

**Marco Island, USA, June 4<sup>th</sup> – 7<sup>th</sup>, 2002****Agenda Item: 8.10****Source: Nokia****Title: Proposed Work item, SRNS Relocation Enhancements****Document for: Decision**

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## **1 Introduction**

At the TSG RAN#12 meeting, It was agreed that the proposed Release 5 Work Item “SRNS Relocation Enhancement” [RP-010463] should be first started as a study item in WG3 [RP-010490], due to that some company believed that it is unclear what is the problem this WI is solving. TSG RAN#12 discussions also indicated that the objective should also be adapted to make it more open and that this was however to be "short" study item with expected input for TSG RAN#13 in September 2001.

During the last RAN WG3 meeting #29 (13<sup>th</sup>-17<sup>th</sup> May 2002), RAN3 approved the updated TR “SRNS Relocation Enhancement” version 0.4.0 [R3-021639], that now includes a clear description of the problem and the corresponding enhancement as well as its feasibility and its gains.

RAN3 is finally willing to close the study phase as stated in the status report [RP-020385] with an estimated level of completion of 100% and no remaining open issue or contribution not yet treated. However RAN3 did not reach any consensus about the way forward for this SI except the conclusion that considering networks with small RNC sites, i.e. with less than 50 NodeBs per RNC, the enhanced relocation allows the network to maintain ongoing UE dedicated connections with some gains in term of flexibility in handling the Serving RNC processing load.

## **2 Justification**

SRNS relocation is used to move the control of a UE connection from a source (old serving) RNC to a target (new serving) RNC. This means that both control and user plane are moved to the target (new serving) RNC.

The current SRNS relocation procedure was finalized for Release 99. In order to have this essential basic feature ready for release 99, some enhancements and smarter handling were not introduced at that time.

For example the current SRNS relocation procedure requires that the Drift RNC controls and maintains all the radio links prior to it becoming the target RNC. Indeed the relocation of a UE to a Drift RNC when another Drift RNC is involved or when previous SRNC is involved is currently not possible. The Iu-r, while the relocation is taking place, is not allowed to establish connections from the new SRNC to the previously existing or new DRNCs or to the previous SRNC. Both of these relocation scenarios are included in TR 25.832 Manifestations for Handover and SRNS Relocation (section 5.2.2), but are marked as unsupported by R99 procedures.

With networks including small RNC sites, i.e. with less than 50 NodeBs per RNC, and therefore with frequent and big number of SRNS relocations performed, a smarter SRNS relocation should enable and enhance flexibility in handling and relocating UEs and RNC serving role.

Considering future networks based on Release 6 specification, Nokia believes this time to reconsider enhancing the R99 SRNS relocation.

### 3 Proposals

Nokia and the other supporting companies listed in the annex below propose that a new Release 6 Work Item is opened with the goal to enhance the SRNS relocation procedure and handling, e.g. considering networks with small RNC sites, i.e. with less than 50 NodeBs per RNC.

The main enhancement foreseen is to enable SRNS relocation of UE with radio link(s) toward SRNC and/or more than one DRNC.

It is proposed that RAN WG3 handles this work item.

The corresponding WI sheet for the proposed new Work Item is in the Appendix of this document (RP-020387).

### 4 Appendix A - Proposed WI, SRNS Relocation Enhancements

#### Work Item Description

##### Title

SRNS Relocation Enhancements

##### 1 3GPP Work Area

X	Radio Access
	Core Network
	Services

##### 2 Linked work items

None

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**4 Objective**

This work item should enhance the SRNS relocation procedure and handling in order to enable and enhance flexibility in relocating UEs and serving role of RNC.

**5 Service Aspects**

None/Text

**6 MMI-Aspects**

None/Text

**7 Charging Aspects**

None/Text

**8 Security Aspects**

None/Text

**9 Impacts**

The Core Network part of Iu signalling (RANAP) is not affected by the changes implied in the SRNS Relocation Procedure enhancement i.e. enabling SRNS relocation of UE with radio link(s) toward SRNC and/or more than one DRNC.

<b>Affects:</b>	<b>USIM</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>			X		
<b>No</b>	X	X			X
<b>Don't know</b>				X	

**10 Expected Output and Time scale (to be updated at each plenary)**

<b>New specifications</b>						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR	SRNS Relocation Enhancement	R3			RAN#20	
<b>Affected existing specifications</b>						
Spec No.	CR	Subject			Approved at plenary#	Comments

**11 Work item rapporteurs**

Olivier Guyot, Nokia.

**12 Work item leadership**

TSG-RAN WG3

**13 Supporting Companies**

Hutchison 3G, Vodafone Group, T-Mobil Deutschland, Nokia

**14 Classification of the WI (if known)**

	Feature (go to 14a)
	Building Block (go to 14b)
X	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

14b The WI is a Building Block: parent Feature

14c The WI is a Work Task: parent Building Block

UTRAN Improvement Feature