[95e-26-R18-SONMDT-WI] - Version 0.0.4
RAN

3GPP TSG RAN#95e RP-22xxxx Electronic Meeting, March 17 - 22, 2022

Agenda Item 9.3.3.1

Source: RAN Vice-Chair (Deutsche Telekom)

Title: Moderator's summary of discussion for [95e-26-R18-SONMDT-WI]

Document for: Discussion & Decision

Objective:

This NWM thread discusses the proposed changes/additions/updates to the **Rel-18 WI on SONMDT**.

The aim is to decide if and how the approved WI should be updated with focus on inclusion of remaining Rel-17 topic (for which a placeholder was included).

It should be clearly noted that we should take the overall Rel-18 WorkLoad situation into account and only agree on a reasonble limited set of additions of outstanding Rel-17 topics to the approved WI, new objectives shall not be progressed !

The following Tdocs are considered in this discussion

- **RP-220471** (Qualcomm)
- **RP-220670** (Samsung)
- **RP-220741** (CATT)
- **RP-220819** (CMCC)

Timeline:

According to the RAN chair's guidance in 3 rounds

1 Initial Round

1.1 Comments on RP-220471

This document adresses the wording used in the current WID aiming to provide logged data protection in case the UE performs inter-RAT LTE to NR mobility and the logged MDT report from LTE has not been retrieved.

The proponents to propose to reformualte the objective to:

For signalling based logged MDT, specify mechanisms to minimize loss of logged data in the following scenarios [RAN2, RAN3]:

- **UE reselects to NR while T330 is running (after logged MDT configuration in LTE)**
- **UE reselects to NR after T330 expires and before uploading the logged MDT file.**

Feedback Form 1: Is this clarification of the objectives necessary and the proposed reformualtion acceptable ?

1 – Apple Benelux B.V. Regarding the first part of the proposal (”override protection” -> ”minimize loss of logged data”), we prefer to keep ”override protection”, which is the term RAN2 has used in Rel-17 and there is a well established understanding what it means. The proposed change actually makes it less clear. We are OK with the second part of the proposal (to spell out scenarios in relation to T330).
2 – Qualcomm Incorporated Original WID objective text was not clear about which scenarios are covered and it is important to clarify exact scenarios as mentioned in above proposal. Use of “override protection” can be interpreted in different ways and to avoid ambiguity we suggest to use “minimize loss of logged data”.
3 – CATT We prefer to use the phrase ”overwrite” to be more align with the following statement/requirement in 37.320 which is also the common understanding on the intention of the bullet. ”The management-based MDT configuration should not overwrite signalling based MDT configuration in all the single connection scenarios and EN-DC scenario”
4 – Beijing Xiaomi Mobile Software Agree
5 – vivo Mobile Communication Co. Agree with CATT, we think ”overwrite ” is more accurate.
6 – Samsung Research America **We are fine for this clarification.**
7 – KDDI Corporation We are fine with the proposed changes but we also prefer the terminology “overwrite ”.

8 – Huawei Technologies Sweden AB

The aspect of being configured in E-UTRA before reporting applies to both bullets but is only mentioned in the first. We also wonder whether the timers need to be mentioned in the WID. Finally, we think it is preferred to use the term E-UTRA. A possible simplification could be: *Support of signaling based logged MDT overwrite protection to address the scenario where the signaling based MDT is configured in E-UTRA, and the UE connects to NR before the measurement is reported.[RAN2, RAN3]*

9 – Lenovo (Beijing) Ltd

Fine to use "overwrite", and add the scenarios clearly.

10 – Vodafone GmbH

No strong view but have some sympathy for Huawei's proposal above

11 – Ericsson LM

We propose to reword the objective as follows:

For signalling based logged MDT, specify mechanisms to minimize loss of logged data in the following scenarios [RAN2, RAN3]:

- UE reselects to NR while logged measurements are collected (after logged MDT configuration in LTE)

- UE reselects to NR after logged measurements are collected and before uploading the logged MDT report.

12 – ZTE Corporation

Fine with the first part but not sure whether T330 mention is necessary.

13 – Nokia

We are fine with some reformulation, but no need to refer to specific timers.

14 – NEC Corporation

we are fine with the proposed change.

1.2 Comments on RP-220670

This document adresses the need for updates based on the status of Rel-17 work for SON & MDT. Someone needs to provide a rough estimate of the TU needed for each item - we can not just blindly add them !

Proposal 1: Include inter-RAT SHR as Rel-17 leftover.

Feedback Form 2: Is P1 agreeable ?

1 – Apple Benelux B.V.

A general comment applicable to all the scope extension proposals - we are generally open to some extensions, but the current 1 TU allocation does not allow for too many, if at all.

With regards to P1 itself, we are OK to include it, if there is consensus it fits in the TU allocation.
2 – Qualcomm Incorporated Agree
3 – Beijing Xiaomi Mobile Software Low priority
4 – Samsung Research America **Agree. It's in the scope of Rel-17 but not discussed in detail due to time limitation.**
5 – Huawei Technologies Sweden AB Agree, but we may need to discuss whether to limit this to mobility from E-UTRA to NR
6 – Lenovo (Beijing) Ltd In Rel-17, RAN2 agrees inter-RAT scenario for SHR, but details are not discussed due to time budget. We are fine to discuss it in R18 but as low priority.
7 – Vodafone GmbH Agree
8 – China Mobile International Ltd We are fine with the proposal
9 – Ericsson LM Not agreeable. Inter RAT SHR is a niche case that will become less and less important when LTE deployments will be gradually phased out. It can therefore be considered low priority and not to be included in the objectives. However, we should include aspects of the NR SHR, already discussed in Rel.17, as Rel.17 leftovers.
10 – ZTE Corporation Fine to include this with low priority.
11 – Nokia We are OK to include "inter-RAT Successful Handover Report (SHR)".
12 – NEC Corporation As a general comment, we need to ensure that all added items together fit into 1TU

Proposal 2: Include MRO for MR-DC SCG failure scenario as Rel-17 leftover.

Feedback Form 3: Is P2 agreeable ?

1 – Apple Benelux B.V. We are not sure this fits into the current 1TU allocation.
2 – Qualcomm Incorporated Agree
3 – CATT Agree.
4 – Beijing Xiaomi Mobile Software Low priority for NE-DC and EN-DC
5 – Samsung Research America **Agree.**
6 – Huawei Technologies Sweden AB Agree
7 – Lenovo (Beijing) Ltd In general, we are open to discuss whether all MR-DC scenarios need to be extended, but it seems TU allocation in R18 is not sufficient.
8 – China Mobile International Ltd We are ok
9 – Ericsson LM We do not see a strong need to consider other MR-DC scenarios for the SCGFailure. We prefer keep NR-DC as first priority, and work on potential enhancements to that, if needed.
10 – ZTE Corporation Consider the 1 TU time limited, the scenario need to be consider as low priority.
11 – Nokia We are OK to include it with low priority, given that highest priority scenarios were addressed in Rel-17.
12 – NEC Corporation need to consider if it can fit into 1 TU

Proposal 3: Include MRO for mixed HO and CHO scenarios as the Rel-17 leftover.

Feedback Form 4: Is P3 agreeable ?

1 – Apple Benelux B.V. We are not sure this fits into the current 1TU allocation.
2 – Qualcomm Incorporated **We think this is not common scenario and this should be low priority item.**
3 – CATT Support to consider the mixed scenario in Rel-18
4 – Beijing Xiaomi Mobile Software Low priority for this scenario
5 – Samsung Research America **Agree.The feature that the network configures CHO to the UE and then sends the ordinary HO command to the UE before the CHO execution condition(s) is fulfilled has been supported in Rel-16. The failure happened in this scenario should be able to be detected and optimised by SON.**
6 – Huawei Technologies Sweden AB This could be added with lower priority
7 – Lenovo (Beijing) Ltd Mixed HO and CHO are de-prioritized scenario.
8 – China Mobile International Ltd This can be added but with lower priority
9 – Ericsson LM The scenario of a UE configured with CHO and handed-over via the ordinary HO was already taken into account in Rel.17 and reflected in the RLF-Report, i.e. if the UE was configured with CHO, and then a normal HO command was ordered and then the HO fails, this can be retrieved from the information included in the RLF-Report. So it is not clear what we want to achieve with this proposal.
10 – ZTE Corporation Consider the 1 TU time limited, the scenario is not typical and need to be consider as low priority.
11 – Nokia We are OK to include “MRO for mixed HO and CHO scenarios”.

12 – NEC Corporation need to consider if it can fit into 1 TU.

Proposal 4: Move "MR-DC CPAC and MRO successful PScell change report, fast MCG recoveryand MRO enhancement for inter-system handover voice fallback" to the second bullet.

Feedback Form 5: Is P4 agreeable ?

1 – Apple Benelux B.V. No strong view, the proposal is editorial anyway.
2 – Qualcomm Incorporated Agree
3 – Beijing Xiaomi Mobile Software Ok
4 – CATT OK
5 – Samsung Research America **Agree.**
6 – Huawei Technologies Sweden AB No strong view
7 – Lenovo (Beijing) Ltd No strong view
8 – China Mobile International Ltd Yes, to make the WID more clear, we can move to the second bullet
9 – Ericsson LM Ok.
10 – ZTE Corporation No strong view.

11 – Nokia

During the WID drafting stage, it was beneficial to distinguish "R17 leftovers" from "new topics" to structure the discussion. However, we don't see a strong need at this point to distinguish R17 leftovers, taking into account that what can be considered a "leftover" can be rather nuanced. However, we note that some objectives are less specific than others. For example, "fast MCG recovery", "NR-U", "NPN", and to some extent "RACH enhancements" are features rather than SON enhancements. Therefore, we could envision the two bullets being structured as follows:

- Support of data collection for SON features, including inter-RAT Successful Handover Report (SHR), MRO for mixed HO and CHO scenarios, MRO for MR-DC CPAC, successful PScell change report, MRO for NR-U, and MRO for inter-system handover voice fallback [RAN3, RAN2]

- Support of SON/MDT enhancements for fast MCG recovery, RACH enhancements, NPN. [RAN3, RAN2]

12 – NEC Corporation

Agreeable

Proposal 5: Remove all the editor's notes.

Moderator suggestion: No discussion needed, the aim of this review it to remove all Editor's notes in the revised WID

1.3 Comments on RP-220741

Proposal 1: Include MRO for NR-U as one of the Rel-17 leftover issues in Rel-18 WID.

Feedback Form 6: Is P1 agreeable ?

1 – Apple Benelux B.V.

It's already in the WID, isn't it?

2 – TELECOM ITALIA S.p.A.

very low priority (prefer not to include)

3 – Qualcomm Incorporated

Original WID has below text

- Support of data collection for SON features, including "left-over" features (i.e. MR-DC CPAC and MRO successful PScell change report, fast MCG recovery, NR-U) and MRO enhancement for inter-system handover voice fallback [RAN3, RAN2]

No need to add additional changes.

4 – Beijing Xiaomi Mobile Software

Already in the WID. No need to add it.

5 – CATT

Since MLB for NR-U was already been supported in Rel-17,we think it would be more clear to state that in REL-18 we focus on MRO for NR-U.Neverthless,we are OK to just use general statement for NR-U.

6 – Samsung Research America

NR-U is already in the scope. RAN3 started to discuss NR-U in the latter part of Rel-17. Even for MLB, there are only limited discussion. So we prefer not to change the general statement on NR-U.

7 – Huawei Technologies Sweden AB

Already included, we can leave this at it is

8 – Lenovo (Beijing) Ltd

It has already been captured in the WID. In R17, only DL MLB for NR-U is specified because of limited time, we need continue to consider MRO for NR-U in R18.

9 – LG Electronics Polska

Considering the time limitations, it seems necessary to state ”MRO for NR-U” in Rel-18 WID. So, we are agreeable with this proposal.

10 – China Mobile International Ltd

We understand the proposal is to make the objective more specific, if we leave NR-U as the current WID stands, it means all the NR-U related SON optimisation can be discussed. Since we have finished MLB for NR-U DL in rel-17, while MRO for NR-U were not extensively discussed due to lacking of time. So the objective can be limited to MRO for NR-U only to limit the scope. If majority companies would like to make it more general, we are fine.

11 – Ericsson LM

This proposal is ok. Actually in Rel17 the RAN3-related left overs were for MRO for NR-U and for UL MLB for NR-U, so both should be included. However, we would like to clarify that this proposal is mainly related to RAN3. There is no RAN2-specific Rel.17 leftover on NR-U, since RAN2 did not have time to work on NR-U in Rel.17. Hence, in Rel.18 from the RAN2 perspective, we do not see the need to limit the NR-U scope to MRO.

12 – ZTE Corporation

Already in the WID.

13 – Nokia

We are OK to include “MRO for NR-U”. In any case, it is better wording than simply stating “NR-U” (which is a feature, not a SON enhancement).

14 – NEC Corporation can continue the leftover from Rel-17, but again, need to consider the limited TU.

Proposal2: Support SN RACH report for (NG)EN-DC and NE-DC cases in Rel-18 WID.

Feedback Form 7: Is P2 agreeable ?

1 – Apple Benelux B.V. We are not sure this fits into the current 1TU allocation.
2 – Qualcomm Incorporated This is low priority as it has LTE spec impact and is not widely used commercial deployment MR-DC. No need to work on this in R18.
3 – CATT Firstly,we think it depends on whether EN-DC,NGEN-DC and NE-DC sceanrios should be considerred.From our point of view,these scearios are very important which are widely deployed and are always considerred in various topics. Secondly,for this feature,it is supported in RAN3 based on the LS from RAN2 while it is missing in RAN2 spec,we think alignment between RAN2 and RAN3 is needed.
4 – Beijing Xiaomi Mobile Software Low priority for NE-DC and EN-DC
5 – Samsung Research America **We are fine to include this.**
6 – Huawei Technologies Sweden AB OK, to include but could be lower priority considering the impact on LTE RRC
7 – Lenovo (Beijing) Ltd In general, we are open to discuss whether to extend scenarios, but it seems TU allocation in R18 is not sufficient.
8 – China Mobile International Ltd No strong view
9 – Ericsson LM We do not see strong need to support this functionality in Rel.18
10 – ZTE Corporation Consider the 1 TU time limited, the scenario need to be consider as low priority.

11 – Nokia We are OK to include, perhaps with low priority. Would this be RAN2-lead?
12 – NEC Corporation need to consider the limited TU.
13 – Vodafone GmbH Okay if it fits into TU

Proposal 3: Discuss enhancement for RACH report retrieval in Rel-18 WID.

[Moderator interprets that the discussion should be in the WI, not here in this thread ! Hence this is a additonal objective we might agree on]

Feedback Form 8: Is P3 agreeable ?

1 – Apple Benelux B.V. This would be limited to RAN3, correct? If so, we are OK to include this.
2 – Qualcomm Incorporated Our understanding is this is intended forthe scenario of when RACH happens, DU should tell CU for CU to request the RACH report by RRC. We suggest to clarify it as “F1-AP enhancement” for RACH report retrieval , which is RAN3 specific enhancement.
3 – CATT The proposal from QC is fine i.e.clarify as ”F1AP enhancement for RACH report”
4 – Beijing Xiaomi Mobile Software If it only impacts RAN3, we are ok.
5 – Samsung Research America **This issue has been very controversial in Rel-17 discussion. We prefer not to include such issues.**
6 – Huawei Technologies Sweden AB Agreeable, and the proposal from QC is fine
7 – China Mobile International Ltd We could make it more specific, i.e., F1AP enhancement for RACH report
8 – Ericsson LM We can agree to the objective of addressing the case of SN RACH report retrieval and to the objective of RACH report retrieval for DU-triggered RACH. However, for SN RACH retrieval we would prefer to limit this to NR-DC, to limit impact on RAN2 (this is because RAN2 agreed that an eNB cannot fetch an SN

NR RACH report and if we decide to address all DC cases, RAN2 will have to change this assumption and possibly large specification work might be needed).

9 – ZTE Corporation

Agee

10 – Nokia

The envisioned enhancement should be further clarified, e.g. would this be RAN2 or RAN3 lead?

Proposal 4: Discuss UHI transfer during CHO in Rel-18 WID.

Feedback Form 9: Is P4 agreeable ?

1 – Apple Benelux B.V.

The scope of the proposal is not entirely clear; it would be beneficial to spell it out more clearly for further discussion.

2 – Qualcomm Incorporated

It is not clear what is the scenario??

3 – CATT

To clarify the sceanrio:

For CHO,when sending HO REQUEST message from the source node to target node,since UE would stilll stay in the source node for a while,the UHI included in HO request is not up to date.So,some mechinism should be considerred to provide correct UHI to the target node.

In the previous RAN3 meeting,there were proposals to consider this sceanrio inn Rel-18.We do not have very strong opinion on this bullet,if time allowed,we think it could be included.

4 – Beijing Xiaomi Mobile Software

Do not pursue this

5 – Samsung Research America

UHI information in the source node will not be changed between Handover Request and handover success. Therefore we think the mechanism agreed for normal handover are also valid for CHO. Seems specific enhancement for CHO is not needed.

6 – Huawei Technologies Sweden AB

Not needed. Similar view as Samsung

7 – Lenovo (Beijing) Ltd

The motivation for P4 is not clear. No need to include it in R18 WI scope.

8 – LG Electronics Polska The scenario which CATT mentions above is clear. We are agreeable with this proposal.
9 – Ericsson LM Yes. This has been identified by RAN3 as a valid use-case, and RAN3 agreed to study it in rel-18
10 – ZTE Corporation The enhancement seems no help for ping-pong issue, then the feature is not pursuit
11 – Nokia We are OK to include “User History Information (UHI) transfer during CHO”.
12 – NEC Corporation agree with Samsung

Proposal 5: Remove all the Editor’s notes in the current WID.

Moderator suggestion: No discussion needed, the aim of this review it to remove all Editor’s notes in the revised WID

1.4 Comments on RP-220819

The proponents have re-written the entire WID.

It is proposed to discuss the new naming proposed: - as this implies a complet chnage of objectives

”New WID on further enhancement of data collection for SON (Self-Organising Networks)/MDT (Minimization of Drive Tests) in NR standalone and MR-DC (Multi-Radio Dual Connectivity)~~EN-DC”~~

Feedback Form 10: Revsion of title acceptable ? (final decision once the objectives are settled)

1 – Apple Benelux B.V. OK with the revision of the title
2 – Qualcomm Incorporated We suggest to wait any WID edits until we agree above proposals.
3 – CATT OK
4 – Beijing Xiaomi Mobile Software Ok

5 – Samsung Research America **OK with the revision of the title**
6 – Huawei Technologies Sweden AB This is agreeable
7 – Lenovo (Beijing) Ltd Wait until all above proposals are discussed
8 – Ericsson LM Ok
9 – ZTE Corporation OK.
10 – Nokia OK, the new title is better aligned with the WID content. Will the acronym also be updated?
11 – China Mobile International Ltd To clarify the title is to align with Rel-17 WID, as per the guidance from Joern, Rel-17 WID is also updated at this meeting to NR standalone and MR-DC, as the original title is not clear whether it also includes NE-DC and NGEN-DC.
12 – NEC Corporation Revision of the title is OK.

> - Support of data collection for SON features, including "left-over" features, ~~(~~i.e. ~~MR-DC CPAC and MRO successful PScell change report, fast MCG recovery~~ RACH optimization enhancement (SN RACH report for NGEN-DC and NE-DC cases, SN RACH report pull from MN and RACH report retrieval enhancement), UHI transfer during CHO~~,~~ and NR-U (MRO for NR-U)~~) and MRO enhancement for inter-system handover voice fallback~~ [RAN3, RAN2]

Figure 1:

Feedback Form 11: Are these revision agreeable ?

1 – Apple Benelux B.V. It is hard to discuss this as a "single revision". Some of the changes also overlap with proposals from other contributions discussed above. For further discussion it would be better to break this down into individual proposals for each feature.

2 – Qualcomm Incorporated Some of these edits overlap with above discussed proposals and We suggest to wait any WID edits until we agree any of above proposals.
3 – CATT Ok with the change
4 – Beijing Xiaomi Mobile Software As commented in other questions, NE-DC and EN-DC is low priority
5 – Samsung Research America **We have the same view as QC. These edits overlap with above discussed proposals. Wait any WID edits until we agree any of above proposals.**
6 – Huawei Technologies Sweden AB we can wait until the above is discussed
7 – Lenovo (Beijing) Ltd Wait until all above proposals are discussed
8 – ZTE Corporation Wait until all above proposals are discussed
9 – Ericsson LM we should first agree the list of left-overs.
10 – Nokia The WID revisions should reflect the outcome of the individually discussed proposals (in forms 1-10).
11 – China Mobile International Ltd The revisions are based on the offline discussion with some companies and most of the changes are overlapping with previous proposals, so we also agree the WID revision can be done later when we have conclusion on the above proposals.
12 – NEC Corporation Wait until all related discussion are concluded.

Feedback Form 12: Are these revisions agreeable ?

- Support of SON/MDT enhancements for ~~RACH enhancements,~~ MR-DC CPAC, MRO successful PScell change report, fast MCG recovery, MRO enhancement for inter-system handover voice fallback and NPN. [RAN3, RAN2]

Figure 2:

1 – Apple Benelux B.V. It is hard to discuss this as a ”single revision”. Some of the changes also overlap with proposals from other contributions discussed above. For further discussion it would be better to break this down into individual proposals for each feature.
2 – Qualcomm Incorporated Some of these edits overlap with above discussed proposals and We suggest to wait any WID edits until we agree any of above proposals.
3 – CATT OK
4 – Beijing Xiaomi Mobile Software We prefer to keep RACH enhancement to take into account R17 RACH common design.
5 – Samsung Research America **In general it’s fine for re-grouping leftover and new feature. But it’s better to wait until we agree any of above proposals.**
6 – Huawei Technologies Sweden AB HW: we can wait until the above is discussed **New topic:** We also would also like to discuss inclusion of MDT for sidelink.
7 – Lenovo (Beijing) Ltd Wait until all above proposals are discussed
8 – Ericsson LM To avoid misunderstandings with new revisions, maybe better to keep the current text.
9 – ZTE Corporation Wait until all above proposals are discussed
10 – Nokia The WID revisions should reflect the outcome of the individually discussed proposals (in forms 1-10).

11 – China Mobile International Ltd We can wait until all the above proposals are discussed.
12 – NEC Corporation Wait until all related discussion are concluded.

Moderator suggestion: No discussion needed, the aim of this review it to remove all Editor's notes in the revised WID

1.5 Summary of the Initial Round

On 1.1 - Q1

Differerent suggestions received, wide range of preference, but common aim to achieve the same.

As Moderator I suggest to select between:

- Support of signaling based logged MDT overwrite protection to address the scenario where the signaling based MDT is configured in E-UTRA, and the UE connects to NR before the measurement is reported.[RAN2, RAN3]

- For signalling based logged MDT, specify mechanisms to minimize loss of logged data in the followingscenarios [RAN2, RAN3]:
  - UE reselects to NR while logged measurements are collected (after logged MDT configuration in LTE)
  - UE reselects to NR after logged measurements are collected and before uploading the logged MDT report.

I think both are sufficiently clear and majority wanted to not mention the explicit timers.

On 1.2 - Q1

All companies except one were OK including this (multiple as "low priority")

As Moderator I suggest to include inter-RAT SHR

On 1.2 - Q2

All companies except one were OK including this (multiple as "low priority" or the comment that we need to check if it fits to the 1 TU reservation)

As Moderator I suggest to include MRO for MR-DC SCG failure scenario

On 1.2 - Q3

2 companies supported the inclusion, while multiple indicated that this should not be included or has low-priority or can already be achieved. Futher companies indicated that it might not fit in the 1 TU allocation.

As Moderator I suggest to not include MRO for mixed HO and CHO scenarios.

On 1.2 - Q4

All companies either supported the proposal or had no strong view.

As Moderator I suggest to agree on the proposed re-arrangement.

Nokia provided a re-arranged text which we could use for the revision:

- Support of data collection for SON features, including inter-RAT Successful Handover Report (SHR), MRO for mixed HO and CHO scenarios, MRO for MR-DC CPAC, successful PScell change report, MRO for NR-U, and MRO for inter-system handover voice fallback [RAN3, RAN2]

- Support of SON/MDT enhancements for fast MCG recovery, RACH enhancements, NPN. [RAN3, RAN2]

As Moderator I suggest to agree on this kind of re-arrangement, obviously listing only those features we finally agree on.

On 1.3 - Q1

As ”NR-U” is already in the WID as a generic term we should only decided if the explicit mentioning of ”MRO for NR-U” is acceptable.

As a moderator I see value of this clearification (also especially in the light of work load!) and propose we agree on this in the final WID editing.

On 1.3 - Q2

Multiple companies indicated either to include it or include with low priority. The other half of the companies had doubt that this fits in the TU allocation. One company clearly said they do not see a strong need.

As Moderator I suggest to not include SN RACH report for (NG)EN-DC and NE-DC cases due to the load situation and the limited interest.

On 1.3 - Q3

All companies except one supported the inclusion, and many indicated that this is RAN3 only. CMCC suggested to reword to ”F1AP enhancement for RACH report” which makes it clear that this is limited to RAN3.

As Moderator I suggest to include this objective and rename it to ”F1AP enhancement for RACH report”

On 1.3 - Q4

Majority of companies stated that this objective should bit be included.

Given this clear picture (and the load situation) as moderator I suggest to not include this.

On 1.4 - Q1

All companies indicated they are OK with the revision on the WID name to better reflect the content.

As Moderator I suggest to revise the WI name as suggested and finally also check if the WI acronym needs to be updated as well.

Finally all companies indicated that the revision should be done once the content is agreed to reflect the outcome of this NWM thread. The moderator agrees to this and suggests to change this discussion to WID editing using Word revisions in the final round (which makes it uch easier to see changes).

2 Intermediate Round

For the intermediate round, please only on indicate in the below form if you STRONGLY DISAGREE with the moderators proposals listed in 1.5 - I will not count companies, but it would be extremly helpful if you explain short and clear why you have strong concerns.

Please use the referencing I used in 1.5 like ”On 1.3 - Q1” in a SINGLE reply ! thanks.

Feedback Form 13: Disagreement with the Moderator’s proposals in the Initial Round (as in 1.5)

1 – Qualcomm Incorporated

On 1.1-Q1 : we prefer second option provided by moderator instead of first option because second option clearly captures scenario than first option.

2 – Guangdong OPPO Mobile Telecom.

On 1.1-Q1: to make the option 2 more clear, we suggest to improve the tense used in the descprtion, as:

UE reselects to NR while logged measurements are being collected (after logged MDT configuration in LTE) and UE reselects to NR after logged measurements have been collected and before uploading the logged MDT report.

We agree with Qualcomm that the option 2 is more detailed on the description of the scenarios.

3 – Beijing Xiaomi Mobile Software

On 1.1-Q1, option 2 is more clear.

On 1.2-Q2, we prefer not to include MRO for SCG failure, but to leave time to more important use cases, e.g. R17 topics.

4 – CATT

For the proposal on ”**not include SN RACH report for (NG)EN-DC and NE-DC cases due to the load situation and the limited interest** ”,our concern is that RAN3 already support the feature based on the LS from RAN2(RAN2 already claimed that this feature would be supported for (NG)EN-DC and NE-DC in the LS to RAN3).Now,if this feaure is not supported in RAN2 for both Rel-17 and Rel-18,we needs to consider how to handle in RAN3.

5 – KDDI Corporation

On 1.1-Q1 : We prefer first option, since the second option seems to be too detailed for the WI objective.

6 – Samsung R&D Institute UK

On 1.1-Q1, We have a slight preference for option 1. Option 2 seems too much detailed. From RAN2 agreements made in RAN2#115e, the highlighted part is included but it has not been covered in the option 2.

3 Signaling based logged MDT override protection is applicable in the following scenarios:

1) ***Signaling based Logged MDT is configured, but no results are available e.g. so far nothing stored****, or all previously stored results retrieved*

2) Signaling based Logged MDT configuration is stopped (i.e. the expiry of T330), but UE still has un-retrieved results that would be discarded upon accepting a new configuration

7 – Lenovo (Beijing) Ltd

On 1.1-Q1, both two options are fine to us, the second one is slightly preferred to capture the two scenarios clearly.

On 1.2 - Q4, the structure for re-arrangement is ok, but suggest removing “MRO for mixed HO and CHO scenarios” from the first bullet as moderator summarized for 1.2 - Q3 i.e. not include MRO for mixed HO and CHO scenarios.

8 – Huawei Technologies Sweden AB

On 1.1, we prefer 1st option.

9 – China Mobile International Ltd

For 1.1-Q1, both options are fine to us, the second one makes the scenario more clear.

For 1.2-Q4, we agree with the proposal, it is also the pririt of our original revised WID, but the content needs updates which depends on the decisions on the above proposals

For 1.4 -Q1, some informaition to the Mr Moderator, the WID name and WI acronym had been checked with Joern before the meeting, that is the WID title can be changed as suggested, but the WI acronym will remain the same, it cannot be changed

10 – ZTE Corporation

On 1.1-Q1, we slightly prefer option 2 for more clear scenario description.

11 – Nokia Poland

On 1.1 - Q1

Technically, both options seem about the same, but the first formulation seems better for a WID. However, it could be edited a bit:

”Support of the overwrite protection in the signaling based logged MDT, in order to address the scenario where the signaling based MDT is configured in E-UTRA and the UE connects to NR before the measurement is reported.”

On other points, we accept moderator’s proposals.

12 – Ericsson LM

1.1 Q1: For simplicity, I would prefer the following (although the other one is also ok):

Support of signaling based logged MDT overwrite protection to address the scenario where the signaling based MDT is configured in E-UTRA, and the UE connects to NR before the measurement is reported.[RAN2, RAN3]

1.2 Q1: We then can agree to the following: **Include inter-RAT SHR as Rel-17 leftover as a low priority objective**

1.2 Q2: We could agree to “**include MRO for NR-DC SCG failure scenario as top priority, leave other MR-DC use cases as low priority**”

1.3 Q2: We can agree to:

- MRO and UL MLB for NR-U [RAN3]

- SON enhancements for NR-U [RAN2]

The above is because RAN2 did not have time at all to discuss and agree on anything for NR-U. We should not prevent discussions in RAN2 on NR-U as Rel17 intention was to discuss SON for NR-U in general and this could not be achieved in RAN2 due to limited time.

1.3 - Q2

Here we stated in 1.3 Q3 that we would be fine including this feature but for NR-DC, leaving other DC use cases as low priority. Note that this feature was acknowledged in RAN3 as beneficial, but not pursued due to time limitations.

We therefore propose to agree to **“Support SN RACH report for NR-DC cases in Rel-18 WID, while leaving othe DC cases as low priority”**

1.3 Q4:

Disagree. RAN3 already agreed on continue the work in Rel 18.

In case of CHO, Handover Request (including UHI) is sent at the very beginning of the HO preparation. But between HO preparation and HO execution, UHI may change (e.g. new PSCell change). Source needs to update target with the latest UHI, otherwise we’ll lose some information at each CHO execution

13 – Apple Benelux B.V.

1.1 - slight preference for the first option

We also have a suggestion for the final round - once there is a final proposal for the WID scope, perhaps the rapporteur can provide an assessment of the new TU allocation that is needed to fulfill the objectives. At any rate, we also need to have the TU discussion.

2.1 Summary of the Intermediate Round

Based on the feedback in the intermediate round, the moderator has drafted an WID update which is now handled in Inbox/drafts/[95e-26-R18-SONMDT-WI]

Yellow marked are those topics we need further decision if they are included or not as this was not clear from the discussion so far

Blue marked are those which were incl. as ”Rel-17 leftovers”, but to me as moderator it is not clear if they should remain and become objectives

We need to decide of the 2 formulation alternatives for the ”MDT overwrite protection” .. both are right, but we should find a crips wording appropriate for the WID. Majority was somehow im favour of the second. Please also work together to find a compromise wording.

Finally we need to decide on the TU required for the WI if the new topics are covered.

I aim to finalise the WID revision in the Final Round !

3 Final Round

WID revision drafting relocated to INBOX/drafts/[95e-26-R18-SONMDT-WI]

Feedback Form 14: Form for comments in the Final Round

1 – Qualcomm Incorporated

We suggest to remove ” SN RACH report for (NG)EN-DC and NE-DC cases” and ”UHI transfer during CHO” , as they are not essential . For wording of 2 options, we suggest to keep 2nd option which is more clear than 1st option wording.

2 – Deutsche Telekom AG

[As Moderator:] Sorry for the trouble with the not functioning link !

3 – vivo Mobile Communication Co.

On the last objective we propose a revision to merge the 2 options as follows:

”Support of signaling based logged MDT overwrite protection to address the scenario where the signaling based MDT is configured in E-UTRA, and the UE connects to NR before the measurement is reported. [RAN2, RAN3]:

~~For signaling based logged MDT, specify mechanisms to minimize loss of logged data in the following scenarios [RAN2, RAN3]:~~

· UE reselects to NR while logged measurements are collected (after logged MDT configuration in LTE)

· UE reselects to NR after logged measurements are collected and before uploading the logged MDT report.

4 – Nokia Poland

Thank you for the draft!

A general comment that we have is that we do not need to have a perfect formulation at this meeting yet – are not formulating the final version of the WID yet, this is to be done at RP#96, right? If so, then leaving some decisions to that meeting is all right, as topics can still be added/removed then. With this in mind, we would propose to add ”FFS” to all the coloured parts in the first 4 points, or to remove them and see at the next meeting which are still needed, based on the contributions then.

With the above in mind, we could still do some edits: for example, e.g. NR-U is mentioned twice, first as ”MRO for NR-U”, then as a stand-alone feature for which SON is to be enhanced. Also, I am sorry, but we misunderstood the point related to the RACH reporting. **At this meeting, we are not quite ready to limit the scope of possible solutions so much, so I would ask to remove ”F1AP” from the ”F1AP enhancement for RACH report” (or to add ”FFS” to the objectives). Sorry again for late comment and thank you in advance for taking it into account!** In fact, there are two very similar points: ”F1AP enhancement for RACH report, [SN RACH report for (NG)EN-DC and NE-DC cases]” – can we make a single one of them, like ”Enhancements for RACH report for single-connectivity and (NG)EN-DC and NE-DC cases [FFS]”? Or a separate bullet for RACH enhancements, where the scenarios are listed?

Also, it was clear in the discussion so far, that some topics are acceptable with lower priority (e.g. the RACH reporting is marked as questionable) – the moderator also confirms it in the note in respect to the UHI transfer in CHO. How will it be declared in the WID that some topics are of lower priority than others?

Regarding the last question, i.e. selection between the two formulations, we proposed a reformulation of the 1st option, which would make it clearer. We still prefer it, but we’re fine to follow majority’s preference (as discussed above, it is still a tentative version of the WID and will likely be further edited at the next meeting).

5 – CATT

We are generally fine with the version provided by the moderator.Some small comments are as blow:

1 Since NR-U is already inlcuded in the first bullet,it could be removed from the second bullet.

2 For UHI transfer during CHO,we could accept to include it with low priority.

3 For SN RACH report for (NG)EN-DC and NE-DC,as we stated in the immediate round,RAN3 already support the featuer based on the LS from RAN2.Alignment between working groups is needed.

6 – Samsung R&D Institute UK

Some remarks on the revised WID:

1) For NR-U, it is confusing to keep it in both the first and second bullet. RAN3 has no discussion on NR-U in Rel-17. RAN3 has limited discussion on DL MLB. If RAN2 identified something for MLB (UL and/or DL), RAN3 also needs to discuss those. So we prefer to keep the general description in bullet 2 and remove the NR-U in the first bullet.

2) For MDT, our preference is option 2. But we are fine to further rewording based on option 2.

2) For the TU, we think 1.5 will be reasonable. This can be part of RAN3 TU discussion. E.g. 2 TU for AI WI is not needed.

7 – Samsung R&D Institute UK

In general, the work scope if fine. To fix a typo in above comments.

1) For NR-U, it is confusing to keep it in both the first and second bullet. RAN3 has no discussion on NR-U in Rel-17. RAN3 has limited discussion on DL MLB. If RAN2 identified something for MLB (UL and/or DL), RAN3 also needs to discuss those. So we prefer to keep the general description in bullet 2 and remove the NR-U in the first bullet.

2) For MDT, our preference is option 1. But we are fine to further rewording based on option 2.

3) For the TU, we think 1.5 will be reasonable. This can be part of RAN3 TU discussion. E.g. 2 TU for AI WI is not needed.

8 – ZTE Corporation

Share the similar view as Nokia. It is better to add FFS for all colored part except 'MRO for inter-system handover voice fallback'. For the last one, Lenovo has explained the detail at last RANP and this part agreed with no further objection.

9 – Lenovo (Beijing) Ltd

1□For NR-U, since it is included in both the first and second bullet, suggest to remove one of them, e.g. have general description in the second bullet and remove NR-U part from the first bullet.

2□"UHI transfer during CHO" should be removed from the WI objectives.

3□ For " SN RACH report for (NG)EN-DC and NE-DC cases", it should be of low priority.

10 – Huawei Technologies Sweden AB

Similar comments as listed above, e.g. regarding duplication of NR-U.

Rgd priority and FFS, we would prefer to keep only high priority objectives in the WID. If the WID will be discussed again in next meeting, we are fine to

1) add FFS to high priority objectives that requires more discussion and also

2) collect the low prio items in a separate FFS low prio bullet with the target to either move the contents or remove it during next meeting..

11 – Ericsson LM

Some comments from us on the text:

- Support of data collection for SON features, including inter-RAT Successful Handover Report (SHR), MRO for MR-DC SCG failure scenario/CPAC, successful PScell change report, ~~MRO [and UL MLB?]~~**support** for NR-U **(RAN3 to focus on MRO and UL MLB)**, and MRO for inter-system handover voice fallback [RAN3, RAN2]
- - Support of SON/MDT enhancements for fast MCG recovery, F1AP enhancement for RACH report, [SN RACH report for **NR-DC (other NG-RAN DC cases are low priority)**~~(NG)EN-DC and NE-DC cases]~~, NR-U and NPN. [RAN3, RAN2]

We should keep ”UHI transfer during CHO”. It has been agreed in RAN3 to ”Discuss the UHI transfer during CHO in Rel-18.” RAN3 should decide if low priority or not.

For MDT related wording, we prefer Option 1.

12 – China Mobile International Ltd

1. For NR-U, we have similar view as others, MRO and UL MLB is clear, and MRO for NR-U also impacts RAN2 significantly. For the second NR-U, it is too open-ended in the WID, it is difficult to manage in the current TU.

2. For the TU, from rapporteur point of view, it would be good to have more TUs, e.g., 1.5 TU, but it may be discussed in the overall TU planning.

3. It would be better to keep least FFS in the revised WID, otherwise, the discussion of this meeting becomes meaningless. The features that can not be agreed can be discussed next meeting based on contributions.

13 – Apple Benelux B.V.

1) Regarding TUs, let’s not forget this has both RAN2 and RAN3 impacts (so far the TUs have been mentioned in relation to RAN3 only).

2) We prefer to remove the lower priority items for now or at least mark them as FFS

3) Suggest the following edit ”Specification of the UE reporting ~~necessary to enhance the mobility parameter tuning~~”; Also, shouldn’t this (and the one after it) be sub-bullets?

14 – Deutsche Telekom AG

[as Moderator]

Colleagues, this does not converge as far as I hoped !

I will close the discussion now and provide a summary and a revision of the draft WID

My intention was to have a reasonbale clear WID, but it seems companies prefer to keep things open for further discussion in June (which It think is not a good approach ..)

Closed now.

3.1 Summary of Final Round

The following is the proposal for approval as outcome of the discussion and will provide an updated WID based on this:

Change of Title is agreed

Addition of Acronym is agreed (while is is now decoupled from the title, but according to MCC can not be changed...)

Support of data collection for SON features (only for the Rel-17 leftovers):

- include **inter-RAT Successful Handover Report (SHR)**
- include **MRO for MR-DC SCG failure scenario**
- include **MRO for NR-U and [FFS: UL MLB?]**
- include **[FFS: on MRO for CPAC]**
- include **[FFS for successful PScell change report]**

MRO enhancement for inter-system handover voice fallback was already approved/included

Support of SON/MDT enhancements (only for the Rel-17 leftovers):

- include [FFS: **F1AP] for RACH** report
- include **fast MCG recovery**

Support of SON/MDT enhancements for **NPN** was already approved/included

We go for the second alternative text **for the ”overwrite protection”** based on the merge proposed by vivo:

- ”Support of signaling based logged MDT overwrite protection to address the scenario where the signaling based MDT is configured in E-UTRA, when [RAN2, RAN3]:
    - UE reselects to NR while logged measurements are collected ~~(after logged MDT configuration in LTE)~~
    - UE reselects to NR after logged measurements are collected and before uploading the logged MDT report.

The moderator is also find removing all 4 FFS topics for this review as these were either only supported by a low number of companies (1..2) or indicated to be ”low priority” anyway.

The TU requirements (without the FFS) would be in the order of the assumed 1 TU

Further revision of the WID can be done in RAN#96 based on company contributions

A revised WID is provided along with the report of the email which can be approved for RAN#95e