3GPP TSG-RAN3 Meeting #109-E R3-205620

E-meeting, 17 – 28 August 2020

Agenda Item: 31.3.5

Source: Ericsson

Title: SoD for MDTinactive

Document for: Discussion, Decision

# Introduction

This is a summary of offline discussions for the topic of CMDT for Inactive UEs. The topic is described in the RAN3-109e agenda as below:

### 31.3.5. MDT for Inactive UEs

*Previous summary of offline disc.:* [*R3-204308*](Docs\R3-204308.zip) *(noted)*

It is confirmed that the principle that “management based MDT should not overwrite signaling based MDT” is valid for all single connection and EN-DC scenarios

Continue discussion on network-based solution as Rel-16 correction

*Possible solutions which have been discussed:*

*1) For Inactive UEs: A solution can be based on, but not limited to, signaling, from old Serving NG RAN node to new Serving NG RAN node, of an indication of an active Signaling Based Logged MDT configuration at the UE*

*2) For Idle UEs: A solution can be based on, but not limited to, signaling, from AMF to new Serving NG RAN node. To be continued...*

The agreements stated above mirror the RAN2 requirements, which state that:

Management based MDT should not overwrite signaling based MDT

Also, the agreements above confirm that RAN3 has agreed to work on a network based solution

Continue discussion on network-based solution as Rel-16 correction

**CB: # 87\_MDTinactive**

**- start from RAN2 requirements**

**- clarify scenario**

**- go for minimum complexity solution; timer-based solution needed?**

(E/// - moderator)

Summary of offline disc [R3-205620](file:///C:\Users\eangcen\Documents\3GPP_ETSI\RAN3\RAN3-109\MyContributions\Inbox\R3-205620.zip)

# For the Chairman’s Notes

Following agreements were proposed on the first round of offline discussion:

# Discussion

## Framing the Requirement

In this CB companies are asked to focus on RAN2’s requirements. As stated above, RAN2’s requirements state that:

Management based MDT should not overwrite signaling based MDT

This requirement comes from the fact that Management Based MDT is a process that can rely on selection of ANY UE, while Signalling based MDT is a process that requests MDT measurement collection from a SPECIFIC UE.

It is worth noticing that Signalling Based MDT may be triggered for law enforcement reasons.

Therefore, while it is of paramount importance that a signalling based logged MDT configuration is not overwritten by a management based MDT configuration, there is no obligation for management based MDT to select any specific UE.

**Observation 1: The main requirement from RAN2 is that Signalilng Based Logged MDT configurations are not overwritten by Management Based Logged MDT configurations**

**Observation 2: A Management Based Logged MDT process can rely on selection of any UE in the MDT area. There is no requirement according to which a UE previously on a Signalling Based MDT configuration should be selected for Management Based Logged MDT**

Based on the above, the requirement RAN3 has to find a solution for is the following:

**Requirement: To determine a network based solution that avoids that signalling based logged MDT configurations are overwritten by management based logged MDT configurations. It is not necessary, i.e. neither RAN2 nor the specifications mandate, that a UE previously on a Signalling Based Logged MDT configuration becomes available for Management Based Logged MDT**

Companies are invited to state their view on the requirement above and to point out at any documented condition that nulls the requirement, if needed.

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| --- | --- | --- |
| Company | Agree/Don’t Agree | Comments |
|  |  |  |

## Possible Solutions

There are two main classes of solutions to address the requirements described above:

**Solution 1:** To provide from Old Serving NG RAN Node or AMF to New Serving NG-RAN Node a per UE indication that a Signalling Based Logged MDT configuration is Pending or Active

* If the configuration is “Pending”, the New Serving NG-RAN Node applies the Signalling Based Logged MDT configuration at the UE and it does not configure the UE with a Management Based Logged MDT configuration.
* If the configuration is “Active”, the New Serving NG-RAN Node does not configure the UE with a Management Based Logged MDT configuration.

In this solution mechanisms to determine when a UE previously on a signalling based logged MDT configuration becomes available for Management Based Logged MDT are left to implementation.   
For example, such mechanisms could be based on timers (after a timer of duration x, consider the UE available for Management Based Logged MDT), or on monitoring of the *logMeasAvailable* IE from the UE (if the UE does not signal the *logMeasAvailable* IE anymore, the UE has terminated its signalling based logging process and it is available for Management Based Logged MDT)

**Solution 2:** To provide from Old Serving NG RAN Node to New Serving NG-RAN Node a per UE indication that a Signalling Based Logged MDT configuration is Pending or Active and to provide an indication of the remaining logging duration, i.e. of the remaining time for which the UE will log signalling based logged MDT measurements.

Such solution can be achieved in various ways, for example, by signalling between old serving RAN node or AMF and new serving NG RAN node the absolute time at which the logging period started as well as an indication of the overall logging duration; or by signalling between old serving RAN node or AMF and new serving NG RAN node the remaining logging duration.

Given that the main requirement given by RAN2 is simply to avoid that signalling based logged MDT configurations are overwritten by management based logged MDT configurations, and given the focus of this CB to “**start from RAN2 requirements**” and “**go for minimum complexity solution**”, the following is proposed:

**Proposal: it is proposed to agree to a solution that allows to provide from Old Serving NG RAN Node or AMF to New Serving NG-RAN Node a per UE indication that a Signalling Based Logged MDT configuration is Pending or Active and to continue discussions on signalling of remaining logging duration as possible optimisation**

Companies are invited to provide their comments to the proposal above. If the proposal is not acceptable, companies are invited to clarify what is missing from the proposal to fulfil the requirements given to RAN3.

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| Company | Comments |
|  |  |

# Conclusion, Recommendations [if needed]

If needed