**3GPP TSG-RAN WG4 Meeting # 102-e R4-220XXXX**

**Electronic Meeting, Feb 21st – Mar 3rd, 2022**

**Agenda item:** 10.25

**Source:** Moderator (ZTE)

**Title:** Email discussion summary for [102-e][235] NR\_SmallData\_INACTIVE\_NWM

**Document for:** Information

# Introduction

*Briefly introduce background, the scope of this email discussion (e.g. list of treated agenda items) and provide some guidelines for email discussion if necessary.*

*List of candidate target of email discussion for 1st round and 2nd round*

* 1st round:
	+ Consensus on the two windows
	+ Consensus on the duration between T2 and CG occasion
* 2nd round: TBA
	+ Update the draft CRs according to the consensus if any

*Below is the overview of all contributions to be discussed in this thread.*

|  |  |  |  |
| --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Moderator’s remarks** |
| [**R4-2203534**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203534.zip) | TA validation window requirements for CG-SDT | Nokia, Nokia Shanghai Bell | (1) Propose to limit the “total uncertainty (including two windows + duration between T2 and the actual CG transmission”) to 1.2 seconds (2) X1=Y1 = 480ms(3) X2=Y2 = N1\*M1\*TDRX whereModerator’s puzzle:If X1=Y1, and Y1=Y2, the size of the first windows is twice as that of the second window according to the formulas(T1-min (X1,X2)) <= T1’ <= (T1+min(X1,X2) for 1st window(T2-min (Y1,Y2)) <= T2’ <= T2 for 2nd windowTherefore, the correct total uncertainty would be:Umax = 2 \* min(X1,X2)+min(Y1,Y2)+ZIf this is the case, would it play impact on the proposed values?(4) The maximum allowed duration between T2 and the moment of actual CG transmission is 160ms |
| [**R4-2203535**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203535.zip) | Draft CR TA validation for Small Data Transmissions | Nokia, Nokia Shanghai Bell | Draft CR for TA validation for NR SDT |
| [**R4-2203796**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203796.zip) | On RRM requirement for CG-SDT | Apple | (1) Allow UE not to meet inter-freq or inter-RAT measurement requirements in an SDT session(2) Prioritize inter-frequency measurement occasion if colliding with subsequent SDT occasions.(3) For UE unable to receive PO occasion and transmit SDT occasion simultaneously, prioritize receiving PO occasion or no requirement is specified for the collision(4) For UE unable to perform intra-freq SSB measurement and transmit SDT occasion simultaneously, scheduling restrictions apply for subsequent SDT transmission.(5) X1=Y1=640ms, X2=Y2=DRX cycle for FR1, and X1=Y1 = M DRX cycles, X2 = Y2 = unlimited(i.e., removed from the formula) for FR2(6) The maximum allowed duration between T2 and the moment of actual CG transmission is 1120ms for FR1, and 800ms for FR2. |
| [**R4-2203867**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203867.zip) | RRM requirements and TA validation windows for CG-SDT | Qualcomm Incorporated | (1) UE does not meet inter-frequency and inter-RAT requirements for the subsequent SDT transmission.(2) Legacy scheduling restrictions are applied, and no additional scheduling restriction is necessary.(3) X1 and Y1 = 480ms for FR1, FR2. A value larger than 480 for FR1 is acceptable. And set X2=Y2 = unlimited (equivalent to removal from formulas).(4) The duration between T2 and the actual CG occasion can be 50ms (Moderator’s puzzle: maximum?)(5) Leave the NR SDT feature to RAN2, and RAN4 involvement should be after RAN2 agree on the feature. |
| R4-2205216 | Draft big CR for SDT RRM requirements | ZTE Wistron Telecom AB | Placeholder for the running big CR |
| [**R4-2205217**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205217.zip) | On RRM requirements for NR SDT | ZTE Wistron Telecom AB | (1) RAN4 not to introduce an additional RRM requirement for the interval between the TA validation moment and CG-SDT transmission.(2) X1=Y1 is defined as the period of intra-frequency measurement without gap.(3) Set X2 =Y2 as PagingCycle in the IE SuspendConfig.(4) RAN4 introduce two items for the NR SDT feature as shown in the table. |
| [**R4-2205392**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205392.zip) | Discussion on remaining issues for SDT RRM | Huawei, HiSilicon | (1) Set X1=Y1 as 1.28s. (2) Set X2=Y2 as N\*DRX cycles. N=1 for FR1. N=N1 from Table 4.2.2.2-1 in 38.133.(3) If introducing a requirement on the distance betweenT2 and CG-SDT transmission, the maximum value is 640ms.(4) UE is not required to meet inter-frequency and inter-RAT measurement requirements during subsequent transmission in SDT session.(5) Scheduling restriction applies to the SDT subsequent transmission during SSB occasions. |
| [**R4-2205393**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205393.zip) | CR on SDT RRM requirements | Huawei, HiSilicon | (1) Adding abbreviations (SDT, CG-SDT)(2) excluding measurements of inter-freq NR and inter-RAT EUTRA cells in an SDT session. |
| [**R4-2205638**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205638.zip) | Discussions on RRM requirements for Small Data Transmissions | Ericsson | (1) Update the definition of T2 to consider the actual CG occasion. (Moderator: We already agreed that T2 stays the same definition as LTE, and address the concern on the duration between T2 and the actual CG occasion by considering an additional requirement.)(2) The UE is not required to meet the inter-frequency and inter-RAT neighbour cell measurement requirements(3) No needs to introduce scheduling restriction in FR1(4) Scheduling restriction is needed in FR2 if different numerologies are used for SDT and SSBs used for DL measurements(5) RAN4 to agree on minimum condition on SSB availability for HD-FDD UE to meet the SDT requirements.(6) Set X1 = Y1 = 200ms for FR1, 400ms for FR2, X2 = Y2M1\* TDRX for FR1, M1\*N1\*TDRX for FR2 |
| [**R4-2205639**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205639.zip) | Draft CR TA validation for Small Data Transmissions | Ericsson | Duplicate of R4-2203535? |
| [**R4-2205923**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205923.zip) | RRM requirements for CG-SDT | MediaTek Inc. | (1) X1 should be defined based on the measurement period of intra-frequency measurements given the existing NR requirements* Set X1 = Y1 = max(200ms, 5 x SMTC period) for FR1, max(400ms, Mmeas\_period\_w/o\_gaps x SMTC period) for FR2

(2) Set X2 = Y2 = M1\* DRX cycle for FR1, M1\* N1\* DRX cycle for FR2(3) no need to introduce any requirements between T2 and the moment of the actual CG-SDT transmission(4) UE is allowed not to meet inter-frequency and inter-RAT requirements during subsequent SDT transmission assuming that subsequent SDT transmission is too long.* Clarify that a limitation on how long subsequent SDT transmission can last in this case

(5) Scheduling restriction can be applied during subsequent SDT transmission |

# Topic #1: TA validation windows

*Main technical topic overview. The structure can be done based on sub-agenda basis.*

*This topic addresses the two TA validation windows under the unified formulas agreed in RAN4#101-bis-e:*

*(1) X1/X2, Y1/Y2*

*(2) Potential RRM requirement for the duration between T2 and the actual CG occasion.*

## Companies’ contributions summary

|  |  |  |  |
| --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Moderator’s remarks** |
| [**R4-2203534**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203534.zip) | TA validation window requirements for CG-SDT | Nokia, Nokia Shanghai Bell | (1) Propose to limit the “total uncertainty (including two windows + duration between T2 and the actual CG transmission”) to 1.2 seconds (2) X1=Y1 = 480ms(3) X2=Y2 = N1\*M1\*TDRX whereModerator’s puzzle:If X1=Y1, and Y1=Y2, the size of the first windows is twice as that of the second window according to the formulas(T1-min (X1,X2)) <= T1’ <= (T1+min(X1,X2) for 1st window(T2-min (Y1,Y2)) <= T2’ <= T2 for 2nd windowTherefore, the correct total uncertainty would be:Umax = 2 \* min(X1,X2)+min(Y1,Y2)+ZIf this is the case, would it play impact on the proposed values?(4) The maximum allowed duration between T2 and the moment of actual CG transmission is 160ms |
| [**R4-2203796**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203796.zip) | On RRM requirement for CG-SDT | Apple | (5) X1=Y1=640ms, X2=Y2=DRX cycle for FR1, and X1=Y1 = M DRX cycles, X2 = Y2 = unlimited(i.e., removed from the formula) for FR2(6) The maximum allowed duration between T2 and the moment of actual CG transmission is 1120ms for FR1, and 800ms for FR2. |
| [**R4-2203867**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203867.zip) | RRM requirements and TA validation windows for CG-SDT | Qualcomm Incorporated | (3) X1 and Y1 = 480ms for FR1, FR2. A value larger than 480 for FR1 is acceptable. And set X2=Y2 = unlimited (equivalent to removal from formulas).(4) The duration between T2 and the actual CG occasion can be 50ms (Moderator’s puzzle: maximum?) |
| [**R4-2205217**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205217.zip) | On RRM requirements for NR SDT | ZTE Wistron Telecom AB | (1) RAN4 not to introduce an additional RRM requirement for the interval between the TA validation moment and CG-SDT transmission.(2) X1=Y1 is defined as the period of intra-frequency measurement without gap.(3) Set X2 =Y2 as PagingCycle in the IE SuspendConfig. |
| [**R4-2205392**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205392.zip) | Discussion on remaining issues for SDT RRM | Huawei, HiSilicon | (1) Set X1=Y1 as 1.28s. (2) Set X2=Y2 as N\*DRX cycles. N=1 for FR1. N=N1 from Table 4.2.2.2-1 in 38.133.(3) If introducing a requirement on the distance betweenT2 and CG-SDT transmission, the maximum value is 640ms. |
| [**R4-2205638**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205638.zip) | Discussions on RRM requirements for Small Data Transmissions | Ericsson | (1) Update the definition of T2 to consider the actual CG occasion. (Moderator: We already agreed that T2 stays the same definition as LTE, and address the concern on the duration between T2 and the actual CG occasion by considering an additional requirement.)(6) Set X1 = Y1 = 200ms for FR1, 400ms for FR2, X2 = Y2M1\* TDRX for FR1, M1\*N1\*TDRX for FR2 |
| [**R4-2205923**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205923.zip) | RRM requirements for CG-SDT | MediaTek Inc. | (1) X1 should be defined based on the measurement period of intra-frequency measurements given the existing NR requirements* Set X1 = Y1 = max(200ms, 5 x SMTC period) for FR1, max(400ms, Mmeas\_period\_w/o\_gaps x SMTC period) for FR2

(2) Set X2 = Y2 = M1\* DRX cycle for FR1, M1\* N1\* DRX cycle for FR2 |

## Open issues summary

*Before e-Meeting, moderators shall summarize list of open issues, candidate options and possible WF (if applicable) based on companies’ contributions.*

### Sub-topic 1-1

*Sub-topic description: This sub-topic addresses the two window sizes for TA validation, under the unified formulas agreed in RAN4#101-bis-e:*

*The first window: T1 – min (X1 , X2) ≤ T1’ ≤ T1 + min (X1 , X2)*

*The second window: T2 – min (Y1, Y2) ≤ T2’≤ T2*

*Moderator’s note: Proposal 1 from R4-2205638 on the definition of T2 to consider the actual CG occasion is not listed in the open issues since we already agreed that T2 stays the same definition as LTE, and address the concern on the duration between T2 and the actual CG occasion by considering an additional requirement.*

*Open issues and candidate options before e-meeting:*

**Issue 1-1-1 Whether or not to set X1=Y1, and X2=Y2:**

* Proposals
	+ Option 1: Yes
	+ Option 2: No
* Recommended WF
	+ Option 1 (According to all proposals to this meeting).

**Issue 1-1-2 Which of the option for X1/Y1 (assuming the answer to Issue 1-1-1 is Yes) for FR1**

* Proposals
	+ Option 1: 480ms
		- 480+ ms acceptable for FR1
	+ Option 2: 640ms for FR1
	+ Option 3: the period of intra-frequency measurement without gap
		- Option 3a: max(200ms, 5 x SMTC period) for FR1
	+ Option 4: 1.28s
	+ Option 5: 200ms for FR1
* Recommended WF
	+ TBD

**Issue 1-1-3 Which of the option for X1/Y1 (assuming the answer to Issue 1-1-1 is Yes) for FR2**

* Proposals
	+ Option 1: 480ms
	+ Option 2: M DRX cycles
	+ Option 3: the period of intra-frequency measurement without gap
		- Option 3a: max(400ms, Mmeas\_period\_w/o\_gaps x SMTC period)
	+ Option 4: 1.28s
	+ Option 5: 400ms for FR2
* Recommended WF
	+ TBD

**Issue 1-1-4 Total length of combined TA validation windows:**

* Proposals
	+ Option 1: min(X1,X2)+min(Y1,Y2)+Z shall not exceed 1.2 seconds, where Z is the time interval from T2 until CG-SDT transmission time
* Recommended WF
	+ TBD

**Issue 1-1-5 Which of the option for X2/Y2 (assuming the answer to Issue 1-1-1 is Yes) for FR1:**

* Proposals
	+ Option 1: M1\*TDRX
		- Option 1a: M1 = 1
		- Option 1b: M1 = 1, and TDRX is indicated by PagingCycle in the IE SuspendConfig
		- Option 1c: M1, as specified in clause 4.2.2.2, M1=2 if SMTC periodicity (TSMTC) > 20 ms and DRX cycle ≤ 0.64 second, otherwise M1=1.
	+ Option 2: unlimited (equivalent to removal from formulas).
* Recommended WF
	+ TBD

**Issue 1-1-6 Which of the option for X2/Y2 (assuming the answer to Issue 1-1-1 is Yes) for FR2:**

* Proposals
	+ Option 1: N1\*M1\*TDRX, N1 from Table 4.2.2.2-1 in 38.133
		- Option 1a: M1 = 1
		- Option 1b: M1 = 1, and TDRX is indicated by PagingCycle in the IE SuspendConfig
		- Option 1c: M1, as specified in clause 4.2.2.2, M1=2 if SMTC periodicity (TSMTC) > 20 ms and DRX cycle ≤ 0.64 second, otherwise M1=1.
	+ Option 2: unlimited (i.e., removed from the formula)
* Recommended WF
	+ TBD

### Sub-topic 1-2

*Sub-topic description: This sub-topic addresses the potential requirement for the duration between T2 and the actual CG occasion.*

**Issue 2-1 Whether or not to introduce an additional requirement for the duration between T2 and the actual CG occasion?**

* Proposals
	+ Option 1: No additional requirement introduced
	+ Option 2: 160ms
	+ Option 3: 1120ms for FR1, and 800ms for FR2.
	+ Option 4: 50ms?
	+ Option 5: 640ms if introduced
	+ Option 6: Clarify as follows:
		- “T2 is referred to the next NR CG-SDT occasion that follows in time based on the configured CG-SDT periodicity after TA validation.”
* Recommended WF
	+ TBD

## Companies views’ collection for 1st round

### Open issues

Sub topic 1-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

Sub topic 1-2

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

|  |  |
| --- | --- |
|  | **Status summary**  |
| **Sub-topic #1-1** | *Tentative agreements:**Candidate options:**Recommendations for 2nd round:* |
| **Sub-topic #1-2** | *Tentative agreements:**Candidate options:**Recommendations for 2nd round:* |

## Discussion on 2nd round (if applicable)

# Topic #2: Inter-freq and inter-RAT measurement requirements and scheduling restriction for SDT transmission

*Main technical topic overview. The structure can be done based on sub-agenda basis.*

## Companies’ contributions summary

|  |  |  |  |
| --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Moderator’s remarks** |
| [**R4-2203796**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203796.zip) | On RRM requirement for CG-SDT | Apple | (1) Allow UE not to meet inter-freq or inter-RAT measurement requirements in an SDT session(2) Prioritize inter-frequency measurement occasion if colliding with subsequent SDT occasions.(3) For UE unable to receive PO occasion and transmit SDT occasion simultaneously, prioritize receiving PO occasion or no requirement is specified for the collision(4) For UE unable to perform intra-freq SSB measurement and transmit SDT occasion simultaneously, scheduling restrictions apply for subsequent SDT transmission. |
| [**R4-2203867**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203867.zip) | RRM requirements and TA validation windows for CG-SDT | Qualcomm Incorporated | (1) UE does not meet inter-frequency and inter-RAT requirements for the subsequent SDT transmission.Legacy scheduling restrictions are applied, and no additional scheduling restriction is necessary. |
| [**R4-2205392**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205392.zip) | Discussion on remaining issues for SDT RRM | Huawei, HiSilicon | (4) UE is not required to meet inter-frequency and inter-RAT measurement requirements during subsequent transmission in SDT session.(5) Scheduling restriction applies to the SDT subsequent transmission during SSB occasions. |
| [**R4-2205638**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205638.zip) | Discussions on RRM requirements for Small Data Transmissions | Ericsson | (2) The UE is not required to meet the inter-frequency and inter-RAT neighbour cell measurement requirements(3) No needs to introduce scheduling restriction in FR1(4) Scheduling restriction is needed in FR2 if different numerologies are used for SDT and SSBs used for DL measurements(5) RAN4 to agree on minimum condition on SSB availability for HD-FDD UE to meet the SDT requirements. |
| [**R4-2205923**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205923.zip) | RRM requirements for CG-SDT | MediaTek Inc. | (4) UE is allowed not to meet inter-frequency and inter-RAT requirements during subsequent SDT transmission assuming that subsequent SDT transmission is too long.* Clarify that a limitation on how long subsequent SDT transmission can last in this case

(5) Scheduling restriction can be applied during subsequent SDT transmission |

## Open issues summary

*Before e-Meeting, moderators shall summarize list of open issues, candidate options and possible WF (if applicable) based on companies’ contributions.*

### Sub-topic 2-1

*Sub-topic description: This sub-topic addresses issue on whether or not UE is allowed NOT to meet inter-frequency or inter-RAT requirements during subsequent SDT transmission.*

*Open issues and candidate options before e-meeting:*

**Issue 2-1: Whether or not UE is allowed NOT to meet inter-frequency or inter-RAT requirements during subsequent SDT transmission?**

* Proposals
	+ Option 1: Yes
		- Option 1a: Clarify that a limitation on how long subsequent SDT transmission can last in this case
	+ Option 2: The UE is not required to meet the inter-frequency and inter-RAT neighbour cell measurement requirements during subsequent SDT session except measurement performed on:
		- Intra-frequency layers
		- Frequency layers used for EMR measurements
		- Positioning measurments
	+ Option 3: No
* Recommended WF
	+ Discuss the options.

### Sub-topic 2-2

*Sub-topic description: This sub-topic addresses the potential scheduling restrictions between the subsequent SDT transmission and other occasions (e.g., SSB occasion, PO occasions, etc.*

*Open issues and candidate options before e-meeting:*

**Issue 2-2-1: Scheduling restriction in order to avoid collision between the subsequent SDT transmission and SSB occasion?**

* Proposals
	+ Option 1: Yes
	+ Option 2: No spec impact, left to the network’s strategy.
	+ Option 3: No needs to introduce scheduling restriction in FR1, and scheduling restriction is needed in FR2 if different numerologies are used for SDT and SSBs used for DL measurements
* Recommended WF
	+ TBA

**Issue 2-2-2: Scheduling restriction in order to avoid collision between the subsequent SDT transmission and PO occasion?**

* Proposals
	+ Option 1: Yes
	+ Option 2: No, prioritize receiving PO occasion.
	+ Option 3: No, no requirement is specified for the collision
* Recommended WF
	+ TBA

**Issue 2-2-3: Whether or not to introduce minimum condition on SSB availability for HD-FDD UE to meet the SDT requirements.?**

* Proposals
	+ Option 1: Yes
	+ Option 2: No.
* Recommended WF
	+ TBA

## Companies views’ collection for 1st round

### Open issues

Sub topic 2-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

Sub topic 2-2

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

|  |  |
| --- | --- |
|  | **Status summary**  |
| **Sub-topic#2-1** | *Tentative agreements:**Candidate options:**Recommendations for 2nd round:* |
| **Sub-topic#2-2** | *Tentative agreements:**Candidate options:**Recommendations for 2nd round:* |

## Discussion on 2nd round (if applicable)

*Moderator can provide summary of 2nd round here. Note that recommended decisions on tdocs should be provided in the section titled ”Recommendations for Tdocs”.*

# Topic #3: UE feature list for NR SDT

*Main technical topic overview. The structure can be done based on sub-agenda basis.*

## Companies’ contributions summary

|  |  |  |  |
| --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Moderator’s remarks** |
| [**R4-2203867**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203867.zip) | RRM requirements and TA validation windows for CG-SDT | Qualcomm Incorporated | (5) Leave the NR SDT feature to RAN2, and RAN4 involvement should be after RAN2 agree on the feature. |
| [**R4-2205217**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205217.zip) | On RRM requirements for NR SDT | ZTE Wistron Telecom AB | (4) RAN4 introduce two items for the NR SDT feature as shown in the table. |

## Open issues summary

*Before e-Meeting, moderators shall summarize list of open issues, candidate options and possible WF (if applicable) based on companies’ contributions.*

### Sub-topic 3-1

*Sub-topic description: This sub-topic addresses on whether or not RAN4 UE feature list should capture NR SDT. In RAN4#101-bis-e, an initial table was discussed but without conclusion.*

**

*Open issues and candidate options before e-meeting:*

**Issue 3-1: Whether or not to introduce additional UE sync requirements for CG-SDT?**

* Proposals
	+ Option 1:
	+ Option 2:
* Recommended WF
	+ TBA

## Companies views’ collection for 1st round

### Open issues

Sub topic 3-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

|  |  |
| --- | --- |
|  | **Status summary**  |
| **Sub-topic#3-1** | *Tentative agreements:**Candidate options:**Recommendations for 2nd round:* |

## Discussion on 2nd round (if applicable)

*Moderator can provide summary of 2nd round here. Note that recommended decisions on tdocs should be provided in the section titled ”Recommendations for Tdocs”.*

# Topic #4: CRs

*Main technical topic overview. The structure can be done based on sub-agenda basis.*

*The CRs are discussed in this topic, and further revisions may be required according to the outcome of the discussions.*

## Companies’ contributions summary

|  |  |  |  |
| --- | --- | --- | --- |
| **TDoc** | **Title** | **Source** | **Moderator’s remarks** |
| [**R4-2203535**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203535.zip) | Draft CR TA validation for Small Data Transmissions | Nokia, Nokia Shanghai Bell | Draft CR for TA validation for NR SDT |
| R4-2205216 | Draft big CR for SDT RRM requirements | ZTE Wistron Telecom AB | Placeholder for the running big CR |
| [**R4-2205393**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205393.zip) | CR on SDT RRM requirements | Huawei, HiSilicon | (1) Adding abbreviations (SDT, CG-SDT)(2) excluding measurements of inter-freq NR and inter-RAT EUTRA cells in an SDT session. |
| [**R4-2205639**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205639.zip) | Draft CR TA validation for Small Data Transmissions | Ericsson | Duplicate of R4-2203535? |

### CRs/TPs comments collection

*Major close to finalize WIs and Rel-15 maintenance, comments collections can be arranged for TPs and CRs. For Rel-16 on-going WIs, suggest to focus on open issues discussion on 1st round.*

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| **R4-2203535**TA validation window requirements for CG-SDT | Company A |
| Company B |
|  |
| **R4-2205393**CR on SDT RRM requirements | Company A |
| Company B |
|  |
| **R4-2205639**Draft CR TA validation for Small Data Transmissions  | Company A |
| Company B |
| Moderator’s remarks: Duplicate of R4-2203535? 🡪 Merged into R4-2203535. |

## Summary for 1st round

### CRs/TPs

*Moderator tries to summarize discussion status for 1st round and provided recommendation on CRs/TPs Status update suggestion*

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation**  |
| XXX | *Based on 1st round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |

## Discussion on 2nd round (if applicable)

*Moderator can provide summary of 2nd round here. Note that recommended decisions on tdocs should be provided in the section titled ”Recommendations for Tdocs”.*

# Recommendations for Tdocs

## 1st round

**New tdocs**

|  |  |  |
| --- | --- | --- |
| **Title** | **Source** | **Comments** |
| WF on … | YYY |  |
| LS on … | ZZZ | To: RAN\_X; Cc: RAN\_Y |
|  |  |  |

**Existing tdocs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tdoc number** | **Title** | **Source** | **Recommendation**  | **Comments** |
| R4-210xxxx | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| [**R4-2203534**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203534.zip) | TA validation window requirements for CG-SDT | Nokia, Nokia Shanghai Bell |  |  |
| [**R4-2203535**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203535.zip) | Draft CR TA validation for Small Data Transmissions | Nokia, Nokia Shanghai Bell |  |  |
| [**R4-2203796**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203796.zip) | On RRM requirement for CG-SDT | Apple |  |  |
| [**R4-2203867**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2203867.zip) | RRM requirements and TA validation windows for CG-SDT | Qualcomm Incorporated |  |  |
| R4-2205216 | Draft big CR for SDT RRM requirements | ZTE Wistron Telecom AB |  |  |
| [**R4-2205217**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205217.zip) | On RRM requirements for NR SDT | ZTE Wistron Telecom AB |  |  |
| [**R4-2205392**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205392.zip) | Discussion on remaining issues for SDT RRM | Huawei, HiSilicon |  |  |
| [**R4-2205393**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205393.zip) | CR on SDT RRM requirements | Huawei, HiSilicon |  |  |
| [**R4-2205638**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205638.zip) | Discussions on RRM requirements for Small Data Transmissions | Ericsson |  |  |
| [**R4-2205639**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205639.zip) | Draft CR TA validation for Small Data Transmissions | Ericsson |  |  |
| [**R4-2205923**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_102-e/Docs/R4-2205923.zip) | RRM requirements for CG-SDT | MediaTek Inc. |  |  |

Notes:

1. Please include the summary of recommendations for all tdocs across all sub-topics incl. existing and new tdocs.
2. For the Recommendation column please include one of the following:
	1. CRs/TPs: Agreeable, Revised, Merged, Postponed, Not Pursued
	2. Other documents: Agreeable, Revised, Noted
3. For new LS documents, please include information on To/Cc WGs in the comments column
4. Do not include hyper-links in the documents

## 2nd round

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tdoc number** | **Title** | **Source** | **Recommendation**  | **Comments** |
| R4-210xxxx | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| R4-210xxxx | WF on … | YYY | Agreeable, Revised, Noted |  |
| R4-210xxxx | LS on … | ZZZ | Agreeable, Revised, Noted |  |
|  |  |  |  |  |
|  |  |  |  |  |

Notes:

1. Please include the summary of recommendations for all tdocs across all sub-topics.
2. For the Recommendation column please include one of the following:
	1. CRs/TPs: Agreeable, Revised, Merged, Postponed, Not Pursued
	2. Other documents: Agreeable, Revised, Noted
3. Do not include hyper-links in the documents

# Annex

Contact information

|  |  |  |
| --- | --- | --- |
| **Company** | **Name** | **Email address** |
|  |  |  |

Note:

1. Please add your contact information in above table once you make comments on this email thread.
2. If multiple delegates from the same company make comments on single email thread, please add you name as suffix after company name when make comments i.e. Company A (XX, XX)