3GPP TSG-RAN WG3 Meeting #119bis R3-23xxxx

**April 17 – 26, 2023**

**Agenda item: 10.2.2**

**Source: Samsung**

**Title:** **(TP for SON BLCR for 37.340) SON enhancements for CPAC**

**Document for: Discussion and Decision**

# **1 Introduction**

This contribution provides a TP for TS37.340 on UHI for CPAC

13.3 SCG UE history information

The MN stores and correlates the UE History Information from MN and SN(s) as long as the UE stays in MR-DC, forwards UE History Information and optional UE History Information from the UE to its connected SNs. The resulting information is then used by SN for dual-connectivity operation. The SN is in charge of collecting SCG UE history information and providing the collected information to the MN.

If the UE stays in a PSCell for a duration exceeding the maximum value of the Time Stay parameter, the SN may store the PSCell information with consecutive entries using the same PSCell identity. The total stay time in this PSCell is the sum of stay time for all consecutive PSCell with the same identity.

The SN shall provide the collected SCG UE history information, if available, to the MN in the following procedures:

- the SN Release, and SN initiated SN Change procedures

- the MN initiated SN Modification procedure if requested by the MN in this procedure

- the SN initiated SN modification procedure upon PSCell change if subscribed in the SN Addition procedure

When the target NG-RAN node receives the SCG UHI from the source NG-RAN node via Handover Request message for CHO, the target NG-RAN node updates the time UE stayed in cell of the latest PSCell entry (i.e. the source PSCell) when the UE successfully accesses to a candidate cell of the target NG-RAN node. The updated value of the time UE stayed in the source PSCell is equal to the value received from the source NG-RAN node during the Handover Preparation plus the time from receiving Handover Request message from the source NG-RAN node to receiving RRC Reconfiguration Complete message from the UE.

When the target SN receives the UE History Information from the MN via SN Addition Request message for CPA, the target SN updates the time UE stayed in cell of the latest PCell entry when the UE successfully accesses to a candidate cell of the target SN. The updated value of the time UE stayed in the latest PCell is equal to the value received from the MN via the SN Addition Request message plus the time from receiving SN Addition Request message from the MN to receiving random access from the UE.

When the target SN receives the SCG UHI from the MN via SN Addition Request message for CPC, the target SN updates the time UE stayed in cell of the latest PCell entry and the time UE stayed in cell of the latest PSCell entry (i.e. the source PSCell) when the UE successfully accesses to a candidate cell of the target SN. The updated value of the time UE stayed in the latest PCell and the time UE stayed in the latest PSCell is equal to the value received from the MN via the SN Addition Request message plus the time from receiving SN Addition Request message from the MN to receiving random access from the UE.