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

Online, Aug 16th – Aug 27th, 2021

**Agenda item: 6.1.4.1.1**

**Source: Apple Inc**

**Title: Draft-Summary of [AT115-e][023][NR16] Connection Control I (Apple)**

**Document for: Discussion and Decision**

# 1 Introduction

This document is a report on the following email discussion:

* [AT115-e][023][NR16] Connection Control I (Apple)

 Scope: Determine agreeable parts and agree CRs, Treat R2-2106955, R2-2107599, R2-2108638, R2-2108473, R2-2107401, R2-2106916, R2-2108106, R2-2107588, R2-2108440, R2-2108441, R2-2107571

      Intended outcome: Report, Agreed CRs.

      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 6.1.4.1.1 Connection control:

**DC location reporting**

[R2-2106955](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106955.zip) Reply LS DC location reporting for intra-band UL CA (R4-2107903; contact: Huawei) RAN4 LS in Rel-16 NR\_RF\_FR1-Core To:RAN2

[R2-2107599](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107599.zip) Correction to uplink Tx DC location reporting for UL CA 2PA case Apple CR Rel-16 38.331 16.5.0 2733 - F NR\_RF\_FR1-Core

[R2-2108638](file:///Users/naveenpalle/spec/RAN2-115e/Docs/R2-2108638.doc) UE reporting of Tx DC location info for the second PA Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2789 - F NR\_RF\_FR1-Core

**eMIMO**

[R2-2108473](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108473.zip) Correction on RepetitionSchemeConfig for eMIMO Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2777 - F NR\_eMIMO-Core

[R2-2107401](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107401.zip) Correction on TCI configuration for DCI format 1\_2 vivo CR Rel-16 38.331 16.5.0 2723 - F NR\_eMIMO-Core

**NR-U**

[R2-2106916](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2106916.zip) Reply LS on random value generation for RMTC-SubframeOffset (R1-2106264; contact: Apple) RAN1 LS in Rel-16 NR\_unlic-Core, TEI16 To:RAN2

[R2-2108106](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108106.zip) Clarification on RMTC subframe offset Ericsson CR Rel-16 38.331 16.5.0 2753 - F NR\_unlic-Core

[R2-2107588](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107588.zip) RSSI/CO reporting in MCG/SCGfailureinformation Apple CR Rel-16 38.331 16.5.0 2732 - F NR\_unlic-Core

**DCCA**

[R2-2108440](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108440.zip) Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2776 - F LTE\_NR\_DC\_CA\_enh-Core

[R2-2108441](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2108441.zip) Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4715 - F LTE\_NR\_DC\_CA\_enh-Core

*Moved from 6.1.4.2*

**RRC Processing time**

[R2-2107571](file:///D%3A/Documents/3GPP/tsg_ran/WG2/RAN2/2108_R2_115-e/Docs/R2-2107571.zip) RRC Processing Delay for SCell Modification Apple discussion Rel-16 NR\_newRAT-Core

*Postponed last meeting*

# 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) | Naveen Palle | naveen.palle@apple.com |
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# 3 Discussion

## 3.1 DC Location reporting

This topic is from the following contributions[2][3] based on the RAN4 LS[1].

[1] R2-2106955 Reply LS DC location reporting for intra-band UL CA (R4-2107903; contact: Huawei) RAN4 LS in Rel-16 NR\_RF\_FR1-Core To:RAN2

[2] R2-2107599 Correction to uplink Tx DC location reporting for UL CA 2PA case Apple CR Rel-16 38.331 16.5.0 2733 - F NR\_RF\_FR1-Core

[3] R2-2108638 UE reporting of Tx DC location info for the second PA Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2789 - F NR\_RF\_FR1-Core

Companies are requested to provide their views on the two CRs

**Question 1: Do companies agree with R2-2107599?**

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| Company | Yes or No | Comments |
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**Question 2: Do companies agree with R2-2108638?**

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| Company | Yes or No | Comments |
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**Question 3: Any comments/suggestions/preferences between the CRs, assuming they are agreeable?**

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| Company | Comments |
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## 3.2 eMIMO

This topic is from the following two contributions[4][5].

[4]R2-2108473 Correction on RepetitionSchemeConfig for eMIMO Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2777 - F NR\_eMIMO-Core

[5] R2-2107401 Correction on TCI configuration for DCI format 1\_2 vivo CR Rel-16 38.331 16.5.0 2723 - F NR\_eMIMO-Core

Based on the LS from RAN1 R2-2004251, the CR from [4] proposes the below changes:

1) The UE shall release fdm-TDM-r16 when slotBased-16 is set to setup.

2) The network does not use the value "release" of fdm-TDM-r16 or slotBased-16

**Question 4: Do companies agree with R2-2108473?**

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| Company | Yes or No | Comments |
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The CR from [5] proposes to update the field description of IE tci-PresentDCI-1-2 to capture the case that the UE is not configured with *enableDefaultBeamForCCS*

**Question 5: Do companies agree with R2-2107401?**

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| Company | Yes or No | Comments |
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## 3.3 NR-U

This topic is from the following contributions [7][8] where [7] is based on the LS[6]

[6] R2-2106916 Reply LS on random value generation for RMTC-SubframeOffset (R1-2106264; contact: Apple) RAN1 LS in Rel-16 NR\_unlic-Core, TEI16 To:RAN2

[7] R2-2108106 Clarification on RMTC subframe offset Ericsson CR Rel-16 38.331 16.5.0 2753 - F NR\_unlic-Core

[8] R2-2107588 RSSI/CO reporting in MCG/SCGfailureinformation Apple CR Rel-16 38.331 16.5.0 2732 - F NR\_unlic-Core

The CR from [7] proposes to clarify that the generation method for the random offset value is up to UE’s implementation when *RMTC-SubframeOffset* is not configured.

**Question 6: Do companies agree with R2-2108106?**

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| Company | Yes or No | Comments |
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The CR from [8] to add the measurement results for RSSI/CO on unlicensed NR frequencies into MeasResult2NR which is carried in MCGFailureInformation and SCGFailureInformation.

**Question 7: Do companies agree with R2-2107588?**

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| Company | Yes or No | Comments |
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## 3.4 DCCA

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

[9] R2-2108440 Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2776 - F LTE\_NR\_DC\_CA\_enh-Core

[10] R2-2108441 Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4715 - F LTE\_NR\_DC\_CA\_enh-Core

The CR from [9] and [10] propose that the *DLInformationTransferMRDC* can include RRC reconfiguration message including *reconfigurationWithSync* or *mobilityControlInfo.*

**Question 8: Do companies agree with the NR RRC CR in R2-2108440?**

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| Company | Yes or No | Comments |
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**Question 9: Do companies agree with the LTE RRC CR in R2-2108441?**

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| Company | Yes or No | Comments |
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## 3.5 SCell RRC Processing Delay

This topic is from the following contribution

[11]R2-2107571 RRC Processing Delay for SCell Modification Apple discussion Rel-16 NR\_newRAT-Core

This topic was discussed in earlier RAN2 meeting and concensus was not reached. [11] provides observations on the absence of NBC issue and the difference in LTE and NR in SCell modification handling. Based on these the following proposals are made:

**Proposal 1: Extend the RRC processing delay for SCell modification from 10ms to 16ms.**

**Proposal 2: Agree the R16 RRC CR in Annex part.**

**Question 10: Do companies agree with extending the RRC processing delay for SCell modification from 10ms to 16ms as per proposal 1? Pls provide comments as well.**

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| Company | Yes or No | Comments |
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**Question 11: Do companies agree with the text proposal in the Annex part of [11]? Pls provide comments if needed.**

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

TBD.

# 5 References

[1] R2-2106955 Reply LS DC location reporting for intra-band UL CA (R4-2107903; contact: Huawei) RAN4 LS in Rel-16 NR\_RF\_FR1-Core To:RAN2

[2] R2-2107599 Correction to uplink Tx DC location reporting for UL CA 2PA case Apple CR Rel-16 38.331 16.5.0 2733 - F NR\_RF\_FR1-Core

[3] R2-2108638 UE reporting of Tx DC location info for the second PA Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2789 - F NR\_RF\_FR1-Core

[4]R2-2108473 Correction on RepetitionSchemeConfig for eMIMO Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2777 - F NR\_eMIMO-Core

[5] R2-2107401 Correction on TCI configuration for DCI format 1\_2 vivo CR Rel-16 38.331 16.5.0 2723 - F NR\_eMIMO-Core

[6] R2-2106916 Reply LS on random value generation for RMTC-SubframeOffset (R1-2106264; contact: Apple) RAN1 LS in Rel-16 NR\_unlic-Core, TEI16 To:RAN2

[7] R2-2108106 Clarification on RMTC subframe offset Ericsson CR Rel-16 38.331 16.5.0 2753 - F NR\_unlic-Core

[8] R2-2107588 RSSI/CO reporting in MCG/SCGfailureinformation Apple CR Rel-16 38.331 16.5.0 2732 - F NR\_unlic-Core

[9] R2-2108440 Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 38.331 16.5.0 2776 - F LTE\_NR\_DC\_CA\_enh-Core

[10] R2-2108441 Corrections on RRC reconfiguration for fast MCG link recovery Huawei, HiSilicon CR Rel-16 36.331 16.5.0 4715 - F LTE\_NR\_DC\_CA\_enh-Core

[11]R2-2107571 RRC Processing Delay for SCell Modification Apple discussion Rel-16 NR\_newRAT-Core