TSG-RAN Working Group 3 (Architecture)
Nynäshamn 15th to 19th March 1999

TSGR3#2(99)198

Agenda Item : 6.2

Source : Study item rapporteur

Title : Study Item [Iur/3] "Cell and URA update" (DRAFT)

Document for : Status Report

---

1. INTRODUCTION

This document is a report of the discussion made on the reflector regarding the way cell updates and URA updates are performed in the UTRAN. It refers to the Merged description document v0.0.2, sections 9.2.2.8 and 9.2.2.9.

From TTC/ARIB, it was proposed to use either a backward or a forward method. In both methods, the Iur does not support CCH data streams on Iur and a SRNS relocation is performed immediately. From ETSI, it was proposed one procedure with immediate SRNS relocation for the case Iur does not support CCH data streams and one procedure without SRNS relocation for the case Iur supports CCH data streams. The procedure with immediate SRNS relocation is similar to the TTC/ARIB backward method except the naming of messages and the data retrieval.

2. AGREEMENTS and PROPOSALS

TTC/ARIB participants on the web agree on the following assumptions:
(1) CCH user plane may exist on Iur (it is not mandatory).
(2) SRNC Relocation decision is always made at SRNC (DRNC has no right to make decision).

For the procedure with immediate SRNS relocation, ETSI participants agree on the backward method proposed by TTC/ARIB except for the name of RNC Relocation Request message which is already used on Iu (ETSI proposal was "Cell/URA update indication". TTC/ARIB announces they will probably ask for the generic name "CCCH Signalling Transfer" instead.
The data retrieval procedure is for further study: it will be represented as a box and will not be detailed (e.g. the data retrieval may be done via Iu or via Iur).

The text from ETSI on section 9.2.2.8 was agreed with the modified figure of TTC/ARIB backward method.

On these bases, ETSI and TTC/ARIB participants have agreed modified sections 9.2.2.8 and 9.2.2.9. The proposed modified sections are the following:

9.2.2.8 Cell/URA Update ~~Indication/~~ with/without SRNS Relocation ~~(ETSI version)~~

~~[Editor's note: This procedure is FFS. Study item Iur/3 from TTC/ARIB-ETSI merging: cell and URA update.]~~

-[Editor's note: The Cell-and URA Update procedures listed in YY.02 [10] have not yet been specified by the SMG2-UMTS ARC EG. The usage of this procedure needs to be further studied together with the Cell- and URA Update procedures, and also with respect to common channel handling over Iur. The name of the procedure is only a working name proposed by the editor.]

UTRAN Cell update is an RRC procedure, which can be executed while in Cell Connected State (RACH/FACH common channel substate) ~~[6]~~. This functionality is required for the forward type of operation of scenario 2b (Inter RNS/Intra UTRAN) as defined in [7].
UTRAN Registration Area update is an RRC procedure, which can be executed while in URA Connected State (RACH/PCH common channel substate) [6]. This functionality is required for the forward type of operation of scenario 2b (Inter RNS/Intra UTRAN) as defined in [7].

Upon reception of RRC message UTRAN Cell Update or UTRAN Registration Area Update from a UE the drift RNS inserts necessary information received in the RRC message to the CELL/URA UPDATE INDICATION message and sends the message to the serving RNS.

At reception of the CELL/URA UPDATE INDICATION message, there are two options for the Serving RNC:

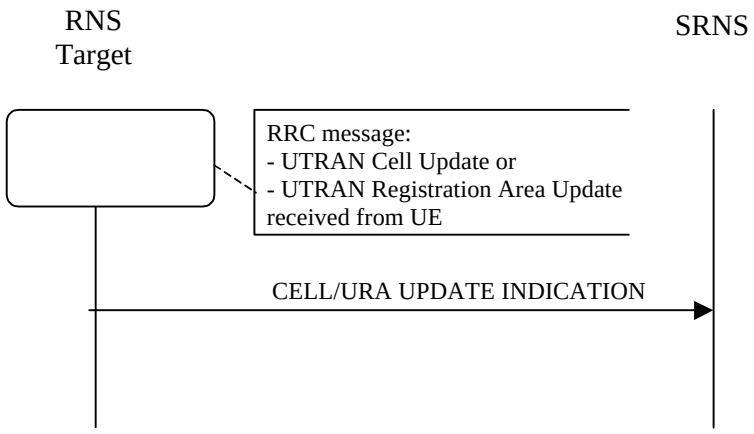
1. Perform the update without combined SRNS Relocation (How this is done is FFS.).
2. Perform the update with ~~an~~ combined SRNS Relocation (see [10] for a description of the SRNS Relocation procedure)

Which option to use is decided by the SRNS.

9.2.2.8.1 Cell update without combined SRNS relocation

ffs.

9.2.2.8.2 Cell Update with combined SRNS relocation



~~Figure 9-8: An example RNSAP message flow at I_{ur} interface for Cell/URA Update Indication/SRNS Relocation (ETSI version)~~

9.2.2.9 Cell/URA Update Indication.Cell/URA Update Indication/SRNS Relocation (TTC/ARIB version)

[Editor's note: This procedure is FFS. Study item Iur/3 from TTC/ARIB-ETSI merging: cell and URA update.]

UTRAN Cell update is an RRC procedure, which can be executed while in Cell Connected State (RACH/FACH substate). UTRAN Registration Area update is an RRC procedure, which can be executed while in URA Connected State (RACH/PCH substate).

There may exist two ways of procedure to reallocate RNC.

< 1. Backward method >
Upon reception of RRC message Cell Update REQUEST or UTRAN Registration Area Update REQUEST from a UE the drift RNC inserts necessary information received in the RRC message to the RNC Relocation REQUEST message and sends the message to the serving RNC and Perform the update with an SRNC relocation.
< 2. Forward method >
Upon reception of RRC message Cell Update REQUEST or UTRAN Registration Area Update REQUEST from a UE the drift RNC inserts necessary information received in the RRC message to the RRC Context Retrieval message and sends the message to the serving RNC and receive the RRC Context Retrieval Response message. After that the update with an SRNC relocation will be performed.

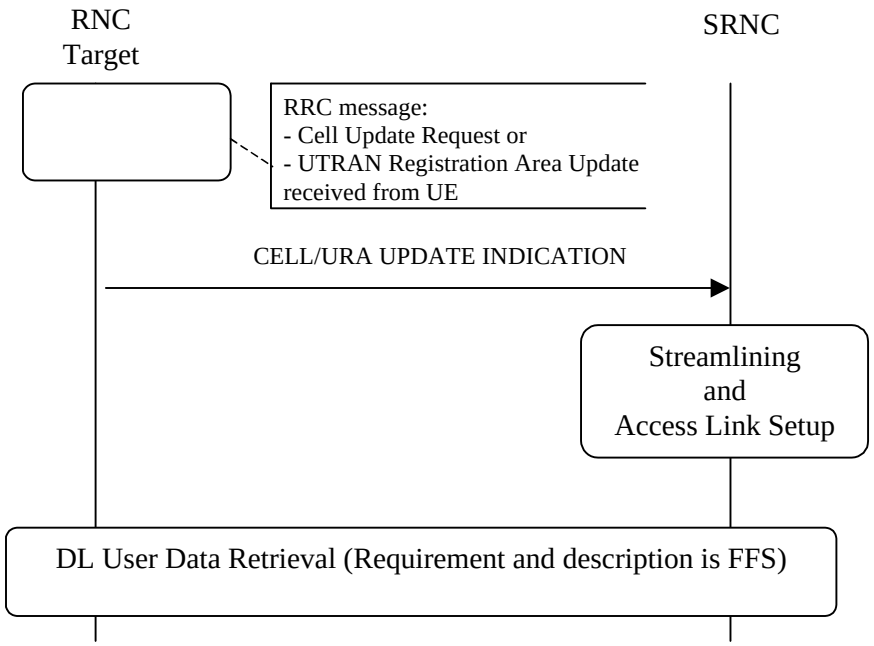
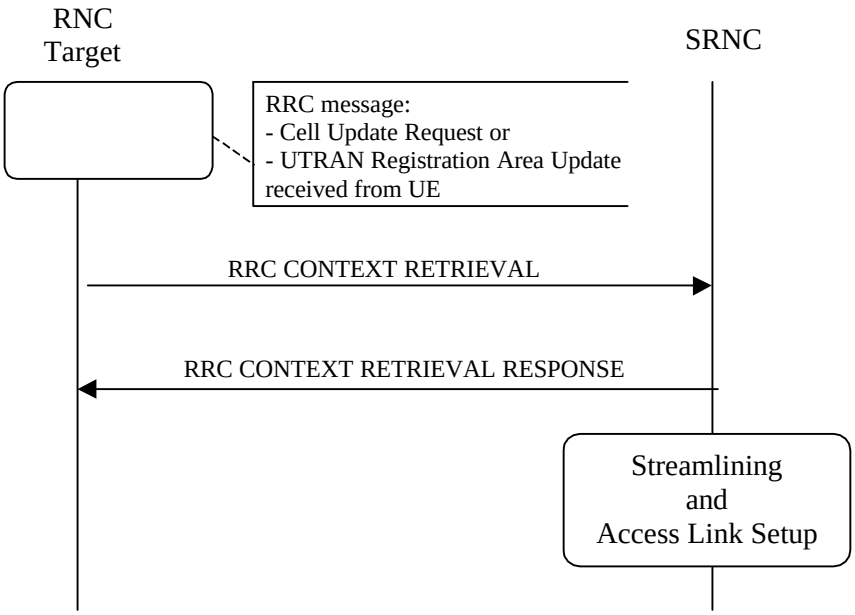


Figure 9-9. An example RNSAP message flow at I_{ur} interface for RNC Relocation (Backward method)



~~Figure 9-10. An example RNSAP message flow at I_{ur} interface for RNC Relocation (Forward method)~~