3GPP TSG CN Meeting #27 **NP-050101**
9th - 11th March 2005. Tokyo, Japan.

Source: **CN3**

Title: **CRs related to SCUDIF on Work Item TEI-6**

Agenda item: **9.21**

Document for: **APPROVAL**

Introduction:

This document contains 1 CR to Rel-5 on Work Item "TEI-6" that have been agreed by TSG CN WG3, and are forwarded to TSG CN Plenary for approval.

WG_tdoc	Spec	CR	R	Cat	Title	Rel	C_Ver	Work Item
N3-050231	23.172	029	3	F	Correction to Network-initiated SCUDIF	Rel-6	6.1.0	TEI-6

3GPP TSG-CN WG3 Meeting #35 ***Tdoc ⌘N3-050231***

Sydney, Australia. 14th - 18th February 2005.

CR-Form-v7.1

CHANGE REQUEST

⌘ **TS23.172** **CR** **029** ⌘ **rev** **3** ⌘ Current version: **6.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	Correction to Network-Initiated Scudif
Source:	⌘	Nortel Networks, TIM, Orange, Nokia, Siemens
Work item code:	⌘	TEI6
Date:	⌘	18/02/2005
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

Ph2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*
Rel-7	*(Release 7)*

Reason for change:	⌘	Network-initiated scudif described in section 4.2.5.1 is not compliant with RANAP over Iu.
Summary of change:	⌘	A RANAP compliant solution is defined for network-initiated scudif.
Consequences if not approved:	⌘	Untimely relocation attempts to take place.

Clauses affected:	⌘	4.2.4, 4.2.5, 4.2.5.1

Other specs affected: ⌘	Y	N		⌘	
	X		Other core specifications		RANAP TS25.413 v6.4.0
		X	Test specifications		
		X	O&M Specifications		

Other comments:	⌘	

4.2.4 Service change in the active state

At any given time, if either of the call parties wants to change from the current active mode to the other mode via MMI, the terminal shall activate an In-Call Modification procedure. Using this procedure, described in 3GPP TS 24.008 [3], clause 5.3.4.3, the UE shall send a MODIFY message containing the BC-IE to change to. This BC-IE shall be one of those already negotiated at call setup.

As a result, the MSC shall then invoke the service change procedure (see clause 4.3.5). If the request is accepted, the originating MSC sends a MODIFY COMPLETE message to the UE including the BC-IE of the mode to switch to (see figure 4.13). If the request is rejected, the MSC sends a MODIFY REJECT message to the UE including the BC-IE from the current active mode (see figure 4.14).

In the case the MSC has determined that the other mode is unavailable (e.g. a fallback to either mode has occurred), it shall reject the MODIFY request at once by replying with a MODIFY REJECT message.

On the remote side, the MSC shall initiate an In-Call Modification procedure towards the terminal using the MODIFY message. For a service change from speech to multimedia, ~~T~~the terminal shall request confirmation from the user unless configured differently. For a service change from multimedia to speech, the terminal shall accept the request without requesting confirmation from the user. If the change is accepted, the UE shall reply to the MSC with a MODIFY COMPLETE message, whereas a MODIFY REJECT message shall be sent if the change is rejected.

NOTE: Privacy concerns strongly advise that any change to multimedia mode, unless explicitly allowed by the user in the terminal configuration settings, triggers a question to the user in order to confirm or decline the change. The details on how to provide the user interaction are left for implementation.

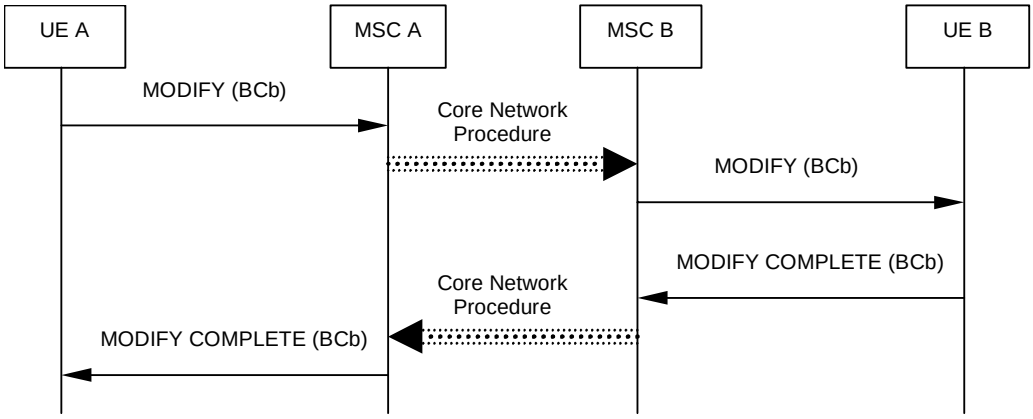

Figure 4.13: Service change requested, accepted

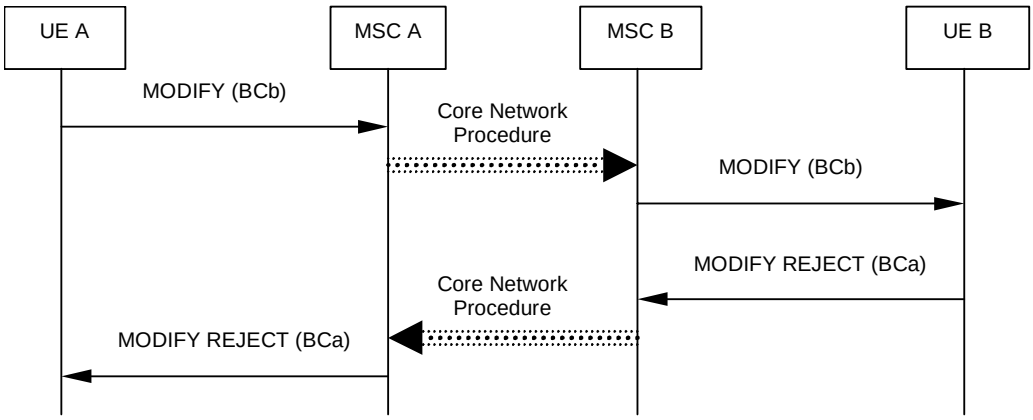

Figure 4.14: Service change requested, rejected

4.2.5 Network-initiated Service change in the active state

When the visited MSC of either party can no longer support an ongoing multimedia call, for example due to degraded coverage conditions (including UTRAN to GERAN only transitions), the visited MSC of this party shall initiate a sevice-change from multimedia to speech, following the procedures described below.

If the visited MSC is again able to support the multimedia at a later point in time while the speech call is still ongoing, the same visited MSC may initiate a service change from speech to multimedia as stated in TS 22.101 [8]~~, again following the procedures described below~~. ~~The visited MSC shall not initiate a service change from speech to multimedia, unless it initiated a service change from multimedia to speech before and no other service change was performed in between.~~The details for the service change from speech to multimedia are FFS.

The visited MSC shall initiate an In-Call Modification procedure towards the terminal it serves using the MODIFY message. The visited MSC shall also invoke the service change procedure (see clause 4.3.5) towards the remote side. The terminals on both sides will react as described in Clause 4.2.4.

If the terminal on either side rejects the service change, the visited MSC shall either clear the call, or it shall initiate a service change procedure towards the other side to revert to the original service.

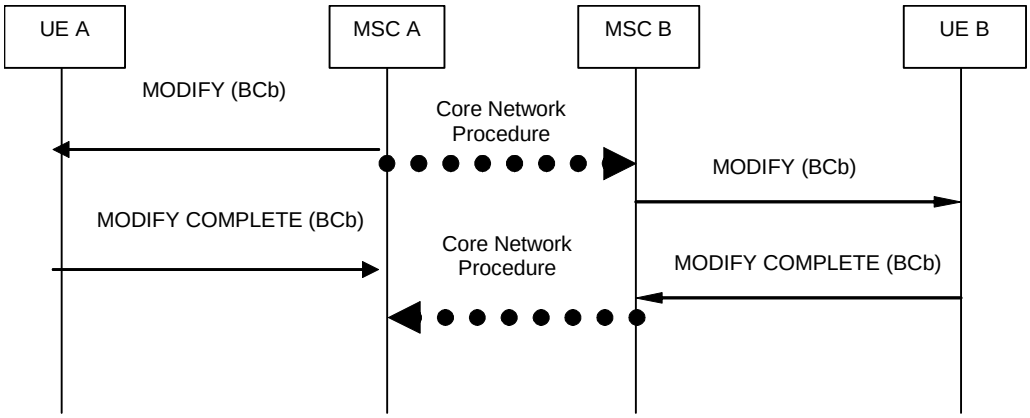

Figure 4.14a: Network-Initiated Service change from multimedia to speech requested, accepted

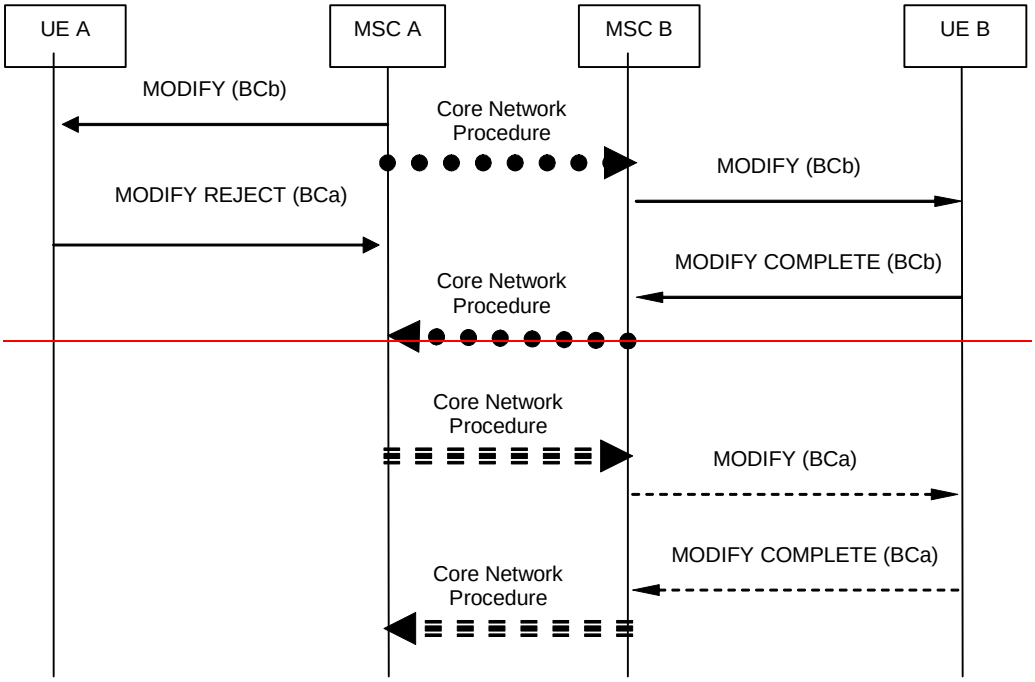

Figure 4.14b: ~~Network-Initiated Service change requested, rejected by UE A~~void

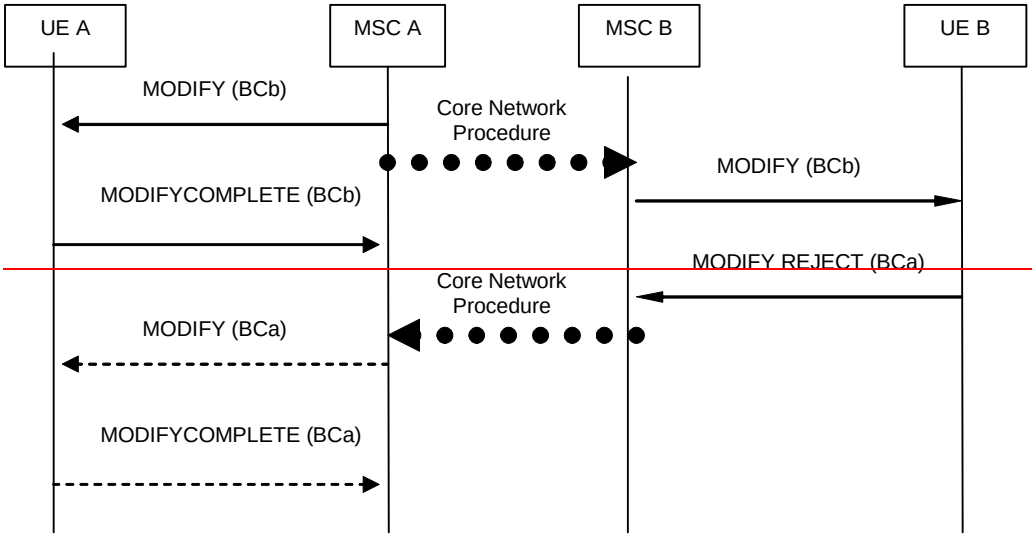

Figure 4.14c: ~~Network-Initiated Service change requested, rejected by UE B~~void

4.2.5.1 Network-initiated Service change in the active state starting with multimedia in Iu mode

For a network initiated service change from multimedia in Iu mode to speech, the visited MSC shall use the following procedure.

In order to request a notification from the RNC when it ~~be able to~~ detects a lack of sufficient resources or radio signal degradation, the visited MSC shall include an Alternative RAB Parameters ~~a Service Handover~~ IE in the RANAP RAB Assignment Request or RANAP Relocation Request message indicating the RAB configuration for speech in addition

to the RAB configuration for multimedia ~~"Handover to GSM should not be performed" (see 3GPP TS 25.413 [17]),~~ when it establishes ~~allocates~~ or modifies the radio access bearer for multimedia at the Iu interface.

When the radio access network detects a lack of sufficient resources to sustain the multimedia RAB configuration, it shall inform the visited MSC ~~initiates an inter-system handover to A/Gb mode~~ by sending a RANAP Modify Request ~~Relocation Required~~ message (see 3GPP TS 25.413 [17]) to the visited MSC.~~,~~ ~~t~~The visited MSC shall then:

~~- terminate the procedure by sending a RANAP Relocation Preparation Failure;~~

- initiate an In-Call Modification procedure to speech towards the terminal it serves using the MODIFY message; and

- invoke the service change procedure (see clause 4.3.5) towards the remote side.~~,~~

- trigger the RAB modification by sending a RANAP RAB Assignment with the RAB requested to be Modified to the RNC.

~~As an operator option, the visited MSC may then indicate to the radio access network that handover to GSM should be performed by sending an appropriate RAB assignment Request. If the radio access network initiates another inter-system handover to A/Gb mode, the visited MSC may progress the inter-system handover.~~

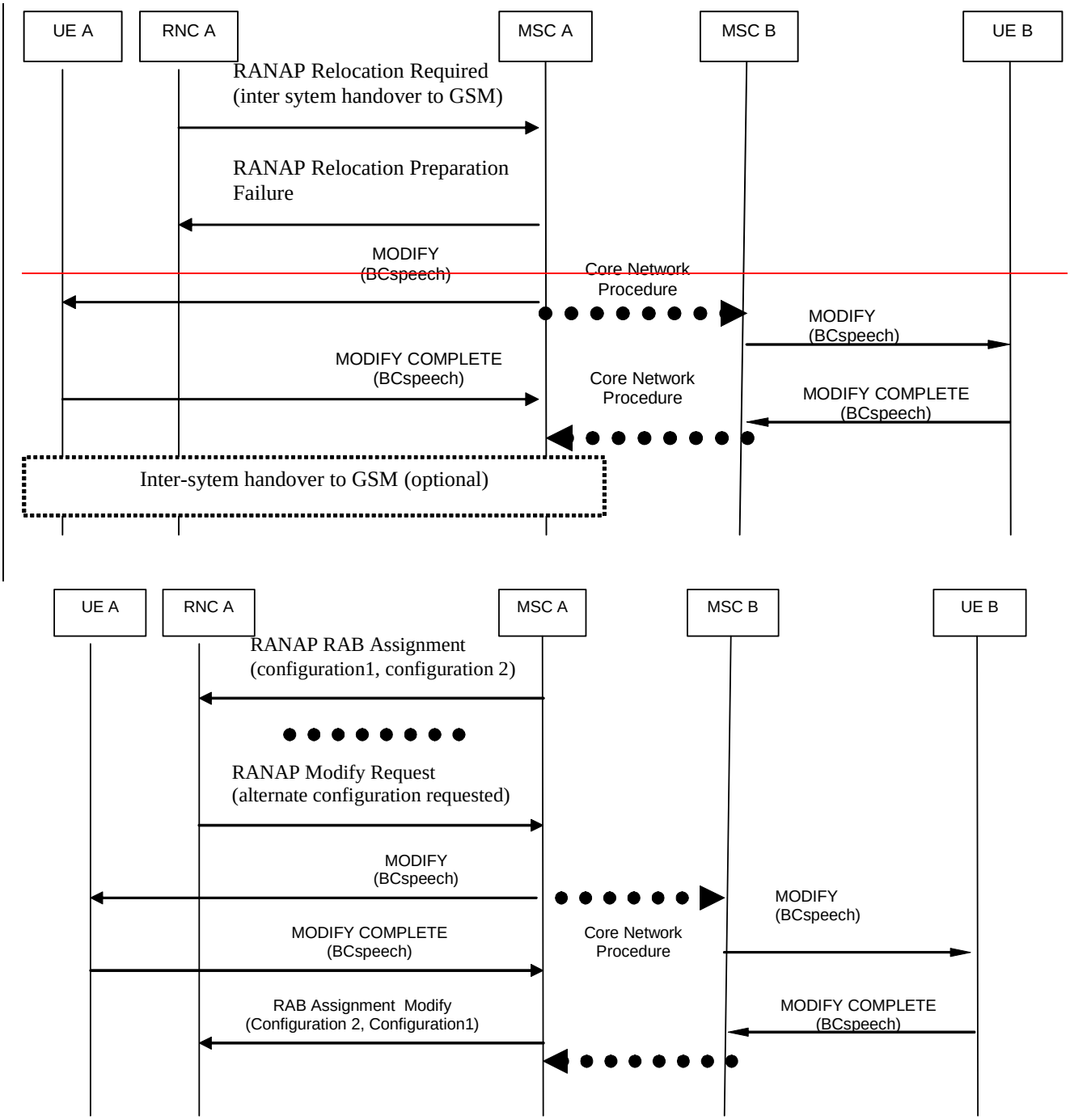

Figure 4.14d: Network-Initiated Service change from UTRAN multimedia to speech requested, accepted

****** END OF MODIFIED CLAUSES ********