3GPP TSG-RAN WG3 Meeting #125 R3-244689

Maastricht, NL, 19th – 23rd Aug 2024

Agenda Item: 9.2

Source: Nokia (moderator)

Title: Summary of Offline Discussion on CB: # 13\_UEIdentityIndex

Document for: Approval

# Introduction

**CB: # 13\_UEIdentityIndex**

**- Check the group common understanding on the Extended UE identity index value IE encoding**

(moderator - Nok)

Summary of offline disc [R3-244689](file:///C%3A%5CUsers%5Cpgodin%5CDesktop%5CphilipDocuments%5Ca_ran3new2%5Cran3125_maastricht%5Ccontributions%5CUEindex%5Crevision%5CInbox%5CR3-244689.zip)

# For the Chairman’s Notes

Agree the CR in R3-244773 and the mirror CR in R3-244774

# Discussion

TS 38.304 section 7.1 has two possible encodings for UE\_ID.

* If eDRX is being used, UE\_ID should be 5G-S-TMSI mod 4096 per section 7.1 in 38.304 for proper calculation of PF & PO
* If PEIPS is being used, UE-ID should be 5G-S-TMSI mod 32768 (when eDRX is used) or 8192 (when eDRX is not used) per section 7.3.2 in 38.304.

This UE\_ID is assumed to be sent in the *Extended UE identity index value* IE in the NGAP *Core Network Assistance Information for RRC Inactive* IE because it has more than 10 bits. In the first case it means 12 bits in the second case it means 15 bits or 13bits. This means three possible encoding ways are possible:

Coding 1: the AMF always encodes with a modulo of 16 bits and the gNB is in charge of taking a further modulo of 12 bits, 13 bits or 15 bits depending if it is eDRX or PEIPS case.

Coding 2: the AMF always encodes with a modulo of 15 bits (i.e. the leftmost bit is set at zero) and the gNB is in charge of taking a further modulo of 12 bits, 13 bits or take the 15 bits depending if it is eDRX or PEIPS case. In the current release this is enough as there is no use case using 16 bits and it allows to minimize the number of bits of S-TMSI disclosed over the interface.

Coding 3: the AMF encodes a modulo of 12 bits, 13bits or 15 bits depending if it is eDRX or PEIPS case (i.e. leftmost bits set at zero).

TS 38.304 doesn’t help to decide between thse two interpretations because it does not specify the CN-RAN interface encoding part.

Majority of companies preferred to clarify with coding 1. However, during the online session, concern was raised that the following two ways could give different results:

Way 1: AMF encodes modulo 16 bits then gNB encodes modulo 12 bits.

Way 2: AMF encodes directly modulo 12 bits.

After checking this yields to same result and show sopper was lifted.

The CR in R3-244467 and the mirror CR in R3-244136 were further updated to clean up cover page and remove “in this release” into R3-244773 and R3-244774.

**Proposal 1**: agree the CR in R3-244773 and the mirror CR in R3-244774.

# Conclusion, Recommendations

**Proposal 1**: agree the CR in R3-244773 and mirror in R3-244774.

# References