[101-e][241] NB_IOTenh4_LTE_eMTC6_RRM_NWM - Version 0.0.5
RAN4

3GPP TSG-RAN WG4 Meeting#101-e

R4-2120236

Electronic Meeting, November 1-12, 2021

Agenda item: 10.9.4

Source: Moderator (Huawei)

Title: [101-e][241] NB_IOTenh4_LTE_eMTC6_RRM_NWM

Document for: Information

1 Introduction

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

- 1st round: Discuss the identified issues on neighbour cell measurements in connected mode before RLF for Rel-17 NB-IoT.
- 2nd round: Keep discussion on remaining issues.

2 Topic #1: Neighbour cell measurements in connected mode before RLF or NB-IoT

2.1 Companies' contributions summary

Table 1:

T-doc number	Company	Proposals / Observations

R4-2117496	Qualcomm Incorporated	**Observation 1: Depending on RAN2 outcome, intra-frequency and inter-frequency measurements may start at different times.** **Observation 2: RAN4 should discuss and clarify assumptions about retuning time budget for inter-frequency measurement requirements.** **Observation 3: If the UE provides indication of when the neighbor cell measurements are started and DL scheduling is relaxed, RAN4 may be able to assume longer measurement occasion lengths.** **Proposal 1: RAN4 should wait for RAN2 to decide whether the UE can provide indication that it will start (inter-frequency) neighbor cell measurements and whether the serving cell will respond by relaxing UL/DL scheduling so that the UE may have more frequent and longer measurement opportunities.** **Proposal 2: RAN4 can prioritize defining CONNECTED mode neighbor cell measurement requirements when the target cell is in enhanced coverage.**

R4-2118853	Huawei, Hisilicon	**Observation 1: Prioritisation of carriers/cells to measure is left to the UE implementation.** **Observation 2: Detection and measurement delay shall be scaled by the number of measured carriers.** **Observation 3: The carriers/-cell to be perform connect mode neighbour cell measurement is up to UE implementations.** **Proposal 1: Carriers to perform neighbour cell measurement in connected mode is up to UE implementation, which could be the carriers detected in IDLE mode.** **Observation 4: The neighbour cell measurement can only be triggered when the channel conditions of serving cell is deteriorating, and the measurement before RLF is to save the time for cell searching in RRC re-establishment.** **Observation 5: The available time for neighbour cell measurement is limited which is from the point when the triggering conditions are met (channel quality deterioration) to the point that RLF is triggered, which may be not enough to find a cell in EC.** **Observation 6: The typical implementation is to find cell in good conditions within the limited time before RLF.** **Proposal 2: The requirements for neighbour cell measurement on cells in enhanced coverage can be deprioritized.** **Observation 7: There is no configured gap occasions for inter-frequency measurement, based on which the requirements could be derived in number of gap occasions. UE can only utilize the time period without PDCCH monitoring or data transmission / reception.** **Observation 8: The side conditions for inter-frequency measurement about the length of single occasion and interval between two occasions shall be defined as there is no configured**

R4-2119064	Ericsson	– **Proposal #1: The minimum time interval between two successive measurement occasions can be set 80 ms for normal and enhanced coverage respectively.** – **Proposal #2: RRM measurement requirements on a target carrier different from the serving carrier is defined as:** **$T_{measure_inter}$ = 5*min(5000, Ta)** ○ **Where Tmin ≤ Ta ≤ 5000 ms** ▪ **Tmin=80 ms is the minimum time interval between two successive measurement occasions.** ○ **Assuming DL subframes containing NRS signals of the measured cell is available within (5, Ta) at the UE assuming the measured cell is an identified cell.** – **Proposal #3: Cell detection requirements on a target carrier different from the serving carrier is defined as:** **T_{detect} = Nd*min(5000, Ta)** ○ **Where Tmin ≤ Ta ≤ 5000 ms and Nd = number of detection attempts needed for successful cell detection** ▪ **Tmin=80 ms is the minimum time interval between two successive**

R4-2119594	Nokia, Nokia Shanghai Bell	**Observation 1: The target cell search time depends on whether the target cell is known or unknown. In case it is known, it is 0 s, else it can vary between 80 and 1400 ms in normal coverage and between 80 and 14800 ms in enhanced coverage.** **Observation 2: More information is required on the proposed procedure in idle and in connected mode to analyze the impact to RRM requirements.** **Proposal 1: Deprioritize Ncell measurement requirements if serving cell or target cell is in enhanced coverage.**

2.2 Open issues

2.2.1 General

Issue 1-1-1: Specification organization

- Proposals
  - Option 1: RAN4 to postpone the discussions on exact section numbering until more progress is reached on the detailed requirements. The conditions related to when the neighbor cell measurements can be performed without gaps and causing interruptions as agreed in [3] shall be taken into account when defining the requirements. (Ericsson P7&P9)
- Recommended WF
  - Agree on option 1

1st round comments collection

Feedback Form 1: 1st round comments collection for issue 1-1-1

1 – HUAWEI TECHNOLOGIES Co. Ltd. Agree with option 1. Suggest to focus on remaining issues in this meeting.
2 – Ericsson Hungary Ltd Option 1 is agreeable.

3 – Qualcomm Incorporated OK with option1. We believe this was already agreed previously: ”The conditions related to when the neighbor cell measurements can be performed without gaps and causing interruptions as agreed in [3] shall be taken into account when defining the requirements.”
4 – Nokia Germany Ok with option 1.

Issue 1-1-2: Scenarios prioritization

- Proposals
  - Option 1: Deprioritize defining CONNECTED mode neighbor cell measurement requirements when the target cell is in enhanced coverage. (Qualcomm P2, Huawei P2)
  - Option 2: Deprioritize defining CONNECTED mode neighbor cell measurement requirements when the serving cell is in enhanced coverage. (Ericsson P5)
  - Option 3: Deprioritize defining CONNECTED mode neighbor cell measurement requirements when serving cell or target cell is in enhanced coverage. (Nokia P1)
- Recommended WF
  - Companies please check whether Option 3 can be considered as a compromised solution.

1st round comments collection

Feedback Form 2: 1st round comments collection for issue 1-1-2

1 – HUAWEI TECHNOLOGIES Co. Ltd. Consider the typical scenarios and the extremely long cell search time in EC. We are fine with option 1 and option 3.
2 – Ericsson Hungary Ltd We can also compromise to option 1.
3 – Qualcomm Incorporated Support option 1. For option 3, it’s not clear how the coverage level w.r.t. the serving cell would impact the requirements for neighbor cell measurements. Please clarify.
4 – Nokia Germany We support options 1 and 3.

2.2.2 Multiple carries operation

Issue 1-2-1: Carriers measured in IDLE mode

- Proposals
  - Option 1: The UE may continue measuring on neighbour cells detected in RRC_IDLE/INACTIVE modes continuously (e.g. every 5 seconds) after transition to RRC_CONNECTED state provided the carrier of the detected cell is one of the configured carriers for RRC connection reestablishment.(Ericsson P6)
  - Option 2: Carriers to perform neighbour cell measurement in connected mode is up to UE implementation, which could be the carriers detected in IDLE mode. (Huawei P1)
- Recommended WF
    - Discuss above options.

1st round comments collection

Feedback Form 3: 1st round comments collection for issue 1-2-1

1 – HUAWEI TECHNOLOGIES Co. Ltd.

We support option 2.

According to RAN2 agreements :

" Provision of information regarding which cells/carriers to be considered is not supported. It is up to UE implementation to choose and prioritize carrier/cell list for measurement.

There is no explicit indication of carrier/cell for connected mode for measurement. And the most common implementation is to measure carrier/cells configured in IDLE mode. Thus, there is no need to specify the carrier/cell for neighbour cell measurement.

2 – Ericsson Hungary Ltd

We support option 1, which is based on a proposal presented in R4-2114201 at last meeting. In our view, option 1 can be useful if the configured carrier for measurements in RRC_IDLE/INACTIVE state and the target carriers for RRC re-establishment procedure are overlapping or same. For example, a cell on a carrier (e.g. F1) might be known to the UE before switching to RRC connected mode, e.g. UE may have been measuring on it before. If UE is configured to measure on F1 in IDLE mode and F1 is one of the configured carriers for RRC connection reestablishment, then it may be beneficial for the UE to continue measure on F1 after switching to CONNECTED mode as it may lead to shorter delay when performing RRC re-establishment on F1. But at the same time, in order to not drain the UE power consumption, the UE may measure very sparsely e.g. every 5 seconds (the known cell condition) resulting in much longer measurement delay compared to when UE measures more actively as in non-DRX.

3 – Qualcomm Incorporated

Question about option1: What is meant here by "configured carriers for RRC connection reestablishment"?

4 – Nokia Germany

More discussion is needed. For option 1 the case should be considered that such carrier is not among the strongest ones.

Issue 1-2-2: Minimum interval between two measurement occasions for inter-frequency measurement

- Proposals
  - Option 1: The minimum length between two measurement occasions can be set 80 ms for normal and enhanced coverage respectively.(Ericsson P1)
- Recommended WF
  - Discuss above option.

1st round comments collection

Feedback Form 4: 1st round comments collection for issue 1-2-2

1 – HUAWEI TECHNOLOGIES Co. Ltd.

From our understanding, the logic behind option 1 is to follow the same logic in IDLE mode.

We think the filtering and minimum space are for filtering **multiple measurements**. But here is about multiple measurement occasions to get **a single measurement**.

After we have conclude on Tdetect or Tmeasure for a single measurement, we can discuss whether to have this minimum interval (e.g. spaced at least Tmeasure/2 as IDLE mode requirements).

So it is suggested to further discuss filtering and interval between two or more measurements after we have conclude on requirement for a single measurement.

2 – Ericsson Hungary Ltd

Since measurements are performed on inter-frequency carriers where the measurement occasions are limited compared to intra-frequency measurements. For example, we should avoid that all samples are taken during the same vacant period (i.e. not too close to each other) and similar rules exist in IDLE mode requirements e.g successive samples are at least DRX/2 apart. Since the measurement are filtered over multiple samples, it is important that those samples are not taken too close in time. If we follow option 1 in issue 1-2-3, there is a risk that all measurement samples are taken within a short period where the UE is not being scheduled since measurement occasions might be quite limited for the inter-frequency carriers. That is why we think option 1 is a better approach.

3 – Qualcomm Incorporated

Question about proposal 1: In Ericsson's paper it says 80 ms would be the min distance between measurement occasions and also the minimum length of a measurement occasion. If so then measurement occasions are allowed back-to-back. How does this address the issue mentioned above about the measurements being too close together?

4 – Nokia Germany

We agree, mor discussion is needed. The DRX/2 minimum period in idle mode for separate measurements is longer than the 80 ms suggested here.

Issue 1-2-3: Minimum length of single measurement occasions for inter-frequency measurement

- Proposals
  - Option 1: The minimum length of measurement occasion shall be at least 400 ms.(Huawei P3)

- Option 2: UE may have more frequent and longer measurement opportunities depending on RAN2 discussion. (Qualcomm 1)

– Recommended WF

  - Discuss above options.

1st round comments collection

Feedback Form 5: 1st round comments collection for issue 1-2-3

1 – HUAWEI TECHNOLOGIES Co. Ltd.

We support option 1. 1400 ms for cell detection is reused in RRC re-establishment where UE can use all 1400ms for cell detection. But for this neighbour cell measurement feature, UE can only use vacant period for inter-freq measurement. We need to have some side conditions about the single measurement occasions. If the single measurement occasion is too short, UE may not be able to switch to another frequency and get some valid samples. And at same time, it is typical assumption that UE need to wake up for time sync before DRX. This means it should not be assumed that UE can perform inter-freq measurement and switch back just before DRX on/NPDCCH. So we think 400 ms is a reasonable value.

And we think it des not conflict with option 2. Option 1 is only the side condition, and if RAN2 agreed to introduce the indication from UE to gNB that UE starts neighbour cell measurement, gNB can choose to spare longer period for UE. Then UE can finish the measurement quicker.

2 – Ericsson Hungary Ltd

In our understanding, there are two different ways to define the measurement requirements for the inter-frequency carriers. One is following the option 1 in issue 1-2-2 and another is to follow option 1 in issue 1-2-3. We understand that approach in option 1 in issue 1-2-3 might be useful in intra-frequency case where the UE can measure anytime, but we believe option 1 in issue 1-2-2 is a better approach for the inter-frequency carriers where the measurements are performed on vacant period, this may ensure that measurements are more reliable.

3 – Qualcomm Incorporated

Regarding option 1, we understand the intention is to use this min. length of a measurement occasions to determine the number of occasions needed to complete a detection/measurement period. Since these measurements are inter-frequency some of the time will be spent on receiver re-tuning. Re-tuning overhead time should be accounted for when calculating the number of occasions needed since we understand at least the measurement time (T*meas*_basic) did not account for it.

Regarding option 2, the idea would be that if scheduling is somewhat relaxed during the time when the UE is performing neighbor cell measurements, then RAN4 may be able to assume a longer minimum measurement occasion length (perhaps larger than 400 ms). It depends on the outcome in RAN2.

2.2.3 Detailed requirements

Issue 1-3-1: Intra-frequency requirements

– Proposals

- Option 1: Existing intra-frequency requirements are reused for the case when the measured target carrier is same as the serving carrier. (Ericsson P4)
- Option 2: (Huawei P1)
  - When DRX is not configured:
    - Tdetect_intra = 1400 ms
    - Tmeasure_intra = 800 ms for NRS-based measurement
    - Tmeasure_intra = 1600 ms for NSSS-based measurement
  - When DRX is not configured:
    - Tdetect_intra = 5 DRX cycles
    - Tmeasure_intra = 5 DRX cycles.

– Recommended WF

  - Discuss above options.

1st round comments collection

Feedback Form 6: 1st round comments collection for issue 1-3-1

undefined

1 – HUAWEI TECHNOLOGIES Co. Ltd. Option 1 and option 2 are similar. We prefer option 2 which is in details
2 – Ericsson Hungary Ltd We are fine with option 2.
3 – Qualcomm Incorporated Checking internally to confirm if we can support option 2.

Issue 1-3-2: Inter-frequency Measurement requirements

– Proposals

- Option 1: (Ericsson P2)
  - RRM measurement requirements on a target carrier different from the serving carrier is defined as:
  - Tmeasure_inter = 5*min(5000, Ta)
  - Where Tmin ≤ Ta ≤ 5000 ms
  - Tmin=80 ms is the minimum time interval between two successive measurement occasions.
  - Assuming DL subframes containing NRS signals of the measured cell is available within (5, Ta) at the UE assuming the measured cell is an identified cell.
- Option 2: (Huawei P5)
  - $T_{measure_inter} = Ceil(T_{measure_basic}/N_{inter_NB_occasion})* T_{measure_NB_interval}$

- Where Tmeasure_basic is 800ms for NRS-based measurement and 1600ms for NSSS-based measurement, Ninter_NB_occasion is the minimum length of available occasions during measurement period, and Tinter_NB_interval is the maximum interval between two available occasions during measurement period.

- Recommended WF
  - Discuss above options.

1st round comments collection

Feedback Form 7: 1st round comments collection for issue 1-3-2

1 – HUAWEI TECHNOLOGIES Co. Ltd. We prefer option 2. For option 1, we understand it is derived based on number of samples. But as commented in above issues, Tmin is used to define the filtering behaviour between two measurements. Here is to define the measure delay for one measurement. In cell reselection in IDLE mode, e.g. Tdetect = 40 DRX when DRX cycle is 1.28 s. We can define requirement like this because we can make sure that there are plenty of time for inter-freq measurement in each DRX. But this neighbour cell measurement in connected mode is different, UE can only use vacant occasions. Thus, we proposal option 2. E.g. If vacant occasion is 500 and interval is 1000 ms, then the delay is ceil (1600/500)*1000 = 4000 ms.
2 – Ericsson Hungary Ltd We support option 1. In our view, it is much clearer approach which is based on number of samples needed for the measurements multiplied by the time between two measurement occasions. The main advantage of this option compared to option 2 is that it takes into account that the measurement occasions may vary, i.e. it may depend on vacant slots for inter-frequency carriers, and this is addressed by Tmin ≤ Ta ≤ 5000 m. Therefore we believe option 1 may reflect better the actual measurement time compared to option 2.
3 – Qualcomm Incorporated We prefer to conclude on other issues first (1-2-2, 1-2-3).

<u>Issue 1-3-3: Inter-frequency Detection requirements</u>

- Proposals
  - Option 1: (Ericsson P3)
    - Cell detection requirements on a target carrier different from the serving carrier is defined as:
    - Tdetect = Nd*min(5000, Ta)
    - Where Tmin ≤ Ta ≤ 5000 ms and Nd = number of detection attempts needed for successful cell detection
    - Tmin=80 ms is the minimum time interval between two successive measurement occasions.
    - Assuming that at least subframes # 0, #4, #5 or #9 containing NPSS/NSSS of the measured cell is available within min(5, Ta)
  - Option 2: (Huawei P5)

- Tdetect_inter = Ceil($T_{detect_basic}/N_{inter_NB_occasion}$)* $T_{inter_NB_interval}$
- Where Tdetect_basic is 1400ms, Ninter_NB_occasion is the minimum length of available occasions during detection period, and Tinter_NB_interval is the maximum interval between two available occasions during detection period.

– Recommended WF

- Discuss above options.

1st round comments collection

Feedback Form 8: 1st round comments collection for issue 1-3-3

1 – HUAWEI TECHNOLOGIES Co. Ltd. We prefer option 2 based on the same reason as issue 1-3-2.
2 – Ericsson Hungary Ltd We support option 1 for the same reason as explained in issue 1-3-2.
3 – Qualcomm Incorporated Similar answer as 1-3-2. One question about option 1: Ta is variable so the detection period requirement is subject to availability of measurement occasions?

Issue 1-3-4: Detection and measurement delay when UE is required to monitor multiple carriers

– Proposals

- Option 1: (Huawei P6)
  - Tdetect = Tdetect _intra+Nfreq* Tdetect_inter
  - Tmeasure = Tmeasure _intra+Nfreq* Tmeasure_inter
  - Where Nfreq is number of inter-frequency layers to be measured according to the measurement capability.

– Recommended WF

- Discuss above options.

1st round comments collection

Feedback Form 9: 1st round comments collection for issue 1-3-4

1 – HUAWEI TECHNOLOGIES Co. Ltd. We support option 1. We think it is straightforward as agreed in last meeting that the time for detection and measurement will be scaled by number of layers.

2 – Ericsson Hungary Ltd The UE still performs RRC re-establishment procedure, and it includes already NNB-Iot-freq. In the RRC re-establishment delay, it should be clarified that Tsearch is the delay as being discussed in issue 1-3-2 and 1-3-3. Therefore we are not sure whether we should include Nfreq this way.
3 – Nokia Germany We think option 1 can be used as baseline for further discussion.

2.3 Summary for 1st round

Table 2: Summary for 1st round

Status summary
Issue 1-1-1: Specification organization Four companies comment during 1st round discussion. All companies agree with the general principles of specification organization. These are already agreed in previous meetings. From moderator's views, there is no needed to captured the agreement again. *Tentative agreements:* RAN4 to postpone the discussions on exact section numbering until more progress is reached on the detailed requirements. The conditions related to when the neighbor cell measurements can be performed without gaps and causing interruptions as agreed in [3] shall be taken into account when defining the requirements. *Candidate options: NA* *Recommendations for 2nd round: NA* **Issue 1-1-2: Scenarios prioritization** Four companies comment during the 1st round. All companies agree on option 1. Two companies are also fine with option 3. One company comments that option 3 need clarification. Thus, option 1 is agreeable to all. And companies can further discuss whether to deprioritize the case when serving cell in enhanced coverage. *Tentative agreements:* Deprioritize defining CONNECTED mode neighbour cell measurement requirements when the target cell is in enhanced coverage *Candidate options: NA* *Recommendations for 2nd round: Further discuss whether to deprioritize defining requirements when serving cell in enhanced coverage.*

Issue 1-2-1: Carriers measured in IDLE mode

Four companies comment during 1st round. One company supports option 1, one company supports option 2, one company comment scarrier configured for RRC Reestablishment needs clarification, and one company needs further discussion.

Tentative agreements: NA

Candidate options:

Option 1: The UE may continue measuring on neighbour cells detected in RRC_IDLE/INACTIVE modes continuously (e.g. every 5 seconds) after transition to RRC_CONNECTED state provided the carrier of the detected cell is one of the configured carriers for RRC connection reestablishment.

Option 2: Carriers to perform neighbour cell measurement in connected mode is up to UE implementation, which could be the carriers detected in IDLE mode.

Recommendations for 2nd round:

Continue discussion in 2nd round. Companies are encouraged to discuss whether there is need to specify carriers for neighbour cell measurement and carriers for RRC Reestablishment, and the relation to carriers for measurement in IDLE mode.

Issue 1-2-2: Minimum interval between two measurement occasions for inter-frequency measurement

Four companies comment during 1st round. One company supports option 1, and three companies need more discussion and further clarification.

Tentative agreements: NA

Candidate options:

Option 1: The minimum length between two measurement occasions can be set 80 ms for normal and enhanced coverage respectively.

Recommendations for 2nd round:

Continue discussion in 2nd round. Companies are encouraged to discuss the relation to idle mode filtering.

Issue 1-2-3: Minimum length of single measurement occasions for inter-frequency measurement

Three companies comment during first round. One company support option 1, one company support comment it related to issue 1-2-2. One company comment larger length maybe considered depend on RAN2 discussion.

Tentative agreements: NA

Candidate options:

Option 1: The minimum length of measurement occasion shall be at least 400 ms.

Option 2: UE may have more frequent and longer measurement opportunities depending on RAN2 discussion.

Recommendations for 2nd round:

Continue discussion on above options.

Issue 1-3-1: Intra-frequency requirements

Three companies comment during first round. Two companies are ok with option 2. One company needs further check on option 2.

Tentative agreements: NA

Candidate options:

Option 2:

When DRX is not configured:

Tdetect_intra = 1400 ms

Tmeasure_intra = 800 ms for NRS-based measurement

Tmeasure_intra = 1600 ms for NSSS-based measurement

When DRX is not configured:

Tdetect_intra = 5 DRX cycles

Tmeasure_intra = 5 DRX cycles.

Recommendations for 2nd round:

Companies to further check whether option 2 is agreeable.

Issue 1-3-2: Inter-frequency Measurement requirements

Three companies comment during first round. One company support option 1, and one company support option 2. One company comment that it depends on issue 1-2-2 and 1-2-3.

Tentative agreements: NA

Candidate options:

Option 1:

RRM measurement requirements on a target carrier different from the serving carrier is defined as:

Tmeasure_inter = 5*min(5000, Ta)

Where Tmin ≤ Ta ≤ 5000 ms

Tmin=80 ms is the minimum time interval between two successive measurement occasions.

Assuming DL subframes containing NRS signals of the measured cell is available within (5, Ta) at the UE assuming the measured cell is an identified cell.

Option 2:

Tmeasure_inter = Ceil(Tmeasure_basic/Ninter_NB_occasion)* Tmeasure_NB_interval

Where Tmeasure_basic is 800ms for NRS-based measurement and 1600ms for NSSS-based measurement, Ninter_NB_occasion is the minimum length of available occasions during measurement period, and Tinter_NB_interval is the maximum interval between two available occasions during measurement period.

Recommendations for 2nd round:

Continue discussion on above options and considering the conclusion in issue 1-2-2 and 1-2-3.

Issue 1-3-3: Inter-frequency Detection requirement

Three companies comment during first round. One company support option 1, and one company support option 2. One company comment that it depends on issue 1-2-2 and 1-2-3.

Tentative agreements: NA

Candidate options:

Option 1:

Cell detection requirements on a target carrier different from the serving carrier is defined as:

Tdetect = Nd*min(5000, Ta)

Where Tmin ≤ Ta ≤ 5000 ms and Nd = number of detection attempts needed for successful cell detection

Tmin=80 ms is the minimum time interval between two successive measurement occasions.

Assuming that at least subframes # 0, #4, #5 or #9 containing NPSS/NSSS of the measured cell is available within min(5, Ta)

Option 2:

Tdetect_inter = Ceil(Tdetect_basic/Ninter_NB_occasion)* Tinter_NB_interval

Where Tdetect_basic is 1400ms, Ninter_NB_occasion is the minimum length of available occasions during detection period, and Tinter_NB_interval is the maximum interval between two available occasions during detection period.

Recommendations for 2nd round:

Continue discussion on above options and considering the conclusion in issue 1-2-2 and 1-2-3.

Issue 1-3-4: Detection and measurement delay when UE is required to monitor multiple carriers

Three companies comment during first round. Two company support option 1, and one company comment whether Nfreq is needed.

Tentative agreements: NA

Candidate options:

Option 1:

Tdetect = Tdetect _intra+Nfreq* Tdetect_inter

Tmeasure = Tmeasure _intra+Nfreq* Tmeasure_inter

Where Nfreq is number of inter-frequency layers to be measured according to the measurement capability.

Recommendations for 2nd round:

Continue discussion on above option based on previous agreement that delay shall be scaled by number of layers

2.4 Discussion on 2nd round (if applicable)

3 Recommendations for Tdocs

3.1 1st round

Table 3:

Titile	Source	Comments
WF on RRM requirements for Rel-17 NB-IoT and LTE-MTC	Huawei, HiSilicon	To capture the agreements in 1st and 2nd rounds.

3.2 2nd round