3GPP TSG-RAN WG2 Meeting #115 Electronic R2-210xxxx

Online, Aug 16th – Aug 27th, 2021

**Agenda item: 5.4.1.1**

**Source: Apple**

**Title: Draft-Summary of [AT115-e][039][NR15] Connection Control III (Apple)**

**Document for: Discussion and Decision**

# 1 Introduction

This document is a report on the following email discussion:

* [AT115-e][039][NR15] Connection Control III (Apple)

 Scope: Determine agreeable parts in a first phase, for agreeable parts agree on CRs. Treat R2-2107617, R2-2107618, R2-2107619, R2-2107770, R2-2107771, R2-2107772, R2-2107838, R2-2107839, R2-2108616, R2-2108617, R2-2108373, R2-2108374

 Intended outcome: Report, agreed CRs if applicable

 Deadline: Schedule 1

The deadline Schedule 1 for this email discussion is copied from Chair notes:

* A first round with Deadline for comments Thursday Aug 19 1200 UTC to settle scope what is agreeable etc
* A Final round with Final deadline Thursday Aug 26 1200 UTC. to settle details / agree CRs etc. Additional check points etc if needed are defined by the Rapporteur.
* In case some parts of an email discussion need more time, doesn’t converge, need on-line treatment etc Rapporteur please contact chair.

This document summarizes the following contributions from Agenda Item 5.1.4.1 Connection control:

RRC Release

R2-2107617 Discussion on RRC handling of NAS triggers not subject to UAC Apple discussion Rel-15 NR\_newRAT-Core

R2-2107618 T302 check when NAS triggers RRC connection resume Apple CR Rel-15 38.331 15.14.0 2734 - F NR\_newRAT-Core

R2-2107619 T302 check when NAS triggers RRC connection resume Apple CR Rel-16 38.331 16.5.0 2735 - A NR\_newRAT-Core

R2-2107770 Discussion on timer expiry after RRCRelease reception NEC discussion Rel-15 NR\_newRAT-Core

R2-2107771 Clarification on timer expiry after RRCRelease reception NEC CR Rel-15 38.331 15.14.0 2737 - F NR\_newRAT-Core

R2-2107772 Clarification on timer expiry after RRCRelease reception NEC CR Rel-16 38.331 16.5.0 2738 - F NR\_newRAT-Core, LTE\_NR\_DC\_CA\_enh-Core

R2-2107838 Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-15 36.331 15.14.0 4700 - F NR\_newRAT-Core

R2-2107839 Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-16 36.331 16.5.0 4701 - A NR\_newRAT-Core

Other

R2-2108616 Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2784 - F NR\_newRAT-Core

R2-2108617 Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2785 - A NR\_newRAT-Core

R2-2108373 Correction on plmn-IdentityList ZTE Corporation, Sanechips CR Rel-15 38.331 15.14.0 2772 - F NR\_newRAT-Core

R2-2108374 Correction on plmn-IdentityList(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2773 - A NR\_newRAT-Core

# 2 Contact Points

Respondents to the email discussion are kindly asked to fill in the following table.

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| --- | --- | --- |
| Company | Name | Email Address |
| Apple(rapporteur) | Zhibin Wu | zhibin\_wu@apple.com |
| Qualcomm | Mouaffac Ambriss | mambriss@qti.qualcomm.com  |
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# 3 Discussion

It has been noticed that [1-3] are not about RRC Release, so the rapporteur makes a separate section for those documents.

## 3.1 RRC Resume by NAS triggers

This topic is from the following contributions[1][2][3] which discuss the issue on whether AS layer need check T302 timer running when upper layer trigger RRC resume w/o providing access category and access identity.

[1] R2-2107617 Discussion on RRC handling of NAS triggers not subject to UAC Apple discussion Rel-15 NR\_newRAT-Core

[2] R2-2107618 T302 check when NAS triggers RRC connection resume Apple CR Rel-15 38.331 15.14.0 2734 - F NR\_newRAT-Core

[3] R2-2107619 T302 check when NAS triggers RRC connection resume Apple CR Rel-16 38.331 16.5.0 2735 - A NR\_newRAT-Core

**Question 1: Do companies agree with the observation in R2-2107617 [1] that “NAS layer may trigger RRC resume without providing Access Category/Access Identity or requesting access barring check”?**

|  |  |  |
| --- | --- | --- |
| Company | Yes or No | Comments |
| Qcom | No | current spec seems to already cover the suggested behaviour by the CR and the changes proposed by the CRs seem unnecessary |
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**Question 2: If Answer to Q1 is yes, which option do you prefer for RAN2 to handle the T302 timer checking issue for this access trigger?**

***Option 1: RAN2 confirm that T302 check is not needed for NAS layer triggers which are not subject to UAC check.***

***Option 2: RAN2 informs CT1 that NAS procedures which are not subject to UAC shall not be triggered when AS layer informs upper layer “access barring is applicable for all access categories except categories ‘0’ and ‘2’ and then CT1 can consider update its specification correspondingly.***

***Option 3: RAN2 agrees to add T302 check in RRC resume procedure for the case when UAC is not invoked.***

***Option 4: Other (please specify)***

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| Company | Choice | Comments |
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**Question 3: If the answers to Q2 is Option 3, do companies agree with fixing the issue as suggested by CR R2-2107618/R2-2107619?**

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| Company | Yes or No | Comments |
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## 3.2 RRC Release

This topic is from the following contributions[4-8].

[4] R2-2107770 Discussion on timer expiry after RRCRelease reception NEC discussion Rel-15 NR\_newRAT-Core

[5] R2-2107771 Clarification on timer expiry after RRCRelease reception NEC CR Rel-15 38.331 15.14.0 2737 - F NR\_newRAT-Core

[6] R2-2107772 Clarification on timer expiry after RRCRelease reception NEC CR Rel-16 38.331 16.5.0 2738 - F NR\_newRAT-Core, LTE\_NR\_DC\_CA\_enh-Core

[7] R2-2107838 Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-15 36.331 15.14.0 4700 - F NR\_newRAT-Core

[8] R2-2107839 Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-16 36.331 16.5.0 4701 - A NR\_newRAT-Core

In [4-6], the timer expiry problem has been raised during the period between *RRCRelease* message reception and the actual RRC Release procedure.

**Question 4: Do companies agree with the proposal in [4] R2-2107770, as below?**

***Proposal 1: RAN2 confirm that:***

1. ***If T380 expires after RRCRelease reception, the UE should not initiate RRC Resume procedure.***
2. ***If T319 expires after RRCRelease reception, the UE should not perform the procedure upon going to RRC \_IDLE.***
3. ***If T316 expires after RRCRelease reception, UE should not initiate RRC re-establishment procedure.***

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| Company | Yes or No | Comments |
| QCOM | No | Should be left to UE implementation  |
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**Question 5: Do companies agree with the CR R2-2107771/R2-2107712?**

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| Company | Yes or No | Comments |
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In[7][8], it has been proposed to fix the problem that the release causes for RRC\_INACTIVE UE resuming the RRC connection procedure are inconsistent in TS 36.331.

**Question 6: Do companies agree with the CR R2-2107838/R2-2107839?**

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| Company | Yes or No | Comments |
| QCOM | Yes |  |
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## 3.3 RRC Processing Delay

This topic is from the following contributions [9-10]

[9] R2-2108616 Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-15 38.331 15.14.0 2784 - F NR\_newRAT-Core

[10] R2-2108617 Adding RRC processing delay for HO from E-UTRA to NR Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2785 - A NR\_newRAT-Core

The CR from [9][10] proposes to add the RRC processing delay for the cases of HO from E-UTRA/(NG)EN-DC to NR in TS 38.331.

**Question 7: Do companies agree with R2-2108616/R2-2108617?**

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| Company | Yes or No | Comments |
| Qcom | Yes |  |
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## 3.4 PLMN-IdentityList

This topic is from the following contributions [11][12]

[11 R2-2108373 Correction on plmn-IdentityList ZTE Corporation, Sanechips CR Rel-15 38.331 15.14.0 2772 - F NR\_newRAT-Core

[12] R2-2108374 Correction on plmn-IdentityList(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2773 - A NR\_newRAT-Core

The CR from [11][12] propose Modify the field name *plmn-IdentityList* of IE *PLMN-IdentityInfoList* to *plmn-IdentityInfoList* in NR RRC spec.

**Question 8: Do companies agree with the CR R2-2108373/R2-2108374?**

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| Company | Yes or No | Comments |
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# 4 Conclusion

TBD.

# 5 References

[1] R2-2107617 Discussion on RRC handling of NAS triggers not subject to UAC Apple discussion Rel-15 NR\_newRAT-Core

[2] R2-2107618 T302 check when NAS triggers RRC connection resume Apple CR Rel-15 38.331 15.14.0 2734 - F NR\_newRAT-Core

[3] R2-2107619 T302 check when NAS triggers RRC connection resume Apple CR Rel-16 38.331 16.5.0 2735 - A NR\_newRAT-Core

[4] R2-2107770 Discussion on timer expiry after RRCRelease reception NEC discussion Rel-15 NR\_newRAT-Core

[5] R2-2107771 Clarification on timer expiry after RRCRelease reception NEC CR Rel-15 38.331 15.14.0 2737 - F NR\_newRAT-Core

[6] R2-2107772 Clarification on timer expiry after RRCRelease reception NEC CR Rel-16 38.331 16.5.0 2738 - F NR\_newRAT-Core, LTE\_NR\_DC\_CA\_enh-Core

[7] R2-2107838 Correction on the Release Cause for RRC\_INACTVE UE vivo CR Rel-15 36.331 15.14.0 4700 - F NR\_newRAT-Core

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[11 R2-2108373 Correction on plmn-IdentityList ZTE Corporation, Sanechips CR Rel-15 38.331 15.14.0 2772 - F NR\_newRAT-Core

[12] R2-2108374 Correction on plmn-IdentityList(R16) ZTE Corporation, Sanechips CR Rel-16 38.331 16.5.0 2773 - A NR\_newRAT-Core