**3GPP TSG RAN WG2#115-e** [draft] **R2-210xxxx**

**e-Meeting, 9th - 27th August, 2021**

Title: [draft] LS on Slice list and priority information for cell reselection

Response to:

Release: Release 17

Work Item: NR\_Slice-Core

Source: Lenovo, Motorola Mobility [to be RAN2]

To: SA1, SA2 and CT1

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**

Attachments: -

**1. Overall Description:**

RAN2 discussed the slice (S-NSSAI) based cell reselection and agreed that both: a) absolute priority of each of the frequency supporting a slice (i.e., “slice info”) and b) slice priority will be used for cell reselections. UE receives slice info using RRC signalling. For slice priority, Access Stratum expects to receive a slice list from NAS containing a slice priority for each of the slices contained in the list for the UE’s registration area. How NAS obtains such a list was obviously not discussed in RAN2. 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.

Following relevant agreements were made in RAN2#114e:

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| * Frequency priority mapping for each slice (slice -> frequency(ies) -> absolute priority of each of the frequency) is provided to a UE.
* Frequency priority mapping for each of the slice (slice -> frequency(ies) -> absolute priority of each of the frequency) is part of the “slice info” agreed to be provided to the UE using both broadcast and dedicated signalling.
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A Solution (solution #4) was agreed for cell reselection for the normative phase and following relevant agreements were made in RAN2#115e:

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| Agreements* 1: Solution Option 4 is selected for further work i.e., resolve the FFSs, send any required LSs and consequently start to draft specification CRs.
* 2: Following is taken as the baseline for Solution Option 4:

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. |

**2. Actions:**

**To** **SA1, SA2 and CT1.**

**ACTION:** RAN2 kindly asks:

* Can NAS provide to AS (Access Stratum) the said slice (group) list i.e., a list of slices (or slice groups) that may be used for RRC Idle/ inactive mobility i.e., for cell reselections? RAN2 expects that the said slice list from NAS contains a slice (group) priority for each of the slices (slice group) contained in the list and any update of such a list should also be sent to AS of a UE in RRC Idle/ Inactive state.

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

TSG RAN2 Meeting #116-e Nov. 1 – 12, 2021

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