3GPP TSG-RAN WG3 Meeting #129 R3-25xxxx

Bengaluru, India, 25-29 Aug 2025

**Agenda item: 10.2**

**Source: Nokia, Huawei, Ericsson**

**Title: (SON TPs to BL CR to TS 37.340) Completion of the signalling for providing UHI to the SN in case of S-CPAC release**

**Document for: Agreement**

# 1 Introduction

At RAN3 #128, it was decided to enable providing the UHI to the SN involved in S-CPAC operation, when the SN is released [1]. In this paper, we propose to complete the description of the solution.

# 2 Discussion

The agreed solution assumes that the UE History Information may be added to the messages sent from the MN to the SN, when the SN is released from S-CPAC operation. This information can possibly be used in the SN to optimise the configuration of S-CPAC, or even, in some cases, to decide between CPAC and S-CPAC used in future. However, the stage-2 description of the solution was not included in discussion.

# 3 References

1. R3-253885, RAN3 #128
2. R3-253995, RAN3 #128

# 4 Text proposal for TS 37.340

The text proposal is proposed for the latest BL CR to TS 37.340 [2].

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## 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

In case of S-CPAC, when an SN is released, the MN may provide the latest SCG UE History Information to the SN using the *M-NG-RAN node initiated S-NG-RAN node Release* or the *S-NG-RAN node initiated S-NG-RAN node Release* procedures.

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 SCG UHI from the MN via SN Addition Request message for CPC, the target SN updates the time UE stayed in the 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 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 SN Reconfiguration Complete from the MN.

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