[94e-26-R18-SONMDTEnh] - Version 0.0.4
RAN

3GPP TSG RAN Meeting #94-e **RP□213506**

Electronic Meeting, December 6 - 17, 2021

Agenda Item: 8.6.3

Source: Moderator (CMCC)

Title: Moderator's summary of discussion [94e-26-R18-SONMDTEnh]

Document for: Discussion and Decision

1 Introduction

The moderator summary and draft WID of Rel-18 SON/MDT further enhancement from October email discussion were documented in RP-212680 and RP-212720.

A summary of the Rel-18 Package, the proposed TU budget, and proposed detailed scope for each potential WI or SI are provided in RP-213469

The goal of the email discussion is to produce a consolidated WID for approval at RAN#94 meeting, based on all related documents under 8.6.1/8.6.2/8.6.3/8.6.4/8.6.5 and feedbacks collected during the email discussion.

- **Initial round**: collect views on the proposed modifications on the updated WID. Please DO NOT modify the updated WID in the draft folder at the initial round

  Initial email discussions Mon **8:00** UTC – Tues **17:00** UTC
- **Intermediate round**: Check any further comments on the updated WID

  Intermidiate email discussion Tue. **23:30h** – Wed **19:00h** UTC
- **Final round**: Pending on the progress of first round

1.1 Updated WID as starting point

The general guidance on how to organize the email discussion was given by the RAN Chairman as below,

- *Using the proposed detailed scope in RP-213469 to update the draft SID/WID from the October email discussion summary à the updated draft will be used to kick off the email discussion*
  - *In addition to updating the detailed scope as proposed, please also update the justification section if there is any impact*
  - *Please leave change marks on (compared with the email discussion in Oct.)*

- *Please add the rapporteur(s) as shown below*
- *Please add the primary/secondary RAN WGs as necessary*

– *All the discussion will be using the NWM tool, but for any further updates of the draft SIDs/WIDs with change marks, please use the RAN draft folder for easier reading*

The proposed scope in RP-213469 remains the same as the draft WID from October email discussion. So the WID is updated by **only adding the rapporteur(s) and potential affected specs**.

Updated WID can be found in the draft folder with the title ”**Rev0_New WID on further enhancement of data collection for SONMDT in NR and EN-DC_v00**”

https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_94e/Inbox/Drafts/%5B94e-26-R18-SON-MDTEnh%5D/Initial%20round

1.2 Input Tdocs

RP-212680 Moderator’s summary for discussion [RAN94e-R18Prep-20] SON (Self Organizing Networks)/MDT (Minimization of Drive Tests) Enhancements, RAN3 chair (ZTE)

RP-212720 New WI: Further enhancement of data collection for SON (Self-Organising Networks)/MDT (Minimization of Drive Tests) in NR and EN-DC, RAN3 chair (ZTE)

RP-212801 Considerations on Rel-18 SON/MDT, KDDI Corporation, Ericsson, Telecom Italia, ZTE, Samsung, Nokia, Nokia Shanghai Bell, China Unicom

RP-213170 Comments on Rel-18 SON/MDT enhancements draft WID, Huawei, HiSilicon

RP-213235 Discussion on Rel-18 SON/MDT, CMCC

RP-213287 Proposed updates for Rel-18 SON / MDT enhancements WID, Nokia, Nokia Shanghai Bell

RP-213405 Discussion on Rel-18 SON/MDT enhancements, ZTE, Sanechips

2 Initial round

2.1 Justification

The justification text in the updated WID presently is:

Self-Organising Networks (SON), which encompasses solutions for network self-configuration and self-optimisation, was introduced in LTE to support deployment of the system and performance optimization. SON for NR was first introduced in Rel-16 and further enhanced in Rel-17.

Due to the time constrains, some of the leftover features in the Rel-17 SON and MDT WID could be considered in Rel-18. Only non-controversial SONMDT Rel-17 leftovers should be continued in Rel18. In addition, taking the tangible commercial interests and the stability and technological maturity into account, SON/MDT enhancements for some Rel-16/Rel-17 new features could also be considered in Rel-18.

It is proposed in RP-213287, the 2nd paragraph of justification needs some editorial cleanup. It is written in a style that was likely intended to "guide" the drafting of the objectives, but now that the objectives are becoming stable it should be reworded to reflect what is now being agreed.

The proposed change is as below,

"Due to the time constrains, some of the leftover features in the Rel-17 SON and MDT WID ~~could be~~ *are* considered in Rel-18. ~~Only non-controversial SONMDT Rel-17 leftovers should be continued in Rel18.~~ In addition, taking the tangible commercial interests and the stability and technological maturity into account, SON/MDT enhancements for some Rel-16/Rel-17 new features *are* ~~could~~ also be considered in Rel-18."

Feedback Form 1: Do you agree with the proposed modifications to the justification

1 – CATT We are OK with the proposal.
2 – Samsung R&D Institute UK Agree
3 – vivo Mobile Communication Co. Ok with the revision, actually we are also fine to remove the whole paragraph as the paragraph seems to "guide" the drafting of the objectives.
4 – DOCOMO Communications Lab. We are fine with the proposal.
5 – KDDI Corporation We are fine with the proposal.
6 – Verizon UK Ltd We agree with the proposed changes.
7 – MediaTek Inc. Proposal looks fine. Some minor wording suggestions below. **"Due to the time constrains, some of the ~~leftover~~ features in the Rel-17 SON and MDT WID ~~could be~~ *are* postponed to ~~considered in~~ Rel-18. ~~Only non-controversial SONMDT Rel-17 leftovers should be continued in Rel18.~~ In addition, taking the tangible commercial interests and the stability and technological maturit account, SON/MDT enhancements for some Rel-16/Rel-17 new features *are* ~~could~~ also ~~be~~ considered in Rel-18."**
8 – SHARP Corporation We are fine with the proposals.

9 – Lenovo (Beijing) Ltd We agree with the proposal.
10 – CITC We are fine with the proposal.
11 – Spreadtrum Communications We agree with the modifications.
12 – Qualcomm Technologies Int We agree with the modifications; also Mediatek's slight delta makes sense too.
13 – ZTE Corporation We are fine with the proposal.
14 – Huawei Technologies France Looks fine to us.
15 – China Mobile Com. Corporation We are fine with the proposal.
16 – Nokia We agree with the proposed modifications.
17 – Ericsson LM We agree with the proposed changes. All the Rel-17 WID issues that are postponed should be part of Rel-18 WI.
18 – Apple Benelux B.V. We support the revision proposed by Mediatek.
19 – TELECOM ITALIA S.p.A. ok with the moderator's proposal
20 – Telia Company AB Moderator's proposal is ok.
21 – Deutsche Telekom AG Fine with the proposal and the revision by MediaTek. "time constrains" –> "time constraints"?

22 – Intel proposed to reword to "Due to the time constraints, some of the leftover features in the Rel-17 SON and MDT WID are considered in Rel-18. …"
23 – Futurewei Technologies Agree with the proposal, including MediaTek's correction.

2.2 Objectives

The objectives in the updated WID presently is:

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]

- Specification of the UE reporting necessary to enhance the mobility parameter tuning [RAN2].

- Specification of the inter-node information exchange, including possible enhancements to interfaces [RAN3]

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

If needed, co-operate with RAN1, SA2, SA5, CT4.

Editor's Note1: Details of Rel-17 leftover could be further refined when the Rel-17 SON/MDT WI finishes.

Editor's Note2: Whether to include LTE MDT improvement (UE's height location) can be decided later based on R17 progress in RAN2.

Editor's Note3: More Rel-16/17 new features are not precluded in this WI which can be decided later after Rel-17 SON/MDT WI finishes.

Based on the input Tdocs in AI 8.6.3, the proposed modifications are summarized as below,

1. **Add the following objectives to Rel-18 SON/MDT WID (RP-212801):**

   Support of signaling based logged MDT override protection to address the scenario where the signaling based MDT configured in LTE, the UE comes to connected in NR.

2. **Remove the "left-over" restriction of the SON features (RP-213170).**

3. **Remove NR-U from the listed SON features and include NR-U as the Rel-17 leftover in Editor's Note1 (RP-213170).**

4. **Include mixed HO and CHO scenarios as the Rel-17 leftover in Editor's Note1 (RP-213170).**

5. **Remove the Editor's Note2, as RAN2 has agreed to introduce the barometric pressure measurements in LTE MDT as standardized in NR in TEI17 (RP-213170).**

6. **Introduce enhancement for RACH Report retrieval trigger from DU in the Objectives (RP-213405).**

7. **Introduce MDT MBS in Rel-18 objective (RP-213405).**
8. **Revolve the ambiguity of the wording "To be decided later" in the Editor Notes, by clearly indicate "to be decided at RAN#95" (RP-213287) or "to be decided before the Rel-18 SON/MDT WI starts, e.g., at RAN#95" (RP-213235)**

[Moderator Remarks]

There is a need to do the cleanup of the objectives, at least for the leftover issues as indicated by the Editor note 1. However, the Rel-17 work item is not closed, the outcomes of Rel-17 are not so clear. Attempting to prematurely refine the "left-over" objective at this meeting may waste some time. So in this part of discussion, **the goal is to have a quick check and identify the proposed changes with full consensus or majority supports.**

Feedback Form 2: Please provide your views/comments on the above proposals, support or not support and comments.

1 – CATT

Thanks for the efforts from moderator,our views are as below:

1 We agree that it is a scenario that should be addressed.However,our understanding is that this bullet is still not precluded from Rel-17 WI.Maybe we could revisit this bullet at the end of Rel-17 and include it if not specified in Rel-17.

2) OK to remove "left-over".

3) OK to remove NR-U from the listed SON features.

4) 5) 6) Generally OK. If it is desired to list potential Rel-17 leftover in current stage,we suggest rewording the Editor's Note as below:

Editor's Note1: Details of Rel-17 leftover e.g. NR-U,Mixed HO and CHO scenario,Logged MDT rewrite protection,RACH report retrivial from DU,could be further refined when the Rel-17 SON/MDT WI finishes.

7)OK

8) OK

2 – Samsung R&D Institute UK

Here are our views:

1) We support to address the overriding issue also in inter-RAT scenario.

2) ok.

3) and 4) ok. Rel-17 leftover could be further refined when the Rel-17 WI completes.

5) ok

6) If included, it should be in Editor's Note 1. Similar as above, Rel-17 leftover could be refined when the Rel-17 WI completes.

7) There is no agreement to have MBS during the previous several rounds of email discussion. As there is no commercial network yet, we prefer to postpone it to future release.

8) ok

3 – vivo Mobile Communication Co.

We are supportive of 7 and 8. We agree with the moderator's remarks that we can wait to see Rel-17 outcome before we rush to refine the left-over objectives, thus the decisions can be finally made at RAN#95 to avoid potential futile efforts. For MDT enhancements on MBS, we also agree with the intention that it enables the functionality of Rel-18 QoE on MBS service.

4 – DOCOMO Communications Lab.

1) Support

2) OK. Reference to MR-DC CPAC and MRO successful PScell change report, fast MCG recovery should be kept as proposed.

3) No strong view. In our standing, there was a RAN3 agreement, but there was no discussion on NR-U in RAN2.

6) OK

7) Neutral for now, wondering about the impact to workload.

5 – KDDI Corporation

1) We support the proposal adding the objective relevant to signaling based logged MDT override protection.

2) We don't have strong opinion, but if "left-over" is not an appropriate word, maybe we can use other word such as "remaining works on specific features".

5) We prefer to keep it as it is, since we can remove it in March meeting.

7) In general, we are natural, but we are wondering whether we have enough time units to accommodate the MBS objectives.

8) Maybe all editor's notes will be removed at March meeting. So, we are not so motivated to discuss wordings now.

6 – Verizon UK Ltd

1) Support logged MDT override protection for LTE to NR scenario.

2) ok.

3) / 4) ok for now, these could be refined after R-17 completion

5) Keep it for now. Can be removed lated if R-17 addresses the issue.

6) ok.

7) Neutral, workload should be considered

8) No strong view

7 – MediaTek Inc.

We understand there will be a need to revise the WID at March plenary, but anyway suggest to list "confirmed objectives" and "to be confirmed objectives" separately. We can confirmed the formal list in this meeting and only revisit/revise the latter list in March.

8 – Lenovo (Beijing) Ltd

2) no strong view, maybe we can use "left works for the features" instead of "left-over" since actually these features (i.e. MR-DC CPAC and MRO successful PSCell change report, fast MCG recovery, NR-U) were issued by some companies in R17 but they were deprioritized due to limited time. Besides MRO for successful PSCell change report, we would like to add the feature i.e. successful PSCell addition in Objective #1, since both CPA and CPC are supported in R17.

3) we agree to add NR-U in Objective #1. Until now RAN3 has achieved progress on MLB in NR-U, but SON enhancements for mobility in NR-U may be difficult to be converged in R17 since RAN2 is relevant but RAN2 has no time to discuss NR-U in R17.

4) not clear what is new enhancements for the mixed scenario, it seems that MRO enhancements specified in R17 can be applied to both the pure and the mixed scenarios.

6) maybe it is covered in "Support of SON/MDT enhancements for RACH enhancements".

7) agree if R18 has enough time to discuss it.

8) agree with Moderator that it is hard to make a final decision at RAN#95 since Rel-17 work item is not closed, we suggest to keep Editor's Note1-3 as they are.

9 – SHARP Corporation

Generally ok with the proposals.

For 7), we don't have strong view, and wonder it may be considered as low priority.

10 – Spreadtrum Communications

Thanks for the good summary from moderator, our views are as follows:

1) Support, we support to deal with the overriding issue in inter-RAT scenario.

2) Support.

3) 4) 5) We are OK to remove NR-U from the listed SON features. As for the details of R17 leftover, it could be revisited after the end of R17 WI.

6) OK.

7) OK

8) Support.

11 – CITC

1)Support adding the objective relevant to signaling based logged MDT override protection.

2)OK to remove "left-over".

3/4) ok for now, these could be refined after R-17 completion.

5)OK to remove the Editor's Note2 due to the agreement of RAN2.

6/7)support.

8)No strong view.

12 – Qualcomm Technologies Int

1) We think this is not required. Building coverage maps is an optimization achieved by the OAM via logged MDT reports from multiple UEs. It's not so critical if we lose the unretrieved LTE logged MDT upon resuming on a gNB; we can use NR logged MDT to build coverage maps as well.

2) ok

3) ok

4) ok

5) ok to remove on the assumption that it will be covered by RAN2 now (can be revisited if not)

6) ok

7) We support (in our view this should be given high priority as important for MBS tuning)

8) Maybe the second proposed formulation is better, we know that in practice many WIDs require multiple revisions for one reason or another, and whether the situation is 100% clear in March or not, cannot be fully predicted (even if desirable).

13 – LG Electronics Polska

1) Support.

2) and 3) Support. It is because examples in brackets were not discussed during Rel-17 except for NR-U which is being discussed in Rel-17.

7) Not support. Considering that NR MBS is not applied yet, it is premature to introduce MDT MBS.

14 – ZTE Corporation

1) We support to introduce this into Rel-18.

2) and 3) Proposal 2 and 3 are not necessary, the original wording is fine without any ambiguity.

For Proposal 2, based on the Chairman notes in RAN3#109-e, the MR-DC CPAC related issues have been discussed in Rel-17, which could be regarded as the ”left-over” feature obviously. In this case, Proposal 3 is not needed correspondingly.

The following is the agreement copied for easy reference.

”Postpone SON Enhancements for CPC with waiting for the progress of R17 CPC enhancements and SON enhancements for CHO. It is FFS whether SON enhancements for conditional PSCell change should be supported.”

4) Based on the Chairman notes in RAN3#112-e, although it was agreed that those scenarios were depri-ortizted in Rel-17, it does not mean that the scenarios should be treated in Rel-18. The new scenario may make the CHO MRO more complicate.

5) ok

6) ok

7) As described in our contribution RP-213405, we see two reasons to introduce this feature in Rel18. One reason is MDT for MBMS in LTE has been normative in Rel-12. The other one is this feature related to R18 QoE which has already support MBS without controversial. Without R18 MBS MDT, the alignment feature of MBS QoE with radio related measurement (MBS MDT) can not being fulfilled.

8) ok

15 – Huawei Technologies France

we are fine with the moderator’s summary and suggestions, we think for R16/R17 features (espcially R17 features) to be considered for R18, we could revisit them at next plenary when all R17 WIs are concluded.

16 – China Mobile Com. Corporation

Agree with moderator’s suggestions, we could revisit the issues after the completion of R17 WI.

17 – Nokia

1) Support.

2-7) We acknowledge the need to update the existing objectives. However, it was decided during the October email discussion to wait until conclusion of the Rel-17 work item (as captured by Editor's Notes), so we prefer to wait until RAN#95 when a complete/comprehensive update can be performed.

4) We agree that some CHO scenarios were not covered in Rel-17 and could be addressed in Rel-18. We would prefer more general wording such as "further development of MRO for CHO scenarios".

8) Support. The generic "can be decided later" wording can be misunderstood to mean that additional objectives are allowed to be introduced even while the work item is already in progress. However, it is important to have stable work item scope before the work item begins, and thus the details should be finalized (and editor's notes removed) by RAN#95 in March.

18 – Ericsson LM

In general we agree with the intention of most of the above proposals. We have provided specific comments below:

1. We support this proposal. Signaling based MDT should be treated with high priority compared to management based MDT independent of the RAT that configures the signaling based MDT and where the UE comes back to connected.

2. We can remove the term "leftover" but we should explicitly state which of the SON feature is included in the text. An example version could be: "Support of data collection for SON features associated to the enhancement of RLF report and the SHR for MR-DC CPAC, RLF report enhancements for fast MCG recovery, SON related UE reporting enhancements for NR-U and MRO enhancement for inter-system handover voice fallback [RAN3, RAN2]"

3. Keeping Editor's Note does not hurt at this stage as still it is not clear about what will be completed in Rel17. So, we can keep Editor's Note-1 but we can mention that RANP in March or June can be the target for removal of such an Editor's Noten

4. This need not be brought up explicitly in our understanding and this scenario is already considered in RAN2. The UE behavior is already captured in RAN2 running CR work.

5. Agree. There is already an agreement in RAN2#116 meeting in LTE session to include UE height measurements as part of MDT reports in LTE.

6. This can be worked on under RACH enhancements related objective in RAN3. So, we do not think there is a need to add this as an explicit WI objective.

7. It has taken a long and detailed email discussion in September to reduce the scope of the WID and therefore further additions to the WID would attract new proposals. Therefore, we believe this is not required at this stage. The task of the WID is already quite large.

8. Agree. We can decide either in RANP in March or in June

19 – Apple Benelux B.V.

With the exception of 7 (MDT for MBS) we support the proposal from the moderator, under the assumption that the WID would be revised further when the Rel-17 WID concludes. In general, it would be good to keep the scope of the WI reasonable and not to inflate it too much.

20 – TELECOM ITALIA S.p.A.

1) support

2) agree with Mediatek and others. it should be clearly indicated what we can agree now and a list of leftovers (non-controversial issues in Rel 17)

3) agree (and NR-U may be a controversial leftover)

5) agree

7) low priority

8) suggest to address the Rel 17 leftovers at RAN#96

21 – Intel

proposed to reword item 1 to objective to: Support of UE indication when signaling based logged LTE MDT configuration is available to gNB in the scenario where the UE is in NR and previous configured the signaling based MDT in LTE.

22 – Futurewei Technologies

Agree with remarks from moderator. We should wait for outcome of Rel. 17 before agreeing on how to address left-overs.

2.3 Other comments on the updated WID

Feedback Form 3: Other comments, e.g., indicating whether to add as supporting companies of the WID

2.4 Moderator summary

Regarding the justification:

Almost all the companies are fine with the changes proposed in RP-213287 and the delta correction by MediaTek.

Proposal 1: Agree the changes to the justification: "Due to the time constrain*t*s, some of the ~~leftover~~ features in the Rel-17 SON and MDT WID ~~could be~~ are postponed to ~~considered in~~ Rel-18. ~~Only non-controversial SONMDT Rel-17 leftovers should be continued in Rel18.~~ In addition, taking the tangible commercial interests and the stability and technological maturity into account, SON/MDT enhancements for some Rel-16/Rel-17 new features are ~~could~~ also ~~be~~ considered in Rel-18."

Regarding the objectives:

For the proposed changes 1, 17 companies shared views, 16 companies supports, 1 company thinks not required. The moderator propose to add this objective in the WID.

For the proposed changes 2-6, they are related to leftover issues. No full consensus on how to handle these leftovers at this meeting and quite a lot of companies think these updates can be done when the Rel-17 WI finishes. Considering the outcomes of Rel-17 are not so clear, the moderator proposes to wait until Rel-17 work items finishes, then a complete/comprehensive update of the leftover issues can be performed.

For the proposed changes 7, No consensus on adding SON/MDT enhancement for MBS feature, moderator proposes not to add it now.

For the proposed changes 8, 14 companies shared views, 10 companies supports, 4 companies no strong view The moderator propose to change the wording “To be decided later”to “to be decided before the Rel-18 SON/MDT WI starts, e.g., at RAN#95 or RAN#96”

Proposal 2: Add the objective to Rel-18 SON/MDT WID: Support of signaling based logged MDT override protection to address the scenario where the signaling based MDT configured in LTE, the UE comes to connected in NR.

Proposal 3: Resolve the ambiguity of the wording “To be decided later” in the Editor Notes, by clearly indicate “to be decided before the Rel-18 SON/MDT WI starts, e.g., at RAN#95 or RAN#96”

Proposal 4: Add an editor note “All the editor notes in the WID are to be removed before the Rel-18 SON/MDT WI starts, e.g., at RAN#95 or RAN#96”

3 Intermidiate round

3.1 Draft WID

Based on the summary of first round (see section 2.4), an update WID document (Rev1_New WID on further enhancement of data collection for SONMDT in NR_v00) is uploaded in the drafts folder (TSGR_94e/Inbox/Drafts/[94-26-R18-SONMDTEnh]/Intermidiate round).

We can directly check if this draft is agreeable now, with the understanding that further refinements can be done when the Rel-17 WI finishes.

Note that the TU allocation will be finalised based on the version from the RAN chair slides and the supporting companies can be added in the final round.

Feedback Form 4: If the updated WID is agreeable? In case any further comments, please indicate here, otherwise, no feedback is needed

1 – KDDI Corporation We are fine with the updated WID.
2 – Ericsson LM We support the updated WID. Thanks.
3 – Apple Benelux B.V. Looks good.
4 – Spreadtrum Communications We agree with the updated WID.
5 – ZTE Corporation We are fine with the updated WID.

6 – Qualcomm Technologies Int

Regarding the newly added objective: ”Support of signaling based logged MDT override protection to address the scenario where the signaling based MDT configured in LTE, the UE comes to connected in NR. ”: we still do not see this as high priority, but can accept to further discuss it given the high support level; but then for sure further clarification is needed. As a starting point, we would like to understand whether the intended scope is to (i) avoid override when T330 is running irrespective of whether the logged MDT report is available, or (ii) avoid override if the logged MDT data report is available irrespective of T330 status. Possible solution range depends on this; also, depending on the answer to the above, we may need to revise the objective so it is clearer (i.e. right now the term ”override protection” is open to interpretation).

7 – Samsung R&D Institute UK

We are fine with the updated WID.

8 – MediaTek Inc.

We are not clear with the technical context of ”Support of signaling based logged MDT override protection to address the scenario where the signaling based MDT configured in LTE, the UE comes to connected in NR.[RAN2, RAN3]”, is this a bug fixing proposal? We’d like to understand the scope of technical problem first, before that, we are reluctant to include it.

9 – Huawei Technologies France

We are fine with the updated WID. But since the moderator mentioned TU, maybe just one comment about TU, considering the discussion for R17 WI, we are afraid that the current TU for each meeting is not enough, we would suggest to add at least 0.5 TU each meeting, please note that we also need to take the R16/R17 features to be supported into account and reserve some TUs for them.

10 – China Mobile Com. Corporation

We are fine with the updated WID.

11 – Nokia

We are fine with the updated WID. Regarding TU, this can be finalized when Editor’s Notes are resolved (which is when full scope of the WI will be known/stable).

12 – CITC

We are supportive of updated WID.

13 – Intel

We are ok with the update

14 – Deutsche Telekom AG

We are generally fine with the update, but would like to see also some better explanation for the newly added bullet point ”Support of signaling based logged MDT override protection ...”.

15 – VODAFONE Group Plc

OK with the updated WID

16 – Verizon UK Ltd We support the updated WID
17 – KDDI Corporation Sorry for late response. @Qualcomm We want to address two issues, one is avoid override LTE MDT configurations while running T330, the other is missing logged LTE report without an acquisition from eNB. @MediaTek This tries to address the missing parts to address the above two issues.

3.2 Moderator summary

The updated WID in Rev1 is agreeable to all companies except the newly added objective ”Support of signaling based logged MDT override protection ...”. More clarification on this objective is needed.

Obeservation 1: Except the newly added objective, other parts in the updated WID are agreeable.

Proposal 1: To further clarify on the newly added objective in the final round, if the concerned companies are convinced, the objective will be kept, otherwise if there is still strong concerns, the objective will be removed from the final version.

For the TU allocation, one company propose to add at least 0.5TU for each meeting. One company provide response the TU can be finalized when Editor’s Notes are resolved (which is when full scope of the WI will be known/stable).

Considering the scope/objectives are up to finalization when the Rel-17 WI finishs, we could follow the current TU allocation in RP-213679 and have some updates at RAN#95 or RAN#96 if needed.

4 Final round

4.1 Draft WID

An update WID document (Rev2_New WID on further enhancement of data collection for SONMDT in NR_v00) is uploaded in the drafts folder (TSGR_94e/Inbox/Drafts/[94-26-R18-SONMDTEnh]/Final round). **The only change is to add the supporting companies, where most of them were confirmed offline, some potential supporting companies are put brackets for double check.**

Also a TU sheet is uploaded in the same draft folder.

Two things will be discussed in the final round to finalize the WID.

- **Further clarifications on the newly added objectives, especially from the proponents, to address the companies concerns**

– **Finalize the supporting companies list**

Feedback Form 5: Further clarifications and discussions on the newly added objectives

1 – KDDI Corporation

Thank you very much for the discussion.

1. Response to Qualcomm and MediaTek comments

@Qualcomm: We try to address two issues, one is avoid override LTE MDT configuration while running T330, and the other is missing logged LTE report without an acquisition from eNB.

@MediaTek: This tries to address the missing parts to address the above two issues.

2. Further clarification

We are fine to add some clarification for the new objectives, if it's acceptable to everyone, such as: The feature tries to avoid override LTE MDT configuration while running T330 and also tries to avoid missing logged LTE report without an acquisition from eNB.

2 – China Mobile International Ltd

[Represent as Moderator]

We are closing to the final approval of the WID, and I plan to resolve this only one left issue through the final round email discussion and will not ask for online GTW time for this detailed technical aspects.

So with the clarification from KDDI, whether the below objective is ok with Qualcomm and MediaTek. if the current wording is not clear enough, please suggest revisions directly.

- *Support of signaling based logged MDT override protection to address the scenario where the signaling based MDT configured in LTE, the UE comes to connected in NR.[RAN2, RAN3]*

3 – Qualcomm Technologies Int

Thank you KDDI and the moderator for further clarification. Based on the clarifications, we would like to propose a rework of the objective, and also have one remaining question for clarification.

For the rework, the intention is to spell out the scenarios, and also allow the WG(s) to discuss suitable solutions (the current formulation may suggest to some a specific solution which may not be appropriate in all scenarios). So we suggest something like:

- *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*

Hope this helps. Then the question for clarification is whether this is meant to apply for both inter-RAT and inter-system, or not, as it would be useful to spell that out.

4 – KDDI Corporation

Response to Qualcomm.

Our intention is to focus on only the scenario where the signaling based MDT configured in LTE, the UE comes to connected in NR and exclude the opposite scenario where the signaling based MDT configured in NR, the UE comes to connected in LTE. We try to reduce the workload by working on only the one direction (UE moves form LTE to NR). I may not fully understand your question. So, if I cannot answer your question, then please elaborate.

5 – Huawei Technologies France

For override protection, we are fine with moderator's proposal

6 – China Mobile International Ltd

[Moderator]

@KDDI

I think the rework from Qualcomm is describing the scenario that where the signaling based MDT configured in LTE, the UE comes to connected in NR.

If I am right, Qualcomm's question is whether it is applied to intra-system inter-RAT (between ng-eNB and gNB) and/or inter-system (between eNB and gNB)

btw, are you fine with Qualcomm's rewording?

7 – LG Electronics Polska

For the objective suggested by Qualcomm, it seems to be related to solution detail. So, we are fine with the current objective in the updated WID.

8 – Qualcomm Technologies Int

@ Moderator, @ KDDI, all

The question is as stated by the Moderator, indeed. Basically when we are speaking of LTE, do we mean EPS or 5GS or both, this may have some implications.

Regarding the rewording, and reading LG's comment, just want to clarify that our proposal is precisely to make it as general as possible and avoid mis-reading (and specifically avoid the expression "override protection" which we believe may cause confusion as will be differently interpreted by dfferent people). Thank you.

Feedback Form 6: Any other final comments? please double check the supporting companies in the updated WID and any new supporting companies, please also mention here.

1 – Intel

You can add Intel as supporting company. thank you.

2 – KDDI Corporation

We support the WID, so please remove the brackets attached to KDDI.

3 – Spreadtrum Communications Thanks for the moderator's effort. We are fine with the WID and please include Spreadtrum in the supporting companies.
4 – Beijing Xiaomi Mobile Software You can add xiaomi as supporting company, thanks.
5 – CHTTL Thanks for the effort, we also support the WID, thanks.
6 – SHARP Corporation Please include SHARP as a supporting company, thank you for all the effort.
7 – CITC We are fine with the updated WID, so please include 'China Unicom' in the list of supporting IM, many thanks.
8 – Deutsche Telekom AG We are supporting the WID, so please remove the brackets and the ? at Deutsche Telekom.
9 – NEC Corporation please include NEC as a supporting company, thanks
10 – LG Electronics Polska Thanks for your effort and please include LG Electronics as a supporting company.
11 – Continental Automotive GmbH Thank you for handling this topic. Please include Continental Automotive as a supportive company
12 – TELECOM ITALIA S.p.A. Many thanks to the moderator. Please add Telecom Italia as supporting company
13 – Telia Company AB We also thank the moderator for great work. Please add Telia Company to supporting company list.
14 – VODAFONE Group Plc Thanks, Vodafone can support.

4.2 Moderator summary

For the protection overridden objective, the proponent provides some clarification in the final round, and Qualcomm provides a new wording with the intention to make it more general,

Objective in the current updated WID:

Support of signaling based logged MDT override protection to address the scenario where the signaling based MDT configured in LTE, the UE comes to connected in NR.[RAN2, RAN3]

Rewording by Qualcomm:

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*

The two alternatives seems technically equivalent, but it seems some companies still prefer the version in the current WID. Considering we still have chance to do further refinements before WI starts, the moderator suggest **to keep the current version in the updated WID.**

Rev2_New WID on further enhancement of data collection for SONMDT in NR_v01 is uploaded with the following changes:

- As per the guidance from MCC, Change the title to "New WID on further enhancement of data collection for SON (Self-Organising Networks)/MDT (Minimization of Drive Tests) in NR and EN-DC"
- Align the description of affected specs, thanks Nokia for spotting this.
- Adding more supporting companies

Rev2_New WID on further enhancement of data collection for SONMDT in NR_v02 is uploaded by adding more supporting companies.

The final WID in RP-213553 will be uploaded for approval, which is actually the clean version of Rev2_New WID on further enhancement of data collection for SONMDT in NR_v02

Proposal 1: Approval of final WID in RP-213553.