**3GPP TSG-RAN WG3 Meeting #120R3-23xxxx**

**May 22 – 26, 2023**

**Title:** LS on inter-RAT SHR and SPR

**Release:** Rel-18

**Work Item:** NR\_ENDC\_SON\_MDT\_enh2-Core

**Source:** RAN3

**To:** RAN2

**Cc:** -

**Contact Person:**

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**Attachments:** -

**1. Overall description:**

RAN3 discussed how to retrieve information related to aUE in the source node when Successful Handover Report (SHR) and Successful PSCell Change Report (SPR) related optimizations are to be performed in the source node (e.g., in case of T310/T312 related trigger). One solution discussed was whether UE can report the source C-RNTI and time since receiving HO command and retrieving SHR/SPR to assist the source gNB in identifying the UE context (and/or mobility strategies).

But since the possibility to retrieve information related to a specific UEdepends on source gNB's implementation. e.g., whether it can store the UE related configuration of interest during the wanted time (up to 48 hours) after a successful HO or PSCell change/addition, RAN3 discussed an alternative solution tom enable the retrieval of UE related information without requiring this to be stored on a per UE basis.

RAN3 is therefore looking whetheranother solution can be defined for scenarios (starting from Rel-18), whenever the configuration used by the UE needs to be identified while performing SON optimizations.

One potential solution RAN3 discussed is as follows:

* The source node (via implementation) create references to a configuration used by one or a group of UEs and can send this “Configuration Information” to the UE in order to assist in the analysis of SHR or SPR or other SON reports (if needed).
* RAN3 thinks that this “Configuration Information” can be optionally sent to the UE in dedicated signaling (e.g., together with the SHR/SPR configuration or in any other RRCReconfiguration). If received, UE should then store this “Configuration Information” together with the SON reports and UE should report it back to the gNB along with the SON reports (e.g., SHR/SPR)
* How to encode this “Configuration Information” is up to RAN2. One example to do this would be to encode this as an OCTET STRING (e.g., 32 bits) as is done for MobilityInformation in XnAP (i.e., TS 38.423).

RAN3 therefore have the following questions to RAN2:

Q1: Whether RAN2 sees any issues in defining a solution for “Configuration Information” as described above?

Q2: For SHR/SPR, is there any issue to include this “Configuration Information” in the RRC Reconfiguration message with sync containing Handover Command or PSCell change command?

Q3: In cases when this “Configuration Information” is not configured by the network to the UE by the network, RAN3 considers it beneficial for the UE to at least include the source cell C-RNTI and the time between the event that triggered the report and the sending the report to the network. Is this feasible?

Further, RAN3 agreed that the following information are useful to be reported in the SPR to assist in the forwarding of SPR over network interfaces:

* CGI of the PCell which sent the SPR configuration;
* Indication whether the PSCell change was MN-initiated or SN-initiated. Explicit or implicit indicator (e.g., based on Configuration Information) can be decided by RAN2.
  + It is RAN3’s understanding that the UE can know whether the PSCell change was MN-initiated or SN-initiated based on the current RRC signaling design.

Q4: RAN3 kindly asks RAN2 to confirm RAN3’s understanding on the above and update their specifications if feasible.

2. Actions:

RAN3 respectfully asks RAN2 to provide feedback to the above questions and update their specifications as needed.

**3. Date of next TSG RAN WG3 meetings:**

RAN3#121 21th - 25th Aug. 2023 France