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Title: SRNS Relocation (UE connected to combined CN element)
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Source: Telecom Modus
Related to: ZZ.02, Signalling procedures

1. INTRODUCTION

This contribution describes the SRNS relocation signalling procedures when the UE is connected to a combined PSTN/ISDN and IP CN node. Note that these procedures are not mandated and should only be seen as examples of such procedures, nor do the parameters within the messages illustrate the full set of possibilities.

2. SRNS RELOCATION SIGNALLING FLOWS

This example shows SRNS relocation in the scenario where the UE is connected to a combined CN node and can be active in both the IP domain and the PSTN/ISDN domain simultaneously. It is assumed that:

- All Cells in the active set are under the control of the DRNC
- The CN performs Hard Switching of the user traffic

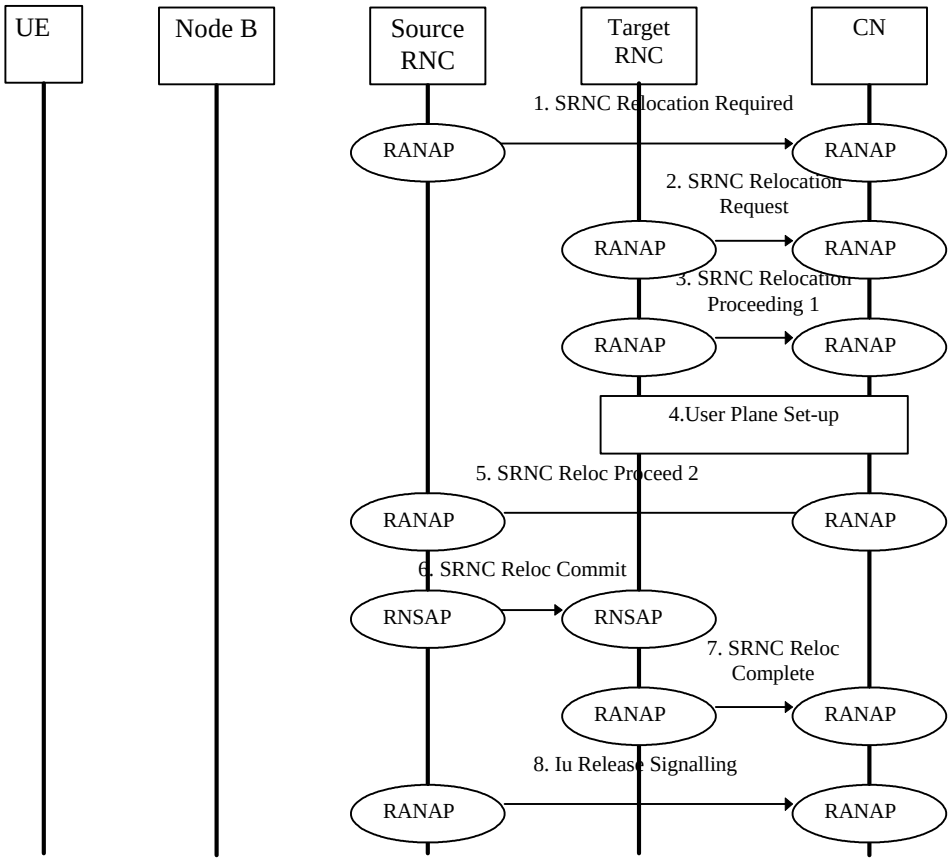

Figure x. Interface information flow for SRNS Relocation.

1. UTRAN decides to perform SRNC Relocation and sends SRNC Relocation Required message to the CN. This message includes parameters such as target RNC identifier and an information field that is passed transparently to the target RNC. An example of the transparent information is the UE identifier.

   Upon reception of the SRNC Relocation required message the CN determines from the received information the target RNC. The CN may also suspend user data traffic and/or signalling between the UE and itself for specific bearers. The CN prepares for the Iu switch.

2. Once the preparation has been completed the CN sends SRNC Relocation Request message to the target RNC. This message includes the information received from the source RNC and necessary information for the change of bearer(s). Set-up of new Iur bearers by the target RNC to the source RNC is FFS.

3. (Includes Step 4) The target RNC and CN establish the new Iu bearers for each applicable RAB. Once the target RNC has completed necessary tasks, SRNC Relocation Proceeding 1 message is sent to the CN.

5. When the CN is ready for the Iu switch to the target RNC (=SRNC), the CN indicates this to the source RNC that preparation is complete with the message SRNC Relocation Proceeding 2

6. At reception of the SRNC Relocation Proceeding 2 message, the source RNC sends SRNC Relocation Commit message to the target RNC. This enables the target (=Serving) RNC to execute both UL and DL switch for all bearers at the appropriate time. Following the switch, the UL traffic from Node-B's is routed to the newly established macro diversity combiner to the correct Iu bearer. UL data transmission on the old Iur transport bearer is ceased.

7. Upon successful Iu switch at the target RNC (=SRNC), the target RNC sends SRNC Relocation Complete to the CN.

8. At reception of the SRNC Relocation Complete message in the CN, the CN will perform the switching of the old Iu bearers to the new Iu transport bearers. Since switching is now complete, the CN requests the source RNC to release existing Iu bearers with the Iu Release messages. This will result in the source RNC to release all resources related to the connection including the RRC connection.

Note: During the Relocation process, the original communication link is still working so to allow fallback in the occurrence of any error cases. An abnormal event will be signalled by the sending of SRNC Relocation Failure message during steps 2 – 7.

3. PROPOSAL

It is proposed to add the text from section 2 into ZZ.02 under the section relating to the SRNS relocation signalling flows for a combined CN.