**3GPP SA WG2 Meeting #S2-162 S2-24xxxx**

**15 - 19 Apr, 2024 Changsha, CN**

Title: [Draft] LS on Support of UE move between CAG cell of 5G Femto and CSG cell

Response to:

Release: Rel-19

Work Item: FS\_5G\_Femto, FS\_WAB\_5GFemto\_NR

Source: SA2

To: RAN3

Cc:

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Attachments: TR 23.700-45

**1. Overall Description:**

As part of the FS\_5G\_Femto study ([SP-231797](https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_102_Edinburgh_2023-12/Docs/SP-231797.zip)), the following aspects will be studied:

* **WT#1:** Based on RAN3 outcome, enhance the overall architecture and enable the required functional and procedural changes for supporting 5G NR Femto deployment.
* **WT#2:** How to enable interworking between CAG and CSG cells.

In TR 23.700-45, the WT#2 (mapped to KI#1 in the TR) expects that there is no impact on the RAN. But during the study, based on previous LS of RAN3 (R3-226035/S2-2210196), some companies have expressed concerns that RAN3 has confirmed that for inter-system HO to hybrid/closed HeNB, the stage 3 specifications in multiple WGs (including RAN2 and CT4) will be impacted. Therefore, RAN coordination is required to support of UE move between CAG cell of 5G Femto and CSG cell, and vice versa.

**Question 1**: Whether the conclusion in the previous LS of RAN3 ([R3-226035](https://www.3gpp.org/ftp/tsg_ran/WG3_Iu/TSGR3_117bis-e/Inbox/R3-226035.zip)/[S2-2210196](https://www.3gpp.org/ftp/tsg_sa/WG2_Arch/TSGS2_154_Toulouse_2022-11/Docs/S2-2210196.zip)) is still valid i.e., inter-system HO to hybrid/closed HeNB, the stage 3 specifications in multiple WGs (including RAN2 and CT4) will be impacted?

**Question 2**: To avoid the impact on the RAN (as described for the RAN dependency for WT#2 (KI#1 in the TR)), SA2 would like to ask if we can assume that RAN recognizes the target CSG cell (or the target CAG cell) is as if an open cell during the handover (e.g., via local configuration) and the core network performs access control? Can this assumption of an open cell break the access control mechanisms in the RAN?

**Question 3**: SA2 has reserved the time units for the normative work of WT#1 based on the result of RAN3 work (RP-234041), which is expected to start in SA2 from SA2#164. Therefore, SA2 requests to confirm the conclusion of RAN3 on overall architecture, etc., which will be used as the basis for SA2's normative work.

**2. Actions:** SA2 asks RAN3 to answer the above questions.

**3. Date of Next SA2 Meetings:**

SA2#163 May 27 – 31, 2024 Jeju Island, KR

SA2#164 Aug 19 – 23, 2024 Maastricht, NL