

Athens, Greece, 26 February - 2 March, 2018

Agenda Item: 2.2

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Title: Report of 3GPP TSG RAN2#AH-1801 meeting, Vancouver, Canada

Document for: Approval

**Report of 3GPP TSG RAN WG2 meeting #AH-1801
Vancouver, Canada
22 - 26 January, 2018**

3GPP

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Organisation of the meeting

Meeting:	3GPP TSG RAN2#AH-1801						
Meeting location:	Vancouver, Canada						
Duration:	22.01 - 26.01.2018						
Host:	NAF						
TSG RAN WG2 Chairman:	Richard Burbidge (Intel Corporation) (richard.c.burbidge@intel.com)						
TSG RAN WG2 Vice chairman:	Hu Nan (CMCC) (hunan@chinamobile.com)						
TSG RAN WG2 NR UP Session Chair:	Diana Pani (InterDigital) (diana.pani@interdigital.com)						
TSG RAN WG2 MCC Support:	Juha Korhonen (ETSI MCC) (juha.korhonen@etsi.org)						
Email reflector:	3GPP_TSG_RAN_WG2@LIST.ETSI.ORG						
Technical documents:	ftp://ftp.3gpp.org/tsg_ran/WG2_RL2/TSGR2_AHs/2018_01_NR/Docs/						
Next meetings:	<table><tr><td>TSG RAN2#101</td><td>26.02 - 03.02.2018, Athens, Greece</td></tr><tr><td>TSG RAN#79</td><td>19.03 - 22.03.2018, Chennai, India</td></tr><tr><td>TSG RAN#101bis</td><td>16.04 - 20.04.2018, Sanya, China</td></tr></table>	TSG RAN2#101	26.02 - 03.02.2018, Athens, Greece	TSG RAN#79	19.03 - 22.03.2018, Chennai, India	TSG RAN#101bis	16.04 - 20.04.2018, Sanya, China
TSG RAN2#101	26.02 - 03.02.2018, Athens, Greece						
TSG RAN#79	19.03 - 22.03.2018, Chennai, India						
TSG RAN#101bis	16.04 - 20.04.2018, Sanya, China						

Statistics/Executive Summary

TSG RAN2#AH-1801 was held in Vancouver, Canada, hosted by North American Friends of 3GPP (NAF). The meeting had 2 breakout sessions in addition to the main session. The main session about NR control plane and NR CP/UP common issues. The parallel sessions were:

- NR User Plane;
- NR Idle mode procedures

The statistics from this meeting are:

- 201 participants checked in (registered: 259 participants).
- 1676 Tdoc numbers allocated with 1581 available contributions. (See the attached tdoc list)
- 39 incoming liaison statements, out of which 37 were noted and 2 were withdrawn (to be treated in the next meeting).
- 19 outgoing liaison statements.
- 24 email approvals/discussions scheduled after RAN2#AH-1801 meeting, see Annex F for details.
- This meeting had no CRs submitted.

1 Opening of the meeting (9 AM)

1.1 Call for IPR

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

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

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.

R2-1800001 Agenda for RAN2 AH-1801 Chairman agenda
=> Approved

2.2 Approval of the report of the previous meeting

2.3 Reporting from other meetings

NR

NR specifications: All NR submitted to RAN were approved.

NR workload management: RAN chair's summary on NR workload management was endorsed in RP-172844. RAN2 will focus on corrections to EN-DC and essential components of standalone in the next quarter. NR-NR DC to commence in Q2. Other aspects impacting RAN2 are described in more detail below.

NR Study Items: The RAN2 time allocated to NR SIs within the Q1 2018 was reduced to allow focus on corrections to EN-DC and on progressing standalone. The unlicensed study will not be discussed in Q1 2018 and the IAB study will be discussed in the January ad hoc (with 0.5 TU allocation) but not discussed in the February meeting. (Endorsed in RP-172805).

URLLC: The scope of URLLC work to be done within the NR WI was endorsed in RP-172817. For RAN2, this means that we work on duplication for CA and DC and also on the upper layer impacts of RAN1's topics after RAN1 has progressed. In Q1 2018, duplication will only be discussed within the user plane session.

LTE/NR

LTE RRC ASN.1 freeze will apply to EN-DC only and not any completed Rel-15 LTE WIs. To make this easier the CRs from completed LTE WIs will not be implemented in the RAN2 specifications until June 2018. Further details, including handling of corrections related to these LTE WIs, is described in the endorsed RP-172755).

0ms handover interruption time: RAN2 is tasked by RAN to investigate how to meet the IMT-2020 requirement for 0ms handover interruption time for both LTE and NR. This is will initially be handled by email discussion, then discussed at the RAN2#101 and the conclusions reported to RAN#79. (Endorsed in RP-172807).

LTE

Control plane latency: RAN2 (and RAN1) is tasked to check the feasibility and values for reduced processing times for the RRC Resume procedure, in order to meet the IMT-2020 requirement for 20ms control plane latency. This task is communicated to RAN2 in approved LS RP-172840.

New WI on increasing the number of DRBs to 15 was approved in RP-172835 with time allocated in the 2 meetings of Q2 2018.

New WI on Enhanced LTE Support for Aerial Vehicles was approved in RP-172826, starting from RAN2#101.

New WI on Bluetooth/WLAN measurement collection in MDT was approved in RP-172820, with time allocated RAN2#101 and RAN2#101bis.

Time budget: Additional time was allocated to both Rel-15 NB-IoT and MTC work items.

UE categories: The technically endorsed CRs introducing 2Gbit/s DL UE category were approved. A way forward to introduce a new 1.4 Gbit/s DL UE category was endorsed in RP-172752 and RAN2 is tasked to provide technically endorsed Rel-14 CRs to RAN#79.

2.4 Others

R2-1800002 RAN WG2 Handbook MCC other Late

Rapporteur changes

Spec	former rapporteur	proposed new rapporteur
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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 handbook

Latest version can always be found at ftp://ftp.3gpp.org/tsg_ran/WG2_RL2/Org/RAN2_Handbook/

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-172830.

Offline discussion during RAN2 meeting

Chairs will allocate a number of 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 "[NRAH Offline#nnn]....."). Do not share documents over the reflector during the meeting

3-9 Void

10 WI: New Radio (NR) Access Technology

(NR_newRAT-Core; leading WG: RAN1; REL-15; started: Mar. 17; target: Jun. 18: WID: RP-172115)

General guidance on corrections to EN-DC.

- The focus is on essential corrections to EN-DC - please do not submit CRs containing enhancements to EN-DC.
- For stage 2 corrections use only AI 10.2.2.x (all other stage 2 AIs are intended for progressing standalone).
- For corrections related to ASN.1 then please raise issues as part of the ASN.1 review. Where an ASN.1 issue requires a discussion document then the issue number from the issue list is to be included in the title of the document.
- Corrections to 38.331 and 36.331 but not related to the ASN.1 review may be submitted to AIs 10.4.1.3.1, 10.4.1.4.1, 10.4.1.4.2, 10.4.1.5.1, 10.4.1.5.2, 10.4.2.2, 10.4.2.3.
- Editorial corrections, wording improvements, etc should first be communicated to the specification rapporteur for possible inclusion in a rapporteur's update CR, and only submitted as a separate CR if you conclude with the rapporteur that a separate contribution is needed.
- For this ad hoc meeting corrections should be submitted as "draft CRs" (meaning that 3GU will not allocate a CR number) but this still requires a properly filled out CR coversheet as well as the specification text changes. Please only provide a companion discussion paper if the problem really requires additional supporting information to justify the change.

10.1 Organisational

Incoming LSs, work plan, status from other groups, etc.

Liaisons to RAN2

- R2-1800003 LS to RAN2 on Beam Failure Recovery (R1-1721346; contact: MediaTek) RAN1 LS in Rel-15 NR_newRAT-Core To:RAN2
- ZTE think we should receive a revised LS. MediaTek think this is not out of date.
 - ZTE want to understand if RAN1 are still discussing contention based RACH. MediaTek think RAN1 had strong concerns about the contention based RACH.
 - Nokia think there is no RAN1 impact to the decisions that RAN2 has taken.
- => Action from this LS should be considered within the offline discussion already started from UP session.
- R2-1800006 LS on CSI reporting periodicities for NR (R1-1721682; contact: Ericsson) RAN1 LS in Rel-15 NR_newRAT-Core To:RAN2
- => RAN2 understand that additional values may be needed pending further discussion in RAN1 and/or RAN2.
- => Noted
- R2-1800013 LS on updates to RRC parameters related to NR MIMO (R1-1721734; contact: Qualcomm) RAN1 LS in Rel-15 NR_newRAT-Core To:RAN2
- => Noted
- R2-1800014 LS on required information for NSA on X2 (R3-174964; contact: Nokia) RAN3 LS in Rel-15 NR_newRAT-Core To:RAN1, RAN2, RAN4
- => Noted
- R2-1800015 LS on periodical RNA update (R3-175013; contact: Nokia) RAN3 LS in Rel-15 NR_newRAT-Core To:RAN2
- Ericsson wonder if there is any difference in UE behaviour.
 - Vivo think this agreement from RAN3 should be transparent to the UE.
 - Qualcomm assume that the procedure would be different for the difference cases
- => Noted

- R2-1800016 Reply LS on radio capabilities handling upon inter-system mobility (R3-175025; contact: Qualcomm) RAN3 LS in Rel-15 NR_newRAT-Core To:SA2, RAN2
=> Check offline if RAN2 received the SA2 LS that triggered this.
=> Noted
- R2-1800017 LS on RRC Information exchange for F1 UE Context Management (R3-175042; contact: Nokia) RAN3 LS in Rel-15 NR_newRAT-Core To:RAN2
=> Noted
- R2-1800019 LS on RSRP and signal quality measurement report mapping (R4-1713941; contact: Ericsson) RAN4 LS in Rel-15 NR_newRAT-Core To:RAN2 Cc:RAN1
=> Noted
- R2-1800020 LS reply on UE baseband processing capability (R4-1714257; contact: Intel) RAN4 LS in Rel-15 NR_newRAT-Core To:RAN2 Cc:RAN1
- DOCOMO wonder why RAN4 is discussing this after they confirmed our previous assumptions. We agreed a compromise that MIMO could be per cc in the BPC.
- Intel understand that moving it to BPC doesn't allow all cases to be considered.
- Vodafone think the RAN4 way is like the legacy signalling but we want to reduce the signalling.
- Intel think that we need to save bits but we also need to consider the cases where the MIMO depends on band combination.
- Huawei also agree with Intel and BPC cannot always be used for MIMO. Qualcomm also share the view and think the MIMO per BC could be just used in very exceptional cases.
=> Noted
- R2-1800021 LS on channel raster and SS raster (R4-1714295; contact: Huawei) RAN4 LS in Rel-15 NR_newRAT-Core To:RAN1, RAN2
- DOCOMO think that the SS raster is not visible to out spec as it is only used for initial cell search. Huawei have a different understanding and think RAN2 has to signal the frequency from the CC raster.
=> Noted
- R2-1800022 LS reply on UE RF related parameters, capabilities and features for NR (R4-1714454; contact: NTT DOCOMO) RAN4 LS in Rel-15 NR_newRAT-Core To:RAN2 Cc:RAN1, RAN3
=> NS value is per frequency band with 8 possible values. To be added to the signalling.
=> Noted
- R2-1800027 LS on interworking mechanisms between 5G System and legacy RATs (RP-172823; contact: NEC) RAN LS in Rel-15 NR_newRAT-Core To:SA1, SA2, RAN2, RAN3, RAN4, RAN5, RAN6 Cc:SA, CT
=> Noted
- R2-1800029 LS on Summary of email discussion "[ITU-R AH 01] Calibration for self-evaluation" (RT-170021; contact: Huawei) 3GPP TSG RAN ITU-R ad hoc LS in Rel-15 FS_5G_eval To:RAN, RAN1, RAN2, RAN4
=> Noted
- R2-1800030 LS on Summary of email discussion "[ITU-R AH 02] Initial description template" (RT-170022; contact: Huawei & Ericsson) 3GPP TSG RAN ITU-R ad hoc LS in Rel-15 FS_5G_eval To:RAN, SA, RAN1, RAN2, RAN4
=> Noted

- R2-1800033 Reply LS on unified access control for 5G NR (S1-174624; contact: Ericsson) SA1 LS in
Rel-15 5GS_Ph1-CT To:RAN2 Cc:CT1, SA2, CT6
=> Noted
- R2-1800034 LS on optionality of the UE procedures related to RRC Inactive (S2-179047; contact: Qualcomm) SA2 LS in Rel-15 To:RAN2, RAN Cc:CT1
=> Noted
- R2-1800038 LS on Emergency call support for EDCE5 (S3-173414; contact: Qualcomm) SA3 LS in
Rel-15 EDCE5 To:SA1, SA2, RAN2
=> Send a response to say that during an unauthenticated emergency call we do not expect the network to use EN-DC.
=> Response in R2-1801614 (Offline discussion #26, Qualcomm)
- Outcome from offline: No agreement could be reached on the reply and so the LS was not sent.
- R2-1801614 [DRAFT] LS on Emergency call support for EDCE5 Qualcomm LS out Rel-15
NR_newRAT-Core To:SA3; Cc:SA1, SA2

Liaisons to RAN2 with copy of agreements to take into account

- R2-1800007 LS on BWP timer operation (R1-1721714; contact: Qualcomm) RAN1 LS in Rel-15
NR_newRAT-Core To:RAN2
- R2-1800009 LS reply on formula or table for L1 data rate (R1-1721723; contact: Ericsson) RAN1 LS in
Rel-15 NR_newRAT-Core To:RAN2
- R2-1800010 LS on RAN1 input to 38.300 (R1-1721729; contact: Nokia) RAN1 LS in Rel-15 NR_newRAT-Core
To:RAN2
- R2-1800012 LS reply on formula or table for L1 data rate (R1-1721733; contact: Ericsson) RAN1 LS in
Rel-15 NR_newRAT-Core To:RAN2
- R2-1800025 LS on measurement gap (R4-1714503; contact: Huawei) RAN4 LS in Rel-15 NR_newRAT-Core
To:RAN2 Cc:RAN1
=> Above LS are noted without presentation

Liaisons with RAN2 in CC

- R2-1800004 LS reply to RAN4 on P_0 ranges on UL power control (R1-1721608; contact: ZTE) RAN1 LS in
Rel-15 NR_newRAT-Core To:RAN4 Cc:RAN2
- R2-1800005 Reply LS on PRB grid in the NR (R1-1721669; contact: Huawei) RAN1 LS in Rel-15
NR_newRAT-Core To:RAN4 Cc:RAN2, RAN3
- R2-1800008 Response LS on required information for NSA on X2 (R1-1721716; contact: Nokia) RAN1 LS in
Rel-15 NR_newRAT-Core To:RAN3 Cc:RAN2, RAN4
- R2-1800011 Reply to LS on NR UE Category (R1-1721732; contact: Ericsson) RAN1 LS in Rel-15
NR_newRAT-Core To:RAN Cc:RAN2, RAN4
- R2-1800018 LS on further clarification on definitions of reference points (R4-1713940; contact: Huawei) RAN4
LS in Rel-15 NR_newRAT-Core To:RAN1 Cc:RAN2
- R2-1800023 LS on spectrum utilization (R4-1714478; contact: Huawei) RAN4 LS in Rel-15 NR_newRAT-Core
To:RAN1 Cc:RAN2
- R2-1800024 Acquisition of NTA_Offset for Uplink Transmission (R4-1714502; contact: Ericsson) RAN4 LS in
Rel-15 NR_newRAT-Core To:RAN1 Cc:RAN2
- R2-1800026 Response LS on simultaneous transmission and/or reception over EPC/E-UTRAN and 5GC/NR
(R4-1714539; contact: Intel) RAN4 LS in Rel-15 NR_newRAT-Core To:SA2
Cc:RAN1, RAN2
- R2-1800031 Reply LS on selectively disabling legacy radio access (S1-174601; contact: Nokia) SA1 LS in
Rel-16 NR_newRAT-Core To:SA3 Cc:SA2, CT1, RAN2

- R2-1800032 Reply LS on requirements on unified access control for 5GS (S1-174623; contact: Nokia) SA1
LS in Rel-15 NR_newRAT-Core To:CT1 Cc:SA2, CT6, RAN2
- R2-1800035 Reply on default values for 5GS QoS averaging window for standardised 5QIs (S2-179457;
contact: Qualcomm) SA2 LS in Rel-15 5GS_Ph1 To:SA4 Cc:CT1, RAN2, SA6
- R2-1800037 LS on QCI for EPC based URLLC (S2-179646; contact: Vodafone) SA2 LS in Rel-
15 NR_newRAT-Core To:SA, RAN Cc:SA1, RAN1, RAN2
- R2-1800039 LS on URLLC (SP-171079; contact: Vodafone) SA LS in Rel-15 NR_newRAT-Core
To:SA1, SA2 Cc:RAN, RAN1, RAN2
=> Above LS are noted without presentation

New LS in (during RAN2 AH1801)

- R2-1801627 Reply LS on channel raster and SS raster (R1-1801182; contact: Ericsson) RAN1 LS in Rel-
15 NR_newRAT-Core To:RAN4, RAN2
=> Noted
- R2-1801642 CT1's chosen solution for unified access control (C1-180708; contact: Intel) CT1 LS in
Rel-15 NR_newRAT-Core
=> Noted

✉ **[NR-AH1801#07][NR/] Reply LS to CT1 on AC (Intel)**

Try to progress answers to the questions from CT1. Aim to discuss and send LS early in the week at RAN2#101.
Also attempt to identify potential easy agreements to be made at the next RAN2 meeting based on the progress within other groups.
Intended outcome: Email discussion report and Draft LS
Deadline: Thursday 2018-02-15

Rapporteur inputs

- R2-1800217 RAN WG's progress on NR WI in the November meeting 2017 NTT DOCOMO, INC.
discussion Rel-15 NR_newRAT-Core
=> Noted

Other

- R2-1800776 [DRAFT] Response LS on RRC Information exchange for F1 UE Context Management Nokia
LS out Rel-15 NR_newRAT To:RAN3
- Ericsson agree SCG-ConfigInfo has the correct content but the name is a bit strange and in this case it could be used also for MCG. Could just remove the S.
=> Further offline discussion to be able to take other company comments into account.
=> Revised in R2-1801615 (Offline discussion #27, Nokia)
- R2-1801615 [DRAFT] Response LS on RRC Information exchange for F1 UE Context Management
Nokia, Nokia Shanghai Bell LS out Rel-15 NR_newRAT To:RAN3
=> Approved in R2-1801661

Withdrawn (to be treated at RAN2#101)

- R2-1800028 LS on CP latency reduction (RP-172840; contact: Ericsson) RAN LS in Rel-15
NR_newRAT-Core To:RAN2, RAN1
- R2-1800036 Reply LS to CN node selection for LTE features when E-UTRA is connected to 5G CN (S2-
179618; contact: Nokia) SA2 LS in Rel-15 5GS_Ph1 To:RAN2, CT1 Cc:RAN3

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 any CRs to the appropriate agenda item.

TS38.300

R2-1800542 Draft CR to 38.300 on Editorial Corrections Nokia, Nokia Shanghai Bell draftCR Rel-15 38.300 15.0.0 NR_newRAT

- => Editorial corrections will all be collected in this CR.
- => Revised in R2-1801616 (Offline discussion #28, Nokia)

☒ **[NR-AH1801#01][NR/] Update CR to 38.300 (Nokia)**

Intended outcome: Endorsed running CR to 38.300

Deadline: Thursday 2018-02-01

- => The CR is endorsed in R2-1801672.

R2-1801616 Draft CR to 38.300 on Editorial Corrections Nokia, Nokia Shanghai Bell draftCR Rel-15 38.300 15.0.0 NR_newRAT

R2-1800535 NR Stage 2 Open Issues Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT
 => Issue list will be maintained until June.
 => Noted

TS37.340

R2-1800744 Draft37.340CR Miscellaneous corrections Rapporteur (ZTE Corporation) draftCR Rel-15 37.340 15.0.0 NR_newRAT-Core

- => Aspect on whether 2x is considered MR-DC will be discussed based on contributions.
- => Revised in R2-1801617 (Offline discussion #29, ZTE)

R2-1801617 Draft 37.340CR Miscellaneous corrections Rapporteur (ZTE Corporation) draftCR Rel-15 37.340 15.0.0 NR_newRAT-Core

- => Change in 4.2.2 to say " ..as at least one of the bearers is terminated in SN "
- => Can be used as baseline for the CR submitted to the next meeting.

R2-1800746 List of FFS for MR-DC Rapporteur (ZTE Corporation) discussion Rel-15 NR_newRAT-Core

- ZTE point out that only the FFS in 7.6 is for EN-DC
- => Noted

R2-1800745 Draft37.340CR Introduction of NR-NR DC Rapporteur (ZTE Corporation) draftCR Rel-15 37.340 15.0.0 NR_newRAT-Core

- => Stage 2 for NR-NR DC will be captured in 37.340
- => Details of NR-NR DC will not be discussed until Q2

CR to 36.300

R2-1801388 Introduction of New Radio Access Technology in TS 36.300 NTT DOCOMO, INC. draftCR Rel-15 36.300 15.0.0 B NR_newRAT-Core

- => Endorsed as running CR
- => Target is to approve the CR for June 2018

Withdrawn

R2-1800521 NG-RAN Terminology Nokia, Alcatel-Lucent Shanghai Bell discussion Rel-15
NR_newRAT Withdrawn

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

Correction CRs 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

R2-1800255 CR on the random access principles in TS 38.300 Huawei, HiSilicon draftCR Rel-15
38.300 15.0.0 F NR_newRAT-Core

- Samsung think the detail does not need to be included. Nokia agree we should not add this detail. LG also think we should keep the stage 3 details in stage 3 spec. E
- => "Recovery from beam failure" is added to the list of uses for RACH.
- => Change can be added into the rapporteur CR.

R2-1800633 Correction on Layer-2 description in TS 38.300 Huawei, HiSilicon draftCR Rel-15
38.300 15.0.0 F NR_newRAT-Core

- => Remove the reference to "grant types"
- => Change can be added into the rapporteur CR.

R2-1800634 Stage-2 corrections to BWP Huawei, HiSilicon draftCR Rel-15 38.300 15.0.0 F
NR_newRAT-Core

R2-1800545 Draft CR to 38.300 on Bandwidth Adaptation Nokia, Nokia Shanghai Bell draftCR Rel-15
38.300 15.0.0 NR_newRAT

moved from 10.2.5 to 10.2.2.1

- => Offline discussion to update the description of the BWPs based on existing agreements, to consider aspects from both Huawei and Nokia CRs (Offline discussion #30, Nokia).
- => Output can be captured in the rapporteur CR.

R2-1800632 Remaining issue for beam failure recovery Huawei, HiSilicon discussion Rel-15
NR_newRAT-Core

- Ericsson think this was discussed in UP and is postponed to next meeting.
- => Leave the issue to be discussed by UP

R2-1800635 Correction on Uplink-downlink timing relation in TS 38.300 Huawei, HiSilicon draftCR Rel-15
38.300 15.0.0 F NR_newRAT-Core

- Nokia suggest that the change should be handled by RAN1
- => Changes to this section should be handled and agreed in RAN1 (RAN1 can provide an update from the next meeting)

R2-1801030 CR on scheduling in TS 38.300 Huawei, HiSilicon draftCR Rel-15 38.300 15.0.0
NR_newRAT-Core

Moved from 10.2.1 to 10.2.2.1

- Nokia think that UP agreed to use CS as a term to cover both modes. Huawei think the CS term was not used in UP until the last minute and the discussion was just about the RNTI name.
- Ericsson think that even in MAC there are a number of terminologies used and it needs to be cleaned up.
- Intel understand that L1 and MAC use terminology aligned with this CR. CMCC also agree and think it is useful if we use aligned terminology. Qualcomm have the same view.
- Nokia think we need an umbrella term.

- => Offline discussion to finalise terminology for this (Offline discussion #31, Huawei)
- => Do not define the abbreviation CG. Other changes agreed to be included in stage 2 rapporteur CR

- R2-1800664 UE Power Consumption with DRX Coordination in EN-DC MediaTek Inc. discussion
- Ericsson agree but think that it will be resolved by synchronisation between nodes.
 - LG think in DC it just relies on network coordination.
 - ZTE agree that this should be network implementation.
 - MediaTek agree this is no change needed to MAC but think some guideline would be useful.
 - Nokia agree that DRX config exchange between the nodes is enough.
- => Noted
- R2-1800750 CR on 38.300 for clarification for SUL Huawei, HiSilicon draftCR Rel-15 38.300
15.0.0 NR_newRAT-Core
Moved from 10.2.6 to 10.2.2.1
- => Change in 6.9 is changed to "PUCCH, if configured, is configured for only one of the 2 ULs of cell"
 - => Offline discussion to conclude how to update the random access section (Offline discussion #32, Huawei)
 - => Change can be added to the rapporteur CR.

37.340 corrections

- R2-1800125 Support of PDCP data recovery at SN during intra-eNB HO in EN-DC CATT discussion
- ZTE think that this case doesn't exist in EN-DC. MN handover without key change is not supported in LTE.
 - Intel agree that even with EN-DC we have not change the LTE tat key change is needed at handover.
 - Huawei also agree
- => Noted
- R2-1800126 [DRAFT] LS on support of PDCP data recovery at SN during intra-eNB HO in EN-DC CATT
LS out Rel-15 NR_newRAT-Core To:RAN3
- R2-1800127 Correction for supporting of PDCP data recovery at SN during intra-eNB HO in EN-DC CATT
draftCR Rel-15 37.340 15.0.0 NR_newRAT-Core
- R2-1800130 Clarification on required protocol handling for "PDCP data recovery" CATT draftCR Rel-15
37.340 15.0.0 NR_newRAT-Core
- => Cover sheet to be updated to better reflect the changes
 - => Change can be included in the rapporteur CR.
- R2-1800408 Clarification on the SN terminated MCG bearer ZTE, Sanechipsdiscussion Rel-15
NR_newRAT-Core
- Huawei think this configuration is hidden to the UE and don't need to make a lot of changes to the stage 3. ZTE explain the intent is for it to be clear what "for EN-DC,..." includes.
- => Update the description in Stage 2/3 specification about the definition of MR-DC (and EN-DC) to cover the SN terminated MCG bearer.
- R2-1800574 Corrections on SN terminated MCG bearer ZTE, SanechipsCR Rel-15 36.331
15.0.1 3207 - F NR_newRAT-Core
- => Change added text in 5.1.2 to "(as well as an E-UTRA MCG, no NR SCG, but with NR PDCP configuration with an S-KgNB)"
 - => Ay impact in MAC spec can be checked offline and discussed in UP if needed.
 - => Changes to be included in 36.331 rapporteur CR.
- R2-1801245 On Reconfiguration to option 2c/2x for SCG addition/modification NTT DOCOMO, INC.
discussion Rel-15 NR_newRAT-Core

- ZTE think it would be a strange network to have SCG bearers and SN terminated MCG bearers at the same time. DOCOMO would like the flexibility to support this, it is possible today in stage 3 but it is not described in stage 2. ZTE think stage 2 doesn't forbid this case.
- Nokia think we could have one bearer with 2x but with other bearers with 3x.
- Ericsson think that nothing is needed in stage 2.
- => RAN2 understanding is that it is allowed by stage 3 to configure the UE with SCG/split bearers and SN terminated MCG bearers at the same time.
- => Nothing to be added to stage 2

R2-1801276 CR on SN terminated MCG bearer configuration and MAC layer clarification NTT
 DOCOMO, INC. CR Rel-15 37.340 15.0.0 0002 - F NR_newRAT-Core
 => The changes to section 5 and 6.1 can be progressed offline. Other changes are not needed.(Offline discussion #33, DOCOMO)
 => Outcome to be included in the rapporteur CR.

R2-1800721 CR on 37.340 for power coordination Huawei, HiSilicon draftCR Rel-15 37.340
 15.0.0 F NR_newRAT-Core
 => Discussion postponed until after dynamic power sharing is discussed.

R2-1800723 CR on 37.340 for split SRB UL configuration Huawei, HiSilicon draftCR Rel-15
 37.340 15.0.0 F NR_newRAT-Core
 => Postponed until after related stage 3 discussions.

R2-1800988 Remaining issues for RoHC in MR-DC Huawei, HiSilicon discussion Rel-15
 NR_newRAT-Core
Moved from 10.2.2.2 to 10.2.2.1
 => Already covered by UP discussion

R2-1800989 Corrections for RoHC in 37340 Huawei, HiSilicon draftCR Rel-15 37.340 15.0.0
 NR_newRAT-Core
Moved from 10.2.2.2 to 10.2.2.1
 => Revised to reflect the agreements from the UP discussions
 => Revised in R2-1801618 (Offline discussion #34, Huawei)

R2-1801618 Corrections for RoHC in 37340 Huawei, HiSilicon draftCR Rel-15 37.340 15.0.0
 NR_newRAT-Core
 => Text changes to say "RoHC can be configured for all bearer types in EN-DC)
 => Can be included in the stage 2 rapporteur CR

R2-1800603 Correction on LCP restriction in TS 38.300 Huawei, HiSilicon draftCR Rel-15 38.300
 15.0.0 F NR_newRAT-Core
Moved from 10.2.3 to 10.2.2.1
 => Postponed until after related stage 3 discussions.

R2-1800604 Correction on rate control in TS 38.300 Huawei, HiSilicon draftCR Rel-15 38.300
 15.0.0 F NR_newRAT-Core
 => Change agreed to be included in the rapporteur CR.

R2-1800742 Specification impacts upon introduction of SN terminated MCG bearer Huawei, HiSilicon
 discussion Rel-15 NR_newRAT-Core
Moved from 10.4.1.2 to 10.2.2.1
 => Already covered by earlier discussions.

Withdrawn

R2-1800409	Corrections for SN terminated MCG bearer	ZTE, Sanechips	CR	Rel-15	38.331
	15.0.0 0001 - F NR_newRAT-Core	Withdrawn			
R2-1800522	On use of LTE PDCP and NR PDCP	Nokia, Alcatel-Lucent Shanghai Bell	discussion		
	Rel-15 NR_newRAT	Withdrawn			
R2-1800665	UE Power Consumption with DRX Coordination in EN-DC	MediaTek Inc.	discussion		
	Withdrawn				
R2-1800692	Number of supported DRBs in NR (16/32)	Ericsson	discussion	Rel-15	NR_newRAT-Core
	Core	Withdrawn			

10.2.2.2 Other

Correction CRs to 38.300 or 37.340 for EN-DC other than those that fall into 10.2.2.1

38.300 corrections

R2-1800497	Definition of gap assisted measurement in NR	Huawei, HiSilicon	draftCR	Rel-15	
	38.300 15.0.0 F NR_newRAT-Core				
R2-1800598	TP to Stage-2 on Measurements	Ericsson	discussion	Rel-15	NR_newRAT-Core

37.340 corrections

R2-1800486	CR to 37.340 on measurements	Huawei, HiSilicon	draftCR	Rel-15	38.300 15.0.0
	NR_newRAT-Core				
R2-1800275	Transfer of NR measurement results during handover	HTC Corporation	CR	Rel-15	37.340 15.0.0 0001 - F NR_newRAT-Core
R2-1800726	Remaining issues on Secondary RAT data volume counting	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1801077	MN involvement in PSCell change	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801160	CR on MN involvement in PSCell change	Ericsson	draftCR	Rel-15	37.340 15.0.0
	NR_newRAT-Core				
R2-1800770	Involvement of MN by SN during PSCell change scenarios	Nokia, Nokia Shanghai Bell	discussion	Rel-15	NR_newRAT
R2-1801078	MN initiated SN Modification	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801161	CR on MN initiated SN Modification	Ericsson	draftCR	Rel-15	37.340 15.0.0
	NR_newRAT-Core				
R2-1801290	Correction on providing SK counter to UE	CATT	draftCR	Rel-15	37.340 15.0.0 NR_newRAT-Core
R2-1801351	Full configuration indication for SN Change and Handover	HTC	CR	Rel-15	37.340
	15.0.0 0003 - F NR_newRAT-Core				

Withdrawn

R2-1800124	Correction on providing SK counter to UE	CATT	discussion	Withdrawn	
R2-1800410	Consideration on the Configuration of SRB3 in EN-DC	ZTE, Sanechips	discussion	Rel-15	NR_newRAT-Core

10.2.3 Stage 2 corrections for non EN-DC

Correction CRs to 38.300 or 37.340 not related to EN-DC

R2-1800324	CR 38.300 on Access Control	Ericsson	draftCR Rel-15	38.300	15.0.0	NR_newRAT-Core
R2-1800325	Draft CR on 38.300 for RNA Configuration	Ericsson	draftCR Rel-15	38.300	15.0.0	NR_newRAT-Core
R2-1800327	Draft CR for Support for IMS Emergency calls in NR	Ericsson	draftCR Rel-15			38.300 15.0.0 NR_newRAT-Core
R2-1800364	Corrections to paging related text	Ericsson	draftCR Rel-15	38.300	15.0.0	NR_newRAT-Core
R2-1800671	Corrections on Some Description for 38.300	OPPO	draftCR Rel-15	38.300	15.0.0	NR_newRAT-Core
R2-1801177	Correction to numerology of SI broadcast and paging	Huawei, HiSilicon	CR	Rel-15	38.300 15.0.0 0004 - F	NR_newRAT-Core
R2-1800543	Draft CR to 38.300 on QoS Framework	Nokia, Nokia Shanghai Bell	draftCR Rel-15			38.300 15.0.0 NR_newRAT
	<i>Moved from 10.2.12 to 10.2.3</i>					
R2-1800544	Draft CR to 38.300 on Rate Control	Nokia, Nokia Shanghai Bell	draftCR Rel-15			38.300 15.0.0 NR_newRAT
	<i>Moved from 10.2.12 to 10.2.3</i>					

Duplication

R2-1801137	CA duplication for SRB	NEC discussion	Rel-15	38.300	NR_newRAT-Core
R2-1800948	Support of CA packet duplication for SRB	Intel Corporation	discussion	Rel-15	NR_newRAT-Core
	<i>Moved from 10.2.2.1 to 10.2.3</i>				

Late:

R2-1801521	Clarification for the PLMN selection procedure in the RRC_INACTIVE state,	Samsung, draft CR,			
	TS 38.300, F, Rel-15, NR-newRAT-Core				

Withdrawn

R2-1800578	Correction on LCP restriction in TS 38.300	Huawei, HiSilicon	CR	Rel-15	38.300
	15.0.0 0002 - F	NR_newRAT-Core	Withdrawn		
R2-1800579	Correction on rate control in TS 38.300	Huawei, HiSilicon	CR	Rel-15	38.300
	15.0.0 0003 - F	NR_newRAT-Core	Withdrawn		

10.2.4 Mobility mechanisms - basic handover

Any remaining stage 2 aspects of basic handover (and not common to SCG change for EN-DC). Contributions should include a TP to show how the stage 2 specification would be impacted (if no stage 2 spec impact then the contribution should be submitted to an appropriate stage 3 AI)

R2-1800547	Further discussion on information for handover	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core R2-1712506
R2-1800313	Further issues on basic handover procedure	Fujitsu	discussion	Rel-15	NR_newRAT-Core
R2-1800629	TP on Basic HO Considering the FFS Issues	MediaTek Inc.	discussion	R2-1712885	
R2-1800813	TP for on-demand SI acquisition during HO	PANASONIC R&D Center Germany			discussion
R2-1800863	Remaining issues and TP for baseline handover procedure	vivo	discussion	Rel-15	NR_newRAT-Core R2-1712761

R2-1801138 System information handling at handover NEC discussion Rel-15 38.300 NR_newRAT-Core

Address in IMT-2020 requirement for LTE/NR

R2-1800436 Discussion on the support of MBB and RACH-less in R15 ZTE Corporation, Sanechips discussion

R2-1800469 Consideration on the 0ms handover interruption requirement from IMT2020 in R15 ZTE Corporation, Sanechips discussion

R2-1800470 LS to RAN4 on of 0ms handover interruption requirement from IMT2020 in R15 ZTE Corporation, Sanechips discussion

R2-1800551 Analysis of solutions in LTE for 0ms interruption Huawei, HiSilicon discussion Rel-16 NR_newRAT-Core
Moved from 10.2.7 to 10.2.4
 => Revised in R2-1801542

R2-1601542 Analysis of solutions in LTE for 0ms interruption Huawei, HiSilicon discussion Rel-16 NR_newRAT-Core
Moved from 10.2.7 to 10.2.4

10.2.5 Bandwidth parts

Stage 2 aspects of bandwidth parts for standalone operation. Note that corrections to bandwidth parts for EN-DC should be submitted to the appropriate UP or CP stage 3 AI.

R2-1800779 BWP impact on idle and inactive state Lenovo, Motorola Mobility discussion Rel-15 NR_newRAT-Core

- Nokia think the UE is not aware that an SSB is a cell defining SSB.
- Huawei wonder if there can be SSBs that do not have system information. Ericsson agree that the case of more than one SSB is not supported.

Agreements for PCell and PSCell (applicability to SCells depends on offline on BWP signalling structure)

- 1: RAN2 understand that the SSB of the cell where Idle/inactive UE camps is the cell defining SSB.
- 2 In idle/inactive system information provides the UE with the common configuration that corresponds to the Initial DL and UL BWP (and no other BWPs).

FFS Whether the Initial BWP provided in SI and the Initial BWP provided in dedicated signalling are defined as 2 types to simplify the specification. Stage 3 issue.

- 2i Common and dedicated configuration of the Initial BWP can be provided in RRC connected. Common configuration is only provided at synchronous reconfiguration.
- 2ii Other BWPs can only be configured in RRC connected.
- 3 Idle/inactive UE monitors system information and paging information in the initial DL BWP.
- 4 Idle/inactive UE performs random access in the initial UL/DL BWP.
- 5 Initial BWP configuration as provided in system information should be the same as the common configuration of the Initial BWP configuration provided in RRC connected provided at synchronous reconfiguration.
- 6 Upon transition to the idle state, UE releases all dedicated BWP configurations (and therefore UE applies the initial BWP configuration from system information of the cell where the UE is camped)
- 7 Upon transition to the inactive state, UE applies the initial BWP configuration from system information of the cell where the UE is camped.
- 8 BWPs have no specification impact to cell selection and reselection. Cell selection and reselection is based on SSB.

FFS Whether any Phy layer configuration are kept while the UE is in Inactive

R2-1800129 BWP Impacts on Idle/Inactive Mode CATT discussion

R2-1800654	BWP issues for SA <i>moved from 10.2.4 to 10.2.5</i>	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1800210	Cell Definition for NR	Qualcomm Incorporated	discussion		
R2-1800864	RACH configuration for BWP	vivo	discussion	Rel-15	NR_newRAT-Core
R2-1800655	Discussion on cell definition <i>moved from 10.2.4 to 10.2.5</i>	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1800656	CR for cell definition NR_newRAT-Core <i>moved from 10.2.4 to 10.2.5</i>	Huawei, HiSilicon	draftCR	Rel-15	38.300 15.0.0 F
R2-1801377	Impacts of BWP for UE in IDLE and INACTIVE 15 NR_newRAT-Core <i>moved from 10.2.4 to 10.2.5</i>	LG Electronics Inc. R2-1713696	discussion	Rel-15	

SI reception in connected

R2-1800082	SI Reception in RRC Connected: Bandwidth Part Aspects discussion	Samsung R&D Institute India Rel-15 NR_newRAT-Core	R2-1713374		
	P1				
	- Qualcomm think that common search space will always be provided in active BWPs.				
	- Nokia share the understanding of Qualcomm and think that it could provide at least the paging if not the system information.				
	- Intel also understand that all BWPs have the common search space.				
	- LG think that paging should be provided in all BWPs and then the UE can switch BWP for SI reception.				
	- Lenovo think the RAN1 agreement only related to the RACH resources.				
	- Nokia think the network cannot know whether a UE wants to receive ETWS/CMAS notifications.				
	- DOCOMO think ETWS are emergency notifications and we should be careful to deviate from the LTE approach.				
	=> Offline to try to progress provision of SI to connected UEs with active BWP that doesn't provide SI. (Offline discussion #35, Samsung)				
	- Update from offline: 5 companies support that UEs in connected monitor paging in the common search space in the active DWP. 2 companies had some concern.				
	- DOCOMO additionally support the proposal from the 5 companies. LG also support.				

Agreements

- 1 UEs in connected mode monitor paging in the common search space in the active DL BWP. This is based on the assumption that common search space is provided in every DL BWP.

R2-1801089	System Information update and BWP operation Rel-15 NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion		
R2-1800294	Notification and retrieval of updated SI for a UE in an active DL BWP discussion	Ericsson			

Other

R2-1800128	RACH resources selection during reconfiguration with syncCATT		discussion		
R2-1800575	Discussion on the maximal bandwidth capability supported by a UE	OPPO	discussion		
R2-1800593	BWP impact to RLM configuration	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1800607	Confirm BWP configuration issue and L2 handling for BWP reconfiguration	OPPO	discussion		
R2-1800778	The impact of BWP configuration and switching	III	discussion	Rel-15	
R2-1801465	Further considerations for bandwidth part	Samsung	discussion	Rel-15	
R2-1801491	RLM signalling for BWP	Samsung	discussion	Rel-15	NR_newRAT-Core

R2-1801492	[Draft] LS on Support of RLM configuration for BWP 15 NR_newRAT-Core	Samsung	discussion	Rel-
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Late

R2-1801333	BWP specific aspects during HO execution NR_newRAT-Core Late	Ericsson	discussion	Rel-15
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R2-1801334	Impact of BWP on beam recovery Late	Ericsson	discussion	Rel-15 NR_newRAT-Core
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10.2.6 Supplementary uplink

Stage 2 aspects of supplementary uplink for standalone operation. Note that corrections to SUL for EN-DC should be submitted to the appropriate UP or CP stage 3 AI.

R2-1801289	SUL impact on cell selection and reselection Core R2-1800797	CMCC	discussion	Rel-15 NR_newRAT-Core
	- CMCC explain that this has been discussed in idle mode session and an LS agreed to be sent to ask RAN1/4 for input => Noted			

R2-1801111	SUL Operation in NR Standalone	InterDigital	discussion	Rel-15 NR_newRAT-Core
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R2-1801387	Support of handover with SUL Core	LG Electronics Inc.	discussion	Rel-15 NR_newRAT-Core
	Moved from 10.2.5 to 10.2.6			

10.2.7 Mobility mechanisms - other

Note decisions at RAN2#97bis to progress the basic HO mechanism and only when stable to discuss conditional handover and potential optimisations to target close to 0ms or 0ms interruption.

R2-1800051	Discussion on DC-based HO for NR	OPPO	discussion	NR_newRAT-Core
R2-1800053	Discussion on Conditional Handover Optimization	OPPO	discussion	
R2-1800055	Discussion on Make-Before-Break for NR Handover Core	OPPO	discussion	NR_newRAT-Core
R2-1800056	Discussion on RACH less for NR Handover	OPPO	discussion	
R2-1800091	Ping Pong Issues for Conditional Handover	TCL	discussion	NR_newRAT-Core
R2-1800437	Discussion on targeting the 0ms interruption with DC based handover Sanechips		discussion	ZTE Corporation,
R2-1800438	Discussion on single connected handover	ZTE Corporation, Sanechips	discussion	
R2-1800548	3 Types of HO in NR R2-1712508	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1800549	Further discussion on Conditional HO NR_newRAT-Core R2-1712509	Huawei, HiSilicon	discussion	Rel-15
R2-1800550	DC based NR scheme for 0ms interruption handover Rel-15 NR_newRAT-Core R2-1712510	Huawei, HiSilicon	discussion	
R2-1800552	Security key change without L2 reset NR_newRAT-Core R2-1712511	Huawei, HiSilicon	discussion	Rel-15
R2-1800553	DC for intra-frequency mobility in NR NR_newRAT-Core R2-1712512	Huawei, HiSilicon	discussion	Rel-15
R2-1800554	Mobility enhancements for PCell change NR_newRAT-Core R2-1712513	Huawei, HiSilicon	discussion	Rel-15
R2-1800555	Potential Advantages of multi-connectivity with multiple MAC entities within an NR cell Huawei, HiSilicon		discussion	Rel-15 NR_newRAT-Core R2-1712514

R2-1800556	Inter MN handover without SN change NR_newRAT-Core R2-1712515	Huawei, HiSilicon	discussion	Rel-15
R2-1800557	Allocation of appropriate RACH resources for handover Rel-15 NR_newRAT-Core R2-1712516	Huawei, HiSilicon	discussion	
R2-1800609	Discussion on conditional handover in NR	KT Corp.	discussion	R2-1712958
R2-1800630	Mobility Enhancement for '0ms Interruption' HO Core R2-1712872	MediaTek Inc.	discussion	NR_newRAT-Core
R2-1800631	One or Multiple NR-Cells per MAC Entity R2-1712874	MediaTek Inc.	discussion	NR_newRAT-Core
R2-1800663	Discussion on Conditional Handover in NRASTRI, TCL Communication Ltd. R2-1713747		discussion	
R2-1800791	Discussion of '0ms' interruption handover for single TX/RX UE in context of NR discussion Rel-15 NR_newRAT-Core			CMCC
R2-1801019	0 ms interruption support in NR	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801020	RACHless HO in NR when UE is in CA or DC NR_newRAT-Core	Ericsson	discussion	Rel-15
R2-1801026	Analysis on conditional handover in NR system Rel-15 NR_newRAT-Core R2-1712950	Lenovo, Motorola Mobility	discussion	
R2-1801099	On the opportunities and threats of NR Conditional Handover discussion Rel-15 NR_newRAT-Core R2-1708586	Nokia, Nokia Shanghai Bell		
R2-1801109	Conditional Reconfiguration for NR Core R2-1712794	InterDigital	discussion	Rel-15 NR_newRAT-Core
R2-1801216	Support for intra-frequency DC in NR	AT&T	discussion	
R2-1801291	DRB Handling while RRC Connection Re-establishment in NR discussion Rel-15 NR_newRAT-Core R2-1713783			LG Electronics Inc.
R2-1801328	Enhancing Handover Failure	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801329	Conditional Handover	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801330	Conditional Handover Simulation Results	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801331	On Reliability, overhead and controllability aspects of Conditional Handover discussion Rel-15 NR_newRAT-Core			Ericsson
R2-1801332	Rel-14 mobility enhancements in NR	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801349	Mobility enhancement mechanism for 0ms interruption handover in NR NR_newRAT-Core			TCL discussion
R2-1801373	The Necessity of T312 in NR R2-1713848	Samsung Electronics	discussion	NR_newRAT-Core
R2-1801424	ANR for NR	LG Electronics Inc.	discussion	Rel-15 NR_newRAT-Core R2-1713819
R2-1801425	Conditional handover procedure Core R2-1713820	LG Electronics Inc.	discussion	Rel-15 NR_newRAT-Core
R2-1801493	Introduction of Conditional handover Core R2-1713856	Samsung	discussion	Rel-15 NR_newRAT-Core
R2-1801494	Operational aspects of conditional handover mechanism 15 NR_newRAT-Core R2-1713857	Samsung	discussion	Rel-15

Late

R2-1801337	Mobility enhancements for NR Late	Samsung	discussion	Rel-15 NR_newRAT-Core
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10.2.8 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

R2-1800236	Random access failure consideration for SUL	Beijing Xiaomi Mobile Software	discussion	Rel-15
R2-1800274	Discussions on the IS and OOS counting procedure	Spreadtrum Communications		Rel-15
R2-1800314	Link reconfiguration and RLM/RLF	Fujitsu	discussion	Rel-15 NR_newRAT-Core
R2-1800513	RLF with beam failure recovery	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1800592	Beam recovery impact to RLF triggering	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800646	RLM/RLF Considering Beam Failure Recovery	MediaTek Inc., Qualcomm Incorporated		NR_newRAT-Core R2-1710881
R2-1800865	RLM/RLF in NR	vivo	discussion	Rel-15 NR_newRAT-Core R2-1712753
R2-1801027	Impact of Beam Failure Recovery on RLF related actions	Nokia, Nokia Shanghai Bell		discussion Rel-15 NR_newRAT-Core
R2-1801028	CR for impact of Beam Failure Recovery on RLF related actions	Nokia, Nokia Shanghai Bell		draftCR Rel-15 38.331 15.0.0 F NR_newRAT-Core
R2-1801215	Impact of beam failure and recovery on RLM procedures	AT&T	discussion	
R2-1801300	RLF considering Beam Recovery Failure	LG Electronics Finland	discussion	Rel-15 NR_newRAT-Core R2-1711417
R2-1801413	Regarding aperiodic indications from beam failure recovery to assist RLF	Samsung Electronics		discussion R2-1713792

10.2.9 Mobility - Inter-RAT

Connected mode mobility between NR and E-UTRA.

RRM measurements to be discussed under appropriate stage 3 AI.

R2-1800065	Discussion on Inter-RAT handover between NR and LTE	OPPO	discussion	
R2-1800106	Mobility between E-UTRAN and NR	Qualcomm Incorporated	discussion	
R2-1800429	UE context handling during inter RAT handover	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800558	Inter-RAT handover between LTE and NR	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core R2-1712517
R2-1800559	Message content in inter-RAT handover	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core R2-1712518
R2-1801399	NR inter-RAT mobility to CSG cell	LG Electronics Inc.	discussion	Rel-15 R2-1713761

10.2.10 Security (non EN-DC)

Stage 2 aspects of security for cases other than EN-DC

User plane IP

R2-1800861	Behavior on DRB IP check failure	vivo	discussion	Rel-15 NR_newRAT-Core R2-1712755
R2-1800279	Discussion on the data recovery due to DRB IP failure	OPPO	discussion	
R2-1800466	Frame work for DRB integrity protection	ZTE Corporation, Sanechips	discussion	

R2-1800474	Activation/deactivation of the DRB integrity protection Rel-15 NR_newRAT	Huawei, HiSilicon	discussion
R2-1800278	Discussion on the data available for BSR calculation due to DRB IP	OPPO	discussion
R2-1800473	Integrity protection and Counter Check Procedure for NR UP discussion Rel-15 NR_newRAT	Huawei, HiSilicon	
R2-1800729	User plane integrity protection check failure handling in SCG discussion Rel-15 NR_newRAT-Core R2-1713138	Huawei, HiSilicon	
R2-1800732	CR on 37.340 for UP IP check failure handling in SCG 15 37.340 15.0.0 B NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-
R2-1801015	Handling of UP integrity protection failure Core	Ericsson	discussion Rel-15 NR_newRAT-

Other

R2-1800939	Security procedures during NR RRC connection setup Rel-15 NR_newRAT-Core	Intel Corporation	discussion
R2-1800379	Key refresh at handover in NR	Ericsson	discussion Rel-15 NR_newRAT-Core
R2-1800471	Re-establishment upon integrity check failure 15 NR_newRAT-Core R2-1712545	Huawei, HiSilicon	discussion Rel-
R2-1800472	[DRAFT] LS to SA3 on re-establishment upon integrity check failure 15 NR_newRAT-Core R2-1712546 To:SA3	Huawei	LS out Rel-
R2-1800475	Procedures for enabling security per bearer 15 NR_newRAT	Huawei, HiSilicon	discussion Rel-
R2-1800477	Stage 2 correction on security NR_newRAT	Huawei, HiSilicon	draftCR Rel-15 38.300 15.0.0 F

10.2.11 Slicing

Including signalling of slice info to RAN, impact to access control, confirmation (or otherwise) of working assumption from RAN2#99 on use of dedicated prioritises to control idle mode mobility for slicing, etc

Idle mode behaviour

R2-1801061	Control of the frequency on which the UE camps Rel-15 NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion
R2-1800131	Cell reselection based on slice availability	CATT	discussion R2-1712410
R2-1800257	Slice Availability for Cell Reselection NR_newRAT-Core	Huawei, HiSilicon	discussion Rel-15
R2-1800054	Working Assumption Confirmation and Propose CR to TS 38.300 on Network Slicing OPPO, Coolpaddiscussion	Rel-15 NR_newRAT-Core	R2-1712226
R2-1800108	Slicing support and cell reselection	Qualcomm Incorporated	discussion R2-1713615
R2-1800185	Considering slice availability for inter-frequency cell re-selection	Gemalto N.V.	discussion
R2-1800378	Slice availability	Ericsson	discussion Rel-15 NR_newRAT-Core
R2-1800449	Leftover issues for NW slicing	ZTE Corporation, Sanechips	discussion
R2-1800855	Cell selection/reselection with network slicing Core R2-1712757	vivo	discussion Rel-15 NR_newRAT-
R2-1800862	UE registered slices information at gNB R2-1712756	vivo	discussion Rel-15 NR_newRAT-Core
R2-1801062	Clarification on use of dedicated priorities to control idle mode mobility for slicing Shanghai Bell	draftCR Rel-15 38.300 15.0.0 F	Nokia, Nokia NR_newRAT-Core
R2-1801340	Discussion network slicing in cell reselection R2-1713569	ITRI	discussion NR_newRAT-Core
R2-1801176	Cell reselection upon incoming service request	Sequans Communications	discussion

Moved from to 10.4.5.4 to 10.2.11

Signalling of slice info

R2-1800377	Signalling aspects of network slicing Core	Ericsson	discussion	Rel-15	NR_newRAT-
R2-1800256	Further Discussion on Slice Selection Information over RRC discussion			Rel-15	NR_newRAT-Core
R2-1800801	Requested NSSAI in RRC MME discussion			Rel-15	NR_newRAT-Core
R2-1800984	NSSAI in MSG5 Sony discussion			Rel-15	NR_newRAT-Core
R2-1801059	Slice assistance information over RRC	Nokia, Nokia Shanghai Bell	discussion	Rel-15	NR_newRAT-Core
R2-1801252	Network slicing information delivery via RRC messages	LG Electronics UK	discussion		
R2-1801450	Slice Information in RRC	Samsung Electronics GmbH	discussion	R2-1713889	

Slide based AC

R2-1801250	Slicing aspects in access control	LG Electronics UK	discussion	Rel-15	
R2-1800258	Slice-based Unified Access Control NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15	

Other

R2-1800259	What is RAN part of a network slice ? NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15	
R2-1801060	Introduction of UE support for Network Slicing 38.300 15.0.0 F NR_newRAT-Core	Nokia, Nokia Shanghai Bell	draftCR	Rel-15	
R2-1801466	Connected mobility aspects to support network slicing	Samsung	discussion	Rel-15	

Late

R2-1800372	Slice Indication at Service Request – Why Efficient Mechanism is required? PANASONIC R&D Center Germany	discussion	Late		
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10.2.12 QoS

Any remaining stage 2 aspects, including QoS operation with DC.

Detailed topics should be discussed in stage 3 user plane

Note agreement at RAN2#97bis that QoS flow remapping at handover will be discussed when flow remapping not at handover has been progressed within user plane session.

R2-1800261	Notification Control	Huawei, HiSilicon, CATT	discussion	Rel-15	NR_newRAT-Core
- LG think the eNB should just release the resources if the QoS cannot be met. - Nokia think the notification concept doesn't make sense with the GBR concept, and admission control, etc. - Samsung think RAN2 previously told SA2 that this is not useful. - Vodafone think that RAN2 previously asked questions to SA2. They did not reply but went ahead and specified it and this meeting they are extending it. Think it is not good for all GBR services but it is not RAN2 scope.					

- Nokia think the signalling is RAN3 and SA2 but it impacts the eNB and hence RAN2 scope. The latest SA2 decisions seem to cause a ping pong.
- => Draft LS in R2-1801619 to SA2 to again raise the questions that were asked previously. (Offline discussion #36, Nokia)

R2-1801619 [DRAFT] LS on QoS Nokia LS out Rel-15 NR_newRAT-Core To:SA2; Cc:CT1
=> Approved in R2-1801645

R2-1800683 Support of ECN in NR Ericsson, Nokia, Nokia Shanghai Bell, Vodafone discussion Rel-15
NR_newRAT-Core

- Sharp think that the Rel-13 text should be used instead of the Rel-14 text.
- Samsung think that ECN doesn't need to be mentioned in our specs and if a network wants to do it then it can.
- Vodafone think it is explicit in LTE then it should be explicit in NR.
- Qualcomm think the text doesn't do anything in LTE as there is no other specification impact.
- MediaTek think it is not so useful but would be ok to have it to be consistent with LTE.
- Huawei think it is not needed.

=> RAN2 understand that ECN can be implemented by NG-RAN even without explicit description in the stage 2 spec.

R2-1801146 Support of ECN in NR Ericsson draftCR Rel-15 38.300 15.0.0 F NR_newRAT-Core

R2-1800071 Remaining issues of QoS operation for NR DC OPPO discussion

R2-1800116 On default DRB, default QoS flow and profile Samsung discussion Rel-15
NR_newRAT-Core

R2-1800260 DRB Level Offloading in NR DC Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core

R2-1800442 Discussion on QoS flow-DRB remapping ZTE Corporation, Sanechips discussion

R2-1800443 QoS remaining aspects for NR-NR DC ZTE Corporation, Sanechips discussion

R2-1800536 Notification Control for GBR QoS Flows Nokia, Nokia Shanghai Bell discussion Rel-15
NR_newRAT

R2-1800537 Regarding Fixed LCP Restrictions Nokia, Nokia Shanghai Bell discussion Rel-15
NR_newRAT

R2-1800694 Analysis of the QoS framework (Stage 2) Ericsson discussion Rel-15 NR_newRAT-Core

R2-1800696 QoS Flow Relocation in NR-DC between MN and SN Ericsson discussion Rel-15
NR_newRAT-Core

R2-1801459 Further discussion on RQILG Electronics discussion NR_newRAT-Core

Number of bearers

R2-1800117 Further considerations on the number of DRBs and PDU sessions for NR Samsung
discussion Rel-15 NR_newRAT-Core

R2-1801168 Number of supported Data Radio Bearers in NR Ericsson discussion Rel-15
NR_newRAT-Core

Moved from 10.2.2.1 to 10.2.12

Withdrawn

R2-1800856 Lossless for Qos flow and DRB offloading vivo discussion Rel-15 NR_newRAT-Core
R2-1712758 Withdrawn

10.2.13 Positioning

R2-1800476	Protocol impacts of positioning in NR NR_newRAT	Huawei, HiSilicon	discussion	Rel-15
R2-1800387	Support of measurement gaps for location related inter-RAT measurements discussion Rel-15			Ericsson
R2-1801224	Inter-RAT OTDOA support in NR NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion	Rel-15
R2-1801419	Support NR positioning under dual connectivity 15 NR_newRAT-Core R2-1713253	LG Electronics Inc.	discussion	Rel-

TPs

R2-1800386	Text proposal for 38.305 skeleton	Ericsson	discussion	Rel-15 38.305
R2-1800824	Text Proposal for Clause 1-3 of TS 38.305 Core	Qualcomm Incorporated	discussion	NR_newRAT-
R2-1800826	Text Proposal for Clause 4 of TS 38.305 Core	Qualcomm Incorporated	discussion	NR_newRAT-
R2-1800827	Text Proposal for Clause 5 of TS 38.305 Core	Qualcomm Incorporated	discussion	NR_newRAT-
R2-1800839	Text Proposal for Clause 6 of TS 38.305 Core	Qualcomm Incorporated	discussion	NR_newRAT-
R2-1800840	Text Proposal for Clause 7 of TS 38.305 Core R2-1712476	Qualcomm Incorporated	discussion	NR_newRAT-
R2-1800841	Text Proposal for Clause 6 and 7 of TS 38.305 NR_newRAT-Core	Qualcomm Incorporated	discussion	
R2-1800842	Text Proposal for Clause 8 of TS 38.305 Core	Qualcomm Incorporated	discussion	NR_newRAT-

Withdrawn

R2-1800524	QoS Framework Update Withdrawn	Rapporteur (Nokia)	discussion	Rel-15 NR_newRAT
R2-1800525	New QoS flow on the Default Bearer Rel-15 NR_newRAT Withdrawn	Nokia, Alcatel-Lucent Shanghai Bell	discussion	
R2-1800526	QoS flow relocation from MN to SN Rel-15 NR_newRAT Withdrawn	Nokia, Alcatel-Lucent Shanghai Bell	discussion	
R2-1800527	Offloading granularity in NR-NR DC Rel-15 NR_newRAT Withdrawn	Nokia, Alcatel-Lucent Shanghai Bell	discussion	

10.2.14 Other

Other stage 2 aspects for non EN-DC

Voice/emergency call

R2-1800905	Voice over NR Feature Planning	Qualcomm Incorporated	discussion	Rel-15 NR_newRAT
R2-1800906	DRAFT LS on VoNR Feature Plan To:SA2, RAN1, RAN3 Cc:CT1	Qualcomm Incorporated	LS out	Rel-15 NR_newRAT
R2-1800757	Support LTE Rel-14 eVoLTE for SA NR NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15
R2-1800546	Draft CR to 38.300 on Emergency Services 15 38.300 15.0.0 NR_newRAT	Nokia, Nokia Shanghai Bell	draftCR	Rel-

R2-1800384	Emergency/Voice Fallback from NR to LTE NR_newRAT-Core	Ericsson	discussion	Rel-15
R2-1800385	LS on Emergency Fallback from NR to LTE Core To:SA2	Ericsson	LS out	Rel-15 NR_newRAT-
R2-1801251	Support for IMS emergency services in NR 15 R2-1713753	LG Electronics UK	discussion	Rel-

Dual registration

R2-1800657	Impacts on Dual registration Core	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-
R2-1800658	Drafty reply LS on Dual registration Core To:SA2 Cc:RAN1, RAN4	Huawei, HiSilicon	LS out	Rel-15 NR_newRAT-
R2-1800691	Supporting Dual Registration in Access Stratum Rel-15 NR_newRAT-Core R2-1712385	Lenovo, Motorola Mobility	discussion	
R2-1800711	[Draft] Reply LS on simultaneous transmission and/or reception over EPC/E-UTRAN and 5GC/NR To:SA2 Cc:RAN1, RAN4	Lenovo, Motorola Mobility	LS out	Rel-15 NR_newRAT-Core R2-1712398
R2-1800859	Analysis on the feasibility and technical restrictions of dual registration Rel-15 NR_newRAT-Core R2-1712995		vivo	discussion
R2-1800860	[Draft] reply LS on dual registration 1712996 To:SA2 Cc: RAN1, RAN4	vivo	LS out	Rel-15 NR_newRAT-Core R2-
R2-1801451	RAN2 aspects to support dual registration	Samsung Electronics GmbH	discussion	R2-1713878
R2-1801452	[Draft] Reply LS on simultaneous transmission and/or reception over EPC/E-UTRAN and 5GC/NR Samsung Electronics GmbH		LS out	R2-1713884 To:SA2

Other

R2-1800481	Automatic Neighbour Relation in NR NR_newRAT R2-1712548	Huawei, HiSilicon	discussion	Rel-15
R2-1800153	Control on UL packet duplication for split bearer Core	OPPO	discussion	Rel-15 NR_newRAT-
R2-1800326	RAN Sharing and identifier aspects in NR	Ericsson	discussion	NR_newRAT-Core
R2-1800487	Discussion on the support of SCG SRB for intra-NR DC Rel-15 NR_newRAT-Core	Huawei, HiSilicon	discussion	
R2-1800610	Bearer handling in NR-E-UTRA Dual Connectivity Rel-15 R2-1712943	Samsung R&D Institute India	discussion	
R2-1800636	High data rate impact on packet discard in NR 15 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-
R2-1800719	Discussion on the PDCP version of SRBs in NGEN-DC Rel-15 NR_newRAT-Core	Huawei, HiSilicon	discussion	
R2-1800720	CR on 37.340 for the PDCP version of SRBs in NGEN-DC 15 37.340 15.0.0 F NR_newRAT-Core	Huawei, HiSilicon		draftCR Rel-
R2-1800725	DRB ID allocation for Option 4 and 7 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15
R2-1800735	Discussion on NR DC modelling Core	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-
R2-1800758	Network sharing for NR	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1800808	Discussion on RAN support of edge computing in NR NR_newRAT-Core	CMCC	discussion	Rel-15
R2-1800857	Challenges for in-device coexistence in NR Communications, China Telecom, TCL	vivo, , Potevio, CATR, Xiaomi, Spreadtrum	discussion	Rel-15 NR_newRAT-Core

R2-1800858	Signaling procedure of SCell-failure report vivo	discussion	Rel-15	NR_newRAT-Core
R2-1801018	Support of SRB3 for NR-NR DC Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801080	Inactive handling for MR-DC with EPC/5GC NR_newRAT-Core	ZTE, Sanechipsdiscussion	Rel-15	
R2-1801110	On CP Architecture for NR-NR DCInterDigital	discussion	Rel-15	NR_newRAT-Core
R2-1801209	CP latency in NR Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801210	UP latency in NR Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801212	Dual registration and RAN impacts Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801221	Consideration on self evaluation of IMT-2020 for CP latency discussion Rel-15			Huawei, HiSilicon
R2-1801222	Consideration on self evaluation of IMT-2020 for UP latency discussion Rel-15			Huawei, HiSilicon
R2-1801241	Discussion on Inter DU mobility KT Corp.	discussion	R2-1712946	
R2-1801382	Handling of SRBs in connection re-establishment 15 NR_newRAT-Core R2-1713701	LG Electronics Inc.	discussion	Rel-15
R2-1801414	NR C-DRX enhancement considering beamforming R2-1713793	Samsung Electronics	discussion	
R2-1801417	Suspension of UE to RRC_INACTIVE in MR dual connectivity discussion R2-1713773	Samsung Electronics		

Late

R2-1800113	Further considerations on the I-RNTI radio network identity 15 NR_newRAT-Core Late	Samsung	discussion	Rel-15
R2-1801364	RRC state mismatch in NR Core Late	NTT DOCOMO INC.	discussion	Rel-15 NR_newRAT-Core

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.

R2-1800611	General corrections on TS 38.321 Samsung (Rapporteur) NR_newRAT-Core	draftCR Rel-15	38.321	15.0.0	F
=> The CR is revised in R2-1801546					
R2-1801546	General corrections on TS 38.321 Samsung (Rapporteur) NR_newRAT-Core	draftCR Rel-15	38.321	15.0.0	F
☒ [NR-AH1801#04][NR UP/MAC] – 38.321 CR - (Samsung)					
- CR capturing editorials and agreements from AH 1801 Intended outcome: Endorsed running CR to 38.321 Deadline: Thursday 2018-02-01 => Endorsed in R2-1801546					
R2-1800237	CR on the definitions in TS 38.321 Huawei, HiSilicon NR_newRAT-Core	draftCR Rel-15	38.321	15.0.0	F

- Ericsson thinks that only DRX cycle is needed. Huawei and Samsung think that active time should be defined. Ericsson explains that it is quite clear what it is in the DRX section.
- => The rapporteur will revisit definition, including DRX cycle
- => The CR is not pursued

R2-1800612 List of open issues on NR MAC Samsung (Rapporteur) discussion Rel-15 NR_newRAT-Core
=> Noted

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.

BWP Inactivity timer

R2-1800085 Issues/Corrections for BWP Inactivity Timer Operation Samsung Electronics Co., Ltd
discussion Rel-15 NR_newRAT-Core
=> Noted

R2-1800096 Correction for BWP-InactivityTimer Operation Samsung Electronics Co., Ltd draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
=> The CR will combine all agreements related to BWP inactivity timer
=> The CR is revised in R2-1801556

R2-1801556 Correction for BWP-InactivityTimer Operation Samsung Electronics Co., Ltd
=> All changes related to the BWP agreements will be merged with the big CR
=> The CR is not pursued

R2-1801467 Corrections for BWP switching Samsung discussion Rel-15
- LG thinks that they are always configured together. CATT and QC explains that the current spec follow RAN1 decision, where the network cannot configure default BWP and UE uses initial.
- Samsung wonders why we have default optional.
=> Proposal 1 is not needed (default BWP is optionally signalled)
=> Noted

R2-1800044 Remaining issues on BWP inactivity timer ASUSTeK discussion Rel-15 NR_newRAT-Core
- Ericsson thinks that with msg4 the UE would start the timer. Lenovo explains but we just agreed that we don't start the timer while the RA is ongoing. CATT also agrees that contention resolution should be solved before starting timer.
- LG thinks that we can just leave it up to UE implementation and the network can schedule it.
- Nokia thinks that the UE will have a C-RNTI so the UE can start the timer when it received msg4
=> Noted

R2-1800309 CR to the BWP operation Fujitsu draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core
On issue 1:
1. The UE starts the timer upon activation of Scell
- Huawei agrees with proposal. Nokia doesn't see a issue. The NW will schedule the UE after initial activation and the UE will start the timer then. Ericsson and Samsung agree with Nokia.
=> The UE doesn't start the timer upon activation of SCell. We rely on NW scheduling.
=> Not pursued

R2-1800959 Clarifications on inactivity timers handling for BWP and CA Nokia, Nokia Shanghai Bell
discussion Rel-15 NR_newRAT

Proposal 1: When RA procedure is initiated, the bwp-InactivityTimer is also reset in addition to stopping it.

- HTC points out that in LTE starting a timer after stopping you always start from initial value. CATT thinks that we should make it clear for people not in this room.
- LG also thinks that starting means resetting

Proposal 2 Clarify in TS 38.321 the bwp-InactivityTimer is restarted upon receipt of UL grant.

- QC explains that there is a good reason why this was applied to TDD. Interdigital agrees and for FDD it will be on separate carriers.
- CATT thinks that we should have a common behaviour.
- Huawei thinks that RAN1 explicitly agreed to having different behaviour.
- Ericsson and Mediatek agrees with the proposal.

Proposal: *bwp-InactivityTimer and sCellDeactivationTimer are restarted when a MAC PDU is transmitted/received via configured grant resource (when it is used)*

- QC thinks that we should not restart inactivity timer. Support in other cases.
- LG, CATT, Vivo agree
- Ericsson considers this as an optimization that we don't need to address. Lenovo agrees and thinks that we would introduce additional issue as it is not deterministic.

=> Noted

R2-1800187	Further considerations on RACH and BWP 15 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-
	=> Not treated			
R2-1800219	CR on BWP and RACH NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-15 38.321 15.0.0 F	
	=> Not treated			

Agreements

1. If the random access procedure is initiated on SCell (other than PSCell), MAC entity stops BWP-InactivityTimer of SCell and SpCell. If the random access procedure is initiated on SpCell, MAC entity stops BWP InactivityTimer associated with SpCell
2. bwp-InactivityTimer is (re-)started, if MAC PDU is transmitted in a configured uplink grant or received in a configured downlink assignment
3. The BWP inactivity timer does not start/re-start when a DCI is received while RA procedure is ongoing associated with this serving cell. [FFS except for DCI scheduling mgs2/4 with UE's C-RNTI].
4. If a BWP switch is triggered with DCI scheduling msg4 with UE's C-RNTI the UE considers contention resolution successful (as usual) and shall switch (e.g. the RACH will not be restarted in the new BWP). The UE starts the timer upon the switch like in all other cases.
5. Upon deactivation of a SCell, BWP-InactivityTimer associated with the deactivated SCell is stopped.
6. When RA procedure is initiated, the bwp-InactivityTimer is also reset in addition to stopping it.
7. Capture that bwp-InactivityTimer is restarted upon receipt of UL grant for TDD. bwp-InactivityTimer is also restarted upon reception of UL grant for FDD

R2-1801565	Summary on offline on BWP	Samsung
	=> Noted	

Not treated

R2-1801468	Further considerations for BWP switching	Samsung	discussion	Rel-15
R2-1800189	Discussion on BWP inactivity timer NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15
R2-1800174	BWP Inactivity Timer for active UL BWP	CATT	discussion	
R2-1800220	CR on BWP inactivity timer NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-15 38.321 15.0.0 F	
R2-1800561	Handling of BWP inactivity timer in RA procedure	Sharp	discussion	

R2-1800747	Draft CR to 38.321 on BWP-InactivityTimer operation 15.0.0 F NR_newRAT-Core	OPPO	draftCR Rel-15	38.321
R2-1800960	Draft CR to 38.321 on Correction on bwp-InactivityTimer and sCellDeactivationTimer operation Nokia, Nokia Shanghai Bell	draftCR Rel-15	38.321	15.0.0 NR_newRAT
R2-1801084	Discussion on the behaviour of BWP timer for PDSCH reception	OPPO	discussion	
R2-1800218	Correction to BWP description NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-15	38.321 15.0.0 F
R2-1801104	CR Corrections on BWP operation NR_newRAT-Core	ZTE, Sanechips	draftCR Rel-15	38.321 15.0.0 F
R2-1801243	UE autonomous BWP switching for configured UL resources discussion NR_newRAT-Core	LG Electronics Inc.		
R2-1801432	Dormant BWP for fast SCell activation NR_newRAT-Core	Qualcomm Incorporated	discussion	Rel-15
R2-1801481	Description of UL grant in NR Core	LG Electronics UK	discussion	Rel-15 NR_newRAT-

Measurement gaps

R2-1800084	Handling Measurement Gaps in MAC 15 NR_newRAT-Core	Samsung Electronics Co., Ltd	discussion	Rel-
	- Ericsson asks if we can capture the third change in a better way and avoid repeating it. => The first two changes are acceptable => The third change will be captured as a note => Merge these changes in R2-1801546 => Noted			
R2-1800097	Handling Measurement Gaps in MAC 38.321 15.0.0 F NR_newRAT-Core	Samsung Electronics Co., Ltd	draftCR Rel-15	
	=> Not treated			

Not treated

R2-1800221	CR on SRS transmission and CSI report on BWPs 38.321 15.0.0 F NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-15	
R2-1800191	SRS transmission and CSI report on BWPs 15 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-

MAC entity

R2-1800330	Correction of MAC architecture when no SCell is added 38.321 15.0.0 F NR_newRAT-Core	Ericsson	draftCR Rel-15	
	=> Merge these changes in R2-1801546			
R2-1800331	Modelling of supplementary uplink	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800825	Correction on SCell activation/deactivation delay 15.0.0 F NR_newRAT-Core	Ericsson	draftCR Rel-15	38.321
	=> Merge these changes in R2-1801546 => Send an LS to RAN1			
R2-1801547	LS to RAN1	Ericsson		
	=> Include delta preamble discussion and activation/deactivation => Ask RAN4 to Confirm to maintain the LTE principle on HARQ feedback requirement => Add agreements made on BWP timers => The LS is revised in R2-1801566			
R2-1801566	LS to RAN1 on miscellaneous questions	Ericsson		
	=> The LS is approved in R2-1801569			

R2-1800238	Correction to MAC entities and MAC functions 38.321 15.0.0 F NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-15
	=> Not pursued		
Not treated			
R2-1801031	Remaining issues in MAC architecture 38.321 NR_newRAT-Core	Huawei, HiSilicon	discussion Rel-15
R2-1800822	Beam failure recovery clarification 15.0.0 NR_newRAT-Core	Spreadtrum Communications	draftCR Rel-15 38.321
R2-1801104	CR Corrections on BWP operation NR_newRAT-Core	ZTE, Sanechips	draftCR Rel-15 38.321 15.0.0 F
R2-1801243	UE autonomous BWP switching for configured UL resources discussion NR_newRAT-Core	LG Electronics Inc.	
R2-1801432	Dormant BWP for fast SCell activation NR_newRAT-Core	Qualcomm Incorporated	discussion Rel-15
R2-1801468	Further considerations for BWP switching	Samsung	discussion Rel-15
R2-1801481	Description of UL grant in NR Core	LG Electronics UK	discussion Rel-15 NR_newRAT-Core

Withdrawn

R2-1800186	Correction to BWP description - F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR Rel-15 38.321 15.0.0 0003
R2-1800188	CR on BWP and RACH F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR Rel-15 38.321 15.0.0 0004 -
R2-1800190	CR on BWP inactivity timer - F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR Rel-15 38.321 15.0.0 0005
R2-1800192	CR on SRS transmission and CSI report on BWPs 38.321 15.0.0 0006 - F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR Rel-15
R2-1800404	Corrections on BWP operation Withdrawn	ZTE, Sanechips	discussion Rel-15 NR_newRAT-Core

10.3.1.3 MAC PDU format*Correction CRs related to MAC PDU format**New MAC CE formats related to RAN1 procedures*

R2-1800239	Left-over issue on the size of UL grant in RAR 15 NR_newRAT-Core	Huawei, HiSilicon	discussion Rel-15
	=> No need to send an LS		
	=> Noted		
R2-1800240	Draft LS on the size of UL grant within RAR for NR NR_newRAT-Core To:RAN1	Huawei, HiSilicon	LS out Rel-15
	=> Not treated		
R2-1800244	Introducing new MAC CEs for NR MIMO NR_newRAT-Core	Huawei, HiSilicon	discussion Rel-15
	=> Noted		
R2-1801087	MAC CEs definition for NR MIMO - remaining issues discussion Rel-15 NR_newRAT-Core	Nokia, Nokia Shanghai Bell	
	=> Noted		

Proposal 1: Different kinds of CSI resource sets (e.g. NZP CSI resource sets and CSI-IM resource sets) can have the same value of the identifier.

=> Wait for CP discussion on the identifiers

Proposal 2: SP CSI-RS / CSI-IM Resource Set Activation/Deactivation MAC CE contains TCI identifier as configured by RRC via TCI-RS-SetId IE

Clarify with RAN1 the description of TCI State Indication for UE-specific PDCCH MAC CE

Clarify with RAN1 the maximum values of CORESET's configured in the UE and maximum value of K (number of TCI states per CORESET).

- Huawei thinks that it is already clear.
- Samsung asks if the bitmap is really needed and we should ask RAN1 why the bitmap is needed. Intel also thinks we need to ask a number of questions to RAN1.
- Huawei thinks that we should follow the design. Nokia explains that their design results in overhead and we should ask.

Inform RAN1 that RAN2 does not intend to specify UE behaviour upon reception of MAC CEs for NR MIMO and that it should be specified by RAN1 in their specifications

- Huawei thinks that at least a notification to RAN1 is needed.

=> From RAN2 UP perspective - SP CSI-RS / CSI-IM Resource Set Activation/Deactivation MAC CE contains TCI identifier as configured by RRC via TCI-RS-SetId IE – wait for RAN1 confirmation

=> RAN2 intends to minimize specification of UE behaviour upon reception of MAC CEs for NR MIMO in RAN2 specs.

R2-1801548 LS to RAN1 on MAC CE for MIMO Nokia

=> The LS is approved in R2-1801555

Not treated

R2-1800245 Introducing new MAC CEs for NR MIMO Huawei, HiSilicon draftCR Rel-15 38.321
15.0.0 B NR_newRAT-Core
=> Revised in R2-1801524

R2-1801524 Introducing new MAC CEs for NR MIMO Huawei, HiSilicon draftCR Rel-15 38.321
15.0.0 B NR_newRAT-Core

R2-1801088 MAC CEs definition for NR MIMO Nokia, Nokia Shanghai Bell draftCR Rel-15 38.321
15.0.0 NR_newRAT-Core

R2-1800653 MAC CEs for Beam Management and CSI Acquisition MediaTek Inc. discussion

R2-1800662 TP for MAC CEs to Support Beam Management and CSI Acquisition MediaTek Inc.
discussion

R2-1800781 New MAC CEs for NR MIMO Samsung Electronics France SAdiscussion Rel-15
38.321 NR_newRAT-Core

R2-1800782 CR on New MAC CEs for NR MIMO Samsung Electronics France SAdraftCR Rel-15
38.321 15.0.0 B NR_newRAT-Core

R2-1800899 Some clarifications for MAC CEs for beam management vivo discussion

R2-1800900 MAC CEs format for beam management vivo discussion

R2-1801394 Discussion on CA and DC related issues NTT DOCOMO INC. discussion Rel-15
NR_newRAT-Core

Proposal5: Confirm the RAN1 agreements on the number of supported CCs:

- Support of 16 DL carriers without DC and 32 carriers with DC;
- Support of 16 UL carriers without DC and 32 carriers with DC.
- LG ask if it is possible to configure 1 in MCG and 31 SCG. Huawei and Docomo think that it is not possible. Maximum is 16 per carrier.

=> Noted

Agreements

- => SpCell is always activated also in NR-NR DC in Rel-15
- => Not to support cross-CG activation both for EN-DC and in NR-NR DC in Rel-15=>
Confirm RAN1 agreements for NR carriers:
 - Support of 16 DL carriers without DC and 32 carriers with DC;
 - Support of 16 UL carriers without DC and 32 carriers with DC.
- => Capture these changes in main rapporteur CR R2-1801546
- => FFS where to capture this

- | | | | | | | |
|------------|--|-------------------|----------------|--------|--------|---|
| R2-1801403 | Clarification of NR CA and DC
NR_newRAT-Core | NTT DOCOMO INC. | draftCR Rel-15 | 38.300 | 15.0.0 | F |
| | => Not treated | | | | | |
| | | | | | | |
| R2-1800402 | Further consideration on the MAC subheader for RAR
15 NR_newRAT-Core | ZTE, Sanechips | discussion | Rel- | | |
| | - Nokia thinks we already agreed | | | | | |
| | => Noted | | | | | |
| | | | | | | |
| R2-1800573 | Corrections on the MAC subheader for RAR
15.0.0 0015 - F NR_newRAT-Core | ZTE, Sanechips | CR | Rel-15 | 38.321 | |
| | => Not treated | | | | | |
| | | | | | | |
| R2-1801396 | SCell activation_deactivation in NR CA
15.0.0 F NR_newRAT-Core | NTT DOCOMO INC. | draftCR Rel-15 | 38.321 | | |
| | => Not treated | | | | | |
| | | | | | | |
| R2-1800241 | Contention resolution for the Msg3 based SI request
Rel-15 NR_newRAT-Core | Huawei, HiSilicon | discussion | | | |
| | => Not treated | | | | | |

10.3.1.4 Random access

10.3.1.4.1 Differentiation of RA parameters

Discussion on this topic should resume where we left off after Dec. 2017. Converged papers are encouraged.

- | | | | | | |
|------------|---|---|--------|----------------|------------|
| R2-1801430 | Details of prioritized random access
ITRI, OPPO, Qualcomm, Vivo | AsusTek, CATT, Ericsson, Huawei, Intel, Interdigital,
discussion | Rel-15 | NR_newRAT-Core | R2-1713800 |
| | - CMCC thinks we should discuss the QCI as a parameter | | | | |
| | Proposal 2. NR supports up to two levels of priority for contention-based random access. | | | | |
| | - Mediatek thinks we should first understand how this is used | | | | |
| | - Docomo thinks we should have more than two | | | | |
| | Proposal 3. Network provides a mapping between access categories and access priorities, which is either advertised in system information or configured via dedicated RRC signaling. | | | | |
| | - Nokia asks what new mappings in addition to SA1 we are trying to define | | | | |
| | - Lenovo thinks we should only consider the new things that came to NR, for example, SI request, beam failure, etc. | | | | |
| | On QCI | | | | |
| | - Qualcomm thinks that QCI is only available in connected mode. | | | | |
| | => Noted | | | | |

What do we differentiate the RACH parameters (backoff parameter and power ramping) on:

1. Access categories
2. Type of RACH access (e.g. initial access, beam failure, SI request)

- | | | |
|------------|---------------------------------------|----------|
| R2-1801560 | Summary for prioritized random access | Qualcomm |
|------------|---------------------------------------|----------|

Agreements:

The following cases will apply prioritized RACH procedures (if configured)

1. Handovers using contention-based access
2. BFR recovery

The set of parameters for prioritization include

- powerRampingStep and Backoff Parameter

Idle mode will not be discussed in Rel-15

Not treated

R2-1800336	Differentiation on RACH parameters in NR Ericsson Core	discussion	Rel-15	NR_newRAT-
R2-1800251	Categorized Events for Differentiation of backoff and power ramping parameter	Beijing		
	Xiaomi Mobile Software discussion Rel-15 R2-1712381			
R2-1800937	Further details on differentiation of RACH parameters	Intel Corporation	discussion	
	Rel-15 NR_newRAT-Core			
R2-1801248	Differentiation of Backoff parameter and/or power ramping	Samsung	discussion	
	NR_newRAT-Core			
R2-1800786	DePrioritization of RACH for Low End Devices	Gemalto N.V.	discussion	
R2-1800074	Discussion on differentiation of RACH parameters	OPPO	discussion	
R2-1800246	Differentiation for SR-triggered Random Access	Huawei, HiSilicon	discussion	Rel-
	15 NR_newRAT-Core			
R2-1800713	Differentiation of RA parameters	Lenovo, Motorola Mobility	discussion	Rel-15
	NR_newRAT-Core			
R2-1800792	Discussions of configuration of parameter differentiation for RACH	CMCC	discussion	Rel-
	15 NR_newRAT-Core			
R2-1801446	Random access contention mitigation in NR	Qualcomm Incorporated	discussion	Rel-
	15 NR_newRAT-Core R2-1711707			

Late

R2-1801488	Discussion on RA differentiation	NTT DOCOMO INC.	discussion	Rel-15 NR_newRAT-
	Core Late			

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

R2-1800086	Issues/Corrections: Beam Failure Recovery Request Procedure	Samsung Electronics Co., Ltd		
	discussion Rel-15 NR_newRAT-Core			

- Nokia asks why the higher layers need this information. Samsung explains that we should have a similar behaviour to indicating when the timer expires.

=> For contention based random access for beam failure recovery, contention resolution is successful if UE receives a PDCCH transmission addressed to its C-RNTI

=> Noted

R2-1800095	Corrections for Beam Failure Recovery Request Procedure	Samsung Electronics Co., Ltd		
	draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core			

=> Not treated

R2-1800254	RA procedure and parameters for BFR	CATT	discussion	
------------	-------------------------------------	------	------------	--

- Nokia thinks that the MAC should count the failure instances. Mediatek, Ericsson agrees.
- LG thinks that the counting should be done in the PHY. Intel has similar understanding as LG.
- Companies asks what is the point of the beam failure timer as we have no actions upon its expiry.

Proposal 4: Feedback RAN1 that RAN2 think ra-PreambleTx-Max could be used in BFR procedure and there is no need to introduce a new parameter PreambleTransMax-BFR.

- Mediatek thinks it should be different.

Proposal 5:

- Huawei also thinks that BFR should be done in SCell, but only contention free is currently supported in SCell.
- HTC asks why Pscell is not available. CATT thinks that if we don't allow BFR on SCell we would have to define procedures on how to do it PCell and provide preambles for the BFR on SCell.

Proposal 6

- Ericsson thinks that this is an optimization
- => Noted

R2-1801558 Summary of BFR detection and other issues CATT

- Ericsson thinks that option 2 doesn't work if the notifications are not periodic.
 - Nokia understood that there fixed periods for notifications.
- => Notify RAN1 about the two options and ask their option
- => Ask RAN1 to clarify the use/purpose beamFailureRecoveryTimer. RAN2 will wait for RAN1 to complete the exact design/usage of this timer.
- => Wait for RAN1 before agreeing whether BFR can be performed on SCell
- Samsung and Huawei think that BFR on SCell is quite important. CATT agrees. Ericsson is concerned that there are quite some impacts to support contention based in SCell.
- => Ask RAN1 whether BFR on SCell is supported and indicate that RAN2 has not done any work to support this.
- => Noted

R2-1801567 LS to RAN1 on beam failure recovery CATT

- => Change period to "max time interval"
- => Delete "on top"
- => The LS is approved in R2-1801570

Agreements

- 1 The beam failure detection is performed by MAC.

R2-1800963 Clarifications to beam recovery procedure Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT

=> Noted

Proposal: PreambleInitialReceivedTargetPower-BFR and powerRampingStep-BFR are only used for dedicated BFR preamble transmission

- Ericsson ask why this is needed and why we need separate parameters for BFR. We should use the same parameters but configured different values. Nokia thinks that we still need to differentiate in the procedures.
- Mediatek likes the principle of simplifying the MAC procedures.
- Lenovo asks if the max preamble number is for both contention free and CB.

=> RAN2 assumes that the same set of RA parameters are used but different values can be configured.

R2-1801561 Summary for beam recovery RA parameter Nokia

=> Noted

Agreements

- 1 ResponseWindowSize-BFR is applied only for contention free BFRR preamble (as already captured in MAC specification).
- 2 PreambleInitialReceivedTargetPower-BFR and powerRampingStep-BFR are applied only for contention free BFRR preamble.
- 3 Maximum power applied to common RACH is dictated by the ra-PreambleTx-Max.
- 4 PreambleTransMax-BFR is applied only for contention free BFRR preamble. FFS how to capture it.
- 5 Agreements will be captured in the MAC CR and reviewed during email discussion.

- R2-1800964 Draft CR to 38.321 on Beam recovery procedure Nokia, Nokia Shanghai Bell draftCR Rel-15 38.321 15.0.0 NR_newRAT
=> Not treated
- R2-1800780 Prioritized random access for beam failure recovery discussion Rel-15 NR_newRAT-Core R2-1712950 Lenovo, Motorola Mobility
RA for beam failure recovery should have priority over other RA for RRC_Connected UE
- Ericsson thinks that a sensible UE implementation should do this anyways
=> Leave up to UE implementation
=> Noted
- R2-1801404 Discussion on Beam failure recovery NTT DOCOMO INC. discussion Rel-15 38.321 NR_newRAT-Core
- Lenovo thinks that we should discuss whether we allow other UL transmissions, except for PRACH to take place while doing BFR
=> Leave it up to UE implementation to prioritize PRACH transmission for beam failure recovery over other UL transmission
=> Noted
- R2-1801405 Clarification on beam failure recovery NTT DOCOMO INC. draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
Not treated
- R2-1800160 BWP for Beam Failure Recovery CATT discussion
- R2-1800146 [DRAFT] Reply LS to RAN1 on beam recovery failure CATT LS out Rel-15 NR_newRAT-Core To:RAN1
- R2-1800652 Further Clarification on Beam Failure Recovery Procedure MediaTek Inc. discussion
- R2-1800660 Draft CR for Beam Failure Recovery Procedure MediaTek Inc. draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
- R2-1800938 On choosing SSB for RACH resource selection Intel Corporation discussion Rel-15 NR_newRAT-Core R2-1712653
It is up to UE implementation how to choose a suitable SS block (and corresponding RACH resource) for PRACH transmission if none, one or multiple SS block(s) are above the RSRP threshold
- Asustek considers different solutions on how to select.
- Samsung and QC agree with the proposals.
- Huawei thinks that when there is non above the threshold the UE should continue with preamble retransmission.
- ZTE thinks that it has to meet the target RACH power.
- Huawei asks the threshold is mandatory or optional.
=> It is up to UE implementation how to choose a suitable SS block (and corresponding RACH resource) for PRACH transmission if none are above the RSRP threshold.
=> Noted
- R2-1800050 Issue on selecting a SSB for CB RA procedure ASUSTeK discussion Rel-15 NR_newRAT-Core
=> Noted
- R2-1801445 CR on random access resource selection in case of poor RSRP conditions Qualcomm Incorporated CR Rel-15 38.321 15.0.0 0035 - F NR_newRAT-Core
=> Not treated
- R2-1800398 Remaining issues on SSB selection in RACH procedure ZTE, Sanechipsdiscussion Rel-15 NR_newRAT-Core
=> Not treated
- R2-1800242 Correction to random access procedures in TS 38.321 Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

=> moved from 10.3.1.4.3
=> Not treated

R2-1800087	Multiple Msg1 Transmissions NR_newRAT-Core	Samsung R&D Institute India R2-1713368	discussion	Rel-15
	- Samsung explains that RAN1 has left it up to RAN2 on whether there will be different dedicated time domain RACH resources - Ericsson thinks that we should support it. Interdigital thinks that we already have some parts in the MAC specification to support multiple msg1 transmissions. => Noted			
Not treated				
R2-1800234	Multiple preamble transmission for contention free RACH discussion	Beijing Xiaomi Mobile Software Rel-15 R2-1712379		
R2-1800337	Multiple Preamble Transmissions in NR Random Access NR_newRAT-Core	Ericsson	discussion	Rel-15
R2-1800400	Remaining issues about multiple Msg.1 transmission NR_newRAT-Core	ZTE, Sanechips	discussion	Rel-15
R2-1800515	Discussion on PRACH Resource Mapping for Beamforming Rel-15 NR_newRAT-Core	InterDigital	discussion	
R2-1800516	Corrections on PRACH Resource Mapping for Beamforming 15 38.321 15.0.0 0013 - F NR_newRAT-Core	InterDigital	CR	Rel-15
R2-1801397	Backoff value setting on SS block change 15.0.0 F NR_newRAT-Core	HTC Corporation	draftCR	Rel-15 38.321
R2-1801443	CR on contention-based beam failure recovery 38.321 15.0.0 0033 - F NR_newRAT-Core	Qualcomm Incorporated	CR	Rel-15
R2-1800339	Beam reselection in case of high load during RA NR_newRAT-Core	Ericsson	discussion	Rel-15
R2-1800567	RAR window extention for multi-beam operation NR_newRAT-Core R2-1711608	LG Electronics Inc.	discussion	
R2-1800793	Further consideration on the multiple preamble transmission for contention free RACH CMCC discussion	Rel-15 NR_newRAT-Core		
R2-1800794	Further consideration on the parameter setting for preamble groups Rel-15 NR_newRAT-Core	CMCC	discussion	
R2-1800866	RACH configuration for beam recovery R2-1712754	vivo	discussion	Rel-15 NR_newRAT-Core
R2-1800887	Clarification on the measurement used for the beam selection	vivo	discussion	
R2-1800961	Further details on BWP switch interaction with RA Rel-15 NR_newRAT	Nokia, Nokia Shanghai Bell	discussion	
R2-1800962	Draft CR to 38.321 on Clarifications on BWP switch interaction with RA procedure Shanghai Bell draftCR	Rel-15 38.321 15.0.0 NR_newRAT		Nokia, Nokia
R2-1800993	Remaining issues in RA with multi-beam operations Rel-15 NR_newRAT-Core	Huawei, HiSilicon	discussion	
R2-1800994	Corrections for RA with multi-beam operations 38.321 15.0.0 NR_newRAT-Core	Huawei, HiSilicon	draftCR	Rel-15
R2-1801255	Measurement reporting and beam refinement during RACH discussion	Rel-15 NR_newRAT-Core R2-1711350	Qualcomm Incorporated	
R2-1801269	Beam refinement after beam recovery or scheduling request discussion	Rel-15 NR_newRAT-Core R2-1713894	Qualcomm Incorporated	
R2-1801434	CR on Backoff indication in multi-beam systems 38.321 15.0.0 0024 - C NR_newRAT-Core	Qualcomm Incorporated	CR	Rel-15
R2-1801435	CR on inter-leaved RAR reception in the case of multiple Msg1 transmissions Incorporated CR	Rel-15 38.321 15.0.0 0025 - C NR_newRAT-Core	Qualcomm	

R2-1801444	CR on simultaneous RAR reception in the case of multiple Msg1 transmissions	Qualcomm Incorporated	CR	Rel-15	38.321	15.0.0	0034	-	C	NR_newRAT-Core
R2-1801476	Beam failure recovery request procedure	LG Electronics UK	discussion	Rel-15						
R2-1801477	CR to BFRR procedure	LG Electronics UK	draftCR	Rel-15	38.321	15.0.0				NR_newRAT-Core
R2-1801513	Correction to beam failure recovery request parameters	ITL	CR	Rel-15	38.321	15.0.0	0037	-	F	NR_newRAT-Core

Withdrawn

R2-1800901	RACH procedure for beam recovery/Add corresponding TP	vivo	discussion	Withdrawn						
R2-1801512	Correction to beam failure recovery request parameters	ITL	CR	Rel-15	38.321	15.0.0	0036	-	F	NR_newRAT-Core

10.3.1.4.3 Random access procedures

Corrections/critical issues related to general random access procedure

R2-1800341	Preamble transmission power	Ericsson	discussion	Rel-15	NR_newRAT-Core					
	=> Noted									
R2-1800342	Draft LS on preamble transmission power	Ericsson	LS out	Rel-15	NR_newRAT-Core					
	To:RAN1									
	=> The question will be incorporated in the main LS to RAN1									
	=> Noted									
R2-1800338	Values for RA response window	Ericsson	discussion	Rel-15	NR_newRAT-Core					
	<i>Proposal 1</i>									
	<i>The minimum RAR window size is ½ slot.</i>									
	<i>Proposal 2</i>									
	<i>Support RAR window size configurations of {0.5, 1, 2, 4, 8, 10, 20, 40, 80, 160} slots with a maximum length of 10 ms, where the length of the slot is determined by the RAR numerology as indicated in System information.</i>									
	- Samsung thinks that 160 is not a possible value and .5 is not so critical to have as the network can schedule in first half slot if it wants to.									
	- Qualcomm thinks one slot is good enough.									
	=> Noted									

Agreements

- => The minimum RAR window size 1 slot.
- => Support RAR window size configurations of {1, 2, 4, 8, 10, 20, 40, 80} slots with a maximum length of 10 ms, where the length of the slot is determined by the RAR numerology as indicated in System information.

R2-1800667	RAR Window Size Configuration	Samsung Electronics Co., Ltd	discussion	Rel-15	NR_newRAT-Core					
	=> Noted									
R2-1800688	Need for PDCCH order	Ericsson	discussion	Rel-15	NR_newRAT-Core					
	- LG agrees but asks what additional information will be provided.									
	=> Noted									
R2-1800689	Draft LS on Need for PDCCH order	Ericsson	LS out	Rel-15	NR_newRAT-Core					
	To:RAN1									
	- Lenovo, QC think that it should also contain BWP index. Interdigital thinks that in addition to BWP index we should also consider SUL bit. Qualcomm asks if the UE needs the SUL bit. Vivo thinks we need it because for contention free the UE needs to know with UL to use.									

- LG asks if the order should always include the BWP index for contention free or only if the current active BWP doesn't have PRACH resources. Lenovo thinks always.

=> RAN2 assumes that the PDCCH order should contain, preamble index, BWP index, SUL indicator.
=> Update LS to include RAN2 assumption and ask them to tell us the final content of PDCCH order.

=> The LS is revised in R2-1801550

R2-1801550 Draft LS on Need for PDCCH order Ericsson

=> The LS is revised in R2-1801552

R2-1801552 Draft LS on Need for PDCCH order Ericsson

=> The LS is approved in R2-1801600

R2-1800965 Clarification on the Preamble group B selection Rel-15 NR_newRAT discussion Nokia, NTT DOCOMO, Nokia Shanghai Bell

- Samsung thinks we should come back to this after CP decides CCCH message sizes

=> Noted

R2-1800966 Draft CR to 38.321 on Correction on Preamble group B selection draftCR Rel-15 38.321 15.0.0 NR_newRAT Nokia, NTT DOCOMO, Nokia Shanghai Bell

=> Not treated

R2-1800517 Random Access procedure on SUL InterDigital discussion Rel-15 NR_newRAT-Core

Proposal 2: The MAC entity stops any ongoing procedure when it receives a DCI indication to trigger a RA on the SUL, then restarts the RA procedure using the SUL carrier.

- Ericsson, QC, CATT thinks we should leave it up to UE implementation

=> It is up to UE implementation to prioritize the RA on SUL

Proposal 3: For contention-based RA on the SUL, the pathloss estimate is not used when the MAC entity selects a preamble group. Group A or B is selected purely based on msg3 size

- CATT doesn't think we need special treatment. IDC explains that the UE may end up selecting the large msg size group all the time.
- Intel thinks observation is correct but network can configure the pathloss appropriately.

=> Noted

R2-1800686 Random Access fallback to SUL Ericsson discussion Rel-15 NR_newRAT-Core

- Xiaomi thinks that we should differentiate between cases.
 - QC asks if it will mandated or if we can leave it up to UE implementation
 - ZTE thinks that the UE should do not SUL switch while an RA procedure is ongoing. Huawei explains that this is referring to the case where max preamble is reached and agrees with proposal.
 - LG thinks that there is a chance that the UE will fail again even if it tries on SUL. Nokia agrees with LG and we can keep the MAC simple.
 - Qualcomm thinks that we should leave it up to UE to determine whether to try on SUL.
- => Noted

Not treated

R2-1800687 Random Access fallback to SUL Ericsson draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

R2-1800795 Further consideration on RA-RNTI calculation with respect to the SUL CMCC discussion Rel-15 NR_newRAT-Core

R2-1800796 TP on RA-RNTI calculation related to SUL operation CMCC discussion Rel-15 NR_newRAT-Core

R2-1800896 RAR reception for SRS only carrier in NR vivo discussion

- Samsung thinks that we can discuss this once we know what IEs we have available.

- => Capture that the UE ignores the UL grant in RAR if the Scell is configured as SRS only carrier Scell for NR, same as LTE. Rapporteur will capture this.
- => Noted

R2-1800990 Handling of dedicated PRACH resources and Preambles Huawei, HiSilicon discussion
Rel-15 NR_newRAT-Core

- => MAC entity shall not discard all explicitly signalled ra-Preambleldexs and ra-Resourcess for beam failure recovery case
- => The rapporteur will capture these changes R2-1801546
- => Noted

R2-1800991 Corrections for the handling of dedicated PRACH resources and preambles Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core

- => Not treated

R2-1801478 Clarification on Random Access procedure LG Electronics UK discussion Rel-15 NR_newRAT-Core

To confirm that supplementaryUplink is configured per cell

- LG and Samsung think with should SUL only on PCell or PSCell. Huawei thinks we agreed that we should have any restrictions. Samsung explains that we have found some issues with applying SUL on other cells.
- Ericsson thinks that it should be per cell

- => Noted

Agreements

- => MAC rapporteur will tell RRC rapporteur to align parameters
- => Align all sections in the spec that supplementaryUplink is configured per cell
- => Assumption is that SSB and CSI-RS are not configured at the same time for HO, so no need to specify any form of prioritization
- => Clarify the RA procedure is performed on the serving cell (maybe only on the first line)
- => Changes on section 5.1.3 are not needed
- => Update the condition on "common PRACH preambles" to be if RA is a contention free RA

Not treated

R2-1800093 PRACH Preamble Selection for Msg1 based SI Request Samsung R&D Institute India discussion Rel-15 NR_newRAT-Core R2-1713367

R2-1800094 Beamforming Aspects of Msg1 based SI Request Mechanism Samsung R&D Institute India discussion Rel-15 NR_newRAT-Core R2-1713366

R2-1800161 RA procedure for Msg3 based SI request CATT discussion

R2-1800162 RA procedure and BWP-InactivityTimer CATT discussion

R2-1800243 Draft LS on preamble format based power offset for PREAMBLE_RECEIVED_TARGET computation Huawei, HiSilicon LS out Rel-15 NR_newRAT-Core To:RAN1 Cc:RAN4

R2-1800310 CR to grant size in TS38.321 Fujitsu draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core

R2-1800399 Remaining issues about power ramping in RACH procedure ZTE, Sanechips discussion Rel-15 NR_newRAT-Core

R2-1800682 Values for RA response window Ericsson draftCR Rel-15 38.331 15.0.0 F NR_newRAT-Core

R2-1800688 Need for PDCCH order Ericsson discussion Rel-15 NR_newRAT-Core

R2-1800689 Draft LS on Need for PDCCH order Ericsson LS out Rel-15 NR_newRAT-Core To:RAN1

R2-1800867 Clarification on beam failure recovery and text proposal vivo discussion Rel-15 NR_newRAT-Core

R2-1800895 Discussion on the impact on beam failure recovery vivo discussion

R2-1800992	Corrections for beam failure recovery response reception	Huawei, HiSilicon	draftCR Rel-15
R2-1800995	Remaining issues on RA procedure	Huawei, HiSilicon	discussion Rel-15
R2-1800996	Corrections for RA procedure with parallel RA in DC	Huawei, HiSilicon	draftCR Rel-15
R2-1800997	Discussion on the procedure of MSG1-based SI request	Huawei, HiSilicon	discussion Rel-15
R2-1801009	General considerations on the RA procedure for beam failure recovery	Huawei, HiSilicon	discussion Rel-15
R2-1801049	non-contention based random access for beam failure recover	Huawei, HiSilicon	discussion Rel-15
R2-1801050	CR on non-contention based random access for beam failure recovery	Huawei, HiSilicon	draftCR Rel-15
R2-1801246	BWP switching for RACH	LG Electronics Inc.	discussion NR_newRAT-Core
R2-1801271	Contention resolution for Msg3 based SI request for broadcast delivery	MediaTek Inc.	discussion
R2-1801272	UL BWP ambiguity during RAR reception	MediaTek Inc.	discussion
R2-1801436	CR on BWP for random access in connected mode	Qualcomm Incorporated	CR Rel-15
R2-1801463	UL carrier switch considering SUL in RRC_CONNECTED	MTI	discussion

Withdrawn

R2-1800247	Remaining issues on RA procedure	Huawei, HiSilicon	discussion Rel-15
	NR_newRAT-Core	Withdrawn	

10.3.1.5 SR

Corrections/critical issues related to SR

R2-1800518	Discussion on SR Triggering and Cancellation	InterDigital	discussion Rel-15
	NR_newRAT-Core		
	<i>Proposal 1: Upon reaching sr-TransMax for a certain SR configuration, the MAC entity shall only cancel the corresponding pending SR.</i> - Huawei thinks we can revisit the release of all PUCCH resources <i>Proposal 3: The MAC entity triggers a SR only if an UL-SCH resource is not available for a new transmission within the SR periodicity configured for the SR configuration of the LCH that triggered BSR.</i> - Samsung doesn't see the need to specify the validity of the UL-SCH. Nokia agrees. LG also thinks that the behaviour is already achieved with the current specification. - CATT thinks that we need something more accurate and not leave it up to UE implementation. Convida, Xiaomi, agrees that we should define a time value. - Qualcomm thinks that this is a complex issue and we should leave up to UE implementation - InterDigital thinks that the intention is to not send unnecessary SRs. CATT also thinks that we will have a high SR density and a high PUCCH usage will increase interference => The current behaviour is kept for now => What is "immediate" will be discussed in the BSR section => Noted		
R2-1800519	Corrections on SR Triggering and Cancellation	InterDigital	CR Rel-15
	15.0.0 0014 - F NR_newRAT-Core		38.321
	=> Not treated		
R2-1800163	The Handling of sr-ProhibitTimer	CATT	discussion
	=> Noted		

R2-1800681 Scheduling Request procedure Lenovo, Motorola Mobility discussion Rel-15
NR_newRAT-Core
=> Noted

R2-1801551 CR on Scheduling Request procedure Lenovo, Motorola Mobility
=> Add it as normative text and UE may
=> The rapporteur will include this in the MAC CR R2-1801546

Not treated

R2-1800974 On SR procedure in the case of beam failure Huawei, HiSilicon discussion Rel-15

R2-1801479 SR trigger condition LG Electronics UK discussion Rel-15 NR_newRAT-Core

10.3.1.6 BSR

Corrections/critical issues related to BSR

R2-1800222 Corrections to padding BSR Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F
NR_newRAT-Core
=> The CR is not pursued

R2-1800223 Correction to BSR to remove redundant text Huawei, HiSilicon draftCR Rel-15
38.321 15.0.0 F NR_newRAT-Core
=> The rapporteur will take care of this editorial change

R2-1800224 Correction to BSR table Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F
NR_newRAT-Core
- LG thinks that it is a bit strange to have a reserved value in the middle.
=> Index will be shifted and last value of the table reserved
=> Rapporteur will include this in his CR R2-1801546

R2-1801339 NR Unit Replacement in BSR procedure Xiaomi, CATT, CMCC, China Telecom, Potevio, vivo discussion Rel-15
Proposal 1: "UL resources available for a new immediate transmission" means UL transmission opportunities that are able to include triggered BSR MAC CE during a period after BSR is triggered
=> Noted

R2-1800164 Accurate SR trigger in BSR procedure CATT discussion
=> Noted

R2-1800582 Clarification on "immediate transmission" for BSR Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT-Core
=> Noted

R2-1800583 Clarification on TB processing time Nokia, Nokia Shanghai Bell draftCR Rel-15
38.321 15.0.0 NR_newRAT-Core
=> moved from 10.3.1.2
=> Not treated

R2-1800820 CR (Conditions for BSR MAC CE generation) Samsung R&D Institute UK draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
- Lenovo supports the approach of removing "immediate".
- LG supports but we should remove it everywhere.
- Mediatek thinks that we should avoid using "immediate and available".
- Interdigital asks what happens when the UE has SPS resources. CATT and Convida agrees.

- Qualcomm disagrees with any approach that specifies timing restrictions so we should leave it up to UE implementation.
 - Huawei thinks that we should leave it up to UE implementation.
 - Nokia is concerned that the URLLC can be stuck
- => The CR is not pursued

R2-1800821 CR (Conditions for clearing of triggered BSR(s)) Samsung R&D Institute UK draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

=> Not treated

R2-1801442 CR on conditions for BSR transmission Qualcomm Incorporated CR Rel-15 38.321 15.0.0 0032 - F NR_newRAT-Core

=> Not treated

R2-1801090 Draft CR to 38.321 on generating BSR MAC CE OPPO draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

=> The problem on SR being triggered too often will not be addressed.

R2-1801559 Options to replace "immediate transmission" Samsung

- Ericsson has another proposal – remove “immediate” and the “else” trigger, meaning the UE can trigger both SR and BSR.

=> Noted

R2-1801154 Cancellation of triggered BSR in case of uplink skipping Ericsson draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

=> The CR is not pursued

R2-1801091 Draft CR to 38.321 on reporting Long truncated BSR OPPO draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

=> The CR is not pursued

R2-1800196 Uses of different BSR formats Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core

=> Not treated

R2-1800198 BSR enhancement for SDAP Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core

- Nokia doesn't think that SDAP buffers anything. Vivo disagrees with Nokia. Huawei thinks that the UE is processing data so it may store something
- LG, Mediatek, Lenovo, Ericsson also think SDAP has no buffer and data is sent to PDCP

=> The BSR will not include SDAP data

=> Noted

Not treated

R2-1800225 CR on use of different BSR formats Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

R2-1800226 CR on BSR enhancement for SDAP Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

R2-1800803 UL Skipping with LCP restriction CMCC discussion Rel-15 NR_newRAT-Core

R2-1800814 Conditions for BSR MAC CE generation and clearing of triggered BSR(s) Samsung R&D Institute UK discussion

R2-1801140 BSR design to support pre-processing MediaTek Inc. discussion Rel-15 NR_newRAT-Core R2-1712472

R2-1801431 Impact of PDCP duplication on BSR Qualcomm Incorporated discussion Rel-15 NR_newRAT-Core R2-1711705

Withdrawn

R2-1800193	Corrections on padding BSR - F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR	Rel-15	38.321	15.0.0	0007	
R2-1800194	Correction to BSR for configured grants 15.0.0 0008 - F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR	Rel-15	38.321			
R2-1800195	Correction to BSR table F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR	Rel-15	38.321	15.0.0	0009	-
R2-1800197	CR on use of different BSR formats NR_newRAT-Core	Huawei, HiSilicon Withdrawn		discussion			Rel-15	
R2-1800199	CR on BSR enhancement for SDAP 15.0.0 0010 - F NR_newRAT-Core	Huawei, HiSilicon Withdrawn	CR	Rel-15	38.321			
R2-1800528	BSR Format Withdrawn	Nokia, Alcatel-Lucent Shanghai Bell	discussion	Rel-15			NR_newRAT	
R2-1800529	[Draft] LS to RAN1 on Transport Block Sizes out Rel-15 NR_newRAT To:RAN1	Nokia, Alcatel-Lucent Shanghai Bell Withdrawn					LS	
R2-1800785	CR (Conditions for BSR MAC CE generation) 15 38.321 15.0.0 0017 - F	Samsung R&D Institute UK NR_newRAT-Core	CR	Rel-15			Withdrawn	
R2-1800788	CR (Conditions for clearing of triggered BSR(s)) 15 38.321 15.0.0 0018 - F	Samsung R&D Institute UK NR_newRAT-Core	CR	Rel-15			Withdrawn	

10.3.1.7 LCP

Corrections/critical issues related to LCP

R2-1800613	LCP cleanup => moved from 10.3.1.1 - Nokia thinks we should change Bj => The CR will be merged in R2-1801546	Samsung	draftCR	Rel-15	38.321	15.0.0	F	NR_newRAT-Core
R2-1800311	CR to LCP in TS38.321 - Samsung, Huawei and Ericsson thinks we should keep it like in LTE - Interdigital thinks that it depends on the padding BSR discussion. - LG agrees with the change => The CR is not pursued	Fujitsu	draftCR	Rel-15	38.321	15.0.0		NR_newRAT-Core'
R2-1800585	Correction on UL skipping NR_newRAT-Core	Nokia, Nokia Shanghai Bell	draftCR	Rel-15	38.321	15.0.0		

=> Add the condition that MAC entity shall not generate the MAC PDU if there is no aperiodic CSI requested for the PUSCH transmission,

For dynamic grant, padding BSR is not skipped if the buffer is not empty as for periodic BSR.

- Interdigital thinks that this can result in UEs sending padding BSR unnecessarily. If you don't send it the NW has other means to get the information
 - Huawei also thinks that the UE should do UL skipping instead of padding BSR. Nokia thinks that this is for dynamic grant.
 - Mediatek supports this.
 - Samsung agrees with HW.
 - Nokia explains that the gNB doesn't know what grant to give. HW thinks that the periodic BSR will provide this info to the NW
 - LG doesn't want to differentiate between configured and dynamic grant and skip.
 - Ericsson thinks that there could be some benefits for the network to get the BSR. Samsung thinks that this is a small optimization.
- => the second change is not agreeable
=> The CR is not pursued

R2-1800606	Correction on LCP in case of activation of PDCP CA duplication draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core	Huawei, HiSilicon		
	=> Not treated			
R2-1801124	Correction on aperiodic CSI request condition for UL skipping 15 38.321 15.0.0 0019 - F NR_newRAT-Core	InterDigital	CR	Rel-
	=> Not treated			
R2-1801123	UL skipping when data is available for transmission 15 NR_newRAT-Core	InterDigital	discussion	Rel-
	=> Not treated			
R2-1801223	Discussion on padding BSR skipping 15 NR_newRAT-Core	LG Electronics Deutschland	discussion	Rel-
	=> Not treated			
R2-1801366	[Discussion] Correction on the Logical Channel Selection Procedure discussion NR_newRAT-Core	Samsung Electronics		
	- Nokia and Lenovo think we can solve this by clarifying in field description in RRC and removing "if configured in MAC"			
	=> Field descriptions in the RRC need to describe the case where no restriction is configured. Add it to the list of open issues for now.			
R2-1801367	[Draft CR] Correction on the Logical Channel Selection Procedure draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core	Samsung Electronics		
	=> Not treated			
R2-1801437	CR on transmission mode in LCP restriction 38.321 15.0.0 0027 - F NR_newRAT-Core	Qualcomm Incorporated	CR	Rel-15
	- LG thinks the restriction should be for type1 only. Nokia thinks we discussed this last meeting and agreed on one bit.			
	- Mediatek thinks that for the case of multiple grants the proposal has some merit. Nokia thinks that for CA case we can also make use of other restrictions without complicating further the specs.			
	=> The CR is not pursued			
	Not treated			
R2-1800048	Discussion on the relationship between MAC CE and UL grant for NR LCP discussion Rel-15 NR_newRAT-Core	ASUSTeK		
R2-1800069	SUL and BWP impacts on duplication operation	OPPO, Xiaomi	discussion	
R2-1800403	Further consideration on LCP procedure Core	ZTE, Sanechips	discussion	Rel-15 NR_newRAT-
R2-1800520	LCP enhancements for URLLC	InterDigital	discussion	Rel-15 NR_newRAT-Core
R2-1800580	Remaining issues on LCP procedure Core	Huawei, HiSilicon	discussion	NR_newRAT-
R2-1800584	Remaining issues on UL skipping NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion	Rel-15
R2-1800890	PDCP duplication impacts on LCP	vivo	discussion	R2-1713005
R2-1801123	UL skipping when data is available for transmission 15 NR_newRAT-Core	InterDigital	discussion	Rel-
R2-1801136	UE capability for LCP	MediaTek Inc.	discussion	Rel-15 NR_newRAT-Core
R2-1801231	The condition for padding BSR skipping 38.321 15.0.0 0023 - F NR_newRAT-Core	LG Electronics Deutschland	CR	Rel-15
			Withdrawn	
R2-1801257	The condition for padding BSR skipping 38.321 15.0.0 F NR_newRAT-Core	LG Electronics Deutschland	draftCR	Rel-15

R2-1801370 Remaining Issue on LCP: Whether to Allow Padding BSR Samsung Electronics discussion
NR_newRAT-Core

R2-1801438 CR on the case of overlapping configured grant and dynamic grant Qualcomm Incorporated CR
Rel-15 38.321 15.0.0 0028 - F NR_newRAT-Core

Withdrawn

R2-1800581 Correction on LCP in case of activation of PDCP CA duplication Huawei, HiSilicon CR
Rel-15 38.321 15.0.0 0016 - F NR_newRAT-Core Withdrawn

R2-1800605 Remaining issues on LCP procedure Huawei, HiSilicon discussion NR_newRAT-
Core Withdrawn

10.3.1.8 SPS/Grant-free

Corrections/critical issues related to Configured grant and SPS

R2-1800586 Prioritization between dynamic grant and configured grant Nokia, Nokia Shanghai Bell
discussion Rel-15 NR_newRAT-Core
=> Noted

R2-1800587 Correction on prioritization between dynamic grant and configured grant Nokia, Nokia
Shanghai Bell draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core

R2-1800925 URLLC exception for dynamic grant Intel Corporation discussion Rel-15
NR_newRAT-Core
=> Noted

R2-1800902 Collision between dynamic grant and configured grant vivo discussion R2-1710960
=> Noted

R2-1801126 Override of configured grant by dynamic grant in case of URLLC InterDigital discussion
Rel-15 NR_newRAT-Core
=> Noted

R2-1801239 Prioritization between dynamic grant and configured grant for URLLC LG Electronics Mobile
Research discussion NR_newRAT-Core
=> Noted

R2-1801371 Remaining Issue on SPS/Grant-free: How to Handle Dynamic Grant Coinciding with Configured
Grant Samsung Electronics discussion NR_newRAT-Core
=> Noted

Discussion on papers above

- Vivo thinks that dynamic grant shouldn't always override and it should be network configured. Samsung thinks that dynamic grant should always override and if the NW has issued a dynamic grant there is a good reason for it.
- Huawei indicates that in the email discussion the majority of companies preferred reusing LTE.
- Lenovo, Panasonic, LG, Interdigital, Ericsson support dynamic override as well.
- Qualcomm supports Nokia's proposal. Interdigital thinks that the network can issue a dynamic grant for URLLC if it wants the UE to transmit URLLC.
- Nokia thinks that the capacity for eMBB is reduced especially if the configured grant is very frequent.

=> The dynamic grant addressed to C-RNTI and CS-RNTI shall override the configured grant Type 1 or Type 2 for this transmission in case of overlap in time domain.
=> The spec will be updated to capture this in normative text for UL/DL

R2-1801127 Correction on override of configured grant by dynamic grant InterDigital CR Rel-
15 38.321 15.0.0 0021 - F NR_newRAT-Core

=> The changes will be done by rapporteur in R2-1801546 for both UL/DL

Not treated

- R2-1800376 CR on the prioritization between dynamic scheduling and configured scheduling Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
- R2-1801034 CR on Retransmission for Configured Grant Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core
- R2-1801125 Correction on override of configured assignment by dynamic assignment InterDigital CR Rel-15 38.321 15.0.0 0020 - F NR_newRAT-Core

R2-1800165 UE behavior on configured grant timer upon DCI reception CATT discussion

Proposal 1: The configuredGrantTimer is reset and restarted when a dynamic grant is received for CS-RNTI/C-RNTI for a retransmission for this HARQ process. For both Type 1 and Type 2.

- CATT thinks that both LG and Huawei think that the UE should not use the configured grant for retransmission so the simplest is to restart the timer.
- LG thinks that restarting timer may be more complicated as the UE has to differentiate.
- Nokia shares the same view as CATT
- Interdigital thinks that we may have additional issues if the UE has to change at the last minute. CATT hopes the gNB implementation should hopefully take care of that.
- Lenovo agrees with proposal 1.
- Huawei is concerned that the timer duration would be different between initial and re-transmission. CATT explains that the timer would be restarted anyways.
- Intel doesn't want to specify many cases and have the simple solution
- Proposal 3: No action is required on the configuredGrantTimer when a dynamic grant is received for CS-RNTI for a Type 2 (re)activation for this HARQ process.*
- Interdigital thinks that there is no issue to address as the UE can just use a different HARQ process.
- CATT thinks for the confirmation the UE has to use the last grant.

=> *Noted*

=> The configuredGrantTimer is restarted when a dynamic grant is received for CS-RNTI/C-RNTI for a (re-)transmission for this HARQ process. For both Type 1 and Type 2. The timer is re-started upon PUSCH transmission.

R2-1801032 Leftovers of HARQ transmission with Configured Grant Timer Huawei, HiSilicon discussion Rel-15 38.321 NR_newRAT-Core

=> Not treated

R2-1801033 CR on HARQ transmission with ConfiguredGrantTimer in TS 38.321 Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core

=> Not treated

R2-1801052 Correction on ConfiguredGrantTimer LG Electronics Inc. discussion Rel-15 38.321 NR_newRAT-Core

=> Noted

R2-1801053 Correction on ConfiguredGrantTimer LG Electronics Inc. draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

R2-1800155 Discussion on behavior of ConfiguredGrantTimer OPPO discussion Rel-15 NR_newRAT-Core

=> Remove the "or the uplink grant is a configured uplink grant" as shown
 => Only the first transmission in a repetition bundle (re)starts configuredGrantTimer
 => Noted

R2-1801063 Repetition transmission on configured uplink grant LG Electronics Inc. discussion Rel-15 38.321 NR_newRAT-Core

Proposal 1: If a UE receives a dynamic grant while transmitting UL data within a bundle, then the UE shall stop transmitting the UL data on the remaining uplink grants within the bundle.

- Samsung asks what is the motivation.
 - Intel does see what needs to be specified as the UE would it anyways.
 - LG explains that they would like the UE to not transmit the repetition during the time that the UE gets the grant and generates a new MAC PDU.
- => No support to specify the behaviour
=> Noted

R2-1801065 Repetition transmission on configured uplink grant LG Electronics Inc. draftCR Rel-15
38.321 15.0.0 F NR_newRAT-Core
=> Not treated

R2-1800624 Impact of Flexible Transmission on Configured Grant Operation Samsung discussion
=> Noted

R2-1800661 Draft CR for flexible configured grant transmission Samsung draftCR Rel-15 38.321
15.0.0 NR_newRAT-Core
=> The CR is not pursued

R2-1800898 Text proposal for repetition of the configured grant vivo discussion
=> Not treated

R2-1801037 CR on flexible occasion of initial transmission and repetition for configured grant Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core
=> Noted

Discussion on above papers

=> We will capture the RAN1 agreement

R2-1800622 Correction for SPS and Type-2 Configured Grant Calculation Samsung discussion
=> Noted

R2-1800659 Draft CR for correction on SPS and Type-2 configured grant Samsung draftCR Rel-15
38.321 15.0.0 NR_newRAT-Core
=> similar wording to LTE will be used and rapporteur will take care of the change
=> CR is not pursued

R2-1800250 Text Proposal on HARQ procedure for support of arbitrary starting position of UL-GF Tx with k repetitions Beijing Xiaomi Mobile Software discussion Rel-15
=> Noted

R2-1801040 CR on Slot aggregation and non-adaptive HARQ support in MAC Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core
=> Need to capture non-adaptive retransmission in the same procedure as well

☒ **[NR-AH1801#15][NR UP/MAC] Repetition aspects (Huawei)**

- Capture repetition aspects and slot aggregation in HARQ
- Intended outcome: Email discussion report
Deadline: Monday 2018-02-12

R2-1800818 CR (Corrections to prevent simultaneous Type 1 configured grants on SUL and UL) Samsung R&D Institute UK draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core
=> Noted

R2-1800819 Preventing simultaneous Type 1 configured grants on SUL and UL Samsung R&D Institute UK discussion
=> Noted

- Nokia and QC think that the text is already clear that SUL and UL cannot have multiple configuration active at a time

- CATT think that there is only UL-SCH active at a time

Question: Do we allow configured grant to be configured for both SUL and UL?

- Nokia, Samsung, ZTE, LG, Mediatek, Ericsson, Intel, agree that configured grant is only configured in SUL or UL. Ericsson thinks that SUL is a fallback carrier anyways.
- Huawei thinks we could configure on both and the UE will use only one. CATT thinks that we already agreed to have it per BWP.
- QC, Samsung and Vivo that for type 1 we should limit to 1 but type 2 we can configured on both. Samsung thinks that for type 2 we have a DCI indicating which carrier.

=> Configured grant is configured on only SUL or UL, but not configured for both. The restriction captured in stage 2 and in RRC [maybe in RRC]. FFS if it applies to both type 1/type 2 or only type 1

Do we keep the terminology agreed in last meeting and implemented in MAC or do we come up with an umbrella terminology

- Ericsson thinks that we should just called it configured scheduling.
- Nokia thinks that using CS will simplify things in the ASN.1
- Huawei explains that RAN1 uses the MAC terminology
- Qualcomm thinks we should focus on more important topics and technical CRs.

=> The current terminology agreed last meeting is kept

=> The specs will be aligned

Not treated

R2-1801038	Impact of SUL on Configured Grant 38.321 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15
R2-1800158	CR on ConfiguredGrantTimer for C-RNTI based grant 15.0.0 F NR_newRAT-Core	OPPO	draftCR Rel-15	38.321
R2-1800334	SPS and BWP inactivity timer interaction Core	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800373	Preventing simultaneous Type 1 configured grants on SUL and UL discussion Withdrawn	Samsung R&D Institute UK		
R2-1800374	CR (Corrections to prevent simultaneous Type 1 configured grants on SUL and UL) R&D Institute UK CR Rel-15 38.321 15.0.0 0011 - F NR_newRAT-Core Withdrawn	Samsung		
R2-1800566	BWP timer restart for DL SPS R2-1713650	LG Electronics Inc.	discussion	NR_newRAT-Core
R2-1800647	Correction on ConfiguredGrantTimer NR_newRAT-Core	OPPO	draftCR Rel-15	38.321 15.0.0 F
R2-1800708	Confirmation of configured UL Grant Type 2 Activation for Multiple Aggregated Cells Ericsson discussion Rel-15 NR_newRAT-Core			
R2-1800709	Alignment of terminology for Configured Scheduling and SPS Rel-15 NR_newRAT-Core	Ericsson	discussion	
R2-1800710	Alignment of terminology for Configured Scheduling and SPS 15 38.321 15.0.0 NR_newRAT-Core	Ericsson	draftCR Rel-	
R2-1801035	CR on calculations of configured grant 15.0.0 NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-15	38.321
R2-1801036	Further discussion on configuration of ConfiguredGrantTimer discussion Rel-15 38.321 NR_newRAT-Core	Huawei, HiSilicon		
R2-1801039	Configured grant Type 1 operation with BWP switch Rel-15 38.321 NR_newRAT-Core	Huawei, HiSilicon	discussion	
R2-1801277	Restart condition of sCellDeactivationTimer with skipping operation Research discussion Rel-15 NR_newRAT-Core R2-1713655	LG Electronics Mobile		
R2-1801279	Restart condition of sCellDeactivationTimer with skipping operation Research draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core	LG Electronics Mobile		

R2-1801475 Prevention of using CS grant Core LG Electronics UK discussion Rel-15 NR_newRAT-

10.3.1.9 HARQ

Corrections/critical issues related to HARQ

R2-1800216 Early ACK on configured grants with repetitions CATT discussion
Proposal 1: Add a note in the MAC specification clarifying that when configured grants are configured with repetitions, the configuredGrantTimer shall be set to a larger duration than the time between two consecutive configured grant instances.
 - Ericsson thinks that we typically don't have timer recommendation.
Proposal 2: DCI for UL to C-RNTI is selected as the only method to signal early ACK of UL configured grants with repetition.
 - Nokia thinks that we don't need to restrict anything and the gNB can decide what to send.
 - LG asks how to send feedback for type1 since it is shared resource.
 - Huawei thinks that this is a RAN1 issue and from RAN2 point of view there is no point to restrict.
 => Noted

R2-1800690 Correction for repetition Ericsson draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
 => include this as a question in the email discussion
 => Noted

R2-1800784 HARQ Process Sharing for NR 38.321 NR_newRAT-Core Samsung Electronics France SAdiscussion Rel-15
 - Nokia thinks we are complicating the system and we should have no process sharing
 - Huawei and Interdigital think that there is no problem.
 => No changes need
 => Noted

R2-1800787 CR on HARQ Process Sharing for NR (Alternative 1) Samsung Electronics France SA draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
 => Not treated

R2-1800789 CR on HARQ Process Sharing for NR (Alternative 2) Samsung Electronics France SA draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
 => Not treated

10.3.1.10 DRX

Contributions should focus on final critical issues/corrections for DRX

R2-1800098 Corrections for DRX Operation Samsung Electronics Co., Ltd draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core
 - Nokia thinks that we should still to the LTE principle. During active time the UE is specified which PDCC to monitor.
 - Samsung explains the intention is to make sure the UE monitors PDCCH in BFR. Ericsson thinks it is clear in the RACH procedure.
 - Mediatek suggests to add a note that if it is stated else where that UE monitors PDCCH the UE considers it as active time.
 => First changes are not needed
 => Rapporteur will only include the change about "common PRACH" using the right terminology
 => The CR is not pursued

R2-1800248 Correction on DRX with SRS and HARQ feedback Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F NR_newRAT-Core

=> The changes are agreed and will be merged in R2-1801546

R2-1800073 UE behaviour on DRX timer operation OPPO, APT discussion R2-1712201

R2-1800183 Clarification of UE behavior on DRX timer expiration APT, MTI, OPPO discussion

The UE continue monitoring PDCCH in the current CORESET until the end of the CORESET even though the drx-InactivityTimer is expired before the end of the CORESET.

- LG points out that we already discussed and the gNB can schedule the UE at the beginning before the timer expires.
- Intel agrees that we should discuss the partial overlap case and we should monitor the PDCCH until the end.
- Nokia explains that the gNB doesn't have to schedule the UE and the UE can continue monitoring if it wants to as DRX only mandates when the UE should monitor.
- Mediatek, convida thinks that this ambiguity causes problems for implementation. Intel would like a clear boundary of what is active time. LG thinks that from specification point of view it is already clear the UE shouldn't monitor so there is no problem. Lenovo also understand that it is specified that the UE is not required to monitor.
- Samsung would like to check if the UE can be scheduled in the first symbol/slot and if so it can be ok to stop.
- Intel thinks that even if we stop we have tell the PHY layer to stop. Mediatek explains that for NB-IoT decided how the detailed monitoring would work.

=> Check with RAN1 and verify how scheduling/monitoring works if the UE stops in middle of slot or symbol

=> Noted

R2-1800333 SPS and DRX Ericsson discussion Rel-15 NR_newRAT-Core

Proposal 1 The above WA should be updated to state the correct LTE behavior.

Proposal 2 UE shall not restart the drx-InactivityTimer when sending or receiving data using SPS occasions.

- Huawei agrees with the proposal. Nokia thinks that we should and have an aligned behaviour with bwp timer. Lenovo agrees with Nokia. Vivo want to restart the time.
- QC, Intel also thinks we should not restart. QC thinks that for some type of data we'd like to be able to send the data and go back to sleep.
- Huawei explains that this timer is different. CATT, LG agrees with Huawei. Nokia thinks that this is worst than bwp timer as the UE can still be scheduled in default BWP.
- Mediatek considers that we set the inactivity time to zero.
- LG thinks that the UE can still be scheduled soon even if inactivity timer is not restarted. Convida and Interdigital supports proposal 2.
- Nokia explains that if the configured grant is outside the active time the UE will not start any timers.

=> The current specification is the baseline, the timer is not restarted

=> Noted

Not treated

R2-1800588 Confirm the working assumption on inactivity timer Nokia, Nokia Shanghai Bell discussion
Rel-15 NR_newRAT-Core

R2-1800589 Correction on inactivity timer for configured grant Nokia, Nokia Shanghai Bell draftCR Rel-
15 38.321 15.0.0 NR_newRAT-Core

R2-1800621 DRX timer for SPS Samsung discussion Rel-15 NR_newRAT-Core R2-
1709012

R2-1800335 Interaction of DRX and BWP inactivity timer Ericsson discussion Rel-15
NR_newRAT-Core

Proposal 1 Include the value of infinity to the value range of configurable values for the bandwidthPartInactivityTimer.

- QC doesn't think it is not necessary and is concerned that it would disable default BWP. Mediatek, HW, Intel, LG agrees.
- Docomo supports proposal 1.

=> infinity value is not supported

Proposal 3 If the bandwidthPartInactivityTimer expires when the UE is in active time, it should not affect the drx-InactivityTimer nor the onDurationTimer.

=> already agreed

Proposal 4 The maximum value for the bandwidthPartInactivityTimer should be in the order of seconds

- QC doesn't see the need for the max to be in second. Asustek doesn't support it and it goes against RAN1 agreement
- Nokia supports it and if the DRX is in the order of seconds the network may want to keep the UE in active BWP. HW indicates that RAN1 has already provided a list of parameters and there is no to discuss it here.
- HW thinks that we decided to keep DRX and BWP timers separate.
- Docomo supports the proposal.
- Intel asks what the problem is if the inactivity timer is lower. Ericsson explains that the network would like the UE to stay in active BWP while inactivity is ongoing.
- Ericsson would like to understand what is the technical problem with having longer timers.
- Nokia thinks that we should at least decide that 50ms is not enough

Minimum value:

- Nokia asks why we have 1ms minimum value since the switching time is higher (e.g. 2ms). Samsung agrees it doesn't make sense and we should avoid that it expires while the UE is receiving PDSCH.

=> Higher maximum values than 80ms will be introduced. FFS the exact minimum and maximum value.

=> The minimum resolution of the bandwidthPartInactivityTimer is 1ms

=> Noted

Not treated

R2-1801440	CR on interaction between BWP inactivity timer and C-DRX procedures	Qualcomm
	Incorporated CR Rel-15 38.321 15.0.0 0030 - F	
R2-1801134	Values for the bandwidth part inactivity timer	Ericsson draftCR Rel-15 38.331
	15.0.0 F NR_newRAT-Core	
R2-1800976	Interaction between BWP operation and C-DRX	PANASONIC discussion
R2-1800637	Impacts of new RNTIs on DRX	Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
R2-1800638	CR to DRX on impacts of new RNTIs	Huawei, HiSilicon draftCR Rel-15 38.321
	15.0.0 F NR_newRAT-Core	
R2-1800639	CR to add new RNTIs	Huawei, HiSilicon draftCR Rel-15 38.321 15.0.0 F
	NR_newRAT-Core	
R2-1800166	Leftover issues of DRX	CATT discussion
R2-1800640	Impacts of beam failure recovery on DRX	Huawei, HiSilicon discussion Rel-15
	NR_newRAT-Core	
R2-1800641	CR for Impacts of beam failure recovery on DRX	Huawei, HiSilicon draftCR Rel-15
	38.321 15.0.0 F NR_newRAT-Core	
R2-1801261	Beam management in C-DRX	Qualcomm Incorporated discussion Rel-15 NR_newRAT-Core
	R2-1713892	
R2-1800924	Clarifications related to DRX	Intel Corporation discussion Rel-15 NR_newRAT-Core
R2-1801029	The start condition of the drx-HARQ-RTT-TimerDL	LG Electronics Inc. discussion Rel-15
	15 38.321 NR_newRAT-Core	
R2-1801067	Impacts of ConfiguredGrantTimer on DRX	Huawei, HiSilicon discussion Rel-15
	NR_newRAT-Core	
R2-1801068	CR to DRX on impacts of ConfiguredGrantTimer	Huawei, HiSilicon draftCR Rel-15
	38.321 15.0.0 F NR_newRAT-Core	
R2-1801441	CR on DRX inactivity timer and A-CSI request	Qualcomm Incorporated CR Rel-15
	38.321 15.0.0 0031 - C NR_newRAT-Core	

R2-1801047	Enhancement of DRX Core	Huawei, HiSilicon	discussion	Rel-15	38.321	NR_newRAT-Core
R2-1801048	CR for enhancement of DRX NR_newRAT-Core	Huawei, HiSilicon	draftCR	Rel-15	38.321	15.0.0
R2-1801051	The start condition of the drx-HARQ-RTT-TimerDL 38.321 15.0.0 C	LG Electronics Inc.	draftCR	Rel-15		
R2-1801301	Draft CR to 38.321 on DRX Active Time NR_newRAT-Core	OPPO	draftCR	Rel-15	38.321	15.0.0 F
R2-1801433	An issue with DRX on duration timer NR_newRAT-Core R2-165191	Qualcomm Incorporated	discussion	Rel-15		
R2-1801439	CR on starting BWP for DRX on duration 15.0.0 0029 - C NR_newRAT-Core	Qualcomm Incorporated	CR	Rel-15	38.321	

Withdrawn

R2-1800180	Clarification of UE behavior on DRX timer expiration Withdrawn	APT, MTI	discussion			
R2-1800182	Clarification of UE behavior on DRX timer expiration discussion Withdrawn	Asia Pacific Telecom co. Ltd				

10.3.1.11 Impact of PDCP duplication on MAC*MAC CE for activation/deactivation of PDCP duplication*

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

Not treated

R2-1800066	Duplication control using MAC CE	OPPO	discussion			
R2-1800123	PDCP duplication and SCell (de-)activation NR_newRAT-Core R2-1712210	ASUSTeK	discussion	Rel-15		
R2-1800170	Duplication activation/deactivation MAC CE	CATT	discussion			
R2-1800201	BSR procedure for data duplication NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15		
R2-1800202	Cell deactivation impacts on PDCP duplication 15 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15		
R2-1800203	PBR configuration for duplication DRB NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15		
R2-1800562	Impacts of SCell activation/deactivation on activation/deactivation of PDCP duplication in CA Sharp		discussion			
R2-1800590	Remaining MAC issues on duplication 15 NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion	Rel-15		
R2-1800591	Correction on duplication activation and deactivation draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core	Nokia, Nokia Shanghai Bell				
R2-1800705	PDCP duplication control related to SCell control NR_newRAT-Core	Ericsson	discussion	Rel-15		
R2-1800767	duplication considering	Potevio	discussion			
R2-1800897	PDCP duplication deactivation due to SCell or BWP deactivation 1712833	vivo	discussion	R2-1712833		
R2-1801152	PDCP duplication with data discard - impact on MAC layer 38.321 15.0.0 B NR_newRAT-Core	MediaTek Inc.	draftCR	Rel-15		
R2-1801156	The format of Duplication Activation/Deactivation MAC CE 38.321 15.0.0 F NR_newRAT-Core	MediaTek Inc.	draftCR	Rel-15		

R2-1801238	PDCCP duplication impacts for MAC NR_newRAT-Core	LG Electronics Mobile Research	discussion	
R2-1801242	BSR operation with CA packet duplication NR_newRAT-Core	Sequans Communications	discussion	Rel-15
R2-1801253	Impact of PDCCP duplication on LCP NR_newRAT-Core	Qualcomm Incorporated	discussion	Rel-15
R2-1801281	Packet duplication with implicit SCell deactivation and BWP switching Research discussion	LG Electronics Mobile		
R2-1801474	Support of CA duplication on a single cell NR_newRAT-Core	LG Electronics UK	discussion	Rel-15
R2-1801338	LCP restriction for PDCCP duplication consideration for SUL	Xiaomi, China Unicom, CMCC, OPPO, Potevio, TCL, vivo	discussion	Rel-15

10.3.1.12 PHR

Corrections/critical corrections related to PHR

R2-1800343	PHR for SUL	Ericsson	discussion	Rel-15	NR_newRAT-Core
=> FFS how to support SUL PUSCH and SRS scenario. How to report and differentiate between type 1 and type 3 PHR					
=> Noted					
☒ [NR-AH1801#16][NR UP/ MAC] – PHR for SUL (Huawei)					
- Understand for which scenarios the additional PHR is needed and solution on how to address the scenarios					
Intended outcome: Email discussion report					
Deadline: Monday 2018-02-12					
R2-1800619	SUL and PHR	Samsung	discussion	Rel-15	NR_newRAT-Core
=> Not treated					
R2-1800620	Clarification on PHR for SUL NR_newRAT-Core	Samsung	draftCR	Rel-15	38.321 15.0.0 F
=> Not treated					
R2-1800614	Support of Type 2 PH in NR	Samsung	discussion	Rel-15	NR_newRAT-Core
- QC thinks we should tell RAN1 to Type 3					
<i>Proposal 5: Type 3 PH is not reported if Single Entry PHR format is used.</i>					
- Huawei thinks that it may be needed for SUL and can be part of the email discussion					
=> RAN2 will continue using Type 3 and send LS to RAN1 to change their type 2 name to Type 3.					
=> Ask RAN1 if simultaneous PUSCH/PUCCH in LTE for EN-DC is supported.					
=> Is LTE-like Type 2 PHR is supported? RAN2 understands that across cell groups, parallel PUCCH in one group vs. PUSCH in the other group is supported. Does RAN1 intend to support it.					
=> Asks if we support the simultaneous configuration of EN-DC and NR PUCCH SCell					
=> Ask them to confirm phr-ModeOtherCG is applicable for EN-DC.					
=> Noted					
R2-1801564	LS to RAN1 on PHR	NTT Docomo			
=> add “the scenario and PH for PUCCH” instead of “it” for question 1					
=> The LS is approved in R2-1801568 with the above change					
Not treated					
R2-1800168	Solution for PH Type Inconsistency between RAN1 and RAN2	CATT	discussion		

R2-1800642	PHR alignment between RAN1 and RAN2 Huawei, HiSilicon	discussion	Rel-15
R2-1800615	Clarification on Type 2 PH Samsung	draftCR Rel-15 38.321 15.0.0 F	NR_newRAT-Core
R2-1800616	Clarification on Type 2 PH in EN-DC	Samsung draftCR Rel-15 36.321 15.0.0 F	NR_newRAT-Core
R2-1800618	Clarification on Type 2 PH Samsung	draftCR Rel-15 38.331 15.0.0 F	NR_newRAT-Core
R2-1800643	CR for PHR description and format	Huawei, HiSilicon draftCR Rel-15 38.321	15.0.0 F NR_newRAT-Core
R2-1800644	CR for PHR configuration Huawei, HiSilicon	draftCR Rel-15 38.331 15.0.0 F	NR_newRAT-Core
R2-1800680	PHR for NR CA Lenovo, Motorola Mobility	discussion Rel-15	NR_newRAT-Core R2-1712915
R2-1800169	PHR MAC CE for EN-DC CATT	discussion	
R2-1801539	PHR MAC CE for EN-DC CATT	discussion	
	- Ericsson supports the intention. Samsung thinks it is not needed as it will happen automatically due to the numbering of SCells.		
	=> No need to clarify further in MAC spec		
	=> Noted		
R2-1801406	Remaining issue on PHR NTT DOCOMO INC.	discussion Rel-15	NR_newRAT-Core
R2-1800231	Consideration on PHR Trigger Condition for Supporting SUL	Beijing Xiaomi Mobile	
	Software discussion Rel-15		
	=> No new triggers are needed		
	=> Noted		
R2-1800253	Pathloss change for triggering PHR	ASUSTeK draftCR Rel-15 38.321 15.0.0 F	NR_newRAT-Core
R2-1801008	Discussion on power sharing and its impacts on PHR for EN-DC	Huawei, HiSilicon	
	discussion Rel-15	NR_newRAT-Core	
R2-1801041	Remaining issues of power management in NR	Huawei, HiSilicon	discussion Rel-15 38.321 NR_newRAT-Core
R2-1801043	Consideration on PHR with multi-beam operation	Huawei, HiSilicon	discussion Rel-15 38.321 NR_newRAT-Core

Withdrawn

R2-1800083	Pathloss change for triggering PHR	ASUSTeK CR	Rel-15 38.321 15.0.0 0002
	- F NR_newRAT-Core	Withdrawn	
R2-1800167	PCMAX,c Reporting for Single Entry PHR	CATT discussion	Withdrawn
R2-1801042	CR on power management in NR	Huawei, HiSilicon	draftCR Rel-15 38.321 15.0.0
	NR_newRAT-Core	Withdrawn	
R2-1801128	Power headroom reporting	InterDigital	discussion Rel-15 NR_newRAT-Core
	Withdrawn		
R2-1801129	Correction on power headroom reporting	InterDigital CR	Rel-15 38.321 15.0.0 0022
	- F NR_newRAT-Core	Withdrawn	

10.3.1.13 Other

Other corrections on topics not included in the detailed agenda items.

Not treated

R2-1800042	Discussion on beam failure recovery request in NR 15 NR_newRAT-Core	ASUSTeK	discussion	Rel-
R2-1800049	UE behaviours upon beam failure and recovery NR_newRAT-Core	ASUSTeK	discussion	Rel-15
R2-1800067	Duplication and SCell (de-)activation	OPPO	discussion	
R2-1800175	RNTIs in MAC specification	CATT	discussion	
R2-1800252	UE behaviours upon beam failure and recovery 15.0.0 F NR_newRAT-Core	ASUSTeK	draftCR Rel-15	38.321
R2-1800312	CR to padding in TS38.321	Fujitsu	draftCR Rel-15	38.321 15.0.0 NR_newRAT-Core
R2-1800328	Activation and Deactivation time of Secondary Cells 15 NR_newRAT-Core	Ericsson	discussion	Rel-
R2-1800329	LS on Activation and Deactivation time of Secondary Cells NR_newRAT-Core To:RAN4	Ericsson	LS out	Rel-15
R2-1800340	Contention based random access for beam failure NR_newRAT-Core	Ericsson	discussion	Rel-15
R2-1800560	Remaining issues on beam failure recovery	Sharp	discussion	
R2-1800645	Enhancement to user plane performance NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15
R2-1800678	Maintenance of Timing Advance at TA timer expiry Rel-15 NR_newRAT-Core	Lenovo, Motorola Mobility	discussion	
R2-1800684	Impact of multiple measurement gaps in MAC NR_newRAT-Core	Ericsson	discussion	Rel-15
R2-1800685	Impact of multiple measurement gaps in MAC 15.0.0 F NR_newRAT-Core	Ericsson	draftCR Rel-15	38.321
R2-1801044	Uplink TA maintenance with multi-beam operation 15 38.321 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-
R2-1801045	CR on handling of CSI reporting in TS 38.321 38.321 15.0.0 NR_newRAT-Core	Huawei, HiSilicon	draftCR Rel-15	
R2-1801046	CR on Handling of Measurement Gaps for Beam Failure Recovery draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core	Huawei, HiSilicon		
R2-1801092	Draft CR to 38.321 on sCellDeactivationTimer NR_newRAT-Core	OPPO	draftCR Rel-15	38.321 15.0.0
R2-1801410	BWP inactivity timer setting during random access procedure draftCR Rel-15 38.321 15.0.0 NR_newRAT-Core	HTC Corporation		
R2-1801418	BWP inactivity timer setting on SCell deactivation 38.321 15.0.0 NR_newRAT-Core	HTC Corporation	draftCR Rel-15	
R2-1801454	NR user plane latency	Samsung Electronics GmbH	discussion	R2-1713895
R2-1801480	Dynamic scheduling for latency reduction NR_newRAT-Core	LG Electronics UK	discussion	Rel-15
R2-1801504	Transport Block size for NR VoIP NR_newRAT-Core	SHARP Corporation, KDDI	discussion	Rel-15

Withdrawn

R2-1800040	UE behaviours upon beam failure and recovery 15.0.0 0001 - F NR_newRAT-Core	ASUSTeK	CR	Rel-15 38.321
			Withdrawn	

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.

- R2-1800706 CR on RLC start of t-Reassembly Ericsson draftCR Rel-15 38.322 15.0.0 NR_newRAT-Core
 => second change in 5.2.3.2.3 should be RX_Next
 => With this change the CR will be merged in the rapporteur CR R2-1801553
- R2-1800707 t-Reassembly in RLC Ericsson discussion Rel-15 NR_newRAT-Core
- R2-1800227 Miscellaneous corrections to NR RLC Huawei, HiSilicon draftCR Rel-15 38.322
 15.0.0 F NR_newRAT-Core
 => The rapporteur will go through the abbreviations and determine which ones are needed
 => The rapporteur will make the changes in R2-1801553
- R2-1800893 Discussion on RLC window upon SN wrap around vivo discussion
 => The changes are needed and the rapporteur will port them to R2-1801553
 => Noted
- R2-1800894 Discussion on the RLC retransmission vivo discussion
 - Mediatek doesn't think the change is needed
 => No change
 => Noted
- R2-1801553 CR on RLC correction Mediatek
 => The CR is endorsed

Withdrawn

- R2-1800200 Miscellaneous corrections to NR RLC Huawei, HiSilicon CR Rel-15 38.322
 15.0.0 0001 - F NR_newRAT-Core Withdrawn

10.3.2.2 RLC header format

Corrections related to RLC header format

10.3.2.3 Impact of PDCP duplication to RLC

Not treated

- R2-1800068 Impact of duplication on RLC OPPO discussion
- R2-1800172 Duplication impacts on RLC CATT discussion
- R2-1800204 RLC behaviours upon duplicate deactivation Huawei, ASUSTeK, HiSilicon discussion
 Rel-15 NR_newRAT-Core
- R2-1800205 RLC optimization for packet duplication Huawei, HiSilicon discussion Rel-15
 NR_newRAT-Core
- R2-1800206 Further consideration on RLF indication Huawei, HiSilicon discussion Rel-15
 NR_newRAT-Core
- R2-1800394 Impact of PDCP Duplication on RLC Layer ZTE, Sanecips discussion Rel-15 NR_newRAT-Core
- R2-1800944 RLC aspects for packet duplication Intel Corporation discussion Rel-15
 NR_newRAT-Core
- R2-1800967 RLC handling upon duplication deactivation Nokia, Mediatek, Nokia Shanghai Bell
 discussion Rel-15 NR_newRAT
- R2-1801150 PDCP duplication with data discard - impact on RLC layer MediaTek Inc. draftCR Rel-15
 38.322 15.0.0 B NR_newRAT-Core
- R2-1801236 RLC behavior after reaching the maximum number of retransmission LG Electronics France
 discussion NR_newRAT-Core

R2-1801249	PDCCP duplication impact to RLC	Qualcomm Incorporated	discussion	Rel-15	NR_newRAT-Core
R2-1801280	RLC behavior after reaching the maximum number of retransmission	LG Electronics France			
	draftCR Rel-15 38.322 15.0.0 F	NR_newRAT-Core			
R2-1801282	Consideration on indicating RLC max retransmissions	LG Electronics Mobile Research			
	discussion Rel-15 NR_newRAT-Core				
R2-1801501	Interaction between RLC Entities for PDCCP Duplication	Samsung	discussion	Rel-15	R2-1713832
R2-1801502	RLC Max Retransmissions in CA Duplication	Samsung	discussion	Rel-15	R2-1713833
R2-1801504	R2-1801516	On remaining issues of SCell-RLF handling	ITL	discussion	

Withdrawn

R2-1801240	RLC behavior after reaching the maximum number of retransmission	LG Electronics France			
	CR Rel-15 38.322 15.0.0 0002 - F	NR_newRAT-Core	Withdrawn		

10.3.2.4 Other

R2-1800396	Further consideration on the maintainance of RX_Next_Status_Trigger	ZTE, Sanechips			
	discussion Rel-15 NR_newRAT-Core				
	=> Noted				
R2-1800397	CR Correction on the maintainance of RX_Next_Status_Trigger	ZTE, Sanechips	CR	Rel-15	
	15 38.321 15.0.0 0012 - F	NR_newRAT-Core			
	=> Not treated				
R2-1800563	Issue on POLL_SN value mismatch	Sharp, MediaTek Inc.	discussion		
	=> Noted				
R2-1801284	Correction on TX_Next - 1 for POLL_SN and the RLC SDU for retransmission	LG Electronics Mobile Research	discussion	Rel-15	NR_newRAT-Core
	=> Noted				
R2-1801286	Correction on TX_Next - 1 for POLL_SN and the RLC SDU for retransmission	LG Electronics Mobile Research	draftCR Rel-15 38.322 15.0.0 F	NR_newRAT-Core	

On the existance of the issue:

- LG agrees that there is an issue
- Ericsson and Nokia think that this issue is only due to pre-processing
- Qualcomm thinks that the issue is not related to pre-processing but rather just to incrementing TX_next and we do not need a new variable.
- Huawei and Samsung prefers Sharps approach
- CATT is not sure we need to capture anything and we can leave it UE implementation.

R2-1801562	Summary of issues on POLL_SN value mistmatch	LG			
	- Fujitsu doesn't think issue 2 is an issue as it seems to result due to too much pre-processing				
	=> The CR is postponed to next meeting				
R2-1801563	CR on on TX_Next for POLL_SN and the RLC SDU for retransmission	Ericsson, Nokia, Nokia Bell Labs			
	=> The CR is postponed to next meeting				
R2-1801266	Potential issues on slow RLC status reporting	Qualcomm Incorporated	discussion	Rel-15	NR_newRAT-Core
	- LG is not sure we should add more triggers.				
	- Intel shares the same concerns as Qualcomm				
	- Mediatek thinks that this discussion is past the RLC and we can keep it mind for the future.				
	- Huawei supports to further investigate.				
	- Samsung understands the concerns but latency in the RLC is not a big problem.				

=> Noted

Withdrawn

R2-1800530 Duplication impacts to RLC Nokia, Alcatel-Lucent Shanghai Bell discussion Rel-15 NR_newRAT Withdrawn

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.

R2-1801407 Small corrections to PDCP specification LG Electronics Inc. (PDCP rapporteur) draftCR Rel-15 38.323 15.0.0 NR_newRAT-Core

=> The changes are agreed

=> The CR is revised in R2-1801554

R2-1801554 Small corrections to PDCP specification LG Electronics Inc. (PDCP rapporteur)

=> The CR is endorsed

10.3.3.2 PDCP PDU formats

Corrections/critical issues related to PDCP PDU formats

R2-1800159 CR on maximum PDCP SDU OPPO draftCR Rel-15 38.323 15.0.0 F NR_newRAT-Core

- Huawei agrees as PDCP can support LTE security algorithms.

- LG thinks that we can support LTE security but the change is not needed, as the maximum size doesn't harm the security algorithm.

- Ericsson thinks that there are other specs providing the limits

=> The understanding is that the size limitation for security algorithms are specified in other specs

=> The CR is not pursued

R2-1800968 Clarification of agreement on header-only PDCP Data PDU Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT

- LG clarifies that PDCP PDU always contains data as per the PDU format

=> Confirm that PDCP PDU always contains data

=> Update "The PDCP Data PDU is used to convey PDCP SN and one or more of following:" and delete "PDCP SN"

=> Rapporteur will make the changes in R2-1801554

10.3.3.5 PDCP duplication

R2-1800945 PDCP aspects for packet duplication Intel Corporation discussion Rel-15 NR_newRAT-Core

Proposal 1: Upon packet duplication activation, only PDCP SDUs/PDUs not submitted to lower layers are duplicated.

- Lenovo supports the proposal as otherwise the UE has to keep track

- Ericsson thinks it should be clear that it doesn't apply to pre-processed data.

Whether duplication for control PDU is also supported

- Vivo asks if this is data PDUs only. Mediatek confirms. Huawei, CATT and LG think we should do duplication for control PDU. LG thinks that is more complex to specify different behaviour. Intel doesn't see the real need but understand that it is more complex to differentiate. Ericsson considers that we don't have PDCP SN so it will impact discard operation.

- LG thinks that reliability of control PDU would increase the performance. Intel thinks that duplication is for URLLC.
- Huawei thinks that we just agreed to having RoHC and we may need to duplicate the feedback

Proposal 2: For packet duplication, when to submit PDCP PDUs to lower layers is up to UE implementation. Specification changes are not needed.

- Lenovo thinks that we need to decide what the UE behaviour is and which PDCP status the UE uses when we switch back from duplication.

Proposal 3: After packet duplication is activated, for DC duplication, PDCP data volume is indicated to both the MAC entity associated with the primary RLC entity and the MAC entity associated with the secondary RLC entity.

- LG thinks that if we don't do control PDU duplication the data volume will be different.

=> Noted

R2-1800207 Operation for PDCP duplication Huawei, ASUSTeK, HiSilicon discussion Rel-15
NR_newRAT-Core

When a PDCP PDU has been acknowledged in one leg, the UE should stop the transmission of the duplicated PDCP PDU in the other leg

- Nokia asks what stopping the transmission refers to, the segmented ones as well or just the ones that have not yet been forwarded to lower layers. It makes sense to discard the PDUs that are not yet submitted to lower layers. Lenovo has the same view.
- Huawei thinks we can discuss further.
- Mediatek and LG agree with the intention
- Samsung thinks that the UE should move the window so for AM it may not be so useful

=> Noted

R2-1800702 PDCP duplication and discard Ericsson discussion Rel-15 NR_newRAT-Core

=> Noted

Proposal 1 For DC and CA PDCP duplication, when the successful delivery of a PDCP PDU is confirmed by one of the associated RLC entities:

- PDCP shall discard the PDCP PDU along with the corresponding PDCP SDU.*
 - PDCP should indicate to the other associated RLC entity to discard the corresponding PDCP PDU.*
- CATT asks why we can't use the HARQ feedback. LG, Nokia, Intel think that we shouldn't use HARQ feedback. Mediatek agrees with CATT, and HARQ feedback is more reliable.
 - LG thinks that the discard functionality shouldn't be changed.
 - Intel thinks that each RLC entity maintains its own SN and it is complicated to keep track of the PDUs.
 - Mediatek sees some benefits for UM and HARQ. Intel explains that the reliability of PDSCH is not enough for URLLC. Nokia explains that we don't have explicit ACK feedback and if there is no data available for a while we cannot use the HARQ.
 - Spreadtrum has some concerns.

Proposal 2 For DC and CA PDCP duplication, a PDCP PDU discard timer is started when a PDCP PDU is initially submitted to lower layers. At expiry of the timer:

- PDCP shall discard the PDCP PDU along with the corresponding PDCP SDU.*
 - PDCP should indicate to lower layers to discard the corresponding PDCP PDU.*
- LG thinks that we can use the PDCP discard timer.
 - Mediatek asks what do you do when the timer expires

Proposal 3 For CA and DC, upon deactivation of PDCP data duplication, the UE transmitting PDCP entity:

- PDCP should indicate to lower layers to discard all PDCP PDUs provided for duplicate transmission to the secondary RLC entity.*
- LG thinks this is a minor optimization as there shouldn't be a lot of PDUs submitted to lower layers. Ericsson thinks that not discarding may cause problems. Lenovo thinks that we can

do this for CA but for DC we fallback to split bearer and the UE can transmit anywhere.
Huawei agrees. Asustek also supports the proposal.

- Intel thinks that we should flush.

What happens with the secondary RLC entity when duplication is deactivated for CA

- Intel, Huawei, Mediatek think we should do RLC re-establishment. LG thinks that the second RLC should keep on trying to transmit.
- Nokia thinks that maybe DL duplication is continuing and only UL is deactivated. LG explains that re-establishment will cause more problems as there may be packets being transmitted in the MAC and a re-establishment will reset all variables in the RLC entity.
- CATT doesn't see why we do it for CA, we should keep the same behaviour as DC.
- Intel and Qualcomm thinks that discarding should be optional for the UE.
- Xiaomi ask what will happen with the data in the buffer. Ericsson also thinks that we will have problems and we have to specify what we do with those data and how long we consider them valid. LG thinks that the UE can keep on transmitting. Ericsson explains that the network may deactivate the carrier and may stop issuing grants.
- Lenovo thinks that not discarding would be inconsistent with the first agreement where we are increasing efficiency by discarding.

R2-1801557 Summary of CA duplication for SRB Vivo

- Nokia, Interdigital and CATT think that this issue would not exist due to configuration
 - Mediatek doesn't see the need for this feature.
 - LG asks how we configure LCID for SRB as it is now fixed in the spec. Ericsson and Nokia explain that we would need to configure it when we do duplication. QC and Mediatek thinks that this is not free as we need to configure.
- => Noted

Agreements:

1. Upon packet duplication activation, only PDCP SDUs/PDUs not submitted to lower layers are duplicated.
2. Baseline is that packet duplication is support for data PDUs
3. For packet duplication, when to submit PDCP PDUs to lower layers is up to UE implementation. FFS on UE behaviour when duplication is deactivated and what PDCP data volume is used.
4. After packet duplication is activated, for DC duplication, PDCP data volume is indicated to both the MAC entity associated with the primary RLC entity and the MAC entity associated with the secondary RLC entity
5. After packet duplication is activated, for CA duplication, PDCP data volume is included in both the LCG associated with the primary RLC entity and the LCG associated with the secondary RLC entity.
6. Packet duplication does not impact RLC data volume
7. The UE shall discard packets that have been acknowledged by RLC in the other RLC leg. PDCP should indicate to the other associated RLC entity to discard the corresponding PDCP PDU. RLC procedures and PDCP discard procedures are not impacted by this agreement.
8. The deactivated RLC entity is not re-established
9. For CA and DC upon deactivation of PDCP data duplication, the UE transmitting PDCP entity should indicate to lower layers to discard all PDCP PDUs provided for duplicate transmission to the secondary RLC entity
10. When configuring duplication, RRC can also set the initial state (active or inactive) for DRBs.
11. If SRB is configured to use duplication, the state is always active
12. FFS Duplication is supported for SRBs for CA

R2-1800703 PDCP duplication for AM operation Ericsson discussion Rel-15 NR_newRAT-Core

Proposal 2 Duplication is supported for SRBs, also in CA.

R2-1801409 PDCP duplication for SRBs. LG Electronics Inc. discussion Rel-15 NR_newRAT-Core

Proposal: SRB DC packet duplication is applied only to SRB1.

On support of CA duplication for SRB

- Vivo asks how to handle SRB SCell failure.
- LG thinks that CA duplication is not useful for SRB. Intel also agrees.
- Ericsson thinks that we support it for DC we can also support for CA. Intel does see any use case requiring duplication for CA.
- Nokia also supports it for CA and can improve the latency.
- CATT, ZTE, Interdigital, Docomo support this as well.

R2-1800969 Initial State of PDCP Duplication Nokia, Mediatek, Nokia Shanghai Bell discussion Rel-15 NR_newRAT
Proposal when configuring duplication, RRC can also set the initial state (active or inactive) for DRBs.

- Samsung thinks that the initial state should be active
- CATT supports the proposal and there is a field already in the RRC
- LG support the proposal but only for DRB, but for SRB it should be always activated. Lenovo explains that we don't have MAC CE anyways

Not treated

R2-1800154 PDCP operation for UL packet duplication OPPO discussion Rel-15 NR_newRAT-Core

R2-1800171 PDCP operation and configuration for duplication CATT discussion

R2-1800173 Duplication Scenarios CATT discussion

R2-1800208 PDCP data volume calculation for packet duplication Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core

R2-1800228 Introducing UL duplication to PDCP Huawei, HiSilicon draftCR Rel-15 38.323 15.0.0 B NR_newRAT-Core

R2-1800269 Impact of BWP deactivation on PDCP duplication Spreadtrum Communications discussion Rel-15

R2-1800395 Impact of PDCP Duplication on PDCP Layer ZTE, Sanechips discussion Rel-15 NR_newRAT-Core

R2-1800564 Impacts of PDCP duplication on PDCP SDU discard procedure Sharp discussion

R2-1800626 Discussion on PDCP data volume calculation during PDCP Duplication Samsung R&D Institute India discussion R2-1712964

R2-1800679 Detailed behaviour for PDCP Packet duplication Lenovo, Motorola Mobility discussion Rel-15 NR_newRAT-Core

R2-1800701 draftCR on PDCP duplication and discard Ericsson draftCR Rel-15 38.323 15.0.0 NR_newRAT-Core

R2-1800704 PDCP duplication transmit operation Ericsson discussion Rel-15 NR_newRAT-Core

R2-1800768 PDCP duplication consideration Potevio discussion

R2-1800804 Several considerations on PDCP duplication CMCC discussion Rel-15 NR_newRAT-Core

R2-1800889 Layer-2 behaviors of PDCP duplication deactivation vivo discussion R2-1713004

R2-1800891 Discussion on the PDCP data volume calculation for PDCP duplication vivo discussion R2-1713006

R2-1800892 UE layer-2 behaviors at SCell-failure vivo discussion

R2-1800970 Duplication Impacts to PDCP Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT

R2-1801141 PDCP duplication with data discard MediaTek Inc. discussion Rel-15 NR_newRAT-Core R2-1711407

R2-1801148 PDCP duplication with data discard – impact on PDCP layer MediaTek Inc. draftCR Rel-15 38.323 15.0.0 B NR_newRAT-Core

R2-1801155 Reliability enhancements for PDCP Duplication Activation/Deactivation MediaTek Inc. draftCR Rel-15 38.323 15.0.0 B NR_newRAT-Core

R2-1801233	Issues on PDCP duplication	LG Electronics France	discussion	NR_newRAT-Core	
R2-1801235	PDCP and RLC behavior for packet duplication	LG Electronics France	discussion	NR_newRAT-Core	
R2-1801244	PDCP duplication	Qualcomm Incorporated	discussion	Rel-15	NR_newRAT-Core R2-1713584
R2-1801256	Reordering timer for PDCP operation with duplication		discussion	NR_newRAT-Core	Sequans Communications
R2-1801267	Discussion on Uplink Packet Duplication	III	discussion	Rel-15	R2-1712965
R2-1801341	Discussion on PDCP data volume calculation in packet duplication	ITRI	discussion	NR_newRAT-Core	
R2-1801350	Interaction between PDCP and RLC Entities for duplication in NR-NR DC		discussion	TCL	NR_newRAT-Core R2-1712308
R2-1801408	Initial state of PDCP duplication	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core
R2-1801500	Initial State of Uplink Packet Duplication	Samsung	discussion	Rel-15	R2-1713831
R2-1801503	Activation and Deactivation of PDCP Duplication	Samsung	discussion	Rel-15	R2-1713829
R2-1801514	Configuration of PDCP duplication on default DRB	ITL	discussion		

Withdrawn

R2-1800209	Introducing UL duplication to PDCP	Huawei, HiSilicon	CR	Rel-15	38.323
	15.0.0 0001 - B	NR_newRAT-Core	Withdrawn		
R2-1800523	Initial State of PDCP Duplication	Nokia, Alcatel-Lucent Shanghai Bell	discussion	Rel-15	NR_newRAT-Core Withdrawn
R2-1800531	Duplication impacts to PDCP	Nokia, Alcatel-Lucent Shanghai Bell	discussion	Rel-15	NR_newRAT-Core Withdrawn

10.3.3.7 Other*Corrections/critical issues related to PDCP*

R2-1800998	Behaviour of t-Reordering for SRB and AM DRB during PDCP re-establishment	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
	- LG thinks that these implies a lot of changes for a minor optimization - Vivo is also not sure about the gain - Docomo sees some benefits for SRB. Ericsson, Nokia supports Docomo. => the t-ordering is stopped and reset for SRBs => Rapporteur will capture the change in R2-1801554 => Noted				
R2-1800999	Corrections for PDCP re-establishment and PDCP status report	Huawei, HiSilicon	draftCR	Rel-15	38.323 15.0.0 NR_newRAT-Core
R2-1801247	PDCP reestablishment / data recovery for UM bearer		discussion	NR_newRAT-Core	Sequans Communications
	- LG, Ericsson, Nokia don't think this is needed - Mediatek has some sympathy with the proposal for URLLC to avoid loss. LG thinks that re-transmitting for URLLC is not a good solution as it is supposed to be low latency in the first place. Samsung agrees with LG. Sequans considers that we also have ultra reliability. - Huawei think that they may an issue if the data has been provided to lower layers. - Vivo thinks that a good UE implementation will not provide too much data to UM RLC => Noted				
R2-1801000	Discussion on PDCP transmit operation	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
	- LG thinks that we should align except for PDCP duplication				

- => The transmit operation needs to be specified for control PDU. The rapporteur will review and make the changes
- Ericsson thinks that we had an agreement to set the value to infinity, achieving the same behaviour.
- => Noted

R2-1801001 Corrections for PDCP transmit operation Huawei, HiSilicon draftCR Rel-15 38.323
15.0.0 NR_newRAT-Core
=> Not treated

R2-1801002 Discussion on moreThanOneRLC in PDCP-Config Huawei, HiSilicon discussion Rel-15
NR_newRAT-Core
=> Noted

R2-1801003 Corrections for moreThanOneRLC in PDCP-config Huawei, HiSilicon draftCR Rel-15
38.331 15.0.0 NR_newRAT-Core
=> Not treated

R2-1801211 CR on PDCP data recovery SAMSUNG Electronics Co., Ltd. draftCR Rel-15 38.323
15.0.0 C NR_newRAT-Core

- LG doesn't think this is needed and it is different than LTE. LG has some concerns that we may have different behaviour between re-establishment and data recovery. Samsung thinks that there are already two different procedures.
- Ericsson supports the proposal and Nokia has some sympathy. Huawei, CATT also supports.

=> The selective retransmission is performed for the PDCP PDUs for which the successful delivery has not been confirmed by lower layers
=> The changes will be merged in R2-1801554

R2-1801004 Corrections for PDCP data recovery in 38323 Huawei, HiSilicon draftCR Rel-15
38.323 15.0.0 NR_newRAT-Core
=> The CR is not pursued

R2-1801005 Corrections for PDCP functionality in 38323 Huawei, HiSilicon draftCR Rel-15
38.323 15.0.0 NR_newRAT-Core
=> Add the change to R2-1801554 and also add out-of-order delivery to the list

R2-1801144 PDCP COUNT wrap around MediaTek Inc. draftCR Rel-15 38.323 15.0.0 NR_newRAT-Core

- LG thinks that the note is already there

=> The CR is not pursued

R2-1801147 ROHC compression behavior MediaTek Inc. draftCR Rel-15 38.323 15.0.0 NR_newRAT-Core
=> Not treated

R2-1801498 RoHC Support in Split/Duplication Bearer Samsung discussion Rel-15

- LG is concerned that if we do support it then we have to discuss additional issues
- Vivo doesn't think there is a problem as the UE will decompress the packet first regardless of duplication. LG is concerned with what happens after the re-establishment. Huawei agrees with LG. Samsung thinks that the problem happens anyways.
- LG doesn't think that we need to support RoHC for split bearer AM DRB
- Ericsson, Nokia, Vivo, ZTE, thinks we should support it for AM DRB.
- LG thinks we should avoid further optimizationS.

=> RoHC will be supported for split bearer

R2-1801499 CR on RoHC Support in Split/Duplication Bearer Samsung draftCR Rel-15 38.331
15.0.0 F NR_newRAT-Core
=> Not treated

R2-1800805 PDCP status report enhancement CMCC discussion Rel-15 NR_newRAT-Core
=> Not treated

R2-1801149 Corrections related to RLC data volume MediaTek Inc. draftCR Rel-15 38.323 15.0.0
NR_newRAT-Core
=> Not treated

R2-1801265 The need of flow control to address buffer congestion issue Qualcomm Incorporated
discussion Rel-15 NR_newRAT-Core
=> Not treated

Late

R2-1801518 UL split with LTE link Sequans Communications discussion NR_newRAT-Core
R2-1713665 Late

10.3.4 SDAP

10.3.4.1 TS

Latest TS 37.324, rapporteur inputs, etc

R2-1800118 Text proposal for the SDAP entity establishment and release Samsung pCR Rel-
15 37.324 2.0.0 NR_newRAT-Core

R2-1801505 Alignment with QoS section in TS 23.501 SHARP Corporation discussion Rel-15
NR_newRAT-Core R2-1713863

☒ [NR-AH1801#17][NR UP/SDAP] Running TS 37.324 (Huawei)

- capture agreements to be endorsed next meeting
Intended outcome: Draft 37.324 submitted to next meeting
Deadline: Monday 2018-02-12

Withdrawn

R2-1800532 SDAP TS Updates Nokia, Alcatel-Lucent Shanghai Bell discussion Rel-15
NR_newRAT Withdrawn

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.

R2-1800698 SDAP Header Format Ericsson discussion Rel-15 NR_newRAT-Core
- LG indicates that now SA2 is using 8 bits. Samsung thinks that the fact that they reserved 8 bits can be due to the byte alignment.
=> Noted

R2-1801151 Some considerations on SDAP header design MediaTek Inc. discussion Rel-15
NR_newRAT-Core
=> Noted

Discussion on numbers of bit required for RQI

- Samsung thinks that one bit can work with the only downside that it may not work in one scenario, and that is not a big issue.

- Nokia thinks that AS is the most important functionality.
- Mediatek also thinks that it can be nice to have independent bits but we should be careful on how many bits we use.
- LG doesn't think one bit RQI work as AS and NAS are independent. CATT considers that AS and NAS are controlled by different entities. One option is to have one bit RQI for NAS and AS can be controlled by RRC.
- Huawei agrees with Nokia that the functionality should be independent. Intel also thinks we should have two bits.
- ZTE thinks that we can still have independent AS/NAS with a single RQI
- Samsung thinks that we can have decoupled operation with one bit.
- Mediatek solutions allows the network to configure whether the RQI bit is used for NAS or AS. ZTE thinks that we can send a header only SDAP to indicate a AS QFI.
- Huawei thinks that we do not a bit for AS, the UE can check if there has been a mapping.
- Convida thinks we can have two bits and reduce the number of QFI by mapping.
- Panasonic ask why we need to explicitly indicate if the UE has to check if there has been any change. Samsung explains that the UE processing would be impacted.
- Mediatek thinks that 6bits QFI can be enough because at any point at time we probably won't need to have so many and we can consider even a static mapping to simplify. Ericsson agrees with Mediatek.

Agreements

- => Support independent AS and NAS reflective QoS.
- => From RAN2 perspective supporting up to 64 reflective flows per PDU session per UE is sufficient at the same time, so 6 bits QFI in SDAP.
- => Ask SA2/CT1 if they expect to use more than 64 reflective flows per PDU session per UE at a time. Indicate RAN2 agreement and strong need to have 6bits SDAP. Questions will be included in SA2 LS from main session.

FFS if final QFI in CT1/SA2 is larger than 6 bits, a mechanism to remap NAS QFI to AS QFI may be needed

Not treated

R2-1801263	SDAP header format R2-1713583	Qualcomm Incorporated discussion	Rel-15	NR_newRAT-Core
R2-1800262	Further Discussion on SDAP Header Format 15 NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-
R2-1800119	Further considerations on the QoS header format NR_newRAT-Core	Samsung	discussion	Rel-15
R2-1800070	SDAP PDU format	OPPO discussion	R2-1712200	
R2-1800088	Issues with AS/NAS Coupled RQI bits	TCL discussion	NR_newRAT-Core	
R2-1800120	Further considerations on a common AS/NAS reflective QoS indicator	Samsung discussion	Rel-15	NR_newRAT-Core
R2-1800176	SDAP header format	CATT discussion		
R2-1800233	Details of one byte SDAP Header Format	Beijing Xiaomi Mobile Software	discussion	Rel-15
R2-1800441	Discussion on SDAP DATA PDU for reflective QoS	discussion	ZTE Corporation, Sanechips	
R2-1800538	SDAP Header Format	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT
R2-1800799	Considerations on one bit RQI	CMCC discussion	Rel-15	NR_newRAT-Core
R2-1800940	QFI in SDAP header	Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1801461	SDAP header format	LG Electronics	discussion	NR_newRAT-Core R2-1713669

Withdrawn

R2-1800533 Reflective QoS indication over radio interface Nokia, Alcatel-Lucent Shanghai Bell
discussion Rel-15 NR_newRAT Withdrawn

10.3.4.3 QoS flow remapping and handover

QoS flow remapping and handover within the same cell and need for default bearer (max 1 contribution per company for this topic)

R2-1800121 Re-configuration scenarios for the NR QoS framework Samsung discussion Rel-15 NR_newRAT-Core
=> Noted

Agreements

- => RAN should be able to move/remap a QoS flow from one DRB to another DRB.
- => RAN should have an option to perform handover by preserving part of the DRB configuration and QoS flow to DRB mapping complemented by established/removed DRBs with corresponding changes in the QoS flow mapping.

R2-1800263 QoS Flow to DRB Re-Mapping Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core

- Mediatek would like standardise a solution and we can consider solution one. Nokia agrees as changing of flows will be an important functionality. In addition to the marker we may a timer. Xiaomi thinks that we need a solution.
- LG, CATT, QC, Ericsson, ZTE, Samsung, Intel, Vivo think that gNB implementation can take care of it.
- Nokia thinks that it impacts performance and we have CU/DU split. Huawei thinks that we would need to buffer.
- Nokia explains that it is important that the re-mapping is done as fast as possible.
- Mediatek indicates that we have to consider UL and DL. It is not clear how this can work for the UL.

The concept of default DRB should be maintained in RAN

- Ericsson don't see the need for default. Nokia explains that we need a DRB where we map flows that don't have a mapping. Ericsson thinks that we can always configure a DRB and there should be no cases where we have hanging QFI.
 - Samsung thinks that the default DRB helps simplify UE implementation.
 - Huawei explains that we need to know whether we have to configure every flow with a mapping or know that some can use the default.
- => Default DRB is already in stage 2 specs and supported
=> Noted

Agreements

- => In-order delivery should be ensured during flow re-mapping

Not treated

R2-1800539 QoS Flow Remapping Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT
R2-1800072 QoS flow remapping OPPO discussion R2-1710353
R2-1800177 QoS re-mapping of QoS flow and DRB CATT discussion
R2-1800178 How to ensure lossless QoS to DRB remapped in HO CATT discussion
R2-1800179 How to ensure lossless QoS flow offloading in EN-DC CATT discussion
R2-1800235 QoS Flow Remapping Beijing Xiaomi Mobile Software discussion Rel-15 R2-1712378
R2-1800697 QoS Flow Remapping in Handover and Within the Same Cell Ericsson discussion
Rel-15 NR_newRAT-Core
R2-1800798 Issues with QoS flow remapping CMCC discussion Rel-15 NR_newRAT-Core
R2-1801153 In-order delivery during QoS flow relocation MediaTek Inc. discussion Rel-15 NR_newRAT-Core

R2-1801237	QoS flow to DRB remapping Core R2-1711558	LG Electronics France	discussion	Rel-15	NR_newRAT-
R2-1801264	Flow relocation	Qualcomm Incorporated	discussion	Rel-15	NR_newRAT-Core R2-1713582
R2-1801306	Lossless HO for QoS flow and DRB offloading	vivo	discussion	R2-1712758	
R2-1801515	QoS Flow Remapping	ITL	discussion		

Withdrawn

R2-1800534	QoS Flow Relocation NR_newRAT	Nokia, Alcatel-Lucent Shanghai Bell	discussion	Rel-15	Withdrawn
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10.3.4.4 Others

Number of SDAP entities and other remaining issues

R2-1801262	SDAP remaining issues	Qualcomm Incorporated	discussion	Rel-15	NR_newRAT-Core
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Proposal 1: For DC case, a single SDAP entity is present in the UE for a PDU session.

- Huawei thinks that we should have two. CATT explains that both options work but they prefer 2. Intel agrees with proposal 1.

Proposal 2: When a DRB is released, UE removes all QFI-DRB mappings associated with the DRB.

Proposal 3: The SDAP header presence of an existing DRB can be changed only at full configuration or HO cases.

- Nokia thinks that it doesn't work at HO as PDCP doesn't have means to distinguish old and new packets.

=> Noted

Agreements

1. For DC case, a single SDAP entity is present in the UE for a PDU session
2. When a DRB is released, UE removes all QFI-DRB mappings associated with the DRB.
3. The SDAP header presence of an DRB cannot be changed. Release and add is required.

R2-1801453	Traffic treatment for GBR QoS flow	LG Electronics	discussion	NR_newRAT-Core	=> Noted
R2-1800045	Presence of UL SDAP header on default DRB NR_newRAT-Core R2-1712206	ASUSTeK	discussion	Rel-15	
R2-1800046	Discussion on changing presence of SDAP header	ASUSTeK	discussion	Rel-15	NR_newRAT-Core R2-1712207
R2-1800089	Issues with RQI setting for AS updating	TCL, vivo, CATT	discussion	NR_newRAT-Core	
R2-1800090	QFI Presence for AS Level Reflective QoS	TCL, CATT	discussion	NR_newRAT-Core	
R2-1800122	Text proposal on the number of SDAP entities	Samsung	pCR	Rel-15	NR_newRAT-Core 37.324 1.1.1
R2-1800230	Open issues of SDAP	Beijing Xiaomi Mobile Software	discussion	Rel-15	
R2-1800264	Number of SDAP Entities for NR DC	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1800265	QoS Flow Level Offloading in NR-DC	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1800266	SDAP (re)configuration	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1800267	Lossless Handover of QoS Flow	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1800540	New QoS flow on the Default Bearer	Nokia, Mediatek, Nokia Shanghai Bell	discussion	Rel-15	NR_newRAT

R2-1800541	Default QoS Profile	Nokia, Nokia Shanghai Bell	discussion	Rel-15	NR_newRAT
R2-1800693	Notification control	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1800695	Issues with the existing QoS framework (Stage 3)	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1800699	SDAP configurations aspects	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1800700	Number of SDAP entities in the UE	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1800802	Data forwarding of L2	CMCC	discussion	Rel-15	NR_newRAT-Core
R2-1800888	Consideration on BSR for SDAP	vivo	discussion	R2-1713003	
R2-1801455	Discussion on SDAP entity establishment in DC	LG Electronics	discussion		NR_newRAT-Core
R2-1801457	Considerations on release of a mapping of QoS flow to DRB	LG Electronics	discussion		NR_newRAT-Core
R2-1801458	Configurability for the presence of SDAP header	LG Electronics	discussion		NR_newRAT-Core
R2-1801462	[Draft] LS to SA2 and RAN3 on GBR QoS flow related traffic treatment	LG Electronics	LS		
	out	Rel-15	NR_newRAT-Core	To:SA2, RAN3	

10.3.5 L2 parameters email discussion

Output from [100#34][NR] L2 parameter FFSS (Huawei)

R2-1801460	Further discussion on SDAP Configuration	LG Electronics	discussion	NR_newRAT-Core
	R2-1713668			
	=> Not treated			

LS approved

R2-1801569	LS to RAN1 on miscellaneous questions
R2-1801555	LS to RAN1 on MAC CE for MIMO
R2-1801570	LS to RAN1 on beam failure recovery
R2-1801552	LS on Need for PDCCH order
R2-1801568	LS to RAN1 on PHR

Email discussions

- ☒ **[NR UP/MAC] – 38.321 CR - Samsung**
 - CR capturing editorials and agreements from AH 1801
 - one week email discussion to endorse CR
- ☒ **[NR UP/MAC] Repetition aspects – Huawei**
 - Capture repetition aspects and slot aggregation in HARQ
 - deadline before next meeting
- ☒ **[NR UP/ MAC] – PHR for SUL – Huawei**
 - Understand for which scenarios the additional PHR is needed and solution on how to address the scenarios
 - before next meeting
- ☒ **[NR UP/SDAP] Running TS 37.324 – Huawei**
 - capture agreements to be endorsed next meeting
 - deadline before next meeting

CP related agreements

Do we keep the terminology agreed in last meeting and implemented in MAC or do we come up with an umbrella terminology
=> The current terminology agreed last meeting is kept
=> The specs will be aligned

On bandwidthPartInactivityTimer values
=> Higher maximum values than 80ms will be introduced. FFS the exact minimum and maximum value.
=> The minimum resolution of the bandwidthPartInactivityTimer is 1ms

Agreements
=> The minimum RAR window size 1 slot.
=> Support RAR window size configurations of {1, 2, 4, 8, 10, 20, 40, 80} slots with a maximum length of 10 ms, where the length of the slot is determined by the RAR numerology as indicated in System information.

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 correction CRs to the appropriate agenda item.

38.331/36.331 update and next phase of ASN.1 review:

- 1/ Phase 1: Update 38.331 CR (baseline if the class 1 CR) based on RAN2 agreements from this meeting (1 week) [May not include all the field descriptions, conditions, etc]
- 2/ Split 38.331 CR into separate documents and continue review on the separate sections. Class 1 type changes can be placed directly in the CR with revision marks. Other issues can be provided directly into the CR (using balloons) - existing RIL number if related to an existing issue, and new RIL number (globally unique!). Coordinator will be responsible to update the CR based on the comments. Coordinator can also highlight an issue as class 3 and task one company to prepare a document. Coordinator of a section including L1 parameters is responsible to introduce the changes coming from the RAN1 parameter list.
- 3/ Multiple email discussions with different coordinators. To be arranged by 38.331 spec rapporteur
- 4/ Deadline for final documents (1 per section) to be submitted to the meeting Wed 2018-02-20
- 5/ 36.331 is treated as a single section, single email discussion

10.4.1.2 Specification methodology

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 and not covered within the ASN.1 review.

R2-1800445 RRC configuration framework for BWP ZTE Corporation, Sanechips discussion
=> Covered by offline started from the ASN.1 review

- R2-1800722 Discussion on split SRB in EN-DC Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
=> For early drop of EN-DC the only the configuration of UL SRB on MCG is supported (to be captured in field descriptions in RRC spec). For Jun 18 the configuration of UL split SRB (including configuration of UL SRB in SCG only) will be supported and SCG failure case still needs discussion.
- R2-1800724 CR on 38.331 for split SRB UL configuration Huawei, HiSilicon draftCR Rel-15
38.331 15.0.0 F NR_newRAT-Core
- R2-1800973 SCG Configuration upon Handover Failure MediaTek Inc. discussion NR_newRAT-Core
=> Proposed change can be included in the rapporteur CR
- R2-1800977 Handle DRB using NR-PDCP in Full Configuration MediaTek Inc. discussion NR_newRAT-Core
=> Can be handled in offline discussion #11 (from ASN,1 review)
- R2-1801071 Handling of PDCP discard for SRBs during mobility without key change Ericsson discussion Rel-15 NR_newRAT-Core
=> Noted
- R2-1801157 CR on PDCP discard for SRBs during mobility without key change Ericsson draftCR Rel-15
38.331 15.0.0 NR_newRAT-Core
=> Check on Friday with UP people whether to do this change or change to PDCP spec
=> Change agreed to be included in te rapporteur CR.
- R2-1801506 PDCP version change handling in 38.331 SHARP Corporation discussion Rel-15 NR_newRAT-Core
=> Can be handled in offline discussion #11 (from ASN,1 review)

Withdrawn

- R2-1800446 draft CR for the RRC configuration framework for BWP ZTE Corporation, Sanechips discussion Late

10.4.1.3.2 Connection control message harmonisation

Harmonisation/merging of messages to be used for different procedures, UE identity and other message content to be used in different cases, etc.

Maximum 1 tdoc per company

- R2-1801064 Harmonization of the RRC procedures Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT-Core R2-1713205
- R2-1800424 Harmonizing RRC Connection control messages and procedures Ericsson discussion Rel-15 NR_newRAT-Core
- R2-1800850 Connection control messages, harmonised initial baseline Samsung Telecommunications discussion Rel-15 NR_newRAT-Core
- R2-1800488 Harmonization of RRC Connection Control management procedures Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
- R2-1800918 NR common RRC procedures Intel Corporation discussion Rel-15 NR_newRAT-Core R2-1712672
- R2-1801112 Harmonization of Connection Control Procedures and Messages InterDigital discussion Rel-15 NR_newRAT-Core R2-1712796
- R2-1801234 Need for RRC Reestablishment and RRC Resume MediaTek Beijing Inc. discussion
- R2-1801359 Harmonization of the RRC connection management procedures NTT DOCOMO, INC. discussion NR_newRAT-Core R2-1713553

R2-1801362	Simplification of RRC messages for NR NR_newRAT-Core	LG Electronics France	discussion	Rel-15
	R2-1713643			

Late

R2-1800112	Further discussion on merging NR RRC messages NR_newRAT-Core	Samsung	discussion	Rel-15
	Late			

10.4.1.3.3 Connection establishment procedures

Connection establishment procedures for standalone operation

R2-1800419	NR RRC States overview and remaining open issues 15 NR_newRAT-Core	Ericsson	discussion	Rel-
R2-1800420	Basic idle-to-connected mode transition Core	Ericsson	discussion	Rel-15 NR_newRAT-
R2-1800421	Need for MSG.5 in Resume procedure Core	Ericsson	discussion	Rel-15 NR_newRAT-
R2-1800422	Handling of resume failure	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800423	I-RNTI discussion	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800489	RRC Connection Re-establishment procedure in NR Rel-15 NR_newRAT-Core	Huawei, HiSilicon	discussion	
R2-1800490	Consideration on RRC connection establishment procedure discussion Rel-15 NR_newRAT-Core	Huawei, HiSilicon		
R2-1800491	[Draft LS] to RAN1 on MSG 3 size To: RAN1	Huawei, HiSilicon	LS out	Rel-15 NR_newRAT-Core
R2-1800514	RRC Establishment Cause Core	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-
R2-1800942	RRC connection establishment optimisation for NR Rel-15 NR_newRAT-Core	Intel Corporation	discussion	
R2-1801058	Access Control impacts to NR RRC establishment cause discussion Rel-15 NR_newRAT-Core	Nokia, Nokia Shanghai Bell		
R2-1801107	Open Issues on Connection Control Procedures NR_newRAT-Core	InterDigital	discussion	Rel-15
R2-1801469	Corrections for BWP configuration	Samsung	discussion	Rel-15

Late

R2-1801006	ASN.1 for CBRA and CFRA-resource for handover and beam failure recovery HiSilicon discussion Rel-15 38.331 NR_newRAT-Core			Late	Huawei,
R2-1801007	ASN.1 for beam failure recovery NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15 38.331	
	Late				

10.4.1.3.4 Connection reconfiguration procedures

Aspects related to connection reconfiguration procedure for standalone operation

R2-1800425	Timer-based transition to inactive	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800426	Handling of suspend failure	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800648	Further Clarification on BWP Configuration in RRC	MediaTek Inc.	discussion	
R2-1801287	Remaining RRC procedure issues of BWP 15 NR_newRAT-Core	Qualcomm Incorporated	discussion	Rel-
R2-1801297	Enhance RRC configuration procedure in NR 15 NR_newRAT-Core	Qualcomm Incorporated	discussion	Rel-
R2-1801489	RLM signalling for NR	Samsung	discussion	Rel-15 NR_newRAT-Core

R2-1801490	Draft CR for RLM configuration addition in 38.331	Samsung	draftCR Rel-15	38.331
	15.0.0 F NR_newRAT-Core			
R2-1801496	RLF timer values	Samsung	discussion	Rel-15 NR_newRAT-Core

Late

R2-1800594	RRC Configuration and Re-configuration of RLM parameters	Ericsson	discussion	
	Rel-15 NR_newRAT-Core	Late		

10.4.1.3.5 Other (for non EN-DC)

Other aspects of connection control procedures, state transitions, etc for standalone operation

R2-1800047	State transition from RRC_CONNECTED to RRC_INACTIVE	ASUSTeK	discussion	
	Rel-15 NR_newRAT-Core R2-1712208			
R2-1800132	RRC connection re-establishment and resume procedures in NR	CATT	discussion	R2-1712411
R2-1800133	Open Issues on Connection Control Procedure	CATT	discussion	R2-1712412
R2-1800134	Consideration on the relation between access categories and establishment causes			CATT
	discussion R2-1712413			
R2-1800368	Wait Timer in NR	Ericsson	discussion	R2-1712536
R2-1800381	Size of Msg3 in NR (was: Msg 3 size and content)	Ericsson	discussion	Rel-15
	NR_newRAT-Core Withdrawn			
R2-1800383	Multiplexing NAS messages with MSG3	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800427	Text proposal to RRC connection control	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800428	TP on 38.331 on DL/UL Information Transfer	Ericsson	discussion	Rel-15
	NR_newRAT-Core			
R2-1800492	UE behaviour upon leaving RRC_CONNECTED state	Huawei, HiSilicon	discussion	
	Rel-15 NR_newRAT-Core			
R2-1800493	Remaining issues on State transition between RRC CONNECTED and INACTIVE	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1800494	Timer based state transmission from CONNECTED to inactive	Huawei, HiSilicon		
	discussion Rel-15 NR_newRAT-Core			
R2-1800576	Considerations on Establishment cause for NR	KDDI Corporation	discussion	Rel-15 R2-1711623
R2-1800668	Discussion on Left Issues for RRC State Transitions	OPPO	discussion	
R2-1800806	RRC Message Harmonization	CMCC	discussion	Rel-15 NR_newRAT-Core
R2-1800878	Remaining FFS Issues on MSG3/4/5 Content for NR RRC Connection Control			vivo
	discussion Rel-15 NR_newRAT-Core R2-1712764			
R2-1800941	Release with redirection in SA NR	Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1800983	NR RRC Connection Request enhancement	Sony	discussion	Rel-15 NR_newRAT-Core
R2-1801010	NR re-establishment procedure	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801016	NR RRC procedure for inter-RAT handover	Ericsson	discussion	Rel-15
	NR_newRAT-Core			
R2-1801066	RRC connection release and inactivation procedures	Nokia, Nokia Shanghai Bell		
	discussion Rel-15 NR_newRAT-Core R2-1713206			
R2-1801074	NR RRC connection release and re-direct	Ericsson	discussion	Rel-15 NR_newRAT-Core

R2-1801113	Timer-Based Inactivation for NR	InterDigital	discussion	Rel-15	NR_newRAT-Core
	R2-1712791				
R2-1801162	Size of MSG3 in NR	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801163	Draft LS proposal to RAN1 on msg3 size	Ericsson	LS out	Rel-15	NR_newRAT-Core
	To:SA2				
R2-1801374	Configurable cause for NR	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core
	R2-1713693				
R2-1801448	UL SRB duplication for NR CA	Samsung Electronics GmbH	discussion		R2-1713876
R2-1801456	RRC processing delay for standalone NR	Samsung Electronics GmbH	discussion		R2-1713893

Withdrawn

R2-1800232	Consideration on the triggers of transiting UE from INACTIVE to IDLE	Beijing Xiaomi Mobile
	Software discussion	Rel-15 R2-1711035 Withdrawn
R2-1800382	[Draft LS] proposal to RAN1 on msg3 size	Ericsson
	Withdrawn	LS out Rel-15 NR_newRAT-Core

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 and not covered within the ASN.1 review.

R2-1800649	RRC Configuration for NR-ARFCN and GSCN	MediaTek Inc.	discussion
	Moved from 10.4.1.3.1 to 10.4.1.4.1		

Agreements

- 1: Within an MO, the SSB location is always indicated with GSCN with no additional offset.
FFS Whether the subcarrier offset is also required. To be checked with RAN1
- 2: For MO with CSI-RS, an NR-ARFCN is used to indicate a frequency reference. Location of CSI-RS is relative to this reference
FFS Whether this reference is the same as point A in agreement 3i.
- 3: For reconfiguration with sync (e.g. for inter-frequency HO and SCG change) and for configuration of SCells the SSB location is indicated with GSCN.
3i In addition the reconfiguration provides an NR-ARFCN to identify point A.
FFS Whether the subcarrier offset is also required. To be checked with RAN1
- 4: For idle/inactive reselection and reselection from LTE to NR, the SSB location is always indicated with GSCN with no additional offset.

=> Agreement can be captured in the rapporteur CR

=> Inform RAN1 of decisions, and ask question related to FFS. Draft LS in R2-1801625 (Offline discussion #39, MediaTek)

R2-1801625	[DRAFT] LS to RAN1 on RRC Configuration for Sync Raster and Channel Raster	MediaTek
	LS out Rel-15 NR_newRAT-Core	TO:RAN1
	=> Add RAN4 in Cc	
	=> Approved in R2-1801664	

R2-1801319	Remaining details for MO	Ericsson	discussion	Rel-15	NR_newRAT-Core
	=> Covered by previous discussion				

R2-1801320	CR on NR measurement object	Ericsson	discussion	Rel-15	NR_newRAT-Core
	Late				
	Moved from 10.4.3.1 to 10.4.1.4.1				

R2-1800869	Clarification on remaining issues of MO content => Revised in R2-1801596	vivo	discussion	Rel-15	NR_newRAT-Core
R2-1801596	Clarification on remaining issues of MO content => Revisit the link between serving cell and MO when we have response from RAN1 LS related to the MO agreements (R2-1800649)	vivo	discussion	Rel-15	NR_newRAT-Core
R2-1801139	RLM/RRM measurements after BWP switching - Ericsson think that RAN1 agreed that the UE is not required to perform RLM measurements outside its active BWP. => Noted	NEC	discussion	Rel-15	NR_newRAT-Core
R2-1801213	Remaining details of NR measurement of carriers without SSB => UE behaviour should be captured for the case that the optional SMTC is not provided.	AT&T	discussion		
R2-1801411	Issues and Corrections for CSI-RS based MeasObjectNR configuration discussion			Samsung Electronics	
R2-1801412	Draft 38.331 CR for CSI-RS based MeasObjectNR configuration draftCR Rel-15 38.331 15.0.0 F NR_newRAT-Core => Changes agreed to be added to the rapporteur CR.			Samsung Electronics	
R2-1801103	On the order of beam identifiers for reporting Rel-15 NR_newRAT-Core => Covered by ASN.1 review	Nokia, Nokia Shanghai Bell	discussion		
R2-1801314	Beam sorting order for measurement reporting NR_newRAT-Core => Covered by ASN.1 review	Ericsson	discussion	Rel-15	
R2-1800135	Handling of Measurement Configured by SN upon SN/PSCell change R2-1712417 => Noted			CATT	discussion
R2-1800495	Corrections on RRM => Noted	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1801509	Corrections on RRM NR_newRAT-Core => smtc2 change is agreed to be included in the rapporteur CR => Restructure of the measResults can be discussed by email as part of the ASN.1 review.	Huawei, HiSilicon	draftCR Rel-15 38.331 15.0.0 F		
R2-1800716	Discussion on SST-D measurement for EN-DC based on RAN4 LS discussion Rel-15 NR_newRAT-Core => Noted	Huawei, HiSilicon			
R2-1800718	CR on 38.331 to capture RAN4 LS on SST-D 38.331 15.0.0 F NR_newRAT-Core => Related to SA. Can be considered later for standalone	Huawei, HiSilicon	draftCR Rel-15		
R2-1800759	CR on 38.331 for ReportConfigNR information element 15 38.331 15.0.0 NR_newRAT-Core => Already covered by ASN.1 review (decided to remove the non EN-DC related text from the event evaluation procedure description)	Huawei, HiSilicon	draftCR Rel-15		

R2-1801278	Value range of RLF timer Qualcomm Incorporated Core => Already covered by ASN.1 review	discussion	Rel-15 NR_newRAT-
R2-1801315	s-Measure configuration and UE behaviour Ericsson NR_newRAT-Core => Noted	discussion	Rel-15
R2-1801324	Open issues in ReportConfigNR Ericsson	discussion	Rel-15 NR_newRAT-Core

Agreements

- 1 Value range for reportAmount field same as in LTE, i.e, {r1, r2, r4, r8, r16, r32, r64, infinity}.
- 2 Value range for reportInterval in NR is {120 ms, 240 ms, 480 ms, 640 ms, 1024 ms, 2048 ms, 5120 ms, 10240 ms, 20480 ms, 40960 ms, 1 min, 5 min, 10 min, 30 min, spare2, spare1}.

R2-1801326	CR on RSRP-Range, RSRQ-Range and SINR-Range Ericsson NR_newRAT-Core Late => Change agreed to be added to rapporteur CR.	discussion	Rel-
R2-1801325	[Draft LS] to RAN4 on "reportAmount" and "reportInterval" Ericsson NR_newRAT-Core To: RAN4	LS out	Rel-15
R2-1801327	Measurement object addition/ modification Ericsson Core => Noted	discussion	Rel-15 NR_newRAT-

Optimisations

R2-1801100	Beam selection and consolidation enhancements Nokia, Nokia Shanghai Bell Rel-15 NR_newRAT-Core <i>Moved from 10.2.4 to 10.4.1.4.1</i>	discussion	
R2-1801101	Draft CR Enhanced beam consolidation for NR measurement model Nokia, Nokia Shanghai Bell draftCR Rel-15 38.300 15.0.0 NR_newRAT-Core <i>Moved from 10.2.4 to 10.4.1.4.1</i>		
R2-1801102	Draft CR Enhanced cell measurement quantity derivation Nokia, Nokia Shanghai Bell draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core		
R2-1800502	Speed dependent TTT scaling for NR measurements Huawei, HiSilicon Rel-15 NR_newRAT-Core	discussion	
R2-1801079	CR on speed dependent mobility in TS 38.331 15.0.0 F NR_newRAT-Core	draftCR Rel-15	
R2-1800500	Cell quality adjustment Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1800816	Correction to cell quality derivationHuawei, HiSilicon NR_newRAT-Core	draftCR Rel-15 38.331 15.0.0 F	

Late

R2-1800498	BWP impact on CSI-RS based RRM measurement Rel-15 NR_newRAT-Core Late	discussion	
R2-1800595	Configuration of cell quality derivation parameters Ericsson NR_newRAT-Core Late	discussion	Rel-15
R2-1801317	SSTD measurement configuration and reporting Ericsson NR_newRAT-Core Late	discussion	Rel-15

10.4.1.4.2 Measurement gaps for EN-DC

Any remaining aspects of measurement gaps for EN-DC

MN/SN assistance info

- R2-1800444 Discussion on the assistance information for gap in EN-DC ZTE Corporation, Sanechips discussion Revised
=> Revised to R2-1801510
- R2-1801510 Discussion on the assistance information for gap in EN-DC ZTE Corporation, Sanechips discussion R2-1800444

Agreements

- 1 For gap pattern configured by MN, UE performs gap calculation based on the SFN and subframe of PCell.
- 2 For gap pattern configured by SN, UE performs gap calculation based on the SFN and subframe of PCell.
- 3 The configuration step of gapoffset in 36.331 is 1ms.
FFS: Gapoffset in 38.331. To be checked with RAN4.

- R2-1800817 FFS discussion on measurement gap for EN-DC Nokia Shanghai Bell discussion
=> Offline discussion to progress on assistance information for gap coordination (Offline discussion #40, Nokia)

- R2-1801657 Summary for Offline discussion #40 Nokia

☒ [NR-AH1801#08][NR] Measurement gap coordination assistance info (Samsung)

Progress the details of the assistance information to be added to the inter node messages.
Intended outcome: Report to next meeting
Deadline: Thursday 2018-02-15

- R2-1800482 Measurement gap configuration in NR Huawei, HiSilicon discussion Rel-15
NR_newRAT
- R2-1800625 Measurement Gap Configuration for EN-DC Samsung discussion
- R2-1800669 Discussion on Remaining Issues on EN-DC Measurement Gap OPPO discussion
- R2-1800727 Remaining issue on the measurement gap for ENDC Huawei, HiSilicon discussion
Rel-15 NR_newRAT-Core
- R2-1800823 GAP assistance information Spreadtrum Communications draftCR Rel-15 38.331
15.0.0 NR_newRAT-Core
- R2-1800870 Measurement gap assistance information vivo discussion Rel-15 NR_newRAT-Core
- R2-1800903 Measurement gap handling in EN-DC Qualcomm Incorporated discussion Rel-15
NR_newRAT
- R2-1800971 Measurement Gap Design for EN-DC MediaTek Inc. discussion Rel-15 NR_newRAT-Core
- R2-1801011 Measurement capability/gap coordination Ericsson discussion Rel-15 NR_newRAT-Core
- R2-1801012 Measurement gap pattern in unsynchronized network Ericsson discussion Rel-15
NR_newRAT-Core
- R2-1801169 Draft LS to RAN4 on the need for additional MGL values in measurement gap pattern
Ericsson LS out Rel-15 NR_newRAT-Core To:RAN4
- R2-1800811 Assistance Information for Measurement Gap CMCC discussion Rel-15 NR_newRAT-Core
Revised
=> Revised to R2-1801260
- R2-1801260 Assistance Information for Measurement Gap Configuration CMCC discussion Rel-15
NR_newRAT-Core R2-1800811

R2-1801426	Measurement gap for EN-DC Core R2-1713821	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-
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10.4.1.4.3 Measurement gaps for non EN-DC

R2-1800670	NR Measurement Gap Configurations	OPPO	discussion		
R2-1800910	Measurement gap capability information for NR SA Rel-15 NR_newRAT-Core	Intel Corporation	discussion		
R2-1801427	Per-CC gap for MR-DC	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core

10.4.1.4.4 Measurement events

Any additional aspects of measurement events.

R2-1800496	Remaining issue on Measurement events NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15	
R2-1800599	Triggering condition for A1-A6 events in NR NR_newRAT-Core	Ericsson	discussion	Rel-15	
R2-1801114	Measurement Events to Support BWPs Core	InterDigital	discussion	Rel-15	NR_newRAT-
R2-1801135	Measurement Configuration with Ax and Cx Events 15 NR_newRAT-Core R2-1712790	InterDigital	discussion	Rel-	
R2-1801307	Alternative Time to trigger	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801308	Resolving ambiguous UE behaviour related to Event A4 15 NR_newRAT-Core	Ericsson	discussion	Rel-	
R2-1801321	Layer 3 mobility based on CSI-RS events Core	Ericsson	discussion	Rel-15	NR_newRAT-

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

R2-1800448	Inter-RAT measurements for NR handover to EUTRAN discussion	ZTE Corporation, Sanechips			
R2-1800501	Remaining issue on Events and measurements for handover from NR to E-UTRA HiSilicon discussion	Huawei, Rel-15 NR_newRAT-Core			

10.4.1.4.6 Other

Other RRM related aspects that are not related for EN-DC

R2-1800270	Issues on SSTF measurement in NR 15	Spreadtrum Communications	discussion	Rel-	
R2-1800596	Mobility states and speed based parameter scaling in NR 15 NR_newRAT-Core	Ericsson	discussion	Rel-	
R2-1800597	Triggering of L3 filtered beam measurements NR_newRAT-Core	Ericsson	discussion	Rel-15	
R2-1800600	Impact of cell quality scaling in NREricsson	discussion	Rel-15	NR_newRAT-Core	
R2-1800601	Discussion on allowInterruptions in NR and EN-DC 15 NR_newRAT-Core	Ericsson	discussion	Rel-	
R2-1800602	[Draft] LS on allowInterruptions RAN4	Ericsson	LS out	Rel-15	NR_newRAT-Core To
R2-1801017	Measurement configurations and signaling for fast setup 15 NR_newRAT-Core	Ericsson	discussion	Rel-	

R2-1801309	SA and NSA indication in CGI reporting	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801310	UE behaviour upon CGI reporting	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801311	ANR framework for EN-DC and NR standalone	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801313	Measurement priority handling in NR	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801316	Measurement related actions upon handover and re-establishment	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801318	Measurement Requirements for Deactivated Secondary Component Carriers	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801322	UE capability for increased number of carrier monitoring	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801323	Location Information configuration and reporting	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1801368	Discussion on Speed-dependent Scaling of Measurement-related Parameters and Mobility History Reporting in NR	Samsung Electronics	discussion	NR_newRAT-Core	R2-1713844
R2-1801369	Discussion on the Use of Alternative TTT in NR	Samsung Electronics	discussion	NR_newRAT-Core	R2-1713849
R2-1801372	The Impact of Beam Sweeping on RRM Measurement	Samsung Electronics	discussion	NR_newRAT-Core	R2-1713846
R2-1801470	RRM measurement configuration for BWP in NR	Samsung	discussion	Rel-15	
R2-1801471	RRM measurement for multiple numerologies in NR	Samsung	discussion	Rel-15	

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 SCG change for EN-DC

Corrections to 38.331 related to SCG change for EN-DC and not covered within the ASN.1 review.

R2-1800741	Correction on the agreement of full configuration in EN-DC Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
	=> Covered by ASN.1 review			
R2-1800975	Joint LTE HO and NR SCG Change procedure	MediaTek Inc.	discussion	Rel-15
	NR_newRAT-Core			
	=> Noted			

10.4.1.5.2 SCG failure for EN-DC

Corrections to 38.331 and 36.331 related to SCG failure for EN-DC and not covered within the ASN.1 review.

R2-1800136	RS type for NR measurement results in SN for SCG failure report	CATT	discussion	
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Agreements

- Both SSB and CSI-RS measurement results are included in FailureReportSCG-ToOtherRAT as NR measurements in SN for SCG failure information report, if available.
- FFS: When setting the content of FailureReportSCG-ToOtherRAT, the UE orders neighbour cells on each serving frequency and neighbour cells on each non-serving frequency based on SSB first. If the UE can't order neighbour cells on a certain frequency based on SSB (i.e. carrier without SSB), it will order them based on CSI-RS.
- => Stage 3 text related to the to be developed for next meeting to assess the complexity.

R2-1800137 considerations on SCG failure CATT discussion
=> Noted

R2-1800229 [draft] LS on support of adding failure type in X2 CATT LS out Rel-15 NR_NewRAT-Core
To:RAN3
=> Offline discussion to conclude if and where to include the failure type and whether to send an
LS (Offline discussion #41, CATT)

R2-1801639 [offline discussion #41]: forwarding of measurement results at SCG failure CATT

Agreements

- 1a: Inter-node RRC message, SCG-ConfigInfo, is used to forward the NR measurement results according to SN configuration and failure type from the MN to the old SN and/or new SN.
- 1b: From RAN2 point of view it is feasible for the X2 RRC Transfer message to forward failure type from the MN to the old (current) SN.
- 2: SCG-ConfigInfo can be included in the SgNB release request in addition to SgNB modification request and SgNB addition request.

R2-1801640 [draft] LS on measurement result forwarding from the MN to SN at SCG failure CATT
=> Revised in R2-1801666

R2-1801666 [draft] LS on measurement result forwarding from the MN to SN at SCG failure CATT
=> Final paragraph and action changed to " RAN2 kindly requests RAN3 to take the above into account"
=> Approved in R2-1801669

R2-1800627 Correction on T304 HTC draftCR Rel-15 38.331 15.0.0 F NR_newRAT-Core
=> Covered by ASN,1 review.

R2-1800733 Handling upon joint configuration failure Huawei, HiSilicon discussion Rel-15
NR_newRAT-Core R2-1713143
=> Noted

R2-1800734 CR on 36.331 for handling upon joint configuration failure Huawei, HiSilicon draftCR Rel-15
15 36.331 15.0.1 B NR_newRAT-Core

UL split SRB

R2-1800981 SCG Failure and Split SRB MediaTek Inc. discussion Rel-15 NR_newRAT-Core
R2-1712867

R2-1801013 Discussion and TP on remaining issues on SCG Failure Ericsson discussion Rel-15
NR_newRAT-Core

R2-1801229 CR on SCG failure handling for EN-DC in 36.331 Ericsson draftCR Rel-15 36.331
15.0.1 NR_newRAT-Core

R2-1801116 Discussion on Handling Split SRB during SCG Failure InterDigital discussion Rel-15
NR_newRAT-Core

R2-1801115 Corrections on Handling Split SRB during SCG Failure InterDigital CR Rel-15
38.331 15.0.0 0002 - F NR_newRAT-Core

R2-1801299 UL path switch upon SCG failure Qualcomm Incorporated discussion Rel-15 NR_newRAT-Core

R2-1801449 UL split SRB and SCG failure Samsung Electronics GmbH discussion

Duplication

R2-1801014	SCell-RLF discussion	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801232	CR on SCell RLF handling in 38.331 NR_newRAT-Core	Ericsson	discussion	draftCR Rel-15 38.331 15.0.0

10.4.1.5.3 Handover

Stage 3 details of basic handover.

R2-1801082	Inter RAT mobility, defining initial baseline	Samsung Telecommunications	discussion	Rel-15 NR_newRAT-Core
R2-1801270	BWP configuration during handover	Qualcomm Incorporated	discussion	Rel-15 NR_newRAT-Core

Late

R2-1800848	Changes requires to support baseline HO procedure	Samsung Telecommunications	discussion	Rel-15 NR_newRAT-Core Late
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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

Progress details of the content and structure of system information (excluding MIB content for which any corrections should be handled as part of the ASN.1 review)

General SI content

R2-1800283	System Information Structure and Content	Ericsson	discussion	
R2-1800057	Initial consideration on Other SI for NR	OPPO	discussion	Rel-15 NR_newRAT-Core R2-1712229
R2-1800303	Size of remaining minimum system information	Ericsson	discussion	
R2-1800304	Draft LS to RAN1 on size of remaining minimum system information	Ericsson	LS out	To:RAN1
R2-1800289	SIBs needed for stand-alone NR deployments	Ericsson	discussion	R2-1712489
R2-1800291	System information content at network sharing	Ericsson	discussion	R2-1712491
R2-1800297	Optional configuration in NR system information	Ericsson	discussion	R2-1712984
R2-1800450	Consideration on the NR System information structure	ZTE Corporation, Sanecips	discussion	
R2-1800810	Considerations on system information structure	CMCC	discussion	Rel-15 NR_newRAT-Core
R2-1801142	Some SIB1 contents	Samsung	discussion	
R2-1801181	Detailed design of the contents and structure of SIB1	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1801182	Draft LS to RAN1 on the minimum TB size for RMSI	Huawei, HiSilicon	LS out	Rel-15 NR_newRAT-Core To:RAN1
R2-1801183	Discussion on the content of other system information	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1801519	Size of NR SIB1 [N.266]	Nokia, Nokia Shanghai Bell	discussion	Rel-15 38.331 NR_newRAT-Core Late

Moved from 10.4.3.2 to 10.4.1.6.1

Cell barring

R2-1800388	Single cellBarred IE in NR System Information	vivo, Qualcomm Incorporated, Xiaomi, CATR, China Telecom, China Unicom	discussion	Rel-15 NR_newRAT-Core	R2-1712971
R2-1800468	Multi-LMN aspects of NSA bit in SIB1	ZTE Corporation, Sanechips	discussion		
R2-1800052	Discussion on CellBarred Info in NR SIB1	OPPO, Coolpaddiscussion		Rel-15 NR_newRAT-Core	R2-1712225
R2-1801178	Discussion on barring indication in NR-MIB	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core	R2-1713281
R2-1801225	Duration of the Barring Timer	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT-Core	R2-1713552

Withdrawn

R2-1801294	Content of NR SIB1/RMSI	Qualcomm Incorporated	discussion	Rel-15 NR_newRAT-Core	Withdrawn
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10.4.1.6.2 Stored system information

*Further details of stored SI including index/identifier format**Maximum 1 tdoc per company*

R2-1801184	Area ID and value tag for SIBs	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core	R2-1713285
R2-1801295	NR SI area ID and value tag	Qualcomm Incorporated	discussion	Rel-15 NR_newRAT-Core	
R2-1800815	Considerations for the SI index design	PANASONIC R&D Center Germany	discussion		
R2-1800184	Area ID and details on value tag message structure for NR	Gemalto N.V.	discussion	R2-1712244	
R2-1800060	Discussion on Index-based SI with System Information Area	OPPO	discussion	NR_newRAT-Core	
R2-1800138	Indexed SI in NR	CATT	discussion	R2-1710285	
R2-1800285	Stored System Information	Ericsson	discussion		
R2-1800315	The index of stored system information	Fujitsu	discussion	Rel-15 NR_newRAT-Core	R2-1712825
R2-1800451	Consideration on the Stored other SI	ZTE Corporation, Sanechips	discussion		
R2-1800871	Stored system information for NR	vivo	discussion	Rel-15 NR_newRAT-Core	R2-1712768
R2-1800987	System information	Sony	discussion	Rel-15 NR_newRAT-Core	
R2-1801117	Details of Stored System Information for NR	InterDigital	discussion	Rel-15 NR_newRAT-Core	R2-1712799
R2-1801143	Index based approach and Stored SI	Samsung	discussion		
R2-1801273	On structure of SI index	MediaTek Inc.	discussion	R2-1713073	
R2-1801228	Signalling of System Information Area	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT-Core	R2-1713556
R2-1801390	Details of stored system information	LG Electronics Inc.	discussion	Rel-15 NR_newRAT-Core	

10.4.1.6.3 System information modification

Maximum 1 tdoc per company

R2-1800076	System Information Update in NR	Samsung R&D Institute India	discussion	Rel-15 NR_newRAT-Core	R2-1713375
R2-1800139	SI Modification	CATT	discussion	R2-1710286	
R2-1800286	Change of System information in NR	Ericsson	discussion		

R2-1800061	Discussion on NR SI Modification	OPPO	discussion	Rel-15	NR_newRAT-Core	R2-1712227
R2-1800872	SI Change Notification	vivo	discussion	Rel-15	NR_newRAT-Core	R2-1712769
R2-1801118	SI Modification Procedure in NR	InterDigital	discussion	Rel-15	NR_newRAT-Core	R2-1712800
R2-1801185	SI Update procedure	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core	R2-1713286
R2-1801230	System Information Modification in NR	Nokia, Nokia Shanghai Bell	discussion	Rel-15	NR_newRAT-Core	R2-1713557
R2-1801268	SI modification for Stored SI	ITL	discussion	Rel-15	R2-1713861	
R2-1801274	NR SI Modification	MediaTek Inc.	discussion	R2-1713074		
R2-1801345	Discussion on the granularity of SI change notification	ITRI	discussion	NR_newRAT-Core	R2-1713570	
R2-1801379	System information modification	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core	R2-1713698
<i>Moved from 10.4.1.6.4 to 10.4.1.6.3</i>						

10.4.1.6.4 System information scheduling

Maximum 1 tdoc per company

R2-1800077	SI Message TX/RX in NR	Samsung R&D Institute India	discussion	Rel-15	NR_newRAT-Core	R2-1713373
R2-1800059	Discussion on NR SI Scheduling	OPPO	discussion	Rel-15	NR_newRAT-Core	R2-1712230
R2-1800287	System Information Scheduling	Ericsson	discussion	R2-1712487		
R2-1800873	Scheduling of Other SI	vivo	discussion	Rel-15	NR_newRAT-Core	R2-1712770
R2-1801186	Considerations on System Information scheduling	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core	
R2-1801283	Open issues on Other SI scheduling	ETRI	discussion	NR_newRAT	R2-1707943	
R2-1801385	System information scheduling	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core	R2-1713704
<i>Moved from 10.4.1.6.5 to 10.4.1.6.4</i>						

10.4.1.6.5 On demand system information

Including need for additional bit to indicate if SI message is actually being broadcast

R2-1800454	Further consideration on the Msg3 Content	ZTE Corporation, Sanechips	discussion			
R2-1800140	Remaining issues of on-demand SI	CATT	discussion			
R2-1801226	Indication for On-Demand SI Broadcast	Nokia, Nokia Shanghai Bell	discussion	Rel-15	NR_newRAT-Core	R2-1713554
R2-1800299	On-demand SI in RRC connected	Ericsson	discussion	R2-1712498		
R2-1800874	Failure Handling for On Demand SI Acquisition Procedure	vivo	discussion	Rel-15	NR_newRAT-Core	
R2-1800041	Discussion on On-demand system information request in NR	ASUSTeK	discussion	Rel-15	NR_newRAT-Core	R2-1712214
R2-1800058	Discussion on Remaining Issues of On-Demand SI	OPPO	discussion	Rel-15	NR_newRAT-Core	R2-1712228
R2-1800075	On Demand SI: Remaining Issues	Samsung R&D Institute India	discussion	Rel-15	NR_newRAT-Core	R2-1713369
R2-1800141	Necessity of additional indicator for SI message actually being broadcast	CATT	discussion			

R2-1800249	Remain issues of on-demand SI	Beijing Xiaomi Mobile Software	discussion	Rel-15	R2-1711030
R2-1800271	Consideration on Remaining Issues of On-Demand discussion	Rel-15	Spreadtrum Communications		
R2-1800288	Open issues on On-demand SI	Ericsson	discussion	R2-1712488	
R2-1800296	On-demand SI reject procedure	Ericsson	discussion		
R2-1800300	Duration of on-demand SI broadcast	Ericsson	discussion		
R2-1800452	Consideration on the group based SI request scheme		ZTE Corporation, Sanechips		
R2-1800453	Upper layer actions for the Random Access probleme		ZTE Corporation, Sanechips		
R2-1800565	Discussion on Multiple On-demand System Information Acquisition	Sharp	discussion	R2-1712307	
R2-1800712	Resolving remaining FFS	Lenovo, Motorola Mobility	discussion	Rel-15	NR_newRAT-Core
R2-1800766	Msg 4 content and handling	Potevio	discussion		
R2-1800875	Remaining issues of on demand SI	vivo	discussion	Rel-15	NR_newRAT-Core
R2-1800943	Remaining issues on on-demand SI	Intel Corporation	discussion	Rel-15	NR_newRAT-Core
R2-1800985	Necessity of indication that on demand SI is being broadcast	Sony	discussion	Rel-15	NR_newRAT-Core
R2-1801119	On Demand SI Request Procedure	InterDigital	discussion	Rel-15	NR_newRAT-Core
R2-1801187	MSG1 based other SI acquisition	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1801188	MSG3 based other SI acquisition	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1801189	Connected mode SI acquisition	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1801190	Failure handing for on-demand SI acquisition	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1801227	SI Request and Delivery using Msg 3 Approach	Nokia, Nokia Shanghai Bell	discussion		
R2-1801275	Indicator for Other SI Transmission	MediaTek Inc.	discussion	R2-1713075	
R2-1801285	Open issues on broadcast indication	ETRI	discussion	NR_newRAT	R2-1707946
R2-1801296	Open issues on NR on-demand SI	Qualcomm Incorporated	discussion	Rel-15	NR_newRAT-Core
R2-1801346	Discussion on the additional indication for on-demand SI	ITRI	discussion		NR_newRAT-Core
R2-1801393	SI request and acquisition in CONNECTED	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core
R2-1801378	Remaining issues on on-demand SI request procedure	LG Electronics Inc.	discussion		
	<i>Moved from 10.4.1.6.6 to 10.4.1.6.5</i>				
R2-1801386	UE dedicated on-demand SI delivery in NR	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core

10.4.1.6.6 System information -other

Other system information related aspects

R2-1800284	SS Block index dependent system information	Ericsson	discussion		
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R2-1800290	Dedicated System Information	Ericsson	discussion	
R2-1800292	NR-SIB1 content for NSA and ANR	Ericsson	discussion	
R2-1800293	Defining reserved resources in NR-SIB1	Ericsson	discussion	
R2-1800295	Open issues on cell barring	Ericsson	discussion	R2-1712495
R2-1800298	Update of SI Area common SI	Ericsson	discussion	
R2-1800301	Public Warning System provisioning	Ericsson	discussion	
R2-1800852	Dedicated signalling of SI upon UE mobility Rel-15 NR_newRAT-Core		Samsung Telecommunications	discussion
R2-1801191	Public Warning system for NR Core R2-1713289	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1801192	On the timing of SIB1	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1801193	Update to the timing of SIB1 - F NR_newRAT-Core	Huawei, HiSilicon	CR	Rel-15 38.331 15.0.0 0003
R2-1801194	SI Reception for Connected UE in BWP NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15
R2-1801254	On supporting multiple modification periods in NR Core	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.

10.4.1.7.1 RAN area configuration

Any further details of RAN area configuration given LS response to RAN3 from RAN2#99bis.

Maximum 1 tdoc per company

R2-1800916	TP on RAN notification area configuration NR_newRAT-Core	Intel Corporation	discussion	Rel-15
R2-1800099	Further considerations on RAN paging area for NR NR_newRAT-Core	Samung	discussion	Rel-15
R2-1800280	Discussion on Assistance Information for RAN-based Notification Area Decision discussion			OPPO
R2-1800503	RAN-based notification area configuration NR_newRAT-Core	Huawei, HiSilicon	discussion	Rel-15
R2-1800672	RAN area configuration Core	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT-Core
R2-1800876	Text Proposal to 38.331 on RAN Area Configuration NR_newRAT-Core		vivo discussion	Rel-15
R2-1801302	RAN Notification Area Configuration in NR	MediaTek Inc.	discussion	

10.4.1.7.2 RAN area update procedure

Maximum 1 tdoc per company

R2-1800142	RAN-based notification area update procedure	CATT	discussion	R2-1712423
R2-1800100	RRC procedures for the RAN paging area Core	Samsung	discussion	Rel-15 NR_newRAT-Core
R2-1800215	Periodic RNAU without anchor gNB relocation	Qualcomm Incorporated	discussion	
R2-1800434	Context relocation in NR Release 15 Core	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800455	CN area update in Inactive state	ZTE Corporation, Sanechips	discussion	

R2-1800483	On the support of periodical RNA update without context relocation	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT
R2-1800504	Discussion on CN location Update and RNA Update for inactive state	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
R2-1800919	Periodic RNAU without anchor gNB relocation	Intel Corporation	discussion	Rel-15	NR_newRAT-Core
R2-1801120	RAN Location Area Update Procedure for NR	InterDigital	discussion	Rel-15	NR_newRAT-Core R2-1712802
R2-1801353	Anchor relocation in RRC_INACTIVE	LG Electronics France	discussion	NR_newRAT-Core	

10.4.1.7.3 Paging in inactive

RRC procedure to respond to paging, including any differences between RAN and CN paging

R2-1800143	Procedure of paging in inactive	CATT	discussion	R2-1712422	
R2-1800917	RAN-initiated paging message	Intel Corporation	discussion	Rel-15	NR_newRAT-Core
R2-1800101	Further considerations on the CN and RAN paging	Samsung	discussion	Rel-15	NR_newRAT-Core
R2-1800361	Paging in RRC_INACTIVE	Ericsson	discussion		
R2-1800666	Discussion on enhanced paging mechanism for handling RAN-initiated paging failure	ASTRI, TCL Communication Ltd.	discussion		
R2-1800807	Paging Failure Handling in RRC_INACTIVE	CMCC	discussion	Rel-15	NR_newRAT-Core
R2-1801098	RAN initiated Paging	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core R2-1705184
R2-1801363	Paging for a UE in RRC_INACTIVE	LG Electronics France	discussion	Rel-15	NR_newRAT-Core
R2-1801384	RAN paging DRX in RRC_INACTIVE	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core R2-1713703

10.4.1.7.4 Inter-RAT mobility between NR Inactive and E-UTRA/5GC Inactive

R2-1801420	Inter-RAT mobility between NR and eLTE for Inactive state	LG Electronics Inc.	discussion	Rel-15	NR_newRAT-Core R2-1713260
R2-1800915	Mobility of UE in INACTIVE between NR and E-UTRA connected to 5GC	Intel Corporation	discussion	Rel-15	NR_newRAT-Core
R2-1800432	Mobility between LTE and NR for inactive Ues	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1800433	TP to 38.331 on RRC states	Ericsson	discussion	Rel-15	NR_newRAT-Core
R2-1800102	Inter-RAT mobility in the RRC INACTIVE state	Samsung	discussion	Rel-15	NR_newRAT-Core
R2-1800109	Clarification for the inter-RAT re-selection in the RRC_INACTIVE state	Samsung	CR	Rel-15	38.300 15.0.0 0001 - F NR_newRAT-Core
R2-1800505	Inter-RAT mobility for inactive UE	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core

10.4.1.7.5 Security framework for inactive

Security framework for inactive UEs to address FFS arising from email discussion 98#30.

R2-1800868	Security aspects in RRC INACTIVE	vivo	discussion	Rel-15	NR_newRAT-Core R2-1712772
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R2-1801361	Consideration on security aspect for inactive UEs	LG Electronics France	discussion	Rel-15
	NR_newRAT-Core	R2-1713651		
R2-1800912	NR security framework for inactive	Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1800508	Security for Msg4 Huawei, HiSilicon		discussion	Rel-15 NR_newRAT-Core
R2-1800507	Security for Msg3 Huawei, HiSilicon		discussion	Rel-15 NR_newRAT-Core
R2-1800144	Security issues related to RRC resume procedure from inactive state		CATT discussion	
	R2-1712424			
R2-1800430	Way forward with Security in RRC Inactive	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800431	Security for RRCConnectionResumeRequest message	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800467	Security aspects of INACTIVE state handling	ZTE Corporation, Sanecips	discussion	
R2-1800506	Security of INACTIVE to CONNECTED state transition	Huawei, HiSilicon	discussion	
	Rel-15 NR_newRAT-Core			
R2-1800509	[Draft] LS to SA3 on inactive to connected state transition	Huawei, HiSilicon	LS out	Rel-15 NR_newRAT-Core To: SA3
R2-1800674	Security in inactive state	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT-Core R2-1711056
R2-1801108	Security Aspects of Connection Control	InterDigital	discussion	Rel-15 NR_newRAT-Core R2-1712792
R2-1801145	Security procedure from RRC_INACTIVE state in NR	Samsung	discussion	
R2-1801336	[DRAFT] LS on security framework for INACTIVE in NR	Samsung	LS out	Rel-15 NR_newRAT-Core To:SA3

Withdrawn

R2-1800484	Security for Msg4 Huawei, HiSilicon	discussion	Rel-15 NR_newRAT	Withdrawn
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10.4.1.7.6 Inactive - other

Other inactive state related aspects

R2-1800114	On the optionality of the INACTIVE state	Samsung	discussion	Rel-15 NR_newRAT-Core
R2-1800365	UE support for RRC_INACTIVE	Ericsson	discussion	
R2-1800366	Draft Reply LS on optionality of the UE procedures related to RRC Inactive	Ericsson	LS out	To:SA2 Cc:RAN
R2-1800214	RRC_INACTIVE Context ID	Qualcomm Incorporated	discussion	
R2-1800043	UE actions upon cell reselection in RRC_INACTIVE	ASUSTeK	discussion	Rel-15 NR_newRAT-Core R2-1712209
R2-1800080	RA Procedure for RRC Inactive State	Samsung Electronics Co., Ltd	discussion	NR_newRAT-Core
R2-1800213	UE AS Context for RRC_INACTIVE	Qualcomm Incorporated	discussion	
R2-1800281	Discussion on cell reselection priority for INACTIVE UE	OPPO	discussion	
R2-1800282	Discussion on Cached Data Handling for INACTIVE UE	OPPO	discussion	
R2-1800352	Cell Reselection in RRC_INACTIVE State	Ericsson	discussion	
R2-1800380	Coordination of I-RNTI/Resume ID's across RAT's	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800435	CN area updating in RRC_INACTIVE	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1800456	Consideration on periodic RAN area update procedure	ZTE Corporation, Sanecips	discussion	

R2-1800485	RLAU procedure and interaction with TAU Huawei, HiSilicon	discussion	Rel-15
	NR_newRAT R2-1712552		
R2-1800510	RRC State transition from INACTIVE to IDLE Huawei, HiSilicon	discussion	Rel-15
	NR_newRAT-Core		
R2-1800511	Cell reselection for inactive UEs Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1800512	Support of redistribution priority in NR Huawei, HiSilicon	discussion	Rel-15
	NR_newRAT-Core		
R2-1800673	Consistent support of RRC_INACTIVE Nokia, Nokia Shanghai Bell	discussion	Rel-15
	NR_newRAT-Core R2-1711055		
R2-1800877	RRC Connection Release Issues for UE in RRC_INACTIVE vivo	discussion	Rel-15
	NR_newRAT-Core R2-1712773		
R2-1800913	TP on agreed NR inactive aspects Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1800914	Resume Failure handling in inactive Intel Corporation	discussion	Rel-15
	NR_newRAT-Core		
R2-1800920	The length of resume id Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1800929	Cell reselection for inactive UEs Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1801342	Paging during state transition procedure ITRI	discussion	NR_newRAT-Core
R2-1801343	Discussion inactive state cell reselection ITRI	discussion	NR_newRAT-Core R2-1713572
R2-1801352	Further consideration on INACTIVE feature LG Electronics France	discussion	
	NR_newRAT-Core R2-1713614		
R2-1801354	PLMN selection in RRC_INACTIVE LG Electronics France	discussion	NR_newRAT-Core
R2-1801356	Consideration on MICO mode for RRC_INACTIVE LG Electronics France	discussion	Rel-15
	NR_newRAT-Core R2-1713616		
R2-1801357	Timer handling of RAN-based location area update LG Electronics France	discussion	
	Rel-15 NR_newRAT-Core R2-1713631		
R2-1801358	Synchronization of UE context during RNA update procedure LG Electronics France		
	discussion NR_newRAT-Core		
R2-1801360	Offloading UEs in RRC_INACTIVE LG Electronics France	discussion	Rel-15
	NR_newRAT-Core R2-1713619		
R2-1801381	Handling of radio bearers and security for data transmission in RRC_INACTIVE LG Electronics Inc.	discussion	Rel-15 NR_newRAT-Core
			R2-1713700

Late

R2-1801365	On the MICO mode and the RRC_INACTIVE state Samsung	discussion	Rel-15
	NR_newRAT-Core Late		

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 Access control for Idle/Inactive

R2-1800317	AS-NAS functional division for Unified Access Control Ericsson	discussion	
R2-1800457	Establishment cause and call type for NR access control ZTE Corporation, Sanechips	discussion	
R2-1800459	Consideration on the barring parameters ZTE Corporation, Sanechips	discussion	
R2-1800062	Discussion on Access Control for On-demand SI Request OPPO	discussion	Rel-15
	NR_newRAT-Core R2-1712221		

R2-1800064	Discussion on NR Access Control for RRC_INACTIVE UEs NR_newRAT-Core	OPPO	discussion	
R2-1800111	Unified Access Control in different RRC Modes 1710800	Qualcomm Incorporated	discussion	R2-
R2-1800272	Timer mechanism for 5G unified access control Rel-15	Spreadtrum Communications	discussion	
R2-1800273	Barring information encoding for 5G unified access control discussion Rel-15 R2-1712269	Spreadtrum Communications		
R2-1800318	RRC-initiated access attempts in RRC_IDLE and RRC_INACTIVE	Ericsson	discussion	
R2-1800320	Signaling of access control parameters	Ericsson	discussion	
R2-1800321	Establishment causes for NR	Ericsson	discussion	
R2-1800322	[DRAFT] LS on Establishment Causes in NR	Ericsson	LS out	To:CT1 Cc:SA1, SA2
R2-1800323	[DRAFT] Reply LS on requirements on unified access control for 5GS out To:CT1 Cc:SA1, SA2	Ericsson	LS	
R2-1800458	Consideration on access control in NR	ZTE Corporation, Sanechips	discussion	
R2-1800460	Access category selection information provide by AS discussion	ZTE Corporation, Sanechips		
R2-1800461	ReplyLSOnUnifiedAccessControl (Reply to R2-1712105) discussion	ZTE Corporation, Sanechips		
R2-1800608	Consideration on Access Control in NR	KT Corp.	discussion	
R2-1800617	Discussion on Access Control for Network Slicing Core	OPPO	discussion	Rel-15 NR_newRAT-
R2-1800879	Discussion on the access control of SI request Core	vivo	discussion	Rel-15 NR_newRAT-
R2-1800921	RAN implications of 5G Access Control requirements Rel-15 NR_newRAT-Core	Intel Corporation	discussion	
R2-1800922	5G access control mechanism in IDLE and INACTIVE Rel-15 NR_newRAT-Core	Intel Corporation	discussion	
R2-1801054	Access attempt categorization and barring check Rel-15 NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion	
R2-1801055	Access attempt categorization and barring check in NG-RAN draftCR Rel-15 38.300 15.0.0 F NR_newRAT-Core	Nokia, Nokia Shanghai Bell		
R2-1801056	Access Barring Control for RRC_INACTIVE Rel-15 NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion	
R2-1801057	Access control applicability to different RRC states 15 38.300 15.0.0 F NR_newRAT-Core	Nokia, Nokia Shanghai Bell	draftCR Rel-	
R2-1801095	Access Control for MT R2-1713565	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core
R2-1801172	Basic Access Control in NR Core R2-1713558	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-
R2-1801173	Access Control in RRC_INACTIVE NR_newRAT-Core R2-1713547	Huawei, HiSilicon	discussion	Rel-15
R2-1801175	Access control signaling design	Huawei Technologies France	discussion	Rel-15
R2-1801258	NR Access Control in Idle Mode	Samsung	discussion	NR_newRAT-Core
R2-1801375	Access category based access barring for RRC_IDLE and RRC_INACTIVE Electronics Inc. discussion Rel-15 NR_newRAT-Core R2-1713694	LG		
R2-1801383	Random Access Backoff and Access Barring 15 NR_newRAT-Core R2-1713702	LG Electronics Inc.	discussion	Rel-
R2-1801527	CR on 38.331 for Notification of UEs in RRC_INACTIVE to Upper Layers (v040) draftCR 38.331 B NR_newRAT-Core 15	vivo		

=> Can be discussed within an SA agenda item.
Moved from 10.4.3.2 to 10.4.1.7.6

10.4.1.8.2 Access control for connected

R2-1800923	5G access control mechanism in CONNECTED NR_newRAT-Core	Intel Corporation	discussion	Rel-15
R2-1801093	Access Control in NR for RRC_CONNECTED Rel-15 NR_newRAT-Core	Huawei Technologies France	discussion	R2-1713562
R2-1801380	Access category based access barring mechanism for RRC_CONNECTED discussion Rel-15 NR_newRAT-Core	DLG Electronics Inc.		R2-1713699
<i>Moved from 10.4.1.6 to 10.4.1.8.2</i>				
R2-1800063	Discussion on NR Access Control for RRC_CONNECTED UEs NR_newRAT-Core	OPPO	discussion	
R2-1800092	QoS Flow based Access Control for CONNECTED Mode in NR NR_newRAT-Core	TCL	discussion	
R2-1800319	Access Control in RRC_CONNECTED	Ericsson	discussion	
R2-1800462	Consideration on the access control in connected	ZTE Corporation, Sanechips	discussion	
R2-1800790	Access Control for RRC_CONNECTED	CMCC	discussion	Rel-15 NR_newRAT-Core
R2-1801259	NR Access Control in RRC_Connected and RRC_Inactive	Samsung	discussion	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 Inter-Node RRC messages for non EN-DC

Start to progress structure and content of the Inter-Node RRC messages used for non EN-DC procedures.

R2-1800777	Inter-Node RRC messages for non EN-DCHuawei, HiSilicon NR_newRAT-Core	discussion	Rel-15
R2-1801073	Open issues on inter-node signalling for handover Ericsson NR_newRAT-Core	discussion	Rel-15

10.4.1.10 Other (non EN-DC)

Other RRC related aspects

R2-1800730	CR on 36.331 for UP IP check failure handling in SCG 15 36.331 15.0.1 B NR_newRAT-Core	Huawei, HiSilicon	draftCR	Rel-15
R2-1800731	CR on 38.331 for UP IP check failure handling in SCG 15 38.331 15.0.0 B NR_newRAT-Core	Huawei, HiSilicon	draftCR	Rel-15
R2-1801075	MCG RLF handling in case of NR-NR DC Core	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801076	RRC design principles for NR-NR DC Core	Ericsson	discussion	Rel-15 NR_newRAT-Core
R2-1801495	UE Assistance Information for energy efficiency enhancement Rel-15 NR_newRAT-Core	Samsung	discussion	R2-1713777

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 correction CRs to the appropriate agenda item.

- R2-1800851 Introducing support for NR, changes only relevant for SA Samsung Telecommunications CR
Rel-15 36.331 15.0.1 3186 1 B NR_newRAT-Core R2-1713457
=> Noted
- R2-1800853 Introducing support for NR in 36.331, overview of remaining issues Rapporteur (Samsung) report
Rel-15 NR_newRAT-Core Late
=> Noted

10.4.2.2 Corrections to RRM measurements for EN-DC

Corrections to 36.331 related to RRM procedures for EN-DC and not covered within the ASN.1 review.

NR serving cell measurements

- R2-1800935 NR measurement in LTE measurement report Intel Corporation discussion Rel-15 NR_newRAT-Core

Agreements

- 1 Reporting of NR serving cells and best neighbour cells on serving frequencies in LTE measurement reports is based on availability of measurements using the availability criteria as specified in NR RRC (and therefore only considering the NR RRC measurement configuration).
 - 1.1 For cell and beam level reporting only SSB based measurements are reported, if available.
- FFS: Whether to have some configurability on the reporting of the beam level measurements on NR cells.

- R2-1800772 Contents of reporting of NR cells in LTE measurement reports Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT
- R2-1801083 Reporting of NR results in LTE MR Samsung Telecommunications discussion Rel-15 NR_newRAT-Core
- R2-1800145 NR measurement results of LTE measurement report CATT discussion
- R2-1801293 Open issue on NR measurements on LTE Ax events Qualcomm Incorporated discussion Rel-15 NR_newRAT-Core

SSTD

- R2-1800714 Discussion on SSTD measurement configuration for non-configured cell Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
=> Postponed until RAN4 have responded to LS sent from last meeting
- R2-1800715 CR on 36.331 for SSTD measurement configuration for non-configured cell Huawei, HiSilicon draftCR Rel-15 36.331 15.0.1 F NR_newRAT-Core
- R2-1800717 CR on 36.331 to capture RAN4 LS on SSTD Huawei, HiSilicon draftCR Rel-15 36.331 15.0.1 F NR_newRAT-Core
- R2-1800972 SSTD Design in EN-DC MediaTek Inc. discussion NR_newRAT-Core

s-Measure

- R2-1800499 S-measure in LTE for EN-DC Huawei, HiSilicon Discussion NR_newRAT-Core
=> Noted
- R2-1800783 NR measurement exception for s-Measure in LTE Huawei, HiSilicon draftCR Rel-15 36.331 15.0.1 F NR_newRAT-Core

Other

R2-1801312	TP on inter-RAT ANR to 36.300 for EN-DC NR_newRAT-Core	Ericsson	discussion	Rel-15
R2-1801517	Inter-RAT measurement with considering SA operation Rel-15 NR_newRAT-Core	SHARP Corporation	discussion	

10.4.2.3 Corrections to other EN-DC aspects

Corrections to 36.331 related to EN-DC procedures other than RRM and not covered within the ASN.1 review.

R2-1800306	Correction to full configuration - F NR_newRAT-Core	HTC Corporation	CR	Rel-15	36.331	15.0.1	3204
=> Changes in 5.3.5.8 are agreed and can be included in the rapporteur CR. => Change in 5.3.10.1 changed to "establish an E-UTRA PDCP entity")							
R2-1800307	Correction to DRB reconfiguration - F NR_newRAT-Core	HTC Corporation	CR	Rel-15	36.331	15.0.1	3205
=> Final change: Do not add new brackets. Text in existing brackets to say "reconfigure split DRB for EN-DC or reconfigure MCG DRB" => Second change " associate MCG RLC bearer with the PDCP entity " => Editorials also agreed to be captured in rapporteur CR							
R2-1800308	Correction to PDCP version change 15.0.1 3206 - F NR_newRAT-Core	HTC Corporation	CR	Rel-15	36.331		
=> Covered by ASN.1 review							
R2-1800828	PDCP type change for SRBs 36.331 NR_newRAT-Core	Nokia, Nokia Shanghai Bell	discussion	Rel-15			
=> Offline discussion to progress how to capture PDCP type change for SRB (Offline discussion #42, Intel)							
R2-1801637	Offline discussion #42: PDCP version change for SRBs			Intel			
=> Changes agreed to be added to the rapporteur CR							
R2-1800978	SRB Version Change in EN-DC	MediaTek Inc.	discussion	Rel-15	NR_newRAT-Core		
R2-1801298	Clarification for SRB-identities of split SRB 15.0.1 3209 - F NR_newRAT-Core	Qualcomm Incorporated	CR	Rel-15	36.331		
=> Change is agreed and can be included in the rapporteur CR							
R2-1801507	Remaining issues on DRB handling for EN-DC in Rel-15 NR_newRAT-Core	SHARP Corporation	discussion				
=> Noted							
R2-1801508	DRB handling for EN-DC B NR_newRAT-Core	SHARP Corporation	CR	Rel-15	36.331	15.0.1	3210 -
=> To be considered within offline discussion #11							

Upper layer indication

R2-1801292	Open issues on NR indication Core	Qualcomm Incorporated	discussion	Rel-15	NR_newRAT-Core		
- NEC agree with both of the proposals. - DOCOMO think that we should not revisit this discussion. We could just delete the FFS							

- Vodafone think that GSMA indicated that we will show a 5G icon and so we should follow their name.
- CMCC think the current name is a good compromise.
- Nokia think that neighbour cells will be added for SA and so wonders what else is needed. Qualcomm think that the GSMA requirements need this for EN-DC as well
- Ericsson support the name change.
- => Can be discussed further offline. If no agreement reached in offline discussion then name will remain as upperLayerIndication.
- => Proposal 2 can also be discussed offline and revisited at a future meeting if there is progress offline.

R2-1800628 Correction on upperLayerIndication HTC draftCR Rel-15 36.331 15.0.1 F
NR_newRAT-Core
=> Agreed to be included in the rapporteur CR.

Processing times

R2-1801072 Processing times for RRC connection reconfiguration with embedded NR RRC in 36.331
Ericsson discussion Rel-15 NR_newRAT-Core

R2-1800980 RRC Processing Time in EN-DC MediaTek Inc. discussion Rel-15 NR_newRAT-Core

- Discussed jointly with previous paper
- Huawei share the view with MediaTek. Samsung also share the same view in order to allow implementation with multiple chips. This is also a realistic implementation option. LG share the same view. Intel, Qualcomm, OPPO also share the view.
- DOCOMO think we need to meet requirements of ITU.
- Ericsson although this is not part of ITU requirements but it does have a performance impact.

Agreements

- 1 The RRC processing delay requirement of RRCConnectionReconfiguration including NR RRC for NR measurement configuration is defined as 15ms.
- 2 The RRC processing delay requirement of RRCConnectionReconfiguration including NR RRC for NR SCG establish/mod/release is defined as 20ms.

R2-1801158 CR on RRC processing times for RRC connection reconfiguration with embedded NR RRC in 36.331 Ericsson draftCR Rel-15 36.331 15.0.1 NR_newRAT-Core

IDC

R2-1800908 IDC indication for EN-DC Qualcomm Incorporated discussion Rel-15 NR_newRAT

- Nokia have concern this could be abused, for example to indicate an IDC problem if 1tx is not considered.
- Ericsson think that some study of the interference problems is needed.
- DOCOMO think that the problems do exist for NR as well as LTE.
- Apple think all of the problems for which IDC is used exist for EN-DC, interference and overheating, etc. Also think it is not related to single Tx
- Intel think the IDC issues are quite generic and hence applicable for NR as well as LTE. But think that we can target June for this. Also would like to extend the overheating issue for NR.
- Nokia think the overheating framework it already applicable to NR, as it just indicates the number of CCs. Qualcomm also agree.
- => Draft LS in R2-1801632 to RAN4 to ask whether IDC problems with other systems (e.g. BT and WLAN and GNSS) are applicable to EN-DC. (Offline discussion #43, Qualcomm).
- => Overheating indication applicability to EN-DC can be discussed at next meeting.

R2-1801632 [DRAFT] LS on In-Device Coexistence solution for EN-DC Qualcomm LS out Rel-15
NR_newRAT-Core To:RAN4

- => Change first paragraph to " RAN2 discussed if the LTE In-Device Co-existence (IDC) function should be applicable to cover EN-DC, e.g. to indicate from the UE to the network that UL/DL on a NR serving cell is causing an IDC problem to/from other systems (e.g. BT and WLAN and GNSS)."
- => Approved in R2-1801667

R2-1800954	IDC and overheating indication for NSA	Intel Corporation	discussion	Rel-15
	NR_newRAT-Core			
R2-1801423	Temporary Capability Restriction for EN-DC	Apple	discussion	Rel-15

Withdrawn

R2-1800572	RRC parameters for NR EN-DC Power sharing	KDDI Corporation	discussion	
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Late

R2-1800375	Indicator name within LTE SIB 2	Vodafone GmbH	discussion	Rel-15	Late
R2-1801529	Clarification of the UpperLayerIndication in SIB2	CATT	discussion		

10.4.3 EN-DC ASN.1 review

No documents should be submitted to 10.4.3. Please submit to 10.4.3.x

Withdrawn

R2-1801482	Discussion on BWP and RACH	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core
	Late				
R2-1801483	CR for BWP and RACH	Huawei, HiSilicon	draftCR	Rel-15	38.331 15.0.0 F
	NR_newRAT-Core	Late			
R2-1801486	Discussion on PDSCH configuration	Huawei, HiSilicon	discussion	Rel-15	
	NR_newRAT-Core	Late			
R2-1801487	CR for PDSCH configuration	Huawei, HiSilicon	draftCR	Rel-15	38.331 15.0.0 F
	NR_newRAT-Core	Late			

10.4.3.1 Rapporteur inputs

ASN.1 Review Issue Lists and ASN.1 review CRs for 38.331 and 36.331, plus any other rapporteur inputs related to ASN.1 review. No company contributions in this agenda item

R2-1800846	Review issue list for TS 36.331 EN-DC ASN.1 freeze	Rapporteur (Samsung)	report	Rel-15	NR_newRAT-Core	Late
	=> How to handle class 2 issues will be discussed offline in coffee break					
	=> Noted					
	=> Revised in R2-1801593					
R2-1800847	Minor corrections from review in preparation for EN-DC ASN.1 freeze	Rapporteur				
	(Samsung)	CR	Rel-15	36.331 15.0.1 3208	-	F
	Late					
	=> Can be used as baseline for further correction from ASN.1 review					

R2-1801218	Baseline TS 38331 v1.0.1 for ASN.1 review	Ericsson	discussion	Rel-15
	NR_newRAT-Core	Late		

R2-1801219	Review issue list for TS 38.331 EN-DC ASN.1 freeze	Ericsson	discussion	Rel-15
	NR_newRAT-Core	Late		
	=> Noted			

- R2-1801220 Minor corrections ASN.1 review 1 Ericsson draftCR Rel-15 38.331 15.0.0 F
NR_newRAT-Core Late
- Rapporteur thinks among these class 1 issues in the CR there are some that maybe should be class 2 or 3.
- => Can be used as baseline for further correction from ASN.1 review
- Handling of class 2 issues:
- 1/ Class 2 issues will not be discussed one by one online.
 - 2/ Companies are asked to flag any EN-DC class 2 issues from other companies where they disagree with the proposed resolution, and the issue would benefit from online discussion.
 - Do not flag SA related issues for discussion
 - No need to flag for very minor wording aspects than can easily be resolved offline
 - Do not blanket flag issues because you have not read the issue.
 - 3/ EN-DC class 2 issues that are not flagged will be included in the CR based on the recommended resolution, but there will still be opportunity to discuss based on the CR is necessary.
 - 3i/ The work to prepare the 38.331 CRs will be distributed among companies, with distribution to managed by rapporteur
 - 4/ Flag issues by emailing (simple email, not a copy of the RIL) the rapporteur so that they can capture the need for online discussion and the company that raised the flag within an update of the RIL. Deadline Tuesday 07:30.
- R2-1801597 Review issue list for TS 38.331 EN-DC ASN.1 freeze Ericsson discussion Rel-15 NR_newRAT-Core Late
- R2-1801604 Review issue list for TS 38.331 EN-DC ASN.1 freeze Ericsson discussion Rel-15 NR_newRAT-Core Late
- R2-1801612 Chairman notes on Review issue list for TS 38.331 EN-DC ASN.1 freeze Chairman discussion Rel-15 NR_newRAT-Core Late
- => This is the version of the RIL edited online by the chairman on Tuesday, and including offline discussion numbers allocated after the meeting.
- Update from offline discussion of issue N016: Intention is to retain varMeasConfig and remove the sMeasConfig text.
- => N016: Follow original recommendation in the RIL.
- R2-1801670 Chairman notes on Review issue list for TS 38.331 EN-DC ASN.1 freeze Chairman discussion Rel-15 NR_newRAT-Core Late
- => This is the version of the RIL edited online by the chairman on Friday afternoon (additions to M012 and L013).
- R2-1801593 Review issue list for TS 36.331 EN-DC ASN.1 freeze Rapporteur (Samsung) report Rel-15 NR_newRAT-Core
- R2-1801613 Chairmain notes on Review issue list for TS 36.331 EN-DC ASN.1 freeze Chairman report Rel-15 NR_newRAT-Core
- => This is the version of the RIL edited online by the chairman, and including offline discussion numbers allocated after the meeting.
- R2-1801609 [DRAFT] LS to RAN1 on UE-specific and BWP-specific parametersHuawei LS out Rel-15 NR_newRAT-Core To:RAN1
- => Revised in R2-1801623
- R2-1801623 [DRAFT] LS to RAN1 on cell-specific and BWP-specific parameters Huawei LS out Rel-15 NR_newRAT-Core To:RAN1
- => Approved in R2-1801630

- R2-1801599 Network configuration restrictions Samsung draftCR Rel-15 NR_newRAT-Core
=> Revised in R2-1801636
- R2-1801636 Network configuration restrictions Samsung discussion Rel-15 NR_newRAT-Core
=> To be split in paragraphs for need and cond. Can be included in the rapporteur CR
- R2-1801610 Flag for Beam ID reporting (Issue S005) Ericsson discussion Rel-15 NR_newRAT-Core
=> To be revised so that in the case of event triggered the trigger quantity will determine the sorting quantity.
=> Revised in R2-1801646
- R2-1801646 Flag for Beam ID reporting (Issue S005) Ericsson discussion Rel-15 NR_newRAT-Core
=> Keep flag to indicate that UE reports beam IDs only (onlyReportBeamId).
=> Rename onlyReportBeamIds to includeBeamMeasurements.
=> Changes are agreed to be included in the rapporteur CR.
- R2-1801602 Offline discussion #23: release of configuration at SCG release CATT draftCR Rel-15 NR_newRAT-Core
=> Revised in R2-1801647
- R2-1801647 Offline discussion #23: release of configuration at SCG release CATT draftCR Rel-15 NR_newRAT-Core
=> Agreed to be included in the rapporteur CR.
- R2-1801601 Moving reconfiguration with sync to SpCell configuration (38331 RIL issue S003) Samsung discussion Rel-16 NR_newRAT-Core
=> Will be revisited at the next meeting
- R2-1801651 Clarifying the structure of 5.5.3.3 (issue N024) Huawei draftCR 38.331
=> Changes are agreed to be added to the rapporteur CR
- R2-1801665 Offline discussion PSCell/Scell terminology in NR Ericsson
=> PSCell is not defined to be an SCell.
=> Refined set of definitions can be brought to the next meeting.

10.4.3.2 ASN.1 issue documents

Discussion documents related to issues identified in the ASN.1 review. Issue number from the issue list is to be included in the title of all discussion documents

- R2-1800147 RLM related timers and constants combination(RILNo C012) CATT discussion Late
- R2-1801206 E128 draft CR on alignment and missing issues on RRC timers Ericsson draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core Late
=> TP can be used as basis for addressing issues C012/E128
=> Values for the timers and constants can be agreed
=> Other detail comments can be provided offline
- R2-1800148 Clarification of SCG-ConfigInfo's absence when MN sets full-config flag(RILNo C043) CATT discussion Late

Agreements

- | |
|--|
| <p>1: In case the target eNB doesn't understand the MCG part of the configuration but the target SgNB does understand the SCG part:</p> <ul style="list-style-type: none"> □ The MN sets the LTE fullconfig flag in the LTE RRCConnectionReconfiguration message, and this will release both MCG and SCG configuration. □ The MN doesn't include the sourceConfigSCG in the sgNB addition request (if an SN is added). <p>=> Offline discussion to conclude the text to be captured in the field description</p> <p>=> We will try to avoid the use of MN and SN terms in stage 3 specs.</p> |
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R2-1800302 MIB acquisition in PSCell [E031] Ericsson discussion Late

- | |
|---|
| <p>Agreements</p> <ol style="list-style-type: none"> 1 Clarify in sub-clause 5.2.2 in TS 38.331 that only parts related to MIB acquisition, i.e. sub-clauses 5.2.2.3.1 and 5.2.2.4.1 are applicable for EN-DC. 2 Include UE procedure for MIB acquisition in a PSCell in sub-clause 5.2.2 in TS 38.331. 3 Add reference to TS 38.213 for scheduling of the MIB in sub-clause 5.2.2.3.1 in TS 38.331. 4 Include a trigger to acquire MIB of target SpCell (PSCell), with reference to sub-clause 5.2.2.3.1, in the UE procedure for RRC Reconfiguration. |
|---|

R2-1800401 Consideration on the configuration of RA resources per SSB ZTE, Sanechips discussion
Rel-15 NR_newRAT-Core Late

- | |
|---|
| <ol style="list-style-type: none"> 1: Have a compact design on the RA resources configuration, as suggested by RAN1, and avoid a per-SSB signalling structure. 2: The number of preambles for group A/group B (if needed), should be the same for every SSB. 4: The following parameters should be adopted for the configuration of association between preambles and SSB in CBFA. <ul style="list-style-type: none"> i. numberofSSB-Perrachocasion ii. cb-preamblesPerSSB iii. numberofRA-PreamblesGroupA |
|---|

- => Agreements above to be confirmed with UP session
- => Comeback with UP people present: Original agreement 3 ("The preambles reserved for CFRA can keep the per SSB signalling") was removed.
- => Progress the detailed structure for the RA resource configuration (also considering aspects from 0979 and 1197). (Offline discussion #01, Ericsson). Outcome to be captured in R2-1801587

R2-1801587 Consideration on the configuration of RA resources per SSB Ericsson discussion
Rel-15 NR_newRAT-Core

- => Changes agreed to be added to rapporteur CR.

R2-1800979 Signaling of random access parameters [M063] Ericsson discussion Rel-15 Late

- => Covered by discussion of 0401

R2-1801197 SSB and CSI-RS for RACH (H219, H231, H232 + others) Huawei, HiSilicon discussion
Rel-15 NR_newRAT-Core Late

- => Covered by discussion of 0401

R2-1801198 ASN.1 for beam failure recovery Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core Late

- => RLM related parameters (DL related) are separate from beam failure recovery related parameters (UL+DL related). Beam failure recovery related parameters may be located close to the RACH parameters or in a single.
- => Progress the detailed structure for the beam failure recovery related parameters offline. (Offline discussion #02, Huawei). Outcome in R2-1801588

- R2-1801588 ASN.1 for beam failure recovery Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
=> Change are agreed to be included in the rapporteur CR
=> Check next meeting based on latest RAN1 agreements.
- R2-1800406 Consideration on the configuration of cell group (RILNo Z081) ZTE, Sanechips discussion Rel-15 NR_newRAT-Core
=> The ASN.1 will include configuration of 1 single SCG.
=> Progress the structure offline . Can use the proposal from section 5 of R2-1800837 as a starting point. (Offline discussion #03, Nokia). Outcome in R2-1801648
- R2-1801648 Cell Group Configuration (offline discussion #03) Nokia
=> Change is not agreed. Can be revisited at the next meeting.
- R2-1800837 Setup, modification and release of EN-DC [N.054, N.056, N.057, N.214, N.218] Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core Late
=> Make clear in the spec that the DRB configuration is not dependent on the container that it is received in.
=> ServCellIndex index needs to be added to the serving cell configuration in 38.331. Check the release of the PSCell is covered.
=> Further offline discussion to conclude whether to add in 36.331 a release/setup structure to endc-CellGroupConfig-r15 (as shown in the document). If added then the scg-ConfigReleaseNR-r15 field would have to be renamed to be something more specific to the release and add in a single message use case. How to release the tdm-PatternSingle-Tx-r15 needs to be considered as well. (Offline discussion #04, Nokia). Outcome in R2-1801589
- R2-1801589 Setup, modification and release of EN-DC [N.054, N.056, N.057, N.214, N.218] Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core
=> Changes are agreed to be added to rapporteur CR.
- R2-1800439 Configuration structure of the reportTrigger in CSI-MeasConfig (RILNo Z019) ZTE Corporation, Sanechips discussion Late
=> Revised to R2-1801536
- R2-1801536 Configuration structure of the reportTrigger in CSI-MeasConfig (RILNo Z019) ZTE Corporation, Sanechips discussion Late
=> Offline discussion to try to progress how the structure could be updated. Aim to provide the outcome of offline discuss to RAN1 early this week for checking. (Offline discussion #05, Ericsson, Monday afternoon coffee break).
- R2-1800440 CR for the configuration of reportTrigger in CSI-MeasConfig (RILNo Z019) ZTE Corporation, Sanechips draftCR Rel-15 38.331 15.0.0 F NR_newRAT-Core Late
=> Revised to R2-1801537
- R2-1801537 CR for the configuration of reportTrigger in CSI-MeasConfig (RILNo Z019) ZTE Corporation, Sanechips draftCR Rel-15 38.331 15.0.0 F NR_newRAT-Core Late
- R2-1800447 Clarification on WhiteCellList (RILNo Z003) ZTE Corporation, Sanechips discussion Late
=> RAN2 confirm that white list is supported for periodical measurements in NR.
=> Noted
- R2-1800478 Need and format of frequencyOffset field in MeasObjectNR (issue H090) Huawei, HiSilicon discussion Rel-15 NR_newRAT Late

=> To be discussed based on other papers that cover more aspects related to indication of frequencies, input from RAN4, etc
Moved from 10.4.3.2 to 10.4.1.4.1

R2-1800479 Structure of timing IE in PDCCH-Config (issues H105, H130, H131) Huawei, HiSilicon
 discussion Rel-15 NR_newRAT Late

=> ASN.1 structure for timeDomainResourceAllocation as shown in the paper is agreed.

R2-1800480 Stage 3 CR on SPS config in 38.331 Huawei, HiSilicon draftCR Rel-15 38.331
 15.0.0 F NR_newRAT Late

Agreements

- 1 Split UL and DL configurations from SPS-Config IE into CS-ConfigUL, CS-ConfigDL (configured scheduling). CS-ConfigDL will only contain configured grant type 2 (formerly SPS) and CS-ConfigUL will Configured Grant Type 1 and 2.
- => Check with user plane session regarding the names CS-ConfigUL, CS-ConfigDL. We will align with MAC terminology.
- 2: Move CS-RNTI to the field of MAC-CellGroup Config IE.
- 3: Move UL Configured Grant configurations to the field of UplinkBandwidthPart IE.
- 3.1 Move CS-ConfigDL configurations to the field of DownlinkBandwidthPart IE.
- 4: Add ConfiguredGrantTimer in Configured Grant configurations and the unit and value range can be discussed in UP.
- 5: Need or setup release structure for Configured Grant to be aligned with other fields in UplinkBandwidthPart (to be discussed separately)
- 6: Add lcp-ConfiguredGrantType1Allowed in LogicalChannelConfig.
- 7 Update the description and suggested values based on RAN1 agreements.
- 8 In rrc-ConfiguredUplinkGrant the setup should be type 1 and the release should be type 2.

=> After checking with UP session the first agreement is modified to align with MAC spec terminology

R2-1800577 Correction on DRB ID range for NR OPPO draftCR Rel-15 38.331 15.0.0 F
 NR_newRAT-Core

=> Check offline the situation in LTE whether the DRB IDs 1,2 and can be used.
 - Update from offline: Concluded that DRB IDs from 1-32 can all be used but companies would like to check with SA3 is there is a security issue.
 => Change in the draft CR is agreed to be included in the rapporteur CR.

R2-1801605 [DRAFT] LS on RAN2 Assumption about DRB ID value range OPPO LS out Rel-15
 NR_newRAT-Core To:SA3

=> Approved in R2-1801649

R2-1800650 (M006) TP for BWP Addition/Modification and Release in NR RRC MediaTek Inc. discussion

=> Procedural text to cover the Addition/Modification will be needed. Revisit in next meeting the text after the final ASN.1 structure is clear.

R2-1800651 [M013]TP for RLF Timers & Constants configuration in 38.331 MediaTek Inc. discussion
 R2-1712892

=> Covered by previous papers.

R2-1800677 CellIndex usage in cell lists in NR [N.017 and N.018] Nokia, Nokia Shanghai Bell
 draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core Late

=> Can be discussed further offline to conclude whether to go the way proposed in the paper.
 (Offline discussion #09, Nokia)

- Outcome from offline: The black and white lists the cell index should be kept but the name could be change. Captured in R2-1801641. Removing the cell index from the cell add/mod list is not concluded.

R2-1801641 CellIndex usage in cell lists in NR [N.017 and N.018] Nokia, Nokia Shanghai Bell
draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core Late

=> Changes agreed to be included in the rapporteur CR

R2-1800736 CR on 38.331 for specified configurations of SRBs (H280, H281) Huawei, HiSilicon
draftCR Rel-15 38.331 15.0.0 F NR_newRAT-Core Late

=> Noted

R2-1801525 CR on 38331 for radio configuration (v029, v030, v031, v032) vivo draftCR 38.331
F NR_newRAT-Core 15

=> logicalChannelSR-Delay should be 'absent' instead of infinity (can be concluded offline with to signify this with N/A or in some other way)

=> Other changes are agreed.

R2-1800739 CR on 36.331 for NR PDCP configuration before EN-DC (H005) Huawei, HiSilicon
draftCR Rel-15 36.331 15.0.1 F NR_newRAT-Core Late

=> Change are agreed.

R2-1800748 CR on 38.331 for support of uplink operation mode in EN-DC (ASN.1 H034) Huawei, HiSilicon
draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core Late

=> Can discuss offline to try to conclude whether anything is needed (Offline discussion #06, Huawei)

- Update from offline: Concluded that no need for an explicit mode configuration. UE can determine the mode from the LTE TDM pattern and the settings of the max power on LTE and NR. LS to RAN1 is needed. Also needs to be discussed whether to add anything in the inter-node message.

=> No explicit indication of the uplink operation mode is needed in RRC signalling.

R2-1801650 Draft LS on supporting power sharing Huawei

=> Last 2 bullets changed to:

- if LTE TDM pattern (SUO case 1) is configured to the UE, the UE would justify whether it enters to SUO mode based on the condition that $P_{LTE} + P_{NR} > P_{max}$, otherwise the UE would operate in dual mode or SUO case 2

- RAN2 understanding is that there is no need to differentiate SUO case 2 with dual mode

=> Approved in R2-1801652

R2-1800749 CR on 38.331 for support of SUL (ASN.1 H017, H018, H021, H038, H208) Huawei, HiSilicon
draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core Late

=> Noted

R2-1801167 E127 - Cleaning up Common vs. Dedicated Ericsson draftCR Rel-15 38.331
15.0.0 F NR_newRAT-Core Late

=> Revised to R2-181541

R2-1801541 E127 - Cleaning up Common vs. Dedicated Ericsson draftCR Rel-15 38.331
15.0.0 F NR_newRAT-Core Late

=> Need to check whether the SetupRelease construct is needed for all cases.

=> pdcch-Config need to be added to DownlinkBandwidthPartDedicated

=> To be used as baseline for correction to the BWP structure. (Offline discussion #07, Ericsson). Outcome in R2-1801591

- R2-1801591 E127 - Cleaning up Common vs. Dedicated Ericsson draftCR Rel-15 38.331
15.0.0 NR_newRAT-Core F
=> Condition for ServingCellConfigCommon and UplinkConfigCommon should be marked FFS
=> Agreed to be included in the rapporteur CR
- R2-1800830 Structure of NR RRC [N.265] Nokia, Nokia Shanghai Bell discussion Rel-15
38.331 NR_newRAT-Core Late
=> Use ElementList (instead of elements) and include Add/Mod list and Release list
=> Add extension fields after this meeting - to be finalised in Feb meeting.
- R2-1800831 UE capability enquiry/reporting in NR RRC [N.037, N.038, N.040, N.045, N.046, N.221, N.222] Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core Late
=> To indicate MR-DC, define the RAT-Type IE eutra-nr in TS38.331 (same as it is in 36.331).
=> Define the IE FreqBandList in TS38.331 for the requested LTE and NR bands.
- R2-1800911 LTE part capability size reduction for EN-DC (I038, 040 in RIL36.331, I077 in RIL38.331) Intel Corporation discussion Rel-15 NR_newRAT-Core Late
=> Revised to R2-1801533
- R2-1801533 LTE part capability size reduction for EN-DC (I038, 040 in RIL36.331, I077 in RIL38.331) Intel Corporation discussion Rel-15 NR_newRAT-Core Late
=> Regarding proposal 1, can be discussed offline exactly what to capture within 36.331 and 38.331
- R2-1800832 Avoiding compiler issues with repeated field names [N.134, N.135, N.136] Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core Late

Agreements

- 1: Use suffix to differentiate repeated field names within the same SEQUENCE or CHOICE.
- 2: Add an ASN.1 recommendation based on TP in Annex A to NR RRC (further details of the TP may be progressed offline)
- 3: Only use named IEs with SetupRelease, i.e. never use unnamed SEQUENCE/CHOICE wrapped with SetupRelease.
- 4: Adopt the TP in Annex B to NR RRC on SetupRelease usage.
- 5: Do not use underscore in ASN.1 names or identifiers.

- R2-1800833 Release of fields and need codes for NR RRC [N.062, N.079, N.096, N.099, N.112] Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core Late

Agreements

- 1: Use Need M as the need code for all fields that can be signalled in DL unless decided otherwise based on the principles below or a case by case decision.
- 2: Use Need N for all lists that allow AddMod and Release of the entries, e.g. measObjectToAddModList and measObjectToRemoveList.
- 3: NR RRC should use Need R at least for ENUMERATED fields with a single element (i.e. fields that are used as "indicators" or "flags").
- 4: Do not specify any further guidelines for usage of Need S.
- 5: Resolve the review issues [N.062, N.079, N.096, N.099, N.112] according to these principles
- 6: Apply the principles of this contribution to all optional fields that require need codes in NR RRC. (Can be changed from these principles on a case by case basis)

- R2-1800834 UE capabilities for SUO [N.118] Nokia, Nokia Shanghai Bell discussion Rel-15
38.331 NR_newRAT-Core Late
=> Location of singleTx within the UL and/or DL parts of the band combination to be concluded after the UL/DL decoupling is included.
=> Offline discussion to conclude on the rewording of the description in 36.306 (Offline discussion #08, Nokia)

- Update from offline: Conclusion is in R2-1801653

R2-1801653 UE capabilities for SUO [N.118] Nokia, Nokia Shanghai Bell discussion Rel-15
38.306 NR_newRAT-Core Late

=> Changes agreed to be added to the rapporteur CR.

R2-1800836 SCG failure information for EN-DC [N.220] Nokia, Nokia Shanghai Bell discussion Rel-15
36.331 NR_newRAT-Core Late

=> Create a new message and procedure for SCGFailureInformationNR for EN-DC failure reporting.

R2-1800843 Measurement quantity for beam sort in MR (issue H233) Huawei, HiSilicon discussion
Rel-15 NR_newRAT-Core

Agreements

- 1: The UE uses RSRP if present, otherwise RSRQ, for beam sort in ReportConfigNR if multiple quantities are configured to report.
- 2: The UE would use the report quantity for beam report to sort the beams in the MR if only one measurement quantity is configured to report.

R2-1800844 Correction on beam ordering in beam report (issue H233) Huawei, HiSilicon draftCR Rel-15
38.331 15.0.0 F NR_newRAT-Core

=> Revised to R2-1801592 to reflect the decisions above (Offline discussion #10, Huawei)

R2-1801592 Correction on beam ordering in beam report (issue H233) Huawei, HiSilicon draftCR Rel-15
38.331 15.0.0 NR_newRAT-Core F

=> Changes are not needed as they are covered by another document.

R2-1800936 "Miscellaneous issues on NR security

(Issue# I019 and I070 in RIL38.331 and Issue#37 and I039 in RIL36.331)" Intel Corporation
discussion Rel-15 NR_newRAT-Core Late

Agreements

- 1 Remove the paragraph starting "for all radio bearers configured with S-Kg" in Section 5.3.5.8
- 2 reestablishPDCP change to need N
- 3 Change the field names for the radioBearerConfig and radioBearerConfigS to radioBearerConfig1 and radioBearerConfig2. Should be clarified in the field description is there are any restrictions on their use e.g. if they are allowed to configure the same key.

=> Proposal 2 can be discussed more offline, including the general principle to move network conditions to field descriptions.

=> Proposal 4 about whether to avoid the unused sk-counter configuration in the UE , to be discussed offline (Offline discussion #13, Intel)

- Update from offline: Conclusion in R2-1801638

R2-1801638 Offline discussion #13: Security fields in RadioBearerConfig Intel

=> Changes agreed to be included in the rapporteur CR

=> Condition to the security algorithm to be removed or changed based on further offline discussion.

R2-1800950 I045 in RIL36.331: LTE BPC definition needs to be added Intel Corporation discussion
Rel-15 NR_newRAT-Core Late

=> Revised to R2-1801535

R2-1801535 I045 in RIL36.331: LTE BPC definition needs to be added Intel Corporation discussion
Rel-15 NR_newRAT-Core Late

- => Add the LTE baseband capabilities that were present in the RF BCs, but are dependent on the baseband capabilities: Number of CSI processes, NAICS and FD-MIMO parameters, as these are not added in the current LTE BPC definition.
- => Proposal 2 can be discussed when more progress on the basic ASN.1 structure for UE capabilities has been made.

R2-1800952 "Reference of LTE actions in NR RRC specification
(RIL38.331#I007, 12, 20, 40)" Intel Corporation discussion Rel-15 NR_newRAT-Core Late
=> For messages transmitted via LTE, refer to the LTE message name in which the NR message is transmitted, and reference 36.331.

R2-1801208 E110 Clarification on UE configuration in 38331 Ericsson draftCR Rel-15 38.331
15.0.0 NR_newRAT-Core Late
=> Offline discussion to conclude. LTE part in R2-1801586 can also be considered. (Offline discussion #11, Ericsson). Outcome for 36.331 in R2-1801643
=> Changes are agreed to be added to 38.331 CR

R2-1801643 E110 Clarification on UE configuration in 36331 Ericsson draftCR Rel-15 38.331
15.0.0 NR_newRAT-Core
=> Changes are agreed to be included in the rapporteur 36.331 CR

R2-1800955 I044 in RIL36.331: NR PDCP capabilities in LTE Intel Corporation discussion Rel-15 NR_newRAT-Core Late

Agreements

1. The change on TS36.331: move NR PDCP capabilities out of Inter RAT capabilities, and put it in UE-EUTRA-Capability-v15x0 directly.
2. The change on TS36.331: change the name "voice-r15" to "volteOverNR-PDCP-15".
3. The change on TS38.331 and TS38.306: remove "volteOverNR-PDCP-15".
4. If UE supports "volteOverNR-PDCP-15" the UE supports VoLTE over MN terminated bearer with MN RLC bearer only. FFS support of other bearer types.
5. The change on TS36.331: add field description on NR PDCP capabilities and refer to TS38.306 for each of:
 - rohc-Profiles-r15
 - rohc-ContextMaxSessions-r15
 - rohc-ProfilesUL-Only-r15
 - rohc-ContextContinue-r15
 - outOfOrderDelivery-r15
 - sn-SizeLo-r15
7. The change on TS36.306: add section 4.3.1A NR PDCP Parameters and refer to TS38.306.

=> CR to 36.306 to introduce EN-DC to be prepared for February meeting (Intel)

R2-1800956 I002 in RIL36.331: measurement gap for FR1 and FR2 Intel Corporation discussion
Rel-15 NR_newRAT-Core Late
=> TP is agreed,

R2-1800957 I024, 031,033 in RIL38.331: measurement gap for FR1 and FR2 Intel Corporation
discussion Rel-15 NR_newRAT-Core Late
=> Only the single gap pattern needed for EN-DC to be introduced (additional gap pattern for SA can be added later)
=> Can revisit the way to signal the gap patterns based on other contributions later in the week.

R2-1801607 CR for support of measurement gap for FR1 and FR2 Intel Corporation draftCR Rel-15 NR_newRAT-Core
=> Changes agreed to be added to the rapporteur CR

R2-1801174	I002 Measurement gap configuration NR_newRAT-Core Late	Ericsson	draftCR Rel-15	38.331	15.0.0	F			
	=> Revisit the procedural text when the ASN.1 structure for signalling gap patterns is concluded								
R2-1800958	I037 in RIL38.331: support of multiple trigger quantities Rel-15 NR_newRAT-Core Late	Intel Corporation	discussion						
	=> Change is agreed.								
R2-1801195	On the size of MIB Late	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-Core				
	=> Can be further discussed offline to try to conclude (Offline discussion #12, Huawei)								
R2-1801196	Correction to the MIB size NR_newRAT-Core Late	Huawei, HiSilicon	draftCR Rel-15	38.331	15.0.0	F			
	=> Revised in R2-1801628								
R2-1801628	Correction to the MIB size NR_newRAT-Core Late	Huawei, HiSilicon	draftCR Rel-15	38.331	15.0.0	F			
	=> Changes agreed to be added to the rapporteur CR								
R2-1801205	E128 Alignment and missing issues on RRC timers 15 NR_newRAT-Core Late	Ericsson	discussion	Rel-					
	=> Do not introduce timer T312 in March freeze for EN-DC								
R2-1801207	E108 Missing procedures for reconfiguration 15.0.0 NR_newRAT-Core Late	Ericsson	draftCR Rel-15	38.331					
	=> Changes in the TP are agreed. Field names (e.g. MAC-mainConfig) and other details can be checked offline.								
	=> 5.3.10 can be removed								
R2-1801464	Corrections to INM messages NR_newRAT-Core	HTC	CR	Rel-15	38.331	15.0.0	0004	-	F
	=> X2- can be added to 11.2.1								
	=> RRCConnectionReconfiguration corrected to RRCReconfiguration								
	=> Other aspects will be discussed with the email discussion on inter-node messages.								
R2-1801497	Discussion on the configuration of IE keyToUse (RILNo Z066) Rel-15 NR_newRAT-Core Late	ZTE, Sanechips	discussion						
	=> Already covered by previous papers								
R2-1801526	CR on 38331 for INM messages (v033, v034, v035, v036, v037) F NR_newRAT-Core 15	vivo	draftCR	38.331					
	=> Noted								
R2-1801528	Clarification on NR Cell Quality Derivation in 38.331 NR_newRAT-Core 15	vivo	Discussion						
	=> Noted								
R2-1801538	LTE re-establishment when using NR PDCP [L007] Rel-15 NR_newRAT-Core Late	LGE Electronics, Inc.	Discussion						
	=> Noted								
R2-1801484	Discussion on initial BWP [H031] Core Late	Huawei, HiSilicon	discussion	Rel-15	NR_newRAT-				
	<i>Moved from 10.4.3 to 10.4.3.1</i>								

=> The initial DL/UL BWP has a Bwp ID (fixed in the spec, e.g. 0) but the Bwp ID is not explicitly signalled in configuration, but may be referred to by other RRC signalling.

R2-1801485 CR for initial BWP [H031] Huawei, HiSilicon draftCR Rel-15 38.331 15.0.0 F
NR_newRAT-Core Late
Moved from 10.4.3 to 10.4.3.1

R2-1801085 Beam Recovery - remaining CP aspects Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT-Core Late
Moved from 10.4.3.3 to 10.4.3.2
=> Can be discussed as part of offline discussion 02.

R2-1801086 Beam Recovery - remaining CP aspects - draft CR Nokia, Nokia Shanghai Bell draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core Late
Moved from 10.4.3.3 to 10.4.1.3.2

Late (after deadline for ASN.1 review realtd docs)

R2-1800835 Inter-node messages for EN-DC [N.127, N.131, N.132, N.133] Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core Late

R2-1800838 Resolving BPC and UE capability combinations [N.255, N.256, N.258, N.259] Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core Late

R2-1801447 Resolution of class 3 issues NTT DOCOMO, INC. discussion Rel-15 NR_newRAT-Core Late

R2-1801472 ASN.1 for CBRA and CFRA-resource for handover and beam failure recovery(H219, S018,M063) Huawei, HiSilicon discussion Rel-15 38.331 NR_newRAT-Core Late

R2-1801473 ASN.1 for beam failure recovery (S018, H199) Huawei, HiSilicon discussion Rel-15 38.331 NR_newRAT-Core Late

10.4.3.3 Email discussion #30 on CSI meas config

Including output from email discussion [100#30][NR] L1 CSI meas config (Ericsson)

R2-1801166 Email Discussion Summary [100#30][NR] L1 CSI meas config Ericsson discussion Rel-15 NR_newRAT-Core Late

Agreements

1 Define pools of NZP-CSI-RS-, CSI-IM- and CSI-SSB-Resources on the top level (CSI-MeasConfig) with unique IDs so that they can be referred to widely and easily (e.g. from within sets, settings, TCI-RS-Sets (TCI-States)...)

=> Attempt to make a further restructuring that can be communicated to RAN1. LS will ask RAN1 if the restructured information still provides the same physical layer functionality and if not then then ask them to explain what is not available. Ask RAN1 if the restructured information would result in more RRC reconfiguration procedures compared to the previous structure.

=> Draft LS in R2-1801598 (Offline discussion #14, Ericsson)

R2-1801598 [DRAFT] LS on simplification of CSI-MeasConfig Ericsson LS out Rel-15 NR_newRAT-Core To:RAN1

=> Offline discussion to concluded whether an LS can be sent.

=> Chair will coordinate with RAN1 chair to prepare for a joint session between RAN1 and RAN2 experts to discuss CSI-MeasConfig. Session will use the LS as a basis for discussion.

☒ **[NR-AH1801#02][NR] LS to RAN1 in CSI-MeasConfig (Ericsson)**

Intended outcome: Approved LS

Deadline: Thursday 2018-02-08

=> Email approval not held.

10.4.3.4 Email discussion #31 on Inter-Node RRC messages

Including output from email discussion [100#31][NR] Inter-Node RRC message (Samsung)

R2-1800845 Report of e-mail [100#31][NR] Inter-Node RRC message Rapporteur (Samsung) report Rel-15 NR_newRAT-Core Late

Agreements:

SCGConfigInfo (specified in NR RRC)

Candidate cell information

1: SCGConfigInfo will include 2 fields, one for the SN configured measurements and one for the MN configured measurements.

FFS Whether these are containers and the RRC encoding used

2: Support transfer of CSI RS based results by the field carrying results of SN configured measurements.

3: Introduce support for reporting of SINR results in both fields field

UL duplication for SRB1/ 2

4: Do not introduce inter-node signalling regarding UL duplication for SRB 1/ 2 (at least for now)

SCGConfig (specified in NR RRC)

Full configuration

5: In case target SN triggers fullConfig, MN generates the drb-toReleaseList towards the UE (based upon a fullConfig indication provided by SN)

6: X2 should be used for the indication by SN that fullConfig is used

Coordination of band combinations

7 Clarify that all allowedBCs indicated by MN include the same LTE BC

FFS whether SN should always indicate selected NR BC to MN (no progress)

8: When SN request a change of the allowed EN-BCs (re-negotiation), it signals a single EN-BC that indicates the requested NR BC that SN would like to configure.

HandoverPreparationInfo (specified in LTE RRC)

Re-establishment information

9: Keep the re-establishment information in the RRC INM

10: Include the same information structure as used on Uu, at least for now. Can discuss if we should facilitate migration to transferring complete SIBs (i.e. making field optional)

=> TP to be provided in R2-1801595

R2-1801595 Changes resulting from e-mail [100#31][NR] Inter-Node RRC message Samsung
draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core F

=> Change candidateCellInfoList to candidateCellInfoListMN

=> Agreed to be added to the rapporteur CR

R2-1801635 [DRAFT] LS on moving DRB identity to X2 for EN-DC Samsung LS out Rel-15
NR_newRAT-Core To:RAN3

=> Approved in R2-1801656

R2-1801025 On NR measurement results in HandoverPreparationInformation (issue #3) HTC Corporation
discussion Rel-15

Agreements

1: (M)eNB can include NR measurement results is included to RRM-Config in HandoverPreparationInformation in 36.331.

2: (M)eNB forwards the NR serving cell and best neighbour cell measurement results that were reported within an A3/4/5 triggered measurement report. Measurements are forwarded in LTE RRC format (that they were reported in from the UE).

R2-1800305 NR measurement results in HandoverPreparationInformation HTC Corporation CR
Rel-15 36.331 15.0.1 3203 - F NR_newRAT-Core

R2-1800728 Remaining issue on cell index allocation Huawei, HiSilicon discussion Rel-15
NR_newRAT-Core
=> Noted

R2-1800737 Remaining issue on inter-node message in EN-DC Huawei, HiSilicon discussion Rel-15
NR_newRAT-Core
=> To be discussed in AI on measurement gap assistance information

R2-1800738 CR on 38.331 for measurement gap in INM in EN-DC Huawei, HiSilicon draftCR Rel-15
38.331 15.0.0 F NR_newRAT-Core

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, etc. Please submit correction CRs to the appropriate agenda item.

R2-1800926 Updated open issues on UE capabilities Intel Corporation discussion Rel-15
NR_newRAT-Core
=> Noted

R2-1800928 Running CR on TS38.306 Intel Corporation CR Rel-15 38.306 15.0.0 0001 -
F NR_newRAT-Core Late

- ☒ **[NR-AH1801#05][NR/] 38.306 (Intel)**
Update 38.306 and the UE capability ASN.1 based on agreements from this meeting.
Intended outcome: Endorsed updated CR and ASN.1
Deadline: Thursday 2018-02-20

10.4.4.2 UE capability structure and UE capability coordination for EN DC

Including output from email discussion [100#32][NR] UE capabilities (Qualcomm)

R2-1800909 Summary for email discussion [100#32][NR] UE capabilities Qualcomm Incorporated report
Rel-15 NR_newRAT

P3

- DOCOMO would like to understand if we can also ask RAN4 to change their specifications, for examples avoiding the frequency separation by RAN4 expanding their BW class definition to include the separation. Qualcomm would be open to this type of solution, but there are also other constraints.
- DOCOMO think we should be careful to add per BC signalling, and think the current BPC solution is half baked as it not used for all capabilities from RAN1/4
- Intel think we have provided an LS to RAN4 and think we can wait for them to respond. Huawei also think we can wait for RAN4.

Agreements

- 1 The UE is allowed to include the fallback BPCs of a higher capability BPC in cases where the fallback BPC is needed to be used for EN-DC purposes

- 2: Confirm that in case of MR-DC the UE is allowed to indicate multiple BPCs within a RAT with the same number of carriers and BWs .
- 3: Explicit linking from the MR-BC to the BPCs will not be supported in Rel-15. Rule for linking MR-DC BCs to BPCs is the same as that agreed for the SA case at RAN2#100.

=> Provide in R2-1801620 an example of the ASN.1 for the hybrid solution as proposed in P4 and show how the SUL can be supported. (Offline discussion #37, Qualcomm)

R2-1801620 UL-DL split for EN-DC band combination signalling Qualcomm draftCR Rel-15 38.331
NR_newRAT-Core

- => Structure for UL and DL decoupling is agreed
=> Strcuture can be incorpoerated into the rapporteur CR

R2-1800740 UE BPC capability coordination for MR DCHuawei, HiSilicon discussion Rel-15
NR_newRAT-Core

Agreements

- 1 For the used BPC in LTE side and based on EN-DC BPC dependencies in MR DC container, the MN should determine the allowed BPC list in NR side and indicate the allowed BPC list to SN in SCG-ConfigInfo (MN to SN).
 - 1.1 The MN does not have to look into the SN BPC list in order to determine the MN side BPC (i.e. determine the SN side BPC list only based on EN-DC BPC dependencies in MR DC container)
- 2 If SN decides to request a different EN-BC, then a BPC index can also be requested in the SCG-Config (SN to MN).
- 3 If SN decides to request a different NR BPC, then the requested NR BPC index is included in the SCG-Config (SN to MN).

R2-1800743 Clarifications on UE capabilities MediaTek Inc. discussion NR_newRAT-Core
=> Revised to R2-1801532

R2-1801532 Clarifications on UE capabilities MediaTek Inc. discussion NR_newRAT-Core

Agreements

- 1: Keep supportedBW-PerCC as per CC capability. (Value range to wait for RAN4)
- 2: Keep modulationOrder as per CC capability
- FFS: subCarrierSpacing as per CC capability.
- 4: Separate supported modulation for DL and UL.
- FFS: Whether to separate SCS for DL and UL (Possibility for network to use different SCS for DL and UL to be checked with RAN1/4)

=> Draft LS in R2-1801622 to RAN1/4 to inform of our decisions and ask the question about SCS. Can also ask about value range for supported BW per CC (Offline discussion #38, Intel)

R2-1801622 [DRAFT] LS on Baseband Processing Capabilities Intel LS out Rel-15 NR_newRAT-Core
To:RAN1, RAN4

- => Figure to be updated to reflect the agreement.
=> Revised in R2-1801624

R2-1801624 [DRAFT] LS on Baseband Processing Capabilities Intel LS out Rel-15 NR_newRAT-Core
To:RAN1, RAN4

- => Remove question 2.
=> Remove question 3
=> Q1.1 change to "Does RAN4 see a need to signal the SCS capability per CC in the BPC?"
=> Add sentence "RAN2 plan to implement according to the RAN plenary agreement unless RAN4 indicate otherwise."

- => Q1 change to " Q1. RAN2 understands that SCS support is separate for UL and DL and is dependent on the operating RF band"
- => Approved in R2-1801631

- R2-1800907 UE capability for Maximum channel bandwidth Qualcomm Incorporated discussion Rel-15 NR_newRAT
=> Add to LS from offline discussion #38 a question to ask RAN4 if and how we should introduce the maximum channel bandwidth, for example per band or per CC per BPC, etc
- R2-1800949 I081: NR BPC enhancements for handling EN-DC and NR SA Intel Corporation discussion Rel-15 NR_newRAT-Core Late
=> R2-1801534
- R2-1801534 I081: NR BPC enhancements for handling EN-DC and NR SA Intel Corporation discussion Rel-15 NR_newRAT-Core Late
=> To be discussed within the UE capability agenda item.
Moved from 10.4.3.2 to 10.4.4.2
=> Noted
- R2-1800904 NR MIMO capability Qualcomm Incorporated discussion Rel-15 NR_newRAT
- R2-1800760 Capability structure and retrieval for NR Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core

10.4.4.3 Other aspects for EN-DC

Including output from email discussion [100#33][NR] L2 buffer size (Intel)

Corrections to 38.306

Email discussion on L2 buffer

- R2-1800946 Report of email discussion: [100#33][NR] L2 buffer size (Intel) Intel Corporation discussion Rel-15 NR_newRAT-Core Late

Agreements

- 1 UE's L2 buffer size requirement is calculated based on the maximum L2 buffer size calculated for each band combination. For each band combination the L2 buffer size is calculated based on the maximum L2 buffer size calculated for each possible BPC.
- 2 RAN2 will decide the RLC RTT value for each SCS to be used for L2 buffer size calculation. These will be captured in the spec as a table of RLC RTT per SCS (not the method to derive the value)

☒ [NR-AH1801#09][NR] L2 buffer size (Intel)

Progress remaining aspects related to L2 buffer size
Intended outcome: Report to next meeting
Deadline: Thursday 2018-02-15

Dynamic power sharing

- R2-1800829 Dynamic power sharing for EN-DC Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core
=> Revised in R2-1801520
- R2-1801520 UE Dynamic power sharing for LTE-NR Dual Connectivity Nokia, Nokia Shanghai Bell discussion Rel-15 38.331 NR_newRAT-Core
moved from 10.4.4.2 to 10.4.4.3

Agreements

- 1: P_LTE (max power within LTE) and P_NR (max power within NR) can be configured to the UE (via LTE and NR respectively).
- 2: UE capability for support of dynamic power sharing is contained within the MR-DC container
- 3: UE capability for support of LTE TDM pattern is added to LTE UE capabilities. The support of this UE capability is conditionally mandatory for UEs that do not support dynamic power sharing, and for UEs that indicate single UL for any BC, and optional otherwise.

- | | | | | |
|------------|---|----------|------------|---|
| R2-1800344 | Dynamic EN-DC power sharing capability | Ericsson | discussion | Rel-15 NR_newRAT-Core |
| R2-1800754 | Discussion on UE capability for power sharing and single UL operation | | discussion | Rel-15 NR_newRAT-Core Huawei, HiSilicon |
| R2-1800755 | CR on 38.331 for UE capability supporting power sharing and single UL operation | | | Huawei, HiSilicon draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core |
| R2-1800756 | CR on 38.306 for UE capability supporting power sharing and single UL operation | | | Huawei, HiSilicon draftCR Rel-15 38.306 15.0.0 NR_newRAT-Core |
| R2-1801421 | RRC configuration for single Tx | Apple | discussion | Rel-15 |
- Moved from 10.4.2.3 to 10.4.4.4*

Other

- | | | | | |
|------------|---|-------------------|------------|-----------------------|
| R2-1800927 | Discussion on UE capability open issues (also including I087, 088, 089, 090 in RIL38.331) | Intel Corporation | discussion | Rel-15 NR_newRAT-Core |
| | => Revised in R2-1801608 | | | |
| R2-1801608 | Discussion on UE capability open issues (also including I087, 088, 089, 090 in RIL38.331) | Intel Corporation | discussion | Rel-15 NR_newRAT-Core |

Agreements

- 1 Relocate intra-BandAsyncFDD into RF-Parameters-MRDC.
- 2 multipleTimingAdvance (2 TAs) is not included for EN-DC band combinations. Clarify in field description that multiple TA is mandatory
- 3 Include multipleTimingAdvance (2 TAs) per band combination for NR CA band combinations.
- 4 General principle that in cases where it is clear that the capability is only relevant to a single node then it is added in the capabilities for that node. In cases where it is less clear, and it may be beneficial for both nodes to have the information, and for capabilities that are specific to EN-DC then it is added in UE-MRDC-Capability.
- 5 Include NR measurements and reporting (at least periodical reporting) in LTE connected mode and measurement reporting event B1 for NR into LTE connected in UE-EUTRA-Capability.
- 6 Include NR intra-F and inter-F measurements and reporting (at least periodical reporting) and NR measurement reporting for event A series into UE-NR-Capability.
- 7: Include following capabilities into UE-MRDC-Capability:
 - Split SRB 1/2 with UL TX on MCG or SCG
 - Direct SN addition and SCG DRB setup at first RRC reconfiguration after RRC connection setup
- 8 No separate capability parameters for FDD and TDD on supportedROHC-Profiles, maxNumberROHC-ContextSessions, uplinkOnlyROHC-Profiles, continueROHC-Context and outOfOrderDelivery, shortSN in PDCP-Parameters, amWithShortSN, umWithShortSN and umWithLongSN in RLC-Parameters, and lcp-Restriction, in MAC-Parameters. (These parameters are also common to FR1 and FR2)
- 9 Separate capability parameters for FDD and TDD are required for C-DRX related capabilities and skipUplinkTxDynamic, logicalChannelSR-DelayTimer, numberOfSR-Configurations and numberOfConfiguredGrantConfigurations in MAC-Parameters, bearer and measurement related capabilities.
- 10: Basic decision criterion for deciding between mandatory and optional is whether it is essential to implement for initial EN-DC deployments.
- 11 Not consider UTRA, GERAN-CS, GERAN-PS and CDMA RAT types for UE capabilities.
- 12 Update 4.1.2 TS38.306 according to RAN1 LS [11].

13 Update TS38.306 with capability parameters with the table format.

- => Ask RAN4 whether intraBandAsyncFDD should be signalled per UE or per BC. Draft LS in R2-1801633 (Offline discussion #44, Intel)
- => Start the email discussion to determine whether mandatory with IOT indication or optional for the features with the need of a UE capability signalling. Scope is L2/3 capabilities only. Email discussion can also progress the proposals from the contributions submitted to this meeting but not treated.

☒ [NR-AH1801#10][NR] UE Capabilities (Intel)

Discussion to determine whether mandatory with IOT indication or optional for the features with the need of a UE capability signalling. Scope is L2/3 capabilities only. Email discussion can also progress the proposals from the contributions submitted to this meeting but not treated.

Intended outcome: Report to next meeting

Deadline: Thursday 2018-02-15

- R2-1801633 [DRAFT] LS on FDD-FDD Intra-band LTE-NR DC Intel LS out Rel-15 NR_newRAT-Core To:RAN4
 - Add " as agreed at RAN2#100" at the end of the first paragraph
 => Approved in R2-1801663
- R2-1800951 Update of TS38.306 Intel Corporation CR Rel-15 38.306 15.0.0 0002 -
 F NR_newRAT-Core
 => Can be revised to reflect agreements for the next meeting.
- R2-1800115 L2/3 Capabilities MediaTek Inc. discussion Rel-15 NR_newRAT-Core
 => Revised to R2-1801531
- R2-1801531 L2/3 Capabilities MediaTek Inc. discussion Rel-15 NR_newRAT-Core
- R2-1801069 Clarifications on L2/3 capabilities for EN-DC Ericsson discussion Rel-15 NR_newRAT-Core
- R2-1801070 Split DRB capability signaling in EN-DC Ericsson, Huawei, NTT DOCOMO, Nokia, Nokia Shanghai Bell discussion Rel-15 NR_newRAT-Core
- R2-1801159 CR to 36.306 introducing EN-DC features Ericsson draftCR Rel-15 36.306 14.5.0 NR_newRAT-Core
- R2-1800751 Discussion on UE capability for LTE-NR switch time Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
- R2-1800752 CR on 38.331 for UE capability of LTE-NR switch time Huawei, HiSilicon draftCR Rel-15 38.331 15.0.0 NR_newRAT-Core
- R2-1800753 CR on 38.306 for UE capability of LTE-NR switch time Huawei, HiSilicon draftCR Rel-15 38.306 15.0.0 NR_newRAT-Core
- R2-1800405 Correlated UE capability report in MR-DC ZTE, Sanechips discussion Rel-15 NR_newRAT-Core
- R2-1800761 Discussion on BPC fallback definition Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
- R2-1800762 CR on 38.306 for BPC fallback definition Huawei, HiSilicon draftCR Rel-15 38.306 15.0.0 NR_newRAT-Core
- R2-1800763 Discussion on measurement without gap capability report Huawei, HiSilicon discussion Rel-15 NR_newRAT-Core
- R2-1800268 [DRAFT] Reply LS on formula or table for L1 data rate NTT DOCOMO, INC. LS out Rel-15 NR_newRAT-Core To:RAN1
 moved from 10.1 to 10.4.4.2

- => Revise the LS to describe RAN2's concern about signalling overhead and ask RAN1 to consider other approaches that achieve their intention. The LS can make some suggestions from RAN2 signalling point of view. Detail wording to be worked offline.
- => Revised in R2-1801634 (Offline discussion #45, DOCOMO)

R2-1801634 [DRAFT] Reply LS on formula or table for L1 data rate NTT DOCOMO, INC. LS out Rel-15
 NR_newRAT-Core To:RAN1
 => Add to the action "... taking into account RAN2 concern on signalling overhead "
 => Approved in R2-1801668

R2-1800771 Making SRB3 a mandatory feature Nokia, Nokia Shanghai Bell discussion Rel-15
 NR_newRAT R2-1709244
moved from 10.4.3.2 to 10.4.4.3

10.4.4.4 Temporary capability restriction

Maximum 1 tdoc per company

R2-1800407 Consideration on the Temporary Capability Restriction for EN-DC ZTE, Sanechipsdiscussion
 Rel-15 NR_newRAT-Core

R2-1800623 Thermal Mitigation Provision for NR UE MediaTek Inc. discussion Rel-15 NR_newRAT-Core
 R2-1708011

R2-1800764 Discussion on UE temporary access capability restriction Huawei, HiSilicon discussion
 Rel-15 NR_newRAT-Core

R2-1800880 UE radio access capabilities change vivo discussion Rel-15 NR_newRAT-Core
 R2-1712774

R2-1800947 Temporary capability restriction Intel Corporation discussion Rel-15 NR_newRAT-Core
 R2-1712676

R2-1800982 Single UL and temporary UE capability Sony discussion Rel-15 NR_newRAT-Core

R2-1801164 UE Capability Restrictions Ericsson discussion Rel-15 NR_newRAT-Core R2-1713428

10.4.4.5 Other aspects for non EN-DC

Any other aspect related to UE capabilities relevant for non EN-DC cases

R2-1800765 Discussion on network handling on UE static access capability Huawei, HiSilicon
 discussion Rel-15 NR_newRAT-Core

R2-1800849 Use of identifier representing NR UE capabilities, baseline Samsung Telecommunications
 discussion Rel-15 NR_newRAT-Core

R2-1801165 UE Capability Compression Ericsson discussion Rel-15 NR_newRAT-Core
 R2-1713429

R2-1801288 NR UE Capability Size Reduction LG Electronics Inc. discussion Rel-15 NR_newRAT-Core
 R2-1713782

R2-1801355 UE capability retrieval framework in NR NTT DOCOMO, INC. discussion Rel-15
 NR_newRAT-Core

10.4.5 Idle/inactive mode procedures

Documents in this agenda item will be handled in the NR idle mode break out session

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.

- R2-1800103 New Generation Radio Access Network; User Equipment (UE) procedures in Idle mode
Qualcomm Incorporated draft TS Rel-15 38.304 0.0.7 NR_newRAT-Core R2-1713613
=> Endorsed
- R2-1800371 Change of title for 38.304 Ericsson discussion

Agreements:

- 1 Change title of TS 38.304 to "User Equipment (UE) procedures in Idle mode and in RRC Inactive state".
- 2 Change "Inactive mode" to "RRC Inactive state" in TS 38.304.
- 3 Include the Text Proposal in section 3 in TS 38.304 in R2-1800371.

☒ **[NR-AH1801#06][NR/idle mode] TS 38.304 (Qualcomm)**

Capture the agreements from this meeting

Intended outcome: endorsed draft TS

Deadline: Thursday 2018-02-13

10.4.5.2 Selection/reselection rules

Basic criteria and rules for cell selection and reselection

Maximum 1 tdoc per company

- R2-1800676 Cell selection and reselection for NR IDLE - cell selection/reselection criteria Nokia, Nokia
Shanghai Bell discussion Rel-15 NR_newRAT-Core R2-1711059
moved from 10.4.4.2 to 10.4.5.2
=> Noted
- R2-1800930 Cell (re)selection rules Intel Corporation discussion Rel-15 NR_newRAT-Core
=> Noted
- R2-1800350 Cell selection and reselection criteria Ericsson discussion
=> Noted
P3
- Huawei think the compensation is for different power class UEs.
- CMCC think there could be some compensation for SUL case.

Agreements for idle and inactive mode:

- 1 Take cell suitability, acceptability, barred and reserved cell definitions from LTE as baseline for NR.
- 2 Cell selection criterion (S criterion) is applied to cell selection and reselection.
- 3 Both RSRP and RSRQ are considered in S criterion.
- 4 From RAN2 perspective compensation parameter(s) is needed to S criterion. Details can be FFS and depending on the input from RAN1/4. Send LS to RAN1/4 to identify the use cases.
- 5 Parameters to check S criterion is broadcasted via system information for neighbor cells and via RMSI for serving cell.
- 6 Cell reselection for intra frequency case and equal priority inter frequency case, criterion (R criterion) is applied to cell reselection.
- 7 Qhyst and Qoffset (including both cell specific and carrier specific one) can be applied to R criterion.
- 8 RSRP is applied to R criterion.
- 9 When the highest ranked cell is not suitable, UE will not consider this cell and other cells on the same frequency, as candidates for reselection for a maximum of xxs unless if intra frequency reselection is allowed by gNB, as in as 5.2.4.4 and 5.3.1, TS36.304. The value is FFS.
- 10 Dedicated and common reselection priority can be applied in idle. FFS whether the same priority for inactive mode.
- 11 If dedicated reselection priority is assigned, it is used otherwise common reselection priority is applied.

- | | |
|----|---|
| 12 | Same cell reselection process as LTE is applied for inter-F/RAT with the different reselection priority. |
| 13 | Separate threshold to skip intra-F measurements and inter-F/RAT measurements to the same/lower reselection priority as in LTE is applied. |



CB on Friday:=> Draft LS in R2-18xxxx (Qualcomm) to RAN1/4 asking for the requirement for RRC_IDLE and RRC_INACTIVE mode cell-level RSRP and RSRQ measurements used for S-measure and R-measure calculations, ask the use cases for compensation parameters and ask for the threshold in determining "high quality PLMN. Offline [222]

R2-1800212 Cell selection and reselection for NR Qualcomm Incorporated discussion
Moved from 10.4.5.5 to 10.4.5.2

Agreement:

- | | |
|---|---|
| 1 | PLMN selection procedures captured in 38.304 are applicable to both NR Idle and Inactive modes. |
|---|---|

R2-1800882 Idle mode measurement and camping vivo discussion Rel-15 NR_newRAT-Core
P1:

- Intel think it has no impact on out spec.

R2-1801401 Cell reselection between NR and LTE LG Electronics Inc. discussion Rel-15

R2-1801199 Cell selection and reselection rules Huawei, HiSilicon discussion Rel-15
NR_newRAT-Core R2-1713290

R2-1801422 Cell reselection in INACTIVE state Apple discussion Rel-15

R2-1800277 Discussion on UE redistribution within wideband carrier OPPO discussion

R2-1800881 Cell selection reselection in NR vivo discussion Rel-15 NR_newRAT-Core R2-1712775

Late

R2-1800797 SUL impact on cell selection and reselection CMCC discussion Rel-15 NR_newRAT-Core
Core Revised

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

R2-1800812 Open issues on cell quality derivation for idle UE CMCC discussion Rel-15 NR_newRAT-Core

Ericsson and Nokia prefer one best beam.

Moved from 10.4.4.3 to 10.4.5.3

Agreements:

- | | |
|---|---|
| 1 | Cell quality derivation for cell selection is up to UE implementation. |
| 2 | As baseline of cell reselection: for multiple beams, the derivation formula used in Connected mode for cell quality is also applicable to Idle mode; i.e. the quality is calculated as a linear average over up to N best beams above a threshold which are configured per carrier and broadcasted. Further optimization can be considered, e.g., considering on the number of actual good beams (the quality of the beam is above the threshold) for cell reselection. |

R2-1800211 Cell Quality for NR Idle/Inactive Mobility Qualcomm Incorporated discussion
=> Noted

R2-1800149 Considerations on idle mode measurement CATT discussion R2-1712429
=> Noted

R2-1800345 Cell quality derivation for idle/inactive UEs Ericsson discussion

R2-1800276	Discussion on cell quality for cell selection and reselection	OPPO	discussion	
R2-1800883	Cell quality derivation in idle inactive mode	vivo	discussion	Rel-15 NR_newRAT-Core R2-1712776
R2-1800931	Cell quality derivation for idle mobility	Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1801200	Derivation of cell quality in IDLE/INACTIVE	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core R2-1713291
R2-1801305	Cell Quality Derivation for Cell Selection and Reselection in NR	MediaTek Inc.	discussion	
R2-1801335	Cell Quality Derivation for Cell Reselection	Convida Wireless LLC	discussion	Rel-15 NR_newRAT-Core
R2-1801347	Discussion on cell quality derivation for idle mobility	ITRI	discussion	NR_newRAT-Core
R2-1801389	Cell quality derivation in IDLE/INACTIVE	LG Electronics Inc.	discussion	Rel-15 NR_newRAT-Core R2-1713719
R2-1801415	Cell quality derivation for NR IDLE mode UE	Samsung Electronics	discussion	R2-1713794
R2-1800675	Cell selection and reselection for NR IDLE - cell quality derivation	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT-Core R2-1711058

Moved from 10.4.4.3 to 10.4.5.3

10.4.5.4 Service based reselection

Maximum 1 tdoc per company

R2-1800932	Service based cell reselection	Intel Corporation	discussion	Rel-15 NR_newRAT-Core
- Nokia wonder the meaning of idle mode service.				

Agreements

- 1 The idle UE considers the frequency to be the highest reselection priority if the idle UE prefers to receive its interested service while camping on a frequency on which it is provided, as in LTE. FFS which service is applied for this rule.
- 2 Prioritization of multiple services when the idle UE cannot receive all is up to UE implementation.

R2-1801201	Service-based camping	Huawei, HiSilicon	discussion	Rel-15 NR_newRAT-Core R2-1713292
- Samsung wonders UE how to know the priority of service. => Noted				
R2-1800081	Cell Re-selection: Service Specific Frequency Prioritisation in NR	Samsung R&D Institute India	discussion	Rel-15 NR_newRAT-Core R2-1713363
R2-1800150	Service based cell reselection	CATT	discussion	R2-1712427
R2-1800884	Service based reselection	vivo	discussion	Rel-15 NR_newRAT-Core
R2-1800986	Service based reselection	Sony	discussion	Rel-15 NR_newRAT-Core
R2-1801344	Discussion service-based cell reselection	ITRI, ASUSTeK	discussion	NR_newRAT-Core R2-1713573
R2-1801392	Service based cell reselection	LG Electronics Inc.	discussion	Rel-15 NR_newRAT-Core
R2-1800367	Service-based RAT/frequency selection in INACTIVE or in IDLE	Ericsson	discussion	R2-1712537

Moved from 10.4.5.5 to 10.4.5.4

10.4.5.5 Selection/reselection - other aspects

Including, for example mobility states, speed dependent scaling, forward compatibility for CSG, cell reservations, etc

Cell Barring and reservation

R2-1800104 Cell Barring and Reservations for NR Qualcomm Incorporated discussion R2-1713799

Agreements

- 1 NR will support cell reservation via broadcasting an indication per PLMN similar to *cellReservedForOperatorUse* in E-UTRAN.
- 2 Cell reservation indication will be broadcasted in RMSI.
- 3 NR will support cell selection and reselection procedure for Access Classes 11 to 15.
- 4 If a UE is unable to acquire Minimum SI in a cell, it shall consider it "barred" for up to X seconds where X is FFS.

CSG:

R2-1800105 CSG Type Functionality for NR Qualcomm Incorporated, Deutsche Telekom discussion
R2-1713811

=> Noted

R2-1800370 CSG-like selection and camping limitations in NR Ericsson discussion R2-1712529

Agreement:

- 1 Introduce an indication in RMSI for forward compatibility purposes, e.g., CSG.

R2-1800885 Consideration on forward compatibility vivo discussion Rel-15 NR_newRAT-Core
R2-1712777

R2-1801203 Cell reservation and forward compatibility for CSG in NR Huawei, HiSilicon discussion
Rel-15 NR_newRAT-Core R2-1713294

R2-1801398 NR forward compatibility issue for CSG LG Electronics Inc. discussion Rel-15 R2-
1713760

Moved from 10.4.1.6.1 to 10.4.5.5

Mobility state estimation:

R2-1801202 Speed dependent mobility in Idle and Inactive mode Huawei, HiSilicon discussion
Rel-15 NR_newRAT-Core R2-1713293

=> Noted

R2-1800347 Mobility states and state based scaling Ericsson discussion

=> Noted

R2-1800800 Mobility state detection for UE in NR CMCC discussion Rel-15 NR_newRAT-Core
Moved from 10.4.4.5 to 10.4.5.3

R2-1800316 State estimation and preventing fast moving UEs from entering small cells Fujitsu discussion
Rel-15 NR_newRAT-Core R2-1712822

R2-1801511 Mobility scaling for idle mode measurements Sequans Communications discussion

Measurements:

R2-1800351 SMTC configuration for RRC_IDLE and RRC_INACTIVE state Ericsson discussion

Agreement:

RAN2 to define the SMTC configuration including periodicity/offset and duration for intra-frequency and inter-frequency measurements for RRC_IDLE and RRC_INACTIVE states in the system information in the same way as defined for RRC_CONNECTED state.

R2-1800346 Cell reselection measurement rules Ericsson discussion R2-1712340

=> Noted

R2-1800349 CSI-RS usage by RRC_IDLE and RRC_INACTIVE UEs Ericsson discussion

R2-1801400 Idle Measurement Enhancement using UE speed LG Electronics Inc. discussion Rel-15
R2-1713762
Moved from 10.4.1.6.1 to 10.4.5.5

Additional SIB in LTE:

R2-1800354 Additional SIB in EUTRAN for supporting NR SA deployments Ericsson discussion

Agreements:

- 1 Adopt the additional SIB (SIB22) that contains the inter-RAT cell re-selection to NR in LTE.
- 2 Contents of the SIB22 is based on the NR inter-frequency cell reselection related system information block in NR and at the same time similar with existing LTE.

R2-1801204 Inter-RAT cell reselection between NR and LTE Huawei, HiSilicon discussion Rel-15
NR_newRAT-Core

Agreements:

- 1 The principle of the inter-RAT cell reselection from NR to LTE could take that of the inter-RAT cell reselection in LTE as the baseline.
- 2 The parameters related to the inter-RAT cell reselection from NR to LTE should be embodied as other SI.

Reselection for inactive:

R2-1801429 Cell reselection parameters for INACTIVE mode LG Electronics Inc. discussion
NR_newRAT-Core

Agreement

- 1 If the dedicated reselection parameters are not provided when entering RRC_INACTIVE and RRC_IDLE, the UE applies cell reselection parameters received from system information.

Cell reselection priorities:

R2-1800353 Cell-specific prioritisation at reselection Ericsson discussion

Others:

R2-1801391 Mobility history reporting in NR LG Electronics Inc. discussion Rel-15 NR_newRAT-Core
R2-1713721

R2-1800151 Service types in Inactive Mode CATT discussion R2-1712428

R2-1800348 Considering the number of good beams for cell reselection Ericsson discussion R2-1712342

R2-1800369 Camping in NR Ericsson discussion

R2-1801416 Cell selection and reselection for NR IDLE mode UE Samsung Electronics discussion
R2-1713795

Withdrawn

R2-1800933 Further considerations on cell (re)selection Intel Corporation discussion Rel-15
NR_newRAT-Core Withdrawn

10.4.5.6 Idle/inactive paging

Including beam related aspects, response driven paging and calculation of paging occasion.

Beam sweeping:

DRX:

R2-1801179 Discussion on maximum idle mode DRX value in NR Rel-15 NR_newRAT-Core R2-1713282 Huawei, HiSilicon discussion
Moved from 10.4.1.6.1 to 10.4.5.6

Agreements:

- 1 Idle mode/inactive mode DRX cycle configuration in NR should take the default DRX cycle parameter in LTE as baseline.
- 2 The maximum idle/inactive mode DRX value in NR should be 2.56s.

✍ **CB on Friday:**=> Draft reply LS in R2-18xxxx (Huawei) to answer SA2's question about the maximum idle mode DRX value. Offline#250

R2-1800358 DRX in idle state Ericsson discussion

R2-1800359 Draft LS reply on maximum DRX value for NR in Rel-15 Ericsson LS out To:SA2
Cc:CT1, RAN3

R2-1801180 [DRAFT] Reply LS on maximum idle mode DRX value Huawei, HiSilicon LS out Rel-15 NR_newRAT-Core R2-1713283 To:SA2
Moved from 10.4.1.6.1 to 10.4.5.6

R2-1801376 CN paging DRX in RRC_IDLE LG Electronics Inc. discussion Rel-15 NR_newRAT-Core R2-1713695

PO/PF calculation:

R2-1800152 Issues about NR paging occasion CATT discussion
=> Noted

R2-1800078 Paging in NR – Beamforming Aspects Samsung R&D Institute India discussion Rel-15 NR_newRAT-Core R2-1713376
=> Noted

Agreement:

- 1 From RAN2 understanding for paging in multi-beam operation TX beam sweeping can be performed in paging occasion. Paging transmission from each TX beam is not repeated for RX beam sweeping at UE.

R2-1800079 PO Determination for Paging Reception Samsung R&D Institute India discussion Rel-15 NR_newRAT-Core R2-1713370

R2-1801304 Paging Transmission in NR Considering SS Blocks MediaTek Inc. discussion

R2-1801097 Definition of Paging Frame and Paging Occasion Huawei, HiSilicon discussion Rel-15 R2-1712543

R2-1800463 Calculation of paging occasion in NR ZTE Corporation, Sanechips discussion

R2-1800360 Paging occasions in NR Ericsson discussion

R2-1800464 Paging occasion mechanism comparison ZTE Corporation, Sanechips discussion

R2-1800809 Discussion on Paging Occasion Design for NR CMCC discussion Rel-15 NR_newRAT-Core

Paging optimisation:

R2-1800363	Paging in DCI only	Ericsson	discussion	
	=> Waiting the input from RAN1.			
R2-1801303	Overhead Reduction for Paging in Multi-beam Operation	MediaTek Inc.	discussion	R2-1708257
R2-1801106	Efficiency of direct and response-driven paging	Huawei, HiSilicon	discussion	Rel-15 R2-1712544
R2-1800110	Consideration on NR paging	Qualcomm Incorporated	discussion	R2-1713732
R2-1800774	Definition of Paging Indicator for Response-Driven Paging	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT
R2-1800355	Response-driven paging to reduce beam sweeping overhead in NR	Ericsson		
R2-1800773	On Frequently Paged UEs in Response-Driven Paging	Nokia, Nokia Shanghai Bell	discussion	Rel-15 NR_newRAT
R2-1800775	Truncated UE-ID with Configurable Length for Response-Driven Paging	Nokia, Nokia Shanghai Bell	discussion	
R2-1801121	Paging in High Frequency InterDigital		discussion	Rel-15 NR_newRAT-Core R2-1712803
R2-1801122	Paging Indicator Design	InterDigital	discussion	Rel-15 NR_newRAT-Core R2-1712804
R2-1800934	Paging reception	Intel Corporation	discussion	Rel-15 NR_newRAT-Core
R2-1800107	Use of multiple P-RNTIs for NR paging	Qualcomm Incorporated	discussion	R2-1713781
R2-1800465	Overhead Reduction for Paging in Multi-beam Operation	ZTE Corporation, Sanechips	discussion	
R2-1800356	Dedicated RNTI(s) for response-driven paging	Ericsson	discussion	
R2-1800357	Response beam aggregation for response-driven paging	Ericsson	discussion	
R2-1800769	Consideration on response-driven paging	Potevio	discussion	

Paging transmission:

R2-1801105	Paging consideration on BWP	Huawei Technologies France	discussion	
	=> Noted			
R2-1800362	Configuration of paging transmissions in multi-beam operation	Ericsson	discussion	
R2-1801096	Paging mechanism with beam sweeping	Huawei Technologies France	discussion	Rel-15 NR_newRAT-Core R2-1713496
R2-1800886	Paging in NR	vivo	discussion	Rel-15 NR_newRAT-Core

Summary:

Comeback on Friday

- ✍ **CB on Friday:**=> Draft LS in R2-1801626 (Qualcomm) to RAN1/4 asking for the requirement for RRC_IDLE and RRC_INACTIVE mode cell-level RSRP and RSRQ measurements used for S-measure and R-measure calculations, ask the use cases for compensation parameters and ask for the threshold in determining "high quality PLMN. Offline [222]
- ✍ **CB on Friday:**=> Draft reply LS in R2-1801629 (Huawei) to answer SA2's question about the maximum idle mode DRX value. Offline#250

Email discussion:

- ✉ **[NR-AH1801#06][NR/idle mode] TS 38.304 (Qualcomm)**
Capture the agreements from this meeting
Intended outcome: endorsed draft TS
Deadline: Thursday 2018-02-08

Agreements:

TS name changed.

Agreements:

- 1 Change title of TS 38.304 to "User Equipment (UE) procedures in Idle mode and in RRC Inactive state".
- 2 Change "Inactive mode" to "RRC Inactive state" in TS 38.304.
- 3 Include the Text Proposal in section 3 in TS 38.304 in R2-1800371.

Selection/reselection rules

After a long discussion, the conclusion is as usual: we decided to reuse LTE cell selection and reselection rules as much as possible.

Agreements for idle and inactive mode:

- 1 Take cell suitability, acceptability, barred and reserved cell definitions from LTE as baseline for NR.
- 2 Cell selection criterion (S criterion) is applied to cell selection and reselection.
- 3 Both RSRP and RSRQ are considered in S criterion.
- 4 From RAN2 perspective compensation parameter(s) is needed to S criterion. Details can be FFS and depending on the input from RAN1/4. Send LS to RAN1/4 to identify the use cases.
- 5 Parameters to check S criterion is broadcasted via system information for neighbor cells and via RMSI for serving cell.
- 6 Cell reselection for intra frequency case and equal priority inter frequency case, criterion (R criterion) is applied to cell reselection.
- 7 Qhyst and Qoffset (including both cell specific and carrier specific one) can be applied to R criterion.
- 8 RSRP is applied to R criterion.
- 9 When the highest ranked cell is not suitable, UE will not consider this cell and other cells on the same frequency, as candidates for reselection for a maximum of xxs unless if intra frequency reselection is allowed by gNB, as in as 5.2.4.4 and 5.3.1, TS36.304. The value is FFS.
- 10 Dedicated and common reselection priority can be applied in idle. FFS whether the same priority for inactive mode.
- 11 If dedicated reselection priority is assigned, it is used otherwise common reselection priority is applied.
- 12 Same cell reselection process as LTE is applied for inter-F/RAT with the different reselection priority.
- 13 Separate threshold to skip intra-F measurements and inter-F/RAT measurements to the same/lower reselection priority as in LTE is applied.

Agreement:

- 1 PLMN selection procedures captured in 38.304 are applicable to both NR Idle and Inactive modes.

Cell quality derivation

Agreements:

- 1 Cell quality derivation for cell selection is up to UE implementation.
- 2 As baseline of cell reselection: for multiple beams, the derivation formula used in Connected mode for cell quality is also applicable to Idle mode; i.e. the quality is calculated as a linear average over up to N best beams above a threshold which are configured per carrier and broadcasted. Further optimization can be considered, e.g., considering on the number of actual good beams (the quality of the beam is above the threshold) for cell reselection.

Service based reselection

Agreements

- 1 The idle UE considers the frequency to be the highest reselection priority if the idle UE prefers to receive its interested service while camping on a frequency on which it is provided, as in LTE. FFS which service is applied for this rule.
- 2 Prioritization of multiple services when the idle UE cannot receive all is up to UE implementation.

Other aspects for selection and reselection

We make agreements on cell barring, CSG, SMTC configuration, additional SIB in LTE for interworking with NR.

Agreements

- 1 NR will support cell reservation via broadcasting an indication per PLMN similar to *cellReservedForOperatorUse* in E-UTRAN.
- 2 Cell reservation indication will be broadcasted in RMSI.
- 3 NR will support cell selection and reselection procedure for Access Classes 11 to 15.
- 4 If a UE is unable to acquire Minimum SI in a cell, it shall consider it "barred" for up to X seconds where X is FFS.

Agreement:

- 1 Introduce an indication in RMSI for forward compatibility purposes, e.g., CSG.

Agreement:

RAN2 to define the SMTC configuration including periodicity/offset and duration for intra-frequency and inter-frequency measurements for RRC_IDLE and RRC_INACTIVE states in the system information in the same way as defined for RRC_CONNECTED state.

Agreements:

- 1 Adopt the additional SIB (SIB22) that contains the inter-RAT cell re-selection to NR in LTE.
- 2 Contents of the SIB22 is based on the NR inter-frequency cell reselection related system information block in NR and at the same time similar with existing LTE.

Agreements:

- 1 The principle of the inter-RAT cell reselection from NR to LTE could take that of the inter-RAT cell reselection in LTE as the baseline.
- 2 The parameters related to the inter-RAT cell reselection from NR to LTE should be embodied as other SI.

Agreement

- 1 If the dedicated reselection parameters are not provided when entering RRC_INACTIVE and RRC_IDLE, the UE applies cell reselection parameters received from system information.

Paging in idle and inactive mode

Agreement:

- 1 From RAN2 understanding for paging in multi-beam operation TX beam sweeping can be performed in paging occasion. Paging transmission from each TX beam is not repeated for RX beam sweeping at UE.

Agreements:

- 1 Idle mode/inactive mode DRX cycle configuration in NR should take the default DRX cycle parameter in LTE as baseline.
- 2 The maximum idle/inactive mode DRX value in NR should be 2.56s.

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-172102

Time budget: 0.5 TU

R2-1801214 IAB use cases and deployment scenarios AT&T discussion
=> Noted

R2-1800568 High level overview on IAB KDDI Corporation discussion
- Huawei ask what it meant by hybrid L2/3. KDDI explain it relates to the CU/DU split but doesn't have a clear view what it means
- KDDI clarify that NSA relay means relaying of the NR SCG link (i.e. EN-DC). AT+T agree that ENDC is the case to focus on and also think we need to consider NSA for the access and the relay link.
- Qualcomm think NSA relay highlights the problem then we need to interface with EPC.
=> Noted

R2-1801130 Consideration on IAB Scenarios and Use Cases Huawei Technologies France discussion
Rel-15
=> Revised in R2-1801603

R2-1801603 Consideration on IAB Scenarios and Use Cases Huawei, HiSilicon discussion Rel-15

R2-1801621 Proposals on IAB Use Cases and Deployment Scenarios AT&T, Ericsson, Intel, KDDI, Nokia, Nokia Shanghai Bell, Qualcomm, Samsung discussion Rel-15 NR_newRAT-Core

Agreements

- 1: The Rel.15 study item focuses on IAB with physically fixed relays. Optimization for mobile relays in future releases is not precluded
- 2 Common architecture supports both in-band and out-of-band IAB scenarios.
- 2i In-band IAB scenarios including (TDM/FDM/SDM) of access and backhaul links subject to half-duplex constraint at the IAB node are supported (This agreement does not exclude full duplex from being studied by RAN1)
- 2ii Out-of-band IAB scenarios are also supported using the same set of RAN features designed for in-band scenarios. Study whether additional RAN features are needed for out-of-band scenarios
- 3 NR access over NR backhaul is studied with highest priority
- 3i Identify the additional architecture solutions required for LTE access over NR backhaul
- 3ii The IAB design shall at least support the following UEs to connect to a node which is backhauled using IAB:
 - 1/ Rel. 15 NR UE
 - 2/ Legacy LTE UE if IAB supports backhauling of LTE access
- 4i SA and NSA on the access link will be supported (For NSA on the access the relay is applied to the NR SCG path only)
- 4ii Both NSA and SA for the backhaul links will be studied. (For both SA and NSA backhaul, we will not study backhaul traffic over the LTE radio interface).
- 4iii For both 4i and 4ii the priority within the NSA options will be to consider the EN-DC case but this does not preclude study for other NSA options.
- 4iv Further study of the possible combinations of SA and NSA access and backhaul is needed to fully determine the scope of what will be studied.

R2-1801022	Architecture for integrated access and backhaul FS_NR_IAB	Ericsson	discussion	Rel-15
R2-1800392	Architecture and Protocols: MAC adaptation layer based IAB discussion Rel-15 FS_NR_IAB		Nokia, Nokia Shanghai Bell	
R2-1800393	Architecture and Protocols: Connectivity Service solution for IAB discussion Rel-15 FS_NR_IAB		Nokia, Nokia Shanghai Bell	
R2-1801132	Comparison of L2 and L3 relay architectures Rel-15	Huawei Technologies France	discussion	
R2-1801606	Proposals on IAB Architecture Bell, Intel, Samsung, Huawei	Qualcomm, AT&T, KDDI, Ericsson, Nokia, Nokia Shanghai Bell, Intel, Samsung, Huawei	discussion Rel-15 NR_newRAT-Core	

Agreements

- 1: IAB design shall support multiple backhaul hops
 - The architecture should not impose limits on the number of backhaul hops.
 - The study should consider scalability to hop-count an important KPI.
 - Single hop is considered a special case of multiple backhaul hops.
- 2: Topology adaptation for physically fixed relays is supported to enable robust operation, e.g., mitigate blockage and load variation on backhaul links
- 3: L2 and L3 relay architectures will be studied. Definitions of L2- and L3-relaying in the context of IAB is FFS
- 4: The IAB design should minimize the impact to core network specifications
- 5: The study should consider the impact to the core network signalling load as an important KPI
- 6: Strive to maximize reuse of Rel-15 NR specifications for the design of the backhaul link. Enhancement can also be considered.

☒ [NR-AH1801#03][NR/IAB] Update TR 38.874 (Qualcomm)

First agreed the TR skeleton and then update to capture the agreements from this meeting. The discussion can also address the small conflict between agreementys 3i and 4 when they are captured in the TR.

Intended outcome: Endorsed TR 38.874

Deadline: Thursday 2018-02-01

=> Endorsed in R2-1801671.

=> Clean version provided in R2-1801675.

R2-1800156	Discussion on flexible routing support in IAB	OPPO	discussion	Rel-15	FS_NR_IAB
R2-1800157	Discussion on redundant connectivity support in IAB	OPPO	discussion	Rel-15	FS_NR_IAB
R2-1800181	Network Architecture for IAB	CATT	discussion		
R2-1800389	General views on the scope of the IAB study	Nokia, Nokia Shanghai Bell	discussion	Rel-15	FS_NR_IAB
R2-1800390	IAB deployment scenarios	Nokia, Nokia Shanghai Bell	discussion	Rel-15	FS_NR_IAB
R2-1800391	Relaying in NSA network	Nokia, Nokia Shanghai Bell	discussion	Rel-15	FS_NR_IAB
R2-1800411	IAB deployment considerations	Qualcomm Incorporated	discussion	Rel-15	
R2-1800412	IAB architecture considerations	Qualcomm Incorporated	discussion	Rel-15	
R2-1800413	IAB – User-plane Aspects	Qualcomm Incorporated	discussion		
R2-1800414	IAB – Control-plane Aspects	Qualcomm Incorporated	discussion	Rel-15	
R2-1800415	Work plan for IAB	Qualcomm Incorporated, Samsung, AT&T, KDDI	Work Plan	Rel-15	
R2-1800416	IAB Evaluation Methodology	Nokia, Nokia Shanghai Bell	discussion	Rel-15	FS_NR_IAB
R2-1800417	IAB Topology Discussion	Nokia, Nokia Shanghai Bell	discussion	Rel-15	FS_NR_IAB
R2-1800418	Draft TR 38.874 for IAB	Qualcomm Incorporated, Samsung, AT&T, KDDI	draft TR	Rel-15	FS_NR_IAB
R2-1800569	Requirements for IAB	KDDI Corporation	discussion		
R2-1800570	Use cases for IAB	KDDI Corporation	discussion		
R2-1800571	NSA relay architecture	KDDI Corporation	discussion		
R2-1800854	Preference for Protocol Stack of NR Relay	vivo	discussion	Rel-15	NR_newRAT-Core
R2-1800953	Scenario and architecture for IAB	Intel Corporation	discussion	Rel-15	FS_NR_IAB
R2-1801021	Deployment scenarios and use cases for Integrated Access Backhaul		discussion	Rel-15	FS_NR_IAB
R2-1801023	Support for EN-DC for IAB	Ericsson	discussion	Rel-15	FS_NR_IAB
R2-1801024	Duplexing in IAB	Ericsson	discussion	Rel-15	FS_NR_IAB
R2-1801094	Initial considerations on Remote node connectivity in IAB	Sony Europe Limited	discussion	Rel-15	FS_NR_IAB
R2-1801131	Overall high layer design of IAB	Huawei Technologies France	discussion	Rel-15	
R2-1801133	Discussion on IAB topologies	Huawei Technologies France	discussion	Rel-15	
R2-1801170	Draft TR 38.874 for IAB	Qualcomm Incorporated, Samsung, AT&T, KDDI	draft TR	Rel-15	FS_NR_IAB
R2-1801171	Work plan for IAB	Qualcomm Incorporated, Samsung, AT&T, KDDI	Work Plan	Rel-15	
R2-1801217	Architecture requirements for IAB	AT&T	discussion		
R2-1801348	Discussion on the topology and protocol stack of IAB	ITRI	discussion		FS_NR_IAB
R2-1801395	Consideration of IAB deployment scenarios	LG Electronics Inc.	discussion	Rel-15	FS_NR_IAB
R2-1801402	Consideration on route selection	LG Electronics Inc.	discussion	Rel-15	FS_NR_IAB
R2-1801428	Protocol stack design for IAB	LG Electronics Inc.	discussion	Rel-15	FS_NR_IAB

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 NR Idle mode procedures

R2-1801544 Report from Break-Out Session, Vice-Chair (CMCC)

CBF: Report from NR Idle mode procedures, Vice-Chair (CMCC)

=> Approved

CB on Friday:=> Draft LS in R2-18xxxx (Qualcomm) to RAN1/4 asking for the requirement for RRC_IDLE and RRC_INACTIVE mode cell-level RSRP and RSRQ measurements used for S-measure and R-measure calculations, ask the use cases for compensation parameters and ask for the threshold in determining "high quality PLMN. Offline [222]

R2-1801626 LS on NR Idle Mode Measurements Qualcomm

=> Final action to RAN4 changes to " RAN2 would like to ask RAN4 whether a Pcompensation type parameter(s) is also needed in S-criteria for NR as in LTE, and if there are any additional use cases and how it is applicable, e.g. SUL. "

=> Approved in R2-1801658

CB on Friday:=> Draft reply LS in R2-18xxxx (Huawei) to answer SA2's question about the maximum idle mode DRX value. Offline#250

R2-1801629 Reply LS on maximum idle mode DRX value Huawei

=> Approved in R2-1801660

=> Following revised agreements override those made during the breakout session:

- Idle mode/inactive mode DRX cycle configuration in NR takes the default DRX cycle parameter in LTE as baseline.
- The maximum idle/inactive mode DRX value in NR is 2.56s.

12.1.2 Report from Break-Out session

Report from session on NR UP

R2-1801545 Report from Break-Out Session, Session Chair (InterDigital)

CBF: Report from NR UP, Session Chair (InterDigital)

=> Approved

=> Stage 2 spec and CP will follow the terminology for configured grants and SPS as used in the MAC spec.

12.2 Main session

This section contains a temporary list of comebacks.

✎ 38.331 update and next phase of ASN.1 review:

✎ => Inform RAN1 of decisions, and ask question related to FFS. Draft LS in R2-1801625 (Offline discussion #39, MediaTek)

✎ => Offline discussion to progress on assistance information for gap coordination (Offline discussion #40, Nokia)

✎ => Offline discussion to conclude if and where to include the failure type and whether to send an LS (Offline discussion #41, CATT)

✎ => Offline discussion to progress how to capture PDCP type change for SRB (Offline discussion #42, Intel)

✎ => Draft LS in R2-1801632 to RAN4 to ask whether IDC problems with other systems (e.g. BT and WLAN and GNSS) are applicable to EN-DC. (Offline discussion #43, Qualcomm).

- ✍ => Revised in R2-1801646
- ✍ => Revised in R2-1801647
- ✍ => Ask RAN4 whether intraBandAsyncFDD should be signalled per UE or per BC. Draft LS in R2-1801633 (Offline discussion #44, Intel)
- ✍ => Revised in R2-1801634 (Offline discussion #45, DOCOMO)

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 may be submitted to this agenda item.

14 Any other business

Proposed email discussions to progress SA topics:

- Scope: Email discussion to identify aspects where there is a large degree of consensus among the proposals submitted to this meeting and make proposal that should be quick to agree in the meeting. In addition identify the key questions that will need more discussion in the meeting to resolve. Aim is to facilitate a well-structured discussion at the next meeting.

Topics:

- System information content/structure (Ericsson)
- System information procedures (including Stored system information, System information modification, System information scheduling) (Samsung)
- RRC inactive (RAN area configuration) (Intel)
- RRC inactive (RAN area update procedure, Paging in inactive (not including 38.304 aspects), not including security frame work) (Qualcomm)

=> Emails discussions above agreed.

15 Closing of the meeting (17:00)

Annex A: List of participants

RAN2#AH-1801 participants list is at: <http://webapp.etsi.org/3GPPRegistration/fViewPart.asp?mid=18777>

Total number of participants: 201 (registered 259)

Annex B: List of Tdocs

The list of tdocs of this RAN2#AH-1801 is attached to this report.

Total of 1676 tdoc numbers were allocated of which 1581 tdocs were available.

Annex C:

Incoming liaison statements

TDoc	Title	Source	Status	Rel	Related WIs	To	Cc	Original LS
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R2-1800003	LS to RAN2 on Beam Failure Recovery (R1-1721346; contact: MediaTek)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN2		R1-1721346
R2-1800004	LS reply to RAN4 on P_0 ranges on UL power control (R1-1721608; contact: ZTE)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN4	RAN2	R1-1721608
R2-1800005	Reply LS on PRB grid in the NR (R1-1721669; contact: Huawei)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN4	RAN2, RAN3	R1-1721669
R2-1800006	LS on CSI reporting periodicities for NR (R1-1721682; contact: Ericsson)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN2		R1-1721682
R2-1800007	LS on BWP timer operation (R1-1721714; contact: Qualcomm)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN2		R1-1721714
R2-1800008	Response LS on required information for NSA on X2 (R1-1721716; contact: Nokia)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN3	RAN2, RAN4	R1-1721716
R2-1800009	LS reply on formula or table for L1 data rate (R1-1721723; contact: Ericsson)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN2		R1-1721723
R2-1800010	LS on RAN1 input to 38.300 (R1-1721729; contact: Nokia)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN2		R1-1721729
R2-1800011	Reply to LS on NR UE Category (R1-1721732; contact: Ericsson)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN	RAN2, RAN4	R1-1721732
R2-1800012	LS reply on formula or table for L1 data rate (R1-1721733; contact: Ericsson)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN2		R1-1721733
R2-1800013	LS on updates to RRC parameters related to NR MIMO (R1-1721734; contact: Qualcomm)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN2		R1-1721734
R2-1800014	LS on required information for NSA on X2 (R3-174964; contact: Nokia)	RAN3	noted	Rel-15	NR_newRAT-Core	RAN1, RAN2, RAN4		R3-174964
R2-1800015	LS on periodical RNA update (R3-175013; contact: Nokia)	RAN3	noted	Rel-15	NR_newRAT-Core	RAN2		R3-175013
R2-1800016	Reply LS on radio capabilities handling upon inter-system mobility (R3-175025; contact: Qualcomm)	RAN3	noted	Rel-15	NR_newRAT-Core	SA2, RAN2		R3-175025
R2-1800017	LS on RRC Information exchange for F1 UE Context Management (R3-175042; contact: Nokia)	RAN3	noted	Rel-15	NR_newRAT-Core	RAN2		R3-175042
R2-1800018	LS on further clarification on definitions of reference points (R4-1713940; contact: Huawei)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN1	RAN2	R4-1713940
R2-1800019	LS on RSRP and signal quality measurement report mapping (R4-1713941; contact: Ericsson)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN2	RAN1	R4-1713941
R2-1800020	LS reply on UE baseband processing capability (R4-1714257; contact: Intel)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN2	RAN1	R4-1714257
R2-1800021	LS on channel raster and SS raster (R4-1714295; contact: Huawei)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN1, RAN2		R4-1714295
R2-1800022	LS reply on UE RF related parameters, capabilities and features for NR (R4-1714454; contact: NTT DOCOMO)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN2	RAN1, RAN3	R4-1714454
R2-1800023	LS on spectrum utilization (R4-1714478; contact: Huawei)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN1	RAN2	R4-1714478
R2-1800024	Acquisition of NTA_Offset for Uplink Transmission (R4-1714502; contact: Ericsson)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN1	RAN2	R4-1714502
R2-1800025	LS on measurement gap (R4-1714503; contact: Huawei)	RAN4	noted	Rel-15	NR_newRAT-Core	RAN2	RAN1	R4-1714503
R2-1800026	Response LS on simultaneous transmission and/or reception over EPC/E-UTRAN and	RAN4	noted	Rel-15	NR_newRAT-Core	SA2	RAN1, RAN2	R4-1714539

	5GC/NR (R4-1714539; contact: Intel)							
R2-1800027	LS on interworking mechanisms between 5G System and legacy RATs (RP-172823; contact: NEC)	RAN	noted	Rel-15	NR_newRAT-Core	SA1, SA2, RAN2, RAN3, RAN4, RAN5, RAN6	SA, CT	RP-172823
R2-1800028	LS on CP latency reduction (RP-172840; contact: Ericsson)	RAN	withdrawn	Rel-15	NR_newRAT-Core	RAN2, RAN1		RP-172840
R2-1800029	LS on Summary of email discussion "[ITU-R AH 01] Calibration for self-evaluation" (RT-170021; contact: Huawei)	3GPP TSG RAN ITU-R ad hoc	noted	Rel-15	FS_5G_eval	RAN, RAN1, RAN2, RAN4		RT-170021
R2-1800030	LS on Summary of email discussion "[ITU-R AH 02] Initial description template" (RT-170022; contact: Huawei & Ericsson)	3GPP TSG RAN ITU-R ad hoc	noted	Rel-15	FS_5G_eval	RAN, SA, RAN1, RAN2, RAN4		RT-170022
R2-1800031	Reply LS on selectively disabling legacy radio access (S1-174601; contact: Nokia)	SA1	noted	Rel-15	NR_newRAT-Core	SA3	SA2, CT1, RAN2	S1-174601
R2-1800032	Reply LS on requirements on unified access control for 5GS (S1-174623; contact: Nokia)	SA1	noted	Rel-15	NR_newRAT-Core	CT1	SA2, CT6, RAN2	S1-174623
R2-1800033	Reply LS on unified access control for 5G NR (S1-174624; contact: Ericsson)	SA1	noted	Rel-15	5GS_Ph1-CT	RAN2	CT1, SA2, CT6	S1-174624
R2-1800034	LS on optionality of the UE procedures related to RRC Inactive (S2-179047; contact: Qualcomm)	SA2	noted	Rel-15		RAN2, RAN	CT1	S2-179047
R2-1800035	Reply on default values for 5GS QoS averaging window for standardised 5QIs (S2-179457; contact: Qualcomm)	SA2	noted	Rel-15	5GS_Ph1	SA4	CT1, RAN2, SA6	S2-179457
R2-1800036	Reply LS to CN node selection for LTE features when E-UTRA is connected to 5G CN (S2-179618; contact: Nokia)	SA2	withdrawn	Rel-15	5GS_Ph1	RAN2, CT1	RAN3	S2-179618
R2-1800037	LS on QCI for EPC based URLLC (S2-179646; contact: Vodafone)	SA2	noted	Rel-15	NR_newRAT-Core	SA, RAN	SA1, RAN1, RAN2	S2-179646
R2-1800038	LS on Emergency call support for EDCE5 (S3-173414; contact: Qualcomm)	SA3	noted	Rel-15	EDCE5	SA1, SA2, RAN2		S3-173414
R2-1800039	LS on URLLC (SP-171079; contact: Vodafone)	SA	noted	Rel-15	NR_newRAT-Core	SA1, SA2	RAN, RAN1, RAN2	SP-171079
R2-1801627	Reply LS on channel raster and SS raster (R1-1801182; contact: Ericsson)	RAN1	noted	Rel-15	NR_newRAT-Core	RAN4, RAN2		R1-1801182
R2-1801642	CT1's chosen solution for unified access control (C1-180708; contact: Intel)	CT1	noted	Rel-15	5GS_Ph1-CT	RAN2	SA1	C1-180708

39 incoming LS, of which 37 were noted. Two LSs were withdrawn (to be treated in the next meeting).

Annex D: Outgoing liaison statements

TDoc	Title	Release	Related WIs	To	Cc
R2-1801555	LS to RAN1 on MAC CE for MIMO	Rel-15	NR_newRAT-Core	RAN1	

R2-1801568	LS on PHR	Rel-15	NR_newRAT-Core	RAN1	
R2-1801569	LS on Clarifications in MAC	Rel-15	NR_newRAT-Core	RAN1, RAN4	
R2-1801570	LS to RAN1 on beam failure recovery	Rel-15	NR_newRAT-Core	RAN1	
R2-1801600	LS on PDCCH order for initiation of random access	Rel-15	NR_newRAT-Core	RAN1	
R2-1801630	LS to RAN1 on cell-specific and BWP-specific parameters	Rel-15	NR_newRAT-Core	RAN1	
R2-1801631	LS on Baseband Processing Capabilities	Rel-15	NR_newRAT-Core	RAN1, RAN4	
R2-1801645	LS on QoS	Rel-15	NR_newRAT-Core	SA2	CT1
R2-1801649	LS on RAN2 Assumption about DRB ID value range	Rel-15	NR_newRAT-Core	SA3	
R2-1801652	LS on supporting power sharing	Rel-15	NR_newRAT-Core	RAN1	RAN4
R2-1801656	LS on moving DRB identity to X2 for EN-DC	Rel-15	NR_newRAT-Core	RAN3	
R2-1801658	LS on NR Idle Mode Measurement	Rel-15	NR_newRAT-Core	RAN4, RAN1	
R2-1801660	Reply LS on maximum idle mode DRX value	Rel-15	NR_newRAT-Core	SA2	
R2-1801661	Response LS on RRC Information exchange for F1 UE Context Management	Rel-15	NR_newRAT-Core	RAN3	
R2-1801663	LS on FDD-FDD Intra-band LTE-NR DC	Rel-15	NR_newRAT-Core	RAN4	
R2-1801664	LS to RAN1 on RRC Configuration for Sync Raster and Channel Raster	Rel-15	NR_newRAT-Core	RAN1	RAN4
R2-1801667	LS on In-Device Coexistence solution for EN-DC	Rel-15	NR_newRAT-Core	RAN4	
R2-1801668	Reply LS on formula or table for L1 data rate	Rel-15	NR_newRAT-Core	RAN1	
R2-1801669	LS on measurement result forwarding from the MN to SN at SCG failure	Rel-15	NR_newRAT-Core	RAN3	

19 outgoing LS.

Annex E: List of agreed CRs

No CRs were agreed in this meeting.

Annex F: Email Approvals

Deadline Thursday, 2018-02-01, 23:59 Pacific Time

Please request TDoc numbers for the following email discussions from MCC if not already allocated below

[NR-AH1801#01][NR/] Update CR to 38.300 (Nokia)

Intended outcome: Endorsed running CR to 38.300

Deadline: Thursday 2018-02-01
=> Endorsed in R2-1801672.

[NR-AH1801#02][NR] LS to RAN1 in CSI-MeasConfig (Ericsson)

Intended outcome: Approved LS
Deadline: Thursday 2018-02-08
=> Email approval not held.

[NR-AH1801#03][NR/IAB] Update TR 38.874 (Qualcomm)

First agree the TR skeleton and then update to capture the agreements from this meeting.
The discussion can also address the small conflict between agreements 3i and 4 when they are captured in the TR.
Intended outcome: Endorsed TR 38.874
Deadline: Thursday 2018-02-01
=> Endorsed in R2-1801671.

[NR-AH1801#04][NR UP/MAC] – 38.321 CR - Samsung

- CR capturing editorials and agreements from AH 1801
Intended outcome: Endorsed running CR to 38.321
Deadline: Thursday 2018-02-01
=> Endorsed in R2-1801546
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Deadline Thursday, 2018-02-08, 23:59 Pacific Time

Please request TDoc numbers for the following email discussions from MCC if not already allocated below

[NR-AH1801#05][NR/] 38.306 (Intel)

Update 38.306 and the UE capability ASN.1 based on agreements from this meeting.
Intended outcome: Endorsed updated CR and ASN.1
Deadline: Thursday 2018-02-20

[NR-AH1801#06][NR/idle mode] TS 38.304 (Qualcomm)

Capture the agreements from this meeting
Intended outcome: endorsed draft TS
Deadline: Thursday 2018-02-13

Deadline Monday, 2018-02-12, 23:59 Pacific Time

TDoc numbers for the following email discussions may be requested via 3GU tool

[NR-AH1801#07][NR/] Reply LS to CT1 on AC (Intel)

Try to progress answers to the questions from CT1. Aim to discuss and send LS early in the week at RAN2#101. Also attempt to identify potential easy agreements to be made at the next RAN2 meeting based on the progress within other groups.
Intended outcome: Email discussion report and draft LS
Deadline: Monday 2018-02-12

[NR-AH1801#08][NR] Measurement gap coordination assistance info (Samsung)

Progress the details of the assistance information to be added to the inter node messages.
Intended outcome: Report to next meeting
Deadline: Monday 2018-02-13

[NR-AH1801#09][NR/] L2 buffer size (Intel)

Progress remaining aspects related to L2 buffer size
Intended outcome: Report to next meeting
Deadline: Monday 2018-02-12

[NR-AH1801#10][NR] UE Capabilities (Intel)

Discussion to determine whether mandatory with IOT indication or optional for the features with the need of a UE capability signalling. Scope is L2/3 capabilities only. Email discussion can also progress the proposals from the contributions submitted to this meeting but not treated.
Intended outcome: Report to next meeting
Deadline: Monday 2018-02-12

[NR-AH1801#11][NR] System information content/structure (Ericsson)

Email discussion to identify aspects where there is a large degree of consensus among the proposals submitted to this meeting and make proposal that should be quick to agree in the meeting. In addition identify the key questions that will need more discussion in the meeting to resolve. Aim is to facilitate a well-structured discussion at the next meeting.
Intended outcome: Report to next meeting
Deadline: Monday 2018-02-12

[NR-AH1801#12][NR] System information procedures (Samsung)

Scope: including Stored system information, System information modification, System information scheduling.
Email discussion to identify aspects where there is a large degree of consensus among the proposals submitted to this meeting and make proposal that should be quick to agree in the meeting. In addition identify the key questions that will need more discussion in the meeting to resolve. Aim is to facilitate a well-structured discussion at the next meeting.
Intended outcome: Report to next meeting
Deadline: Monday 2018-02-12

[NR-AH1801#13][NR] RRC inactive (RAN area configuration) (Intel)

Email discussion to identify aspects where there is a large degree of consensus among the proposals submitted to this meeting and make proposal that should be quick to agree in the meeting. In addition identify the key questions that will need more discussion in the meeting to resolve. Aim is to facilitate a well-structured discussion at the next meeting.
Intended outcome: Report to next meeting
Deadline: Monday 2018-02-12

[NR-AH1801#14][NR] RRC inactive procedures (Qualcomm)

Scope: RAN area update procedure, Paging in inactive (not including 38.304 aspects), not including security framework
Email discussion to identify aspects where there is a large degree of consensus among the proposals submitted to this meeting and make proposal that should be quick to agree in the meeting. In addition identify the key questions that will need more discussion in the meeting to resolve. Aim is to facilitate a well-structured discussion at the next meeting.
Intended outcome: Report to next meeting
Deadline: Monday 2018-02-12

[NR-AH1801#15][NR UP/MAC] Repetition aspects – Huawei

- Capture repetition aspects and slot aggregation in HARQ
Intended outcome: Email discussion report
Deadline: Monday 2018-02-12

[NR-AH1801#16][NR UP/ MAC] – PHR for SUL – Huawei

- Understand for which scenarios the additional PHR is needed and solution on how to address the scenarios
Intended outcome: Email discussion report

Deadline: Monday 2018-02-12

[NR-AH1801#17][NR UP/SDAP] Running TS 37.324 – Huawei

- capture agreements to be endorsed next meeting
Intended outcome: Draft 37.324 submitted to next meeting
Deadline: Monday 2018-02-12

Deadline Tuesday, 2018-02-20, 23:59 Pacific Time

TDoc numbers for the following email discussions may be requested via 3GU tool (note, request tdoc number before the tdoc allocation deadline 2018-02-15)

[NR-AH1801#18][NR] 36.331 ASN.1 review (Samsung)

- Detailed instructions to be provided by RRC rapporteur
Intended outcome: CR to 36.331 submitted to next meeting
Deadline: Tuesday 2018-02-20

[NR-AH1801#19][NR] 38.331 ASN.1 review part 1 - L1 params except CSI-RS (Ericsson)

- Detailed instructions to be provided by RRC rapporteur and/or chairman
Intended outcome: Merged CR to 38.331 submitted to next meeting
Deadline: Tuesday 2018-02-20

[NR-AH1801#20][NR] 38.331 ASN.1 review part 2 - L1 params for CSI-RS (Huawei)

- Detailed instructions to be provided by RRC rapporteur and/or chairman
Intended outcome: Merged CR to 38.331 submitted to next meeting
Deadline: Tuesday 2018-02-20

[NR-AH1801#21][NR] 38.331 ASN.1 review part 3 - L2 params (Huawei)

- Detailed instructions to be provided by RRC rapporteur and/or chairman
Intended outcome: Merged CR to 38.331 submitted to next meeting
Deadline: Tuesday 2018-02-20

[NR-AH1801#22][NR] 38.331 ASN.1 review part 4 - Measurements procedures/ASN.1 (Huawei)

- Detailed instructions to be provided by RRC rapporteur and/or chairman
Intended outcome: Merged CR to 38.331 submitted to next meeting
Deadline: Tuesday 2018-02-20

[NR-AH1801#23][NR] 38.331 ASN.1 review part 5 - Bearer config and high level procedures (Ericsson)

- Detailed instructions to be provided by RRC rapporteur and/or chairman
Intended outcome: Merged CR to 38.331 submitted to next meeting
Deadline: Tuesday 2018-02-20

[NR-AH1801#24][NR] 38.331 ASN.1 review part 6 - Inter-node message (Nokia)

- Detailed instructions to be provided by RRC rapporteur and/or chairman
Intended outcome: Merged CR to 38.331 submitted to next meeting
Deadline: Tuesday 2018-02-20

Note: Part 7 of the ASN.1 review covering UE capabilities is already covered by email discussion #05.

Annex G: History

Document history		
Date	TSG RAN WG2 Tdoc	Subject
02.02.2018	-	Draft report v1
16.02.2018		Draft report v2 (includes updates to post-meeting email approvals)
16.02.2018	R2-1801702	Version submitted for approval in RAN2#101
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