3GPP TSG-RAN WG3 #117bis-e R3-225933

Online, 10-18 October 2022

Agenda Item: 19.2

Source: Nokia (moderator)

Title: Summary of Offline Discussion on CB: # UAV\_Identification

Document for: Approval

# Introduction

**CB: # UAV\_Identification**

**- How to support subscription based aerial UE identification, Re-use LTE mechanism?**

**- Whether to consider UAV supporting on MRDC, inter-RAT mobility?**

**- Capture agreements and provide CRs if agreeable.**

(Nok - moderator)

Summary of offline disc [R3-225933](file:///C%3A%5CUsers%5Caarjona%5CDocuments%5C001%20-%20Standardization%5C60%20-%20Standardization%20Reports%5C2022%2010%20RAN3-117bis-e%5Ccontributions%5Ccbs%20and%20updates%5CUAV%5CInbox%5CR3-225933.zip)

The first round of discussion is set to deadline on **11th October (Tuesday) 11:00 UTC.**

The final round of discussion is set to deadline on **17th October (Monday) 08:00 UTC.**

# For the Chairman’s Notes

**TBD.**

# Discussion

This is the first meeting in RAN3 where UAV for NR (NR\_UAV) work item is discussed in RAN3. One of the objectives is defined as follows:

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| 2. Specify the signaling to support subscription-based aerial-UE identification [RAN3/SA2 interaction/RAN2]Note: Work done in LTE is a starting point for this objective. NR-specific enhancements can be considered, if needed, while overall the LTE and NR solutions should be harmonized as much as possible. |

Most of the contributions submitted indicate similar proposals.

* Provide Aerial Subscription Information from (a) AMF to gNB via NGAP, and (b) between gNBs via XnAP
* Base the *Aerial UE Subscription Information* IE with similar codepoints as in the LTE solution (ENUMERATED (allowed, not allowed, …)
* Over NGAP, Introduce the Aerial Subscription Information in Initial Context Setup, UE Context Modification, Handover Request, Path Switch Request Acknowledge (\*) messages
* Over XnAP, Introduce the Aerial Subscription Information in Handover Request, Retrieve UE Context Response (\*) messages
* (\*) Indicates messages which were not included as part of all of the proposals

Additionally, some companies made remark that further RAN3 changes may be needed for inter-RAT mobility and Dual-Connectivity is supported by additional RAN2 progress.

Likewise, some draft text proposals were made available within the submissions for Stage 2 (TS 38.300) and Stage 3 (TS 38.413 and TS 38.423).

At this initial meeting, the moderator proposes to capture the high-level agreements to be the basis for the future Stage 2 and Stage 3 specifications changes, and to derive the corresponding BL CRs at the next RAN3#118 meeting.

## Companies to provide valuable comments for the possible solutions

**Q1: Do you agree to introduce *Aerial UE Subscription Information* IE with codepoints ENUMERATED (allowed, not allowed, …) over NGAP and XnAP. If not, please indicate the reason.**

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| --- | --- |
| Company | Comment |
| Nokia | Yes |
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| **Moderator Summary :** TBD |

**Q2: Do you agree to introduce *Aerial UE Subscription Information* IE over NGAP over the following messages? If not, please indicate the reason.**

* **INITIAL CONTEXT SETUP**
* **UE CONTEXT MODIFICATION**
* **HANDOVER REQUEST**
* **PATH SWITCH REQUEST ACKNOWLEDGE**

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| --- | --- |
| Company | Comment |
| Nokia | Yes, agree to introduce in all the mentioned NGAP messages |
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| **Moderator Summary :** TBD |

**Q3: Do you agree to introduce *Aerial UE Subscription Information* IE over XnAP over the following messages? If not, please indicate the reason.**

* **HANDOVER REQUEST**
* **RETRIEVE UE CONTEXT RESPONSE**

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| --- | --- |
| Company | Comment |
| Nokia | Yes, agree to introduce in all the mentioned XnAP messages |
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| **Moderator Summary :** TBD |

# Conclusion, Recommendations [if needed]

**TBU**

# References

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| [R3-225374](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225374.zip) | UAV Support over NG-RAN interface (NEC) | discussion |
| [R3-225572](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225572.zip) | On subscription-based UAV UE identification (Nokia, Nokia Shanghai Bell) | discussion |
| [R3-225618](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225618.zip) | Subscription-based Aerial-UE Identification for NR (CATT) | other |
| [R3-225694](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225694.zip) | Initial discussion on NR support for UAV (Huawei) | discussion |
| [R3-225804](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225804.zip) | Subscription-based aerial-UE identification for NR UAV (CMCC) | discussion |
| [R3-225855](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225855.zip) | NR support for UAV WI (Ericsson) | discussion |
| [R3-225856](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225856.zip) | Introduction of Aerial authorization information (Ericsson, AT&T, NTT DOCOMO, INC, Qualcomm Incorporated, Intel Corporation) | CR0618r2, TS 38.413 v17.2.0, Rel-18, Cat. B |
| [R3-225875](file:///D%3A%5C%E4%BC%9A%E8%AE%AE%E7%A1%AC%E7%9B%98%5CTSGR3_117bis-e%5CDocs%5CR3-225875.zip) | Discussion on NR support for UAV (ZTE) | discussion |