TSG-RAN Working Group 2 (Radio layer 2 and Radio layer 3)
Sophia Antipolis, August 16th to 20th 1999

TSGR2#6(99)868

Agenda Item: 4.3

Source: Nokia

Title: **CR to 25.303 on Cell Update and URA Update Procedures**

Document for: Approval

This document proposes changes to TS25.303 to align Cell Update and URA Update routing with present RAN WG3 principles.

3GPP TSG-RAN meeting #5 *Document* ***RP 99???***

Korea, 6-8 October 1999

3G CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.303 **CR** **00?** Current Version: 3.0.0

3G specification number ↑ *↑ CR number as allocated by 3G support team*

For submision to TSG RAN#5 *list TSG meeting no. here ↑*

for approval [X] for information [ ] *(only one box should be marked with an X)*

Form: 3G CR cover sheet, version 1.0 *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/3GCRF-xx.rtf

Proposed change affects: *(at least one should be marked with an X)* USIM [ ] ME [X] UTRAN [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 16/08/99

Subject: Cell Update and URA Update Procedures

3G Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[ ]
A	Corresponds to a correction in a 2G specification	[ ]
B	Addition of feature	[ ]
C	Functional modification of feature	[X]
D	Editorial modification	[ ]

Reason for change: A common understanding on the routing of Cell Update and URA Update messages has been reached with RAN WG2 and WG3. The proposed changes accommodate this principle and remove related FFS:s.

Clauses affected: 7.4.2, 7.4.3

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other 2G core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

7.4.2 Cell Update

[Note: This example currently applies only in the case of URA change.]

Figure 29 illustrates an example of a cell update procedure. ~~The signalling is performed on the CCCH using transparent data transfer.~~

The cell update procedure is ~~a forward handover procedure. It is~~ triggered by the cell re-selection function in the UE, which notifies which cell the UE should switch to. The UE reads the broadcast information of the new cell. Subsequently, the UE RRC layer sends a CELL UPDATE ~~REQUEST~~ message to the UTRAN RRC via the ~~MAC SAP for the~~ CCCH logical channel and the RACH transport channel. The RACH transmission includes the current S-RNTI and the SRNC Identity.

~~[Editor's Note: The logical channel to be used and the routing of the message are FFS, thus Figure 29 only illustrates one possible approach.]~~

Upon reception of the CELL UPDATE ~~REQUEST~~, the UTRAN registers the change of cell. If the registration is successful ~~and~~ it replies with a CELL UPDATE CONFIRM message transmitted on the ~~CCCH~~DCCH/FACH to the UE. The message includes the current S-RNTI and SRNC Identities and ~~may~~ it may also include ~~a~~ new C-RNTI and / or S-RNTI + SRNC Identities. By using DCCH for the confirm message the contents of the message can be ciphered.

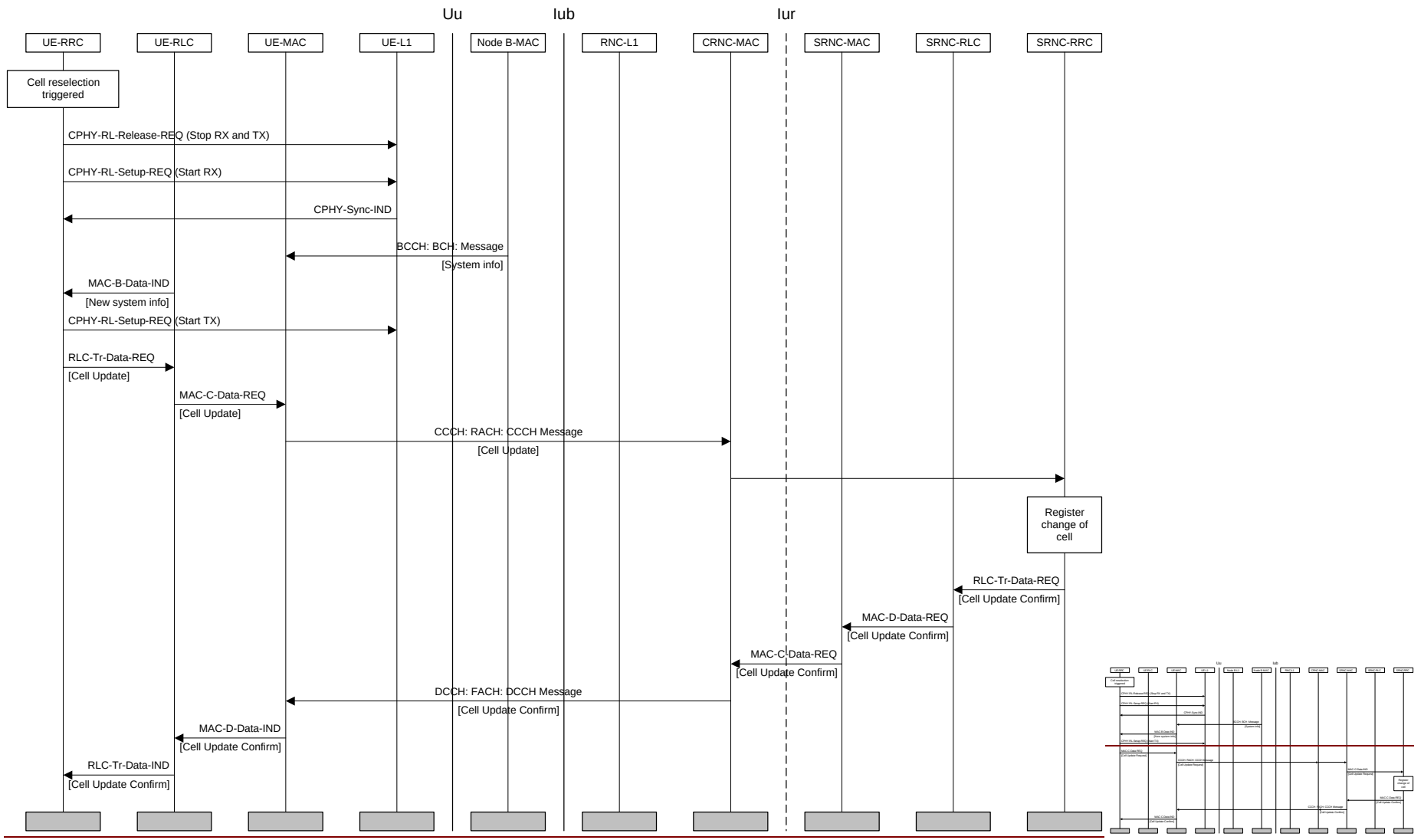

Figure 29: Cell update procedure

7.4.3 URA Update

Figure 30 illustrates an example of a URA Update procedure. For a more detailed figure on the interlayer interaction for CCCH or DCCH transmission please refer to “Cell Update” in the previous section. ~~The signalling is performed on the CCCH.~~

When cell re-selection is triggered, the UE abandons the radio link in the old cell and establishes a radio link to the new cell. The URA update procedure is triggered when the UE reads the broadcast information of the new cell and recognises that a URA update is required. After that, the UE RRC layer sends a URA UPDATE ~~REQUEST~~ on the CCCH to the UE MAC layer, which transfers the message on the RACH to UTRAN. The RACH transmission includes the current S-RNTI and SRNC Identity.

~~[Editor’s Note: The logical channel to be used and the routing of the message are FFS, thus Figure 30 only illustrates one possible approach.]~~

Upon reception of the URA UPDATE ~~REQUEST~~, the UTRAN registers the change of URA. Then the ~~UTRAN~~ CRNC-RRC ~~layer~~ requests the ~~UTRAN~~ CRNC-MAC ~~layer~~ to send a URA UPDATE CONFIRM message on the FACH to the UE. The message includes the current S-RNTI and and SRNC Identities and may also include ~~a~~ new C-RNTI, S-RNTI and SRNC Identities.

The logical channel used for URA UPDATE CONFIRM depends on the SRNC relocation policy. If SRNC is always relocated before URA UPDATE CONFIRM is sent, a DCCH should be used (to allow ciphering of the message contents). If SRNC is not relocated, the CCCH logical channel should be used to be able to utilize the RNSAP Iur procedures and not being forced to set up user plane on the Iur for this procedure.

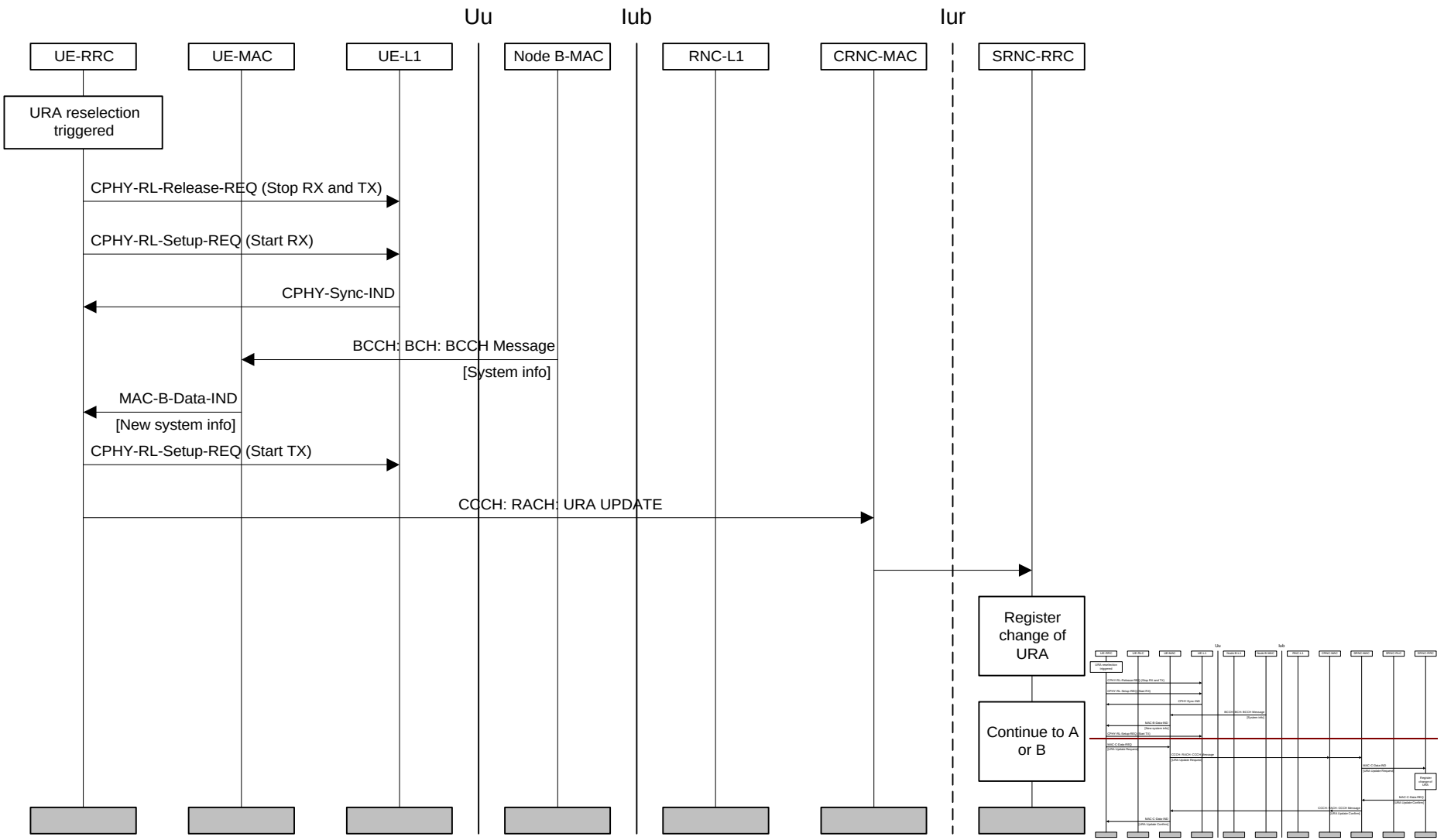

Figure 30: Beginning of the URA update procedure – continue either to case A or case B

Case A: Ciphered URA UPDATE CONFIRM:

In this case the DCCH logical channel is used.

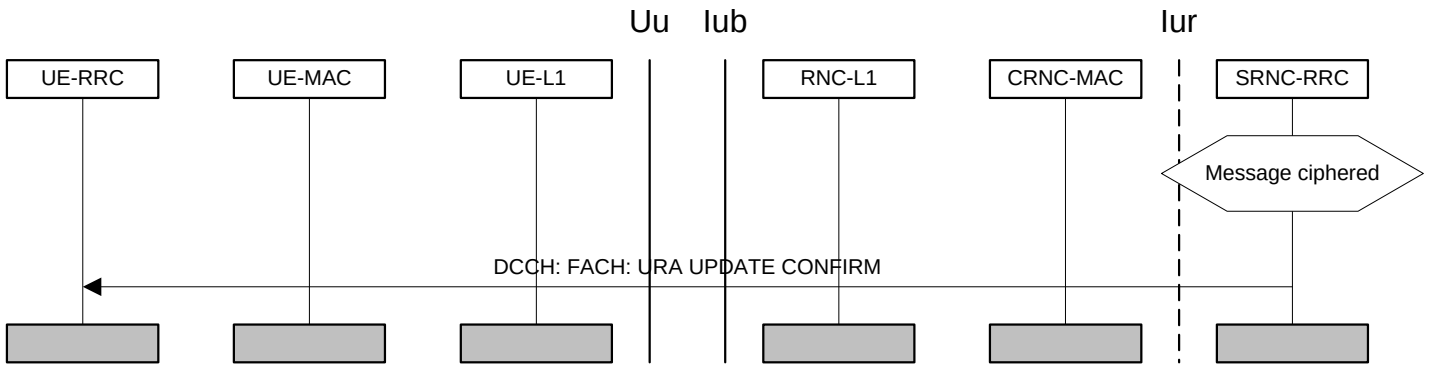

Figure 32: Case A continuation of URA update, CONFIRM message ciphered

Case B: Unciphered URA update:

In this case transmission between SRNC and CRNC takes place on the RNSAP Downlink Signalling Transfer and the CCCH logical channel is used.

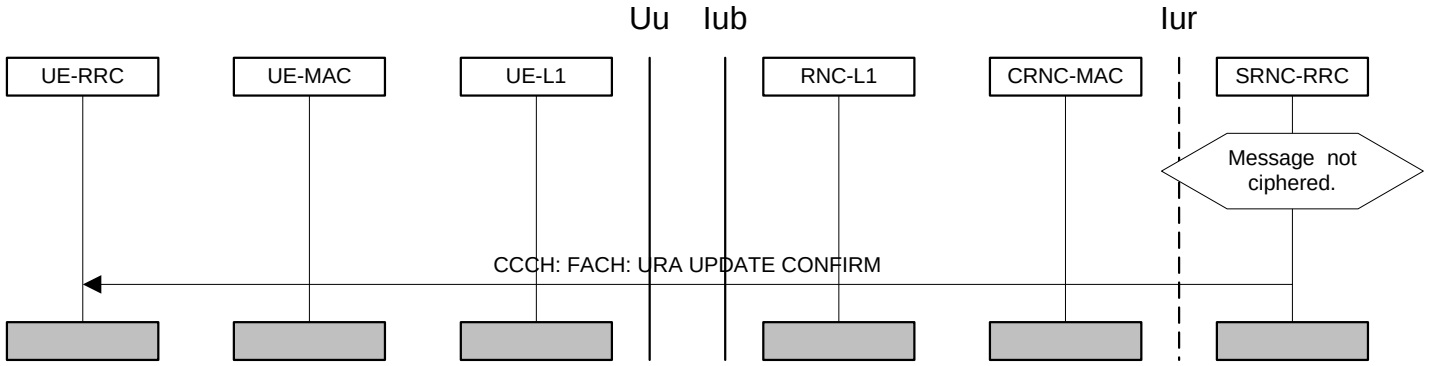

Figure 32: Case B continuation of URA update, CONFIRM message not ciphered