**3GPP TSG-RAN WG3 Meeting #120  *R3-233327***

**Incheon, Korea, 22th May – 26th May 2023**

**Agenda Item: 9.2.4**

**Source: CATT (moderator)**

**Title:** **Summary of Offline Discussion on CB # 13\_MultipleTrace**

**Document for: Approval**

# Introduction

**CB: # 13\_MultipleTrace**

**- Check the multiple MDT configuration scenario and try to achieve the group common understanding based on current RAN specs**

**- Only the latest MDT configuration needs to be transfer to the target node?**

**- LS to SA5 if agreeable**

(moderator - CATT)

Summary of offline disc [R3-233327](file:///C%3A%5CUsers%5Cliuaijuan%5CAppData%5CLocal%5CTemp%5C360zip%24Temp%5C360%240%5CInbox%5CR3-233327.zip)

# For the Chairman’s Notes

[TBD]

# Discussion

During the online discussion, on the scenario of multiple MDT configurations, it is common understanding that multiple MDT configurations may be configured to one UE. And the assumption on the behaviour of NG-RAN node when receiving multiple MDT configurations for active UE is as below:

Case 1: Multiple immediate MDT

All of the immediate MDTs are configured to UE

Case 2: Multiple log MDT

Always replace the previous log MDT with the new received log MDT.

Case 3: Combination of immediate MDT and log MDT

All of the immediate MDT and the latest log MDT are configured to UE

Then during handover procedure, since only one MDT configuration could be transferred during handover procedure, then there would be some problem. To avoid introducing *Trace Activation list* in the NG/Xn AP, one solution which was proposed during the online session is that source NG-RAN node only transfer one MDT configuration during handover procedure and inform AMF failure of other MDT configurations via Trace Failure Indication message.

Question1: Do you agree with solution above?

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| --- | --- | --- |
| Company | Yes/No | Comment |
| Samsung | No | It is not correct to say multiple MDT will be configured to the UE. There is no forbidden to configure a logged MDT and a immediate MDT for a UE since they are transferred in different signaling and measured by the UE in different RRC state. But it is strange to configure two immediate MDTs. If want to measure multiple measurements, can set multiple position in *Measurements to Activate* IE. It is a bitmap and you can set multiple positions with “1”. For the logged MDT, since the UE need to start the logging timer and the timer is also start at the CN, therefore, gNB needs to configure UE with logging once the gNB receives it. The gNB doesn’t need to store it for a long time. Once the logged MDT is sent to the UE, the gNB will release the context and no need to transfer it via Xn.For the handover case, we think it is not a valid assumption that there will be two MDT context before handover. If the second MDT is logged MDT and the gNB has no time to send this logged MDT to UE since a handover is triggered, then we think it is the interaction with handover, currently we already has Failure message to handle the interaction with handover. Storing two MDT context in the gNB can happen for RRC Inactive mode UE. If the UE is in the inactive mode and CN doesn’t know it, the CN may configure an immediate MDT and a logged MDT. Since UE is inactive, the logged MDT can not send to the UE. Only in this case, two MDT contexts are stored in the gNB. Due to only one MDT can be transferred in the UE Context Retrieval Response message, the gNB needs to replace the old with the new. Open to discuss this case. |
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Then for RRC-Inactive UE, similarly, if NG-RAN node receives multiple immediate MDT and log MDT, it would keep all the immediate MDTs and the latest log MDT. When UE resume to another node, the source NG-RAN node would also only transfer one MDT configuration to the target node and inform AMF failure of other MDT configurations via Trace Failure Indication message.

Question2 : Do you agree with solution above?

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| Company | Yes/No | Comment |
| Samsung |  | See above.  |
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For trace session, we think the similar mechanism as immediate MDT could be adopted i.e. source NG-RAN node only transfer one Trace session during handover procedure and inform AMF failure of other trace sessions via Trace Failure Indication message

Question: Do you agree with solution above?

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| --- | --- | --- |
| Company | Yes/No | Comment |
| Samsung | No new solution is needed | Trace is different, it is not possible to run two traces at the same time. Normally, it is wrong behavior that the AMF sends two traces. It is quite corner case. If it happens, the gNB can activate the new and deactivate the old. No need to notify it to the AMF. Pls note it is already specified if two Trace Activation with same TR is received, the gNB ignore the second one, no need to send Failure in this case. We understand SA5 doesn’t specify two trace with different TR since it is quite rare case.And Trace Failure to indicate the interaction with mobility is already supported. So nothing need to be done. |
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If above proposal is agreeable, then an LS should be sent to SA5 on the common understanding of RAN3.The draft LS is also uploaded in the draft folder. Please provide your comments below or directly on the draft LS

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| --- | --- |
| Company | Comment |
| Samsung | Don’t share the same understanding as the content in the draft LS. |
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For Trace Failure indication, it is stated that “The purpose of the Trace Failure Indication procedure is to allow the NG-RAN node to inform the AMF that a Trace Start procedure or a Deactivate Trace procedure has failed due to an interaction with a handover procedure.” If we use this procedure for another purpose, some clarification is needed. The proposed sentence is as follow:

The procedure also allows the NG-RAN node to inform the AMF that a trace session for the indicated trace reference is stop due to mobility procedure.

And we maybe also need to introduce a new cause value as” trace reference is stop due to mobility procedure”

Please provide your views on the above two changes below

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| --- | --- |
| Company | Comment |
| Samsung | No. |
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# Conclusion

[TBD]

# References