3GPP TSG-RAN WG3 Meeting #125 R3-24xxxx

Maastricht, NL, 19th – 23rd Aug 2024

Agenda Item: 16.3

Source: ZTE (moderator)

Title: Summary of Offline Discussion on CB: # AIoT2\_CNRANSignalling

Document for: Approval

# Introduction

**CB: # AIoT2\_CNRANSignalling**

**- Start with** [**R3-244059**](file:///C%3A%5CUsers%5Cealeves%5COneDrive%20-%20Ericsson%5CDocuments%5C3GPP%5CTSG_RAN%5CWG3%5CTSGR3_125%5CInbox%5CDrafts%5CCB%20%23%20AIoT2_CNRANSignalling%5CInbox%5CR3-244059.zip)**, check the open issues above**

(moderator - ZTE)

Summary of offline disc [R3-244703](file:///C%3A%5CUsers%5Cealeves%5COneDrive%20-%20Ericsson%5CDocuments%5C3GPP%5CTSG_RAN%5CWG3%5CTSGR3_125%5CInbox%5CDrafts%5CCB%20%23%20AIoT2_CNRANSignalling%5CInbox%5CR3-244703.zip)

# For the Chairman’s Notes

# Discussion-First round

RAN3 starts with inventory-only procedure. Discuss the content in Inventory/Command.

**The AIoT CN to select suitable reader (AIoT enabled gNB or AIoT enabled UE reader) for both topology 1 and topology 2?**

**Assistance information from AIoT CN to AIoT RAN?**

## Overall procedure for inventory-only

RAN3 starts with inventory-only procedure. Discuss the content in Inventory/Command.

**Introduce a class 1 Inventory Request procedure with request/response/failure messages.**

**Introduce a class 2 Inentory report prcodure**

#### 6.4.1.3 Content of Communication between involved main AIoT system entities



Figure 6.4.1.3-1: Overall procedure for AIoT

Editor’s Note: It is assumed that communication between AIoT RAN and AIoT CN can be common for topology 1 and topology 2. FFS on detailled differences.

Step 1 Content: ...

Step 2 Content: ...

Step 3 Content (as far as RAN3 scope is concerned):

Step 4 Content: ...

. When the AIoT CN decides to initiate inventory procedure, it sends Inventory request message to the gNB.

2. The gNB sends Inventory response message to the AIoT CN. If the gNB sends Inventory failure message to the AIoT CN, this Inventory procedure ends.

3. The gNB initiates inventory procedure at AIoT radio interface accordingly.

*Editor’s Note 1: This step is defined by RAN2.*

4. After receiving part or full of inventory result from devices, the gNB sends a single or multiple Inventory reports to the AIoT CN including the received inventory result.



Figure 6.4.1.3-2: Overall procedure for AIoT Topology 2

Editor’s Note: It is assumed that communication between AIoT RAN and AIoT CN can be common for topology 1 and topology 2. This section tries to identify details on communication between UE based reading device and AIoT enabled gNB, as far as RAN3 is concerned, if any.

0. The UE as reader shall be reachable, if needed, by legacy CN paging.

1/2. The step 1/2 are used to forward and respond the inventory request from AIoT CN, detail is FFS.

 3. The gNB initiates inventory procedure at Uu interface and AIoT radio interface accordingly.

*Editor’s Note 1: This step is defined by RAN2.*

4. After receiving part or full of inventory result from UE, the gNB sends a single or multiple Inventory reports to the AIoT CN including the received inventory result.

## Device context

**Ericsson: What is a device context? Guess this chapter is not necessary at this point in time. What would be important would be to discuss in 3.1 (with that following chapters are not necessary, in my view, but this is a Q on how to structure this subsection of the TR)**

- the scope (e.g. unique per AIoT RAN node, per AIoT CN node, global, ...)

- the ownership (which node generates)

- which node needs to process the information and triggers a function based on the info, store it e.g. for associating request/response

**Which node to store Device context?**

AIoT CN

RAN as reader

UE as reader

**What content in the device context?**

Association between reader id and device id

## Device Identity

**Ericsson: should be part of the general section 3.1.**

**Whether the reader needs to store the device identity?**

**Whether the reader needs to decode the device identiy?**

## Reader selection

**The AIoT CN to select suitable reader (AIoT enabled gNB or AIoT enabled UE reader) for both topology 1 and topology 2?**

## Assistance information

**Assistance information from AIoT CN to AIoT RAN?**

# Conclusion, Recommendations

# References

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