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**](Inbox%5CR3-244059.zip)**, check the open issues above**

(moderator - ZTE)

Summary of offline disc [R3-244703](Inbox%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 Overall procedure



Figure 6.4.1.3-1: Overall procedure for AIoT Topology 1

1. 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

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

**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

**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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2. [R3-244428](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_125%5CDocs%5CR3-244428.zip) Inventory, Command and device context management for Ambient IoT (Qualcomm Incorporated) discussion
3. [R3-244060](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_125%5CDocs%5CR3-244060.zip) Discussion on unified procedure for AIoT topology 1 and 2 (ZTE Corporation) discussion
4. [R3-244059](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_125%5CDocs%5CR3-244059.zip) (TP for TR38.769) NG interface impact for Ambient-IoT (ZTE Corporation) other
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11. [R3-244329](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_125%5CDocs%5CR3-244329.zip) Context Management and Data Transport of Ambient IOT (Lenovo) discussion
12. [R3-244389](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_125%5CDocs%5CR3-244389.zip) [TP for TR 38.769] Elements for AIoT RAN – AIoT CN communication and overall signalling (Ericsson) other
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17. [R3-244564](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_125%5CDocs%5CR3-244564.zip) Discussion on RAN-CN interface for Ambient IoT (China Telecom) discussion
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