

**[95e-40-SA3-LocInfo] - Version 0.0.4**  
**RAN**

**3GPP TSG-RAN Meeting #95eRP-220900**

**Electronic, 17 – 23 March 2022**

Agenda Item: 9.11

Source: Email discussion moderator (Intel)

Title: Email discussion summary for [95e-40-SA3-LocInfo]

Document for: Discussion and decision

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## 1 Introduction

This document reports on the following email discussion during RAN#95-e:

**[95e-40-SA3-LocInfo]**

Input contributions covered: RP-220668

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## 2 Discussion

RP-220668 [1] discusses the support for user consent for location information contained within RLF and connection establishment failure reports, and refers to an LS received from SA3 [2] a year ago that addresses the need for specification support. The contribution makes the following proposal:

**Proposal 1:** RAN to provide clear guidance to RAN WGs to specify the signalling required to fulfil the SA3 privacy requirements.

### 2.1 Initial Round

Companies are invited to provide questions and comments to the contribution and the proposal.

#### **Feedback Form 1: Initial round comments**

**1 – VODAFONE Group Plc**

Dear all,

My name is Alexey Kulakov from Vodafone.

1. May I ask you what kind of information need the user consent in case of RLF?

· According to my understanding, we are not speaking about RLF procedure (RRC connection Re-Establishment and RETRIEVE UE CONTEXT over Xn) as such.

· We are speaking about the UE Information procedure specified in 38.331 where the UE may be triggered by the gNB to provide RLF Report to the gNB.

· If we speak about UE Information procedure, this procedure might include rlf-ReportReq-r16 which might include locationInfo-r16.

It would be great we could confirm my understanding is correct.

2. If my assumption is correct, the user consent needs to be provided to enable the gNB to ask the UE about location information only once it triggers RLF reporting inside UEinformationRequest.

Please note that Location Information is optional now.

It would be great we could confirm my understanding is correct.

3. If above is correct, I think that we should discuss and possibly ask RAN3 to check if the concept used for user consent in case of MDT could be extended to cover the inclusion of location information into the RLF Report without any changes to protocols (e.g. just by stating that the current MDT consent is also applicable to location information inside RLF Reporting.)

Regards

Alexey Kulakov

## **2 – Apple Benelux B.V.**

First off, we would like to confirm the first two points of Vodafone's understanding. Indeed, the requirement as clarified in the SA3 LS, is to enable user consent for location information in RLF, not the RLF procedure itself.

Regarding the 3rd point from Vodafone about making the MDT user consent applicable to user location in RLF, we don't see how it can work. What if a user consents to location information in RLF but not to MDT? Those are separate features and therefore the consent should also be separate. Having said that, the actual signaling to implement the SA3 requirement would indeed be very similar to the user consent signaling for MDT.

At any rate, we should probably not discuss such technical details in RAN, but rather just provide guidance to the WGs to specify the required signaling.

Needless to say, as one of the proponents, we support this.

## **3 – Ericsson LM**

1) First of all, some fact checking. The SA3 LS mentioned in 0668 was noted in RAN3 without presentation at RAN3 #112-e because RAN3 was in cc (i.e. no action for the WG). Then, the two CRs mentioned in 0668 were discussed at length at the last RAN3 meeting but the outcome was no consensus (for the record: out of the 11 companies that participated in the discussion 3 supported the CRs, 5 clearly did not support the CRs, while 3 said this should be discussed in RAN2 first). The same functionality has also been discussed in RAN2 in the past, also with no consensus.

2) In general, apart from the location info, RLF and CEF contain RRM measurements that the network legitimately needs to debug problems. In principle their content (with the possible exception of location info) should not be subject to user consent.

3) It is worth noting that the network is able to configure a UE to report or not report location information as part of RLF/CEF. The discussion therefore reduces to whether there is a need for an explicit mechanism to allow setting location reporting or whether existing mechanisms are sufficient.

The discussion can be left to company contributions in WGs as it is out of RAN plenary remit.

#### **4 – Nokia**

We believe current 3GPP specifications already allow operators to fulfill privacy requirements related to user location information. User consent is per today required in the RAN to send any kind of information to external entities that could be used to localize the user, whether it be coarse location information like cell id or detailed location information like the information contained in the *RRC locationInfo-r16* IE. It should also be taken into account that the UE is only identified using temporary identifiers within the RAN, so any coarse or detailed location information available in the RAN but not sent to external entities can't be used to localize any UE or user.

Based on the above, SA3's privacy requirements are in our view fulfilled (i.e. not ignored) by current 3GPP specifications. The corresponding discussions in RAN2 led to RRC updates ensuring additional security for detailed location reporting in some scenarios (TS 38.331 CR#2706 - Change #12, Change #14). Therefore, the proposed guidance to RAN WGs is not needed.

#### **5 – Qualcomm Incorporated**

Agree with Apple comments and we do support this proposal.

SA3 LS clearly indicated that "*RAN2, RAN3 and SA5... should provide a possibility so that the operator has an option to collect and handle user consent*". But RAN2/RAN3 were not able to make any progress to specify solution, thus it is brought to RAN attention to provide clear guidance to RAN2/RAN3 WGs and make progress.

Both MDT and SON are different features with different purpose. If user has provided consent for MDT that does not mean that user has provided consent for location reporting in SON features RLF/CEF reporting. Therefore, RAN2 & RAN3 groups have to work to specify necessary signaling enhancements for userlocationinfo consent separately for SON RLF/CEF reporting.

#### **6 – Intel Corporation (UK) Ltd**

Regarding user consent on location info in RLF reporting, this issue was discussed in RAN2 but it is noted without action because the majority think that the current specification allows implementation flexibility not to provide "available" location information if the user of the UE doesn't consent. If this approach is agreeable, we could discuss further in RAN2 how to explicitly clarify in the stage-2 specification.

Regarding user consent for MDT and RLF, it is not clear how or whether user consent for MDT or RLF is handled differently from user perspective. It would be reasonable to ask SA3 to get more information.

#### **7 – vivo Mobile Communication Co.**

As we known, both RAN2 and RAN3 had such discussion but with no consensus, while SA3 LS has clear requirement that RAN WGs should provide solution on signaling. We could further discuss in WGs (both RAN2 and RAN3) whether/what any clarification is needed.

Regarding whether the MDT user consent can be applied to user location in RLF should be discussed in WG based on companies' contribution. We donot need to dig into details (e.g. whether should be handled similarly or differently) here.

#### **8 – Beijing Xiaomi Mobile Software**

We support this proposal. Currently RLF/CEF report doesn't require network to configure. If UE has RLF/CEF, it has to report location information if available. It violates SA3's privacy concern. Thus, user consent needs to be introduced for RLF/CEF report. At RAN level, we can simply agree on introducing user consent mechanism for location information in RLF/CEF report. Detailed solution can be left to WGs.

#### **9 – MediaTek Inc.**

It is not so clear to us what kind of guideline is needed from RP (especially to RAN2). We have similar understanding as Intel on R2 discussion. Most companies think current RAN2 SPEC already provide this flexibility and there is no consensus to clarify anything additionally. We are not sure it is a good idea to trigger the discussion again. Could we first clarify the intention is mainly to provide guideline to RAN3?

#### **10 – CATT**

Similar proposal was already discussed in RAN3#115e meeting with no consensus reached,we could not quite understand how to provide guidance from RAN pleantry to RAN3/RAN2 since it is more like a detailed technical discussion.

From technical perspective,we already have user consent for MDT in which location information is included.No matter the location information is reported for the purpose of MDT or SON, the privacy requirement would be the same for one specific UE.With this,we think the current user consent transferred from AMF to NG-RAN node is enough for all the location report related cases.It is would be redundant to introduce another RLF/CEF specific location report related user consent.

#### **11 – VODAFONE Group Plc**

I personally do not see what could/should be discussed in RAN2 on this topic.

Whatever we answer to SA3 or other groups, in my view we should clearly point out that user consent is applicable for **location information** only and not for the whole rlf reporting.

I see 3 alternatives how we could potentially proceed:

Alt A: The use case is already covered, and no changes are needed at all.

- In this case, we could write an answer to SA3 from this meeting

Alt B: The use case is already covered, but stage 2 will be changed to highlight, that the MDT user consent is also applicable for the **location information** inside rlf report.

Alt C: MDT method is "re-used" for location Information inside rlf reporting.

- Re-used means that we have a separate indication, but in a similar way.

If Alt A is not possible, I think RAN3 could decide between B and C and we answer next time to SA3.

### **12 – Huawei Technologies Sweden AB**

The technical discussion occurred in RAN2 and RAN3. It has been clarified in WGs that the existing consent for positioning is used for both MDT and RLF. Therefore, we do not see any reason for RAN to provide any additional guidance.

### **13 – ZTE Corporation**

The progress of RAN2/3 described above has been described in detail. The MDT supports the user consent function. For the IMM MDT, the UDM can obtain the user consent of the UE from the HSS and decide whether to trigger the MDT. For the Management based MDT, the RAN decides whether to trigger the MDT of the UE according to the user consent of the UE. However, the user consent mechanism of RLF/CEF is not clear. According to privacy and legal obligations, the UE can provide RLF only based on legacy specification without detail location. According to the privacy and legal obligations, the RAN node can decide not to obtain or use the detail location of the UE in the RLF/CEF. Therefore, a separate RLF/CEF user consent mechanism from OAM seems not necessary. Alternatively further clarification can be request to SA3.

### **14 – Apple Benelux B.V.**

A request for the moderator for the next round - since there are multiple companies claiming that "user consent for location information in RLF is already supported" [sic] we are requesting to ask those companies to let us know WHERE EXACTLY in the specs it "is supported"? A TS number and a line number, please.

### **15 – China Mobile Com. Corporation**

We don't think any guidance from RAN to WG is needed. This is a technical discussion which should not be discussed in RAN.

The same discussion has happened in RAN2 and RAN3 for many times in MDT session and Main session, majority companies think the current RAN specification already meets the requirement from SA3. We don't think further discussion will make any difference in RAN WG.

Based on current specification, only if the user consent is available at the gNB, will the gNB configure obtainCommonLocation to the UE to report location info. This is applicable for both MDT and RLF reporting.

### **16 – TELECOM ITALIA S.p.A.**

we strongly suggest avoid going back to RAN2 and RAN3. It seems the majority believes the issue is already covered by the current specifications. therefore I suggest to close the discussion

### **17 – BT plc**

We agree that user consent is only related to location information within RLF and not RLF procedure itself.

It is not clear to us if user consent for location information should be handled differently for MDT or RLF from a user perspective and it is reasonable to request SA3 guidance on this matter.

It seems a corner case that a user would opt out of location reporting for one but not the other.

## **2.2 Summary from Initial Round**

The majority of companies expressed the view that no action needs to be taken in RAN although the moderator observes that there seems to be quite diverse reasons for taking this view. In summary the reasons

expressed for not taking action in RAN are:

1. RAN is already able to configure the inclusion of location info within the RLF report and CEF report.
2. The existing user consent for MDT could also be used by the RAN for controlling the inclusion of location info within the RLF report and CEF report. However, there were different views as to whether this possibility is already clear within the specifications.
3. UE is only identified using temporary identifiers within the RAN so within RAN the information can't be used to localise the user. Consent only needs to be considered if RAN shares this info with external entities. The unwritten implication in this reason seems to be that RAN does not necessarily need to consider user consent before collecting the location info.
4. UE implementation is able to handle the user consent for location info within the RLF report and CEF report because the requirement in RRC to provide 'available' information provides sufficient implementation flexibility.
5. It can just be discussed in WGs again without involvement from RAN
6. It has been discussed before in RAN2/3 and no consensus to do anything at that time.

The proponents of RP-220668 plus one other company supported the proposal. A few companies suggested that an LS to SA3 for clarification could be useful.

## 2.3 Intermediate Round

From the discussion in the Initial round, the moderator considers that the following 2 points should now be a common understanding:

1. This discussion is only addressing the location info contained in RLF report, CEF report, etc. Not any other information in those reports.
2. the RAN is already able to configure the inclusion of location info within the RLF report and CEF report. Consequently, it should be clear that whatever the outcome of the discussion, no RAN2 signalling change would be needed.

For the intermediate round of discussion it would be useful to focus on the following questions:

1. Is it already clear that the user consent for MDT can be reused as user consent for location info contained in RLF report and CEF report? At least one company claimed this in the initial round but it could help to quickly resolve this discussion if a reference could be provided.
2. If the above point is not already clear, then would it be acceptable from RAN point of view to make it clear that the user consent for MDT can be reused as user consent for location info contained in RLF report and CEF report? This may still need to be checked with SA3.
3. Is it a common understanding that UE implementation is able to handle the user consent based on the text in RRC?

In addition to commenting on the above questions, it seems useful to consider a potential LS to SA3. The moderator considers that the LS could include the following (this is not meant to be a text proposal, just high level description of what an LS could contain):

1. Description of what is already covered by RAN specifications including:
  - a) RRC signalling to control location reporting
  - b) Consent information is provided from CN to RAN (depending on outcome of the discussion of above points)
  - c) RRC spec has flexibility for UE implementation is able to handle the user consent (depending on discussion of above points)
2. Question to SA3 whether the described functionality is sufficient to address their requirements for user consent.

Please provide feedback on the 3 questions and the content of a potential LS. Other comments may also be provided as appropriate.

### **Feedback Form 2: Intermediate Round**

#### **1 – VODAFONE Group Plc**

we support the LS as in the draft box

#### **2 – Qualcomm Incorporated**

1. Current signaling supports user consent for MDT only but there is no specific/separate user consent for retrieving location info even for MDT. RAN is using MDT user consent to request location info as well.
2. RAN should not use MDT user consent (i.e even without having location info consent for MDT) to interpret it as location info consent for the case of SON or even for MDT.
3. If network is requesting location info (current spec is based on MDT consent), if UE has location info available and it is not clear where it clarifies UE is not required to report location info when reporting SON RLF/CEF .

#### **3 – VODAFONE Group Plc**

Dear all,

Sorry, it made a mistake in regards to the comment "we support the LS as in the draft box". It was a comment to other discussion. Please ignore it.

In regard to the user consent:

1. I do not see a big advantage to introduce a new NW signaling. MDT signaling can be re-used. I would like to point out, that if we introduce a new “MDT like” signaling, it will delay possible introduction of user consent into the NW as there will be a need to implement it in HSS, CN, gNBs, instead only in gNBs. In my view, it is much easier to clarify that current signaling is also valid for location Information IE inside rlf indication.

2. In regard to RRC and if the current 38.331 is sufficient: “location Info” in rlf report is optional IE. In this regard, there is a possibility not to report or ignore this information once reported.

In my view, it is sufficient from a coding point of view and we should avoid any RAN2 changes to 38.331. In my view, we should also consider, any possible (e.g. ASN1) changes would result in the fact that user consent would/might not be valid/work for legacy UEs.

#### **4 – Intel Corporation (UK) Ltd**

Q1: There is no explicit description in the specification. obtainCommonLocation is used to configure location info in RLF measurement reporting, the gNB should configure it only if there is user consent. However, it is not explicit on how the gNB gets user consent for RLF/CEF reporting i.e. the existing MDT user consent can be applied or not.

Q2: yes, it is acceptable to reuse the user consent for MDT as user consent for location info contained in RLF report and CEF report.

Q3: we have the same understanding.

We support sending an LS to SA3 to get more information.

#### **5 – Beijing Xiaomi Mobile Software**

1. For Q1, the answer is no. For logged MDT, network can only configure it if it has user consent. For immediate MDT, network can only configure “includeCommonLocationInfo-r16” in ReportConfigNR if it has user consent. Thus, for both logged MDT and immediate MDT, UE will not send location information to RAN if network doesn’t has user consent. However, for CEF/RLF, there is no configuration at all. UE has to send location information when CEF/RLF occurs, the only condition is that the location information is available at UE side, as we cited below in 38.331:

##### 5.3.10.5 RLF report content determination

The UE shall determine the content in the *VarRLF-Report* as follows:

1> clear the information included in *VarRLF-Report*, if any;

...

1> if available, set the *locationInfo* as in 5.3.3.7.

##### 5.3.3.7 T300 expiry

The UE shall:

1> if timer T300 expires:

...

2> store the following connection establishment failure information in the *VarConnEstFailReport* by setting its fields as follows:

3> if available, set the *locationInfo* as follows:

4> if available, set the *commonLocationInfo* to include the detailed location information;

In short, for CEF/RLF, from UE point of view, UE has to report location information whenever available, not even require network to configure. It violates user's privacy. Some companies seem to suggest that even if UE reports location information in CEF/RLF, RAN can decide not to retrieve it based on MDT user consent. But, let alone network retrieve it or not, the reporting of location information to RAN already violate user's privacy. It should be avoided.

2. For Q2, the answer is no. Without any change in 38.331. Even if the consent of MDT is applicable to RLF/CEF, it cannot stop UE from reporting location information to RAN. It only limits RAN node whether it can retrieve the location from CEF/RLF or not. There is still privacy issue.

3. No, as we explained above, without RRC spec change, UE has to report location information when available for CEF/RLF.

For the LS to SA3, we suggest not to send it in RAN because it seems that many people do not correctly understand RAN2 spec.

#### **6 – vivo Mobile Communication Co.**

1. Current signaling in specification supports user consent for MDT only. There is no description to reuse user consent for location info contained in RLF report and CEF report.

2. We donot think so, as the UE can still report location information.

We are not sure whether the LS from RAN is suitable, as companies have different understandings on current RRC specifications.

#### **7 – ZTE Corporation**

For Q1:

Current user consent provided by CN is a list of PLMN allowed for MDT. In current specification, with the user consent for MDT, NG-RAN node is allowed to request location from UE for MDT. There is no restriction to prevent the re-use of the existing user consent for RLF/CEF.

From RAN2 perspective, it seems clear in current specs that GNSS location information is not required in RLF/CEF report in case IE obtainCommonLocation is not configured, and NW should only include obtainCommonLocation in case it is allowed by user consent or regulations. If companies think more clarification is needed, it can be discussed in WG based on company paper.

For Q2:

It can be left to operator's implementation to ensure the existing user consent can be reused for RLF/CEF, according to the contract between operator and user. For example, RAN node will only be configured (e.g. by operator through OAM) to collect the UE location information for RLF/CEF in case the operator think such behaviour is allowed by either user consent or regulations. We don't see clear need to have further clarification on this in specs, but we are open to discuss this in WG based on company paper.

For Q3:

We think it is clear that UE can consider the GNSS location information as not available in case obtainCommonLocation is not included.

For the LS:

We don't think the LS is needed since SA3's requirement can be achieved already by reusing the existing user consent. However, if majority companies want to have the LS, it is also fine for us and the LS should be CC to SA5 as well.

#### **8 – Ericsson LM**

We don't think an LS to SA3 is needed, as this is a TEI discussion which originated in the WGs. If at all, an LS to SA3 should simply say that TSG RAN leaves it up to technical discussion in the WGs, according to company contributions. It seems OK to minute, if needed, what is already specified (as proposed by the Moderator).

#### **9 – Huawei Technologies Sweden AB**

1. This was discussed in RAN2. If any further technical discussion or change in spec is needed, this discussion shall happen in RAN2. Note also that user consent is a high layer concept currently not known in UE. The UE shall be configured whether to report location or not.

2. Yes.

3. Similar to response in q1.

#### **10 – Huawei Technologies Sweden AB**

Regarding the LS, we do not think an LS to SA3 from RAN is needed. This can be triggered in WG if needed

#### **11 – Intel Corporation (UK) Ltd**

**Moderator's comment:** In response to Xiaomi's post, I would like to clarify that 38.331 section 5.3.5.9 includes the following text:

1> if the received *otherConfig* includes the *obtainCommonLocation*:

2> include available detailed location information for any subsequent measurement report or any subsequent RLF report and SCGFailureInformation;

From this text, it seems to be clear that 38.331 does support a network configured way to control the inclusion of location information in the RLF report. I acknowledge that CEF report is not mentioned in this sentence. The use of *obtainCommonLocation* for this purpose is also described in the ZTE response.

#### **12 – Nokia Poland**

We agree with Ericsson and Huawei that the technical decision what is possible and what is not according to the signalling is up to a discussion in RAN2 or possibly RAN3 (and such discussion has already taken place). RAN may further clarify that MDT consent is applicable also to location information, but since it is not explicitly disabled now, it would be a clarification. So, probably, indeed a note in the meeting minutes is sufficient.

Regarding the LS to SA3, we would also prefer not to send it: the original LS was sent to RAN2, the discussion has started there and it should rather be the RAN2 to continue the communication with relevant WGs. If decided to be sent from RAN2, the LS can be more detailed, because it can carry more technical information on the RRC signalling and possible UE implementations, which should rather be avoided in RAN-originating LS.

### **13 – Apple Benelux B.V.**

Q1) No. It is clear that the user consent for MDT is specified only for MDT. This is what the IE description in TS 38.413 says: "The purpose of the *MDT PLMN List* IE is to provide the list of PLMN allowed for MDT". Therefore, the IE cannot be used for anything else - at least not according to the standard.

Q2) No. We think the question is formulated not in the best way. It is not about "making it clear", but rather "repurposing the existing IE". So the question could be: can we retrofit the existing MDT user consent IE to be also used for RLF location information consent. In theory, we can. But:

1) it can break existing implementations

2) it would not cover, for example, the use case when a user consents to MDT but not to location information sharing with RLF

Q3) No. User consent is being used in our specifications to describe something very specific: user consent is obtained by an operator, propagated to the RAN, and then the RAN uses this information to request (or not) a UE to perform certain functionality. Therefore, user consent has nothing to do with UE implementation.

Regarding the LS, we are not against sending it to SA3, but the text must be very clear about the fact that our specifications do not support what SA3 have requested.

### **14 – China Mobile Com. Corporation**

The LS is not needed.

The SA3 LS in said "SA3 opines that RAN2, RAN3, and SA5 do not need to make user consent mandatory for RLF/CEF cases but should provide a possibility so that the operator has an option to collect and handle user consent." SA3 asked RAN to provide the possibility for operator to handle the user consent for RLF/CEF case, but not explicitly asked RAN to add any new user consent or change UE behaviour.

As an operator, we see the SA3 request already can be done by implementation based on the legacy user consent. Operator already has the possibility to check the user consent for RLF/CEF report by reusing and applying the existing user consent.

### **15 – BT plc**

In response to the 3 intermediate round questions:

1) In our view the MDT user consent for location info does not cover RLF and CEF reports.

2) Our preference is to reuse the user consent for MDT for location info contained in RLF and CEF report, instead of introducing an additional separate consent procedure. But we agree this would need to be clarified with SA3.

3) No. Current RRC text covers MDT but not RLF and CEF. It is clearly reflected in the discussion that companies have completely different understanding which ultimately means, it is not properly captured.

## 16 – CATT

We do not think a LS to SA3 from RAN plenary is needed. This is a technical discussion and if there is consensus reached in RAN2 or RAN3, LS could be sent from the working group.

## 2.4 Summary from Intermediate Round

For the intermediate round the moderator presented 3 questions and also proposed a potential LS to SA3 to help resolve this discussion.

**Question 1:** Is it already clear that the user consent for MDT can be reused as user consent for location info contained in RLF report and CEF report?

**Summary of responses to Q1:** 4 companies expressed the view that according to current specifications, it is clear that the existing MDT user consent cannot be reused as consent for location info in RLF/CEF reports. 2 companies expressed the view that it is not clear that the existing MDT user consent can be reused. 2 companies expressed the view that it was possible via a network implementation to reuse MDT consent. No companies argued that it was explicitly clear from current spec that the MDT user consent can be reused.

**Question 2:** If the above point is not already clear, then would it be acceptable from RAN point of view to make it clear that the user consent for MDT can be reused as user consent for location info contained in RLF report and CEF report?

**Summary of responses to Q2:** 2 companies expressed the view that the existing MDT user consent should not be reused as user consent for location info contained in RLF report and CEF report. 6 companies expressed the view that spec should be changed so that the existing MDT user consent should be reused, or at least this would be acceptable. For the 2 companies that responded to Q1 that reuse was already possible today by network implementation, it was not fully clear to the moderator whether they would accept a specification change to make this explicit.

**Questions 3:** Is it a common understanding that UE implementation is able to handle the user consent based on the text in RRC?

**Summary of responses to Q3:** Only limited companies provided a direct response to this question. 2 companies with the view that it is allowed by UE implementation and 2 companies with the view that it is not allowed.

Regarding the sending of an LS to SA3, 8 companies were not in favour of sending an LS to SA3, with only 2 companies in favour of an LS. Based on this response it seems very unlikely that we will be able to agree an LS to SA3 from this RAN plenary.

### **Moderator's conclusion from intermediate round discussion:**

1. The current specifications are not clear on how user consent for location info in RLF/CEF reports is supported.
2. There is no specification text to support that MDT user consent can be reused as user consent for location info contained in RLF report and CEF report, although some companies consider that this reuse of the MDT user consent is possible by network implementation.

3. A majority of companies support to modify the spec so that it is explicit that MDT user consent can be reused as user consent for location info contained in RLF report and CEF report.

Furthermore, based on the above the moderator make the following proposal as an outcome of this discussion:

**Moderator’s proposal from intermediate round:**

1. RAN tasks RAN3 to work on CR(s) to make it explicit that MDT user consent can be reused as user consent for location info contained in RLF report and CEF report.

From the moderator point of view, it would actually be more reasonable to confirm with SA3 that this approach is acceptable to them before the WGs embark on any work, but given the large majority view to not send any LS it seems this is not a possible way forward. The moderator does suggest that RAN3 communicate the result to SA3 once they have completed this task.

## 2.5 Final Round

Companies are asked to comment on the **moderator’s conclusion from intermediate round discussion** (i.e. the 3 bullet points in the previous section). Do companies agree that this is a reasonable reflection of the discussion so far?

**Feedback Form 3: Comments to the moderator’s conclusion from intermediate round discussion**

**1 – Qualcomm Incorporated**

agree with point 1 & 2 and disagree with point 3 .

since there is no explicit user consent for location info retrieval even for the case of MDT, there is need to update RAN3 specs to clearly specify separate user consent for location info retrieval for MDT/SON instead of just assuming (or reusing) MDT user consent as location info consent for MDT/SON reports (it should not be left upto network implementation).

Regarding moderator suggested way forward, we suggest not to reuse MDT user consent as location info consent and specify user consent as new IE for location info retrieval.

**2 – Intel Corporation (UK) Ltd**

We think that all the moderator’s conclusions are reasonable based on the companies’ comments.

**3 – Apple Benelux B.V.**

Agree with Qualcomm, RAN should task RAN3 to define new signaling to support user consent for location info in RLF/CEF.

If the above cannot be agreed, the discussion will have to continue. In which case, in order to make at least some progress, it would be useful to capture in the meeting minutes the moderator’s points 1 and 2, which reflect the ”state of the art”: 3GPP specs do not support user consent for location info in RLF/CEF.

#### **4 – Nokia Poland**

Thank you for the summary, it covers nicely the results of the discussion!

In details, we understand that the points 1 and 2 of the conclusions mean that the current specification does not prevent using the MDT user consent also for RLF/CEF reports (Apple's proposal for the "state of the art" above is thus not correct). Therefore, the conclusion in point 3 is possibly all right, but up to the ongoing technical discussion in RAN2/3.

With this in mind, we think that the suggested way forward is not really needed: the discussion in RAN2 and RAN3 has already started, so it will be continued based on contributions anyway, and so explicit "tasking RAN3" will not change there anything (RAN will not suggest particular outcome from the technical discussion anyway).

#### **5 – Ericsson LM**

To us, the moderator's conclusions are acceptable. If the approach from the moderator is not acceptable, then we should leave these discussions up to company contributions in the WGs of competence.

#### **6 – Huawei Technologies Sweden AB**

Moderator's conclusions are all acceptable.

#### **7 – VODAFONE Group Plc**

I think option 3 makes sense and I am not sure why the companies are not fine with that.

I am not against to inform SA3 that this is the way RAN Plenary would like to proceed (this can be done from this meeting ). At the end the requirement for the user consent is a security requirement and not the RAN one. I also feel a bit strange companies like to introduce user consent per Radio Feature. To me the main point is to satisfy security requirements.

If we can not agree on anything, I think we just go back to the groups and have other round of company driven CRs and I am not sure it is a very good way forward.

#### **8 – BT plc**

We agree with the moderator's conclusion.

#### **9 – ZTE Corporation**

For conclusion 1: At least 2 companies expressed the view that it was possible via a network implementation to the reuse MDT consent. Therefore in addition to current description, the following sentence need to be added to represent the views from companies

'There is no restriction to prevent the re-use of the existing user consent for RLF/CEF.'

**10 – China Mobile Com. Corporation**

We don't agree with the 3 conclusions. From our point, it is quite clear that the gNB can already apply the MDT user consent to RLF report. SA3 is only asking RAN2/SA5 cc RAN3 to make sure that operator has the possibility to check the consent, which is already can be done by implementation.

Regarding to the proposal, this is a purely technical discussion and can be continue discuss in WG level. But we don't see RAN should task RAN3 to do that.

**11 – CATT**

We still think the issue discussed here belong to technical discussion and could be discussed in working group with contribution driven.No RAN guidance is needed.

Then as to whether the current spec could already support user consent for location report in RLF/CEF,we are of the opinion that the existing user consent for MDT could be used.

Companies are asked to comment on the **moderator's proposal from the intermediate round**:

**Feedback Form 4: Comments to the moderator's proposal from intermediate round discussion**

**1 – Intel Corporation (UK) Ltd**

We are ok with the moderator's proposal.

**2 – Ericsson LM**

The moderator's proposal seems acceptable to us; in any case it will be up for discussion in the WG(s) according to company contributions.

**3 – Apple Benelux B.V.**

We think RAN should task RAN3 to define new signaling to support user consent for location info in RLF/CEF.

**4 – Nokia Poland**

Sorry, we've missed this form and thus commented in the form above also on the proposed way forward. Here is our opinion:

With this in mind [i.e. that the points 1-3 are all right, but point 3 is rather up to the technical discussion in RAN2/3], we think that the suggested way forward is not really needed: the discussion in RAN2 and RAN3 has already started, so it will be continued based on contributions anyway, and so explicit "tasking RAN3" will not change there anything (RAN will not suggest particular outcome from the technical discussion anyway).

**5 – Guangdong OPPO Mobile Telecom.**

We are OK with the moderator's proposal. Enhancement on the signalling on NG interface may be needed.

<p><b>6 – Huawei Technologies Sweden AB</b></p> <p>The proposal is acceptable.</p>
<p><b>7 – BT plc</b></p> <p>We agree with the moderator’s proposal.</p>
<p><b>8 – ZTE Corporation</b></p> <p>The LS from SA2 is task for RAN2 instead of RAN3. It is not a traditional way for RAN task RAN3 without agreements achieved in RAN2. The discussion in RAN2/3 can be continued via contribution driven.</p>
<p><b>9 – China Mobile Com. Corporation</b></p> <p>Same comment as above. This is a purely technical discussion and can be continue discuss in WG level. But we don’t see RAN should task RAN3 to do that.</p>
<p><b>10 – CATT</b></p> <p>We still think the issue discussed here belong to technical discussion and could be discussed in working group with contribution driven.No RAN guidance is needed.</p>

## 2.6 Summary from Final Round

In the final round companies were asked to provide feedback on the moderator’s conclusion from intermediate round discussion, and also on the moderator’s proposal from intermediate round.

### Summary of feedback to moderator’s conclusion from intermediate round discussion

The majority of companies agreed with the first 2 points of the moderator’s conclusion from intermediate round discussion. Only 2 companies disagreed with these points on the basis that ”there is no restriction to prevent the re-use of the existing user consent for RLF/CEF”. During the intermediate round, it was pointed out that the existing signalling in 38.413 refers to MDT which could certainly be understood that it is not meant for functionality other than MDT. Furthermore, the second bullet already acknowledges that some companies consider that the reuse of the MDT user consent is possible by network implementation. Consequently, no update to these bullets is proposed.

Regarding the 3rd bullet, 4 companies disagreed but the moderator understands that the disagreement was with the technical direction preferred by the majority of companies, and not the fact that those companies expressed this view.

### Summary of feedback to moderator’s conclusion from intermediate round discussion

5 companies agreed with the moderator’s proposal, 2 companies disagreed with the technical direction of the proposal (i.e. they do not support to reuse the existing MDT user consent) , and 4 companies prefer to discuss directly in RAN WGs rather than take any decision in RAN.

### Conclusion

Based on the above it is clear that RAN cannot reach consensus on a way to resolve this issue and as a consequence discussion should continue, based on contributions, in RAN3. However, as a conclusion to this

discussion the moderator proposes to capture the current status to hopefully avoid repeat discussions in RAN3. For this conclusion, first 2 bullets of the conclusion from the intermediate round are unchanged and 3rd bullet is revised to make it clear that this is simply reporting the views expressed in the RAN plenary discussion. A 4th bullet is added, simply stating the non consensus on the way forward was reached and discussion should continue, based on contributions, in the RAN WGs

1. The current specifications are not clear on how user consent for location info in RLF/CEF reports is supported.
2. There is no specification text to support that MDT user consent can be reused as user consent for location info contained in RLF report and CEF report, although some companies consider that this reuse of the MDT user consent is possible by network implementation.
3. During RAN#95e discussion a majority of companies expressed support to modify the spec such that it is explicit that MDT user consent can be reused as user consent for location info contained in RLF report and CEF report.
4. No consensus was reached on a way forward and discussions should continue based on company contributions into the RAN WGs.

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## 3 Summary

Moderator's conclusions describing the status from the discussion at RAN#95e:

1. The current specifications are not clear on how user consent for location info in RLF/CEF reports is supported.
2. There is no specification text to support that MDT user consent can be reused as user consent for location info contained in RLF report and CEF report, although some companies consider that this reuse of the MDT user consent is possible by network implementation.
3. During RAN#95e discussion a majority of companies expressed support to modify the spec such that it is explicit that MDT user consent can be reused as user consent for location info contained in RLF report and CEF report.
4. No consensus was reached on away forward and discussions should continue based on company contributions into the RAN WGs.

Tdoc RP-220668 is noted.

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## 4 References

[1] RP-220668, "Fulfilment of SA3 requirements on user consent for location information in RLF ", Apple, Qualcomm, RAN#95e, March 2022

[2] S3-211338, Reply LS on the user consent for trace reporting, SA3, March 2021