**3GPP TSG RAN WG2#116-e** [draft] **R2-210xxxx**

**e-Meeting, Nov. 1st – 12th, 2021**

Title: [draft] LS on Measurement validity for cell reselection based on Network Slicing

Response to:

Release: Release 17

Work Item: NR\_Slice-Core

Source: Lenovo, Motorola Mobility [to be RAN2]

To: RAN4

Cc:

**Contact Person:**

Name: Prateek Basu Mallick

Tel. Number:

E-mail Address: pmallick at lenovo dot com

**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

Attachments: -

**1. Overall Description:**

RAN2 discussed the slice (S-NSSAI) based cell reselection and the following Solution was agreed for cell reselection for the normative phase and following relevant agreements were made in RAN2#115e:

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| Agreements   * 2: Following is taken as the baseline Solution:   The “slice info” (for a single slice or slice group) agreed to be provided to the UE in the last RAN2 meeting using both broadcast and dedicated signaling are provided for the serving as well as neighboring frequencies. The following steps are used for slice based cell (re)selection in AS:  Step 0: NAS layer at UE provides slice information to AS layer at UE, including slice priorities.  Step 1: AS sorts slices in priority order starting with highest priority slice.  Step 2: Select slices in priority order starting with the highest priority slice.  Step 3: For the selected slice assign priority to frequencies received from network.  Step 4: Starting with the highest priority frequency, perform measurements (same as legacy).  Step 5: If the highest ranked cell is suitable (as defined in 38.304) and supports the selected slice in step 2 then camp on the cell and exit this sequence of operation; FFS: How the UE determines whether the highest ranked cell supports the selected slice.  Step 6: If there are remaining frequencies then go back to step 4.  Step 7: FFS: If the end of the slice list has not been reached go back to step 2.  Step 8: Perform legacy cell reselection. |

RAN2 has been discussing keeping or removing Step 7 that influences whether the UE selects a next (down) priority slice (i.e., go back to Step 2), if it does not find a suitable cell to support the selected higher priority slice. Moreover, RAN2 concluded that the multiple iteration operation, with Step 7, would increase the latency in cell reselection and battery consumption of the UE.

RAN2 thinks that it could be possible to reduce latency in cell reselection, if the measurements made in the first loop (or, more generally in some of the previous ‘N-1’ loops) can be reused (i.e., are considered valid) in the second (‘Nth’) loop. RAN2 intends that radio thresholds for cell reselection triggers remain the same as in Ch. 5.2.4.2 of TS38.304-g60.

Furthermore, RAN2 has been discussing a Slice Group concept, where a slice group consists of one or multiple slices, and each slice group is uniquely identified by a slice group identifier. The discussion and agreements reached in RAN2 equally apply to slice as well as to “slice group”, even if at many places only “slice” appears.

**2. Actions:**

**To: RAN4.**

**ACTION:** RAN2 kindly asks:

Please clarify if the measurements made in the first loop (or, more generally in some of the previous ‘N-1’ loops) can be reused (i.e., are considered valid) in the second (‘Nth’) loop, i.e., no need to measure the same frequency again from one selected slice to the next.

**3. Date of Next RAN2 Meetings:**

TSG-RAN2 Meeting #117 Feb. 21 – 25, 2022