**3GPP TSG-RAN WG2 Meeting #113bis-e DRAFT** [**R2-2104351**](file:///C:\Users\terhentt\Documents\Tdocs\RAN2\RAN2_113bis-e\R2-2104351.zip)

**Elbonia, April 12 – April 20, 2021**

**Title: [DRAFT]** LS on NAS-based busy indication

**Response to:** -

**Release:** Release 17

**Work Item:** LTE\_NR\_MUSIM-Core

**Source:** vivo [TSG RAN WG2]

**To:** SA2, CT1, RAN3

**Cc:** SA3

**Contact Person:**

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**Attachments:** -

**1. Overall Description:**

RAN2 has discussed the "busy indication" for multi-SIM, wherein UE connected to network A receives paging from network B and wants to respond to network B to indicate it is "busy" with network A. In RAN2#113bise, RAN2 discussed how to handle the busy indication for RRC\_INACTIVE, i.e. for RAN paging and made the following agreement:

Agreements

1 Only support NAS-based busy indication (for IDLE and INACTIVE)

One motivation for this agreement by RAN2 was that the assumption that harmonizing the busy indication between RRC\_INACTIVE mode with RRC\_IDLE would save specification effort in all WGs. However, after the decision was made, it was raised that this might not be the case and there may be at least the following potential impacts to SA2, CT1 and RAN3:

- **Service Request triggering for RRC\_INACTIVE:** busy indication (which NAS does not differentiate from CONNECTED) requires specification changes (SA2, CT1). This is assuming that the NAS based busy indication will use Service Request procedure per SA2 agreements.

- **NAS needs to filter RAN paging** indications to determine whether to trigger busy indication, which may need AS to inform NAS every time RAN paging is received (CT1, RAN2)

- **Sending busy indication to 5GC** causes extra delay if 5GC then needs to inform RAN about it (SA2, RAN3)

However, it is also not clear to RAN2 whether these are the only impacts, or whether there would be other impacts. Therefore, RAN2 would like to request the following feedback in order to understand whether the RAN2 decision on busy indication would have issues for other groups:

* **Question 1: Are the impacts identified by RAN2 valid (SA2, CT1, RAN3)?**
* **Question 2: If the ANS to Q1 is yes, can they be specified within Rel-17 timeframe (SA2, CT1, RAN3)?**
* **Question 3: Are there any other impacts beyond those identified by RAN2 (SA2, CT1, RAN3)?**

RAN2 also agreed to revert the agreement on NAS-based busy indication for INACTIVE if SA2/CT1/RAN3 feedback indicates that this is not possible.

**2. Actions:**

**To SA2, CT1 and RAN3 groups.**

**ACTION:** RAN2 respectfully asks CT1, RAN3 and SA2 to feedback on aforementioned questions.

**3. Date of Next TSG-RAN WG2 Meetings:**

3GPP RAN2#114-e from 2021-05-19 to 2021-05-27 Electronic Meeting

3GPP RAN2#115-e from 2021-08-16 to 2021-08-27 Electronic Meeting