3GPP TSG-RAN WG2 Meeting #118 Electronic Draft - R2-2206362

Online, 09 – 20 May 2022

**Agenda item: 6.3.5**

**Source: Intel Corporation**

**Title: Report of [AT118-e][233][MUSIM] UE capability corrections for MUSIM (Intel)**

**Document for: Report**

# Introduction

This document is the report of the following offline discussion:

* [AT118-e][233][MUSIM] UE capability corrections for MUSIM (Intel)

Scope: Provide final input on the MUSIM capabilities for the UE capability mega-CR based on online decisions.

Intended outcome: Discussion report in [R2-2206362](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206362.zip) and draft CRs (to be merged to the UE capability mega-CRs) in [R2-2206182](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206182.zip) (38.306) and [R2-2206183](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_118-e/Docs/R2-2206183.zip) (38.331).

Deadline: Deadline 5

The consolidated draft CRs will be provided early next week based on initial feedback. To progress the initial draft CRs by Wed, I will set the deadline for comments as:

* **Comment deadline:** Tuesday W2, 2000 UTC (for collecting views)

# Contact points

|  |  |  |
| --- | --- | --- |
| Company | Name | Email address |
| Nokia |  | amaanat.ali@nokia.com |
| MediaTek | Felix Tsai | chun-fan.tsai@mediatek.com |

# Discussion

## Capability for Support for Paging case in RAN paging

RAN2 made the following agreement:

* 1 Introduce a conditional mandatory UE capability without capability bit for support of Paging cause in RAN Paging.

The following text is proposed (based on the TP in [R2-2205547](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205547.zip)) to capture this agreement in 38.306:.

**6 Conditionally mandatory features without UE radio access capability parameters**

| Features | Condition |
| --- | --- |
| Paging cause in RAN paging message (*fulIl-RNTI* based Paging) | It is mandatory for a UE to support Paging cause in RAN paging with RAN ID (*fullI-RNTI)* if UE supports Paging cause for NAS UE ID in Paging message at upper layers |

### Q1: Do companies agree with the above text to capture the agreement?

|  |  |  |
| --- | --- | --- |
| *Company* | *Yes/No* | *Comments. If “No”, please provide alternative suggestion* |
| Nokia | Yes | As also commented online we think this is useful to maintain traceability as the feature at NAS is definitely linked to the implementation at the UE for RRC\_INACTIVE handling which is originated by RAN paging. |
| MediaTek | Yes |  |
| ZTE | Yes |  |
|  |  |  |
|  |  |  |
|  |  |  |

## GAP preference capability also indicates support MUSIM gap configuration

[R2-2205756](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205756.zip) [2] observed that a UE indicating a Gap preference UAI shall also support the related MUSIM gap configuration and provided the following TP.

**Proposal 1 Update musimGapPreference-r17 to account for the UE support of both MUSIM gap preference and MUSIM gap configuration.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***musimGapPreference-r17***  Indicates whether the UE supports providing MUSIM assistance information with MUSIM gap preference and related MUSIM gap configuration, as defined in TS 38.331 [9]. | UE | No | No | No |

### Q2: Do companies agree with the proposal and the proposed TP?

|  |  |  |  |
| --- | --- | --- | --- |
| *Company* | *Proposal*  *Yes/No* | *TP*  *Yes/No* | *Comments.*  *If “Yes” to proposal and “No” to proposed TP, please provide alternative suggestion* |
| Nokia | Yes | Yes | The clarification seems reasonable for us. |
| MediaTek | Yes | Yes |  |
| ZTE | No | No | We don’t think this clarification is necessary. Our understanding is that only the capability to indicate the “leaving preference” was needed during RAN2 discussion. Then two capability bits were introduced to distinguish leaving with and without connected state. |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Editorial update

[R2-2204616](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2204616.zip) made the following proposal and TP:

**Proposal 1: Align capability description in TS 38.306 for musimGapPreference-r17 on the same lines of musimLeaveConnected-r17 which also aligns well to TS 38.331.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ***musimGapPreference-r17***  Indicates whether the UE supports providing MUSIM assistance information with indication of MUSIM gap (i.e. without leaving RRC\_CONNECTED) preference as defined in TS 38.331 [9]. | UE | No | No | No |

### Q4: Do companies agree with the proposed update?

|  |  |  |
| --- | --- | --- |
| *Company* | *Yes/No* | *Comments.* |
| Nokia | Yes | This is rather editorial alignment to keep the consistency with TS 38.331. |
| MediaTek | No | We prefer to avoid the term “without leaving RRC\_CONNECTED” as proposed in R2-2204615. |
| ZTE | No | Same view as MTK |
|  |  |  |
|  |  |  |
|  |  |  |

## RRC Processing delay

[R2-2205756](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205756.zip) [2] provided the following justification and proposal:

…since the UE can process an incoming RRC message during possibly configured gaps for MUSIM, or the network implementation can avoid sending RRC messages close to the gaps occurrences

**Proposal 2 No change of RRC processing delay requirements is needed for MUSIM UEs**

### Q3: Do companies agree with the proposal?

|  |  |  |
| --- | --- | --- |
| *Company* | *Yes/No* | *Comments.* |
| Nokia | Yes | Agree as we have discussed this several times earlier and have reiterated the same view. |
| MediaTek | See comment | In practical, UE may need more processing time in dual SIM case but we think no need to make this definition in SPEC (at leave in Rel-17). We suggest leave this part to NW/UE implementation. That is, No change on the SPEC and NO explicit agreement to say that that increasing of processing delay is needed or not. |
| ZTE | Yes | We tend to agree with the analysis in the paper. ([R2-2205756](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205756.zip)) |
|  |  |  |
|  |  |  |
|  |  |  |

# Conclusions and proposals

TBD

# References

[R2-2205547](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205547.zip) Need for UE capability for Paging cause for RAN ID based paging Intel Corporation discussion Rel-17 LTE\_NR\_MUSIM-Core

[R2-2205756](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2205756.zip) Remaining aspects on UE capabilities for Multi-USIM and other issues Ericsson discussion

[R2-2204616](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2204616.zip) Editorial corrections for UE capability Nokia, Nokia Shanghai Bell discussion Rel-17