805264](file:///C:\Data\3GPP\Extracts\R2-1805264%20On%20timing%20reference%20configuration%20for%20NR%20device%20support%20of%20E-UTRAN%20OTDOA.docx) On timing reference configuration for NR device support of E-UTRAN OTDOA Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805563](file:///C:\Data\3GPP\Extracts\R2-1805563_(Draft%20CR%2036355%20Support%20for%20NR).doc) Draft CR 36.355: Addition of NR Support Qualcomm Incorporated draftCR Rel-15 36.355 14.5.1 B NR\_newRAT-Core

[R2-1805262](file:///C:\Data\3GPP\Extracts\R2-1805262%20CR%2036.355%20on%20NR%20CID%20addition%20to%20LPP.docx) NR CID addition to LPP Ericsson CR Rel-15 36.355 14.5.1 0198 - B NR\_newRAT-Core

[R2-1805541](file:///C:\Data\3GPP\Extracts\R2-1805541.doc) Impact of NR positioning on LPP Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805880](file:///C:\Data\3GPP\Extracts\R2-1805880%20Support%20NR%20positioning%20for%20dual%20connectivity.docx) Support NR positioning for dual connectivity LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

### 10.2.8 NG-EN DC

Stage 2 aspects of NG-EN-DC. NG-EN-DC is targetted for the Release-15 late drop to be completed in December 2018. It will be treated with lower priority than EN-DC corrections and standalone at this meeting and may not be discussed. However, contributions may be submitted to this AI for the purpose of sharing views and offline discussion.

[R2-1804378](file:///C:\Data\3GPP\Extracts\R2-1804378%20Discussion%20on%20the%20QoS%20aspects%20for%20MR-DC.doc) Discussion on the QoS aspects for MR-DC ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804397](file:///C:\Data\3GPP\Extracts\R2-1804397%20Measurement%20and%20gap%20configuration%20framework%20in%20NGEN-DC.docx) Measurement and gap configuration framework in NGEN-DC ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804402](file:///C:\Data\3GPP\Extracts\R2-1804402%20SCG%20configuration%20handling%20during%20resumption%20and%20suspension%20for%20MR-DC.doc) SCG configuration handling during resumption and suspension for MR-DC ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804606](file:///C:\Data\3GPP\Extracts\R2-1804606_%20Remaining%20issues%20on%20NGEN-DC.doc) Remaining issues on NGEN-DC vivo discussion Rel-15 NR\_newRAT-Core

[R2-1805047](file:///C:\Data\3GPP\Extracts\R2-1805047-NG-EN-DC.docx) NG-EN-DC architecture discussion Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805283](file:///C:\Data\3GPP\Extracts\R2-1805283.doc) Discussion on the PDCP version of SRBs for NGEN-DC Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805284](file:///C:\Data\3GPP\Extracts\R2-1805284.doc) CR on 37.340 for PDCP version of SRBs in NGEN-DC Huawei, HiSilicon CR Rel-15 37.340 15.1.0 0009 - F NR\_newRAT-Core

[R2-1805287](file:///C:\Data\3GPP\Extracts\R2-1805287.doc) DRB ID allocation for NE-DC and NGEN-DC Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805288](file:///C:\Data\3GPP\Extracts\R2-1805288.doc) User plane integrity protection check failure handling in SCG for MR-DC under 5GC Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805289](file:///C:\Data\3GPP\Extracts\R2-1805289.doc) CR to 36.331 on UP IP check failure handling in SCG for NGEN-DC Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3334 - B NR\_newRAT-Core

[R2-1805290](file:///C:\Data\3GPP\Extracts\R2-1805290.doc) CR to 38.331 on UP IP check failure handling in SCG for NGEN-DC Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0031 - B NR\_newRAT-Core

[R2-1805291](file:///C:\Data\3GPP\Extracts\R2-1805291.doc) CR to 37.340 on UP IP check failure handling in SCG for MR-DC under 5GC Huawei, HiSilicon CR Rel-15 37.340 15.1.0 0011 - B NR\_newRAT-Core

[R2-1805296](file:///C:\Data\3GPP\Extracts\R2-1805296.doc) Security support for NE-DC Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805297](file:///C:\Data\3GPP\Extracts\R2-1805297.doc) DRAFT LS on Security aspect of NE-DC Huawei, HiSilicon LS out NR\_newRAT-Core To:SA3

[R2-1805430](file:///C:\Data\3GPP\Extracts\R2-1805430%20-%20QoS%20Flow%20Relocation%20between%20MN%20and%20SN.docx) QoS Flow Relocation in between MN and SN Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805644](file:///C:\Data\3GPP\Extracts\R2-1805644.doc) Considerations on Stage 2 aspect for NGEN-DC ZTE Corporation, Sanechips discussion Rel-15 NR\_newRAT-Core

### 10.2.9 NE-DC

Stage 2 aspects of NE- DC. NE- DC is targetted for the Release-15 late drop to be completed in December 2018. It will be treated with lower priority than EN-DC corrections and standalone at this meeting and may not be discussed. However, contributions may be submitted to this AI for the purpose of sharing views and offline discussion.

[R2-1804398](file:///C:\Data\3GPP\Extracts\R2-1804398%20Measurement%20and%20gap%20configuration%20framework%20in%20NE-DC.docx) Measurement and gap configuration framework in NE-DC ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804607](file:///C:\Data\3GPP\Extracts\R2-1804607_%20Remaining%20issues%20on%20NE-DC.doc) Remaining issues on NE-DC vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804703](file:///C:\Data\3GPP\Extracts\R2-1804703%20Bearer%20handling%20in%20NR-E-UTRA%20Dual%20Connectivity.doc) Bearer handling in NR-E-UTRA Dual Connectivity Samsung R&D Institute India discussion Rel-15 [R2-1802202](file:///C:\Data\3GPP\Extracts\R2-1802202%20Bearer%20handling%20in%20NR-E-UTRA%20Dual%20Connectivity.doc)

[R2-1805046](file:///C:\Data\3GPP\Extracts\R2-1805046-NE-DC.docx) Architectural discussions on NE-DC Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805448](file:///C:\Data\3GPP\Extracts\R2-1805448%20-%20NR%20RRC%20design%20principles%20for%20NE-DC.docx) NR RRC design principles for NE-DC Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805449](file:///C:\Data\3GPP\Extracts\R2-1805449%20-%20MCG%20RLF%20handling%20in%20case%20of%20NE-DC%20(TP%20to%2037.340).docx) MCG RLF handling in case of NE-DC (TP to 37.340) Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805450](file:///C:\Data\3GPP\Extracts\R2-1805450%20-%20Support%20of%20SRB3%20for%20NE-DC.docx) Support of SRB3 for NE-DC Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805451](file:///C:\Data\3GPP\Extracts\R2-1805451%20-%20NE-DC%20measurement%20principles.docx) NE-DC measurement principles Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805645](file:///C:\Data\3GPP\Extracts\R2-1805645.doc) Considerations on Stage 2 aspect for NE-DC ZTE Corporation, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1806125](file:///C:\Data\3GPP\Extracts\R2-1806125_Design%20consideration%20for%20NE-DC.doc) High level RRC design consideration for NE-DC Samsung Electronics GmbH discussion

### 10.2.10 Other

Other stage 2 aspects for standalone

Mobility enhancements (previously agenda item 10.32.7) are not essential standalone functionality and are being discussed as part of the RAN plenary Rel-16 scoping activity. Please to not submit documents relating to mobility enhancements.

As per guideance from RAN#79 ([RP-180554](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180554.zip)) NR-NR DC specific aspects will not be discussed in RAN2 during Q2 2018. Please to not submit documents relating specifically to NR-NR DC.

5G-S-TMSI - Joint discussion for NR and LTE/5GC (Response to SA2 LS in [R2-1804256](file:///C:\Data\3GPP\RAN2\Docs\R2-1804256.zip))

[R2-1805577](file:///C:\Data\3GPP\Extracts\R2-1805577%20Discussion%20on%20the%20size%20of%205G-S-TMSI.doc) Discussion on the size of 5G-S-TMSI Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

P1

- Ericsson agree that the same length should be supported in LTE and NR but think it could be 40bits.

- Vodafone think if we go for one length for LTE and NR then it means we will go for 40 bits. Think we need to be careful before going to 48bits.

- Nokia think we should have the same size in LTE and NR but see no reason to limit the size.

- ZTE think SA2 should decide and we just need to tell them if it is feasible. Even the issue of same size is up to LTE.

- Intel agree that we can just follow what SA2 needs.

- Qualcomm also agrees that if 48 bits is required we can handle it.

- Ericsson think agreeing the same size could cause LTE limitations to be imposed on NR.

- Huawei think we need to explain the impact from RAN2 point from RAN2 point of view of increasing the size.

- LG think if MSG3 size is increased then we can increase the contention resolution size.

- Intel think even if MSG3 size can be increase we would then need to consider the contention resolution size.

- Samsung think there is no size issue with the contention resolution size.

=> Noted

[R2-1804858](file:///C:\Data\3GPP\Extracts\R2-1804858.docx) Impact from 48 bit 5G-S-TMSI (LTE and NR) Ericsson discussion Rel-15 NR\_newRAT-Core

P1

- Huawei think that S-TMSI in LTE can also be used for overload control to see if the target CN node is overloaded. With a random value this would be lost. If we always include the CN part of the 5G-S-TMSI then the UE ID part will be smaller and contention will be higher.

- LG think the legacy S-TMSI can already be included in MSG5, and we can just add the extra part also in MSG5.

- Vodafone think the starting point is that the MSG3 size should not be touched and we can then always send extra bits in MSG5.

- Nokia support the proposal and think the random value could be used.

- Intel think that random value in MSG3 increases the total size of information needed across MSG3 and MSG5. Hence would prefer a truncating solution. Also me might need to increase MSG3 for resume request.

- Qualcomm agree the proposal and also think the Intel comment makes sense.

- ZTE think this proposal shows that it is feasible.

- Huawei think things are possible but there are still technical issues to address so we can’t yet say it is feasible.

Agreements

1 Final decision on 5G-S-TMSI size is an SA2 decision

2 Reply to SA2 that it is feasible to increase the 5G-S-TMSI size (from 40 bits to 48bits) for LTE and NR. Indicate that there are some impacts to LTE and NR specs to support it and RAN2 is continuing to discuss to conclude the final approach to be taken.

=> Draft LS in [R2-1806374](file:///C:\Data\3GPP\Extracts\R2-1806374%20%20-%20Draft%20Reply%20LS%20on%205G-S-TMSI.docx) (Offline discussion #09, Ericsson). Can request to receive a response during this week.

=> Offline discussion to try to progress solution for carrying 5G-S-TMSI in LTE, assuming that LTE MSG3 size remains at 40bits, at least to identify the main options even if a final solution cannot be selected (Offline discussion #10, Ericsson)

[R2-1806475](file:///C:\Data\3GPP\Extracts\R2-1806475.docx) Offline discussion report on [101#10][LTE/5GC] 5G-S-TMSI size in LTE connected to 5GC Ericsson discussion Rel-15 LTE\_5GCN\_connect-Core

Agreements

1 Part of 5G-S-TMSI as identifier in RRCConnectionRequest message and signal the rest of 5G-S-TMSI in msg5.

[R2-1806374](file:///C:\Data\3GPP\Extracts\R2-1806374%20%20-%20Draft%20Reply%20LS%20on%205G-S-TMSI.docx) [DRAFT] Reply LS on 5G-S-TMSI Ericsson LS out Rel-15 NR\_newRAT-Core To:CT1 Cc:SA2, RAN3, CT4

=> Add " for both NR and LTE connected to 5GC " to the first sentence of the answer

=> Add LTE/5GC WI code

=> Approved in [R2-1806394](file:///C:\Data\3GPP\Extracts\R2-1806394%20%20-%20Reply%20LS%20on%205G-S-TMSI.docx)

[R2-1805578](file:///C:\Data\3GPP\Extracts\R2-1805578%20Draft%20Reply%20LS%20on%20the%20size%20of%205G-S-TMSI.doc) Draft reply LS for the size of 5G-S-TMSI Huawei, HiSilicon LS out Rel-15 NR\_newRAT-Core To:SA2, CT1, CT4

[R2-1804861](file:///C:\Data\3GPP\Extracts\R2-1804861.docx) Draft reply LS to SA2 on 5G-S-TMSI Ericsson LS out Rel-15 NR\_newRAT-Core To:SA2

[R2-1805049](file:///C:\Data\3GPP\Extracts\R2-1805049-5G-S-TMSI.docx) Extending 5G-S-TMSI to 48 bits Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1804883](file:///C:\Data\3GPP\Extracts\R2-1804883_Discussion%20on%20the%20larger%20space%20of%205G-S-TMSI%20in%20NR.doc) Discussion on the larger space of 5G-S-TMSI in NR vivo discussion Rel-15 NR\_newRAT-Core

Extending TAC - Joint discussion for NR and LTE/5GC (Response to RAN3 and CT1 LSs)

[R2-1805048](file:///C:\Data\3GPP\Extracts\R2-1805048_TAC.docx) Supporting 2 and 3 byte TACs for 5GC Intel Corporation discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.3.9 to 10.2.10

P3

- Ericsson prefer to just have 3 octets for the 5GC case.

- Huawei think it is not RAN2 to decide the final size and we should let RAN3/SA2 conclude.

- Vivo think the 3 octet TAC only was agreed by RAN3 and approved by RAN.

Agreements

1: RAN2 response: RAN2 has agreed to broadcast a separate TACs for the 5GC PLMNs. Hence eNB will broadcast two TACs for each PLMN connected to both EPC and 5GC, one for E-UTRA connected to EPC and for E-UTRA connected to 5GC. This applies for the RAN sharing case and the non RAN sharing case.

2: Respond to RAN3, CT1, SA2, CT4 that while RAN2 specifications can be extended to support 3 octet 5GC TAC for LTE and NR RRC, it requires extensions to LTE RRC signalling. A combination of 2 and 3 Octet for LTE RRC is also feasible but RAN2 is of the opinion that introducing both 3 and 2 octet 5GC TACs for NR may bring additional complexity in the future and should be considered only if there is a strong motivation.

=> Draft LS in [R2-1806375](file:///C:\Data\3GPP\Extracts\R2-1806375-Resp_LS_TAC_size_v1.doc) (Offline discussion #11, Intel)

[R2-1806375](file:///C:\Data\3GPP\Extracts\R2-1806375-Resp_LS_TAC_size_v1.doc) [DRAFT] Reply LS on Extending TAC for NR and NG-RAN Intel LS out Rel-15 NR\_newRAT-Core To:CT1, RAN3 Cc:SA2, CT4

=> Use 5GC

=> Undo the deletion of the 'but' in the last sentence.

=> Change " LTE connected to 5GS and NR RRC " to " NR and LTE connected to 5GC"

=> In response to SA2 change the 'will' to 'is able to'

=> Approved in [R2-1806395](file:///C:\Data\3GPP\Extracts\R2-1806395-Resp_LS_TAC_size_v2.doc)

[R2-1805579](file:///C:\Data\3GPP\Extracts\R2-1805579%20Discussion%20on%20Extending%20TAC%20for%20NR%20and%20NG-RAN.doc) Discussion on Extending TAC for NR and NG-RAN Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805580](file:///C:\Data\3GPP\Extracts\R2-1805580%20Draft%20reply%20LS%20on%20Extending%20TAC%20for%20NR%20and%20NG-RAN.doc) Draft reply LS on Extending TAC for NR and NG-RAN Huawei, HiSilicon LS out Rel-15 NR\_newRAT-Core To:RAN3, CT1, CT4

[R2-1805359](file:///C:\Data\3GPP\Extracts\R2-1805359%20-%20Extended%20TAC%20discussion.docx) Extended TAC discussion Ericsson discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.7.3 to 10.2.10

[R2-1805360](file:///C:\Data\3GPP\Extracts\R2-1805360%20-%20Draft%20Reply%20LS%20on%20Extending%20TAC%20for%20NR%20and%20NG-RAN.docx) DRAFT Reply LS on Extending TAC for NR and NG-RAN Ericsson LS out Rel-15 NR\_newRAT-Core To: RAN3 Cc:SA2, CT1, CT4

moved from 10.4.1.7.3 to 10.2.10

Emergency service fallback

[R2-1804862](file:///C:\Data\3GPP\Extracts\R2-1804862.docx) Emergency Voice fallback from NR to LTE Ericsson discussion Rel-15 NR\_newRAT-Core

- Huawei still don't understand why this is needed as the UE has the necessary information from the NAS layer.

- Samsung think this is not about selecting a suitable cell but about selecting a suitable core and the NAS is responsible to select the core. After the redirection the NAS will choose the correct core for the emergency call.

- Intel think we can HO to the 2 cores so it would be good to support redirection to the 2 cores.

- Ericsson think the NAS procedures will not select the core to be used for the emergency call. Ericsson explain the intention is that the cell selection is the same as today and then this information is provided to tell the UE which core to use for the emergency call.

- Lenovo think SA2 have agreed a CR that the redirect should be to a particular CN.

- Qualcomm think SA2's indication from the CN to RAN could be used for frequency or cell selection by RAN, but not that it needs to be given to the UE.

- LG have the same understanding as Lenovo

=> Offline checking of what SA2 have agreed and whether they expect the information to be passed to the UE . (Offline discussion #26, Ericsson)

- Update from offline:

[R2-1806476](file:///C:\Data\3GPP\Extracts\R2-1806476.docx) Offline discussion report on [101bis#26][LTE/5GC] CN indication from AMF to RAN during emergency fall back procedure Ericsson discussion NR\_newRAT-Core

=> The topics is to be discussed again at the next meeting

[R2-1805576](file:///C:\Data\3GPP\Extracts\R2-1805576%20Inter-RAT%20mobility%20from%20NR%20to%20LTE.doc) Inter-RAT mobility from NR to EUTRA HTC Corporation discussion Rel-15

Voice

[R2-1805710](file:///C:\Data\3GPP\Extracts\R2-1805710.doc) Discussion on the user plane overhead of VoNR HUAWEI TECH. GmbH discussion Rel-15 NR\_newRAT-Core

=> Discussed in user plane session

[R2-1805711](file:///C:\Data\3GPP\Extracts\R2-1805711.docx) Draft LS on user plane overhead for VoIP packet HUAWEI TECH. GmbH LS out Rel-15 NR\_newRAT-Core To:RAN1 Cc:SA4

moved from 10.2.5 to 10.2.10

Other

[R2-1804370](file:///C:\Data\3GPP\Extracts\R2-1804370%20Clarification%20on%20the%20Cell%20ID%20for%20wideband%20carrier%20with%20multiple%20SSBs.docx) Clarification on the Cell ID for wideband carrier with multiple SSBs ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

- Intel think we need to think from the UE perspective - if they are configured the same are they considered as the same cell or different cells. Think they should be different cells from UE point of view.

- Ericsson think the wideband carrier with multiple SSBs is from the network perspective.

- Qualcomm also wonder about the L2 cell identity.

- MediaTek think we also need to consider the BWP operation.

- LG assume whatever is decided we should not change agreements about SI reception connect mode.

Proposal 1: RAN2 is kindly asked to confirm whether the same Cell ID is allowed for the multiple SS Blocks within the wideband carrier.

Proposal 2: LS should be sent to RAN3 to indicate that when operating on a wideband carrier:

− From the perspective of RAN2, each SS Block associated with the corresponding RMSI can be modelled as individual cells broadcast with different information both in the Idle/Inactive state and CONNECTED state;

− From the perspective of RAN2, the multiple SS Blocks within the wideband carrier can be allowed to be associated with different individual Cell IDs;

− From RAN2 perspective, whether the multiple SS Blocks within the wideband carrier associated with the same or different Cell IDs has no impact on RAN2 procedure (Note: this bullet depends on the confirmation of Propsoal1 and should be revised correspondingly);

Agreements

1 From the network perspective, if RMSI is provided for different SSBs (with same or different PCIs) in a wideband carrier then the RMSI associated with the different SSBs will have different CGIs. (i.e. they are potentially cell defining SSBs)

FFS: Whether this has any consequence for system information reception in connected mode.

2 Reconfirm that there can be different SSBs within a wideband carrier from the network perspective. These SSBs can have the same or different PCIs. From the UE perspective, for RRM purposes the different SSBs (irrespective of PCI) are considered as different cells (i.e. different MOs are considered as different cells from UE perspective)

=> FFS point to be discussed offline

=> Draft LS to RAN3 to inform them of our agreements to be provided in R2-1806390 (Offline discussion #27, ZTE)

[R2-1806390](file:///C:\Data\3GPP\Extracts\R2-1806390%20LS%20to%20RAN3%20on%20different%20CGIs%20for%20different%20SSBs.docx) [DRAFT] LS on different CGIs for different SSBs ZTE LS out Rel-15 To:RAN3 NR\_newRAT-Core

=> Start second para with " RAN2 agreed that different SSBs with RMSI define different individual cells "

=> Remove " RAN2 would also like to highlight that, for a UE in Connected state, the overall bandwidth of the cell defined by a given SSB can be different (larger) than the "Initial Bandwidth Part" associated to the SSB. "

=> Revised in R2-1806491

[R2-1806491](file:///C:\Data\3GPP\Extracts\R2-1806491%20LS%20to%20RAN3%20on%20different%20CGIs%20for%20different%20SSBs.docx) [DRAFT] LS on different CGIs for different SSBs ZTE LS out Rel-15 To:RAN3 NR\_newRAT-Core

=> Remove " in a PLMN "

=> Approved in R2-1806503

[R2-1806102](file:///C:\Data\3GPP\RAN2\Docs\R2-1806102.zip) Remaining essential issue for NR SA Handover Samsung, OPPO, KT Corp., KDDI, SK Telecom, ETRI, Lenovo&Motorola Mobility, LG, Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core Late

=> Revised in [R2-1806445](file:///C:\Data\3GPP\RAN2\Docs\R2-1806445.zip)

[R2-1806445](file:///C:\Data\3GPP\RAN2\Docs\R2-1806445.zip) Remaining essential issue for NR SA Handover Samsung, OPPO, KT Corp., KDDI, SK Telecom, ETRI, Lenovo&Motorola Mobility, LG, Qualcomm Incorporated, Verizon Wireless, ITL discussion Rel-15 NR\_newRAT-Core

[R2-1804291](file:///C:\Data\3GPP\Extracts\R2-1804291%20Ping%20Pong%20for%20CO%20HO.doc) Ping Pong Issues for Conditional Handover TCL discussion NR\_newRAT-Core [R2-1801935](file:///C:\Data\3GPP\Extracts\R2-1801935%20Ping%20Pong%20for%20CO%20HO.doc)

[R2-1804591](file:///C:\Data\3GPP\Extracts\R2-1804591_Clarification%20on%20the%20application%20scenario%20for%20conditional%20mobility.doc) Clarification on the application scenario for conditional mobility vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804596](file:///C:\Data\3GPP\Extracts\R2-1804596_Signaling%20procedure%20of%20SCell-failure%20report.docx) Signaling procedure of SCell-failure report vivo discussion Rel-15 NR\_newRAT-Core [R2-1802081](file:///C:\Data\3GPP\TSGR2\TSGR2_101\Docs\R2-1802081.zip)

[R2-1804616](file:///C:\Data\3GPP\Extracts\R2-1804616%20Remaining%20issues%20on%20Slice%20Selection%20Information%20over%20RRC.doc) Further Discussion on Slice Information over RRC Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804617](file:///C:\Data\3GPP\Extracts\R2-1804617%20Slice-based%20Unified%20Access%20Control.doc) Slice-based Unified Access Control Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804618](file:///C:\Data\3GPP\Extracts\R2-1804618%20What%20is%20RAN%20part%20of%20a%20network%20slice.doc) What is RAN part of a network slice ? Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804859](file:///C:\Data\3GPP\Extracts\R2-1804859.docx) RAN Sharing and identifier aspects in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805038](file:///C:\Data\3GPP\Extracts\R2-1805038.doc) IDC framework for NR SA Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805204](file:///C:\Data\3GPP\Extracts\R2-1805204%20Dedicated%20PRACH%20resource%20for%20beam%20failure%20recovery%20v2.doc) Dedicated PRACH resource for beam failure recovery Lenovo, Motorola Mobility discussion Rel-15 NR\_newRAT-Core [R2-1703060](file:///C:\Data\3GPP\Extracts\36355_CR0168_(Rel-14)_R2-1703060%20LPP%20corrections%20for%20feMTC.doc)

[R2-1805533](file:///C:\Data\3GPP\Extracts\R2-1805533.docx) Discussion on RAN support of edge computing in NR CMCC discussion Rel-15 NR\_newRAT-Core [R2-1803210](file:///C:\Data\3GPP\Extracts\R2-1803210%20Discussion%20on%20RAN%20support%20of%20edge%20computing%20in%20NR.docx)

[R2-1805706](file:///C:\Data\3GPP\Extracts\R2-1805706_ANR%20support%20in%20NR.docx) ANR support in NR Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1805709](file:///C:\Data\3GPP\Extracts\R2-1805709.doc) Discussion on voice enhancements in NR HUAWEI TECH. GmbH discussion Rel-15 NR\_newRAT-Core

[R2-1805712](file:///C:\Data\3GPP\Extracts\R2-1805712.doc) Introduction of some voice enhancements in TS 38.300 HUAWEI TECH. GmbH CR Rel-15 38.300 15.1.0 0017 - B NR\_newRAT-Core

[R2-1805846](file:///C:\Data\3GPP\Extracts\R2-1805846%20Connected%20mobility%20aspects%20to%20support%20network%20slicing.docx) Connected mobility aspects to support network slicing Samsung discussion Rel-15

[R2-1805936](file:///C:\Data\3GPP\Extracts\R2-1805936%20Handling%20of%20SRBs%20in%20re-establishment.doc) Handling of SRBs in connection re-establishment LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802738](file:///C:\Data\3GPP\Extracts\R2-1802738%20Handling%20of%20SRBs%20in%20re-establishment.doc)

[R2-1806055](file:///C:\Data\3GPP\Extracts\R2-1806055%20%20Discussion%20on%20C-DRX%20enhancement%20considering%20beamforming.doc) Discussion on C-DRX enhancement considering beamforming Samsung Electronics discussion [R2-1802460](file:///C:\Data\3GPP\Extracts\R2-1802460%20%20Discussion%20on%20NR%20C-DRX%20enhancement%20considering%20beamforming.doc)

[R2-1806056](file:///C:\Data\3GPP\Extracts\R2-1806056%20%20Suspension%20of%20UE%20to%20RRC_INACTIVE%20in%20MR%20dual%20connectivity.docx) Suspension of UE to RRC\_INACTIVE in MR dual connectivity Samsung Electronics discussion [R2-1802461](file:///C:\Data\3GPP\Extracts\R2-1802461%20%20UE%20suspension%20to%20RRC_INACTIVE%20in%20MR%20dual%20connectivity.docx)

[R2-1806105](file:///C:\Data\3GPP\Extracts\R2-1806105%20Secure%20signalling-only%20connection.doc) Secure signalling-only connection HTC Corporation discussion Rel-15

## 10.3 Stage 3 user plane

Documents in this agenda item will be handled in the NR user plane break out session

### 10.3.1 MAC

#### 10.3.1.1 TS

Latest TS 38.321, rapporteur inputs, etc

Editorial and small corrections/clarifications should be provided to the rapporteur. Single rapporteur TP is encouraged for editorials and clarifications.

[R2-1804571](file:///C:\Data\3GPP\RAN2\Docs\R2-1804571.zip) List of open issues on NR MAC Samsung (Rapporteur) discussion Rel-15 NR\_newRAT-Core

[R2-1804572](file:///C:\Data\3GPP\Extracts\38321_CR0057_(Rel-15)_R2-1804572.doc) Miscellaneous corrections Samsung (Rapporteur) CR Rel-15 38.321 15.1.0 0057 - F NR\_newRAT-Core

#### 10.3.1.2 MAC general aspects

Correction related to NR Unit, BWP and SUL general issues. Detailed functional corrections related to BWP and SUL should be submitted under corresponding function.

Including output of email discussion [101#68][NR UP/MAC] – BWP linkage – Ericsson

[R2-1804282](file:///C:\Data\3GPP\Extracts\R2-1804282.doc) Clarification on bwp-InactivityTimer and sCellDeactivationTimer ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804316](file:///C:\Data\3GPP\Extracts\R2-1804316_CR_Corrections%20for%20Handling%20BWP%20Inactivity%20Timer.doc) Corrections for Handling BWP Inactivity Timer Samsung Electronics Co., Ltd CR Rel-15 38.321 15.1.0 0042 - F NR\_newRAT-Core

[R2-1804317](file:///C:\Data\3GPP\Extracts\R2-1804317_CR_Corrections%20for%20Handling%20BWP%20Switching%20Command.doc) Corrections for Handling BWP Switching Command received during RA Procedure Samsung Electronics Co., Ltd CR Rel-15 38.321 15.1.0 0043 - F NR\_newRAT-Core

[R2-1804341](file:///C:\Data\3GPP\Extracts\R2-1804341_Discussion%20on%20BWP%20linkage%20Configuration.doc) Discussion on BWP linkage Configuration ITRI discussion NR\_newRAT-Core

[R2-1804410](file:///C:\Data\3GPP\Extracts\R2-1804410%20Beam%20failure%20recovery%20using%20MAC%20CE.doc) Beam failure recovery using MAC CE Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804411](file:///C:\Data\3GPP\Extracts\R2-1804411%20BWP%20issues%20for%20BFR.doc) BWP issues for BFR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804412](file:///C:\Data\3GPP\Extracts\R2-1804412%20Remaining%20issues%20for%20BWP%20inactivity%20timer.doc) Remaining issues for BWP inactivity timer Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804413](file:///C:\Data\3GPP\Extracts\38321_CR0045_(REL-15)_R2-1804413_Correction%20to%20BWP%20inactivity%20timer.doc) Correction to BWP inactivity timer Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0045 - F NR\_newRAT-Core

[R2-1804414](file:///C:\Data\3GPP\Extracts\R2-1804414%20RACH%20related%20BWP%20issues.doc) Remaining RACH related BWP issues Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804415](file:///C:\Data\3GPP\Extracts\38321_CR0046_(REL-15)_R2-1804415_Correction%20to%20HARQ%20feedback%20in%20CA.doc) Correction to HARQ feedback in CA Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0046 - F NR\_newRAT-Core

[R2-1804438](file:///C:\Data\3GPP\Extracts\R2-1804438%20-%20The%20issue%20for%20implicit%20BWP%20linkage.doc) The issue for implicit BWP linkage OPPO discussion

R2-1804478 CBRA in case of TAT expiry CATT discussion Late

[R2-1804479](file:///C:\Data\3GPP\Extracts\R2-1804479%20Multiple%20dedicated%20RACH%20resources%20allocation%20-%20final.docx) Multiple dedicated RACH resources allocation CATT discussion

[R2-1804678](file:///C:\Data\3GPP\Extracts\R2-1804678%20Switching%20BWP%20during%20measurement%20gap.docx) Switching BWP during measurement gap vivo discussion

[R2-1804688](file:///C:\Data\3GPP\Extracts\R2-1804688_Discussion%20on%20the%20action%20upon%20deactivation%20of%20a%20SCell_v2.docx) Discussion on the action upon deactivation of an SCell vivo discussion

[R2-1804690](file:///C:\Data\3GPP\Extracts\R2-1804690_Clarification%20on%20the%20RACH%20re-initiation%20after%20BWP%20switching.docx) Clarification on the RACH re-initiation after BWP switching vivo discussion [R2-1801992](file:///C:\Data\3GPP\Extracts\R2-1801992_Clarification%20on%20the%20RACH%20re-initiation%20after%20BWP%20switching.docx)

[R2-1804692](file:///C:\Data\3GPP\Extracts\R2-1804692%20Corection%20on%20the%20CSI%20report%20for%20the%20inactive%20BWP.doc) Correction on the CSI report for the inactive BWP vivo discussion

[R2-1804872](file:///C:\Data\3GPP\Extracts\R2-1804872%20Remaining%20issue%20on%20BWP%20linkage.docx) Remaining issue on the BWP linkage LG Electronics Inc. discussion NR\_newRAT-Core

[R2-1805416](file:///C:\Data\3GPP\Extracts\R2-1805416%20-%20E-mail%20discussion%20101%2368%20-%20BWP%20linkage.docx) Email discussion 101#68 BWP linkage Ericsson (Rapporteur) discussion Rel-15 NR\_newRAT-Core

[R2-1805417](file:///C:\Data\3GPP\Extracts\38321_CR0067_R2-1805417%20-%20Correction%20to%20switching%20of%20bandwidth%20part%20and%20random%20access.docx) Correction to switching of bandwidth part and random access Ericsson (Rapporteur) CR Rel-15 38.321 15.1.0 0067 - F NR\_newRAT-Core

[R2-1805748](file:///C:\Data\3GPP\Extracts\R2-1805748%20Dormant%20BWP%20for%20fast%20SCell%20activation.doc) Dormant BWP for fast SCell activation Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803564](file:///C:\Data\3GPP\Extracts\R2-1803564%20Dormant%20BWP%20for%20fast%20SCell%20activation.doc)

[R2-1805749](file:///C:\Data\3GPP\Extracts\R2-1805749%20BWP%20operation%20in%20C-DRX.doc) BWP operation in C-DRX Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803565](file:///C:\Data\3GPP\Extracts\R2-1803565%20BWP%20operation%20in%20C-DRX%20mode.doc)

[R2-1805847](file:///C:\Data\3GPP\Extracts\R2-1805847%20Further%20considerations%20for%20BWP%20switching.docx) Further considerations for BWP switching Samsung discussion Rel-15

[R2-1805893](file:///C:\Data\3GPP\Extracts\R2-1805893%20Corrections%20in%2038321%20for%20BWP%20switching.doc) Corrections in 38321 for BWP switching Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0088 - F LTE\_unlic-Core

[R2-1806165](file:///C:\Data\3GPP\Extracts\R2-1806165%20On%20selecting%20UL%20BWP%20for%20CBRA.docx) On selecting UL BWP for CBRA MediaTek Inc., Qualcomm Incorporated, Panasonic discussion

#### 10.3.1.3 MAC PDU format

Correction CRs related to MAC PDU and MAC CE formats

[R2-1804643](file:///C:\Data\3GPP\Extracts\R2-1804643%20Size%20of%20UE%20contention%20resolution%20identity%20MAC%20CE.doc) Size of UE contention resolution identity MAC CE Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804675](file:///C:\Data\3GPP\Extracts\R2-1804675_Some%20corrections%20on%20beam%20management%20MAC%20CE.doc) Some corrections on beam management MAC CE vivo discussion

#### 10.3.1.4 Random access

##### 10.3.1.4.1 Differentiation of RA parameters

Contributions should focus on stage 3 details on prioritized RACH procedures. Idle mode prioritized RACH is out-of-scope of Rel-15. Max 1 contribution per company.

[R2-1804295](file:///C:\Data\3GPP\Extracts\R2-1804295_Parameter%20Configuration%20for%20High%20Priority%20Access.doc) Parameter Configuration for High Priority Access Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804296](file:///C:\Data\3GPP\Extracts\R2-1804296_TP_Prioritised%20Random%20Access.doc) TP for Prioritised Random Access Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804480](file:///C:\Data\3GPP\Extracts\R2-1804480%20RACH%20priority%20configuration%20-%20final.docx) RACH priority configuration CATT discussion Rel-15 38.321

[R2-1804501](file:///C:\Data\3GPP\Extracts\R2-1804501-The%20remaining%20issues%20of%20prioritized%20RACH%20.doc) The remaining issue of prioritized RACH OPPO discussion

[R2-1804644](file:///C:\Data\3GPP\Extracts\R2-1804644%20Remaining%20details%20on%20random%20access%20prioritization.doc) Remaining details on random access prioritization Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804730](file:///C:\Data\3GPP\Extracts\R2-1804730.docx) Remaining issues on the prioritized random access PANASONIC R&D Center Germany discussion

[R2-1804815](file:///C:\Data\3GPP\Extracts\R2-1804815%20(R15%20NR%20WI%20AI103141%20RA%20Prioratization).doc) Random Access Prioritization InterDigital discussion Rel-15 NR\_newRAT-Core

[R2-1805004](file:///C:\Data\3GPP\Extracts\R2-1805004.docx) Remaining aspects for RACH differentiation Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805111](file:///C:\Data\3GPP\Extracts\R2-1805111%20On%20the%20configuration%20and%20usage%20of%20prioritised%20Random%20Access.docx) On the configuration and usage of prioritised Random Access MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805409](file:///C:\Data\3GPP\Extracts\R2-1805409%20-%20Prioritized%20Random%20Access.docx) Proritized Random Access Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805517](file:///C:\Data\3GPP\Extracts\R2-1805517.doc) Further consideration of signalling of high priority random access power ramping related parameter CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805680](file:///C:\Data\3GPP\Extracts\R2-1805680%20Remaining%20details%20on%20prioritized%20RACH.docx) Remaining details on prioritized RACH Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1805750](file:///C:\Data\3GPP\Extracts\R2-1805750%20Configuration%20of%20random%20access%20priority%20through%20dedicated%20signaling.doc) Configuration of random access priority through dedicated signaling Qualcomm Incorporated, Oppo discussion Rel-15 NR\_newRAT-Core [R2-1803566](file:///C:\Data\3GPP\Extracts\R2-1803566%20Configuration%20of%20random%20access%20priority%20through%20dedicated%20signaling.doc)

##### 10.3.1.4.2 Random access in presence of multi-beam operation

*Corrections/critical issues related to random access in presence of multi-beam operation, beam failure recovery .*

[R2-1804277](file:///C:\Data\3GPP\Extracts\R2-1804277.doc) Issue of Beam Failure Recovery procedure on SCell ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804278](file:///C:\Data\3GPP\Extracts\R2-1804278.doc) Missing parts in the beam failure detection and recovery procedure ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804279](file:///C:\Data\3GPP\Extracts\R2-1804279.doc) UE behaviours upon beam failure and recovery ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804280](file:///C:\Data\3GPP\Extracts\R2-1804280.doc) Beam Failure Recovery when UL is not synchronized ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804283](file:///C:\Data\3GPP\Extracts\R2-1804283.doc) Clarification on RA procedure for BFR ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804303](file:///C:\Data\3GPP\Extracts\R2-1804303_MAC%20Impacts%20Beam%20Failure%20Recovery%20for%20SCell.doc) MAC Impacts of Beam Failure Recovery for SCell Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804304](file:///C:\Data\3GPP\Extracts\R2-1804304_Reporting%20Candidate%20Beam%20during%20Contention%20Based%20BFR.doc) Contention Based BFR Procedure: Reporting Candidate Beam Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804315](file:///C:\Data\3GPP\Extracts\R2-1804315_Corrections%20for%20CF%20RA%20Resource%20Selection%20during%20BFR.doc) CF RA Resource Selection for BFR Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804318](file:///C:\Data\3GPP\Extracts\R2-1804318_CR_Corrections%20for%20CF%20RA%20Resource%20Selection%20during%20BFR.doc) Corrections for CF RA Resource Selection during BFR Samsung Electronics Co., Ltd CR Rel-15 38.321 15.1.0 0044 - F NR\_newRAT-Core

[R2-1804434](file:///C:\Data\3GPP\Extracts\R2-1804434%20-%20Issues%20on%20supporting%20SCell%20BFR%20RACH.doc) Issues on supporting SCell BFR RACH OPPO discussion

[R2-1804475](file:///C:\Data\3GPP\Extracts\R2-1804475%20Beam%20failure%20recovery%20on%20SCell.doc) Beam failure recovery on Scell Spreadtrum Communications discussion Rel-15

[R2-1804481](file:///C:\Data\3GPP\Extracts\R2-1804481%20Leftover%20issues%20for%20BFR%20-%20final.docx) Leftover issues for BFR CATT discussion

[R2-1804482](file:///C:\Data\3GPP\Extracts\R2-1804482%20BFR%20configurations%20and%20fallback%20options%20-%20final.docx) BFR configurations and fallback options CATT discussion

[R2-1804483](file:///C:\Data\3GPP\Extracts\R2-1804483%20BFR%20on%20SCell%20-%20final.docx) BFR on SCell CATT discussion

[R2-1804484](file:///C:\Data\3GPP\Extracts\R2-1804484%20The%20validity%20of%20CFRA%20resources%20for%20BFR%20-%20final.docx) The validity of CFRA resources for BFR CATT discussion

[R2-1804502](file:///C:\Data\3GPP\Extracts\R2-1804502-The%20timer%20and%20counter%20maintenance%20of%20BFR%20procedure.doc) The timer and counter maintenance of BFR procedure OPPO discussion

=> Revised in [R2-1806183](file:///C:\Data\3GPP\Extracts\R2-1806183-The%20timer%20and%20counter%20maintenance%20of%20BFR%20procedure.doc)

[R2-1806183](file:///C:\Data\3GPP\Extracts\R2-1806183-The%20timer%20and%20counter%20maintenance%20of%20BFR%20procedure.doc) The timer and counter maintenance of BFR procedure OPPO discussion

[R2-1804514](file:///C:\Data\3GPP\Extracts\R2-1804514_38321_CRxxxx_(Rel-15)%20Corrections%20for%20BFR%20support%20-%20final.docx) Corrections for BFR support CATT CR Rel-15 38.321 15.1.0 0050 - F NR\_newRAT-Core

[R2-1804586](file:///C:\Data\3GPP\Extracts\R2-1804586_RACH%20configuration%20for%20beam%20failure%20recovery.doc) RACH configuration for beam failure recovery vivo discussion Rel-15 NR\_newRAT-Core [R2-1802086](file:///C:\Data\3GPP\Extracts\R2-1802086_RACH%20configuration%20for%20beam%20failure%20recovery.doc)

[R2-1804626](file:///C:\Data\3GPP\Extracts\R2-1804626%20Multiple%20preamble%20transmission%20for%20contention%20free%20RACH.doc) Multiple preamble transmission for contention free RACH Beijing Xiaomi Mobile Software discussion Rel-15 [R2-1800234](file:///C:\Data\3GPP\Extracts\R2-1800234%20Multiple%20preamble%20transmission%20for%20contention%20free%20RACH.doc)

[R2-1804696](file:///C:\Data\3GPP\Extracts\R2-1804696_Discussion%20on%20the%20SCell%20BFR.docx) Discussion on the SCell BFR vivo discussion

[R2-1805005](file:///C:\Data\3GPP\Extracts\R2-1805005.docx) On beam failure detection and recovery using random access Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805052](file:///C:\Data\3GPP\Extracts\38321_CR0064_(Rel-15)_R2-1805052_%20Correction%20to%20Beam%20Failure%20detection%20procedure.docx) Correction to Beam Failure detection procedure Intel Corporation CR Rel-15 38.321 15.1.0 0064 - F NR\_newRAT-Core

[R2-1805153](file:///C:\Data\3GPP\Extracts\R2-1805153.doc) Backoff value setting on SS block change Google Inc, HTC discussion Rel-15 NR\_newRAT-Core [R2-1803113](file:///C:\Data\3GPP\Extracts\R2-1803113.doc)

[R2-1805168](file:///C:\Data\3GPP\Extracts\R2-1805168_Beam%20failure%20detection%20and%20maintenance%20_v1.0.docx) Beam failure detection and maintenance Sony discussion Rel-15 NR\_newRAT-Core

[R2-1805212](file:///C:\Data\3GPP\Extracts\R2-1805212-Measurement%20reporting%20and%20beam%20refinement%20during%20RACH.doc) Measurement reporting and beam refinement during RACH Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803034](file:///C:\Data\3GPP\Extracts\R2-1803034-Measurement%20reporting%20and%20beam%20refinement%20during%20RACH.doc)

[R2-1805213](file:///C:\Data\3GPP\Extracts\R2-1805213-Beam%20refinement%20after%20beam%20recovery%20or%20scheduling%20request.doc) Beam refinement after beam recovery or scheduling request Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803031](file:///C:\Data\3GPP\Extracts\R2-1803031-Beam%20refinement%20after%20beam%20recovery%20or%20scheduling%20request.doc)

[R2-1805214](file:///C:\Data\3GPP\Extracts\R2-1805214_Correction%20on%2038.321%20for%20beam%20failure%20recovery%20based%20on%20agreements.doc) Correction on 38.321 for beam failure recovery based on agreements vivo draftCR Rel-15 38.321 15.1.0 F NR\_newRAT-Core

[R2-1805339](file:///C:\Data\3GPP\Extracts\R2-1805339%20Beam_Failure_UL_transmission.doc) UL transmissions when detecting beam failure Motorola Mobility España SA discussion NR\_newRAT-Core

[R2-1805342](file:///C:\Data\3GPP\Extracts\R2-1805342%20SCell%20Beam%20Failure%20Recovery.docx) SCell beam failure recovery Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805413](file:///C:\Data\3GPP\Extracts\R2-1805413%20-%20Beam%20reselection%20in%20case%20of%20high%20load%20during%20RA.docx) Beam reselection in case of high load during RA Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1803149](file:///C:\Data\3GPP\Extracts\R2-1803149%20Definition%20of%20Paging%20Indicator%20for%20Response-Driven%20Paging.docx)

[R2-1805414](file:///C:\Data\3GPP\Extracts\R2-1805414%20-%20Beam%20Failure%20Recovery%20in%20SCell.docx) Beam Failure Recovery in Scell and contention-based BFR on SpCell Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805422](file:///C:\Data\3GPP\Extracts\38321_CR0069_R2-1805422%20-%20Beam%20reselection%20in%20case%20of%20high%20load%20during%20RA.docx) Beam reselection in case of high load during RA Ericsson CR Rel-15 38.321 15.1.0 0069 - F NR\_newRAT-Core

[R2-1805423](file:///C:\Data\3GPP\Extracts\38321_CR0070_R2-1805423%20-%20CBRA%20BFR%20on%20SpCell%20and%20CFRA%20BFR%20on%20SCell.docx) CBRA BFR on SpCell and CFRA BFR on SCell Ericsson CR Rel-15 38.321 15.1.0 0070 - F NR\_newRAT-Core

[R2-1805751](file:///C:\Data\3GPP\Extracts\R2-1805751%20Backoff%20indication%20in%20multi-beam%20operation.doc) Backoff indication in multi-beam operation Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1801434](file:///C:\Data\3GPP\Extracts\R2-1801434%20CR%20on%20backoff%20indication%20in%20multi-beam%20operation.doc)

[R2-1805752](file:///C:\Data\3GPP\Extracts\R2-1805752%20Selection%20between%20CFRA%20and%20CBRA%20for%20BFR.docx) Selection between CFRA and CBRA for BFR Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803572](file:///C:\Data\3GPP\Extracts\R2-1803572%20Selection%20between%20CFRA%20and%20CBRA%20for%20BFR.docx)

[R2-1805753](file:///C:\Data\3GPP\Extracts\R2-1805753%20Clarification%20on%20BFR%20timer.docx) Clarification on BFR timer Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1805781](file:///C:\Data\3GPP\Extracts\R2-1805781%20Beam%20reselection%20in%20RACH%20procedure.doc) Beam reselection in RACH procedure Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805864](file:///C:\Data\3GPP\Extracts\R2-1805864%20Remaining%20issues%20on%20beam%20failure%20recovery.doc) Remaining issues on beam failure recovery SHARP Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805887](file:///C:\Data\3GPP\Extracts\R2-1805887%20BFR%20with%20SCell%20deactivation%20and%20MAC%20reset.doc) BFR with SCell deactivation and MAC reset Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805888](file:///C:\Data\3GPP\Extracts\R2-1805888%20Correction%20on%2038321%20for%20BFR%20with%20SCell%20deactivation%20and%20MAC%20reset.doc) Correction for 38321 for BFR with SCell deactivation and MAC reset Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0087 - F NR\_newRAT-Core

[R2-1805894](file:///C:\Data\3GPP\Extracts\R2-1805894%20Remaining%20issues%20on%20RA%20resource%20selection%20for%20multi-beam%20operations.doc) Remaining issues on RA resource selection for multi-beam operations Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805895](file:///C:\Data\3GPP\Extracts\R2-1805895%20Corrections%20in%2038321%20for%20RA%20resource%20selection.doc) Corrections in 38321 for RA resource selection for multi-beam operations Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0089 - F NR\_newRAT-Core

[R2-1805903](file:///C:\Data\3GPP\Extracts\R2-1805903%20Discussion%20on%20beam%20failure%20detection.doc) Discussion on beam failure detection Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805904](file:///C:\Data\3GPP\Extracts\R2-1805904%20Correction%20on%2038321%20for%20beam%20failure%20detection.doc) Correction for 38321 on beam failure detection Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0091 - F NR\_newRAT-Core

[R2-1805905](file:///C:\Data\3GPP\Extracts\R2-1805905%20Discussion%20on%20RA%20for%20SCells%20BFR.doc) Discussion on RA for SCells BFR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805988](file:///C:\Data\3GPP\Extracts\R2-1805988%20Dedicated%20RACH%20occasions%20for%20CFRA.docx) Dedicated RACH occasions for CFRA Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1806009](file:///C:\Data\3GPP\Extracts\R2-1806009%20Unnecessity%20of%20additional%20timer%20for%20BFR.docx) Unnecessity of additional timer for BFR LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1806010](file:///C:\Data\3GPP\Extracts\R2-1806010%20Draft%20CR%20to%2036.321%20on%20Correction%20of%20BFR%20RA%20procedure.docx) CR to 38.321 on correction of BFR RA procedure LG Electronics Inc. CR Rel-15 38.321 15.1.0 0096 - F NR\_newRAT-Core

[R2-1806120](file:///C:\Data\3GPP\Extracts\R2-1806120%20-%20Beam%20failure%20recovery%20on%20SCell.docx) Beam Failure Recovery on SCell ITL discussion Rel-15

Withdrawn

[R2-1805754](file:///C:\Data\3GPP\Extracts\R2-1805754%20Dedicated%20RACH%20occasion%20for%20CFRA.docx) Dedicated RACH occasions for CFRA Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core Withdrawn

##### 10.3.1.4.3 Random access procedures

Corrections/critical issues related to general random access procedure

Including output of email discussion [101#69][NR UP/MAC] PRACH table – LG

[R2-1804305](file:///C:\Data\3GPP\Extracts\R2-1804305_TA%20Timer%20Handling%20for%20Msg3%20based%20SI%20Request.doc) TA Timer Handling for Msg3 based SI Request Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804306](file:///C:\Data\3GPP\Extracts\R2-1804306_T-CRNTI%20Handling%20for%20Msg3%20based%20SI%20Request.doc) T-CRNTI Handling for Msg3 based SI Request Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804307](file:///C:\Data\3GPP\Extracts\R2-1804307_PRACH%20Preamble%20Selection%20for%20Msg1%20based%20SI%20Request.doc) PRACH Preamble Selection for Msg1 based SI Request Samsung Electronics Co., Ltd discussion Rel-15

[R2-1804404](file:///C:\Data\3GPP\Extracts\R2-1804404%20Discussion%20on%20the%20selection%20of%20RO%20in%20CBRA%20procedure.docx) Discussion on the selection of RO in CBRA procedure ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804407](file:///C:\Data\3GPP\Extracts\R2-1804407%20Consideration%20on%20Beam%20Fairlure%20Recovery%20for%20SCell.docx) Consideration on Beam Failure Recovery for SCell ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804515](file:///C:\Data\3GPP\Extracts\R2-1804515_38321_CRxxxx_(Rel-15)%20T-C-RNTI%20handling%20for%20Msg3-based%20SI%20request%20-%20final.docx) T-C-RNTI handling for Msg3-based SI request CATT CR Rel-15 38.321 15.1.0 0051 - F NR\_newRAT-Core

[R2-1804685](file:///C:\Data\3GPP\Extracts\R2-1804685_PRACH%20mask%20table.docx) PRACH mask table vivo discussion

[R2-1804686](file:///C:\Data\3GPP\Extracts\R2-1804686_Discussion%20on%20the%20cancellation%20of%20RACH%20procedure_v2.docx) Discussion on the cancellation of RACH procedure vivo discussion

[R2-1804689](file:///C:\Data\3GPP\Extracts\R2-1804689_Clarification%20on%20the%20measurement%20used%20for%20the%20selection%20of%20the%20beam%20or%20UL%20carrier.docx) Clarification on the measurement used for the selection of the beam or UL carrier vivo discussion [R2-1801987](file:///C:\Data\3GPP\Extracts\R2-1801987_Clarification%20on%20the%20measurement%20used%20for%20the%20selection%20of%20the%20beam%20or%20UL%20carrier.docx)

[R2-1804691](file:///C:\Data\3GPP\Extracts\R2-1804691_Discussion%20on%20the%20RACH%20procedure%20for%20on-demand%20SI.docx) Discussion on the RACH procedure for on-demand SI vivo discussion

[R2-1804880](file:///C:\Data\3GPP\Extracts\R2-1804880%20Clarification%20for%20simultaneous%20%20PRACH%20transmission%20and%20UL-SCH%20transmission.doc) Clarification for simultaneous PRACH transmission and UL-SCH transmission Beijing Xiaomi Mobile Software discussion Rel-15

[R2-1805114](file:///C:\Data\3GPP\Extracts\R2-1805114%20RAR%20transport%20block%20size.docx) RAR Transport Block size MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805412](file:///C:\Data\3GPP\Extracts\R2-1805412%20-%20Contention%20Resolution%20for%20Msg3%20based%20SI%20requests.docx) Contention Resolution for Msg3 based SI requests Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805415](file:///C:\Data\3GPP\Extracts\R2-1805415%20-%20Msg3%20size%20for%20CCCH%20payload.docx) Msg3 size for CCCH payload Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805418](file:///C:\Data\3GPP\Extracts\R2-1805418%20-%20Future%20compatibility%20and%20SI%20request%20msg1.docx) Future compatibility and SI request msg1 Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805419](file:///C:\Data\3GPP\Extracts\38321_CR0068_R2-1805419%20-%20Selection%20of%20preambles%20group%20B.docx) Selection of preambles group B Ericsson CR Rel-15 38.321 15.1.0 0068 - F NR\_newRAT-Core

[R2-1805420](file:///C:\Data\3GPP\Extracts\R2-1805420%20-%20RACH%20Mask%20design.docx) PRACH Mask design Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805424](file:///C:\Data\3GPP\Extracts\38321_CR0071_R2-1805424%20-%20Correction%20to%20CCCH%20and%20msg3.docx) Correction to CCCH and msg3 Ericsson CR Rel-15 38.321 15.1.0 0071 - F NR\_newRAT-Core

[R2-1805425](file:///C:\Data\3GPP\Extracts\38321_CR0072_R2-1805425%20-%20Correction%20for%20SI%20request%20msg1.docx) Correction for SI request msg1 Ericsson CR Rel-15 38.321 15.1.0 0072 - F NR\_newRAT-Core

[R2-1805898](file:///C:\Data\3GPP\Extracts\R2-1805898%20Selection%20of%20DELTA_PREAMBLE%20for%20RA%20power%20control.doc) Selection of DELTA\_PREAMBLE for RA power control Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805899](file:///C:\Data\3GPP\Extracts\R2-1805899%20Correction%20in%2038321%20for%20DELTA_PREAMBLE%20in%20RA%20power%20control.doc) Correction in 38321 for DELTA\_PREAMBLE in RA power control Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0090 - F NR\_newRAT-Core

[R2-1805902](file:///C:\Data\3GPP\Extracts\R2-1805902%20Discussions%20on%20the%20PRACH%20table.doc) Discussions on the PRACH table Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805948](file:///C:\Data\3GPP\Extracts\R2-1805948%20Email%20discussion%20101%2369%20PRACH%20table.docx) Email discussion 101#68 PRACH table LG Electronics discussion Rel-15 38.321 NR\_newRAT-Core

[R2-1806011](file:///C:\Data\3GPP\Extracts\R2-1806011%20RAR%20for%20CFRA.docx) RAR for CFRA LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1806166](file:///C:\Data\3GPP\Extracts\R2-1806166%20On%20swtiching%20between%20CFRA%20and%20CBRA.docx) On swtiching between CFRA and CBRA MediaTek Inc. discussion

#### 10.3.1.5 SR

Corrections/critical issues related to SR

[R2-1804877](file:///C:\Data\3GPP\Extracts\R2-1804877%20Consideration%20on%20SR%20transmission%20occasion%20overlap%20with%20a%20UL-SCH%20resource.doc) Consideration on SR transmission occasion overlap with a UL-SCH resource Beijing Xiaomi Mobile Software discussion Rel-15

[R2-1804879](file:///C:\Data\3GPP\Extracts\R2-1804879%20LS%20on%20SR%20transmission%20occasion%20overlapping%20with%20UL-SCH%20resource.doc) [DRAFT] LS on SR transmission occasion overlapping with UL-SCH resource Beijing Xiaomi Mobile Software LS out Rel-15 NR\_newRAT-Core To:RAN1

[R2-1804942](file:///C:\Data\3GPP\Extracts\R2-1804942%20CR%20to%20SR%20cancellation.doc) CR to SR cancellation Fujitsu discussion Rel-15 NR\_newRAT-Core

[R2-1806164](file:///C:\Data\3GPP\Extracts\R2-1806164%20On%20parallel%20SR%20and%20RACH%20procedure%20in%20NR.docx) On parallel SR and RACH procedure in NR MediaTek Inc. discussion

#### 10.3.1.6 BSR

Corrections/critical issues related to BSR

[R2-1804416](file:///C:\Data\3GPP\Extracts\R2-1804416%20Clarification%20of%20configured%20grants%20in%20BSR%20procedure.doc) Clarification of configured grants in BSR procedure Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804417](file:///C:\Data\3GPP\Extracts\38321_CR0047_(REL-15)_R2-1804417_Correction%20to%20configured%20grants%20in%20BSR%20procedure.doc) Correction to configured grants in BSR procedure Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0047 - F NR\_newRAT-Core

[R2-1804418](file:///C:\Data\3GPP\Extracts\R2-1804418%20BSR%20for%20one%20LCG%20case.doc) BSR for one LCG case Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804419](file:///C:\Data\3GPP\Extracts\38321_CR0048_(REL-15)_R2-1804419_Correction%20to%20BSR%20for%20one%20LCG%20case.doc) Correction to BSR for one LCG case Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0048 - F NR\_newRAT-Core

[R2-1804420](file:///C:\Data\3GPP\Extracts\38321_CR0049_(REL-15)_R2-1804420_LCP%20mapping%20restrictions%20for%20retransmission%20BSR.doc) LCP mapping restrictions for retransmission BSR Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0049 - F NR\_newRAT-Core

[R2-1804437](file:///C:\Data\3GPP\Extracts\R2-1804437%20-%20Small%20corrections%20on%20SR%20triggering.doc) Small corrections on SR triggering OPPO discussion

[R2-1804485](file:///C:\Data\3GPP\Extracts\R2-1804485%20BSR%20trigger%20issue%20for%20CA%20duplication%20-%20final.docx) BSR trigger issue for CA duplication CATT discussion

[R2-1804517](file:///C:\Data\3GPP\Extracts\R2-1804517_38321_CRxxxx_(Rel-15)_Corrections%20on%20BSR%20-%20final.docx) Corrections on BSR CATT CR Rel-15 38.321 15.1.0 0052 - F NR\_newRAT-Core

#### 10.3.1.7 LCP

Corrections/critical issues related to LCP

[R2-1804911](file:///C:\Data\3GPP\Extracts\R2-1804911%20MDBV%20in%20UL.docx) MDBV in Uplink Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805907](file:///C:\Data\3GPP\Extracts\R2-1805907_Impact%20of%20packet%20duplication%20on%20Bj.doc) Impact of packet duplication on Bj LG Electronics Mobile Research discussion NR\_newRAT-Core

[R2-1806148](file:///C:\Data\3GPP\Extracts\R2-1806148%20MAC%20impact%20of%20sperate%20CQI%20tables.doc) MAC Impact of Separate MCS/CQI Table for URLLC Samsung discussion NR\_newRAT-Core

[R2-1806162](file:///C:\Data\3GPP\Extracts\R2-1806162%20Correction%20for%20LCP%20to%20support%20high%20data%20rate.doc) Correction for LCP to support high data rate MediaTek Inc. CR Rel-15 38.321 15.1.0 0099 - F NR\_newRAT-Core

#### 10.3.1.8 SPS/Grant-free

Corrections/critical issues related to Configured grant and SPS

[R2-1804518](file:///C:\Data\3GPP\Extracts\R2-1804518%20Values%20for%20configuredGrantTimer.docx) Values for configuredGrantTimer Nokia, Nokia Shanghai Bell, Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804521](file:///C:\Data\3GPP\Extracts\R2-1804521_38321_CRxxxx_(Rel-15)%20Overriding%20rule%20in%20a%20repetition%20bundle%20-%20final.docx) Overriding rule in a repetition bundle CATT CR Rel-15 38.321 15.1.0 0053 - F NR\_newRAT-Core

R2-1804522 Overriding rule in a repetition bundle CATT CR Rel-15 38.321 15.1.0 0054 - F NR\_newRAT-Core Late

[R2-1805054](file:///C:\Data\3GPP\Extracts\R2-1805054%20Conflict%20between%20Dynamic%20and%20Configured%20Grant.doc) Conflict between dynamic grant and configured grant Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805099](file:///C:\Data\3GPP\Extracts\R2-1805099%20Impact%20of%20BWP%20switch%20on%20SPS%20and%20configured%20grants.docx) Impact of BWP switch on SPS and configured grants MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805102](file:///C:\Data\3GPP\Extracts\R2-1805102%20draftCR38321_(Rel-15)_Correction%20for%20handling%20repetitions%20of%20configured%20grant%20Type%201%20during%20BWP%20switch.doc) Correction for handling repetitions of configured grant Type 1 during BWP switch MediaTek Inc. draftCR Rel-15 38.321 15.1.0 F NR\_newRAT-Core

[R2-1805169](file:///C:\Data\3GPP\Extracts\R2-1805169.doc) Flush HARQ buffer upon skipping a UL transmission Google, Nokia, Nokia Shanghai Bell, LG Electronics Inc., MediaTek Inc., Lenovo, HTC, Panasonic discussion Rel-15 NR\_newRAT-Core

[R2-1805782](file:///C:\Data\3GPP\Extracts\R2-1805782%20Discussion%20on%20dynamic%20grant%20override%20Configured%20Grant%20in%20case%20of%20SUL.doc) Discussion on dynamic grant override configured grant in case of SUL Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805962](file:///C:\Data\3GPP\Extracts\R2-1805962_38321_CR0094_(Rel-15)_Correction%20of%20Configured%20Grant%20Type%201%20activation.doc) Correction of Configured Grant Type 1 activation Sequans Communications CR Rel-15 38.321 15.1.0 0094 - F NR\_newRAT-Core

#### 10.3.1.9 HARQ

Corrections/critical issues related to HARQ

[R2-1805783](file:///C:\Data\3GPP\Extracts\R2-1805783%20Further%20discussion%20on%20flushing%20HARQ%20buffer%20in%20NR.doc) Further discussion on flushing HARQ buffer in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805784](file:///C:\Data\3GPP\Extracts\R2-1805784%20Handling%20of%20retransmission%20with%20different%20size%20in%20DL%20HARQ%20operation.doc) Handling of retransmission with a different size in DL HARQ operation Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805875](file:///C:\Data\3GPP\Extracts\R2-1805875%20Correction%20to%20HARQ%20buffer%20flushing%20in%20NR.doc) Correction to HARQ buffer flushing in NR Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0082 - F NR\_newRAT-Core

[R2-1805881](file:///C:\Data\3GPP\Extracts\R2-1805881%20Correction%20to%20handling%20of%20retransmission%20with%20a%20different%20TBS%20in%20DL%20HARQ.doc) Correction to handling of retransmission with a different TBS in DL HARQ Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0083 - F NR\_newRAT-Core

Withdrawn

[R2-1805821](file:///C:\Data\3GPP\Extracts\R2-1805821%20Correction%20to%20HARQ%20buffer%20flushing%20in%20NR.doc) Correction to HARQ buffer flushing in NR HUAWEI TECH. GmbH CR Rel-15 38.321 15.1.0 0077 - F NR\_newRAT-Core Withdrawn

[R2-1805830](file:///C:\Data\3GPP\Extracts\R2-1805830%20Correction%20to%20handling%20of%20retransmission%20with%20a%20different%20TBS%20in%20DL%20HARQ.doc) Correction to handling of retransmission with a different TBS in DL HARQ HUAWEI TECH. GmbH CR Rel-15 38.321 15.1.0 0078 - F NR\_newRAT-Core Withdrawn

#### 10.3.1.10 DRX

Contributions should focus on final critical issues/corrections for DRX

Including output of email discussion [101#70][NR UP/MAC] DRX and RNTIs – Huawei

[R2-1804431](file:///C:\Data\3GPP\Extracts\R2-1804431%20-%20CSI%20and%20SRS%20reporting%20for%20DRX%20Active%20time.doc) CSI and SRS reporting for DRX Active time OPPO discussion

[R2-1804486](file:///C:\Data\3GPP\Extracts\R2-1804486_Value%20of%20DRX%20Ambiguous%20Period%20-%20final.docx) Value of DRX Ambiguous Period CATT discussion

[R2-1804519](file:///C:\Data\3GPP\Extracts\R2-1804519%20Annex%20for%20DRX%20timers.docx) Annex for DRX timers Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1804573](file:///C:\Data\3GPP\Extracts\R2-1804573.doc) Remaining issues on DRX Samsung discussion Rel-15 NR\_newRAT-Core

[R2-1804574](file:///C:\Data\3GPP\Extracts\38321_CR0058_(Rel-15)_R2-1804574.doc) DRX cleanup Samsung CR Rel-15 38.321 15.1.0 0058 - F NR\_newRAT-Core

[R2-1804910](file:///C:\Data\3GPP\Extracts\R2-1804910%20Stage%202%20Identities.doc) UE Identities Nokia, Nokia Shanghai Bell CR Rel-15 38.300 15.1.0 0014 - F NR\_newRAT

[R2-1804915](file:///C:\Data\3GPP\Extracts\R2-1804915%20Semi-Persistent%20CSI%20Reporting%20and%20SRS%20for%20DRX.doc) Semi-Persistent CSI Reporting and SRS for DRX Samsung Electronics France SA discussion Rel-15 NR\_newRAT-Core

[R2-1804916](file:///C:\Data\3GPP\Extracts\38.321_CR0063_(Rel-15)_R2-1804916%20CR%20on%20Semi-Persistent%20CSI%20Reporting%20and%20SRS%20for%20DRX.doc) CR on Semi-Persistent CSI Reporting and SRS for DRX Samsung Electronics France SA CR Rel-15 38.321 15.1.0 0063 - F NR\_newRAT-Core

[R2-1805025](file:///C:\Data\3GPP\Extracts\R2-1805025%20DRX%20clarification.doc) Clarification related to DRX Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805026](file:///C:\Data\3GPP\Extracts\R2-1805026.docx) DL HARQ RTT timer for SPS Intel Corporation, Qualcomm Incorporated, MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805170](file:///C:\Data\3GPP\Extracts\R2-1805170.doc) An issue regarding interrupted transmission and active time Google Inc., HTC discussion Rel-15 NR\_newRAT-Core

[R2-1805406](file:///C:\Data\3GPP\Extracts\R2-1805406%20-%20Annex%20for%20DRX%20timers.docx) Annex for DRX timers Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805407](file:///C:\Data\3GPP\Extracts\R2-1805407%20-%20DRX%20Ambiguity%20Period.docx) DRX Ambiguity period Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805408](file:///C:\Data\3GPP\Extracts\R2-1805408%20-%20DRX%20Offset%20granularity%20and%20shorter%20DRX%20cycles.docx) DRX Offset granularity and shorter DRX cycles Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805509](file:///C:\Data\3GPP\Extracts\R2-1805509 Issues with the BSR transmission at the end of on Duration.docx) Issues with the BSR transmission at the end of on Duration CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805570](file:///C:\Data\3GPP\Extracts\R2-1805570%20Report%20of%20email%20discussion%20%5b101%2370%5d%20DRX%20and%20RNTIs.doc) Report of email discussion [101#70] DRX and RNTIs Huawei report Rel-15 NR\_newRAT-Core

[R2-1805571](file:///C:\Data\3GPP\Extracts\R2-1805571%20Correction%20to%20RNTI%20monitoring%20in%20DRX.doc) Correction to RNTI monitoring in DRX Huawei, HiSilicon CR Rel-15 36.321 15.1.0 1260 - F NR\_newRAT-Core

[R2-1805572](file:///C:\Data\3GPP\Extracts\R2-1805572%20DRX%20ambiguous%20period.doc) DRX ambiguous period Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805573](file:///C:\Data\3GPP\Extracts\R2-1805573%20Introduction%20of%20DRX%20ambiguous%20period.doc) Introduction of DRX ambiguous period Huawei, HiSilicon CR Rel-15 36.321 15.1.0 1261 - C NR\_newRAT-Core

[R2-1805574](file:///C:\Data\3GPP\Extracts\R2-1805574%20Impacts%20on%20DRX%20Retransmission%20Timers%20and%20HARQ%20RTT%20Timers%20during%20BWP%20Switching.doc) Impacts on DRX Retransmission Timers and HARQ RTT Timers during BWP Switching Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805603](file:///C:\Data\3GPP\Extracts\38321_CR0074_R2-1805603%20-%20Corrections%20to%20DRX%20timer%20operation.docx) Corrections to DRX timer operation Ericsson CR Rel-15 38.321 15.1.0 0073 - F NR\_newRAT-Core

[R2-1805688](file:///C:\Data\3GPP\Extracts\38321_CR0075_(Rel-15)_R2-1805688_Correction%20to%20DL%20SPS.doc) Correction to DL SPS Intel Corporation, Qualcomm Incorporated, MediaTek Inc. CR Rel-15 38.321 15.1.0 0075 - F NR\_newRAT-Core

[R2-1805785](file:///C:\Data\3GPP\Extracts\R2-1805785%20Power%20saving%20for%20pending%20SR%20of%20delay-tolerate%20service.doc) Power saving for pending SR of delay-tolerate service Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805886](file:///C:\Data\3GPP\Extracts\R2-1805886%20Correction%20to%2038.321%20on%20the%20power%20saving%20for%20pending%20SR%20of%20delay-tolerate%20service.doc) Correction to 38.321 on the power saving for pending SR of delay-tolarate service Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0086 - B NR\_newRAT-Core

[R2-1805920](file:///C:\Data\3GPP\Extracts\R2-1805920_The%20start%20condition%20of%20the%20drx-HARQ-RTT-TimerDL.doc) The start condition of the drx-HARQ-RTT-TimerDL LG Electronics Inc. discussion Rel-15 38.321 NR\_newRAT-Core [R2-1802853](file:///C:\Data\3GPP\Extracts\R2-1802853_The%20start%20condition%20of%20the%20drx-HARQ-RTT-TimerDL.doc)

[R2-1805921](file:///C:\Data\3GPP\Extracts\38321_CR_(Rel-15)_R2-1805921_The%20start%20condition%20of%20the%20drx-HARQ-RTT-TimerDL.doc) The start condition of the drx-HARQ-RTT-TimerDL LG Electronics Inc. CR Rel-15 38.321 15.1.0 0092 - C NR\_newRAT-Core

[R2-1806007](file:///C:\Data\3GPP\Extracts\R2-1806007%20Start%20of%20DRX%20timers%20regardless%20of%20Active%20Time.docx) Start of DRX timers regardless of Active Time LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1806008](file:///C:\Data\3GPP\Extracts\R2-1806008%20Draft%20CR%20to%2038.321%20on%20Start%20of%20DRX%20timers%20regardless%20of%20regardless%20of%20Active%20Time.docx) CR to 38.321 on Start of DRX timers regardless of Active Time LG Electronics Inc. CR Rel-15 38.321 15.1.0 0095 - C NR\_newRAT-Core

[R2-1806143](file:///C:\Data\3GPP\Extracts\R2-1806143%20Aperiodic%20CSI%20request%20and%20DRX%20inactivity%20timer.doc) Aperiodic CSI Request and DRX Inactivity Timer Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803560](file:///C:\Data\3GPP\Extracts\R2-1803560%20DRX%20Inactivity%20Timer%20and%20Aperiodic%20CSI%20Request.doc)

[R2-1806163](file:///C:\Data\3GPP\Extracts\R2-1806163%20Correction%20on%20the%20starting%20time%20of%20DRX%20HARQ%20RTT%20timers.docx) Correction on the starting time of DRX HARQ RTT timers MediaTek Inc. discussion

Withdrawn

[R2-1805840](file:///C:\Data\3GPP\Extracts\R2-1805840%20Correction%20to%2038.321%20on%20the%20power%20saving%20for%20pending%20SR%20of%20delay-tolerate%20service.doc) Correction to 38.321 on the power saving for pending SR of delay-tolerate service HUAWEI TECH. GmbH CR Rel-15 38.321 15.1.0 0081 - B NR\_newRAT-Core Withdrawn

R2-1805862 Correction to 38.321 on the power saving for pending SR of delay-tolerate service Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0081 1 B NR\_newRAT-Core [R2-1805840](file:///C:\Data\3GPP\Extracts\R2-1805840%20Correction%20to%2038.321%20on%20the%20power%20saving%20for%20pending%20SR%20of%20delay-tolerate%20service.doc) Withdrawn

#### 10.3.1.11 Impact of PDCP duplication on MAC

MAC CE for activation/deactivation of PDCP duplication (max 1 contribution per company)

Aspects related to fallback to split bearer and handling of RLC/PDCP entities during activation/deactivation should be submitted in AI 10.3.3.5

[R2-1804281](file:///C:\Data\3GPP\Extracts\R2-1804281.doc) Remaining MAC issues on PDCP duplication ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804430](file:///C:\Data\3GPP\Extracts\R2-1804430%20-%20CA%20Duplication%20impact%20on%20BSR%20trigger.doc) CA Duplication impact on BSR trigger OPPO discussion

[R2-1804432](file:///C:\Data\3GPP\Extracts\R2-1804432%20-%20Solutions%20and%20TPs%20for%20the%20issue%20of%20duplication%20control%20MAC%20CE.doc) Solutions and TPs of duplication control using MAC CE OPPO discussion [R2-1801764](file:///C:\Data\3GPP\Extracts\R2-1801764%20-%20Duplication%20control%20using%20MAC%20CE.doc)

[R2-1804433](file:///C:\Data\3GPP\Extracts\R2-1804433%20-%20Duplication%20impact%20on%20Bj.doc) Duplication impact on Bj OPPO discussion

[R2-1804435](file:///C:\Data\3GPP\Extracts\R2-1804435%20-%20Scell%20(de-)activation%20with%20duplication%20operation.doc) Scell (de-)activation with duplication operation OPPO discussion [R2-1801760](file:///C:\Data\3GPP\Extracts\R2-1801760%20-%20Scell%20(de-)activation%20with%20duplication%20operation.doc)

[R2-1804473](file:///C:\Data\3GPP\Extracts\R2-1804473%20Discussion%20on%20BSR%20triggering%20in%20case%20of%20PDCP%20CA%20duplication.doc) Discussion on BSR triggering in case of PDCP CA duplication Spreadtrum Communications discussion Rel-15

[R2-1804487](file:///C:\Data\3GPP\Extracts\R2-1804487%20Leftover%20issues%20on%20duplication%20-%20final.docx) Leftover issues on duplication CATT discussion

[R2-1804513](file:///C:\Data\3GPP\Extracts\R2-1804513%20Issues%20of%20PDCP%20duplication.doc) Issues of PDCP duplication Potevio Information Technology Co., Ltd. discussion

[R2-1804520](file:///C:\Data\3GPP\Extracts\R2-1804520%20Remaining%20MAC%20issues%20on%20duplication.docx) Remaining MAC issues on duplication Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1804676](file:///C:\Data\3GPP\Extracts\R2-1804676%20Duplication%20deactivation%20due%20to%20Scell%20deactivation.doc) Duplication deactivation due to Scell deactivation vivo discussion [R2-1801996](file:///C:\Data\3GPP\Extracts\R2-1801996%20Duplication%20deactivation%20due%20to%20Scell%20or%20BWP%20deactivation.doc)

[R2-1804677](file:///C:\Data\3GPP\Extracts\R2-1804677%20SR%20and%20BSR%20cancel%20due%20to%20Duplication%20deactivatio.doc) SR and BSR cancel due to Duplication deactivation vivo discussion [R2-1801997](file:///C:\Data\3GPP\Extracts\R2-1801997%20SR%20and%20BSR%20cancel%20due%20to%20Duplication%20deactivatio.doc)

[R2-1804694](file:///C:\Data\3GPP\Extracts\R2-1804694%20Clarification%20on%20MAC%20CE%20for%20duplication.doc) Clarfication on the MAC CE for duplication vivo discussion

[R2-1804870](file:///C:\Data\3GPP\Extracts\R2-1804870.doc) CA duplication impact to LCP III discussion Rel-15

[R2-1805105](file:///C:\Data\3GPP\Extracts\R2-1805105%20Open%20issues%20for%20duplication%20activation-deactivation%20MAC%20CE.docx) Open issues for duplication activation-deactivation MAC CE MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805251](file:///C:\Data\3GPP\Extracts\R2-1805251%20-%20Remaining%20issues%20of%20duplication%20control%20using%20MAC%20CE.doc) Remaining issues of duplication control using MAC CE OPPO, Qualcomm discussion

[R2-1805275](file:///C:\Data\3GPP\Extracts\R2-1805275.doc) Impact of PDCP duplication on LCP Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803117](file:///C:\Data\3GPP\Extracts\R2-1803117.doc)

[R2-1805278](file:///C:\Data\3GPP\Extracts\R2-1805278.docx) Duplication activation/deactivation MAC CE Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803119](file:///C:\Data\3GPP\Extracts\R2-1803119.docx)

[R2-1805433](file:///C:\Data\3GPP\Extracts\R2-1805433%20-%20PDCP%20duplication%20impact%20to%20MAC.docx) PDCP duplication impact to MAC Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805527](file:///C:\Data\3GPP\Extracts\R2-1805527.docx) Two remaining issues on impact of PDCP duplication on MAC CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805789](file:///C:\Data\3GPP\Extracts\R2-1805789%20BSR%20trigger%20Cancellation%20for%20packet%20duplication.doc) BSR trigger/Cancellation for packet duplication Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805790](file:///C:\Data\3GPP\Extracts\R2-1805790%20PDCP%20duplication%20impact%20on%20Bj.doc) PDCP duplication impact on Bj Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805791](file:///C:\Data\3GPP\Extracts\R2-1805791%20Cell%20deactivation%20impacts%20on%20PDCP%20duplication.doc) Cell deactivation impacts on PDCP duplication Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805956](file:///C:\Data\3GPP\Extracts\R2-1805956_BSR%20operation%20with%20CA%20packet%20duplication.doc) BSR operation with CA packet duplication Sequans Communications discussion Rel-15 NR\_newRAT-Core [R2-1803672](file:///C:\Data\3GPP\Extracts\R2-1803672_BSR%20operation%20with%20CA%20packet%20duplication.doc)

[R2-1806082](file:///C:\Data\3GPP\Extracts\R2-1806082%20Impact%20of%20packet%20duplication%20on%20implicit%20SCell%20deactivation%20and%20BSR.docx) Impact of packet duplication on implicit SCell deactivation and BSR LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1806145](file:///C:\Data\3GPP\Extracts\R2-1806145%20Implicit%20Activation%20and%20Deactivation%20of%20PDCP%20Duplication.doc) Implicit Activation and Deactivation of PDCP Duplication Samsung discussion NR\_newRAT-Core [R2-1803592](file:///C:\Data\3GPP\Extracts\R2-1803592%20Implicit%20Activation%20and%20Deactivation%20of%20PDCP%20Duplication.doc)

Withdrawn

R2-1804516 LCP for duplication MediaTek Inc. discussion Rel-15 NR\_newRAT-Core Withdrawn

#### 10.3.1.12 PHR

Corrections/critical corrections related to PHR

[R2-1804289](file:///C:\Data\3GPP\Extracts\R2-1804289.doc) Pathloss reference change for triggering PHR ASUSTeK discussion Rel-15 NR\_newRAT-Core [R2-1801899](file:///C:\Data\3GPP\Extracts\R2-1801899.doc)

[R2-1804401](file:///C:\Data\3GPP\Extracts\R2-1804401%20Discussion%20on%20the%20determination%20of%20the%20PH%20value%20type.docx) Discussion on the determination of the PH value type ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804406](file:///C:\Data\3GPP\Extracts\R2-1804406%20PHR%20report%20for%20the%20UE%20do%20not%20support%20dynamic%20power%20sharing.docx) PHR report for the UE without the support of dynamic power sharing ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804488](file:///C:\Data\3GPP\Extracts\R2-1804488-PHR%20MAC%20CE%20for%20EN-DC%20-%20final.docx) PHR MAC CE for EN-DC CATT discussion

[R2-1804523](file:///C:\Data\3GPP\Extracts\R2-1804523_36321_CRxxxx_(Rel-15)_PHR%20MAC%20CE%20for%20EN-DC%20-%20final.docx) CR to 36.321 on PHR MAC CE for EN-DC CATT CR Rel-15 36.321 15.1.0 1246 - F NR\_newRAT-Core

[R2-1804524](file:///C:\Data\3GPP\Extracts\R2-1804524_38321_CRxxxx_(Rel-15)_PHR%20MAC%20CE%20for%20EN-DC%20-%20final.docx) CR to 38.321 on PHR MAC CE for EN-DC CATT CR Rel-15 38.321 15.1.0 0055 - F NR\_newRAT-Core

[R2-1804542](file:///C:\Data\3GPP\Extracts\R2-1804542%20PHR%20without%20NR%20type-2%20PH.doc) PHR without NR type-2 PH Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804543](file:///C:\Data\3GPP\Extracts\38331_CR0024_(REL-15)_R2-1804543_Correction%20to%20support%20PHR%20without%20NR%20type-2%20PH.doc) Correction to support PHR without NR type-2 PH Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0024 - F NR\_newRAT-Core

[R2-1804544](file:///C:\Data\3GPP\Extracts\38321_CR0056_(REL-15)_R2-1804544_Correction%20to%20support%20PHR%20without%20NR%20type-2%20PH.doc) Correction to support PHR without NR type-2 PH Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0056 - F NR\_newRAT-Core

[R2-1804575](file:///C:\Data\3GPP\Extracts\R2-1804575.doc) Remaining issues on PHR Samsung discussion Rel-15 NR\_newRAT-Core

[R2-1804576](file:///C:\Data\3GPP\Extracts\38321_CR0059_(Rel-15)_R2-1804576.doc) PHR cleanup Samsung CR Rel-15 38.321 15.1.0 0059 - F NR\_newRAT-Core

[R2-1804577](file:///C:\Data\3GPP\Extracts\36321_CR1247_(Rel-15)_R2-1804577.doc) Clarification on Type 2 PH in EN-DC Samsung CR Rel-15 36.321 15.1.0 1247 - F NR\_newRAT-Core

[R2-1804609](file:///C:\Data\3GPP\Extracts\38331_CR0025_(Rel-15)_R2-1804609.doc) Support of Type 2 PH Samsung CR Rel-15 38.331 15.1.0 0025 - F NR\_newRAT-Core

[R2-1804693](file:///C:\Data\3GPP\Extracts\R2-1804693_Discussion%20on%20PHR%20for%20beam.docx) Discussion on PHR for beam vivo discussion

[R2-1804876](file:///C:\Data\3GPP\Extracts\R2-1804876%20CR%20to%20PH%20value%20type%20determination.doc) CR for the PH value type determination ZTE, Sanechips CR Rel-15 38.321 15.1.0 0062 - F NR\_newRAT-Core

[R2-1805343](file:///C:\Data\3GPP\Extracts\R2-1805343%20Clarifications%20on%20PHR%20format%20with%20EN-DC.docx) Clarifications on PHR format with EN-DC Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805344](file:///C:\Data\3GPP\Extracts\R2-1805344%20Clarification%20on%20PHR%20format%20usage%20in%2038.321.doc) Clarification on PHR format usage in 38.321 Nokia, Nokia Shanghai Bell CR Rel-15 38.321 15.1.0 0065 - F NR\_newRAT

[R2-1805345](file:///C:\Data\3GPP\Extracts\R2-1805345%20Clarification%20on%20PHR%20format%20usage%20in%2036.321.doc) Clarification on PHR format usage in 36.321 Nokia, Nokia Shanghai Bell CR Rel-15 36.321 15.1.0 1257 - F NR\_newRAT

[R2-1805755](file:///C:\Data\3GPP\Extracts\R2-1805755%20PHR%20reporting%20at%20coverage%20edge.doc) PHR reporting at coverage edge Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1805786](file:///C:\Data\3GPP\Extracts\R2-1805786%20Remaining%20issues%20of%20power%20management%20in%20NR.doc) Remaining issue of power management in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805885](file:///C:\Data\3GPP\Extracts\R2-1805885%20Correction%20to%2038.321%20on%20power%20management%20in%20NR.doc) Correction to 38.321 on power management in NR Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0085 - B NR\_newRAT-Core

[R2-1805901](file:///C:\Data\3GPP\Extracts\R2-1805901%20PHR%20for%20the%20independent%20power%20control%20of%20SRS%20and%20PUSCH.doc) PHR for the independent power control of SRS and PUSCH Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805925](file:///C:\Data\3GPP\Extracts\R2-1805925_38321_CR0093_(Rel-15)_PHR%20for%20PSCell.doc) Correction on multiple entry PHR MAC CE for EN-DC NEC CR Rel-15 38.321 15.1.0 0093 - F NR\_newRAT-Core

[R2-1805926](file:///C:\Data\3GPP\Extracts\R2-1805926_36321_CR1265_(Rel-15)_PHR%20for%20PSCell%20in%20ENDC.doc) Correction on Dual Connectivity PHR MAC CE for EN-DC NEC CR Rel-15 36.321 15.1.0 1265 - F NR\_newRAT-Core

[R2-1806002](file:///C:\Data\3GPP\Extracts\R2-1806002_Impact%20analysis%20on%20NR%20PHR_r1.doc) Impact analysis on NR PHR NTT DOCOMO INC. discussion Rel-15 NR\_newRAT-Core

Withdrawn

[R2-1805832](file:///C:\Data\3GPP\Extracts\R2-1805832%20Correction%20to%2038.321%20on%20power%20management%20in%20NR.doc) Correction to 38.321 on power management in NR HUAWEI TECH. GmbH CR Rel-15 38.321 15.1.0 0080 - B NR\_newRAT-Core Withdrawn

#### 10.3.1.13 Other

Other corrections on topics not included in the detailed agenda items.

[R2-1804288](file:///C:\Data\3GPP\Extracts\R2-1804288.doc) Discussion on beam failure recovery request in NR ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804611](file:///C:\Data\3GPP\Extracts\38321_CR0060_(Rel-15)_R2-1804611.doc) Clarification on beam failure recovery procedure Samsung CR Rel-15 38.321 15.1.0 0060 - F NR\_newRAT-Core

[R2-1804874](file:///C:\Data\3GPP\Extracts\R2-1804874%20Consideration%20on%20Beam%20Failure%20Detection%20During%20BWP%20Switch.docx) Consideration on Beam Failure Detection During BWP Switch ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804875](file:///C:\Data\3GPP\Extracts\R2-1804875%20CR%20for%20the%20behavior%20of%20BFI_Counter%20and%20beamFailureRecoveryTimer%20During%20BWP%20Switch.doc) CR for the behavior of BFI\_Counter and beamFailureRecoveryTimer During BWP Switch ZTE, Sanechips CR Rel-15 38.321 15.1.0 0061 - F NR\_newRAT-Core

[R2-1804943](file:///C:\Data\3GPP\Extracts\R2-1804943%20MAC%20header%20shortening.doc) Reduction of MAC header overhead Fujitsu discussion Rel-15 NR\_newRAT-Core [R2-1802548](file:///C:\Data\3GPP\Extracts\R2-1802548%20MAC%20header%20shortening.doc)

[R2-1805404](file:///C:\Data\3GPP\Extracts\R2-1805404%20-%20Impact%20of%20multiple%20measurement%20gaps%20in%20MAC.docx) Impact of multiple measurement gaps in MAC Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1803188](file:///C:\Data\3GPP\Extracts\R2-1803188%20-%20Impact%20of%20multiple%20measurement%20gaps%20in%20MAC.docx)

[R2-1805405](file:///C:\Data\3GPP\Extracts\R2-1805405%20-%20DRX%20with%20short%20on-duration%20and%20Wake-up%20signaling.docx) DRX with short on-duration and Wake-up signaling Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1803189](file:///C:\Data\3GPP\Extracts\R2-1803189%20-%20DRX%20with%20short%20on-duration%20and%20Wake-up%20signaling.docx)

[R2-1805410](file:///C:\Data\3GPP\Extracts\38321_CR0066_R2-1805410%20-%20Scaling%20factor%20for%20prioritized%20Random%20Access.docx) Scaling factor for prioritized Random Access Ericsson CR Rel-15 38.321 15.1.0 0066 - F NR\_newRAT-Core

[R2-1805411](file:///C:\Data\3GPP\Extracts\38331_CR0043_R2-1805411%20-%20Scaling%20factor%20for%20prioritized%20Random%20Access.docx) Scaling factor for prioritized Random Access Ericsson CR Rel-15 38.331 15.1.0 0043 - F NR\_newRAT-Core

[R2-1805604](file:///C:\Data\3GPP\Extracts\38321_CR0074_R2-1805604%20-%20Correction%20on%20multiple%20measurment%20gaps.docx) Correction on multiple measurement gaps Ericsson CR Rel-15 38.321 15.1.0 0074 - F NR\_newRAT-Core

[R2-1805787](file:///C:\Data\3GPP\Extracts\R2-1805787%20MAC%20handling%20during%20different%20measurement%20gaps.doc) MAC handling during different measurement gaps Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805883](file:///C:\Data\3GPP\Extracts\R2-1805883%20CR%20on%20MAC%20handling%20during%20different%20measurement%20gaps.doc) CR on MAC handling during different measurement gaps Huawei, HiSilicon CR Rel-15 38.321 15.1.0 0084 - F NR\_newRAT-Core

[R2-1806004](file:///C:\Data\3GPP\Extracts\R2-1806004_SCellDeactivationTimer_r3.doc) Discussion on SCellDeactivationTimer NTT DOCOMO INC. discussion Rel-15 NR\_newRAT-Core

[R2-1806095](file:///C:\Data\3GPP\Extracts\R2-1806095_TBsizesforNRVoIP.doc) Transport Block size for NR VoIP SHARP Corporation, NTT DOCOMO, INC., KDDI Corporation, Kyocera, Fujitsu, NEC discussion Rel-15 NR\_newRAT-Core [R2-1803951](file:///C:\Data\3GPP\Extracts\R2-1803951_TBsizesforNRVoIP.doc)

[R2-1806096](file:///C:\Data\3GPP\Extracts\R2-1806096_TBsizeforNRVoIP_LStoRAN1_02Sh.doc) [DRAFT] LS on Transport Block Size for NR VoIP SHARP Corporation LS out Rel-15 NR\_newRAT-Core [R2-1804025](file:///C:\Data\3GPP\Extracts\R2-1804025_TBsizeforNRVoIP_LStoRAN1.doc) To:RAN1

[R2-1806149](file:///C:\Data\3GPP\Extracts\R2-1806149%20Further%20Discussions%20on%20MAC.doc) Further Discussion on Packet Duplication Considering SUL and Bandwidth Part Samsung discussion NR\_newRAT-Core [R2-1802447](file:///C:\Data\3GPP\Extracts\R2-1802447.doc)

Withdrawn

[R2-1805831](file:///C:\Data\3GPP\Extracts\R2-1805831%20CR%20on%20MAC%20handling%20during%20different%20measurement%20gaps.doc) CR on MAC handling during different measurement gaps HUAWEI TECH. GmbH CR Rel-15 38.321 15.1.0 0079 - F NR\_newRAT-Core Withdrawn

#### 10.3.1.14 Aspects related to NR standalone operation

Including details of MAC CE based rate adaption for voice over NR as agreed at RAN2#101 (and to be treated with lower priority than essential functionality).

[R2-1805848](file:///C:\Data\3GPP\Extracts\R2-1805848%20Multiple%20active%20bandwidth%20parts.docx) Multiple active bandwidth parts Samsung discussion Rel-15

[R2-1806147](file:///C:\Data\3GPP\Extracts\R2-1806147%20RBR%20for%20NR.doc) Recommended Bit Rate for NR Samsung discussion NR\_newRAT-Core

[R2-1805714](file:///C:\Data\3GPP\Extracts\R2-1805714.doc) Introduction of some voice enhancements in TS 38.321 HUAWEI TECH. GmbH CR Rel-15 38.321 15.1.0 0076 - B NR\_newRAT-Core

moved from 10.2.10 to 10.3.1.14

### 10.3.2 RLC

#### 10.3.2.1 TS

Latest TS 38.322, rapporteur inputs, etc

Editorial and small corrections/clarifications should be provided to the rapporteur. Single rapporteur TP is encouraged for editorials and clarifications.

#### 10.3.2.2 RLC header format

Corrections related to RLC header format

#### 10.3.2.3 Impact of PDCP duplication to RLC

Max 1 contribution per company

[R2-1804474](file:///C:\Data\3GPP\Extracts\R2-1804474%20%20Discussion%20on%20activation%20deactivation%20of%20PDCP%20duplication.doc) Discussion on activation/deactivation of PDCP duplication Spreadtrum Communications discussion Rel-15

[R2-1805792](file:///C:\Data\3GPP\Extracts\R2-1805792%20Further%20consideration%20on%20per%20Cell%20RLF.doc) Further consideration on per Cell RLF Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805793](file:///C:\Data\3GPP\Extracts\R2-1805793%20Remaining%20issues%20on%20L2%20handling%20%20for%20SCell%20RLF.doc) Remaining issues on L2 handling for SCell RLF Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1806033](file:///C:\Data\3GPP\Extracts\R2-1806033_Polling%20trigger%20for%20empty%20buffer.doc) Discussion on polling for empty buffer scenario NTT DOCOMO INC. discussion Rel-15 NR\_newRAT-Core

[R2-1806079](file:///C:\Data\3GPP\Extracts\R2-1806079%20Consideration%20on%20indicating%20RLC%20max%20retransmissions.docx) Consideration on indicating RLC max retransmissions LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802994](file:///C:\Data\3GPP\Extracts\R2-1802994%20Consideration%20on%20indicating%20RLC%20max%20retransmissions.docx)

[R2-1806090](file:///C:\Data\3GPP\Extracts\R2-1806090_RLC%20failure%20handling.docx) RLC failure handling LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1806123](file:///C:\Data\3GPP\Extracts\R2-1806123%20-%20Remaining%20issue%20of%20SCell-RLF.docx) Remaining issue of SCell-RLF ITL discussion Rel-15

[R2-1806144](file:///C:\Data\3GPP\Extracts\R2-1806144%20RLC%20max%20retransmissions%20in%20CA%20duplication.doc) RLC Max Retransmissions in CA Duplication Samsung discussion NR\_newRAT-Core

[R2-1806151](file:///C:\Data\3GPP\Extracts\38321_CR(0098)_(Rel-15)_R2-1806151_RLC%20failure%20handling.docx) RLC failure handling LG Electronics Inc. CR Rel-15 38.321 15.1.0 0098 - F NR\_newRAT-Core

Withdrawn

R2-1806091 RLC failure handling LG Electronics Inc. CR Rel-15 38.323 15.1.0 0008 - F NR\_newRAT-Core Withdrawn

R2-1806130 RLC failure handling LG Electronics Inc. CR Rel-15 38.321 15.1.0 0097 - F NR\_newRAT-Core Withdrawn

R2-1806142 RLC failure handling LG Electronics Inc. CR Rel-15 38.322 15.1.0 0008 - F NR\_newRAT-Core Withdrawn

#### 10.3.2.4 Other

[R2-1804421](file:///C:\Data\3GPP\Extracts\R2-1804421%20Discussion%20on%20POLL_SN.doc) Discussion on POLL\_SN Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804422](file:///C:\Data\3GPP\Extracts\38322_CR0004_(REL-15)_R2-1804422_Correction%20on%20POLL_SN.doc) Correction on POLL\_SN Huawei, HiSilicon CR Rel-15 38.322 15.1.0 0004 - F NR\_newRAT-Core

[R2-1804423](file:///C:\Data\3GPP\Extracts\R2-1804423%20Polling%20for%20the%20last%20RLC%20SDU.doc) Polling for the last RLC SDU Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804424](file:///C:\Data\3GPP\Extracts\38322_CR0005_(REL-15)_R2-1804424_Correction%20on%20polling%20for%20the%20last%20RLC%20PDU.doc) CR on polling for the last RLC SDU Huawei, HiSilicon CR Rel-15 38.322 15.1.0 0005 - F NR\_newRAT-Core

[R2-1804944](file:///C:\Data\3GPP\Extracts\R2-1804944%20RLC%20header%20shortening.doc) Reduction of RLC header overhead Fujitsu discussion Rel-15 NR\_newRAT-Core [R2-1802549](file:///C:\Data\3GPP\Extracts\R2-1802549%20RLC%20header%20shorteningl.doc)

[R2-1805434](file:///C:\Data\3GPP\Extracts\R2-1805434%20-%20Clarification%20of%20RLC%20poll%20handling%20for%20DC%20and%20Duplication.docx) Clarification of RLC poll handling for DC and Duplication Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805435](file:///C:\Data\3GPP\Extracts\R2-1805435%20-%20TX_NEXT%20handling%20in%20NR.docx) TX\_NEXT in NR RLC Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805657](file:///C:\Data\3GPP\Extracts\R2-1805657%20POLL_SN%20mismatch%20issue.doc) POLL\_SN mismatch issue Qualcomm Incorporated, MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805865](file:///C:\Data\3GPP\Extracts\R2-1805865%20Issue%20on%20POLL_SN%20mismatch.doc) Issue on POLL\_SN mismatch SHARP Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805866](file:///C:\Data\3GPP\Extracts\R2-1805866%20TP%20on%20issue%20on%20POLL_SN%20mismatch.docx) TP on issue on POLL\_SN mismatch SHARP Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1806077](file:///C:\Data\3GPP\Extracts\38322_CR(0007)_(Rel-15)_R2-1806077_Clarification%20on%20data%20volume%20calculation.docx) Clarification on data volume calculation LG Electronics Inc. CR Rel-15 38.322 15.1.0 0007 - F NR\_newRAT-Core

[R2-1806078](file:///C:\Data\3GPP\Extracts\R2-1806078%20Issue%20on%20POLL_SN%20and%20the%20RLC%20SDU%20for%20retransmission.docx) Issue on POLL\_SN and the RLC SDU for retransmission LG Electronics Inc., Sharp, Ericsson, Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

### 10.3.3 PDCP

#### 10.3.3.1 TS

Latest TS 38.323, rapporteur inputs, etc

Editorial and small corrections/clarifications should be provided to the rapporteur. Single rapporteur TP is encouraged for editorials and clarifications.

[R2-1805900](file:///C:\Data\3GPP\Extracts\R2-1805900%20Text%20proposal%20for%20the%20activation%20and%20deactivation%20of%20PDCP%20duplication.doc) Text proposal for the activation and deactivation of PDCP duplication Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1803009](file:///C:\Data\3GPP\Extracts\R2-1803009%20Text%20proposal%20for%20PDCP%20duplication.doc)

[R2-1805998](file:///C:\Data\3GPP\Extracts\R2-1805998%2038323_CR(0006)_(REL-15)_Corrections%20to%20PDCP%20specification.docx) Corrections to PDCP specification LG Electronics Inc. (PDCP rapporteur) CR Rel-15 38.323 15.1.0 0006 - F NR\_newRAT-Core

[R2-1805999](file:///C:\Data\3GPP\Extracts\R2-1805999%2038323_CR(0007)_(REL-15)_Introduction%20of%20PDCP%20duplication.docx) Introduction of PDCP duplication LG Electronics Inc. (PDCP rapporteur) CR Rel-15 38.323 15.1.0 0007 - B NR\_newRAT-Core

[R2-1806039](file:///C:\Data\3GPP\Extracts\R2-1806039_Clarification%20on%20COUNT%20wrap-around.docx) Clarification on count wrap around NTT DOCOMO INC., Nokia CR Rel-15 38.300 15.1.0 0022 - F NR\_newRAT-Core

#### 10.3.3.2PDCP PDU formats

Corrections/critical issues related to PDCP PDU formats

#### 10.3.3.3 PDCP duplication

Impacts of PDCP duplication for DRBs and SRBs (i.e. whether LCID is allocated by RRC signaling or is fixed).

Max 1 contribution per company

[R2-1804294](file:///C:\Data\3GPP\Extracts\R2-1804294%20Interaction%20between%20%20PDCP%20and%20RLC%20Entities%20for%20duplication%20in%20NR-NR%20DC.docx) Interaction between PDCP and RLC Entities for duplication in NR-NR DC TCL discussion NR\_newRAT-Core [R2-1801938](file:///C:\Data\3GPP\Extracts\R2-1801938%20Interaction%20between%20%20PDCP%20and%20RLC%20Entities%20for%20duplication%20in%20NR-NR%20DC.docx)

[R2-1804472](file:///C:\Data\3GPP\Extracts\R2-1804472%20Remaining%20issues%20on%20CA%20duplication%20for%20SRBs.doc) Remaining issues on CA duplication for SRBs Spreadtrum Communications discussion Rel-15

[R2-1804878](file:///C:\Data\3GPP\Extracts\R2-1804878_RRC%20configuration%20of%20SRB%20CA%20duplication.docx) RRC configuration of SRB CA duplication vivo discussion

[R2-1805097](file:///C:\Data\3GPP\Extracts\R2-1805097%20Duplicate%20discard%20based%20on%20HARQ%20feedback.docx) Duplicate discard based on HARQ feedback MediaTek Inc., CATT, NTT DOCOMO Inc. discussion Rel-15 NR\_newRAT-Core [R2-1803166](file:///C:\Data\3GPP\Extracts\R2-1803166%20Duplicate%20discard%20based%20on%20HARQ%20feedback.docx)

[R2-1805273](file:///C:\Data\3GPP\Extracts\R2-1805273.doc) Remaining issues on PDCP duplication Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1805340](file:///C:\Data\3GPP\Extracts\R2-1805340%20Duplication%20discard.docx) PDCP duplication discard Motorola Mobility España SA discussion NR\_newRAT-Core

[R2-1805341](file:///C:\Data\3GPP\Extracts\R2-1805341%20Duplication%20impact%20to%20Bj.docx) PDCP packet duplication Motorola Mobility España SA discussion NR\_newRAT-Core

[R2-1805348](file:///C:\Data\3GPP\Extracts\R2-1805348%20Duplication%20impacts%20to%20PDCP.docx) Duplication impacts to PDCP Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805432](file:///C:\Data\3GPP\Extracts\R2-1805432%20-%20PDCP%20duplication.docx) PDCP duplication Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805436](file:///C:\Data\3GPP\Extracts\R2-1805436%20Reliability%20enhancement%20of%20duplication%20activation%20and%20deactivation.docx) Reliability enhancement of duplication activation and deactivation MediaTek Inc. discussion Rel-15 NR\_newRAT-Core [R2-1801155](file:///C:\Data\3GPP\Extracts\R2-1801155%20draftCR38323_(Rel-15)_R2-1801155_Reliability%20enhancements%20for%20PDCP%20Duplication%20Activation%20and%20Deactivation.doc)

[R2-1805794](file:///C:\Data\3GPP\Extracts\R2-1805794%20Remaining%20issues%20for%20PDCP%20duplication.doc) Remaining issues on PDCP duplication Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805952](file:///C:\Data\3GPP\Extracts\R2-1805952_Full%20PDCP%20transmission%20window%20during%20duplication%20operation.doc) Full PDCP transmission window during duplication operation Sequans Communications discussion NR\_newRAT-Core

[R2-1806122](file:///C:\Data\3GPP\Extracts\R2-1806122%20-%20UL%20PDCP%20duplication%20configuration%20for%20the%20default%20DRB.docx) UL PDCP duplication configuration for the default DRB ITL discussion Rel-15

[R2-1806146](file:///C:\Data\3GPP\Extracts\R2-1806146%20Remaining%20Issue%20PDCP%20Duplication.doc) Remaining Issues on PDCP Duplication Samsung discussion NR\_newRAT-Core

#### 10.3.3.4 Other

Corrections/critical issues related to PDCP

[R2-1805042](file:///C:\Data\3GPP\Extracts\R2-1805042.docx) Discard in PDCP entity release Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805053](file:///C:\Data\3GPP\Extracts\38323_CR0004_(Rel-15)_R2-1805053_Correction%20to%20PDCP%20entity%20release.doc) Correction to PDCP entity release Intel Corporation CR Rel-15 38.323 15.1.0 0004 - F NR\_newRAT-Core

[R2-1805860](file:///C:\Data\3GPP\Extracts\R2-1805860%20Continuing%20ROHC%20context.doc) Continuing ROHC context SAMSUNG Electronics Co., Ltd. discussion

[R2-1805954](file:///C:\Data\3GPP\Extracts\R2-1805954_Reordering%20timer%20for%20PDCP%20operation%20with%20(DL)%20duplication.doc) Reordering timer for PDCP operation with (DL) duplication Sequans Communications discussion NR\_newRAT-Core [R2-1803669](file:///C:\Data\3GPP\Extracts\R2-1803669_Reordering%20timer%20for%20PDCP%20operation%20with%20duplication.doc)

Withdrawn

R2-1805859 Continuing ROHC context SAMSUNG Electronics Co., Ltd. discussion Withdrawn

### 10.3.4 SDAP

#### 10.3.4.1 TS

Latest TS 37.324, rapporteur inputs, etc

Including output of email discussion [101#71][NR UP/SDAP] Running TS – Huawei

[R2-1804623](file:///C:\Data\3GPP\Extracts\R2-1804623%20QoS%20flow%20to%20DRB%20release.doc) Release of QoS Flow to DRB Mapping Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804822](file:///C:\Data\3GPP\RAN2\Docs\R2-1804822.zip) Draft TS 37.324 v140 Rapporteur (Huawei) discussion Rel-15 37.324 NR\_newRAT-Core

[R2-1804823](file:///C:\Data\3GPP\Extracts\R2-1804823.doc) List of Editor's Notes from TS 37.324 v1.4.0 Rapporteur (Huawei) discussion Rel-15 37.324 NR\_newRAT-Core

#### 10.3.4.2 Header Format

Details of header format with the 8bit header size limitations. Contributions on RQI setting and size of QFI should be submitted in this AI. (max 1 contributions per company)

Contributions on this topic should depend on SA2 input and whether there is a need to remap NAS QFI to AS QFI

[R2-1804328](file:///C:\Data\3GPP\Extracts\R2-1804328_nr_qos_header_v25.doc) Further considerations on the QoS header format Samsung discussion Rel-15 NR\_newRAT-Core [R2-1801868](file:///C:\Data\3GPP\Extracts\R2-1801868_nr_qos_header_v22.doc)

[R2-1804489](file:///C:\Data\3GPP\Extracts\R2-1804489_SDAP%20header%20-%20final.docx) SDAP header format CATT discussion

[R2-1804503](file:///C:\Data\3GPP\Extracts\R2-1804503-UL%20SDAP%20header%20format.doc) UL SDAP header format OPPO discussion

[R2-1804619](file:///C:\Data\3GPP\Extracts\R2-1804619-SDAP%20Header%20Format-v1.doc) Further Discussion on SDAP Header Format Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804912](file:///C:\Data\3GPP\Extracts\R2-1804912%20QFI%20Mapping.docx) Mapping of NAS QFI to AS QFI Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT Late

[R2-1805431](file:///C:\Data\3GPP\Extracts\R2-1805431%20-%206-bit%20QFI%20and%20AS-NAS%20QFI%20mapping.docx) 6-bit QFI and AS-NAS QFI mapping Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805523](file:///C:\Data\3GPP\Extracts\R2-1805523 (Revision of R2-1803215) How to toggle the RDI bit.doc) How to toggle the RDI bit CMCC discussion Rel-15 NR\_newRAT-Core [R2-1803215](file:///C:\Data\3GPP\Extracts\R2-1805523 (Revision of R2-1803215) How to toggle the RDI bit.doc)

[R2-1805524](file:///C:\Data\3GPP\Extracts\R2-1805524.docx) Short QFI and mapping from NAS QFI to AS QFI CMCC, Nokia, Nokia Shanghai Bell ,CATT discussion Rel-15 NR\_newRAT-Core

[R2-1805525](file:///C:\Data\3GPP\Extracts\R2-1805525.docx) Short QFI in SDAP header CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805561](file:///C:\Data\3GPP\Extracts\R2-1805561 %5bDRAFT%5d%20LS on NAS and AS QFI mapping.doc) LS on NAS and AS QFI mapping CMCC LS out Rel-15 NR\_newRAT-Core To:SA2, CT1

[R2-1805655](file:///C:\Data\3GPP\Extracts\R2-1805655%20On%20mapping%20NAS%20QFI%20to%20AS%20QFI.doc) On mapping NAS QFI to AS QFI Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803403](file:///C:\Data\3GPP\Extracts\R2-1803403%20On%20mapping%20NAS%20QFI%20to%20AS%20QFI.doc)

[R2-1805867](file:///C:\Data\3GPP\Extracts\R2-1805867_SDAP_MultipleQoSflowMapping.doc) UL SDAP header for Multiple QoS flows mapped to a DRB mapping SHARP Corporation discussion Rel-15 NR\_newRAT-Core [R2-1803688](file:///C:\Data\3GPP\Extracts\R2-1803688_SDAP_MultipleQoSflowMapping.doc)

#### 10.3.4.3 QoS flow remapping and handover

How to ensure in-order delivery for UL in case of QoS flow remapping (max 1 contribution per company)

[R2-1804408](file:///C:\Data\3GPP\Extracts\R2-1804408%20Implementation%20based%20UL%20QoS%20flow%20remapping.docx) Implementation based UL QoS flow remapping ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804466](file:///C:\Data\3GPP\Extracts\R2-1804466%20QoS%20flow%20remapping.docx) QoS flow remapping MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1804470](file:///C:\Data\3GPP\Extracts\R2-1804470%20QoS%20Flow%20to%20DRB%20Re-Mapping.doc) QoS Flow to DRB Re-Mapping Spreadtrum Communications discussion Rel-15

[R2-1804490](file:///C:\Data\3GPP\Extracts\R2-1804490_QoS%20re-mapping%20-%20final.docx) QoS re-mapping of QoS flow and DRB CATT discussion

[R2-1804505](file:///C:\Data\3GPP\Extracts\R2-1804505-In-order%20delivery%20for%20QoS%20flow%20remapping%20.doc) In-order delivery for QoS flow remapping OPPO discussion

[R2-1804620](file:///C:\Data\3GPP\Extracts\R2-1804620%20QoS%20Flow%20to%20DRB%20Re-Mapping%20for%20Uplink.doc) QoS Flow to DRB Re-Mapping for Uplink Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804695](file:///C:\Data\3GPP\Extracts\R2-1804695_Discussion%20on%20the%20QoS%20flow%20remapping.docx) Discussion on the QoS flow remapping vivo discussion

[R2-1804913](file:///C:\Data\3GPP\Extracts\R2-1804913%20QoS%20Flow%20Remapping.docx) QoS Flow Remapping Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805507](file:///C:\Data\3GPP\Extracts\R2-1805507%20-%20QoS%20Flow%20remapping%20and%20end%20marker.docx) QoS Flow remapping and end marker Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1806071](file:///C:\Data\3GPP\Extracts\R2-1806071_QoS%20flow%20to%20DRB%20remapping.docx) QoS flow to DRB remapping LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

#### 10.3.4.4 Others

*Other remaining issues*

[R2-1804285](file:///C:\Data\3GPP\Extracts\R2-1804285.doc) TP on SDAP header presence of an DRB ASUSTeK discussion Rel-15 NR\_newRAT-Core

[R2-1804286](file:///C:\Data\3GPP\Extracts\R2-1804286.doc) Presence of UL SDAP header on default DRB ASUSTeK discussion Rel-15 NR\_newRAT-Core [R2-1801893](file:///C:\Data\3GPP\Extracts\R2-1801893.doc)

[R2-1804292](file:///C:\Data\3GPP\Extracts\R2-1804292%20QoS%20Flow%20ID%20for%20AS%20Reflective.doc) QFI Presence for AS Level Reflective QoS TCL discussion NR\_newRAT-Core [R2-1801934](file:///C:\Data\3GPP\Extracts\R2-1801934%20QoS%20Flow%20ID%20for%20AS%20Reflective-draft.doc)

[R2-1804293](file:///C:\Data\3GPP\Extracts\R2-1804293%20Issues%20with%20RDI%20setting.doc) Issues with RDI setting for AS updating TCL, vivo discussion NR\_newRAT-Core [R2-1801933](file:///C:\Data\3GPP\Extracts\R2-1801933%20Issues%20with%20AS%20RQI%20setting.doc)

[R2-1804339](file:///C:\Data\3GPP\Extracts\R2-1804339_nr_qos_reflective_v03.doc) On the logical mismatch in setting of the AS and NAS reflective QoS indicator Samsung discussion Rel-15

[R2-1804467](file:///C:\Data\3GPP\Extracts\R2-1804467%20Some%20remaining%20issues%20in%20SDAP%20layer.docx) Some remaining issues in SDAP layer MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1804504](file:///C:\Data\3GPP\Extracts\R2-1804504-Discussion%20on%20QFI%20remapping%20issue.doc) Discussion on QFI remapping issue OPPO discussion

[R2-1804621](file:///C:\Data\3GPP\Extracts\R2-1804621%20Lossless%20Handover%20of%20QoS%20Flow%20.doc) Lossless Handover of QoS Flow Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804622](file:///C:\Data\3GPP\Extracts\R2-1804622%20QoS%20Flow%20Level%20Offloading.doc) QoS Flow Level Offloading Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804625](file:///C:\Data\3GPP\Extracts\R2-1804625%20AS%20and%20NAS%20QFI%20mapping.doc) AS and NAS QFI mapping Beijing Xiaomi Mobile Software discussion Rel-15

[R2-1804914](file:///C:\Data\3GPP\Extracts\R2-1804914%20New%20QoS%20Flows%20on%20the%20Default%20Bearer.docx) New QoS flow on the Default Bearer Nokia, Mediatek, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT [R2-1802505](file:///C:\Data\3GPP\Extracts\R2-1802505%20New%20QoS%20Flows%20on%20the%20Default%20Bearer.docx)

[R2-1805429](file:///C:\Data\3GPP\Extracts\R2-1805429%20-%20Need%20of%20Maximum%20Burst%20Size%20parameter%20for%20all%20GBR%20Flows.docx) Need of Maximum Burst Size parameter for all GBR Flows Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805526](file:///C:\Data\3GPP\Extracts\R2-1805526.doc) Considerations on RDI bit CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805868](file:///C:\Data\3GPP\Extracts\R2-1805868_SDAP_mappingRule_store_remove.doc) Indication of mapping rule stored and removed SHARP Corporation discussion Rel-15 NR\_newRAT-Core [R2-1803689](file:///C:\Data\3GPP\Extracts\R2-1803689_SDAP_mappingRule_store_remove.doc)

[R2-1805869](file:///C:\Data\3GPP\Extracts\R2-1805869_SDAP_add_release_QoSflow.doc) Clarification of adding/releasing a QoS flow to/from a DRB SHARP Corporation discussion Rel-15 NR\_newRAT-Core [R2-1803690](file:///C:\Data\3GPP\Extracts\R2-1803690_SDAP_add_release_QoSflow.doc)

[R2-1806093](file:///C:\Data\3GPP\Extracts\R2-1806093%20Discussion%20on%20SDAP%20entity%20handling.docx) Discussion on SDAP entity handling LG Electronics discussion NR\_newRAT-Core

[R2-1806094](file:///C:\Data\3GPP\Extracts\R2-1806094%20Further%20discussion%20on%20default%20DRB.docx) Further discussion on default DRB LG Electronice discussion NR\_newRAT-Core

## 10.4 Stage 3 control plane

### 10.4.1 NR RRC

#### 10.4.1.1 TS and running CR

38.331 rapporteur inputs including FFS list, running CR to add non-EN-DC aspects, etc. Please submit corrections to the appropriate agenda item.

[R2-1805402](file:///C:\Data\3GPP\Extracts\38331%20CR42%20Rel15%20R2-1805402%20Misc%20EN-DC%20corrections.docx) Miscellaneous EN-DC corrections Ericsson CR Rel-15 38.331 15.1.0 0042 - F NR\_newRAT-Core

=> " upon which the procedure ends " in 5.3.5.3 is not agreed

=> more description to be added to the field description of ss-rssi-measurement

=> This will be the CR to capture all RRC changes

=> Comments will be moved into the field descriptions throughout the spec (rapporteur task)

* => Revised in R2-1806391 to address points above and add other agreements from this meeting

R2-1806391 Miscellaneous EN-DC corrections Ericsson CR Rel-15 38.331 15.1.0 0042 1 F NR\_newRAT-Core

* [101bis#xx][NR] 38.331 'draft' CR for EN-DC (Ericsson)

Field descriptions will be implemented from the notes without revision marks and the CR generated on top of this version including all agreements from this meeting (apart from capabilities), all RAN1 agreements that impact RRC.

Traceability of the source of the original agreements should not be lost.

Intended outcome: Endorsed draft CR that can be used as basic for change proposals to the next meeting.

Deadline: Thursday 2018-05-03 (at the latest, aim for earlier)

[R2-1805569](file:///C:\Data\3GPP\Extracts\R2-1805569%20-%20RRC%20CR%20handling%20towards%20end%20of%20Rel-15.docx) RRC CR handling towards end of Rel-15 Ericsson discussion Rel-15 NR\_newRAT-Core

Agreements

1 For LTE and NR, 1 RRC CR with EN-DC corrections will be submitted to RAN for approval in June

2 For NR, RRC CR with SA changes will be submitted to RAN for information but not for approval in June

3 For LTE, RRC CRs for LTE WIs will be submitted to RAN for information but not for approval in June

4 For LTE and NR, interim versions of the specs will be created including both all CRs and used by RAN2 for the purpose of ASN.1 review in Q3.

5 This process does not impact the WI completion (e.g. could use the 99% complete approach)

FFS: To be decided if for LTE WIs we want to submit CRs for other specs for approval and accept a mis-alignment between RRC and other RAN2 specs.

FFS: To be decided if for other CRs will be submitted for approval for other NR specs.

=> Discuss FFS points offline

=> Discuss the plan for how changes should be proposed for the RAN2#102 meeting (e.g. submit TPs relative to a running CR)

- Update from offline

=> CR to specs other than RRC will be submitted to RAN for approval

#### 10.4.1.3 Connection control procedures

No documents should be submitted to 10.4.1.3. Please submit to 10.4.1.3.x.

###### 10.4.1.3.1 Corrections to connection control for EN-DC

Corrections related to connection control procedures for EN-DC

###### 10.4.1.3.1.1 Corrections to L1 Parameters (except CSI-RS)

PxxCH configurations

[R2-1805696](file:///C:\Data\3GPP\Extracts\R2-1805696%20CR%20on%20corrections%20to%20PxxCH%20configuration%20in%2038331.docx) Corrections to PxxCH configurations Ericsson; NTT DOCOMO, INC. CR Rel-15 38.331 15.1.0 0057 - F NR\_newRAT-Core

=> [R2-1806200](file:///C:\Data\3GPP\Extracts\R2-1806200%20CR%20on%20corrections%20to%20PxxCH%20configuration%20in%2038331.docx)

[R2-1806200](file:///C:\Data\3GPP\Extracts\R2-1806200%20CR%20on%20corrections%20to%20PxxCH%20configuration%20in%2038331.docx) Corrections to PxxCH configurations Ericsson; NTT DOCOMO, INC. CR Rel-15 38.331 15.1.0 0057 - F NR\_newRAT-Core

=> For change 4, to be checked offline what the RAN1 agreement is.

=> For change 6, to be checked offline the RAN1 agreements. If the change is needed then make the ToAddModList a ToAddList. Add constraint on the total maximum number of states in the list.

=> Oher changes are agreed. Merged into the rapporteur CR

[R2-1804384](file:///C:\Data\3GPP\Extracts\R2-1804384%20CR%20for%20value%20contraint%20of%20prb-BundlingType.doc) CR for value constraint of prb-BundlingType ZTE, Sanechips CR Rel-15 38.331 15.1.0 0016 - F NR\_newRAT-Core

=> Instead of the proposed change just state that the for the constraint refer to RAN1 spec.

=> Can be merged into the rapporteur CR.

[R2-1805568](file:///C:\Data\3GPP\Extracts\R2-1805568%20-%20%20Corrections%20on%20PUCCH%20SCell.doc) Corrections on PUCCH Scell Ericsson CR Rel-15 38.331 15.1.0 0050 - F NR\_newRAT-Core

=> Also capture that PUCCH SCell cannot be configured for EN-DC

=> Also check that we capture somewhere that there can be max 2 PUCCH

=> Change names of PUCCH-SCellOnly and PUCCH-SCell to more appropriate names.

=> ServingCellWithoutPUCCH should have Need S in the condition

=> Add condition to indicate that change of PUCCH SCell to SCell is not supported

=> Can be merged into the rapporteur CR.

BWP related

[R2-1804373](file:///C:\Data\3GPP\Extracts\R2-1804373%20Clarification%20the%20SSB%20based%20BM,%20BFD%20and%20RLM%20with%20the%20operation%20of%20BWP.docx) Clarification the SSB based BM, BFD and RLM with the operation of BWPs ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

=> RAN2 understand that SSB based BM, BFD and RLM can only be configured for BWP which overlaps with the CD-SSB. For a BWP which doesn't overlap with the CD-SSB, BM, BFD and RLM can only be configured based on CSI-RS. We will not change this for Rel-15.

=> Draft LS to RAN1 in R2-1806396 to inform them of our conclusion and provide feedback if any. (Offline discussion #28, ZTE)

[R2-1806396](file:///C:\Data\3GPP\Extracts\R2-1806396%20LS%20to%20RAN1%20on%20SSB-based%20BM,%20BFD,%20RLM.docx) [DRAFT] LS on SSB-based BM, BFD, RLM ZTE LS out Rel-15 To:RAN1 NR\_newRAT-Core

=> Removed "(i.e. the SSB associated to the initial DL BWP "

=> First sentence of bullet to say " • SSB-based Beam Management, CSI measurements, Beam Failure Detection and RLM can only be configured for DL BWPs which contain the SSB associated with the serving cell. "

=> Approved in R2-1806493

[R2-1804374](file:///C:\Data\3GPP\Extracts\R2-1804374%20CR%20for%20introducing%20per%20BWP%20SSB%20configuration.doc) CR for introducing per BWP SSB configuration ZTE, Sanechips CR Rel-15 38.331 15.1.0 0011 - F NR\_newRAT-Core

[R2-1805205](file:///C:\Data\3GPP\Extracts\R2-1805205-%20On%20the%20necessity%20of%20adding%20SSB%20frequency%20location%20in%20SSB%20configuration%20as%20RLM-RS.doc) On the necessity of adding SSB frequency location in SSB configuration as RLM-RS Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1805206](file:///C:\Data\3GPP\Extracts\R2-1805206-%20CR-SSB%20configuration%20as%20RLM-RS.docx) CR to TS38.331 on SSB configuration as RLM-RS Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0030 - F NR\_newRAT-Core

[R2-1805003](file:///C:\Data\3GPP\Extracts\R2-1805003_initial%20BWP_v0.doc) Clarification on BWP configuration Intel Corporation discussion Rel-15 NR\_newRAT-Core

- DOCOMO understand that for the PCell case it is possible for the common part of Initial BWP to be reconfigured after the UE enters connected.

=> Can be discussed together with the BWP related discussion initiated from the stage 2 AI.

[R2-1805698](file:///C:\Data\3GPP\Extracts\R2-1805698%20First%20active%20BWP%20upon%20reconfigurationWithSync.docx) First active BWP upon reconfigurationWithSync Ericsson CR Rel-15 38.331 15.1.0 0059 - F NR\_newRAT-Core

=> Covered by the BWP related discussion initiated from the stage 2 AI

[R2-1805775](file:///C:\Data\3GPP\Extracts\R2-1805775%20Impacts%20of%20RRC%20based%20BWP%20activation.doc) Impacts for RRC based BWP activation Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

=> Covered by the BWP related discussion initiated from the stage 2 AI

[R2-1805776](file:///C:\Data\3GPP\Extracts\38331_CR0062_(REL-15)_R2-1805776_corrections%20to%20BWP%20in%20TS%2038%20331.doc) Correction to BWP Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0062 - F NR\_newRAT-Core

[R2-1805211](file:///C:\Data\3GPP\Extracts\R2-1805211-Remaining%20RRC%20procedure%20issues%20of%20BWP.doc) Remaining RRC procedure issues of BWP Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803036](file:///C:\Data\3GPP\Extracts\R2-1803036-Remaining%20RRC%20procedure%20issues%20of%20BWP.doc)

moved from 10.4.1.3.4 to 10.4.1.3.1.1

=> Noted

RLM/BFR

[R2-1804337](file:///C:\Data\3GPP\Extracts\R2-1804337_38331_CRxxxx_(Rel-15)%20Leftover%20issues%20in%20RRC%20parameters%20for%20BFR%20-%20final.docx) Leftover issues in RRC parameters for BFR CATT CR Rel-15 38.331 15.1.0 0009 - F NR\_newRAT-Core Late

=> beamFailureDetectionTimer change will be removed and should be discussed by user plane session for possible inclusion in MAC spec.

=> Other changes are covered by offline discussion in user plane session

[R2-1805896](file:///C:\Data\3GPP\Extracts\R2-1805896%20ASN.1%20for%20beam%20failure%20recovery.doc) ASN.1 for beam failure recovery Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

=> Noted

[R2-1805897](file:///C:\Data\3GPP\Extracts\R2-1805897%20Corrections%20for%2038331%20for%20beam%20failure%20recovery.doc) Corrections for 38331 for beam failure recovery Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0071 - F NR\_newRAT-Core

[R2-1806060](file:///C:\Data\3GPP\Extracts\R2-1806060%20%20Clarification%20on%20radio%20link%20monitoring%20RS.docx) Clarification on radio link monitoring RS Samsung Electronics discussion

=> If RS for beam failure detection are explicitly configured then RSs for RLM are always explicitly configured by the network

[R2-1806064](file:///C:\Data\3GPP\Extracts\R2-1806064%20%20Draft%20LS%20to%20RAN1%20on%20RLM%20RS%20signaling.docx) Draft LS to RAN1 on RLM RS signaling Samsung Electronics LS out To:RAN1

=> Noted

[R2-1806098](file:///C:\Data\3GPP\Extracts\R2-1806098%20RLM%20signaling%20correction%20in%2038.331.docx) RLM signaling correction in 38.331 Samsung discussion Rel-15 NR\_newRAT-Core

=> Noted

[R2-1806099](file:///C:\Data\3GPP\Extracts\R2-1806099%20%5bDRAFT%5d%20LS%20to%20RAN1%20on%20Possibility%20of%20CSI-RS%20for%20only%20Cell-RLM.docx) [DRAFT] LS to RAN1 on Possibility of CSI-RS for only Cell-RLM Samsung LS out Rel-15 NR\_newRAT-Core To:RAN1

[R2-1806100](file:///C:\Data\3GPP\Extracts\R2-1806100%20DraftCR_%20Corrections%20for%20RLM%20RS%20restriction.doc) DraftCR\_ Corrections for RLM RS restriction Samsung discussion Rel-15 NR\_newRAT-Core

=> Removed the " The network provides an ssb-Index only if -- the purpose is set to rlf." Send LS to RAN1 to explain agreement and the consequence is that the SSB can be explicitly configured for BFD. Explain that this is done for simplification. Can indicate that signalling optimisation is RAN2 responsibility.

=> Draft LS in R2-1806405 (Offline discussion #34, Samsung). Can check offline whether merging with any other LS makes sense.

[R2-1806405](file:///C:\Data\3GPP\Extracts\Draft%20R2-1806405%20Draft%20LS%20to%20RAN1%20on%20removing%20RLM%20RS%20restriction_Nokia_Sam_3.docx) [DRAFT] LS to RAN1 on Removing RLM-RS Restriction in TS 38.331 ASN.1 Samsung LS out Rel-15 To:RAN1 NR\_newRAT-Core

=> Approved in R2-1806504

[R2-1805889](file:///C:\Data\3GPP\Extracts\R2-1805889%20ASN.1%20for%20Radio%20Link%20Monitoring%20Config.doc) ASN.1 for Radio Link Monitoring Config Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

=> Noted

[R2-1805890](file:///C:\Data\3GPP\Extracts\R2-1805890%20Corrections%20for%2038331%20for%20radio%20link%20monitoring%20config.doc) Corrections for 38331 for radio link monitoring config Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0069 - F LTE\_unlic-Core

[R2-1804377](file:///C:\Data\3GPP\Extracts\R2-1804377%20CR%20for%20the%20configuration%20of%20RadioLinkMonitoringConfig.doc) CR for the configuration of RadioLinkMonitoringConfig ZTE, Sanechips CR Rel-15 38.331 15.1.0 0013 - F NR\_newRAT-Core

=> Revised in [R2-1806355](file:///C:\Data\3GPP\Extracts\R2-1806355%20CR%20for%20the%20configuration%20of%20RadioLinkMonitoringConfig.doc)

[R2-1806355](file:///C:\Data\3GPP\Extracts\R2-1806355%20CR%20for%20the%20configuration%20of%20RadioLinkMonitoringConfig.doc) CR for the configuration of RadioLinkMonitoringConfig ZTE, Sanechips CR Rel-15 38.331 15.1.0 0013 1 F NR\_newRAT-Core

=> Reset the timers and counters for RLM for any reconfiguration of the resources used for RLM.

=> Reset the timers and counters for BFD for any reconfiguration of the resources used for BFD.

=> Clarify exactly which timer and counters are reset.

=> Introduce the add/mod list

=> Changed can be added to the rapporteur CR

[R2-1805381](file:///C:\Data\3GPP\Extracts\R2-1805381%20-%20BWP%20impact%20to%20RLM.docx) BWP impact to RLM configuration Ericsson discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.4.1 to 10.4.1.3.1.1

=> Covered by previous discussion

[R2-1805442](file:///C:\Data\3GPP\Extracts\R2-1805442%20-%20CR%20on%20the%20beam%20recovery%20impact%20and%20BWP%20impact%20on%20RLF%20triggering.docx) Draft TP on the beam recovery impact and BWP impact on RLF triggering Ericsson CR Rel-15 38.331 15.1.0 0046 - F NR\_newRAT-Core

moved from 10.4.1.4.1 to 10.2.4

Random access parameters

[R2-1804389](file:///C:\Data\3GPP\Extracts\R2-1804389%20CR%20for%20ra-ControlResourceSet%20configuration.doc) CR for ra-ControlResourceSet configuration ZTE, Sanechips CR Rel-15 38.331 15.1.0 0020 - F NR\_newRAT-Core

=> Already covered by previous CR

[R2-1805694](file:///C:\Data\3GPP\Extracts\R2-1805694%20CR%20on%20Configurable%20N_TA-Offset%20for%20random%20access.docx) Configurable N\_TA-Offset for random access Ericsson CR Rel-15 38.331 15.1.0 0055 - F NR\_newRAT-Core

=> Changes are agreed to be added to the rapporteur CR

[R2-1804405](file:///C:\Data\3GPP\Extracts\R2-1804405%20Discussion%20on%20the%20corrections%20to%20RA%20parameters.docx) Discussion on the corrections to RA parameters ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.3.1.3 to 10.4.1.3.1.1

=> To be discussed offline to progress (Offline discussion #29, ZTE). Outcome to be captured in R2-1806397.

[R2-1806397](file:///C:\Data\3GPP\Extracts\R2-1806397%20CR%20for%20RACH%20parameters.doc) Discussion on the corrections to RA parameters ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

=> Changes are agreed to be added to the rapporteur CR

[R2-1804403](file:///C:\Data\3GPP\Extracts\R2-1804403%20CR%20for%20RACH%20parameters.doc) CR for RACH parameters ZTE, Sanechips CR Rel-15 38.331 15.1.0 0023 - F NR\_newRAT-Core

moved from 10.4.1.3.1.3 to 10.4.1.3.1.1

[R2-1806050](file:///C:\Data\3GPP\Extracts\R2-1806050_Disc%20on%20PreambleTargetReceivedPower_r4.doc) Discussion on preambleReceivedTargetPower NTT DOCOMO INC. discussion Rel-15 NR\_newRAT-Core

=> Single value range will be used in the signalling for all cases (UL and SUL)

=> Wait for RAN4 to provide the actual value range.

[R2-1806177](file:///C:\Data\3GPP\Extracts\R2-1806177_Draft%20LS%20on%20power%20control%20parameter%20range_r1.doc) Draft LS reply on Power control parameter range NTT DOCOMO INC. LS out Rel-15 NR\_newRAT-Core To:RAN1, RAN4

[R2-1805646](file:///C:\Data\3GPP\Extracts\R2-1805646%20RO%20for%20CFRA.doc) On PRACH occasions for CFRA ZTE Corporation, Sanechips discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.3.1.3 to 10.4.1.3.1.1

=> ssb-perRACH-Occasion should be OPTIONAL

=> TP is agreed to be included in the rapporteur CR (if there is any additional change agreed in user plane session then some alignment may be needed)

Freq config

[R2-1804372](file:///C:\Data\3GPP\Extracts\R2-1804372%20CR%20for%20configuration%20of%20the%20absoluteFrequencySSB%20for%20a%20serving%20cell.doc) CR for configuration of the absoluteFrequencySSB for a serving cell ZTE, Sanechips CR Rel-15 38.331 15.1.0 0010 - F NR\_newRAT-Core

=> Check that the limitations on the location of different cell types is captured in RAN1 specs and if so remove from the field description.

[R2-1805294](file:///C:\Data\3GPP\Extracts\R2-1805294.doc) Support of SCell without SSB Huawei, HiSilicon discussion NR\_newRAT-Core

=> Noted

[R2-1805295](file:///C:\Data\3GPP\Extracts\R2-1805295.doc) CR on 38.331 for SCell without SSB Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0033 - F NR\_newRAT-Core

=> Additionally capture that if the field is absent then the UE obtains timing sync from the SpCell. Also capture that according to RAN1 agreement this is only support for the case of SCell without SSB is in the same frequency band as cell providing timing ref.

=> TP agreed to be captured in the rapporteur CR

TDD configuration

[R2-1804772](file:///C:\Data\3GPP\Extracts\R2-1804772%20Dynamic%20TDD%20configuration.docx) Clarifications to TDD configuration in NR Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR\_newRAT-Core

=> Offline activity to propose:

1 How to define Cond TDD for both common and dedicated TDD configurations.

2 How to clarify how the SCS is configured between ServingCellConfigCommon and TDD-UL-DL-Config.

3 How to clarify how the SCS is handled between BWP configurations, ServingCellConfigCommon and TDD-UL-DL-Config.

=> Outcome of the discussion to be provided in R2-1806401 (Offline discussion #30, Nokia)

=> For point 2 draft LS in R2-1806400 to RAN1 to ask them to confirm our understanding.

[R2-1806400](file:///C:\Data\3GPP\Extracts\R2-1806400%20Draft%20LS%20on%20subcarrier%20spacing%20and%20TDD%20configuration_v2.docx) [DRAFT] LS on subcarrier spacing for BWPs and TDD configurations Nokia LS out Rel-15 To:RAN1 NR\_newRAT-Core

=> Approved in R2-1806505

[R2-1806401](file:///C:\Data\3GPP\RAN2\Docs\R2-1806401.zip) Clarifications to TDD configuration in NR Nokia discussion Rel-15 NR\_newRAT-Core

=> Agreed to be included in the rapporteur CR

[R2-1804385](file:///C:\Data\3GPP\Extracts\R2-1804385%20Clarification%20on%20the%20TDD-UL-DL-Configuration.doc) Clarification on the TDD-UL-DL-Configuration ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

=> Wait for progress in RAN1.

[R2-1804386](file:///C:\Data\3GPP\Extracts\R2-1804386%20CR%20for%20TDD-UL-DL-ConfigurationDedicated.doc) CR for TDD-UL-DLConfigurationDedicated ZTE, Sanechips CR Rel-15 38.331 15.1.0 0017 - F NR\_newRAT-Core

[R2-1804387](file:///C:\Data\3GPP\Extracts\R2-1804387%20CR%20for%20TDD-UL-DL-ConfigurationDedicated%20in%20ServingCellConfig.doc) CR for TDD-UL-DLConfigurationDedicated in ServingCellConfig ZTE, Sanechips CR Rel-15 38.331 15.1.0 0018 - F NR\_newRAT-Core

SRS config

[R2-1804388](file:///C:\Data\3GPP\Extracts\R2-1804388%20CR%20for%20SRS%20configuration.doc) CR for SRS configuration ZTE, Sanechips CR Rel-15 38.331 15.1.0 0019 - F NR\_newRAT-Core

=> Agreed to be added to the rapporteur CR

[R2-1805697](file:///C:\Data\3GPP\Extracts\R2-1805697%20Corrections%20to%20SRS.docx) Corrections to SRS configuration Ericsson CR Rel-15 38.331 15.1.0 0058 - F NR\_newRAT-Core

=> Deletion of the FFS is agreed and can be added to the rapporteur CR

[R2-1805891](file:///C:\Data\3GPP\Extracts\R2-1805891%20ASN.1%20for%20SRS-Config.doc) ASN.1 for SRS-Config Huawei, HiSilicon discussion Rel-15 LTE\_unlic-Core

=> Noted

[R2-1805892](file:///C:\Data\3GPP\Extracts\R2-1805892%20Corrections%20for%2038331%20for%20SRS%20config.doc) Corrections for 38331 for SRS config Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0070 - F LTE\_unlic-Core

=> Agreed to be added to the rapporteur CR

CSS configuration

[R2-1804882](file:///C:\Data\3GPP\Extracts\R2-1804882_Misalignment%20of%20CSS%20in%20PBCH%20and%20dedicated%20signaling.doc) Misalignment of CSS in PBCH and dedicated signalling vivo discussion Rel-15 NR\_newRAT-Core

=> Reuse the pdcch-ConfigSIB1 also in the ServingCellConfigCommon provided by dedicated signalling. Can be included in the rapporteur CR

=> Draft LS to RAN1 in R2-1806402 to inform them of our decision, and our previous decision that the configuration in ServingCellConfigCommon must be consistent with MIB/SIB1 and to check that this approach still meets the RAN1's intention. (Offline discussion #31, Vivo)

[R2-1806402](file:///C:\Data\3GPP\Extracts\Draft%20R2-1806402%20Draft%20LS%20on%20CSS%20alignment.doc) [DRAFT] LS on CSS alignment in MIB and dedicated signalling vivo LS out Rel-15 To:RAN1 NR\_newRAT-Core

=> Wait for an expected RAN1 LS (which may contain new information that affects our agreements)

=> Noted

[R2-1805215](file:///C:\Data\3GPP\Extracts\R2-1805215_Correction%20on%2038.331%20for%20CORESET%20and%20CSS.doc) Correction on 38.331 for CORESET and CSS vivo draftCR Rel-15 38.331 15.1.0 F NR\_newRAT-Core

=> To be discussed offline to identify what information should be added to the signalling so network is able to provide all the necessary information (instead of defining rules for how the UE handles absent information). (Offline discussion #32, Vivo)

[R2-1806484](file:///C:\Data\3GPP\RAN2\Docs\R2-1806484.zip) Summary of Offline discussion #32 on CORESET correction vivo discussion NR\_newRAT-Core

Working assumption:

1) Configure the CORESET of all candidate beam in ServingCellConfig.

=> To be confirmed at the next meeting following offline checking with RAN1.

Point A

[R2-1805292](file:///C:\Data\3GPP\Extracts\R2-1805292.doc) Clarification on reference point A Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805293](file:///C:\Data\3GPP\Extracts\R2-1805293.doc) CR on reference point A in TS38.331 Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0032 - F NR\_newRAT-Core

=> SIB1 change is agreed to be added to the running CR for standalone

=> Other changes agreed to be added to the rapporteur CR for EN-DC

SRS carrier switching

[R2-1805601](file:///C:\Data\3GPP\Extracts\R2-1805601%20Correction%20on%20the%20SRS%20carrier%20switching%20for%20cells%20with%20SUL.doc) Correction on the SRS carrier switching for cells with SUL Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805602](file:///C:\Data\3GPP\Extracts\R2-1805602%20CR%20on%20Rel-15%2038.331%20Correction%20on%20the%20SRS%20carrier%20switching%20for%20cells%20with%20SUL.doc) CR on 38.331 Correction on the SRS carrier switching for cells with SUL Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0053 - F NR\_newRAT-Core

=> Second change is agreed to be added to the rapporteur CR. ASN.1 structure to be concluded offline.

=> First change can be added to the rapporteur CR but offline discussion needed to conclude the correct location.

[R2-1805777](file:///C:\Data\3GPP\Extracts\38331_CR0063_(REL-15)_R2-1805777_corrections%20to%20SRS-CarrierSwitching.doc) Correction to SRS-CarrierSwitching Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0063 - F NR\_newRAT-Core

=> To be checked offline whether the field is used by RAN1, and whether the name has been changed. Can then be aligned in the rapporteur CR.

MIB

[R2-1805635](file:///C:\Data\3GPP\Extracts\R2-1805635%20On%20the%20SS_PBCH%20blocks%20without%20RMSI.docx) On the SS/PBCH blocks without RMSI Nokia, Nokia Shanghai Bell, Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

=> Noted

[R2-1805636](file:///C:\Data\3GPP\Extracts\38331_CR0054_(REL-15)_R2-1805636_The_introduction_of_MIB_field_descriptions.doc) The introduction of MIB field descriptions Nokia, Nokia Shanghai Bell, Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0054 - F NR\_newRAT-Core

=> Use the term SIB1 instead of RMSI

=> Changes agreed to be added to the rapporteur CR

[R2-1805699](file:///C:\Data\3GPP\Extracts\R2-1805699%20Security%20threat%20in%20MIB.docx) Security threats in MIB Ericsson discussion Rel-15 38.331 NR\_newRAT-Core

=> Noted

SUL

[R2-1805778](file:///C:\Data\3GPP\Extracts\38331_CR0064_(REL-15)_R2-1805778_CR%20on%20for%20SUL%20threshold%20configuration.doc) Correction to SUL description Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0064 - F NR\_newRAT-Core

=> Remove the Need R.

=> Changes agreed to be added to the rapporteur CR

DC location signalling

[R2-1806191](file:///C:\Data\3GPP\Extracts\R2-1806191%20consideration%20on%20direct%20current%20location%20signalling.doc) Consideration on Direct current location signaling Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core late

=> Noted

[R2-1806190](file:///C:\Data\3GPP\Extracts\38331_CR0077_R2-1806190%20direct%20current%20location%20signalling.doc) Direct current location signaling Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0077 - F NR\_newRAT-Core Late

Late

[R2-1806348](file:///C:\Data\3GPP\Extracts\R2-1806348.doc) CR on definition of dci-Format0-0-AndFormat1-0 Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0078 - F NR\_newRAT-Core

Withdrawn

R2-1804371 Clarification on the SSB property of the PSCell and SCell ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core Late

###### 10.4.1.3.1.2 Corrections to L1 parameters for CSI-RS

Documents in this AI were handled in a breakout session

[R2-1804375](file:///C:\\Data\\3GPP\\Extracts\\R2-1804375%20Discussion%20on%20the%20configuration%20of%20the%20cell%20info%20and%20csi-RS-for-tracking%20in%20TCI%20state.docx" \o "C:Data3GPPExtractsR2-1804375 Discussion on the configuration of the cell info and csi-RS-for-tracking in TCI state.docx) Discussion on the configuration of the cell info and csi-RS-for-tracking in TCI state ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804376](file:///C:\Data\3GPP\Extracts\R2-1804376%20CR%20for%20the%20cell%20info%20and%20csi-RS-for-tracking%20in%20TCI%20state.doc) CR for the cell info and csi-RS-for-tracking in TCI state ZTE, Sanechips CR Rel-15 38.331 15.1.0 0012 - F NR\_newRAT-Core

[R2-1805326](file:///C:\Data\3GPP\Extracts\R2-1805326.doc) Cell and BWP in CSI-MeasConfig and TCI-State Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805327](file:///C:\Data\3GPP\Extracts\R2-1805327.doc) Corrections on CSI-MeasConfig and CSI-ReportConfig Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0036 - F NR\_newRAT-Core

[R2-1805328](file:///C:\Data\3GPP\Extracts\R2-1805328.docx) Correcions on CodebookConfig Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0037 - F NR\_newRAT-Core

[R2-1805695](file:///C:\Data\3GPP\Extracts\R2-1805695%20Corrections%20to%20CSI-MeasConfig.docx) Corrections to CSI-MeasConfig Ericsson CR Rel-15 38.331 15.1.0 0056 - F NR\_newRAT-Core

=> Revised in R2-185695

[R2-1805695](file:///C:\Data\3GPP\Extracts\R2-1805695%20Corrections%20to%20CSI-MeasConfig.docx) Corrections to CSI-MeasConfig Ericsson CR Rel-15 38.331 15.1.0 0056 - F NR\_newRAT-Core

[R2-1805708](file:///C:\Data\3GPP\Extracts\38331_CR0060_(Rel-15)_R2-1805708%20CR%20on%20CSI-RS%20configuration.doc) CSI-RS and TCI state configuration corrections Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.1.0 0060 - F NR\_newRAT-Core

###### 10.4.1.3.1.3 Other

Documents in this AI were handled in a breakout session

L2 paramerers

[R2-1805551](file:///C:\Data\3GPP\Extracts\R2-1805551.doc) Remaining issues on L2 parameters after ASN.1 review Huawei, HiSilicon discussion Rel-15

[R2-1805552](file:///C:\Data\3GPP\Extracts\R2-1805552.doc) Corrections to L2 parameters Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0048 - F NR\_newRAT-Core

[R2-1805779](file:///C:\Data\3GPP\Extracts\38331_CR0065_(REL-15)_R2-1805779_corrections%20to%20logicalChannelIdentity.doc) Correction to logicalChannelIdentity Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0065 - F NR\_newRAT-Core

[R2-1806022](file:///C:\Data\3GPP\Extracts\38331_CR0076_R2-1806022%20clarification%20for%20initial%20split%20bearer%20configuration.docx) Clarification for Initial split bearer configuration Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0076 - F NR\_newRAT-Core

Other

[R2-1805234](file:///C:\Data\3GPP\Extracts\R2-1805234%20Discussion%20on%20full%20configuration%20in%20EN-DC.doc) Discussion on full configuration in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.3.1 to 10.4.1.3.1.3

[R2-1805235](file:///C:\Data\3GPP\Extracts\R2-1805235.doc) Introduction of fullConfig to RRCConnectionReconfiguration Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3331 - F NR\_newRAT-Core

moved from 10.4.1.3.1 to 10.4.1.3.1.3

[R2-1806020](file:///C:\Data\3GPP\Extracts\38331_CR0074_R2-1806020%20SRB3%20Usage.docx) SRB3 usage Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0074 - F NR\_newRAT-Core

[R2-1806021](file:///C:\Data\3GPP\Extracts\38331_CR0075_R2-1806021%20Corrections%20for%20SCGFailureInformationNR%20cause%20value%20setting.docx) Corrections for SCGFailureInformationNR cause value setting Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0075 - F NR\_newRAT-Core

[R2-1804752](file:///C:\Data\3GPP\Extracts\38331_CR0028_(Rel-15)_R2-1804752.doc) Disallowing NULL integrity protection for SRB3 Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0028 - F NR\_newRAT

moved from 10.4.1.3.8 to 10.4.1.3.1.3

[R2-1805924](file:///C:\Data\3GPP\Extracts\R2-1805924_PSCell%20index.doc) PSCell index and PHR for PSCell in EN-DC NEC discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.3.1 to 10.4.1.3.1.3

[R2-1805216](file:///C:\Data\3GPP\Extracts\R2-1805216_Correction%20on%2038.331%20for%20other%20issues.doc) Correction on 38.331 for other issues vivo draftCR Rel-15 38.331 15.1.0 F NR\_newRAT-Core

[R2-1805556](file:///C:\Data\3GPP\Extracts\R2-1805556.doc) Miscellaneous corrections to ASN.1 Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0049 - F NR\_newRAT-Core

Late

R2-1805330 RRC\_CONNECTED differentiation for NR and EN DC Huawei, HiSilicon discussion NR\_newRAT-Core Late

R2-1805331 CR to 38.331 on RRC\_CONNECTED differentiation for NR and EN DC Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0039 - F NR\_newRAT-Core Late

##### 10.4.1.3.2 Email discussion on RRC procedures/messages

Including output of email discussion [101#37][NR] RRC procedures/messages (Ericsson). Documents addressing specific FFS points identified during the email discussion should be submitted to the appropriate agenda item.

[R2-1805353](file:///C:\Data\3GPP\Extracts\R2-1805353%20-%20Summary%20of%20%5b101%2337%5d%5bNR%5d%20RRC%20procedures-messages%20(Ericsson).docx) Summary of [101#37][NR] RRC procedures/messages (Ericsson) Ericsson discussion Rel-15 NR\_newRAT-Core Late

Discussion 1

- Intel see benefit to harmonise the release and suspend due to the common information as needed for the idle mode case.

- ZTE think it is not a very technical decision between the options.

- Vodafone think it is clearer to have separate messages.

- Huawei think if natural that release releases the connected.

- Qualcomm also agree separate messages keeps it clean.

- Samsung wonder if the network wants to provide any reconfiguration at the same time as release to inactive. LG think the network can reconfigure the UE and then release to inactive, and slightly prefer a separate message.

- OPPO prefer to avoid introducing separate messages for similar functions.

- Nokia prefer a single message.

Discussion 6

- Ericsson explain that LTE can configure measurement before configuration of security. Wonder whether we need to discuss this for NR or just focus on the resume case where there is no issue.

- ZTE think the only restriction is tha the UE can’t send a report until security is established but there is no limitation in configuration. Ericsson believe there is an issue that an attacker could configure the UE to e.g. black list some cells.

- Vodafone think we much not change the reporting before security.

- Ericsson wonder why we make effort to optimise the idle to connected transition.

Show of hands

- Option 1: Separate suspend and release [9]

- Option 2a: Merge suspend and release [10]

Agreements:

1 Add Suspend configuration into the Release message (1 message and 1 procedure description in RRC spec)

2 Rely on the definition of I-RNTI from stage 2

3 Confirm that we keep the figure with the direct transition from RRC\_INACTIVE to RRC\_IDLE (supported via the Resume procedure with transition to IDLE, where UE actually does not enter RRC\_CONNECTED). No need for a NOTE specifically addressing that aspect or FFS opening up a paging based transition (agreed not to be supported).

4 Capture the inter-RAT transitions with NR and LTE with RRC\_INACTIVE (without describing the CN)

5 Measurement configuration before security establishment is possible following the LTE baseline.

6 Use name cellReselectionPriorities for cell reselection priorities.

7 Use LTE solution for state mismatch due to the release procedure (i.e. based on Data Inactivity Timer (only running in RRC\_CONNECTED) and upon on timer expiry transition to IDLE and NAS recovery);

8 For the fallback case the Resume procedure with refer to the RRC Setup section within RRC connection establishment procedure.

9 Define L1/L2 default configurations for MSG.3 (e.g. RRCResumeRequest, RRCSetupRequest, etc.).

10 Input parameters for resumeMAC-I will be at least the same as in LTE apart from the resume discriminator. FFS whether the resume discriminator is needed and possibly new one(s) for replay attack. We will wait for SA3 progress on inputs to the resumeMAC-I

11 SDAP configuration is stored in inactive (user plane session should discuss whether there is any SDAP state information that needs to be maintained in inactive)

[R2-1805355](file:///C:\Data\3GPP\RAN2\Docs\R2-1805355.zip) CR on RRC Connection Control Ericsson discussion Rel-15 NR\_newRAT-Core Late

=> Reconfirm that in response to a Resume Request (e.g. for RNA update) the network can send a Release message (unless better name is found) on SRB1 to transition the UE to Idle or Inactive (i.e. 2 step procedure).

=> Can be used as a baseline running CR, and agreements from this meeting to be captured on top of this baseline.

=> Unresolved comments can still be discussed and will be added to the open issue list

R2-1805354 Remaining open issues on RRC Connection Control Ericsson discussion Rel-15 NR\_newRAT-Core Late

[R2-1805352](file:///C:\Data\3GPP\Extracts\R2-1805352%20-%20Summary%20of%20agreements%20on%20connection%20control.docx) Summary of agreements on connection control Ericsson discussion Rel-15 NR\_newRAT-Core

RRC procedure/message harmonisation

[R2-1804613](file:///C:\Data\3GPP\Extracts\R2-1804613.doc) Need for RRC Reestablishment and RRC Resume MediaTek Inc. discussion

[R2-1805298](file:///C:\Data\3GPP\Extracts\R2-1805298.doc) Harmonization of RRC Connection Control management procedures Huawei, HiSilicon discussion NR\_newRAT-Core

moved from 10.4.1.3.5 to 10.4.1.3.2

[R2-1805947](file:///C:\Data\3GPP\Extracts\R2-1805947_Re-establishment%20and%20resume%20procedures%20for%20NR.doc) Re-establishment and Resume procedures for NR LG Electronics France discussion Rel-15 NR\_newRAT-Core

[R2-1805614](file:///C:\Data\3GPP\Extracts\R2-1805614%20on%20Remaining%20issues%20on%20connection%20control%20messages.doc) Remaining issues regarding connection control messages Samsung Telecommunications discussion

[R2-1804773](file:///C:\Data\3GPP\Extracts\R2-1804773%20Harmonization%20of%20RRCResume%20and%20RRCReestablishment.docx) Harmonization of RRCResume and RRCReestablishment Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR\_newRAT-Core

moved from 10.4.1.3.6 to 10.4.1.3.2

[R2-1804552](file:///C:\Data\3GPP\Extracts\R2-1804552-NR%20RRC%20Harmonization.doc) NR RRC Harmonization OPPO discussion Late

moved from 10.4.1.3.9 to 10.4.1.3.2

##### 10.4.1.3.3 Connection establishment procedure

Access control and establishment cause are discussed in the access control agenda items 10.4.1.8.x

[R2-1804614](file:///C:\Data\3GPP\Extracts\R2-1804614.docx) RRC State transition from IDLE to CONNECTED MediaTek Inc. discussion

P1, 2

- Ericsson think it should be possible for the network to give a large grant and the UE to then send MSG3 and the NAS message in message 3.

- Vodafone think that message 3 is size limited and NR will be the same at LTE. And we are still waiting on RAN1 input.

P3

- ZTE think that deprio request should not be in an unprotected message on SRB0

- Samsung think this was discussed before. OPPO also think this can be provided on SRB0

- Huawei think that reject could be send on SRB1.

- Nokia think the deprioritisation is useful even if it is send unprotected.

- ZTE think the reject should be minimal and not included any additional information.

P4

- Ericsson would prefer to increase the wait time in Reject should be increased by a factor of 3.

Agreements

1 The deprioritisationReq information and redirection information are not included in RRC Reject message (already agreed for response to Resume Request but is also applicable for response to RRC Connection Request)

2 The deprioritisationReq information and redirection information are included in the RRC Release message. The UE only acts on these fields after security is activated.

3 The value range of waitTime (not extendedWaitTime) in RRC Reject message as defined in LTE is used as baseline for SA NR (i.e. 1 to 16s).

[R2-1805582](file:///C:\Data\3GPP\Extracts\R2-1805582%20Evaluation%20of%20MSG3%20size.doc) Evaluation of MSG3 size Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

- Huawei understand that RAN1 are expected to tell us at 56bits is a safe value and anything more might result in coverage loss.

- Ericsson think this will mean we need to revert some assumption such as I-RNTI size. The minimum we will need for resume is 96bits and SA3 is also considering to increase the short MAC-I.

- Vodafone think that independent of the procedure we should use the same TBS size for MSG3.

=> Noted

[R2-1805583](file:///C:\Data\3GPP\Extracts\R2-1805583%20Draft%20LS%20to%20RAN1%20on%20specific%20MSG3%20size.doc) Draft LS to RAN1 on specific MSG3 size Huawei, HiSilicon LS out Rel-15 NR\_newRAT-Core To:RAN1

[R2-1805024](file:///C:\Data\3GPP\Extracts\R2-1805024-NAS-SR.docx) Impact of NAS Service Request on RAN delays Intel Corporation discussion Rel-15 NR\_newRAT-Core

- ZTE think that the typical service request might have only one slice and would be much smaller. We should not optimise for the worst case. Typical case should not be worse than LTE.

- Vodafone think there is a 6 octet difference between the minimum size service request for LTE and NR.

- Intel think there would be scope for reduction such as to remove the S-TMSI

- Ericsson think the typical size if 17 or 22 bytes which is ok, less than a voice frame.

- LG think the typical size is ok for release 15

- Nokia think it would be worth to notify CT1 of this issue.

- Qualcomm think we can live with the current status in order to maintain the timescales for CT1.

=> Noted

[R2-1806101](file:///C:\Data\3GPP\Extracts\R2-1806101%20Timers%20and%20Constants%20signaling%20for%20NR%20SA.docx) Timers and Constants signaling for NR SA Samsung discussion Rel-15 NR\_newRAT-Core

Agreements

1. NR SA adopts the same signalling framework for RRC timers and constants signalling as in LTE.

2. RAN2 should include the timer values and constants values used for RRC in System Information as in LTE.

3. Timer/constants values to be included in SIB 1 are the timers for connection control, and timer and constants for radio link failure.

FFS timers and location of timers for access control (TBD based on access control discussions),

4. UE will use the timer and constants values in system information until network reconfigures the UE with the dedicated values using rlf-TimersAndConstants IE (UE continues to apply dedicated values after HO).

5. Network can reconfigure UE’s timers and constants value through dedicated signalling, and these values overrides the former configured values.

6. Default values of rlf-TimersAndConstants are defined to be used when full configuration is needed such as receiving reconfigurationWithSync.

7. New parameter for NR, rlmInSyncOutOfSyncThreshold is not included in system information but only in dedicated signalling.

[R2-1805019](file:///C:\Data\3GPP\Extracts\R2-1805019_conn_est.docx) Signalling optimisations for NR Idle Connected transition Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805020](file:///C:\Data\3GPP\Extracts\R2-1805020-CCCH-size.docx) Supporting different CCCH message sizes Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805356](file:///C:\Data\3GPP\Extracts\R2-1805356%20-%20NR%20RRC%20idle-to-connected%20transition.docx) NR idle-to-connected mode transition Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805581](file:///C:\Data\3GPP\Extracts\R2-1805581%20Consideration%20on%20RRC%20connection%20establishment%20procedure.doc) Consideration on RRC connection establishment procedure Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1806118](file:///C:\Data\3GPP\Extracts\R2-1806118_Slice%20Information%20in%20RRC_r3.doc) Slice Information in RRC Samsung Electronics GmbH discussion

[R2-1805089](file:///C:\Data\3GPP\Extracts\R2-1805089_Handling%20of%20AMF%20Overload%20Control.doc) Handling of AMF Overload Control Qualcomm Incorporated discussion

moved from 10.4.2.3 to 10.4.1.3.3

[R2-1804557](file:///C:\Data\3GPP\Extracts\R2-1804557-Discussion%20on%20RLF%20parameter%20configuration.doc) Discussion on RLF parameter configuration OPPO discussion Late

moved from 10.4.1.3.1 to 10.4.1.3.3

##### 10.4.1.3.4 Connection reconfiguration procedure

[R2-1804791](file:///C:\Data\3GPP\Extracts\R2-1804791%20-%20Standalone%20NR%20full%20configuration%20(discussion%20and%20TP%20to%2038.331).docx) Standalone NR full configuration (discussion and TP to 38.331) Ericsson discussion Rel-15 NR\_newRAT-Core

=> epsBearers to be fixed. SDAP config to be addressed

=> Revised in R2-1806418 to address the comments above. (Offline discussion #41, Ericsson)

[R2-1806418](file:///C:\Data\3GPP\Extracts\R2-1806418%20-%20Standalone%20NR%20full%20configuration%20(discussion%20and%20TP%20to%2038.331).docx) Standalone NR full configuration (discussion and TP to 38.331) Ericsson discussion Rel-15 NR\_newRAT-Core

=> Agreed to be added to the running CR

[R2-1805664](file:///C:\Data\3GPP\Extracts\R2-1805664%20on%20NR%20Reconfiguration%20information%20structure%20for%20NSA%20and%20SA%20%20(NR%20RIL%20Z081).doc) NR reconfiguration message structure for NSA & SA (38331 RIL issue Z081) Samsung Telecommunications discussion

Agreements

1 MasterCellGroup to be added to the reconfiguration message (in a backward compatible manner) as an octet string containing CellGroupConfig

[R2-1805665](file:///C:\Data\3GPP\Extracts\R2-1805665%20on%20Moving%20spCell%20configuration-related%20specification%20text%20(NR%20RIL%20S003).doc) Moving reconfiguration with sync to SpCell configuration (38331 RIL issue S003) Samsung Telecommunications discussion

[R2-1805336](file:///C:\Data\3GPP\Extracts\R2-1805336%20TP%20for%20introducing%20a%20new%20timer%20in%20the%20BFR%20configuration.docx) TP for introducing a new timer in the BFR configuration PANASONIC R&D Center Germany discussion Rel-15

##### 10.4.1.3.5 Connection re-establishment procedure

[R2-1804804](file:///C:\Data\3GPP\Extracts\R2-1804804%20-%20NR%20re-establishment%20procedure%20principles.docx) NR re-establishment procedure principles Ericsson discussion Rel-15 NR\_newRAT-Core

P3a

- OPPO support the proposal

- CATT wonder if this means the message can be used to resume SRB2 and DRB. Ericsson think that would be a second discussion.

- LG support the proposal.

- MediaTek support this as think this error case could be more frequent in high frequency.

- Huawei wonder what is actually improved with this. Ericsson think the network can send the reconfiguration immediately after the re-establishment even without the re-establishment complete message.

- Intel also support this proposal. Think the situation is similar to SMC and reconfiguration.

P3b

- Intel support the proposal.

- Samsung ask if the intention is to not support the reject response. Ericsson think most of the time the UE wants to get connected but we could consider to support reject for the overload case. LG agree with Ericsson and assume the UE wants to get back to connected so support the proposal.

- Intel think we should not send un protected reject message that pushes the UE to idle.

P4

- Intel think that MSG4 should also be encrypted.

- Samsung think NCC is not required in the message and there are other way derive the keys.

- OPPO think that the security protection should be the same for Re-establishment and Resume.

- Huawei wonder why we change key derivation compared to LTE re-establishment. Intel think the motivation is based the desire to re-establish bearers in the MSG4.

- Ericsson think the same think can be achieved without changing LTE principles if 2 messages are sent. Huawei agree.

Agreements:

1 Re-establishment kind message is sent on SRB1 (with at least integrity protection) with the intention to allow re-establishment of DRBs without the network having to wait for the reception of re-establishment complete message.

2. Network can response to the Reestablishment Request kind message with an RRC connection setup in case of RRC re-establishment failure.

FFS Whether it is also possible for the network to response with RRC Reject.

Proposal 4 RRC re-establishment kind message including NCC is sent integrity protected and unencrypted on SRB1.

[R2-1805012](file:///C:\Data\3GPP\Extracts\R2-1805012_Reestablishment%20procedure%20for%20NR.doc) Reestablishment procedure for NR Intel Corporation discussion Rel-15 NR\_newRAT-Core

- Ericsson's concern if the horizontal key derivation is used then after the path switch there is a new NCC, and how this is taken into account. Intel think the network can do a handover in order to bring the new key into use.

- Lenovo don’t see the benefit of using a new key. Intel think a new key must be used in a new cell. Samsung support the proposal and agree the reason why it needs to be protected with the new key.

- Huawei wonder if the network knows if the UE received the HO which may have contained a new NCC.

- ZTE don’t see why MSG4 4 needs to be encrypted so support the Ericsson approach.

- Ericsson think the only additional aspect of this approach is that MSG4 is encrypted but there is no latency improvement. Intel think there will be additional UE processing delay due to the second message.

=> Offline discussion to progress whether RRC re-establishment kind message is encrypted and if so how the key is derived. (Offline discussion #42, Intel, Thursday afternoon coffee break)

[R2-1806480](file:///C:\Data\3GPP\RAN2\Docs\R2-1806480.zip) Offline discussion #42 on Reestablishment procedure for NR Intel discussion Rel-15 NR\_newRAT-Core

Working assumption:

1 MSG4 for re-establishment is not encrypted

2 Adopt solution 1 from the paper for re-establishing the bearers (based on SMC+reconfiguration)

[R2-1804805](file:///C:\Data\3GPP\Extracts\R2-1804805%20-%20NR%20re-establishment%20(TP%20to%2038.331).docx) NR re-establishment (TP to 38.331) Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805120](file:///C:\Data\3GPP\Extracts\R2-1805120_Security.doc) Security framework for Re-establishment Samsung discussion

[R2-1805299](file:///C:\Data\3GPP\Extracts\R2-1805299.doc) RRC Connection Re-establishment procedure in NR Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805631](file:///C:\Data\3GPP\Extracts\R2-1805631%20-%20UE%20identifiers%20in%20RRC%20Re-establishment%20request.docx) UE identifier in Re-establishment request Ericsson discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.3.6 Connection resume procedure

Including success, reject, fallback to connections establishment, and release to idle cases and messages to be used for each case. Note that aspects specific to inactive security are discussed under AI 10.4.1.7.3

[R2-1805363](file:///C:\Data\3GPP\Extracts\R2-1805363%20-%20Need%20for%20MSG5%20at%20Resume.docx) Need for MSG5 at RRC resume Ericsson discussion Rel-15 NR\_newRAT-Core

=> Covered by email discussion.

[R2-1805107](file:///C:\Data\3GPP\Extracts\R2-1805107_Resume_Failure.doc) Transitioning to Idle from Inactive upon resume failure Qualcomm Incorporated discussion

=> Revisit discussion of RRC behaviour of UE when the UE enters out of coverage at next meeting.

[R2-1805015](file:///C:\Data\3GPP\Extracts\R2-1805015-open_issues_resume_Intel.doc) Open issues related to connection resume procedure Intel Corporation discussion Rel-15 NR\_newRAT-Core

- ZTE thinks the first cell might have fetched the context from the old node but then another node might try to fetch the context.

- Intel think the anchor only releases the context after the resume is successful.

- Ericsson think we have this situation in LTE and wonder if this is a failure case or a common case and wonder whether it is worth to optimise.

- LG think there need to be rules on what cause value is used between RNA update and uplink data I the UE changes to another RNA

- Qualcomm should only try to access the best cell and so if reselection is required the UE must change cell to avoid interference.

Working assumption

1 If cell re-selection occurs during T300X is running then the UE initiates resume procedure in the new cell. This implies that T300X (from new cell) is started when the procedure is re initiated.

[R2-1804447](file:///C:\Data\3GPP\Extracts\R2-1804447%20RRCConnection%20Resume%20with%20default%20SRB1%20configuration.docx) RRCConnection Resume with default SRB1 configuration ZTE Corporation, Sanechips discussion

[R2-1804555](file:///C:\Data\3GPP\Extracts\R2-1804555-Discussion%20on%20RRC%20Resume%20procedure%20from%20inactive%20to%20inactive%20or%20idle.doc) Discussion on RRC Resume procedure from inactive to inactive or idle OPPO discussion Late

[R2-1804806](file:///C:\Data\3GPP\Extracts\R2-1804806%20-%20Handling%20of%20suspend%20failure.docx) Handling of suspend failure Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805318](file:///C:\Data\3GPP\Extracts\R2-1805318.doc) RRC State transition from INACTIVE to IDLE Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805322](file:///C:\Data\3GPP\Extracts\R2-1805322.doc) Remaining issues on state transition between RRC CONNECTED and INACTIVE Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805323](file:///C:\Data\3GPP\Extracts\R2-1805323.doc) Timer based state transition from CONNECTED to inactive Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805362](file:///C:\Data\3GPP\Extracts\R2-1805362%20-%20Timer%20differentiation%20for%20establishment%20and%20resume%20failure%20handling.docx) Timer differentiation for establishment and resume failure handling Ericsson discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.3.7 Connection release procedure

Including release from connected to inactive and connected to inactive and messages to be used for each case.

[R2-1804597](file:///C:\Data\3GPP\Extracts\R2-1804597_RRC%20Connection%20Release%20Issues%20for%20UE%20in%20RRC_INACTIVE.docx) RRC Connection Release Issues for UE in RRC\_INACTIVE vivo discussion Rel-15 NR\_newRAT-Core [R2-1802098](file:///C:\Data\3GPP\Extracts\R2-1802098_RRC%20Connection%20Release%20Issues%20for%20UE%20in%20RRC_INACTIVE.doc)

=> Covered by email discussion and CR

[R2-1805452](file:///C:\Data\3GPP\Extracts\R2-1805452%20-%20NR%20RRC%20connection%20release%20and%20re-direct.docx) NR RRC connection release and re-direct Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1802684](file:///C:\Data\3GPP\Extracts\R2-1802684%20-%20NR%20RRC%20connection%20release%20and%20re-direct.docx)

=> Covered by email discussion and CR

[R2-1805301](file:///C:\Data\3GPP\Extracts\R2-1805301.doc) UE behaviour upon leaving RRC\_CONNECTED state Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1804816](file:///C:\Data\3GPP\Extracts\R2-1804816%20(R15%20NR%20WI%20AI104137%20TimerBasedInactivation).doc) Timer-Based Inactivation for NR Interdigital discussion Rel-15 NR\_newRAT-Core

[R2-1804868](file:///C:\Data\3GPP\Extracts\R2-1804868_nr_rrc_release_v03.doc) On RRC message for transition into RRC\_IDLE and RRC\_INACTIVE Samsung discussion Rel-15 NR\_newRAT-Core

[R2-1805021](file:///C:\Data\3GPP\Extracts\R2-1805021_redirection.docx) Release with re-direction for SA NR Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805361](file:///C:\Data\3GPP\Extracts\R2-1805361%20-%20Timer-based%20transition%20to%20inactive.docx) Timer-based transition to inactive Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805618](file:///C:\Data\3GPP\Extracts\R2-1805618%20RRC%20connection%20release%20and%20inactivation%20procedures.docx) RRC release and inactivation Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

Late

[R2-1804458](file:///C:\Data\3GPP\Extracts\R2-1804458%20RRCConnectionRelease%20for%20Slice%20Overload_v2.doc) RRCConnectionRelease for Slice Overload ZTE Corporation, Sanechips discussion Late

##### 10.4.1.3.8 Security procedures

Including initial security activation and counter check procedure. Note that aspects specific to inactive security are discussed under AI 10.4.1.7.3

Ciphering config per DRB

[R2-1805537](file:///C:\Data\3GPP\Extracts\R2-1805537.docx) Procedures for enabling security per bearer Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804799](file:///C:\Data\3GPP\Extracts\R2-1804799%20-%20Ciphering%20and%20integrity%20protection%20configuration%20per%20DRB.docx) Ciphering and IP configuration per DRB Ericsson discussion Rel-15 NR\_newRAT-Core

=> Offline discussion to revise the text proposal to address the comments received.

=> Can consider offline whether unencrypted SRB but encrypted DRB needs to be supported

=> Revised in R2-1806420 (Offline discussion #43, Ericsson)

R2-1806420 Ciphering and IP configuration per DRB Ericsson discussion Rel-15 NR\_newRAT-Core

=> Postponed to next meeting

[R2-1805022](file:///C:\Data\3GPP\Extracts\R2-1805022_security_setup.docx) Security configuration for NR SA Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1806015](file:///C:\Data\3GPP\Extracts\R2-1806015%20consideration%20on%20ciphering%20ON%20OFF.doc) Consideration on Ciphering ON/OFF Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1806016](file:///C:\Data\3GPP\Extracts\38331_CR0073_R2-1806016%20ciphering%20ON%20OFF.doc) Ciphering ON/OFF parameter addition Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0073 - F NR\_newRAT-Core

Other

[R2-1805531](file:///C:\Data\3GPP\Extracts\R2-1805531.doc) On the ARFCN-DL used for security input in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804798](file:///C:\Data\3GPP\Extracts\R2-1804798%20-%20Security%20Key%20Update%20during%20handover.docx) Security Key Update during handover Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804800](file:///C:\Data\3GPP\Extracts\R2-1804800%20-%20Draft%20LS%20on%20security%20key%20derivation%20for%20SN%20in%20MR-DC.doc) Draft LS on security key derivation for SN in MR-DC Ericsson LS out Rel-15 NR\_newRAT-Core To:SA3

[R2-1804801](file:///C:\Data\3GPP\Extracts\R2-1804801%20Draft%20CR%20to%2038.331%20to%20update%20SecurityConfig%20for%20MR-DC.docx) Draft CR to 38.331 to update SecurityConfig for MR-DC Ericsson draftCR Rel-15 38.331 15.1.0 NR\_newRAT-Core

[R2-1805535](file:///C:\Data\3GPP\Extracts\R2-1805535.doc) Activation/deactivation of the DRB integrity protection Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.3.9 Other

Other aspects of connection control procedures, state transitions, etc for standalone operation

[R2-1804598](file:///C:\Data\3GPP\Extracts\R2-1804598_Remaining%20FFS%20Issues%20on%20MSG3_4_5%20Content%20for%20RRC%20Connection%20Control.doc) Remaining FFS Issues on MSG3/4/5 Content for NR RRC Connection Control vivo discussion Rel-15 NR\_newRAT-Core [R2-1802087](file:///C:\Data\3GPP\Extracts\R2-1802087_Remaining%20FFS%20Issues%20on%20MSG3_4_5%20Content%20for%20RRC%20Connection%20Control.doc)

[R2-1804794](file:///C:\Data\3GPP\Extracts\R2-1804794%20-%20PCell%20failure%20handling%20for%20Standalone%20NR.docx) PCell failure handling for Standalone NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804856](file:///C:\Data\3GPP\Extracts\R2-1804856.docx) Multiplexing NAS messages with MSG 3 Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804857](file:///C:\Data\3GPP\Extracts\R2-1804857.docx) Wait timer in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804860](file:///C:\Data\3GPP\Extracts\R2-1804860.docx) Size of MSG3 in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805265](file:///C:\Data\3GPP\Extracts\R2-1805265-Discussion%20on%20Remaining%20Issues%20for%20State%20Transition.doc) Discussion on Remaining Issues for State Transition OPPO discussion Rel-15 Late

[R2-1805446](file:///C:\Data\3GPP\Extracts\R2-1805446%20-%20RRC%20UE%20processing%20time%20for%20Standalone%20NR%20to%20reach%20ITU%20target.docx) RRC UE processing time for Standalone NR to reach ITU target Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1802686](file:///C:\Data\3GPP\Extracts\R2-1802686%20-%20RRC%20UE%20processing%20time%20for%20Standalone%20NR.docx)

[R2-1805447](file:///C:\Data\3GPP\Extracts\R2-1805447%20-%20RRC%20UE%20processing%20time%20for%20RRC%20reconfiguration%20in%2038.331.docx) RRC UE processing time for RRC reconfiguration in 38.331 Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1802685](file:///C:\Data\3GPP\Extracts\R2-1802685%20-%20RRC%20UE%20processing%20time%20for%20RRC%20reconfiguration%20in%2038.331.docx)

[R2-1805590](file:///C:\Data\3GPP\Extracts\R2-1805590%20Processing%20delay%20requirements%20for%20RRC%20procedures%20in%20NR.doc) Processing delay requirements for RRC procedures in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805630](file:///C:\Data\3GPP\Extracts\R2-1805630%20-%20TP%20UL_DL%20Information%20Transfer.docx) TP on 38.331 on DL/UL Information Transfer Ericsson discussion Rel-15 NR\_newRAT-Core

Late

R2-1804869 Harmonization of information messages Samsung discussion Rel-15 NR\_newRAT-Core Late

#### 10.4.1.4 RRM measurements

No documents should be submitted to 10.4.1.4. Please submit to 10.4.1.4.x.

##### 10.4.1.4.1 Corrections to RRM for EN-DC

Corrections related to RRM measurement and measurement reporting for EN-DC

Measurement Oject

[R2-1805044](file:///C:\Data\3GPP\Extracts\R2-1805044.doc) Discussion on measurement object for NR Intel Corporation discussion Rel-15 NR\_newRAT-Core

=> Offline discussion to conclude (Offline discussion #35, Huawei):

a/ Whether limitations are needed on the number of MOs that can be configured per frequency and if so how to identify the frequency of the MO.

b/ Which MO's are considered as inter-frequency.

c/ Alternative simplification that carriers without SSB are not supported.

d/ How to define which MOs is considered are considered the serving frequency MO for the CSI-RS case.

=> Same physical cell ID across different MOs are considered as different cells and hence CSI-RS measurement results of different MOs are not be combined for cell channel quality.

- Update from offline discussion: No conclusions on the questions but the frequency of the MO doesn't play a role and for CSI-RS there can be many frequencies. For frequency of MO the proposal is to delete the need to define it, and for serving frequency the proposal is clarify the text.

* [101bis#xx][NR] Frequency of MO (Huawei)

To progress a text proposal to address the question about the frequency of the MO (not just the serving frequency)

Intended outcome: TP for the next meeting

Deadline: Thursday 2018-05-10

[R2-1805333](file:///C:\Data\3GPP\Extracts\R2-1805333.doc) Clarification on serving cell MO Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0041 - F NR\_newRAT-Core

[R2-1805849](file:///C:\Data\3GPP\Extracts\R2-1805849%20RRM%20measurement%20configuration%20for%20BWP.docx) RRM measurement configuration for BWP Samsung discussion Rel-15

=> Noted

[R2-1805324](file:///C:\Data\3GPP\Extracts\R2-1805324.doc) Timing information in MeasObjectNR Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805325](file:///C:\Data\3GPP\Extracts\R2-1805325.doc) Correction of timing information in MeasObjectNR Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0035 - F NR\_newRAT-Core

=> Draft LS to RAN1 to ask if the useServingCellTimingForSync can be used to determine the timing of neighbour cells for measurement of CSI-RS resources. R2-1806410 (Offline discussion #36, Huawei)

[R2-1806410](file:///C:\Data\3GPP\Extracts\R2-1806410.doc) [DRAFT] LS on useServingCellTimingForSync Huawei LS out Rel-15 RAN1 NR\_newRAT-Core

=> Not needed. Latest RAN1 LS needs to be considered first.

[R2-1805705](file:///C:\Data\3GPP\Extracts\R2-1805705%20Mobility%20measurements%20outside%20active%20BWP.docx) Mobility measurements outside active BWP Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

=> Noted

[R2-1804390](file:///C:\Data\3GPP\Extracts\R2-1804390%20CR%20for%20ss-RSSI-Measurement%20in%20measObjectNR.doc) CR for ss-RSSI-Measurement in measObjectNR ZTE, Sanechips CR Rel-15 38.331 15.1.0 0021 - F NR\_newRAT-Core

=> Covered by previous discussions

SMTC

[R2-1804391](file:///C:\Data\3GPP\Extracts\R2-1804391%20Remaining%20issues%20for%20SMTC%20configuration.docx) Remaining issues for SMTC configuration ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804392](file:///C:\Data\3GPP\Extracts\R2-1804392%20CR%20for%20SMTC%20configuration%20in%2038.331.doc) CR for SMTC configuration in 38.331 ZTE, Sanechips CR Rel-15 38.331 15.1.0 0022 - F NR\_newRAT-Core

=> Agreed to be included in the rapporteur CR

[R2-1804393](file:///C:\Data\3GPP\Extracts\R2-1804393%20CR%20for%20SMTC%20configuration%20in%2036.331.doc) CR for SMTC configuration in 36.331 ZTE, Sanechips CR Rel-15 36.331 15.1.0 3313 - F NR\_newRAT-Core

=> Agreed to be included in the rapporteur CR

[R2-1805329](file:///C:\Data\3GPP\Extracts\R2-1805329.doc) Correction of SMTC2 in MeasObjectNR Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0038 - F NR\_newRAT-Core

=> Add only " periodicity in smtc2 can only be set to a value strictly shorter than the periodicity indicated by periodicityAndOffset in smtc1 (e.g. if periodicityAndOffset indicates sf10, periodicity can only be set of sf5, if periodicityAndOffset indicates sf5, smtc2 cannot be configured). " in the field description of SMTC2

=> Remove the largest value from the value range of SMTC2.

=> Agreed to be included in the rapporteur CR.

Events

[R2-1805306](file:///C:\Data\3GPP\Extracts\R2-1805306.doc) Considerations on A4 and A6 Huawei, HiSilicon discussion NR\_newRAT-Core

=> Offline to conclude whether the SpCell or all serving cells are not considered as the neighbour cells for Event A4 and A5. (Offline discussion #37, Ericsson)

=> For Event A6, the frequency should be different from the frequency used by the PSCell (assuming we resolve how to determine the frequency of an MO)

[R2-1806485](file:///C:\Data\3GPP\RAN2\Docs\R2-1806485.zip) [Summary of Offline#37] Ericsson discussion NR\_newRAT-Core

=> The ambiguity should not exist in the NR specs.

=> The issue can be rediscussed at the next meeting

[R2-1805637](file:///C:\Data\3GPP\Extracts\R2-1805637%20Should%20a%20serving%20cell%20be%20regarded%20as%20a%20neighbour%20for%20certain%20measurement%20events.docx) Should a serving cell be regarded as a neighbour for certain measurement events? Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

=> Covered by previous papers

[R2-1805438](file:///C:\Data\3GPP\Extracts\R2-1805438%20CR%20to%2038.331%20on%20event%20A4%20ambiguity%20removal.docx) Event A4 ambiguity removal Ericsson CR Rel-15 38.331 15.1.0 0044 - F NR\_newRAT-Core

[R2-1805439](file:///C:\Data\3GPP\Extracts\R2-1805439%20CR%20to%2036.331%20on%20event%20A4%20ambiguity%20removal.docx) Event A4 ambiguity removal Ericsson CR Rel-15 36.331 15.1.0 3338 - F NR\_newRAT-Core

[R2-1805443](file:///C:\Data\3GPP\Extracts\R2-1805443%20CR%20to%2038.331%20on%20event%20A5%20ambiguity%20removal.docx) Event A5 ambiguity removal Ericsson CR Rel-15 38.331 15.1.0 0047 - F NR\_newRAT-Core

[R2-1805444](file:///C:\Data\3GPP\Extracts\R2-1805444%20CR%20to%2036.331%20on%20event%20A5%20ambiguity%20removal.docx) Event A5 ambiguity removal Ericsson CR Rel-15 36.331 15.1.0 3340 - F NR\_newRAT-Core

Other

[R2-1805397](file:///C:\Data\3GPP\Extracts\R2-1805397%20-%20On%20the%20configurability%20of%20NR%20serving%20cell%20reporting.docx) On the configurability of NR serving cell reporting (E406) Ericsson discussion Rel-15 NR\_newRAT-Core

=> Wait for response from previous LS to RAN4

[R2-1805389](file:///C:\Data\3GPP\Extracts\R2-1805389%20-%20Draft%20LS%20to%20RAN4%20on%20the%20serving%20cell%20reporting.docx) Draft LS to RAN4 on the serving cell reporting Ericsson LS out Rel-15 NR\_newRAT-Core To:RAN4

[R2-1805309](file:///C:\Data\3GPP\Extracts\R2-1805309.doc) The impact of disabling the measurement of intra-frequency SCell Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805667](file:///C:\Data\3GPP\Extracts\R2-1805667%20on%20Correction%20and%20alignment%20of%20SN%20configued%20measurement%20results.doc) Alignment of SN configured measurement results Samsung Telecommunications discussion

=> TP showing revision marks to be provided in [R2-1806412](file:///C:\Data\3GPP\Extracts\38331%20TP%20%20(REL-15)_R2-1806412%20on%20SN%20configured%20measurement%20results.doc) (Offline discussion #38)

[R2-1806412](file:///C:\Data\3GPP\Extracts\38331%20TP%20%20(REL-15)_R2-1806412%20on%20SN%20configured%20measurement%20results.doc) Correction and alignment of results of SN configured measurements Samsung draftCR Rel-15 NR\_newRAT-Core

=> Postponed to the next meeting

[R2-1805393](file:///C:\Data\3GPP\Extracts\R2-1805393%20-%20s-Measureconfiguration%20and%20UE%20behavior.docx) s-Measure configuration and UE behaviour Ericsson discussion Rel-15 NR\_newRAT-Core

=> Noted

[R2-1805440](file:///C:\Data\3GPP\Extracts\R2-1805440%20-%20CR%20on%20s-Measure%20to%2036.331.docx) TP on s-Measure to 36.331 Ericsson CR Rel-15 36.331 15.1.0 3339 - F NR\_newRAT-Core

[R2-1805441](file:///C:\Data\3GPP\Extracts\R2-1805441%20-%20CR%20on%20s-Measure%20to%2038.331.docx) TP on s-Measure to 38.331 Ericsson CR Rel-15 38.331 15.1.0 0045 - F NR\_newRAT-Core

Late

[R2-1806353](file:///C:\Data\3GPP\Extracts\R2-1806353%20-%20On%20the%20need%20of%20carrier%20frequency%20definition.docx) On the necessity of carrier frequency definition Ericsson discussion

R2-1805307 Clarifications on event A4 and A6 Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0034 - F NR\_newRAT-Core Late

R2-1805332 Adding missing field descriptions in MeasObjectNR Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0040 - F NR\_newRAT-Core Late

Withdrawn

R2-1805382 Draft TP on the beam recovery impact and BWP impact on RLF triggering Ericsson discussion Rel-15 NR\_newRAT-Core Withdrawn

R2-1805394 TP on s-Measure to 36.331 Ericsson discussion Rel-15 NR\_newRAT-Core Withdrawn

R2-1805395 TP on s-Measure to 38.331 Ericsson discussion Rel-15 NR\_newRAT-Core Withdrawn

R2-1805690 SSB to use for timing reference for CSI-RS Intel Corporation discussion Rel-15 NR\_newRAT-Core Withdrawn

##### 10.4.1.4.2 Measurement gaps for EN-DC

Any remaining aspects of measurement gaps for EN-DC

Measurement gap ccordination

[R2-1804707](file:///C:\Data\3GPP\Extracts\R2-1804707%20Measurement%20Gap%20Assistance%20Information.doc) Measurement Gap Assistance Information Samsung R&D Institute India discussion

=> Offline to conclude discussion on what is required for measurement gap assistance information, including whether to need to send any LS to RAN4/3. (Offline discussion #39, Samsung)

[R2-1806443](file:///C:\Data\3GPP\Extracts\R2-1806443%20LS%20to%20RAN4%20on%20measurement%20gap%20assistance%20information.doc) [DRAFT] LS to RAN4 on Measurement Gap Assistance Information Samsung LS out Rel-15 To:RAN4 NR\_newRAT-Core

=> Revised in R2-1806496

[R2-1806496](file:///C:\Data\3GPP\Extracts\R2-1806496%20Draft%20LS%20to%20RAN4%20on%20measurement%20gap%20assistance%20information.doc) [DRAFT] LS to RAN4 on Measurement Gap Assistance Information Samsung LS out Rel-15 To:RAN4 NR\_newRAT-Core

=> Approved in R2-1806506

[R2-1805035](file:///C:\Data\3GPP\Extracts\R2-1805035.doc) MN and SN measurement gap coordination for CSI-RS Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805198](file:///C:\Data\3GPP\Extracts\R2-1805198-%20Remaining%20issues%20of%20assistance%20info%20of%20measurement%20gap.doc) Remaining issues of assistance information of measurement gap Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1804706](file:///C:\Data\3GPP\Extracts\R2-1804706%20Draft%20CR%20for%20Measurement%20Gap%20Assistance%20Information.doc) Draft CR on Measurement Gap Assistance Information Samsung R&D Institute India CR Rel-15 38.331 15.1.0 0026 - F NR\_newRAT-Core

[R2-1804381](file:///C:\Data\3GPP\Extracts\R2-1804381%20Remaining%20issues%20for%20gap%20configuration%20in%20EN-DC.docx) Remaining issues for gap configuration in EN-DC ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1804382](file:///C:\Data\3GPP\Extracts\R2-1804382%20CR%20for%20gapPurpose%20in%20CG-ConfigInfo.doc) CR for gapPurpose in CG-ConfigInfo ZTE, Sanechips CR Rel-15 38.331 15.1.0 0014 - F NR\_newRAT-Core

[R2-1805861](file:///C:\Data\3GPP\Extracts\R2-1805861%20Remained%20issue%20in%20measurement%20gap%20coordination.docx) Remained issues in measurement gap coordination Nokia, Nokia Shanghai Bell discussion

[R2-1805863](file:///C:\Data\3GPP\Extracts\R2-1805863%20CR%20to%2038.331%20for%20per%20UE%20or%20FR1%20gap%20pattern%20removing.doc) ASN.1 change to CG-ConfigInfo for per UE or FR1 gap pattern removing Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.1.0 0068 - F NR\_newRAT-Core

[R2-1804356](file:///C:\Data\3GPP\Extracts\R2-1804356%20-Clarification%20on%20Measurement%20Gap%20Configuration%20Procedure.doc) Clarification on Measurement Gap Configuration Procedure OPPO discussion Rel-15 NR\_newRAT-Core

Other

[R2-1805129](file:///C:\Data\3GPP\Extracts\R2-1805129.docx) Measurement Gap Timing Advance for LTE serving cells NTT DOCOMO, INC. CR Rel-15 36.331 15.1.0 3329 - F NR\_newRAT-Core

[R2-1804709](file:///C:\Data\3GPP\Extracts\R2-1804709%20Support%20for%20Measurement%20Gap%20Timing%20Advance.doc) Support for Measurement Gap Timing Advance Samsung R&D Institute India discussion

[R2-1804708](file:///C:\Data\3GPP\Extracts\R2-1804708%20Draft%20CR%20for%20Support%20of%20Measurement%20Gap%20Timing%20Advance.doc) Draft CR on Support of Measurement Gap Timing Advance Samsung R&D Institute India CR Rel-15 36.331 15.1.0 3317 - F NR\_newRAT-Core

[R2-1804746](file:///C:\Data\3GPP\Extracts\R2-1804746.doc) Open issues of measurement capability for EN-DC UEs Qualcomm Incorporated discussion Rel-15 NR\_newRAT

##### 10.4.1.4.3 Measurement gaps for non EN-DC

[R2-1805036](file:///C:\Data\3GPP\Extracts\R2-1805036.doc) Measurement gap capability information for NR SA Intel Corporation discussion Rel-15 NR\_newRAT-Core [R2-1802978](file:///C:\Data\3GPP\Extracts\R2-1802978.doc)

[R2-1805518](file:///C:\Data\3GPP\Extracts\R2-1805518.doc) Measurement Gap Configuration for Other DC Scenarios CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805553](file:///C:\Data\3GPP\Extracts\R2-1805553.doc) NCSG support in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805554](file:///C:\Data\3GPP\Extracts\R2-1805554.doc) Measurement gap capability feedback Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1802793](file:///C:\Data\3GPP\Extracts\R2-1802793.doc)

[R2-1806023](file:///C:\Data\3GPP\Extracts\R2-1806023%20Per-CC%20gap%20for%20MR-DC.doc) Per-CC gap for MR-DC LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802694](file:///C:\Data\3GPP\Extracts\R2-1802694%20Per-CC%20gap%20for%20MR-DC.doc)

##### 10.4.1.4.4 Measurement events

Any additional aspects of measurement events for standalone operation

[R2-1805304](file:///C:\Data\3GPP\Extracts\R2-1805304.doc) Measurement Exception for s-Measure in NR Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805305](file:///C:\Data\3GPP\Extracts\R2-1805305.doc) Remaining issue on Measurement events Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805308](file:///C:\Data\3GPP\Extracts\R2-1805308.doc) Remaining issue on Events and measurements for handover from NR to E-UTRA Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805379](file:///C:\Data\3GPP\Extracts\R2-1805379%20-%20Layer%203%20mobility%20based%20on%20CSI-RS%20events.docx) Layer 3 mobility based on CSI-RS events Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805383](file:///C:\Data\3GPP\Extracts\R2-1805383%20-%20Triggering%20conditions%20for%20A1-A6%20events%20in%20NR.docx) Triggering conditions for A1-A6 events in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805386](file:///C:\Data\3GPP\Extracts\R2-1805386%20-%20Alternative%20Time-To-Trigger%20in%20NR.docx) Alternative Time-To-Trigger in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805391](file:///C:\Data\3GPP\Extracts\R2-1805391%20-%20Resolving%20ambiguous%20UE%20behaviour%20related%20to%20A4.docx) Resolving ambiguous UE behaviour related to Event A4 Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805392](file:///C:\Data\3GPP\Extracts\R2-1805392%20-%20Resolving%20ambiguous%20UE%20behaviour%20related%20to%20A5.docx) Resolving ambiguous UE behaviour related to Event A5 Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1806061](file:///C:\Data\3GPP\Extracts\R2-1806061%20%20Remaining%20issues%20on%20additional%20CSI-RS%20based%20MR%20triggering%20events.docx) Remaining issues on additional CSI-RS based MR triggering events Samsung Electronics discussion

##### 10.4.1.4.5 Inter-RAT measurements

Inter-RAT E-UTRA measurements for the purpose of inter-RAT handover from NR to E-UTRA

[R2-1804379](file:///C:\Data\3GPP\Extracts\R2-1804379%20Inter-RAT%20measurements%20for%20NR%20handover%20to%20EUTRAN.doc) Inter-RAT measurements for NR handover to EUTRAN ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

[R2-1805398](file:///C:\Data\3GPP\Extracts\R2-1805398%20-%20Remaining%20issues%20in%20inter-RAT%20measurements%20from%20NR.docx) Remaining issues in inter-RAT measurements Ericsson discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.4.6 Other

Other RRM related aspects for standalone operation

[R2-1805312](file:///C:\Data\3GPP\Extracts\R2-1805312.docx) Speed dependent mobility for connected mode Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805384](file:///C:\Data\3GPP\Extracts\R2-1805384%20-%20Mobility%20states%20and%20speed%20based%20parameter%20scaling%20in%20NR.docx) Mobility states and speed based parameter scaling in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1806058](file:///C:\Data\3GPP\Extracts\R2-1806058%20%20Discussion%20on%20Speed-dependent%20Scaling%20of%20Measurement-related%20Parameters%20and%20Mobility%20History%20Reporting.doc) Discussion on Speed-dependent Scaling of Measurement-related Parameters and Mobility History Reporting Samsung Electronics discussion [R2-1802451](file:///C:\Data\3GPP\Extracts\R2-1802451.doc)

[R2-1805196](file:///C:\Data\3GPP\Extracts\R2-1805196-%20Discussions%20on%20whether%20to%20reuse%20LTE%20RRM%20features%20in%20NR.doc) Discussions on whether to reuse LTE RRM features in NR Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1805387](file:///C:\Data\3GPP\Extracts\R2-1805387%20-%20Discussion%20on%20allowInterruptions%20in%20NR%20and%20EN-DC.docx) Discussion on allowInterruptions in NR and EN-DC Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805388](file:///C:\Data\3GPP\Extracts\R2-1805388%20-%20Draft%20LS%20to%20RAN4%20on%20the%20need%20for%20allowInterruptions.docx) Draft LS to RAN4 on the need for allowInterruptions Ericsson LS out Rel-15 NR\_newRAT-Core To:RAN4

[R2-1804803](file:///C:\Data\3GPP\Extracts\R2-1804803%20-%20Measurement%20configurations%20and%20signaling%20for%20fast%20setup.docx) Measurement configurations and signaling for fast setup Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805310](file:///C:\Data\3GPP\Extracts\R2-1805310.doc) Cell quality adjustment for connected UE Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805311](file:///C:\Data\3GPP\Extracts\R2-1805311.doc) Comparison of adjustment methods of cell quality derivation Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805378](file:///C:\Data\3GPP\Extracts\R2-1805378%20-%20Triggering%20of%20L3%20filtered%20beam%20measurements.docx) Triggering of L3 filtered beam measurements Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805385](file:///C:\Data\3GPP\Extracts\R2-1805385%20-%20Impact%20of%20cell%20quality%20scaling%20in%20NR.docx) Impact of cell quality scaling in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805390](file:///C:\Data\3GPP\Extracts\R2-1805390%20-%20Measurement%20priority%20handling%20in%20NR.docx) Measurement priority handling in NR Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805396](file:///C:\Data\3GPP\Extracts\R2-1805396%20-%20Measurement%20Requirements%20for%20Deactivated%20Secondary%20Component%20Carriers.docx) Measurement Requirements for Deactivated Secondary Component Carriers Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805399](file:///C:\Data\3GPP\Extracts\R2-1805399%20-%20Measurement%20related%20actions%20upon%20handover%20and%20re-establishment.docx) Measurement related actions upon handover and re-establishment Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805400](file:///C:\Data\3GPP\Extracts\R2-1805400%20-%20UE%20capability%20for%20increased%20number%20of%20carrier%20monitoring.docx) UE capability for increased number of carrier monitoring Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805591](file:///C:\Data\3GPP\Extracts\R2-1805591%20discussion%20on%20CGI%20reporting.doc) Discussion on CGI reporting Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805850](file:///C:\Data\3GPP\Extracts\R2-1805850%20RRM%20measurement%20for%20multiple%20numerologies.docx) RRM measurement for multiple numerologies Samsung discussion Rel-15

[R2-1805940](file:///C:\Data\3GPP\Extracts\R2-1805940%20support%20of%20measurement%20for%20HO%20with%20SUL.doc) Support of measurement for HO with SUL LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802742](file:///C:\Data\3GPP\Extracts\R2-1802742%20support%20of%20measurement%20for%20HO%20with%20SUL.doc)

[R2-1806057](file:///C:\Data\3GPP\Extracts\R2-1806057%20%20Discussion%20on%20the%20Impact%20of%20Beam%20Sweeping%20on%20NR%20RRM%20Measurement.doc) Discussion on the Impact of Beam Sweeping on NR RRM Measurement Samsung Electronics discussion [R2-1802449](file:///C:\Data\3GPP\Extracts\R2-1802449.doc)

[R2-1806059](file:///C:\Data\3GPP\Extracts\R2-1806059%20%20Discussion%20on%20the%20support%20of%20Alternative%20TTT%20in%20NR.doc) Discussion on the support of Alternative TTT in NR Samsung Electronics discussion [R2-1802452](file:///C:\Data\3GPP\Extracts\R2-1802452.doc)

[R2-1806161](file:///C:\Data\3GPP\Extracts\R2-1806161%20-%20Location%20Information%20configuration%20and%20reporting.docx) Location Information configuration and reporting Ericsson discussion Rel-15 NR\_newRAT-Core

Late

R2-1804774 Remaining work for inter-node messages in NR RRC Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR\_newRAT-Core Late

#### 10.4.1.5 Mobility

No documents should be submitted to 10.4.1.5. Please submit to 10.4.1.5.x.

##### 10.4.1.5.1 Corrections to SCG change for EN-DC

Corrections to 38.331 related to SCG change for EN-DC.

##### 10.4.1.5.2 SCG failure for EN-DC

Corrections to 38.331 and 36.331 related to SCG failure for EN-DC.

[R2-1806013](file:///C:\Data\3GPP\Extracts\R2-1806013%20NR%20measurements%20after%20SCG%20failure.doc) Considerations on NR measurements after SCG failure Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

[R2-1806014](file:///C:\Data\3GPP\Extracts\38331_CR0072_R2-1806014%20clarification%20for%20NR%20measurements%20after%20SCG%20failure.doc) Clarification of NR measurements after SCG failure Qualcomm Incorporated CR Rel-15 38.331 15.1.0 0072 - F NR\_newRAT-Core

moved from 10.4.1.3.8 to 10.4.1.4.1

Withdrawn

R2-1804818 Corrections to Handling of Uplink Split SRB During SCG Failure InterDigital CR Rel-15 38.331 15.1.0 0029 - F NR\_newRAT-Core Withdrawn

##### 10.4.1.5.3 Handover

Stage 3 details of basic handover.

Intra-RAT HO

[R2-1805612](file:///C:\Data\3GPP\Extracts\R2-1805612%20on%20Changes%20to%20support%20baseline%20HO.doc) Changes required to support baseline HO procedure Samsung Telecommunications discussion

[R2-1806103](file:///C:\Data\3GPP\Extracts\R2-1806103%20The%20Necessity%20of%20T312%20in%20NR.doc) The Necessity of T312 in NR Samsung discussion Rel-15 NR\_newRAT-Core

[R2-1804578](file:///C:\Data\3GPP\Extracts\R2-1804578_Cell%20number%20for%20beam%20measurement%20information%20in%20HO%20Preparation.doc) Cell number for beam measurement information in HO Preparation vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804531](file:///C:\Data\3GPP\Extracts\R2-1804531%20%20Discussion%20on%20Left%20Issues%20for%20Basic%20Handover%20Procedure.docx) Discussion on left issues of SI handling in basic handover procedure OPPO discussion

[R2-1804615](file:///C:\Data\3GPP\Extracts\R2-1804615.docx) Required Procedures to Support Basic Handover MediaTek Inc. discussion

[R2-1805209](file:///C:\Data\3GPP\Extracts\R2-1805209-Power%20Control%20Parameters%20during%20Handover.docx) Configuration of power control parameters during handover through CFRA Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1802444](file:///C:\Data\3GPP\Extracts\R2-1802444-Power%20Control%20Parameters%20during%20Handover.docx)

[R2-1805659](file:///C:\Data\3GPP\Extracts\R2-1805659%20-%20Remaining%20stage-2%20open%20issues%20in%20basic%20HO.docx) Remaining stage-2 open issues in basic HO Ericsson discussion Rel-15 NR\_newRAT-Core

moved from 10.2.10 to 10.4.1.5.3

Inter-RAT HO

[R2-1804796](file:///C:\Data\3GPP\Extracts\R2-1804796%20TP%20to%2036.331%20for%20inter-RAT%20mobility%20between%20NR%20and%20E-UTRA.docx) TP to 36.331 for inter-RAT mobility between NR and E-UTRA Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804797](file:///C:\Data\3GPP\Extracts\R2-1804797%20TP%20to%2038.331%20for%20inter-RAT%20mobility%20between%20NR%20and%20E-UTRA.docx) TP to 38.331 for inter-RAT mobility between NR and E-UTRA Ericsson discussion Rel-15 NR\_newRAT-Core

Late

R2-1805437 TP for on-demand SI acquisition during HO PANASONIC R&D Center Germany discussion Rel-15 Late

#### 10.4.1.6 System information

No documents should be submitted to 10.4.1.6. Please submit to 10.4.1.6.x.

##### 10.4.1.6.1 System information content/structure

Including output of email discussion [101#39][NR] SIB content ASN.1 (Huawei)

[R2-1805217](file:///C:\Data\3GPP\Extracts\R2-1805217%20101%2339%20draft%20Text%20Proposal%20on%20SIB%20content%20ASN.1.doc) [101#39][NR] Text Proposal on the ASN.1 for SIB content. Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

=> Endorsed as baseline for further agreements

=> Will be kept separate from running CR on SA until next meeting.

* [101bis#xx][NR] Text Proposal on the ASN.1 for SIB content (Huawei)

To update the TP on ASN.1 for SIB content based on the agreements from this meeting.

Intended outcome: TP submitted to next meeting

Deadline: Thursday 2018-05-03

[R2-1804982](file:///C:\Data\3GPP\Extracts\R2-1804982%20System%20information%20content%20at%20network%20sharing.docx) System information content at network sharing Ericsson discussion

- OPPO think that in LTE we have all PLMNs in one place so will this impact PLMN selection. Ericsson agree this will need to be requested for PLMN selection. Qualcomm think we should not delay the PLMN selection.

- LG think this is a good approach but think AC parameters that are also PLMN specific could be in another SIB.

- Nokia think if RAN1 can deliver 1700 bits then we would like to keep SIB1.

- Ericsson can confirm that SI can be up to 3000 bits but there is still concern for 12 PLMNs and AC.

- Vivo wonder if different reselection parameters are likely to be the same.

- Nokia wonder if we want to change our principle that all parameters for camping should be in SIB1.

- Samsung think the camping parameters should be in SIB1 but AC parameters can be considered. Huawei think all UEs will initiate on demand requests and not just those UEs that want to camp on that network.

=> Noted

[R2-1804983](file:///C:\Data\3GPP\Extracts\R2-1804983%20-%20Defining%20reserved%20resources%20in%20NR-SIB1.docx) Defining reserved resources in NR-SIB1 Ericsson discussion

- Ericsson understand the UE behaviour is specified in their specs for reserved resourced provided in dedicated signalling.

=> Draft LS to RAN1 to ask exactly what we need to include in SI to indicate reserved resources and whether the UE behaviour relating to those resources is covered by RAN1 specs (Offline discussion #49, Ericsson). R2-1806440

[R2-1806440](file:///C:\Data\3GPP\Extracts\R2-1806440%20-%20LS%20on%20broadcasting%20reserved%20resources.docx) [DRAFT][LS to RAN1 on R1-1804983] Ericsson LS out Rel-15 To:RAN1 NR\_newRAT-Core

=> Approved in R2-1806497

[R2-1804440](file:///C:\Data\3GPP\Extracts\R2-1804440%20Consideration%20on%20ServingCellConfigCommonSIB.docx) Consideration on ServingCellConfigCommonSIB ZTE Corporation, Sanechips discussion

=> TP to be included in the TP on SI content and can be further reviewed in detail during the email discussion.

[R2-1805218](file:///C:\Data\3GPP\Extracts\R2-1805218%20Discussion%20on%20the%20content%20of%20ServingCellConfigCommonSIB.doc) Discussion on the content of ServingCellConfigCommonSIB Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804630](file:///C:\Data\3GPP\Extracts\R2-1804630%20SIB%20size%20limitations.docx) SIB size limitation MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805219](file:///C:\Data\3GPP\Extracts\R2-1805219%20Discussion%20on%20the%20location%20of%20synchronization%20information.doc) Discussion on the location of synchronization information Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1803358](file:///C:\Data\3GPP\Extracts\R2-1803358%20Discussion%20on%20the%20location%20of%20synchronization%20information.doc)

[R2-1805232](file:///C:\Data\3GPP\Extracts\R2-1805232%20ASN.1%20for%20the%20RACH%20resource%20of%20on-demand%20SI%20request.doc) ASN.1 for the PRACH resource of on-demand SI request Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805249](file:///C:\Data\3GPP\Extracts\R2-1805249.docx) Reserving cells for operators and future use Ericsson discussion

[R2-1805269](file:///C:\Data\3GPP\Extracts\R2-1805269_SIB_AccessControl.doc) SIB for access control information Samsung discussion

[R2-1804553](file:///C:\Data\3GPP\Extracts\R2-1804553-Consideration%20on%20multiple%20frequency%20band%20operation%20in%20NR.doc) Consideration on multiple frequency band operation in NR OPPO discussion Late

moved from 10.4.1.3.1 to 10.4.1.6.1

##### 10.4.1.6.2 Email discussion on system information procedures

Including output of email discussion [101#38][NR] SI procedure text (LG). Documents addressing and specific FFS points identified during the email discussion should be submitted to the appropriate agenda item.

[R2-1805060](file:///C:\Data\3GPP\Extracts\R2-1805060%20TP%20for%20email%20discussion%20%5b101%2338%5d%5bNR%5d%20SI%20procedure%20text.doc) TP for email discussion [101#38][NR] SI procedure text LG Electronics Inc. discussion

- Samsung think that the SI validity and the MIB part are required. Ericsson think the MIB part is covered.

- ASUSTeK wonder if the issue of the UE requesting more than one SI is open or being left to implementation.

=> To be updated to be based on the latest version of the spec.

=> Endorsed as baseline for further agreements

* [101bis#xx][NR] Text Proposal on SI procedure text (LG)

To update the TP on SI procedure text based on the agreements from this meeting.

Intended outcome: TP submitted to next meeting

Deadline: Thursday 2018-05-03

[R2-1805227](file:///C:\Data\3GPP\Extracts\R2-1805227%20On%20the%20timing%20of%20SIB1.doc) On the timing of SIB1 Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

=> Improve the wording " an unfixed periodicity " , e.g. "variable periodicity"

=> Include the pattern 1 case

=> Keep RAN1 spec reference

=> Changes agreed to be added to the running TP

[R2-1805978](file:///C:\Data\3GPP\Extracts\R2-1805978_TP_SI.doc) TP to correct SI validity check Samsung discussion

=> Noted.

##### 10.4.1.6.3 Stored system information

Any remaining details of stored SI

[R2-1804819](file:///C:\Data\3GPP\Extracts\R2-1804819%20(R15%20NR%20WI%20AI104163%20StoredSIRemainingDetails).doc) Remaining Details of Stored System Information InterDigital discussion Rel-15 NR\_newRAT-Core

Agreements

1: Validity timer of 3 hours

2: Value tag is 5 bits.

[R2-1804441](file:///C:\Data\3GPP\Extracts\R2-1804441%20Remaining%20Issues%20on%20the%20Stored%20SI.docx) Remaining Issues on the Stroed SI ZTE Corporation, Sanechips discussion

- Nokia prefer to make the SIAID slightly larger and making it PLMN scope. Lenovo think this makes the planning more difficult for the operator.

- ZTE think we could even go smaller than 10 bits based on the fact that it is per TA.

-

=> Remove the FFS relating to whether a SIB is area specific but within that area there are some cells which provide cell specific version of the SIB (it can be left to the network implementation and the UE behaviour is clear with current TP)

Agreements

- SI area ID size is 24 bits.

[R2-1804884](file:///C:\Data\3GPP\Extracts\R2-1804884_Ambiguity%20of%20SI%20AREA%20ID%20in%20RAN%20Sharing.doc) Ambiguity of SI area ID in RAN sharing vivo discussion Rel-15 NR\_newRAT-Core

- Nokia think that this can be avoided if the SIAID is PLMN wide.

- Ericsson have some sympathy with the Nokia proposal.

- Vivo think even with the PLMN wide approach there is an ambiguity as several operators share the cell and they will need to coordinate. If UE changes from one PLMN to another it will not know whether it needs to reacquire. Ericsson agrees something else is needed and hence the coordination is easier.

Agreements

1 SIAID is PLMN wide (changed previous decision)

=> Assumption in taking this decision is that the UE uses its Primary PLMN and the SIAID to determine whether SIAID has changed. This may lead to additional acquisition of SI at PLMN boundaries. This may be checked until the next meeting.

[R2-1804533](file:///C:\Data\3GPP\Extracts\R2-1804533%20%20Discussion%20on%20Left%20Issues%20for%20Stored%20SI%20and%20SI%20Window.docx) Discussion on Left Issues for Stored SI and SI Window OPPO discussion NR\_newRAT

[R2-1804581](file:///C:\Data\3GPP\Extracts\R2-1804581_Remaining%20issues%20of%20stored%20SI%20for%20NR.doc) Remaining issues of stored SI for NR vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804979](file:///C:\Data\3GPP\Extracts\R2-1804979%20-%20Remaining%20issues%20on%20stored%20system%20information.docx) Remaining Issues on Stored System Information Ericsson discussion

[R2-1805154](file:///C:\Data\3GPP\Extracts\R2-1805154.docx) Remaining issues on stored SI Sony discussion Rel-15 NR\_newRAT-Core [R2-1803127](file:///C:\Data\3GPP\Extracts\R2-1803127%20-%20NR%20stored%20SI.docx)

[R2-1805220](file:///C:\Data\3GPP\Extracts\R2-1805220%20Discussion%20on%20stored%20system%20information.doc) Discussion on stored system information Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805565](file:///C:\Data\3GPP\Extracts\R2-1805565.doc) Considerations on System Information Area ID SHARP Corporation discussion Rel-15

[R2-1805878](file:///C:\Data\3GPP\Extracts\R2-1805878%20SIA_v2.0.docx) Remaining detail on System Information Area Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.6.4 System information modification

Any remaining details of SI modification

[R2-1804308](file:///C:\Data\3GPP\Extracts\R2-1804308_System%20Information%20Update%20Indication%20Contents.doc) System Information Update Indication Contents Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

- CATT thinks this is related to the offline on whether the DCI can send this information and a paging message at the same time. Ericsson think the offline concluded that it is not possible to do both at the same time. Samsung think that it is only a RAN1 working assumption.

- Qualcomm think it doesn’t need to be optimised with per SIB information.

-

Agreements

1: Single bit is provided in paging message and in DCI (1 bit of the bit string provided by RAN1) to indicate system information change (i.e. no indication of SIB or SI message) . As a consequence the UE reads SIB1 to determine what has changed. For idle mode case the UE also reads MIB.

[R2-1804820](file:///C:\Data\3GPP\Extracts\R2-1804820%20(R15%20NR%20WI%20AI104164%20SIUpdateInPaging).doc) SI Update Indications in Paging Message InterDigital discussion Rel-15 NR\_newRAT-Core

=> Noted

[R2-1804988](file:///C:\Data\3GPP\Extracts\R2-1804988%20-%20Public%20Warning%20System%20provisioning.docx) Public Warning System indications Ericsson discussion

- Intel think that the UE would have to wake up for any indication irrespective of whether it actually support the service or not. LG agree with the comment.

Agreement

1 Single bit is provided in paging message and in DCI for warning messages (not a separate bit for CMAS and ETWS as previously agreed). UE immediately acquires warning messages after this indication.

FFS: Whether to make this a generic bit to indicate immediate acquisition of SI will be considered after AC discussion has progressed.

[R2-1804265](file:///C:\Data\3GPP\Extracts\R2-1804265%20SI%20change%20indication%20Content%20in%20Paging.docx) SI change indication Content in Paging CATT discussion [R2-1801830](file:///C:\Data\3GPP\Extracts\R2-1801830.docx) Late

[R2-1804311](file:///C:\Data\3GPP\Extracts\R2-1804311_LS%20on%20SI%20Update%20using%20DCI.doc) [DRAFT] LS on SI Update using DCI Samsung Electronics Co., Ltd LS out Rel-15 NR\_newRAT-Core To:RAN1

[R2-1804340](file:///C:\Data\3GPP\Extracts\R2-1804340.docx) Draft LS about SI change indication Content in Paging DCI CATT LSout Rel-15 NR\_newRAT-Core To:RAN1 Late

[R2-1804346](file:///C:\Data\3GPP\Extracts\R2-1804346.doc) Discussion on remaining issues of SI change indication ITRI discussion NR\_newRAT-Core

[R2-1804580](file:///C:\Data\3GPP\Extracts\R2-1804580_Remaining%20issues%20of%20SI%20modification.doc) Remaining issues of SI modification vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804980](file:///C:\Data\3GPP\Extracts\R2-1804980%20-%20Remaining%20issues%20on%20change%20of%20System%20Information%20in%20NR.docx) Remaining issues on change of System Information in NR Ericsson discussion

[R2-1804986](file:///C:\Data\3GPP\Extracts\R2-1804986%20-%20Update%20of%20SI%20Area%20common%20SI.docx) Update of SI Area common SI Ericsson discussion

[R2-1805016](file:///C:\Data\3GPP\Extracts\R2-1805016-notification_v02.docx) Notification of System Information updates Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805221](file:///C:\Data\3GPP\Extracts\R2-1805221%20SI%20Content%20Update%20procedure.doc) SI Content Update procedure Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805879](file:///C:\Data\3GPP\Extracts\R2-1805879%20SI_update_v2.0.docx) System Information Modification Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.6.5 System information scheduling

Any remaining details of SI scheduling

[R2-1804310](file:///C:\Data\3GPP\Extracts\R2-1804310_Mapping%20between%20SI%20Windows%20and%20SI%20Messages.doc) Mapping between SI Windows and SI Messages Samsung Electronics Co., Ltd discussion Rel-15

[R2-1805247](file:///C:\Data\3GPP\Extracts\R2-1805247%20Remaining%20issues%20on%20system%20information%20scheduling.docx) Remaining issues on System Information Scheduling Ericsson discussion

[R2-1804594](file:///C:\Data\3GPP\Extracts\R2-1804594_Overlapping%20of%20SI%20Windows.doc) Overlapping of SI Windows vivo discussion Rel-15 NR\_newRAT-Core

[R2-1805222](file:///C:\Data\3GPP\Extracts\R2-1805222%20Considerations%20on%20System%20Information%20scheduling.doc) Considerations on System Information scheduling Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.6.6 On demand system information

Any remaining details of On demand SI

[R2-1804881](file:///C:\Data\3GPP\Extracts\R2-1804881_SIB1%20Content%20for%20SI%20Request.doc) SIB1 Content for SI Request Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.6.1 to 10.4.1.6.6

Agreements

1: No additional information (other than si-BroadcastStatus and Msg1 based SI request configuration) is needed in SIB1 to indicate Msg3 based SI request.

2 If a SI message is not broadcasted (as indicated by si-BroadcastStatus bit) and si-Request-Config is not included in SIB1, UE uses Msg3 based SI request.

3 If a SI message is not broadcasted (as indicated by si-BroadcastStatus bit) and si-Request-Config is included in SIB1, UE uses Msg1 based SI request.

4 Indicator whether a SI message is currently broadcast is signalled in SchedulingInfo.

FFS Whether ASN.1 will allow a SI request configuration to be used for a subset of SI-messages provided on demand.

* [101bis#xx][NR] RA resources for MSG1 on demand request (Samsung)

Progress the details of the ASN.1 for SIB1 to provide the RA resources for MSG1 on demand request. FFS in the agreements also to be resolved by the email discussion

Intended outcome: TP for ASN.1

Deadline: Thursday 2018-05-10

[R2-1805225](file:///C:\Data\3GPP\Extracts\R2-1805225%20MSG3%20based%20other%20SI%20acquisition.doc) MSG3 based other SI acquisition Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

Agreements

1 A new type of RRC message RRCSystemInfoRequest is defined to support SI request.

2 The message RRCSystemInfoRequest is sent via CCCH with the signalling radio bearer of SRB0.

3 ASN.1 from the contribution can be taken as a baseline

4 RRC response message is not needed for MSG4 of MSG3 based SI request.

[R2-1804528](file:///C:\Data\3GPP\Extracts\R2-1804528%20%20Discussion%20on%20Upper%20Layer%20Action%20upon%20RACH%20Problem%20and%20SI%20prohibit%20Timer.doc) Discussion on Upper Layer Action upon RACH Problem and SI prohibit Timer OPPO discussion NR\_newRAT [R2-1801795](file:///C:\Data\3GPP\Extracts\R2-1801795%20%20%20%20Discussion%20on%20SI%20Request%20Prohibit%20Timer.doc)

Agreements

1 RAN2 confirm that RRC layer initiates the MSG1-based SI request.

2 If acquisition of non-essential SIBs fails then UE does not bar the cell.

3 For failure of acquisition of SIBs the spec will not differentiate between RACH failure and reception failure.

4 RACH is stopped when MAC indicates RACH failure (existing indication)

5 After RACH failure it is left to UE implementation when to retry the request

[R2-1805057](file:///C:\Data\3GPP\Extracts\R2-1805057%20Clarification%20of%20broadcast%20indicator%20in%20SIB1.doc) Clarification of broadcast indicator in SIB1 LG Electronics Inc. discussion

[R2-1804987](file:///C:\Data\3GPP\Extracts\R2-1804987%20-%20Duration%20of%20on-demand%20SI%20broadcast.docx) Duration of on-demand SI broadcast Ericsson discussion

[R2-1805223](file:///C:\Data\3GPP\Extracts\R2-1805223%20Consideration%20on%20Indication%20for%20On-Demand%20SI%20Broadcast.doc) Consideration on Indication for On-demand SI Broadcast Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804266](file:///C:\Data\3GPP\Extracts\R2-1804266%20Open%20issues%20for%20Broadcasting%20Indicator.docx) Open issues for Broadcasting Indicator CATT discussion Late

[R2-1804267](file:///C:\Data\3GPP\Extracts\R2-1804267%20Indicator%20Granularity%20of%20on-demand%20SI%20Request.docx) Indicator Granularity of on-demand SI Request CATT discussion [R2-1801831](file:///C:\Data\3GPP\Extracts\R2-1801831.docx) Late

[R2-1804268](file:///C:\Data\3GPP\Extracts\R2-1804268%20Awareness%20and%20RRC%20Action%20of%20on-demand%20SI%20Request%20Failure.docx) Awareness and RRC Action of on-demand SI Request Failure CATT discussion Late

[R2-1804284](file:///C:\Data\3GPP\Extracts\R2-1804284.doc) Msg1-based or Msg3-based SI request procedure ASUSTeK discussion Rel-15 NR\_newRAT-Core [R2-1801894](file:///C:\Data\3GPP\Extracts\R2-1801894.doc)

[R2-1804309](file:///C:\Data\3GPP\Extracts\R2-1804309_SI%20Request%20Failure%20Handling%20&%20SI%20Period%20Monitoring%20for%20On%20Demand%20SI.doc) SI Request Failure Handling & SI Period Monitoring for On Demand SI Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804442](file:///C:\Data\3GPP\Extracts\R2-1804442%20Consideration%20on%20the%20RACH%20resource%20and%20SI%20request%20mapping.docx) Consideration on the RACH resource and SI request mapping ZTE Corporation, Sanechips discussion

[R2-1804443](file:///C:\Data\3GPP\Extracts\R2-1804443%20Consideration%20on%20group%20based%20SI%20request%20scheme.docx) Consideration on the group based SI request scheme ZTE Corporation, Sanechips discussion

[R2-1804444](file:///C:\Data\3GPP\Extracts\R2-1804444%20Upper%20layer%20actions%20for%20the%20Random%20Access%20problem.docx) Upper layer actions for the Random Access problem ZTE Corporation, Sanechips discussion

[R2-1804469](file:///C:\Data\3GPP\Extracts\R2-1804469_Msg1-based%20on%20demand%20SI%20request_final.docx) Msg1-based on demand SI request Spreadtrum Communications discussion Rel-15

[R2-1804592](file:///C:\Data\3GPP\Extracts\R2-1804592_Beam%20based%20on%20demand%20SI%20acquisition%20for%20idle+inactive%20UE.doc) Beam based on demand SI acquisition for idle/inactive UE vivo discussion Rel-15 NR\_newRAT-Core [R2-1802092](file:///C:\Data\3GPP\Extracts\R2-1802092_Beam%20based%20on%20demand%20SI%20acquisition%20for%20idle+inactive%20UE.doc)

[R2-1804593](file:///C:\Data\3GPP\Extracts\R2-1804593_Failure%20Handling%20for%20On%20Demand%20SI%20Acquisition%20Procedure.doc) Failure Handling for On Demand SI Acquisition Procedure vivo discussion Rel-15 NR\_newRAT-Core [R2-1802093](file:///C:\Data\3GPP\Extracts\R2-1802093_Failure%20Handling%20for%20On%20Demand%20SI%20Acquisition%20Procedure.doc)

[R2-1804624](file:///C:\Data\3GPP\Extracts\R2-1804624%20Further%20issues%20relates%20to%20on-demand%20SI.doc) Further issues relates to on-demand SI Beijing Xiaomi Mobile Software discussion Rel-15

[R2-1804984](file:///C:\Data\3GPP\Extracts\R2-1804984%20-%20On-demand%20SI%20reject%20procedure.docx) On-demand SI reject procedure Ericsson discussion

[R2-1804998](file:///C:\Data\3GPP\Extracts\R2-1804998%20Details%20of%20MSG3%20for%20SI%20request.doc) Details of MSG3 for SI request LG Electronics Inc. discussion

[R2-1805017](file:///C:\Data\3GPP\Extracts\R2-1805017-SysInfo_v00.docx) Remaining issues on on-demand System Information Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805224](file:///C:\Data\3GPP\Extracts\R2-1805224%20Consideration%20on%20MSG1%20based%20OSI%20request.doc) Consideration on MSG1 based OSI request Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805226](file:///C:\Data\3GPP\Extracts\R2-1805226%20Failure%20handling%20for%20OSI%20reception.doc) Failure handling for OSI reception Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805933](file:///C:\Data\3GPP\Extracts\R2-1805933%20RACH%20failure%20for%20SI%20request.doc) RACH failure for SI request LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1801378](file:///C:\Data\3GPP\Extracts\R2-1801378%20On%20demand%20SI%20procedure.doc)

##### 10.4.1.6.7 System information reception in connected mode

Any remaining details of SI reception in connected mode (note this continues the discussion that was started under the BWP stage 2 agenda item).

* [101bis#xx][NR] SI reception in connected mode (Samsung)

To progress the remaining issues related to reception of SI in connected mode (related to papers in this AI. Can consider any new information received from RAN1

Intended outcome: Report to next meeting

Deadline: Thursday 2018-05-10

[R2-1804313](file:///C:\Data\3GPP\Extracts\R2-1804313_Updated%20SI%20Reception%20in%20RRC%20Connected_Bandwidth%20Part%20Aspects.doc) Updated SI Reception in RRC Connected: BWP Aspects Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804263](file:///C:\Data\3GPP\Extracts\R2-1804263%20Further%20discussion%20for%20SI%20broadcast%20in%20non-initial%20BWP.docx) Further discussion for SI broadcast in non-initial BWP CATT discussion Late

[R2-1805616](file:///C:\Data\3GPP\Extracts\R2-1805616%20Dedicated%20transfer%20of%20SI%20upon%20UE%20mobility.doc) Provision of SI in connected and upon UE mobility Samsung Telecommunications discussion

[R2-1805248](file:///C:\Data\3GPP\Extracts\R2-1805248%20System%20information%20reception%20in%20connected%20mode.docx) System information reception in connected mode Ericsson discussion

[R2-1804264](file:///C:\Data\3GPP\Extracts\R2-1804264%20SI%20provided%20by%20dedicated%20signaling%20for%20connected%20UE.docx) SI provided by dedicated signaling for connected UE CATT discussion Late

[R2-1804425](file:///C:\Data\3GPP\Extracts\R2-1804425%20SI%20Provision%20for%20Connected%20UE%20by%20dedicated%20signalling.doc) SI Provision by dedicated signalling to Connected UEs Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804426](file:///C:\Data\3GPP\Extracts\R2-1804426%20MIB%20Reception%20for%20Connected%20UEs%20in%20BWP.doc) MIB Reception for Connected UE in BWP Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804427](file:///C:\Data\3GPP\Extracts\R2-1804427%20Disscussion%20on%20Timing%20Information%20Provision%20for%20Connected%20UEs.doc) Provision of UTC SIB to connected UEs Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1804445](file:///C:\Data\3GPP\Extracts\R2-1804445%20Further%20consideration%20on%20SI%20and%20Paging%20receiving%20on%20Active%20BWP.docx) Further consideration on SI and Paging receiving on Active BWP ZTE Corporation, Sanechips discussion

[R2-1804590](file:///C:\Data\3GPP\Extracts\R2-1804590_SI%20reception%20on%20BWP%20in%20connected%20mode.doc) SI reception on BWP in connected mode vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804812](file:///C:\Data\3GPP\Extracts\R2-1804812%20(R15%20NR%20WI%20AI104167%20MIB%20and%20SIB%20provisioning%20in%20UE's%20active%20BWP).doc) SIB and MIB provisionning in UE’s active BWP InterDigital discussion Rel-15 NR\_newRAT-Core

[R2-1804945](file:///C:\Data\3GPP\Extracts\R2-1804945%20SI%20reception%20in%20the%20UE's%20active%20BWP.doc) SI reception in the UE's active BWP Fujitsu discussion Rel-15 NR\_newRAT-Core

[R2-1805401](file:///C:\Data\3GPP\Extracts\R2-1805401%20Initial%20BWP%20for%20Secondary%20Serving%20Cell.doc) Initial BWP for Secondary Serving Cell Lenovo, Motorola Mobility discussion Rel-15 NR\_newRAT-Core [R2-1803391](file:///C:\Data\3GPP\Extracts\R2-1803391%20Initial%20BWP%20for%20Secondary%20Serving%20Cell.doc)

[R2-1805686](file:///C:\Data\3GPP\Extracts\R2-1805686-dedicatedsig_v01.docx) Details on dedicated signaling for SI reception in Connected Mode Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1804992](file:///C:\Data\3GPP\Extracts\R2-1804992%20-%20Notification%20and%20retrieval%20of%20updated%20SI%20for%20a%20UE%20in%20an%20active%20DL%20BWP.docx) Notification and retrieval of updated SI for a UE in an active DL BWP Ericsson discussion

moved from 10.4.1.6.4 to 10.4.1.6.7

Withdrawn

R2-1805199 System information acquisition in RRC CONNECTED over BWP Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803683](file:///C:\Data\3GPP\Extracts\R2-1803683%20System%20information%20acquisition%20over%20BWP.doc) Withdrawn

##### 10.4.1.6.8 System information -other

Other system information related aspects

[R2-1804395](file:///C:\Data\3GPP\Extracts\R2-1804395.docx) Multiple NS/P-Max for NR NTT DOCOMO, INC. discussion Rel-15 NR\_newRAT-Core

[R2-1804981](file:///C:\Data\3GPP\Extracts\R2-1804981%20-%20Details%20of%20RRC%20SI%20request.docx) Details of RRC SI request Ericsson discussion

[R2-1804985](file:///C:\Data\3GPP\Extracts\R2-1804985%20Optional%20configuration%20in%20NR%20system%20information.docx) Optional configuration in NR system information Ericsson discussion

[R2-1804989](file:///C:\Data\3GPP\Extracts\R2-1804989%20-%20TP%20to%2038331%20on%20System%20Information.docx) TP to 38.331 on System Information Ericsson discussion

[R2-1804990](file:///C:\Data\3GPP\Extracts\R2-1804990%20-%20Essential%20System%20Information%20in%20NR.docx) Essential System Information in NR Ericsson discussion

[R2-1805056](file:///C:\Data\3GPP\Extracts\R2-1805056.doc) On Supporting Multiple Modification Periods in NR Samsung discussion NR\_newRAT-Core

#### 10.4.1.7 Inactive state

No documents should be submitted to 10.4.1.6. Please submit to 10.4.1.6.x or the agenda item on the resume procedure in 10.4.1.3.5.

##### 10.4.1.7.1 RAN area configuration and update procedure

Any further details specific to RAN configuration (e.g. final details on field sizes, etc) and RAN area update (noting that the resume procedure is addressed by AI 10.4.1.3.5)

[R2-1804807](file:///C:\Data\3GPP\Extracts\R2-1804807%20-%20RNAU%20Failure%20clarification.docx) RNAU Failure clarification Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805014](file:///C:\Data\3GPP\Extracts\R2-1805014_NR_INACTIVE_RNAU_TAU-Intel.doc) Interaction between RNAU and Registration Update Intel Corporation discussion Rel-15 NR\_newRAT-Core

P1

- Qualcomm think that separate cause values are needed as the network can decide whether to do the context relocation or not. Intel think the network can judge whether the UE has changes RNA.

- ZTE share the Intel view.

P2

- LG thinks the that in connected the upper layer will not provide an establishment cause for a TAU case. How does NAS distinguish this case. Intel think we agreed from the AC discussion that NAS would provide this.

- ZTE ask if the UE sends the TAU and the RNAU. Intel assume that both procedures occur.

- Samsung think nothing is broken if we don't specify anything. If we try to do anything then it will lead to strange modelling in our spec.

- Qualcomm think we need to have this prioritisation to ensure that the UE is placed into connected to send the TAU request

- OPPO ask which cause value will be used in the resume. Intel we can state that if they occur simultaneously then we perform the TAU.

- Samsung there is nothing we can do to prevent the UE doing separate procedures. Nokia agree there is nothing to do in the spec. It is not possible to check whether these happen at the same time in the UE.

- ZTE think it is typical that the TAU and RNAU will coincide and it would be good to ensure the UE only sends TAU.

- Nokia think this happens regularly at every tracking area change.

Agreements

1. A single establishment cause value is used to specify both periodic and mobility based RNAU.

2 If Registration Update and RNAU are triggered simultaneously (i.e. at change of TA) then the UE performs TAU, meaning that the resume procedure uses the cause value associated with the TAU (e.g. MO signalling)

[R2-1804322](file:///C:\Data\3GPP\Extracts\R2-1804322_nr_area_v26.doc) Further considerations on the RAN notification area for NR Samsung discussion Rel-15

- Huawei think that the RNA does not need to be PLMN specific. It also means that more information is needed in MSG3

- Intel think that TA can be PLMN specific but this is the RAN and so there does not need to be operator coordination.

- Samsung explain that the TAs are PLMN specific and hence the RANACs should also be PLMN specific.

- Ericsson think the RNA list could be the TAI list but the signalling doesn’t allow.

- Nokia think the RNA is a combination of TAI and RANAC and the TAI is PLMN specific.

=> Offline discussion whether to provide a RANAC code per PLMN (Offline discussion #44, Samsung)

- Update from offline: One company was still reluctant to agree to a RANAC per PLMN, and other companies were ok with the solution.

=> RANAC can be provided per PLMN

[R2-1804935](file:///C:\Data\3GPP\Extracts\R2-1804935%20RAN%20notification%20area%20details.doc) RAN area configuration details Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

Agreements

1 The RNA can included TAs and cells that are from different PLMNs (these would be equivalent PLMNs)

=> ASN.1 details can be discussed offline (Offline discussion #45, Nokia)

[R2-1806477](file:///C:\Data\3GPP\Extracts\R2-1806477%20Offline%20discussion%2045%20report.doc) [Offline#45 report] Nokia, Nokia Shanghai Bell discussion NR\_newRAT-Core

=> Add FFS on whether the "plmn-Identity PLMN-Identity" can be optional.

=> Agreed to be added to the running CR

[R2-1804323](file:///C:\Data\3GPP\Extracts\R2-1804323_nr_inactive_rancn_v03.doc) On interaction between the RAN and CN area update procedures Samsung discussion Rel-15 NR\_newRAT-Core

[R2-1804446](file:///C:\Data\3GPP\Extracts\R2-1804446%20CN%20Area%20Update%20in%20INACTIVE%20State.docx) CN area update in Inactive state ZTE Corporation, Sanechips discussion

[R2-1804600](file:///C:\Data\3GPP\Extracts\R2-1804600_Open%20Issues%20on%20RAN%20area%20configuration.docx) Open Issues on RAN area configuration vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804889](file:///C:\Data\3GPP\Extracts\R2-1804889%20Further%20discussions%20about%20RAN%20Notification%20Area%20Update%20.docx) Further discussions about RAN Notification Area Update Asia Pacific Telecom co. Ltd discussion Rel-15

[R2-1804946](file:///C:\Data\3GPP\Extracts\R2-1804946%20Remaining%20issues%20on%20RAN-based%20notification%20area%20update%20procedure.doc) Remaining issues on RAN-based notification area update procedure Fujitsu discussion Rel-15 NR\_newRAT-Core

[R2-1805313](file:///C:\Data\3GPP\Extracts\R2-1805313.doc) Discussion on CN location Update and RNA Update for inactive state Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805358](file:///C:\Data\3GPP\Extracts\R2-1805358%20-%20RNA%20Configuration%20Signalling.docx) RNA Configuration signalling Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805566](file:///C:\Data\3GPP\Extracts\R2-1805566.docx) RANAC per PLMN Ericsson LM discussion Rel-15

[R2-1805986](file:///C:\Data\3GPP\Extracts\R2-1805986_Timer%20handling%20of%20RAN-based%20location%20area%20update.doc) Timer handling of RAN-based location area update LG Electronics France discussion Rel-15 NR\_newRAT-Core [R2-1802533](file:///C:\Data\3GPP\Extracts\R2-1802533_Timer%20handling%20of%20RAN-based%20location%20area%20update.doc)

##### 10.4.1.7.2 Security framework for inactive

Including confirmation, or otherwise, of the working assumption taken at RAN2#101, inputs to Msg3 MAC-I, etc. AI to be handled after receiving response from SA3.

[R2-1805365](file:///C:\Data\3GPP\Extracts\R2-1805365%20-%20On%20security%20issues%20on%20REJECT%20message%20on%20SRB0.docx) Security issues on reject message on SRB0 Ericsson discussion Rel-15 NR\_newRAT-Core

Agreements

1 As in LTE, the maximum waitTime value in REJECT kind of message in response to RRCResumeRequest over SRB0 is 16 seconds.

2 For Rel-15, we do not support RRCREJECT over SRB1.

FFS Whether a wait timer is needed in RRCRelease

[R2-1805013](file:///C:\Data\3GPP\Extracts\R2-1805013_Security%20details%20for%20inactive%20state.doc) Security details for inactive state Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805317](file:///C:\Data\3GPP\Extracts\R2-1805317.doc) Discussion on replay attacks Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805279](file:///C:\Data\3GPP\Extracts\R2-1805279_Security_Resume.doc) Remaining issues of Security framework for Resume Samsung discussion

[R2-1805367](file:///C:\Data\3GPP\Extracts\R2-1805367%20-%20Security%20for%20RRCResumeRequest%20message.docx) Security for RRCResumeRequest message Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805315](file:///C:\Data\3GPP\Extracts\R2-1805315.doc) Msg3 verification in target gNB Huawei, HiSilicon discussion NR\_newRAT-Core

- Qualcomm think that the context should not be pushed to the target so we should not support the verification at the target

- Samsung don't see a use case for this.

- LG think the gain to support this proposal are not very big

- Vivo think this may reduce latency but think it is an enhancement so we can use the verification but source as the baseline in R15.

- Ericsson think this could be a possible network implementation even today. Samsung is concerned that the UE would have to provide some assistance to the UE to provide this.

- OPPO support that the target can check the MAC-I.

=> RAN2 understand that target checking the MAC-I may be an implementation possibility but there is no specification impact in RAN2.

[R2-1805980](file:///C:\Data\3GPP\Extracts\R2-1805980_Security%20of%20ResumeRequest%20message.doc) Security of ResumeRequest message LG Electronics France discussion Rel-15 NR\_newRAT-Core

[R2-1804269](file:///C:\Data\3GPP\Extracts\R2-1804269.docx) New NCC to be sent in suspension kind of message acting as a MSG4 CATT discussion Late

[R2-1804460](file:///C:\Data\3GPP\Extracts\R2-1804460_R2-1802046_inactiveRejectSecurity.docx) Security of REJECT message ZTE Corporation, Sanechips discussion

[R2-1804551](file:///C:\Data\3GPP\Extracts\R2-1804551-Left%20issues%20for%20INACTIVE%20security%20framework.doc) Left issues for INACTIVE security framework OPPO discussion Late

[R2-1804599](file:///C:\Data\3GPP\Extracts\R2-1804599_UE%20context%20verification%20for%20Msg3.docx) UE context verification for Msg3 vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804931](file:///C:\Data\3GPP\Extracts\R2-1804931%20Security%20details%20in%20RRC_INACTIVE.doc) Security in inactive state Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1805314](file:///C:\Data\3GPP\Extracts\R2-1805314.doc) Integrity protection of msg3 and msg4 Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805316](file:///C:\Data\3GPP\Extracts\R2-1805316.doc) Discussion on DoS attacks for rejection procedure Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805364](file:///C:\Data\3GPP\Extracts\R2-1805364%20-%20Security%20Algorithm%20handling%20at%20Resume_pA1.docx) Security Algorithm handling at Resume procedure Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805366](file:///C:\Data\3GPP\Extracts\R2-1805366%20-%20DRAFT%20LS%20to%20SA3%20on%20Security%20issues%20on%20reject%20message%20on%20SRB0.doc) [DRAFT] LS to SA3 on Security issues on reject message on SRB0 Ericsson LS out Rel-15 NR\_newRAT-Core To:SA3

[R2-1805368](file:///C:\Data\3GPP\Extracts\R2-1805368%20-%20DRAFT%20LS%20to%20SA3%20on%20Replay%20attack%20avoidance.doc) [DRAFT] LS to SA3 on Replay attack avoidance Ericsson LS out Rel-15 NR\_newRAT-Core To:SA3

[R2-1805632](file:///C:\Data\3GPP\Extracts\R2-1805632%20-%20Way%20forward%20with%20Security%20in%20RRC%20Inactive.docx) Way forward with Security in RRC Inactive Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805877](file:///C:\Data\3GPP\Extracts\R2-1805877%20UP%20and%20Security%20handling%20for%20INACTIVE.doc) UP and security handling w.r.t INACTIVE state SAMSUNG Electronics Co., Ltd. discussion NR\_newRAT-Core

##### 10.4.1.7.3 Inactive - other

Other inactive state related aspects

[R2-1805090](file:///C:\Data\3GPP\Extracts\R2-1805090_UE%20AS%20Context%20for%20RRC_INACTIVE.doc) UE AS Context for RRC\_INACTIVE Qualcomm Incorporated discussion [R2-1803588](file:///C:\Data\3GPP\Extracts\R2-1803588_UE%20AS%20Context%20for%20RRC_INACTIVE.doc)

[R2-1804930](file:///C:\Data\3GPP\Extracts\R2-1804930%20Support%20of%20RRC-INACTIVE%20by%20NW%20and%20UE.doc) Consistent support of RRC\_INACTIVE Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1804276](file:///C:\Data\3GPP\Extracts\R2-1804276%20Considerations%20on%20acceptable%20cell%20with%20Inactive%20Mode.docx) Considerations on acceptable cell with Inactive Mode CATT discussion [R2-1801836](file:///C:\Data\3GPP\Extracts\R2-1801836.docx) Late

[R2-1804287](file:///C:\Data\3GPP\Extracts\R2-1804287.doc) State transition from RRC\_CONNECTED to RRC\_INACTIVE ASUSTeK discussion Rel-15 NR\_newRAT-Core [R2-1801895](file:///C:\Data\3GPP\Extracts\R2-1801895.doc)

[R2-1804314](file:///C:\Data\3GPP\Extracts\R2-1804314_RA%20Procedure%20for%20RRC%20Inactive%20State.doc) RA Procedure for RRC Inactive State Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core [R2-1801887](file:///C:\Data\3GPP\Extracts\R2-1801887_RA%20Procedure%20for%20RRC%20Inactive%20State.doc)

[R2-1804324](file:///C:\Data\3GPP\Extracts\R2-1804324_nr_inactive_mico_v08.doc) On the MICO mode and the RRC\_INACTIVE state Samsung discussion Rel-15 NR\_newRAT-Core [R2-1801877](file:///C:\Data\3GPP\Extracts\R2-1801877_nr_inactive_mico_v05.doc)

[R2-1804342](file:///C:\Data\3GPP\Extracts\R2-1804342.doc) Discussion on cell reselection for inactive state to prevent RLAU procedure ITRI discussion NR\_newRAT-Core [R2-1802155](file:///C:\Data\3GPP\Extracts\R2-1802155.doc)

[R2-1804343](file:///C:\Data\3GPP\Extracts\R2-1804343.doc) Receiving paging message during state transition procedure ITRI discussion NR\_newRAT-Core [R2-1802154](file:///C:\Data\3GPP\Extracts\R2-1802154.doc)

[R2-1804471](file:///C:\Data\3GPP\Extracts\R2-1804471%20UL%20data%20transmission%20in%20inactive.doc) UL data transmission in inactive Spreadtrum Communications discussion Rel-15 [R2-1801979](file:///C:\Data\3GPP\Extracts\R2-1801979%20UL%20data%20transmission%20in%20inactive%20v2.doc)

[R2-1804532](file:///C:\Data\3GPP\Extracts\R2-1804532%20%20Discussion%20on%20Necessity%20of%20NSSAI%20in%20RRC%20Connection%20Resume%20Procedure.doc) Discussion on Necessity of NSSAI in MSG5 During RRC Connection Resume OPPO discussion NR\_newRAT

[R2-1804863](file:///C:\Data\3GPP\Extracts\R2-1804863.docx) Coordination of I-RNTI across RAT's Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804866](file:///C:\Data\3GPP\Extracts\R2-1804866%20(R15%20NR%20WI%20AI104173%20ReselectionForInactive).doc) Cell Reselection in RRC Inactive InterDigital, Inc. discussion Rel-15 [R2-1803023](file:///C:\Data\3GPP\Extracts\R2-1803023%20(R15%20NR%20WI%20AI104177%20ReselectionForInactive).doc)

[R2-1805110](file:///C:\Data\3GPP\Extracts\R2-1805110_UE%20Support%20for%20RRC%20Inactive%20State.doc) UE Support of RRC INACTIVE Qualcomm Incorporated discussion [R2-1803586](file:///C:\Data\3GPP\Extracts\R2-1803586_UE_support_Inactive.doc)

[R2-1805319](file:///C:\Data\3GPP\Extracts\R2-1805319.doc) Support of INACTIVE state Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805320](file:///C:\Data\3GPP\Extracts\R2-1805320.doc) The content of AS context for inactive UE Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805321](file:///C:\Data\3GPP\Extracts\R2-1805321.doc) The storage of AS context for inactive UE Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805357](file:///C:\Data\3GPP\Extracts\R2-1805357%20-%20CN%20area%20updating%20in%20RRC_INACTIVE.docx) CN area updating and combined TAU/RNA in RRC\_INACTIVE Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805555](file:///C:\Data\3GPP\Extracts\R2-1805555.doc) RLAU procedure and interaction with TAU Huawei, HiSilicon discussion Rel-15 NR\_newRAT [R2-1802796](file:///C:\Data\3GPP\Extracts\R2-1802796.doc)

[R2-1805912](file:///C:\Data\3GPP\Extracts\R2-1805912_RRC%20state%20transition.doc) RRC state transition Apple Inc. discussion NR\_newRAT-Core

[R2-1805935](file:///C:\Data\3GPP\Extracts\R2-1805935%20Handling%20of%20radio%20bearers%20and%20security%20for%20data%20transmission%20in%20RRC_INACTIVE.doc) Handling of radio bearers and security for data transmission in RRC\_INACTIVE LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802737](file:///C:\Data\3GPP\Extracts\R2-1802737%20Handling%20of%20radio%20bearers%20and%20security%20for%20data%20transmission%20in%20RRC_INACTIVE.doc)

[R2-1805982](file:///C:\Data\3GPP\Extracts\R2-1805982_PLMN%20selection%20in%20RRC_INACTIVE.doc) PLMN selection in RRC\_INACTIVE LG Electronics France discussion Rel-15 NR\_newRAT-Core [R2-1802497](file:///C:\Data\3GPP\Extracts\R2-1802497_PLMN%20selection%20in%20RRC_INACTIVE.doc)

[R2-1805984](file:///C:\Data\3GPP\Extracts\R2-1805984_Consideration%20on%20MICO%20mode%20for%20RRC_INACTIVE.doc) Consideration on MICO mode for RRC\_INACTIVE LG Electronics France discussion Rel-15 NR\_newRAT-Core [R2-1802508](file:///C:\Data\3GPP\Extracts\R2-1802508_Consideration%20on%20MICO%20mode%20for%20RRC_INACTIVE.doc)

[R2-1806176](file:///C:\Data\3GPP\Extracts\R2-1806176%20-%20Discussion%20on%20enhanced%20paging%20mechanism%20for%20handling%20RAN-initiated%20paging%20failure.docx) Discussion on enhanced paging mechanism for handling RAN-initiated paging failure ASTRI, TCL Communication Ltd. discussion

#### 10.4.1.8 Access control

No documents should be submitted to 10.4.1.8. Please submit to 10.4.1.8.x.

##### 10.4.1.8.1 Email discussion on Access control

Including output of email discussion [101#40][NR] Access Control (LG). Documents addressing specific FFS points identified during the email discussion should be submitted to the appropriate agenda item.

[R2-1805942](file:///C:\Data\3GPP\Extracts\R2-1805942%20Report%20of%20101%2340%2038.331%20TP%20on%20AC.doc) Report of [101#40][NR] Access Control LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

=> Confirm that the new section should be 5.3.x

=> Endorsed as a baseline for capturing further agreements

* [101bis#xx][NR] TP on AC (LG)

Update TP based on agreements from this meeting and progress some open FFS points

Intended outcome: Report and TP to next meeting.

Deadline: Thursday 2018-05-10

[R2-1805088](file:///C:\Data\3GPP\Extracts\R2-1805088_RemainingIssues_UAC.doc) Remaining Issues on UAC Qualcomm Incorporated discussion

##### 10.4.1.8.2 Access control information

Coding of the access control information in SI, considering the baseline ASN.1 structure discussed in email discussion [101#40]

[R2-1805941](file:///C:\Data\3GPP\Extracts\R2-1805941%20Optimization%20of%20UAC%20barring%20information.doc) Optimization of barring information for UAC LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

Agreements for LTE/5GC and NR

1: Barring information common to multiple Access Categories are specified. Number of different sets of barring parameters is small [e.g. 2 or 4 or 8]

2 For each Access Category there is a link to which of the sets of barring information is to be used; or

For each set of barring inform there are links (e.g. bit map) to which Access Categories use the barring set

FFS Link direction to be concluded considering at least the worst case situation

Link from AC to the parameter set. Worst case = 12 x 63 x log(n) (n = 2,4,8)

Link from parameter set to AC. Worst case = n x 12x63 (n = 2,4, 8)

=> Offline discussion to conclude the direction of the linking. (Offline discussion #50, Nokia) Outcome in R2-1806449

[R2-1806449](file:///C:\Data\3GPP\Extracts\R2-1806449%20Offline50_AccessControl%20-%20v2.docx) [Outcome of Offline#50] Nokia discussion Rel-15 NR\_newRAT-Core

Agreements

1 Adopt option 1 (Link from AC to the parameter set).

2 The parameter barring sets are configured in SI

Working assumption

1 Number of barring sets in SI will be up to N. N will be at most 8.

[R2-1804272](file:///C:\Data\3GPP\Extracts\R2-1804272%20Considerations%20on%20access%20control%20parameters-update.docx) Considerations on access control parameters CATT discussion Late

[R2-1804450](file:///C:\Data\3GPP\Extracts\R2-1804450%20Consideration%20on%20the%20signaling%20of%20barring%20parameters.doc) Consideration on the signaling of barring parameters ZTE Corporation, Sanechips discussion

[R2-1804476](file:///C:\Data\3GPP\Extracts\R2-1804476_UAC_Barring_Check_Info_Signalling_Revision.doc) Barring information signalling for 5G unified access control Spreadtrum Communications discussion Rel-15 [R2-1800273](file:///C:\Data\3GPP\Extracts\R2-1800273_UAC_Barring_Check_Info_Encoding.doc)

[R2-1804674](file:///C:\Data\3GPP\Extracts\R2-1804674.doc) Considerations on Signaling design of Access Control xiaomi discussion Rel-15

[R2-1804712](file:///C:\Data\3GPP\Extracts\R2-1804712%20-%20Reducing%20signalling%20overhead%20in%20access%20barring%20information.docx) Reducing signalling overhead in access barring information Ericsson discussion

[R2-1805058](file:///C:\Data\3GPP\Extracts\R2-1805058.doc) On Reducing the Size of Access Control Configuration Samsung discussion NR\_newRAT-Core

[R2-1805059](file:///C:\Data\3GPP\Extracts\R2-1805059.doc) ASN.1 Structure for NR Access Control Samsung discussion NR\_newRAT-Core

[R2-1805682](file:///C:\Data\3GPP\Extracts\R2-1805682%20SIB%20optimization%20for%20Access%20Control.docx) SIB optimizations for Access Control Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1805843](file:///C:\Data\3GPP\Extracts\R2-1805843%20Access%20control%20signalling%20design.doc) Access control signaling design Huawei Technologies France discussion Rel-15 [R2-1803544](file:///C:\Data\3GPP\Extracts\R2-1803544%20Access%20control%20signalling%20design.doc)

[R2-1805930](file:///C:\Data\3GPP\Extracts\R2-1805930%20Initial%20network%20selection%20for%20collocated%20EN_DC%20and%20NR%20%20SA%20v.10.docx) Initial network selection for collocated EN\_DC and NR T-Mobile USA Inc. discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.8.3 Access control for AS triggered events in Inactive

[R2-1805084](file:///C:\Data\3GPP\Extracts\R2-1805084.doc) Remaining issues on NR Access Control in RRC\_Inactive Samsung discussion NR\_newRAT-Core

Agreements for NR and LTE/5GC

1: UE AS sets the resume cause value corresponding of RNA update (i.e. specified in 38.331)

2: UE AS maps RNA update to the corresponding access category, and perform a barring check for the mapped access category (i.e. specified in 38.331)

FFS Whether to use access category 3 for MO-signalling or a standardised RAN specific access category.

* [101bis#xx][NR] LS to CT1 on AC (Intel)

Inform CT1 of our agreements on AC for AS triggered events

Intended outcome:

Deadline: Thursday 2018-04-26

[R2-1804271](file:///C:\Data\3GPP\Extracts\R2-1804271%20Considerations%20on%20Access%20Control%20with%20RRC%20Connection%20Resumption.docx) Considerations on access control with RRC connection resumption CATT discussion Late

[R2-1804451](file:///C:\Data\3GPP\Extracts\R2-1804451%20Further%20consideration%20on%20ASNAS%20modeling%20for%20unified%20access%20control.doc) Further consideration on AS/NAS modeling for unified access control ZTE Corporation, Sanechips discussion

[R2-1804530](file:///C:\Data\3GPP\Extracts\R2-1804530%20%20Discussion%20on%20Handing%20of%20Access%20Attempt%20Barred%20for%20RRC_INACTIVE%20and%20RRC_CONNECTED%20UE%20and%20Potential%20AC%20Parameter%20Load%20for%20SIB1.docx) Discussion on Handing of Access Attempt Barred for RRC\_INACTIVE and RRC\_CONNECTED UE and Potential AC Parameter Load for SIB1 OPPO discussion NR\_newRAT

[R2-1804534](file:///C:\Data\3GPP\Extracts\R2-1804534%20%20Discussion%20on%20Access%20Control%20for%20AS%20Triggered%20Access%20Attempt.doc) Discussion on Access Control for AS Triggered Access Attempt OPPO discussion

[R2-1804645](file:///C:\Data\3GPP\Extracts\R2-1804645.doc) Futher considerations on Access Control in NR Xiaomi discussion Rel-15

[R2-1804710](file:///C:\Data\3GPP\Extracts\R2-1804710%20-%20Access%20attempts%20in%20RRC_INACTIVE.docx) Access attempts in RRC\_INACTIVE Ericsson discussion

[R2-1804714](file:///C:\Data\3GPP\Extracts\R2-1804714%20-%20DRAFT%20LS%20on%20access%20attempts%20in%20RRC_INACTIVE%20subject%20to%20unified%20access%20control.doc) [DRAFT] LS on access attempts in RRC\_INACTIVE subject to unified access control Ericsson LS out To:CT1

[R2-1805010](file:///C:\Data\3GPP\Extracts\R2-1805010_Handling%20of%20AS%20triggered%20events.doc) Handling of AS triggered events Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805681](file:///C:\Data\3GPP\Extracts\R2-1805681%20Access%20Category%20for%20AS-triggered%20events.docx) Access Category for AS-triggered events Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1805857](file:///C:\Data\3GPP\Extracts\R2-1805857%20Access%20control%20for%20RRC_INACTIVE.doc) Access Control in RRC\_INACTIVE Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1803542](file:///C:\Data\3GPP\Extracts\R2-1803542%20Access%20control%20for%20RRC_INACTIVE.doc)

[R2-1805939](file:///C:\Data\3GPP\Extracts\R2-1805939%20UAC%20for%20RNA%20Update.doc) UAC for RNA Update LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.8.4 Establishment causes

May not be possible progress until RAN1 provide input on Msg.3 size.

[R2-1804713](file:///C:\Data\3GPP\Extracts\R2-1804713%20-%20Establishment%20Causes%20for%20NR.docx) Establishment causes for NR Ericsson discussion

[R2-1805092](file:///C:\Data\3GPP\Extracts\R2-1805092_Voice_Video_AC.doc) Access Control for Voice and Video Qualcomm Incorporated discussion

[R2-1805300](file:///C:\Data\3GPP\Extracts\R2-1805300.doc) RRC Establishment Cause Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805528](file:///C:\Data\3GPP\Extracts\R2-1805528.docx) Establishment cause value for MO and MT voice/video call CMCC discussion Rel-15 NR\_newRAT-Core

##### 10.4.1.8.5 Other

[R2-1805934](file:///C:\Data\3GPP\Extracts\R2-1805934%20Access%20control%20for%20RRC_CONNECTED.doc) Impact on RRC for access control in RRC\_CONNECTED LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802736](file:///C:\Data\3GPP\Extracts\R2-1802736%20Access%20control%20for%20RRC_CONNECTED.doc)

[R2-1804290](file:///C:\Data\3GPP\Extracts\R2-1804290%20%20AC%20for%20Connected%20Mode.doc) QoS Flow based Access Control for CONNECTED Mode in NR TCL discussion NR\_newRAT-Core [R2-1801936](file:///C:\Data\3GPP\Extracts\R2-1801936%20AC%20for%20Connected%20Mode.doc)

[R2-1804455](file:///C:\Data\3GPP\Extracts\R2-1804455%20UAC%20in%20RRC_CONNECTED_v1.doc) UAC in RRC\_CONNECTED ZTE Corporation, Sanechips discussion

[R2-1804711](file:///C:\Data\3GPP\Extracts\R2-1804711%20-%20Access%20Control%20in%20RRC_CONNECTED.docx) Access Control in RRC\_CONNECTED Ericsson discussion

[R2-1804715](file:///C:\Data\3GPP\Extracts\R2-1804715%20-%20DRAFT%20LS%20on%20new%20access%20category.doc) [DRAFT] LS on new access category Ericsson LS out To:SA1 Cc:CT1, SA2

[R2-1804716](file:///C:\Data\3GPP\Extracts\R2-1804716%20-%20Clarifications%20on%20RRC%20procedure%20for%20unified%20access%20control.docx) Clarifications on RRC procedure for unified access control Ericsson discussion

[R2-1805085](file:///C:\Data\3GPP\Extracts\R2-1805085.doc) NR Access Control in RRC\_Connected Samsung discussion NR\_newRAT-Core

[R2-1805841](file:///C:\Data\3GPP\Extracts\R2-1805841%20Access%20Control%20in%20NR%20for%20RRC_CONNECTED.doc) Access Control in NR for RRC\_CONNECTED Huawei Technologies France discussion Rel-15 NR\_newRAT-Core [R2-1801093](file:///C:\Data\3GPP\Extracts\R2-1801093%20Access%20Control%20in%20NR%20for%20RRC_CONNECTED.doc)

[R2-1805938](file:///C:\Data\3GPP\Extracts\R2-1805938%20Handling%20of%20Timers%20in%20UAC.doc) Handling of Timers in UAC LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

#### 10.4.1.9 Inter-Node RRC messages

No documents should be submitted to 10.4.1.9. Please submit to 10.4.1.9.x.

##### 10.4.1.9.1 Corrections to Inter-Node RRC messages for EN-DC

Documents in this AI were handled in a breakout session

[R2-1804383](file:///C:\Data\3GPP\Extracts\R2-1804383%20CR%20for%20gap%20configuration%20in%20CG-ConfigInfo%20and%20CG-Config.doc) CR for gap configuration in CG-ConfigInfo and CG-Config ZTE, Sanechips CR Rel-15 38.331 15.1.0 0015 - F NR\_newRAT-Core

=> Revised in R2-1806430

R2-1806430 CR for gap configuration in CG-ConfigInfo and CG-Config ZTE, Sanechips CR Rel-15 38.331 15.1.0 0015 1 F NR\_newRAT-Core

[R2-1805853](file:///C:\Data\3GPP\Extracts\R2-1805853%20CR%20to%2038.331%20for%20gap%20assisting%20info.doc) ASN.1 correction to Measurement gap assisiting information in Inter-Node message Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.1.0 0066 - F NR\_newRAT-Core

[R2-1805858](file:///C:\Data\3GPP\Extracts\R2-1805858%20CR%20to%2038.331%20for%20MeasurementTimingConfiguration.doc) ASN.1 correction to MeasurementTimingConfiguration message Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.1.0 0067 - F NR\_newRAT-Core

=> Revised in R2-1806431

R2-1806431 ASN.1 correction to MeasurementTimingConfiguration message Nokia, Nokia Shanghai Bell CR Rel-15 38.331 15.1.0 0067 1 F NR\_newRAT-Core

[R2-1806119](file:///C:\Data\3GPP\Extracts\R2-1806119_PCID%20confusion_r2.doc) Additional information in CG-ConfigInfo to resolve PCID confusion Samsung Electronics GmbH discussion [R2-1803418](file:///C:\Data\3GPP\Extracts\R2-1803418_PCID%20confusion.doc)

[R2-1806121](file:///C:\Data\3GPP\Extracts\R2-1806121_CR%20on%20adding%20MN%20cell%20information%20to%20CG-ConfigInfo%20(38.331)_r1.docx) CR on adding MN cell information to CG-ConfigInfo Samsung Electronics GmbH CR Rel-15 36.331 15.1.0 3381 - F NR\_newRAT-Core

##### 10.4.1.9.2 Inter-Node RRC messages for standalone operation

Progress structure and content of the Inter-Node RRC messages used for standalone operation.

[R2-1805302](file:///C:\Data\3GPP\Extracts\R2-1805302.doc) Inter-Node RRC messages for non EN-DC Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805453](file:///C:\Data\3GPP\Extracts\R2-1805453%20-%20Open%20issues%20on%20Inter-Node%20signalling%20for%20handover.docx) Open issues on inter-node signalling for handover Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1802687](file:///C:\Data\3GPP\Extracts\R2-1802687%20-%20Open%20issues%20on%20Inter-Node%20signalling%20for%20handover.docx)

#### 10.4.1.10 Other (non EN-DC)

Other RRC related aspects.

Including details of radio interface delay budget adjustment for voice over NR as agreed at RAN2#101 (and to be treated with lower priority than essential functionality).

[R2-1804918](file:///C:\Data\3GPP\Extracts\R2-1804918.doc) Radio Capability Check for IMS voice Qualcomm Japan Inc discussion NR\_newRAT-Core

[R2-1806092](file:///C:\Data\3GPP\Extracts\R2-1806092_NR%20UE%20processing%20latency_r1.doc) RRC processing delay for standalone NR Samsung Electronics discussion [R2-1803416](file:///C:\Data\3GPP\Extracts\R2-1803416_NR%20UE%20processing%20latency.doc)

[R2-1806104](file:///C:\Data\3GPP\Extracts\R2-1806104%20UE%20Assistance%20Information%20for%20energy%20efficiency%20enhancement.doc) UE Assistance Information for energy efficiency enhancement Samsung discussion Rel-15 NR\_newRAT-Core

[R2-1806124](file:///C:\Data\3GPP\Extracts\R2-1806124_DelayBudgetReport.doc) UEAssistanceInformation and Delay budget report in NR Samsung Electronics GmbH discussion

[R2-1805713](file:///C:\Data\3GPP\Extracts\R2-1805713.doc) Introduction of some voice enhancements in TS 38.331 HUAWEI TECH. GmbH CR Rel-15 38.331 15.1.0 0061 - B NR\_newRAT-Core

moved from 10.2.10 to 10.4.1.10

* [101bis#xx][NR] Delay budget report and MAC CE adaptation for NR (Huawei)

To review the CRs based on the LTE approach to check whether they can work in NR. In particular to consider how they work with the 5GC QoS framework.

Intended outcome: Report and TP to next meeting

Deadline: Thursday 2018-05-10

### 10.4.2 LTE RRC changes related to NR

No documents should be submitted to 10.4.2. Please submit to 10.4.2.x.

#### 10.4.2.1 Running CR

36.331 rapporteur inputs including FFS list, running CR to add non-EN-DC aspects, etc. Please submit corrections to the appropriate agenda item.

Documents in this AI were handled in a breakout session

[R2-1805668](file:///C:\Data\3GPP\Extracts\36331v1510%20CRxxxx_(REL-15)_R2-1805668%20on%20NSA%20corrections-ver1.doc) Miscellaneous EN-DC related corrections Samsung Telecommunications CR Rel-15 36.331 15.1.0 3368 - F NR\_newRAT-Core Late

=> Revised in R2-1806432

R2-1806432 Miscellaneous EN-DC related corrections Samsung Telecommunications CR Rel-15 36.331 15.1.0 3386 1 F NR\_newRAT-Core

[R2-1805615](file:///C:\Data\3GPP\Extracts\36331_CR3186r3_(Rel-15)_R2-1805615_On%20introducing%20NR%20(SA)-v5.doc) Introducing support for NR, changes only relevant for SA Samsung Telecommunications CR Rel-15 36.331 15.1.0 3186 3 B NR\_newRAT-Core [R2-1803099](file:///C:\Data\3GPP\Extracts\36331_CR3186r2_(Rel-15)_R2-1803099_On%20introducing%20NR%20(SA)-v4.doc) Late

#### 10.4.2.2 Corrections to RRM measurements for EN-DC

Corrections to 36.331 related to RRM procedures for EN-DC.

Documents in this AI were handled in a breakout session

[R2-1805596](file:///C:\Data\3GPP\Extracts\R2-1805596%20Discussion%20on%20remaining%20issues%20for%20SFTD.doc) Discussion on remaining issues for SFTD Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805597](file:///C:\Data\3GPP\Extracts\R2-1805597%20CR%20on%20Rel-15%2036.331%20for%20SFTD.doc) CR on 36.331 for SFTD Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0052 - F NR\_newRAT-Core

[R2-1804627](file:///C:\Data\3GPP\Extracts\R2-1804627%20Remaining%20Issues%20for%20SFTD.docx) Remaining Issues for SFTD MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805855](file:///C:\Data\3GPP\Extracts\R2-1805855%20-%20On%20SFTD%20measurement%20configuration%20for%20EN-DC.docx) On SFTD measurement report configuration for EN-DC Ericsson discussion Rel-15 36.331 NR\_newRAT-Core

[R2-1805856](file:///C:\Data\3GPP\Extracts\R2-1805856%20CR%20to%2036.331%20On%20SFTD%20measurement%20configuration.docx) SFTD measurement configuration Ericsson CR Rel-15 36.331 15.1.0 3367 - F NR\_newRAT-Core

Withdrawn

R2-1804646 Correction on 36.331 Measurement MediaTek Inc. draftCR Rel-15 36.331 15.1.0 NR\_newRAT-Core

#### 10.4.2.3 Corrections to other EN-DC aspects

Corrections to 36.331 related to EN-DC procedures other than RRM.

Documents in this AI were handled in a breakout session

[R2-1805346](file:///C:\Data\3GPP\Extracts\R2-1805346%20Clarifications%20on%20PHR%20configuration.docx) Clarifications on PHR configuration Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805347](file:///C:\Data\3GPP\Extracts\R2-1805347%20Clarification%20on%20PHR%20description.doc) Clarification on PHR description Nokia, Nokia Shanghai Bell CR Rel-15 36.331 15.1.0 3335 - F NR\_newRAT

[R2-1805599](file:///C:\Data\3GPP\Extracts\R2-1805599%20Discussion%20on%20applying%20SUO%20CASE1%20for%20EN-DC%20case.doc) Discussion on applying SUO CASE1 for EN-DC case Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805592](file:///C:\Data\3GPP\Extracts\R2-1805592%20CR%20on%20Rel-15%2036.321%20for%20clarifcation%20of%20introduding%20SUO%20Case1.doc) CR on 36.321 for clarifcation of introduding SUO Case1 Huawei, HiSilicon CR Rel-15 36.321 15.1.0 1262 - F NR\_newRAT-Core

=> Revised in R2-1806434

R2-1806434 CR on 36.321 for clarifcation of introduding SUO Case1 Huawei, HiSilicon CR Rel-15 36.321 15.1.0 1262 1 F NR\_newRAT-Core

[R2-1805600](file:///C:\Data\3GPP\Extracts\R2-1805600%20CR%20on%20Rel-15%2036.331%20for%20clarification%20of%20SUO%20case1.doc) CR on 36.331 for clarification of the SUO case1 Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3346 - F NR\_newRAT-Core

[R2-1806128](file:///C:\Data\3GPP\Extracts\R2-1806128_CR%20on%20ENDC%20bearer%20type%20changes%20(36.331)_r2.docx) CR on EN-DC bearer type changes in TS 36.331 Samsung Electronics GmbH CR Rel-15 36.331 15.1.0 3382 - F NR\_newRAT-Core

=> Revised in R2-1806435

R2-1806435 CR on EN-DC bearer type changes in TS 36.331 Samsung Electronics GmbH CR Rel-15 36.331 15.1.0 3382 1 F NR\_newRAT-Core

[R2-1805756](file:///C:\Data\3GPP\Extracts\R2-1805756.doc) Signaling of FD-MIMO per band capabilities in LTE BPC Intel Corporation CR Rel-15 36.331 15.1.0 3361 - F NR\_newRAT-Core

moved from 10.4.2.1 to 10.4.2.3

[R2-1806031](file:///C:\Data\3GPP\Extracts\36331_CR(3378)_(REL-15)_R2-1806031_Correction%20to%20RB%20reconfiguation.doc) Correction to RB reconfiguation LG Electronics Inc. CR Rel-15 36.331 15.1.0 3378 - F NR\_newRAT-Core

[R2-1805100](file:///C:\Data\3GPP\Extracts\R2-1805100_Suspension_ENDC.doc) UE Context handling in Suspension for EN-DC Qualcomm Incorporated discussion

#### 10.4.2.4 Changes for NR SA and EN-DC (post early freeze)

Including support for ANR from E-UTRA.

Broadcast parameters required for idle mobility from LTE to NR should be discussed in 10.4.5.7

Inter-RAT mobility

[R2-1805663](file:///C:\Data\3GPP\Extracts\R2-1805663%20on%20IRAT%20mobility%20initial%20stage%203%20baseline.doc) Inter RAT mobility, defining initial baseline Samsung Telecommunications discussion Late

Inter-RAT ANR from E-UTRA

* [101bis#xx][NR] ANR (Vivo)

Progress the details of ANR reporting. Covers inter-RAT NR ANR from E-UTRA, NR ANR for SA, inter RAT LTE ANR from NR.

Intended outcome: Report and TPs for next meeting

Deadline: Thursday 2018-05-10

[R2-1805550](file:///C:\Data\3GPP\Extracts\R2-1805550.doc) Automatic Neighbour Relation in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

moved from 10.2.10 to 10.4.2.4

=> Revised in [R2-1806182](file:///C:\Data\3GPP\Extracts\R2-1806182.doc)

[R2-1806182](file:///C:\Data\3GPP\Extracts\R2-1806182.doc) Automatic Neighbour Relation in NR Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

moved from 10.2.10 to 10.4.2.4

[R2-1804595](file:///C:\Data\3GPP\Extracts\R2-1804595_ANR%20for%20EN-DC%20and%20NR%20Standalone.docx) ANR for EN-DC and NR Standalone vivo discussion Rel-15 NR\_newRAT-Core

[R2-1806158](file:///C:\Data\3GPP\Extracts\R2-1806158%20-%20Content%20of%20CGI%20reporting.docx) Content of CGI reporting Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1804608](file:///C:\Data\3GPP\Extracts\R2-1804608_ANR%20description%20for%20SA%20and%20NSA.doc) ANR description for SA and NSA vivo discussion Rel-15 NR\_newRAT-Core

[R2-1804885](file:///C:\Data\3GPP\Extracts\R2-1804885%20Draft%20LS%20for%20ANR%20autonomous%20gap%20capability%20and%20timer.doc) Draft LS for ANR autonomous gap capbility and timer vivo LS out Rel-15 NR\_newRAT-Core To:RA4

[R2-1806153](file:///C:\Data\3GPP\Extracts\R2-1806153%20-%20ANR%20framework%20for%20EN-DC%20and%20NR%20standalone.docx) ANR framework for EN-DC and NR standalone Ericsson discussion Rel-15 38.331 NR\_newRAT-Core

[R2-1806154](file:///C:\Data\3GPP\Extracts\R2-1806154%20-%20CR%20on%20inter-RAT%20ANR%20to%2036.300%20for%20EN-DC.docx) CR to 36.300 on inter-RAT ANR for EN-DC Ericsson CR Rel-15 36.331 15.1.0 3384 - F NR\_newRAT-Core

[R2-1806155](file:///C:\Data\3GPP\Extracts\R2-1806155%20CR%20to%2036.331%20On%20NR%20CGI%20reporting%20for%20ANR.docx) CR to 36.331 on ANR Ericsson CR Rel-15 36.331 15.1.0 3385 - F NR\_newRAT-Core

[R2-1806156](file:///C:\Data\3GPP\RAN2\Docs\R2-1806156.zip) TP on ANR to 38.300 Ericsson discussion Rel-15 38.300 NR\_newRAT-Core

[R2-1806159](file:///C:\Data\3GPP\Extracts\R2-1806159%20-%20%20Configuration%20of%20CGI%20reporting.docx) Configuration of CGI reporting Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1806160](file:///C:\Data\3GPP\Extracts\R2-1806160%20draft%20LS%20to%20RAN4%20On%20NR%20neighbor%20cell%20CGI%20measurements.doc) [DRAFT] LS to RAN4 on NR-CGI reporting Ericsson LS out Rel-15 NR\_newRAT-Core To:RAN4

[R2-1804380](file:///C:\Data\3GPP\Extracts\R2-1804380%20Consideration%20on%20ReportCGI%20measurement.docx) Consideration on ReportCGI measurement ZTE, Sanechips discussion Rel-15 NR\_newRAT-Core

moved from 10.2.10 to 10.4.2.4

[R2-1805707](file:///C:\Data\3GPP\Extracts\R2-1805707_No%20SIB1%20indication%20for%20ANR.docx) No SIB1 indication for ANR Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

moved from 10.2.10 to 10.4.2.4

IDC

[R2-1804747](file:///C:\Data\3GPP\Extracts\R2-1804747.doc) IDC indication for EN-DC Qualcomm Incorporated, NTT DOCOMO Inc. discussion Rel-15 NR\_newRAT

[R2-1805041](file:///C:\Data\3GPP\Extracts\R2-1805041.doc) IDC extension for EN-DC Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1804748](file:///C:\Data\3GPP\Extracts\36331_CR3318_(Rel-15)_R2-1804748.doc) Introduction of In-Device Coexistence solution for EN-DC Qualcomm Incorporated, NTT DOCOMO Inc. CR Rel-15 36.331 15.1.0 3318 - B NR\_newRAT

[R2-1804749](file:///C:\Data\3GPP\Extracts\38331_CR0027_(Rel-15)_R2-1804749.doc) Introduction of In-Device Coexistence solution for EN-DC Qualcomm Incorporated, NTT DOCOMO Inc. CR Rel-15 38.331 15.1.0 0027 - B NR\_newRAT

[R2-1804601](file:///C:\Data\3GPP\Extracts\R2-1804601_Discussion%20on%20the%20IDC%20report%20of%20NR%20frequency%20in%20EN-DC.docx) Discussion on the IDC report of NR frequency in EN-DC vivo discussion Rel-15 NR\_newRAT-Core [R2-1802101](file:///C:\Data\3GPP\Extracts\R2-1802101_Discussion%20on%20the%20IDC%20report%20of%20NR%20frequency%20in%20EN-DC.docx)

moved from 10.2.10 to 10.4.2.4

[R2-1805103](file:///C:\Data\3GPP\Extracts\R2-1805103_TP%20of%2038.331%20on%20the%20IDC%20report%20of%20NR%20frequency%20in%20EN-DC.docx) TP of 38.331 on the IDC report of NR frequency in EN-DC vivo discussion Rel-15 NR\_newRAT-Core

moved from 10.2.10 to 10.4.2.4

[R2-1805104](file:///C:\Data\3GPP\Extracts\R2-1805104_TP%20of%2036.331%20on%20the%20IDC%20report%20of%20NR%20frequency%20in%20EN-DC.docx) TP of 36.331 on the IDC report of NR frequency in EN-DC vivo discussion Rel-15 NR\_newRAT-Core

moved from 10.2.10 to 10.4.2.4

[R2-1806024](file:///C:\Data\3GPP\Extracts\R2-1806024%20IDC%20procedure%20for%20EN-DC.doc) IDC procedure for EN-DC LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core

moved from 10.4.2.3 to 10.4.2.4

Overheating

[R2-1805002](file:///C:\Data\3GPP\Extracts\36331_CR3325_(Rel-15)_R2-1805002_overheating_v2.DOC) Extension of overheating indication for EN-DC Intel Corporation, Apple, LG Electronics, Samsung, MediaTek CR Rel-15 36.331 15.1.0 3325 - C NR\_newRAT-Core

[R2-1805669](file:///C:\Data\3GPP\Extracts\R2-1805669.docx) Clarification on LTE Overheating mechanism in EN-DC Qualcomm discussion

moved from 10.4.2.3 to 10.4.2.4

SCG failure with split SRB

[R2-1804817](file:///C:\Data\3GPP\Extracts\R2-1804817%20(R15%20NR%20WI%20AI10424%20SplitSRBSCGFailure).doc) Discussion on Handling Split SRB during SCG Failure InterDigital discussion Rel-15 NR\_newRAT-Core

[R2-1805285](file:///C:\Data\3GPP\Extracts\R2-1805285.doc) Discussion on the UL path of split SRB in EN-DC Huawei, HiSilicon discussion NR\_newRAT-Core

moved from 10.2.2.2 to 10.4.2.4

[R2-1805286](file:///C:\Data\3GPP\Extracts\R2-1805286.doc) Split SRB UL configuration Huawei, HiSilicon CR Rel-15 37.340 15.1.0 0010 - F NR\_newRAT-Core

moved from 10.2.2.2 to 10.4.2.4

[R2-1804270](file:///C:\Data\3GPP\Extracts\R2-1804270%20UE%20Behaviors%20after%20CG%20failure%20with%20some%20special%20cases.docx) UE Behaviors after CG failure with some special cases CATT discussion Late

moved from 10.4.1.5.2 to 10.4.2.4

[R2-1804792](file:///C:\Data\3GPP\Extracts\R2-1804792%20-%20Remaining%20issues%20on%20SCG%20Failure%20(TP%20to%2036.331).docx) Remaining issues on SCG Failure (TP to 36.331) Ericsson discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.5.2 to 10.4.2.4

[R2-1804793](file:///C:\Data\3GPP\Extracts\R2-1804793%20-%20SCell-RLF%20discussion%20(TP%20to%2038.331).docx) SCell-RLF discussion (TP to 38.331) Ericsson discussion Rel-15 NR\_newRAT-Core

moved from 10.4.1.5.2 to 10.4.2.4

[R2-1805656](file:///C:\Data\3GPP\Extracts\R2-1805656%20SCG%20failure%20handling%20for%20split%20bearer.doc) SCG failure handling for split bearer Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core [R2-1803405](file:///C:\Data\3GPP\Extracts\R2-1803405%20SCG%20failure%20handling%20for%20split%20bearer.doc)

moved from 10.4.1.5.2 to 10.4.2.4

[R2-1806127](file:///C:\Data\3GPP\Extracts\R2-1806127_UL%20split%20SRB%20and%20SCG%20failure.doc) UL split SRB and SCG failure Samsung Electronics GmbH discussion [R2-1803425](file:///C:\Data\3GPP\Extracts\R2-1803425_UL%20split%20SRB%20and%20SCG%20failure.doc)

moved from 10.4.1.5.2 to 10.4.2.4

Other

[R2-1804745](file:///C:\Data\3GPP\Extracts\R2-1804745.doc) Measurement gap handling in EN-DC Qualcomm Incorporated discussion Rel-15 NR\_newRAT [R2-1802604](file:///C:\Data\3GPP\Extracts\R2-1802604.doc)

[R2-1805303](file:///C:\Data\3GPP\Extracts\R2-1805303.doc) Measurement exception for s-Measure in LTE Huawei, HiSilicon discussion NR\_newRAT-Core

[R2-1805623](file:///C:\Data\3GPP\Extracts\R2-1805623%20Support%20of%20NR%20PDCP%20configuration%20in%20handover%20to%20EUTRA.doc) Support of NR PDCP configuration in inter-RAT handover to EUTRA HTC Corporation discussion Rel-15

[R2-1805854](file:///C:\Data\3GPP\Extracts\R2-1805854%20-%20On%20SFTD%20measurement%20configuration%20and%20TP%20for%2038.331.docx) On SFTD measurement report configuration and TP for 38.331 Ericsson discussion Rel-15 38.331 NR\_newRAT-Core

Late

[R2-1806157](file:///C:\Data\3GPP\Extracts\R2-1806157%20-%20TP%20on%20ANR%20to%2038.331.docx) TP on ANR to 38.331 Ericsson discussion Rel-15 38.331 NR\_newRAT-Core Late

R2-1806168 ANR framework for EN-DC and NR standalone Ericsson discussion Rel-15 NR\_newRAT-Core Late

R2-1806169 CR to 36.300 on inter-RAT ANR for EN-DC Ericsson discussion Rel-15 NR\_newRAT-Core Late

R2-1806170 CR to 36.331 on ANR Ericsson discussion Rel-15 NR\_newRAT-Core Late

R2-1806171 TP on ANR to 38.300 Ericsson discussion Rel-15 NR\_newRAT-Core Late

R2-1806172 TP on ANR to 38.331 Ericsson discussion Rel-15 NR\_newRAT-Core Late

R2-1806173 Content of CGI reporting Ericsson discussion Rel-15 NR\_newRAT-Core Late

R2-1806174 Configuration of CGI reporting Ericsson discussion Rel-15 NR\_newRAT-Core Late

R2-1806175 [DRAFT] LS to RAN4 on NR-CGI reporting Ericsson LS out Rel-15 NR\_newRAT-Core To:RAN4 Late

### 10.4.3 Void

### 10.4.4 UE capabilities

No documents should be submitted to 10.4.4. Please submit to 10.4.4.x.

#### 10.4.4.1 TS

38.306 rapporteur inputs including FFS list, running CR for standalone, etc. Please submit corrections to the appropriate agenda item.

[R2-1805030](file:///C:\Data\3GPP\Extracts\R2-1805030.doc) Updated issue list on UE capabilities Intel Corporation discussion Rel-15 NR\_newRAT-Core

#### 10.4.4.2 Corrections to UE capabilities for EN DC

Including output of email discussion [101#41][NR] UE capability structure (Qualcomm)

Restructuring email and related docs

[R2-1806350](file:///C:\Data\3GPP\Extracts\R2-1806350.doc) Report on Email discussion [101#41][NR Qualcomm Incorporated report Rel-15 NR\_newRAT-Core

P1-4

- Intel think we need to see the final structure and see how it works and whether it offers a complete proposal. Qualcomm think it is just like the LTE structure but with repeated parts removed and references by an index.

- Nokia also see that it is just like the LTE structure. Ericsson also agree with this approach. LG also support P1-4.

- Intel ask what is provided to link the per band sets and the per CC sets. Qualcomm think each band in a BC can link to a band feature set and then each CC in the band feature set can link to a CC feature set. Qualcomm also think it will be easy to apply this to the LTE capabilities as well.

- Huawei ask if there is a one to many mapping. Also where the parameter not related to UL and DL are placed, such as numerology support. Qualcomm think these can be per BC. Qualcomm think at the top level there can be a top level rf BC and that below that several virtual BCs with different detail capabilities.

- DOCOMO see some duplications even with this approach. Qualcomm think we can also add indexing from rf BCs to virtual BCs. Intel think that each BPC is like a virtual BC.

- MediaTek think structure is more generic and we support the approach.

- Samsung also share the intention of the structure. Intel worry about the case that network may request different bands and number of CCs from the UE and it is complex for the UE to create a different capabilities in response. DOCOMO assume all the feature sets per band will always be provided. Intel think the UE will have to pull out the feature sets that are not needed based on what is requested.

Agreements for EN-DC and NR SA:

1: Unique sets of DL CC parameters shall be listed separately. Bands reference one or more of these sets.

2: Unique sets of UL CC parameters shall be listed separately. Bands reference one or more of these sets.

3: Unique sets of DL band parameters shall be listed separately.

4: Unique sets of UL band parameters shall be listed separately.

5: LTE delay requirement for the UE capability message should be extended for the case that compressed capabilities are provided. For NR the compression needs to be considered when the delay requirement is determined.

FFS: CA B/w class location in the new structure

FFS: Remove the mapping from one DL BC to many UL BCs (bit string) from within the RF band combinations. Result that an RF band combination is one DL BC and one UL BC.

=> Offline discussion on the 2 FFS points (Offline discussion #46, Qualcomm)

=> Offline discussion to produce a baseline ASN.1 structure reflecting the agreements above. Location (level within the structure) of parameters should not be moved as part of this activity. Also produce a plan (e.g. email discussion, etc) how to address the LTE side of the capabilities (Offline discussion #47, Nokia)

[R2-1806450](file:///C:\Data\3GPP\RAN2\Docs\R2-1806450.zip) Offline discussion # 46 and #47 report Nokia report NR\_newRAT-Core

Agreements to create a baseline ASN.1 for further work:

1: CA-BandwidthClassNR is placed within the FeatureSetDownlink and FeatureSetUplink IEs (solves the FFS: CA B/w class location in the new structure)

2: Removed the BIT STRING from within the RF band combinations (solves the FFS)

3: Per band combination the number of entries (columns) in FeatureSetDownlink and FeatureSetUplink for each band in the band combination need to be the same.

4: For EN-DC, LTE side of capabilities follow the “feature set” model

5: Changes to TS 38.331 V15.1.0 proposed in R2-1806451 is the baseline for the future discussions

[R2-1806451](file:///C:\Data\3GPP\Extracts\R2-1806451%20Proposed%20changes%20to%2038331-f10.doc) Baseline ASN.1 structure for UE capability signalling structure Nokia discussion Rel-15 NR\_newRAT-Core

=> Agreed as baseline for further work.

* [101bis#xx][NR] UE capabilities structure (Nokia)

- Name of feature sets

- Update procedure text

- Check if any impact in 38.306

- Consider how to apply for the LTE side

- Update the MR-DC capability container

- Update the inter-node messages

- Size of the lists

Intended outcome: Report and TPs to the next meeting

Deadline: Thursday 2018-05-10

[R2-1805000](file:///C:\Data\3GPP\Extracts\R2-1805000.docx) Analysis of UE capability signalling size NTT DOCOMO, INC. discussion Rel-15 NR\_newRAT-Core Late

[R2-1805039](file:///C:\Data\3GPP\Extracts\R2-1805039.doc) Discussion on EN-DC UE capability signalling changes Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805666](file:///C:\Data\3GPP\Extracts\R2-1805666%20on%20NR%20UE%20capability%20signalling.doc) NR UE capabilities, reducing signalling for type 3 Samsung Telecommunications discussion

[R2-1805584](file:///C:\Data\3GPP\Extracts\R2-1805584%20Further%20discussion%20on%20UE%20Capability%20structure.doc) Further discussion on UE Capability structure Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1806351](file:///C:\Data\3GPP\Extracts\R2-1806351.doc) NR Capability Restructuring Qualcomm Incorporated discussion Rel-15 NR\_newRAT-Core

Moving type3 capability

[R2-1804396](file:///C:\Data\3GPP\Extracts\R2-1804396.docx) Capability type assessment NTT DOCOMO, INC. discussion Rel-15 NR\_newRAT-Core

- Huawei think that RAN1/4 have indicated these are type 3 so we need to ask them for confirmation. DOCOMO think that for some features it is very clear it should be UE.

- Qualcomm think that RAN1 did not understand the type 3 concept. We just need to know the granularity of the information.

- Intel do not agree although there might have been some misunderstand. We need to get RAN1/4 approval for any change.

- Ericsson agree with the Qualcomm comment. Samsung have the same view.

- Huawei think that RAN2 cannot decide ourselves to change granularity.

=> Send LS to RAN1/4 with clear request of what information we need to know in order to place them appropriately within the new structure. Provide a list of capabilities for which we would like feedback. R2-1806438 (Offline discussion #48,DOCOMO)

[R2-1806438](file:///C:\Data\3GPP\RAN2\Docs\R2-1806438.zip) [DRAFT][LS to RAN1/4 on [R2-1804396](file:///C:\Data\3GPP\Extracts\R2-1804396.docx)] NTT DOCOMO LS out Rel-15 To:RAN1, RAN4 NR\_newRAT-Core

=> Revised in [R2-1806498](file:///C:\Data\3GPP\RAN2\Docs\R2-1806498.zip)

R2-1806498 DRAFT][LS to RAN1/4 on R2-1804396] NTT DOCOMO LS out Rel-15 To:RAN1, RAN4 NR\_newRAT-Core

=> Approved in R2-1806507

[R2-1805457](file:///C:\Data\3GPP\Extracts\R2-1805457%20-%20Signalling%20of%20type%203%20UE%20capabilities.docx) Signalling of type 3 UE capabilities Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805585](file:///C:\Data\3GPP\Extracts\R2-1805585%20Discussion%20on%20remaining%20issues%20for%20RAN1%20and%20RAN4%20UE%20capabilities.doc) Discussion on remaining issues for RAN1 and RAN4 UE capabilities Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

Other

[R2-1805241](file:///C:\Data\3GPP\Extracts\R2-1805241%20Clarification%20on%20fallback%20band%20combinations%20in%20MR-DC.docx) Clarification on fallback band combinations in MR-DC Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT Late

[R2-1805243](file:///C:\Data\3GPP\Extracts\R2-1805243%20Clarification%20for%20signalling%20power%20class%20in%20EN-DC.docx) Clarification for signalling power class in EN-DC Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805593](file:///C:\Data\3GPP\Extracts\R2-1805593%20Discussion%20on%20remaining%20issues%20for%20power%20control.doc) Discussion on remaining issues for power control Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805594](file:///C:\Data\3GPP\Extracts\R2-1805594%20Draft%20LS%20on%20clarification%20of%20X_total.doc) DRAFT LS on clarification for X\_total Huawei, HiSilicon LS out Rel-15 NR\_newRAT-Core To:RAN4

[R2-1805595](file:///C:\Data\3GPP\Extracts\R2-1805595%20CR%20on%20Rel-15%2038.331%20for%20power%20class%20for%20EN-DC.doc) CR on 38.331 for power class for EN-DC Huawei, HiSilicon CR Rel-15 38.331 15.1.0 0051 - F NR\_newRAT-Core

[R2-1804750](file:///C:\Data\3GPP\Extracts\R2-1804750.doc) UE capability for Maximum channel bandwidth Qualcomm Incorporated discussion Rel-15 NR\_newRAT

- Vodafone think don’t need to introduce all code points just to add a maximum value. Qualcomm think all values are possible today in RAN4 spec.

- Ericsson think the 100 is the smallest value that needs to be signalling as IoT bits were not agreed in RAN. If we have lower values supported in future then we have more issues to resolve.

- Qualcomm think December RAN decision was that UE indicated max and UE supports all smaller ones. The March decision was whether we need IoT bits for each of the smaller bandwidths.

=> Produce CR that best matches our understanding of the RAN requirements. CR will be similar to solution 1 and merged into the existing per band capabilities. CR is kept separate from other EN-DC corrections. CR will be technically endorsed and provided to RAN with an explanation of the signalling and RAN asked if this matches their intentions. If so then it can be approved by RAN. If not then the CR may need to be revised during RAN plenary. CR to be provided to next meeting.

[R2-1805242](file:///C:\Data\3GPP\Extracts\R2-1805242%20Alternative%20proposal%20for%20signalling%20differentiation%20of%20xDD%20and%20FRx%20capabilities.docx) Alternative proposal for signalling differentiation of xDD and FRx capabilities Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1804751](file:///C:\Data\3GPP\Extracts\R2-1804751.doc) Corrections on UE capabilities Qualcomm Incorporated discussion Rel-15 NR\_newRAT

[R2-1805598](file:///C:\Data\3GPP\Extracts\R2-1805598%20CR%20on%20Rel-15%2038306%20Corrections%20on%20the%20RAN1-4%20UE%20capability%20description.doc) Corrections on the RAN1/4 UE capability description in 38.306 Huawei, HiSilicon CR Rel-15 38.306 15.1.0 0005 - F NR\_newRAT-Core

L2 buffer size

[R2-1805027](file:///C:\Data\3GPP\Extracts\R2-1805027.doc) L2 buffer size capability Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805239](file:///C:\Data\3GPP\Extracts\R2-1805239%20UE%20L2%20buffer%20size%20in%20MR-DC.docx) UE L2 buffer size in MR-DC Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805240](file:///C:\Data\3GPP\Extracts\R2-1805240%20CR%2038.306%20RLC%20RTT%20per%20SCS.doc) CR to 38.306 for RLC RTT table update Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805456](file:///C:\Data\3GPP\Extracts\R2-1805456%20-%20L2%20buffer%20size%20calculation.docx) L2 buffer size calculation Ericsson discussion Rel-15 NR\_newRAT-Core

[R2-1805587](file:///C:\Data\3GPP\Extracts\R2-1805587%20Remaining%20issue%20on%20L2%20buffer%20size%20calculation.doc) Remaining issue on L2 buffer size calculation Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

Late

[R2-1805031](file:///C:\Data\3GPP\Extracts\R2-1805031.doc) Miscellaneous corrections Intel Corporation CR Rel-15 38.306 15.1.0 0004 - F NR\_newRAT-Core Late

#### 10.4.4.3 UE capabilities for standalone

[R2-1805575](file:///C:\Data\3GPP\Extracts\R2-1805575%20Signaling%20NR%20SA%20capability%20in%20LTE.doc) Signaling NR SA capability in LTE HTC Corporation discussion Rel-15

[R2-1805715](file:///C:\Data\3GPP\Extracts\R2-1805715.doc) Introduction of some voice enhancements in TS 38.306 HUAWEI TECH. GmbH CR Rel-15 38.306 15.1.0 0006 - B NR\_newRAT-Core

moved from 10.2.10 to 10.4.4.3

Withdrawn

R2-1805037 UE model ID based capability transfer Intel Corporation discussion Rel-15 NR\_newRAT-Core Withdrawn

#### 10.4.4.4 Temporary capability restriction

Maximum 1 tdoc per company

[R2-1804338](file:///C:\Data\3GPP\Extracts\R2-1804338%20DISC%20Temporary%20capability%20restriction%20for%20thermal%20mitigation.doc) Thermal mitigation provision for NR UE MediaTek Inc. discussion Rel-15 NR\_newRAT-Core [R2-1803676](file:///C:\Data\3GPP\Extracts\R2-1803676%20DISC%20Thermal%20mitigation%20provision%20for%20NR%20UE.doc)

[R2-1804588](file:///C:\Data\3GPP\Extracts\R2-1804588_UE%20radio%20access%20capabilities%20change.doc) UE radio access capabilities change vivo discussion Rel-15 NR\_newRAT-Core [R2-1802102](file:///C:\Data\3GPP\Extracts\R2-1802102_UE%20radio%20access%20capabilities%20change.doc)

[R2-1805040](file:///C:\Data\3GPP\Extracts\R2-1805040.doc) Temporary UE capabilty restriction Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805454](file:///C:\Data\3GPP\Extracts\R2-1805454%20-%20UE%20capability%20restrictions.docx) UE Capability Restrictions Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1803123](file:///C:\Data\3GPP\Extracts\R2-1803123%20-%20UE%20capability%20restrictions.docx)

[R2-1805588](file:///C:\Data\3GPP\Extracts\R2-1805588%20Discussion%20on%20UE%20temporary%20capability%20restriction.doc) UE temporary access capability restriction Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

#### 10.4.4.5 Other aspects for non EN-DC

Including UE ID based capability reporting related to RAN plenary LS [RP-180586](file:///C:\Data\3GPP\TSGR\TSGR_79\Docs\RP-180586.zip)

Any other aspect related to UE capabilities relevant for non EN-DC cases

UE ID based capability reporting

[R2-1805338](file:///C:\Data\3GPP\Extracts\R2-1805338.docx) UE Capability simplification Vodafone Italia SpA discussion Rel-15

moved from 10.4.4 to 10.4.4.5

[R2-1805687](file:///C:\Data\3GPP\Extracts\R2-1805687.doc) UE capability ID based capability transfer Intel Corporation discussion Rel-15 NR\_newRAT-Core

moved from 10.4.4.3 to 10.4.4.5

[R2-1805689](file:///C:\Data\3GPP\Extracts\R2-1805689.docx) LS on UE capability ID based capability transfer Intel Corporation LS out Rel-15 NR\_newRAT-Core To:SA2

moved from 10.4.4.3 to 10.4.4.5

[R2-1804336](file:///C:\Data\3GPP\Extracts\R2-1804336%20DISC%20UE%20capability%20compression%20through%20capability%20ID%20v2.doc) UE capability compression through capability ID MediaTek Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1804775](file:///C:\Data\3GPP\Extracts\R2-1804775%20Discussion%20on%20UE%20model%20ID.docx) Discussion on UE model ID Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1805455](file:///C:\Data\3GPP\Extracts\R2-1805455%20-%20UE%20capability%20compression.docx) UE Capability Compression Ericsson discussion Rel-15 NR\_newRAT-Core [R2-1803124](file:///C:\Data\3GPP\Extracts\R2-1803124%20-%20UE%20capability%20compression.docx)

[R2-1805589](file:///C:\Data\3GPP\Extracts\R2-1805589%20Discussion%20on%20UE%20ID%20based%20capability%20reporting.doc) Discussion on UE ID based capability reporting Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805613](file:///C:\Data\3GPP\Extracts\R2-1805613%20on%20use%20of%20identifier%20to%20represent%20NR%20UE%20capabilities.doc) Use of identifier representing NR UE capabilities, baseline Samsung Telecommunications discussion

[R2-1806132](file:///C:\Data\3GPP\Extracts\R2-1806132.doc) NR UE Capability Size Reduction LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802701](file:///C:\Data\3GPP\Extracts\R2-1802701.doc)

moved from 10.4.4.3 to 10.4.4.5

Other

[R2-1805586](file:///C:\Data\3GPP\Extracts\R2-1805586%20Discussion%20on%20measurement%20without%20gap%20capability%20report.doc) Discussion on Measurement without gap capability report Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

### 10.4.5 Idle/inactive mode procedures

#### 10.4.5.1 TS

Latest 38.304, other rapporteur inputs, anything related to specification methodology. Please submit any new text proposals to the appropriate agenda item.

[R2-1805086](file:///C:\Data\3GPP\RAN2\Docs\R2-1805086.zip) NR; User Equipment (UE) procedures in Idle mode and RRC Inactive state Qualcomm Incorporated draft TS Rel-15 38.304 1.0.1 NR\_newRAT-Core

#### 10.4.5.2 Selection/reselection rules

Basic criteria and rules for cell selection and reselection

Maximum 1 tdoc per company

[R2-1804275](file:///C:\Data\3GPP\Extracts\R2-1804275-Considerations%20on%20cell%20reselection%20in%20RRC%20inactive.docx) Considerations on Cell Reselection in RRC inactive state CATT discussion [R2-1801835](file:///C:\Data\3GPP\Extracts\R2-1801835.docx) Late

[R2-1804325](file:///C:\Data\3GPP\Extracts\R2-1804325_nr_inactive_resel_v02.doc) On reselection/selection process for the RRC\_IDLE and RRC\_INACTIVE state Samsung discussion Rel-15

[R2-1804454](file:///C:\Data\3GPP\Extracts\R2-1804454%20Cell%20reselection%20for%20inactive%20state.doc) Cell reselection for inactive state ZTE Corporation, Sanechips discussion

[R2-1804558](file:///C:\Data\3GPP\Extracts\R2-1804558-Discussion%20on%20cell%20reselection%20priority%20for%20INACTIVE%20UE.doc) Discussion on cell reselection priority for INACTIVE UE OPPO discussion Late

[R2-1804560](file:///C:\Data\3GPP\Extracts\R2-1804560-Discussion%20on%20cell%20reselection%20for%20high%20speed%20UE.doc) Discussion on cell reselection for high speed UE OPPO discussion Late

[R2-1804583](file:///C:\Data\3GPP\Extracts\R2-1804583_Remaining%20issues%20of%20cell%20selection%20reselection.doc) Remaining issues of cell selection/reselection vivo discussion Rel-15 NR\_newRAT-Core [R2-1802103](file:///C:\Data\3GPP\Extracts\R2-1802103_Remaining%20issues%20of%20cell%20selection%20reselection.doc)

[R2-1804729](file:///C:\Data\3GPP\Extracts\R2-1804729%20-%20Inter-Frequency%20Reselection%20Rules%20for%20RNA-Registration%20Area%20Stickiness.docx) Inter-Frequency Reselection Rules for RNA/Registration Area Stickiness Ericsson discussion

[R2-1804813](file:///C:\Data\3GPP\Extracts\R2-1804813%20(R15%20NR%20WI%20AI10452%20SUL%20impact%20on%20cell%20selection%20reselection%20criteria).doc) SUL impact on cell selection and reselection criterias Interdigital discussion Rel-15 [R2-1802830](file:///C:\Data\3GPP\Extracts\R2-1802830%20(R15%20NR%20WI%20AI10452%20SUL%20impact%20on%20cell%20selection%20reselection%20criteria).doc)

[R2-1804936](file:///C:\Data\3GPP\Extracts\R2-1804936%20state%20transitions%20in%20IDLE%20and%20INACTIVE.doc) State transitions in IDLE and INACTIVE Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1805032](file:///C:\Data\3GPP\Extracts\R2-1805032.doc) Further considerations on cell reselection Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805093](file:///C:\Data\3GPP\Extracts\R2-1805093_NR_Reselection_Open_Issues.doc) Open Issues for NR Cell Reselection Qualcomm Incorporated discussion [R2-1803721](file:///C:\Data\3GPP\Extracts\R2-1803721_NR_Reselection_Open_Issues.doc)

[R2-1805236](file:///C:\Data\3GPP\Extracts\R2-1805236%20Cell%20reselection%20for%20inactive%20UEs.doc) Cell reselection for inactive UEs Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1803374](file:///C:\Data\3GPP\Extracts\R2-1803374%20Cell%20reselection%20for%20inactive%20UEs.doc)

[R2-1805508](file:///C:\Data\3GPP\Extracts\R2-1805508%20Open%20issues%20on%20cell%20selection%20reselection%20rules.docx) Open issues on cell selection/reselection rules CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805835](file:///C:\Data\3GPP\Extracts\R2-1805835%20Idle%20Measurement%20Enhancement%20using%20UE%20speed.doc) Idle Measurement Enhancement using UE speed LG Electronics Inc. discussion Rel-15 [R2-1802123](file:///C:\Data\3GPP\Extracts\R2-1802123%20Idle%20Measurement%20Enhancement%20using%20UE%20speed.doc)

[R2-1805909](file:///C:\Data\3GPP\Extracts\R2-1805909_Cell%20reselection%20in%20INACTIVE%20state.doc) Cell reselection in INACTIVE state Apple Inc. discussion Rel-15 NR\_newRAT-Core

[R2-1805964](file:///C:\Data\3GPP\Extracts\R2-1805964.doc) Discussion on Inter-frequency Redistribution rules China Telecommunications discussion Rel-15

#### 10.4.5.3 Cell quality derivation

Derivation of cell quantity from beam measurements (including filtering and FFS points from previous meetings)

Maximum 1 tdoc per company

[R2-1804344](file:///C:\Data\3GPP\Extracts\R2-1804344.doc) Cell quality derivation for NR IDLE mode UE ITRI discussion NR\_newRAT-Core [R2-1802156](file:///C:\Data\3GPP\Extracts\R2-1802156.doc)

[R2-1804452](file:///C:\Data\3GPP\Extracts\R2-1804452%20Consideration%20on%20cell%20quality%20derivation%20in%20idle%20and%20inactive%20state.doc) Consideration on cell quality derivation in idle and inactive state ZTE Corporation, Sanechips discussion

[R2-1804584](file:///C:\Data\3GPP\Extracts\R2-1804584_Cell%20quality%20derivation%20for%20cell%20reselection%20in%20idle%20inactive%20mode.doc) Cell quality derivation for cell reselection in idle/inactive mode vivo discussion Rel-15 NR\_newRAT-Core [R2-1802104](file:///C:\Data\3GPP\Extracts\R2-1802104_Cell%20quality%20derivation%20for%20cell%20reselection%20in%20idle%20inactive%20mode.doc)

[R2-1804718](file:///C:\Data\3GPP\Extracts\R2-1804718%20-%20Cell%20quality%20derivation%20for%20idle-inactive%20UEs.docx) Cell quality derivation for idle/inactive UEs Ericsson discussion

R2-1804814 Consideration of number of good beams for cell reselection InterDigital discussion Rel-15 NR\_newRAT-Core [R2-1802831](file:///C:\Data\3GPP\Extracts\R2-1802831%20(R15%20NR%20WI%20AI10455%20Consideration%20of%20number%20of%20good%20beams%20for%20cell%20reselection).doc) Late

[R2-1805237](file:///C:\Data\3GPP\Extracts\R2-1805237%20Comparison%20on%20Adjustment%20Methods%20of%20Cell%20Quality%20Derivation.doc) Comparison on Adjustment Methods of Cell Quality Derivation Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805519](file:///C:\Data\3GPP\Extracts\R2-1805519%20Consideration%20of%20the%20number%20of%20actual%20good%20beams%20in%20cell%20reselection.doc) Consideration of the number of actual good beams in cell reselection CMCC, MediaTek, Huawei, Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1806062](file:///C:\Data\3GPP\Extracts\R2-1806062%20%20Remaining%20issues%20on%20cell%20quality%20derivation%20in%20NR%20idle%20mode.docx) Remaining issues on cell quality derivation in NR idle mode Samsung Electronics discussion

#### 10.4.5.4 Service based reselection

Maximum 1 tdoc per company

[R2-1804345](file:///C:\Data\3GPP\Extracts\R2-1804345.doc) Discussion on service-based cell reselection procedure ITRI, ASUSTeK discussion NR\_newRAT-Core [R2-1802157](file:///C:\Data\3GPP\Extracts\R2-1802157.doc)

[R2-1804453](file:///C:\Data\3GPP\Extracts\R2-1804453%20Service%20based%20cell%20reselection%20in%20idle%20mode%20and%20inactive%20state.doc) Service based cell reselection in idle mode and inactive state ZTE Corporation, Sanechips discussion

[R2-1804585](file:///C:\Data\3GPP\Extracts\R2-1804585_Service%20based%20cell%20reselection.doc) Service based cell reselection vivo discussion Rel-15 NR\_newRAT-Core [R2-1802105](file:///C:\Data\3GPP\Extracts\R2-1802105_Service%20based%20cell%20reselection.doc)

[R2-1804727](file:///C:\Data\3GPP\Extracts\R2-1804727%20-%20Service-based%20RAT_frequency%20selection%20in%20INACTIVE%20or%20in%20IDLE.docx) Service-based RAT/frequency selection in INACTIVE or in IDLE Ericsson discussion

#### 10.4.5.5 Selection/reselection - other aspects

Including, for example mobility states, speed dependent scaling, forward compatibility for CSG, cell reservations, etc

[R2-1804326](file:///C:\Data\3GPP\Extracts\R2-1804326_nr_inactive_prio_v05.doc) Dedicated cell reselection priorities in RRC\_IDLE and RRC\_INACTIVE Samsung discussion Rel-15 NR\_newRAT-Core [R2-1802411](file:///C:\Data\3GPP\Extracts\R2-1802411_nr_inactive_prio_v02.doc)

[R2-1804559](file:///C:\Data\3GPP\Extracts\R2-1804559-Mobility%20state%20estimation%20issue%20during%20RRC%20state%20transition.doc) Discussion on mobility state estimation issue during RRC state transition OPPO discussion Late

[R2-1804561](file:///C:\Data\3GPP\Extracts\R2-1804561-Discussion%20on%20UE%20redistribution%20within%20wideband%20carrier.doc) Discussion on UE redistribution within wideband carrier OPPO discussion Late

[R2-1804587](file:///C:\Data\3GPP\Extracts\R2-1804587_Mobility%20scaling%20in%20cell%20reselection%20for%20NR.doc) Mobility scaling in cell reselection for NR vivo discussion Rel-15 NR\_newRAT-Core [R2-1802491](file:///C:\Data\3GPP\Extracts\R2-1802491_Mobility%20scaling%20in%20cell%20reselection%20for%20NR.doc)

[R2-1804719](file:///C:\Data\3GPP\Extracts\R2-1804719%20-%20Mobility%20states%20and%20speed%20state%20based%20scaling.docx) Mobility states and state based scaling Ericsson discussion

[R2-1804720](file:///C:\Data\3GPP\Extracts\R2-1804720%20-%20Considering%20the%20number%20of%20good%20beams%20for%20cell%20ranking%20criteria.docx) Considering the number of good beams for cell ranking criteria Ericsson discussion

[R2-1804721](file:///C:\Data\3GPP\Extracts\R2-1804721%20-%20Cell-specific%20prioritisation%20at%20reselection.docx) Cell-specific prioritisation at reselection Ericsson discussion

[R2-1804722](file:///C:\Data\3GPP\Extracts\R2-1804722%20-%20Reconsidering%20Cell%20Selection%20for%20RRC_INACTIVE%20state.docx) Reconsidering cell selection for RRC\_INACTIVE state Ericsson discussion

[R2-1804724](file:///C:\Data\3GPP\Extracts\R2-1804724%20-%20UE%20in%20RRC_INACTIVE%20state%20camping%20on%20an%20acceptable%20cell.docx) UE in RRC\_INACTIVE state camping on an acceptable cell Ericsson discussion

[R2-1804725](file:///C:\Data\3GPP\Extracts\R2-1804725%20-%20On%20cell%20quality%20derivation%20procedural%20text%20in%2038.304.docx) On cell quality derivation procedural text in 38.304 Ericsson discussion

[R2-1804726](file:///C:\Data\3GPP\Extracts\R2-1804726%20-%20On%20RSSI%20related%20parameter%20configuration%20in%20SIBs.docx) On RSSI related parameter configuration in SIBs Ericsson discussion

[R2-1804728](file:///C:\Data\3GPP\Extracts\R2-1804728%20-%20Open%20issues%20for%20camping%20procedures.docx) Open issues for camping procedures Ericsson discussion

[R2-1804937](file:///C:\Data\3GPP\Extracts\R2-1804937%2038304%20FFS%20issues.doc) Open points of 38.304 Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1804947](file:///C:\Data\3GPP\Extracts\R2-1804947%20State%20estimation%20and%20preventing%20fast%20moving%20UEs%20from%20entering%20small%20cells.doc) State estimation and preventing fast moving UEs from entering small cells Fujitsu discussion Rel-15 NR\_newRAT-Core [R2-1802550](file:///C:\Data\3GPP\Extracts\R2-1802550%20State%20estimation%20and%20preventing%20fast%20moving%20UEs%20from%20entering%20small%20cells.doc)

[R2-1804994](file:///C:\Data\3GPP\Extracts\R2-1804994%20MSE%20enhancement%20in%20NR.doc) MSE enhancement in NR LG Electronics Inc. discussion [R2-1803658](file:///C:\Data\3GPP\Extracts\R2-1803658.doc)

[R2-1804995](file:///C:\Data\3GPP\Extracts\R2-1804995%20Mobility%20history%20reporting%20in%20NR.doc) Mobility history reporting in NR LG Electronics Inc. discussion [R2-1803657](file:///C:\Data\3GPP\Extracts\R2-1803657.doc)

[R2-1805228](file:///C:\Data\3GPP\Extracts\R2-1805228%20Cell%20Selection%20and%20Reselection%20for%20SUL%20Cell.doc) Cell selection and reselection for SUL cell Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805231](file:///C:\Data\3GPP\Extracts\R2-1805231%20Speed%20dependent%20mobility%20for%20idle%20mode.doc) Speed dependent mobility in Idle and Inactive mode Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core [R2-1803377](file:///C:\Data\3GPP\Extracts\R2-1803377%20Speed%20dependent%20mobility%20for%20idle%20mode.doc)

[R2-1805233](file:///C:\Data\3GPP\Extracts\R2-1805233%20RRC%20Connection%20Establishment%20failure%20temporary%20Qoffset%20handling%20(AKA%20Chiba%20Issue)%20in%20NR%20-%20Copy.doc) RRC Connection Establishment failure temporary Qoffset handling (AKA Chiba Issue) in NR Huawei, HiSilicon, Deutsche Telekom, NTT DoCoMo discussion Rel-15 NR\_newRAT-Core

[R2-1805767](file:///C:\Data\3GPP\Extracts\R2-1805767%20-%20Mobility%20scaling%20for%20idle%20mode%20measurements.docx) Mobility scaling for idle mode measurements Sequans Communications discussion [R2-1802711](file:///C:\Data\3GPP\Extracts\R2-1802711%20-%20Mobility%20scaling%20for%20idle%20mode%20measurements.docx)

Withdrawn

R2-1804723 Frequency priority when leaving RRC\_CONNECTED Ericsson discussion Withdrawn

#### 10.4.5.6 Idle/inactive paging

Including calculation of paging occasion, and address FFS from last meeting on truncated UE id in case of paging in FR2..

[R2-1804273](file:///C:\Data\3GPP\Extracts\R2-1804273%20Issues%20on%20Paging%20Occasion%20Design.docx) Issues about NR paging occasion CATT discussion [R2-1801837](file:///C:\Data\3GPP\Extracts\R2-1801837%20Issues%20on%20Paging%20Occasion%20Design.docx) Late

[R2-1804274](file:///C:\Data\3GPP\Extracts\R2-1804274%20Issues%20on%20RX%20Beam%20Sweeping%20for%20Paging.docx) Issues on RX Beam Sweeping for Paging CATT discussion [R2-1801838](file:///C:\Data\3GPP\Extracts\R2-1801838%20Issues%20on%20RX%20Beam%20Sweeping%20for%20Paging.docx) Late

[R2-1804312](file:///C:\Data\3GPP\Extracts\R2-1804312_Reference%20Frame%20&%20PO%20Determination%20for%20Paging%20Reception.doc) Reference Frame & PO Determination for Paging Reception Samsung Electronics Co., Ltd discussion Rel-15 NR\_newRAT-Core

[R2-1804456](file:///C:\Data\3GPP\Extracts\R2-1804456%20Association%20of%20Monitoring%20windows%20for%20paging.doc) Association of Monitoring windows for paging with SSB ZTE Corporation, Sanechips discussion

[R2-1804457](file:///C:\Data\3GPP\Extracts\R2-1804457_PagingOcassionCalculation.doc) Calculation of paging occasion with default association mechanism ZTE Corporation, Sanechips discussion

[R2-1804556](file:///C:\Data\3GPP\Extracts\R2-1804556-Left%20issues%20in%20NR%20paging.doc) Left issues in NR paging OPPO discussion Late

[R2-1804579](file:///C:\Data\3GPP\Extracts\R2-1804579_Paging%20in%20NR.doc) Paging in NR vivo discussion Rel-15 NR\_newRAT-Core [R2-1802108](file:///C:\Data\3GPP\Extracts\R2-1802108_Paging%20in%20NR.doc)

[R2-1804632](file:///C:\Data\3GPP\Extracts\R2-1804632.docx) Considerations for paging occasion design in NR PANASONIC R&D Center Germany discussion

[R2-1804731](file:///C:\Data\3GPP\Extracts\R2-1804731%20-%20Using%20truncated%20UE%20ID%20in%20paging.docx) Using truncated UE-ID in paging Ericsson discussion

[R2-1804732](file:///C:\Data\3GPP\Extracts\R2-1804732%20-%20Paging%20occasions%20in%20NR.docx) Paging occasions in NR Ericsson discussion

[R2-1804733](file:///C:\Data\3GPP\Extracts\R2-1804733%20-%20Placement%20of%20paging%20configuration%20in%20system%20info.docx) Placement of paging configuration in system info Ericsson discussion

[R2-1804734](file:///C:\Data\3GPP\Extracts\R2-1804734%20-%20Paging%20in%20DCI%20only.docx) Paging in DCI only Ericsson discussion

[R2-1804735](file:///C:\Data\3GPP\Extracts\R2-1804735%20-%20Indication%20of%20CN%20initiated%20or%20RAN%20initiated%20paging.docx) Indication of CN initiated or RAN initiated paging Ericsson discussion

[R2-1804736](file:///C:\Data\3GPP\Extracts\R2-1804736%20%5bDRAFT%5d%20LS%20on%20timing%20requirements%20on%20paging%20occasions%20relative%20SS%20Blocks.doc) [DRAFT] LS on timing requirements on paging occasions relative SS Blocks Ericsson LS out To:RAN4 Cc:RAN1

[R2-1804929](file:///C:\Data\3GPP\Extracts\R2-1804929%20Determination%20of%20PF%20and%20PO%20in%20NR.docx) Determination of PF and PO in NR Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT-Core

[R2-1804999](file:///C:\Data\3GPP\Extracts\R2-1804999_Paging_Configuration_NR.doc) Paging Occasion Calculation for NR Qualcomm Incorporated discussion

R2-1805033 Paging transmission option Intel Corporation discussion Rel-15 NR\_newRAT-Core Late

=> Revised in [R2-1806389](file:///C:\Data\3GPP\Extracts\R2-1806389.doc)

[R2-1806389](file:///C:\Data\3GPP\Extracts\R2-1806389.doc) Paging transmission option Intel Corporation, Samsung, MediaTek, Lenovo, Motorola Mobility, Sony, NTT DOCOMO, KT, Panasonic, ITL, CATT discussion Rel-15 NR\_newRAT-Core

[R2-1805034](file:///C:\Data\3GPP\Extracts\R2-1805034.doc) Calculation of paging occasion Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805091](file:///C:\Data\3GPP\Extracts\R2-1805091_Multiple%20P-RNTI.doc) Use of multiple P-RNTIs for NR paging Qualcomm Incorporated discussion [R2-1803577](file:///C:\Data\3GPP\Extracts\R2-1803577_Multiple%20P-RNTI.doc)

[R2-1805106](file:///C:\Data\3GPP\Extracts\R2-1805106%20Paging%20Occasion%20in%20NR.docx) Paging Occasion in NR MediaTek Inc. discussion Rel-15

[R2-1805108](file:///C:\Data\3GPP\Extracts\R2-1805108%20Multiplexing%20of%20Paging%20Occasion%20and%20SS%20Block.docx) Multiplexing of Paging Occasion and SS Block MediaTek Inc. discussion Rel-15

[R2-1805112](file:///C:\Data\3GPP\Extracts\R2-1805112%20%5bDraft%5d%20LS%20on%20Multiplexing%20of%20Paging%20Occasion%20and%20SS%20Block.docx) Draft LS on Multiplexing of Paging Occasion and SS Block MediaTek Inc. LS out Rel-15 To:RAN1, RAN4

[R2-1805113](file:///C:\Data\3GPP\Extracts\R2-1805113%20Paging%20Record%20Size%20in%20NR.docx) Paging Record Size in NR MediaTek Inc. discussion Rel-15

[R2-1805115](file:///C:\Data\3GPP\Extracts\R2-1805115%20%5bDraft%5d%20Response%20LS%20on%205G-S-TMSI%20Code%20Space.docx) Draft Response LS on 5G-S-TMSI Code Space MediaTek Inc. LS out Rel-15 To:SA2

moved from

[R2-1805116](file:///C:\Data\3GPP\Extracts\R2-1805116%20NR%20Paging%20Overhead%20Reduction%20with%20Localized%20Paging.docx) NR Paging Overhead Reduction with Localized Paging MediaTek Inc. discussion Rel-15

[R2-1805167](file:///C:\Data\3GPP\Extracts\R2-1805167_NRPaging.docx) Considerations on Multi-beam Operation & Paging Resource Allocation Sony discussion Rel-15 NR\_newRAT-Core

[R2-1805244](file:///C:\Data\3GPP\Extracts\R2-1805244%20Definition%20of%20Paging%20Indicator%20for%20Response-Driven%20Paging.docx) Definition of Paging Indicator for Response-Driven Paging Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805245](file:///C:\Data\3GPP\Extracts\R2-1805245%20Truncated%20UE-ID%20with%20Configurable%20Length%20for%20Response-Driven%20Paging.docx) Truncated UE-ID with Configurable Length for Response-Driven Paging Nokia, Nokia Shanghai Bell, Qualcomm Inc. discussion Rel-15 NR\_newRAT

[R2-1805246](file:///C:\Data\3GPP\Extracts\R2-1805246%20On%20Frequently%20Paged%20UEs%20in%20Response-Driven%20Paging.docx) On Frequently Paged UEs in Response-Driven Paging Nokia, Nokia Shanghai Bell discussion Rel-15 NR\_newRAT

[R2-1805520](file:///C:\Data\3GPP\Extracts\R2-1805520.docx) Calculation of PO/PF in NR CMCC discussion Rel-15 NR\_newRAT-Core

[R2-1805757](file:///C:\Data\3GPP\Extracts\R2-1805757%20Definition%20of%20paging%20frame.doc) Definition of Paging Frame Huawei, HiSilicon discussion Rel-15 [R2-1803639](file:///C:\Data\3GPP\Extracts\R2-1803639%20Definition%20of%20Paging%20Frame.doc)

[R2-1805758](file:///C:\Data\3GPP\Extracts\R2-1805758%20Definition%20of%20paging%20occasion.docx) Definition of Paging Occasion Huawei Technologies France discussion Rel-15 NR\_newRAT-Core [R2-1803644](file:///C:\Data\3GPP\Extracts\R2-1803644%20Definition%20of%20PO.docx)

[R2-1805766](file:///C:\Data\3GPP\Extracts\R2-1805766%20Paging%20capacity%20evaluation.doc) Paging capacity evaluation Huawei Technologies France discussion Rel-15

[R2-1805770](file:///C:\Data\3GPP\Extracts\R2-1805770%20Discussion%20on%20paging%20message.doc) Discussion on paging message Huawei Technologies France discussion Rel-15 [R2-1803636](file:///C:\Data\3GPP\Extracts\R2-1803636%20Discussion%20on%20Paging%20Message.doc)

[R2-1805788](file:///C:\Data\3GPP\Extracts\R2-1805788%20Paging%20Options.docx) NR Paging Options Huawei Technologies France discussion Rel-15 [R2-1803647](file:///C:\Data\3GPP\Extracts\R2-1803647%20NR%20Paging%20Options.docx)

[R2-1805937](file:///C:\Data\3GPP\Extracts\R2-1805937%20RAN%20Paging%20DRX%20in%20RRC_INACTIVE.doc) RAN paging DRX in RRC\_INACTIVE LG Electronics Inc. discussion Rel-15 NR\_newRAT-Core [R2-1802739](file:///C:\Data\3GPP\Extracts\R2-1802739%20RAN%20Paging%20DRX%20in%20RRC_INACTIVE.doc)

#### 10.4.5.7 Idle mobility from LTE to NR

Additions to LTE 36.304 to support idle mobility from LTE to NR. Broadcast parameters required for idle mobility from LTE to NR should be discussed here and not in 10.4.2.x.

[R2-1805229](file:///C:\Data\3GPP\Extracts\R2-1805229.doc) Introduction of LTE to NR reselection in 36.331 Huawei, HiSilicon CR Rel-15 36.331 15.1.0 3330 - B NR\_newRAT-Core

[R2-1805230](file:///C:\Data\3GPP\Extracts\R2-1805230.doc) Introduction of LTE to NR reselection in 36.304 Huawei, HiSilicon CR Rel-15 36.304 14.6.0 0412 - B NR\_newRAT-Core

[R2-1805834](file:///C:\Data\3GPP\Extracts\R2-1805834%20Cell%20reselection%20between%20NR%20and%20LTE.doc) Cell reselection between NR and LTE LG Electronics Inc. discussion Rel-15 [R2-1802122](file:///C:\Data\3GPP\Extracts\R2-1802122%20Cell%20reselection%20between%20NR%20and%20LTE.doc)

# 11 Rel-15 NR Study Items

## 11.1 Study on Integrated Access and Backhaul for NR

(FS\_NR-IAB; leading WG: RAN2; REL-15; started: Mar. 17; target: Jun. 18: SID: [RP-172290](file:///C:\Data\3GPP\Extracts\RP-172290.doc))

Time budget: 1 TU

Organisational

[R2-1804847](file:///C:\Data\3GPP\RAN2\Docs\R2-1804847.zip) Workplan for Integrated Access and Backhaul Qualcomm Austria RFFE GmbH, Samsung, AT&T, KDDI Work Plan Rel-15 [R2-1800415](file:///C:\Data\3GPP\Extracts\R2-1800415%20IAB%20work%20plan.doc)

=> Noted

R2-1806407 IAB workplan Qualcomm, Samsung, AT&T, KDDI Work Plan Rel-15 FS\_NR\_IAB

[R2-1804848](file:///C:\Data\3GPP\RAN2\Docs\R2-1804848.zip) Draft TR 38.874 Qualcomm Austria RFFE GmbH draft TR Rel-15 38.874 0.1.1 FS\_NR\_IAB

=> Structure of the TR needs to be revised so there are sections for RAN1,2,3 responsibilities.

=> Chairman will coordinate with other WG chairs to conclude how to manage the WG inputs to the TR.

Architectures

[R2-1804849](file:///C:\Data\3GPP\Extracts\R2-1804849%20IAB%20Architectures%20for%20L2-L3%20relaying.doc) IAB architectures for L2-L3 relaying Qualcomm Austria RFFE GmbH, KDDI, AT&T, Nokia, Nokia Shanghai Bell, Huawei, Ericsson, Intel, LG Electronics, CMCC, Samsung discussion

- Huawei wonder if we need to ask SA2 as there is a UPF located in the CU. Qualcomm think that SA2 will need to look at this.

- Fujitsu ask if the DU can connect to more than one donor. Qualcomm think the donor is a logical node that holds multiple DUs and hence associated with multiple CUs in different IAB nodes. Ericsson think this can be achieved with a single DU.

- LG think the big difference between 1a and 1b is that 1b has a bearer and we can support QoS. Wonder how 1a can support QoS.

=> Noted

U-plane for L2 relaying

[R2-1806126](file:///C:\Data\3GPP\Extracts\R2-1806126%20Adaptation%20layer%20based%20L2%20relaying%20and%20light%20L2%20relaying.docx) Adaptation layer based L2 relaying and light L2 relaying Huawei Technologies France discussion Rel-15

=> Noted

[R2-1805703](file:///C:\Data\3GPP\Extracts\R2-1805703%20MAC%20vs%20RLC%20adaptation%20for%20IAB.docx) MAC adaptation vs RLC adaptation layer for L2 relaying Nokia, Nokia Shanghai Bell discussion Rel-15 FS\_NR\_IAB

=> Noted

[R2-1804808](file:///C:\Data\3GPP\Extracts\R2-1804808-Protocol%20Stack%20for%20IAB%20Architecture%201a%20and%201b%20.docx) Protocol Stack for IAB Architecture 1a and 1b Ericsson discussion Rel-15 FS\_NR\_IAB

=> Noted

[R2-1804702](file:///C:\Data\3GPP\Extracts\R2-1804702_IAB_UP_v0.0.doc) Discussions on user plane protocol for IAB Samsung R&D Institute UK discussion

[R2-1805958](file:///C:\Data\3GPP\Extracts\R2-1805958%20-%20Protocol%20stack%20design%20for%20L2%20relaying%20.docx) Protocol stack design for IAB with L2 relaying AT&T discussion

[R2-1804782](file:///C:\Data\3GPP\Extracts\R2-1804782%20-%20Discussion%20on%20IAB%20architectures.doc) Discussion on IAB architectures ZTE Corporation discussion FS\_NR\_IAB

[R2-1805685](file:///C:\Data\3GPP\Extracts\R2-1805685.doc) Adaptation layer and Routing for IAB in NR Intel Corporation discussion Rel-15 FS\_NR\_IAB

[R2-1804864](file:///C:\Data\3GPP\Extracts\R2-1804864%20IAB%20U-plane%20aspects%20L2%20relaying.doc) IAB U-plane aspects of L2 relaying Qualcomm Austria RFFE GmbH discussion Rel-15

[R2-1806406](file:///C:\Data\3GPP\Extracts\R2-1806406%20-%20IAB%20U-plane%20considerations%20for%20L2%20relaying.docx) Draft on IAB U-plane aspects of L2-relaying Qualcomm discussion Rel-15 FS\_NR\_IAB

=> Focus the discussion going forward on the key issues that RAN2 needs to study (for example, end to end or hop by hop RLC, placement of the adaptation layer in the protocol stack, scheduler and QoS impacts in both UL and DL, additional functionality or impacts to the existing RAN2 protocols, information required in adaptation layer, etc)

=> Clearly identify the items that are RAN2 and not RAN2 responsibility to study.

* [101bis#xx][NR] IAB (Qualcomm)

Progress the text proposal submitted in the meeting with focus to capture the key RAN2 aspects that need to be studied with regard to the user plane.

Intended outcome:

Deadline: Thursday 2018-04-26

Other

[R2-1804701](file:///C:\Data\3GPP\Extracts\R2-1804701_IAB_CP_v0.0.doc) Discussions on control plane protocol for IAB Samsung R&D Institute UK discussion

[R2-1805704](file:///C:\Data\3GPP\Extracts\R2-1805704_Topology_Management.docx) IAB Topology Management Nokia, Nokia Shanghai Bell discussion Rel-15 FS\_NR\_IAB

[R2-1805557](file:///C:\Data\3GPP\Extracts\R2-1805557%20-%20Network%20Synchronization%20for%20IAB%20Nodes.doc) Network Synchronization for IAB Nodes Ericsson discussion Rel-15 FS\_NR\_IAB

[R2-1804527](file:///C:\Data\3GPP\Extracts\R2-1804527_IAB_KDDI.docx) Consideration on IAB node discovery and connection establishment KDDI Corporation, Kyocera discussion

[R2-1804809](file:///C:\Data\3GPP\Extracts\R2-1804809-Setup%20Procedure%20for%20the%20Adaptation%20Layer%20of%20an%20IAB%20system.docx) Setup Procedure for the Adaptation Layer of an IAB system Ericsson discussion Rel-15 FS\_NR\_IAB

[R2-1804525](file:///C:\Data\3GPP\Extracts\R2-1804525%20Discussion%20on%20IAB%20topologies.doc) Discussion on IAB topologies Potevio discussion

[R2-1805165](file:///C:\Data\3GPP\Extracts\R2-1805165.doc) Resource allocation in IAB Sony discussion Rel-15

[R2-1804865](file:///C:\Data\3GPP\Extracts\R2-1804865%20Resource%20Coordination%20across%20IAB%20Topology.docx) Resource coordination across IAB topology Qualcomm Austria RFFE GmbH discussion Rel-15

[R2-1804347](file:///C:\Data\3GPP\Extracts\R2-1804347.docx) Discussion on topology and path management of IAB ITRI discussion FS\_NR\_IAB

[R2-1804366](file:///C:\Data\3GPP\Extracts\R2-1804366%20-%20Discussion%20on%20architecture%20for%20IAB.doc) Discussion on architecture for IAB OPPO discussion Rel-15 FS\_NR\_IAB

[R2-1804367](file:///C:\Data\3GPP\Extracts\R2-1804367%20-%20Discussion%20on%20redundant%20connectivity%20support%20in%20IAB.doc) Discussion on redundant connectivity support in IAB OPPO discussion Rel-15 FS\_NR\_IAB

[R2-1804491](file:///C:\Data\3GPP\Extracts\R2-1804491.docx) L2 IAB Architecture CATT discussion

[R2-1804492](file:///C:\Data\3GPP\Extracts\R2-1804492.doc) Consideration on startup procedure for L2 IAB architecture CATT discussion

[R2-1804700](file:///C:\Data\3GPP\Extracts\R2-1804700%20Adaptation%20layer.doc) Adaptation layer: position in the protocol stack and location within the IAB donor node Samsung R&D Institute UK discussion

[R2-1805702](file:///C:\Data\3GPP\Extracts\R2-1805702_Connectivity_Service_Solution.docx) Architecture and Protocols: Connectivity Service solution for IAB Nokia, Nokia Shanghai Bell discussion Rel-15 FS\_NR\_IAB

[R2-1804704](file:///C:\Data\3GPP\Extracts\R2-1804704%20Discussion%20on%20Bearer%20mapping%20between%20UE%20DRB%20and%20IAB%20DRB.doc) Discussion on Bearer mapping between UE DRB and IAB DRB Samsung R&D Institute india discussion

=> Revised in [R2-1806380](file:///C:\Data\3GPP\Extracts\R2-1806380%20Discussion%20on%20Bearer%20mapping%20between%20UE%20DRB%20and%20IAB%20DRB.doc)

[R2-1806380](file:///C:\Data\3GPP\Extracts\R2-1806380%20Discussion%20on%20Bearer%20mapping%20between%20UE%20DRB%20and%20IAB%20DRB.doc) Discussion on Bearer mapping between UE DRB and IAB DRB Samsung R&D Institute india discussion

[R2-1804705](file:///C:\Data\3GPP\Extracts\R2-1804705%20Discussion%20on%20Control%20Plane%20procedure%20for%20IAB.doc) Discussion on Control Plane procedure for IAB Samsung R&D Institute India discussion

=> Revised in [R2-1806382](file:///C:\Data\3GPP\Extracts\R2-1806382%20Discussion%20on%20Control%20Plane%20procedure%20for%20IAB.doc)

[R2-1806382](file:///C:\Data\3GPP\Extracts\R2-1806382%20Discussion%20on%20Control%20Plane%20procedure%20for%20IAB.doc) Discussion on Control Plane procedure for IAB Samsung R&D Institute India discussion

[R2-1804779](file:///C:\Data\3GPP\Extracts\R2-1804779%20-%20Considerations%20on%20IAB%20deployment%20scenarios.doc) Considerations on IAB deployment scenarios ZTE Corporation discussion FS\_NR\_IAB

[R2-1804785](file:///C:\Data\3GPP\Extracts\R2-1804785%20-%20Discussion%20on%20IAB%20%20node%20discovery%20and%20selection.doc) Discussion on IAB node discovery and selection ZTE Corporation discussion FS\_NR\_IAB

[R2-1804810](file:///C:\Data\3GPP\Extracts\R2-1804810-CN%20functions%20for%20supporting%20IAB%20nodes%20.docx) CN functions for IAB (and support of EN-DC) Ericsson discussion Rel-15 FS\_NR\_IAB

[R2-1804811](file:///C:\Data\3GPP\Extracts\R2-1804811-Setup%20procedures%20for%20IAB-node%20and%20a%20UE%20connected%20to%20an%20IAB%20node.docx) Setup procedures for IAB-node and a UE connected to an IAB node Ericsson discussion Rel-15 FS\_NR\_IAB

[R2-1804996](file:///C:\Data\3GPP\Extracts\R2-1804996_%20Initial%20consideration%20on%20dynamic%20route%20selection.doc) Initial consideration on dynamic route selection vivo discussion

[R2-1805162](file:///C:\Data\3GPP\Extracts\R2-1805162_IAB.doc) Some considerations on IAB relay power on procedure Sony discussion Rel-15

[R2-1805207](file:///C:\Data\3GPP\Extracts\R2-1805207%20IAB%20node%20selection%20for%20backhaul%20setup%20in%20multi-hop%20case.doc) IAB node selection for backhaul setup in multi-hop case Lenovo, Motorola Mobility discussion Rel-15 FS\_NR\_IAB

[R2-1805210](file:///C:\Data\3GPP\Extracts\R2-1805210%20Backhaul%20link%20reselection.doc) Backhaul link reselection Lenovo, Motorola Mobility discussion Rel-15 FS\_NR\_IAB

[R2-1805560](file:///C:\Data\3GPP\Extracts\R2-1805560%20Architecture%20for%20IAB.docx) Architecture for IAB TCL Communication discussion Rel-15

[R2-1805700](file:///C:\Data\3GPP\Extracts\R2-1805700%20Disc_Supporting%20IAB%20in%20NSA.doc) Discussion on supporting IAB in NSA Nokia, Nokia Shanghai Bell discussion Rel-15 FS\_NR\_IAB

[R2-1805701](file:///C:\Data\3GPP\Extracts\R2-1805701%20MAC%20Adapt%20based%20IAB%20protocol%20architecture.docx) Architecture and Protocols: MAC adaptation layer based IAB Nokia, Nokia Shanghai Bell discussion Rel-15 FS\_NR\_IAB

[R2-1805872](file:///C:\Data\3GPP\Extracts\R2-1805872%20Consideration%20on%20route%20selection.docx) Consideration on route selection LG Electronics Inc. discussion Rel-15

[R2-1806032](file:///C:\Data\3GPP\Extracts\R2-1806032%20Protocol%20stack%20design%20for%20IAB.doc) Protocol stack design for IAB LG Electronics Inc. discussion Rel-15 FS\_NR\_IAB [R2-1801428](file:///C:\Data\3GPP\Extracts\R2-1801428%20Protocol%20stack%20design%20for%20IAB.doc)

[R2-1806072](file:///C:\Data\3GPP\Extracts\R2-1806072%20Network%20Synchronization%20of%20IAB%20nodes.doc) Network Synchronization of IAB nodes Huawei Technologies France discussion Rel-15

[R2-1806068](file:///C:\Data\3GPP\Extracts\R2-1806068%20Using%20Standalone%20IAB%20node%20for%20EN%20DC%20Access%20link.doc) Using Standalone IAB node for EN-DC Access link Huawei Technologies France discussion Rel-15

[R2-1806083](file:///C:\Data\3GPP\Extracts\R2-1806083%20Destination%20Address%20and%20Forwarding%20Path%20based%20Routing%20for%20IAB.doc) Destination Address and Forwarding Path based Routing for IAB Huawei Technologies France discussion Rel-15

[R2-1806152](file:///C:\Data\3GPP\Extracts\R2-1806152%20NR%20control%20plane%20latency%20analysis%20for%20UE%20initial%20access%20in%20IAB%20scenario.doc) NR control plane latency analysis for UE initial access in IAB scenario Huawei Technologies France discussion Rel-15

=> Revised in [R2-1806424](file:///C:\Data\3GPP\Extracts\R2-1806424%20The%20NR%20control%20plane%20latency%20analysis%20for%20UE%20initial%20access%20in%20IAB%20scenario.doc)

[R2-1806424](file:///C:\Data\3GPP\Extracts\R2-1806424%20The%20NR%20control%20plane%20latency%20analysis%20for%20UE%20initial%20access%20in%20IAB%20scenario.doc) NR control plane latency analysis for UE initial access in IAB scenario Huawei Technologies France discussion Rel-15

[R2-1806178](file:///C:\Data\3GPP\Extracts\R2-1806178%20Overview%20of%20RAN2%20IAB%20Impacts.doc) Overview on RAN2 IAB Impacts Huawei Technologies France discussion Rel-15

[R2-1806198](file:///C:\Data\3GPP\Extracts\R2-1806198_KDDI_IAB_NSA.doc.docx) Consideration on NSA operation in architectures 1a, 1b and 2a KDDI Corporation discussion Late

[R2-1806373](file:///C:\Data\3GPP\RAN2\Docs\R2-1806373.zip) pCR to TR38874 based on [R2-1804849](file:///C:\Data\3GPP\Extracts\R2-1804849%20IAB%20Architectures%20for%20L2-L3%20relaying.doc) Qualcomm pCR Rel-15 FS\_NR\_IAB

=> Revised in R2-1806422

R2-1806422 pCR to TR38874 based on [R2-1804849](file:///C:\Data\3GPP\Extracts\R2-1804849%20IAB%20Architectures%20for%20L2-L3%20relaying.doc) Qualcomm pCR Rel-15 FS\_NR\_IAB

Withdrawn

R2-1805959 Discovery and Management procedures for IAB AT&T discussion Withdrawn

Withdrawn

[R2-1805965](file:///C:\Data\3GPP\Extracts\R2-1805965%20IAB%20Discovery.docx) Discovery and Topology Management Procedures for IAB AT&T discussion

## 11.2 Study on NR-based Access to Unlicensed Spectrum

(FS\_NR-unlic; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: SID: [RP-172021](file:///C:\Data\3GPP\archive\TSGR\TSGR_77\Docs\RP-172021.zip))

Time budget: 0.5 TU

* [101bis#xx][NR] NR unlicensed SI (Qualcomm)

- Confirm the scenarios (LAA, DC, SA) which are included in RAN1 study also for RAN2 study.

- Discuss other deployment options for consideration (e.g. synchronous, asynchronous networks)

- Identify the scope of the RAN2 work

- Identify possible baseline from LTE LAA and NR licensed applicable to NR unlicensed

Intended outcome: Report to next meeting

Deadline: Thursday 2018-05-10

[R2-1804348](file:///C:\Data\3GPP\Extracts\R2-1804348%20Overview%20of%20possible%20NR-U%20impact%20to%20RAN2.doc) Overview of possible NR-U impact to RAN2 ZTE, Sanechips discussion

[R2-1804349](file:///C:\Data\3GPP\Extracts\R2-1804349%20considerations%20on%20random%20access%20procedure%20for%20NR-U.doc) considerations on random access procedure for NR-U ZTE Corporation discussion

[R2-1804350](file:///C:\Data\3GPP\Extracts\R2-1804350-Considerations%20on%20mobility%20management%20for%20NR-U.doc) Considerations on mobility management for NR-U ZTE Corporation discussion

[R2-1804439](file:///C:\Data\3GPP\Extracts\R2-1804439%20-%20Possible%20impacts%20of%20NR-U%20on%20RAN2.doc) Possible impacts of NR-U on RAN2 OPPO discussion

[R2-1804536](file:///C:\Data\3GPP\Extracts\R2-1804536%20Discussion%20on%20Impact%20of%20LBT%20to%20Minimum%20System%20Information%20for%20NR-U.doc) Discussion on Impact of LBT to Minimum System Information for NR-U OPPO discussion

[R2-1804537](file:///C:\Data\3GPP\Extracts\R2-1804537%20Discussion%20on%20NR-U%20Radio%20Protocol%20Architecture%20Options%20and%20Potential%20Issues%20for%20C-plane.doc) Discussion on NR-U Radio Protocol Architecture Options and Potential C-Plane Issues OPPO discussion

[R2-1804717](file:///C:\Data\3GPP\Extracts\R2-1804717%20Impacts%20on%20NR%20SA%20due%20to%20Unlicensed%20Operation.doc) Impacts on NR SA due to Unlicensed Operation Samsung R&D Institute India discussion

[R2-1804759](file:///C:\Data\3GPP\Extracts\R2-1804759_NR-U.docx) Overview of RAN2 areas impacted by the New Study Item on NR-based access to unlicensed spectrum Nokia, Nokia Shanghai Bell discussion Rel-16 FS\_NR\_unlic

[R2-1804824](file:///C:\Data\3GPP\Extracts\R2-1804824%20(R15%20NRU%20SI%20overview).doc) Overview of NR-based access to unlicensed spectrum InterDigital discussion Rel-15 FS\_NR\_unlic

[R2-1804825](file:///C:\Data\3GPP\Extracts\R2-1804825%20(R15%20NRU%20SI%20scheduling).doc) Scheduling enhancements for NR-based access to unlicensed spectrum InterDigital discussion Rel-15 FS\_NR\_unlic

[R2-1804997](file:///C:\Data\3GPP\Extracts\R2-1804997_Initial%20Overview%20of%20RAN2%20Impact%20due%20to%20NR-based%20Access%20to%20Unlicensed%20Spectrum.docx) Initial Overview of RAN2 Impact due to NR-based Access to Unlicensed Spectrum vivo discussion

[R2-1805018](file:///C:\Data\3GPP\Extracts\R2-1805018-deployment_v01.docx) High level analysis on the deployments on unlicensed access Intel Corporation discussion Rel-15 FS\_NR\_unlic

[R2-1805045](file:///C:\Data\3GPP\Extracts\R2-1805045%20NR-U%20RAN2%20impacts.docx) Detailed analysis of NR-U RAN2 impact Intel Corporation discussion Rel-15 FS\_NR\_unlic

[R2-1805128](file:///C:\Data\3GPP\Extracts\R2-1805128_NR_Unlicensed_Scope.doc) Scope of NR Unlicensed Study Item Qualcomm Incorporated discussion

[R2-1805732](file:///C:\Data\3GPP\Extracts\R2-1805732%20-%20Mobility%20Framework%20in%20NR-U.doc) Mobility Framework in NR-U Ericsson discussion

[R2-1805734](file:///C:\Data\3GPP\Extracts\R2-1805734%20-%20On%20Autonomous%20UL%20Transmissions%20for%20NR-U.doc) On Autonomous UL Transmissions for NR-U Ericsson discussion

[R2-1805735](file:///C:\Data\3GPP\Extracts\R2-1805735%20-%20On%20NR-U%20Deployment%20Scenarios.doc) On NR-U Deployment Scenarios Ericsson discussion

[R2-1805740](file:///C:\Data\3GPP\Extracts\R2-1805740%20-%20RRM%20framework%20in%20NR-U.doc) RRM framework in NR-U Ericsson discussion

[R2-1805817](file:///C:\Data\3GPP\Extracts\R2-1805817%20User%20plane%20aspects%20for%20NR-based%20access%20to%20unlicensed%20spectrum.doc) User plane aspects for NR-based access to unlicensed spectrum Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805818](file:///C:\Data\3GPP\Extracts\R2-1805818%20Control%20plane%20aspects%20for%20NR-based%20access%20to%20unlicensed%20spectrum.doc) Control plane aspects for NR-based access to unlicensed spectrum Huawei, HiSilicon discussion Rel-15 NR\_newRAT-Core

[R2-1805822](file:///C:\Data\3GPP\Extracts\R2-1805822%20-%20Random%20access%20for%20NR-U.docx) Random access for NR-U Ericsson discussion Rel-15

[R2-1805851](file:///C:\Data\3GPP\Extracts\R2-1805851%20General%20aspects%20for%20NR-U.docx) General aspects for NR-U Samsung discussion Rel-15

[R2-1805852](file:///C:\Data\3GPP\Extracts\R2-1805852%20Deployment%20scenarios%20of%20NR-U.docx) Deployment scenarios of NR-U Samsung discussion Rel-15

[R2-1806038](file:///C:\Data\3GPP\Extracts\R2-1806038_Channel_Access_NRU.docx) Channel Access for NR Unlicensed Qualcomm Incorporated discussion

[R2-1806053](file:///C:\Data\3GPP\Extracts\R2-1806053_Mobility_RLM.docx) Mobility and RLM for NR unlicensed Qualcomm Incorporated discussion

[R2-1806063](file:///C:\Data\3GPP\Extracts\R2-1806063%20%20Beamforming%20related%20issues%20for%20NR-Unlicensed%20operation.docx) Beamforming related issues for NR-Unlicensed operation Samsung Electronics discussion

## 11.3 Study Item on Self Evaluation towards IMT-2020 submission

(FS\_5G\_eval; leading WG: RAN; REL-15; started: Mar. 17; target: Jun. 18: SID: [RP-171451](file:///C:\Data\3GPP\archive\TSGR\TSGR_76\Docs\RP-171451.zip))

Time budget: 0 TU

This agenda item is for submission of any contributions related to the RAN2 aspects of the self evaluation for the IMT-2020 submission. The discussion related to these contributions will be progressed offline until the conclusions are ready to be endorsed by RAN2.

[R2-1805028](file:///C:\Data\3GPP\Extracts\R2-1805028.doc) Evaluation of NR user plane latency Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805029](file:///C:\Data\3GPP\Extracts\R2-1805029.doc) Evaluation of NR control plane latency Intel Corporation discussion Rel-15 NR\_newRAT-Core

[R2-1805651](file:///C:\Data\3GPP\Extracts\R2-1805651%20-%20%20IMT-2020%20self%20evaluation%20-%20Overview.docx) IMT-2020 self-evaluation: Overview Ericsson discussion Rel-15 FS\_5G\_eval Late

[R2-1805652](file:///C:\Data\3GPP\Extracts\R2-1805652%20-%20IMT-2020%20self-evaluation%20-%20Reliability%20in%20NR.docx) IMT-2020 self-evaluation: Reliability in NR Ericsson discussion Rel-15 FS\_5G\_eval

[R2-1805653](file:///C:\Data\3GPP\Extracts\R2-1805653%20-%20IMT-2020%20self-evaluation%20-%20CP%20latency%20in%20NR.docx) IMT-2020 self-evaluation: CP latency in NR Ericsson discussion Rel-15 FS\_5G\_eval

[R2-1805654](file:///C:\Data\3GPP\Extracts\R2-1805654%20-%20IMT-2020%20self-evaluation%20-%20UP%20latency%20in%20NR.docx) IMT-2020 self-evaluation: UP latency in NR Ericsson discussion Rel-15 FS\_5G\_eval

[R2-1805716](file:///C:\Data\3GPP\Extracts\R2-1805716.doc) Consideration on self evaluation of IMT-2020 for CP latency HUAWEI TECH. GmbH discussion Rel-15 FS\_5G\_eval [R2-1803440](file:///C:\Data\3GPP\Extracts\R2-1803440%20Consideration%20on%20self%20evaluation%20of%20IMT-2020%20for%20CP%20latency.docx)

[R2-1805717](file:///C:\Data\3GPP\Extracts\R2-1805717.doc) Consideration on self evaluation of IMT-2020 for UP latency HUAWEI TECH. GmbH discussion Rel-15 FS\_5G\_eval [R2-1803441](file:///C:\Data\3GPP\Extracts\R2-1803441%20Consideration%20on%20self%20evaluation%20of%20IMT-2020%20for%20UP%20latency.docx)

[R2-1806097](file:///C:\Data\3GPP\Extracts\R2-1806097_NR%20user%20plane%20latency.doc) NR user plane latency Samsung Electronics discussion [R2-1803427](file:///C:\Data\3GPP\Extracts\R2-1803427_UP%20latency%20enhancement.doc)

# 12 Comebacks

This agenda item will be used during the meeting. No documents are supposed to be submitted by delegates.

## 12.1 Breakout sessions

### 12.1.1 Report from Break-Out session

Report from session on Rel-14 and Rel-15 LTE and NR idle/inactive mobility

[R2-1806202](file:///C:\Data\3GPP\Extracts\R2-1806202%20Breakoutsession%20report%20from%20CMCC.docx) Report from Break-Out Session, Vice-Chair (CMCC)

CBF: Report from LTE Break-Out Session, Vice-Chair (CMCC)

=> Regarding discussion of R2-1805245 there not yet any agreement on the inclusion of truncated ID for paging in FR2. Any further discussion will be based on contributions to the next meeting

=> Report is approved

ViLTE :

CB on Friday:=> Draft reply LS in [R2-1806237](file:///C:\Data\3GPP\Extracts\R2-1806237.docx) to SA4 to indicate we prefer solution A. (offline#200,Qualcomm)

[R2-1806237](file:///C:\Data\3GPP\Extracts\R2-1806237.docx) LTE\_VoLTE\_ViLTE\_enh (RAN-Assisted Codec Adaptation in MTSI LSout SA4

=> Approved in R2-1806487

euCA:

CB on Friday:=> WF on MAC CE issue for states transition in [R2-1806238](file:///C:\Data\3GPP\Extracts\R2-1806238%20Summary%20of%20offline%20discussion%20on%20MAC%20CE%20for%20state%20transition.docx) (offline discussion#222, Huawei)

[R2-1806238](file:///C:\Data\3GPP\Extracts\R2-1806238%20Summary%20of%20offline%20discussion%20on%20MAC%20CE%20for%20state%20transition.docx) WF on MAC CE issue for states transition Huawei

Agreements

1: Introduce 2 new MAC CEs to be used with dormant state.

=> Proponents of 1-bit MAC CE and 2-bit MAC CE shall bring contributions with full TPs highlighting how the proposals work to RAN2#102, at which time one approach is selected.

feLAA:

CB on Friday:=> Draft LS in [R2-1806242](file:///C:\Data\3GPP\Extracts\R2-1806242%20LS_felaa%20agreements.doc) to RAN1 to inform the above agreements. (offline#250, Nokia)

[R2-1806242](file:///C:\Data\3GPP\Extracts\R2-1806242%20LS_felaa%20agreements.doc) [DRAFT] LS on feLAA agreements LSout RAN1

=> Approved in R2-1806488

MDT:

CB on Friday:=> Draft an LS to SA5 try to trigger their work on Bluetooth/WLAN measurement collection in MDT and also the above agreement in R2-1806243 (offline#288, CMCC)

[R2-1806243](file:///C:\Data\3GPP\Extracts\R2-1806243%20Draft%20LS%20on%20Bluetooth%20and%20WLAN%20measurement%20collection%20in%20MDT%20v2.doc) LS on Bluetooth/WLAN measurement collection in MDT LSout SA5

=> Add cc RAN3

=> Approved in R2-1806489

[R2-1806429](file:///C:\Data\3GPP\RAN2\Docs\R2-1806429.zip) Way forward on provision of time reference Huawei, HiSilicon, Ericsson, Vodafone, China Telecom

* [101bis#xx][LTE/HRLLC] Provision of time reference (Huawei)

Progress the proposals from R2-1806429 by email.

Intended outcome: Report to next meeting

Deadline: Thursday 2018-05-10

### 12.1.2 Report from Break-Out session

Report from session on NR UP

[R2-1806201](file:///C:\Data\3GPP\Extracts\R2-1806201%20RAN2-101bis-UP-BreakoutSession-%20EOM.docx) Report from Break-Out Session, Vice-Chair (MediaTek)

CBF: Report from LTE Break-Out Session, Vice-Chair (MediaTek)

=> R2-18062247 is incorrectly listed in the summary. The main body of the report is correct.

=> Report is approved

### 12.1.3 Report from Break-Out session

Report from session on NB-IoT

[R2-1806203](file:///C:\Data\3GPP\Extracts\R2-1806203%20Report%20from%20NB-IoT%20breakout%20session.docx) Report from Break-Out Session, Session Chair (Huawei)

CBF: Report from LTE Break-Out Session, Session Chair (Huawei)

=> Approved

### 12.1.4 Report from Break-Out session

Report from session on MTC

[R2-1806204](file:///C:\Data\3GPP\Extracts\R2-1806204%20-%20Report%20from%20Rel-15%20MTC%20session.docx) Report from Break-Out Session, Session Chair (Ericsson)

CBF: Report from LTE Break-Out Session, Session Chair (Ericsson)

- Email discussion for running CRs the deadline should be 1 week prior to submission. Others on submission deadline.

=> Approved

### 12.1.5 Report from Break-Out session

Report from session on Legacy LTE and Inobear WI

[R2-1806205](file:///C:\Data\3GPP\Extracts\R2-1806205_Breakout%20session%20minutes%20(LTE,%20sTTI,%20INOBEAR)_final.doc) Report from Break-Out Session, Session Chair (InterDigital)

CBF: Report from LTE Break-Out Session, Session Chair (InterDigital)

=> Approved

[R2-1806290](file:///C:\Data\3GPP\Extracts\R2-1806290%20Correction%20for%20IDC%20harware%20sharing%20problems.doc) Correction for IDC harware sharing problems Nokia, Nokia Shanghai Bell CR Rel-13 36.331 13.9.1 3355 - F SPIA\_IDC\_LTE-Core

=> Agreed in principle

=> Shadow CRs to be provided next meeting

[R2-1805692](file:///C:\Data\3GPP\Extracts\R2-1805692.docx) Removal of the FDD/TDD diff restriction for crs-InterfHandl IE Qualcomm Incorporated CR Rel-11 36.331 11.18.0 3288 1 F TEI11, eICIC\_enh\_LTE-Core [R2-1803598](file:///C:\3GPP\Docs\R2-1803598.zip) Revised

=> Agreed in principle

=> Shadow CRs to be provided next meeting

[R2-1806292](file:///C:\Data\3GPP\Extracts\R2-1806292%20Correction%20on%20UE%20capabilities.doc) Correction on UE capabilities Huawei, HiSilicon CR Rel-12 36.331 12.16.0 3362 - F TEI

=> Agreed in principle

=> Rel-13 - Rel-15 CRs to be submitted and discussed at next meeting (as the shadow CRs will be different for each release)

[R2-1806294](file:///C:\Data\3GPP\Extracts\R2-1806294%20Draft%20CR%20release%2013%20CA%20power%20class.doc) Power class support capability per band combination to 36.306 Nokia, Nokia Shanghai Bell, Sprint CR Rel-13 36.306 13.8.0 1576 - C TEI13

=> Agreed in principle

=> Shadow CRs to be provided next meeting

[R2-1806301](file:///C:\Data\3GPP\Extracts\36321_CR1259_(Rel-14)_R2-1806301%20Flush%20HARQ%20buffer%20upon%20skipping%20a%20UL%20transmission%20v3.doc) Flush HARQ buffer upon skipping a UL transmission Google, Nokia, Nokia Shanghai Bell, LG Electronics Inc, Lenovo, HTC, Panasonic

=> Can be rediscussed at the next meeting

[R2-1806196](file:///C:\Data\3GPP\RAN2\Docs\R2-1806196.zip) Clarifying fallback UE categories Ericsson CR Rel-14 36.306 14.6.0 1589 - F TEI14

=> Postponed to the next meeting

### 12.1.6 Report from Break-Out session

Report from session on Rel-15 Positioning WI

[R2-1806206](file:///C:\Data\3GPP\Extracts\R2-1806206.docx) Report from Break-Out Session, Session Chair (Huawei)

CBF: Report from LTE Break-Out Session, Session Chair (Huawei)

=> Approved

R2-1806306 TP for MAC support in LPP Qualcomm Incorporated

=> Withdrawn

[R2-1806309](file:///C:\Data\3GPP\Extracts\R2-1806309%20LS%20on%20GAD%20shapes.doc) Draft LS to SA2 on shape recommendations Nokia

=> Approved in (tdoc number to be requested from MCC)

### 12.1.7 Report from Break-Out session

Report from session on Rel-15 V2X WI

[R2-1806207](file:///C:\Data\3GPP\Extracts\R2-1806207.doc) Report from Break-Out Session, Session Chair (Intel)

CBF: Report from LTE Break-Out Session, Session Chair (Intel)

=> Approved

CB for Friday

It is FFS how the SL BSR is reported to eNB for data split scenario.

[CB701]: Check the current behavior and to see if it needs to clarify SL BSR for CA (ZTE)

- Update from offline: Issue is postponed to the next meeting.

### 12.1.8 Report from Break-Out session

Report from breakout session on L1 parameters for CSI-RS (Huawei)

Comebacks from breakout session on L1 parameters for CSI-RS (Huawei)



Report from breakout session on other corrections to EN-DC 38.331 (Ericsson)

Comebacks from breakout session on other corrections to EN-DC 38.331 (Ericsson)

Report from breakout session on corrections to EN-DC internode messages and 36.331 (Samsung)

Comebacks from breakout session on corrections to EN-DC internode messages and 36.331 (Samsung)

## 12.2 Main session

This section contains a temporary list of comebacks (press F9 to update while the cursor is inside the list).

# 13 Outgoing LSs

Draft LSs should be submitted to their corresponding agenda item if there is one. If there is no appropriate agenda item, draft LSs, and any association discussion documents, may be submitted to this agenda item.

# 14 Any other business

* [101bis#xx][NR] Connection control TP (Ericsson)

Scope same as for email discussion to this meeting. To update the TP to capture agreements from this meeting.

Intended outcome: TP to next meeting

Deadline: Thursday 2018-05-03

* [101bis#xx][NR] Connection control open issues (Ericsson)

Address open issues from the open issue list (as provided to this meeting) and unresolved comments from the previous discussion. Rapporteur to select which issues from the list to address.

Intended outcome: Report to next meeting

Deadline: Thursday 2018-05-10

Need for ASN.1 ad hoc meeting for Rel-15 LTE ASN.1 review

=> No face to face ASN.1 ad hoc for LTE.

# 15 Closing of the meeting (17:00)