TSG-RAN Meeting #12
Stockholm, Sweden, 12 - 15 June 2001

TSGRP#12(01) 0372

Title: **Agreed CRs to TS 25.410**

Source: **TSG-RAN WG3**

Agenda item: **8.3.3/8.3.4**

Tdoc_Num	Specification	CR_Num	Revision_Num	CR_Subject	CR_Category	WG_Status	Cur_Ver_Num	New_Ver_Num	Workitem
R3-011344	25.410	017		RANAP message in Connection Refusal	F	agreed	3.3.0	3.4.0	TEI
R3-011345	25.410	018		RANAP message in Connection Refusal	A	agreed	4.0.0	4.1.0	TEI

3GPP TSG-RAN WG3 Meeting #20 ***R3-011344***
Beijing, China, April 2nd – April 6th, 2001

CR-Form-v3

CHANGE REQUEST

⌘ **25.410** **CR** **017** ⌘ rev **-** ⌘ Current version: **3.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network **X**

Title:	⌘	RANAP message in Connection Refusal
Source:	⌘	R-WG3
Work item code:	⌘	TEI
Date:	⌘	2001-04-23
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(essential 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:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
REL-4	*(Release 4)*
REL-5	*(Release 5)*

Reason for change:	⌘	When sending Connection Refusal from CN to RNC it is stated in 25.410 that this message "may contain a transparent message to be sent to the UE". There is, however, also a need to be able to include the ERROR INDICATION message in the Connection Refusal message. It is thus proposed to change the text quoted above to "may contain a RANAP message in the user data field". This is in line with the case when Connection Refusal is sent from RNC to CN.
Summary of change:	⌘	Allow Connection Refusal to contain any appropriate RANAP message.
Consequences if not approved:	⌘	ERROR INDICATION can not be returned in the Connection Refusal message, forcing the SCCP connection to be established (if possible) just in order to transfer the ERROR INDICATION message and then immediately released again. Additional information: This change is backwards compatible.

Clauses affected:	⌘	4.5.1.1.2.1		
Other specs affected:	⌘	**X** Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.410 CR018 REL-4
Other comments:	⌘			

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

4.5.1.1.2 SCCP connection establishment

A new SCCP connection is established when information related to the communication between a UE and the network has to be exchanged between RNC and CN, and no SCCP connection exists between the CN and the RNC involved, for the concerned UE.

Various SCCP connection establishment cases have to be distinguished:

i) RNC Initiated SCCP Signalling Connection;

ii) CN Initiated SCCP Signalling Connection.

The above cases are the only cases currently identified for SCCP connection establishment. Others may emerge in the future.

4.5.1.1.2.1 Establishment procedure in case i

The SCCP signalling connection establishment is initiated, by the RNC, at the reception of the first layer 3 non access stratum message from the UE.

Initiation

The RNC sends SCCP connection request message to the Core Network. A RANAP message is included in the user data field of the SCCP connection request message.

Termination

- **successful outcome**
  - The SCCP connection confirm message, which may optionally contain a connection oriented RANAP message in the user data field, is returned to the RNC.
- **unsuccessful outcome**
  - If the SCCP signalling connection establishment fails, an SCCP connection refusal message will be sent back to the RNC. This message may contain a RANAP message in the user data field~~transparent message to be sent to the UE~~.

For more information on how the RANAP procedure Initial UE message is handled, please see the elementary procedure Initial UE message in TS 25.413 [6].

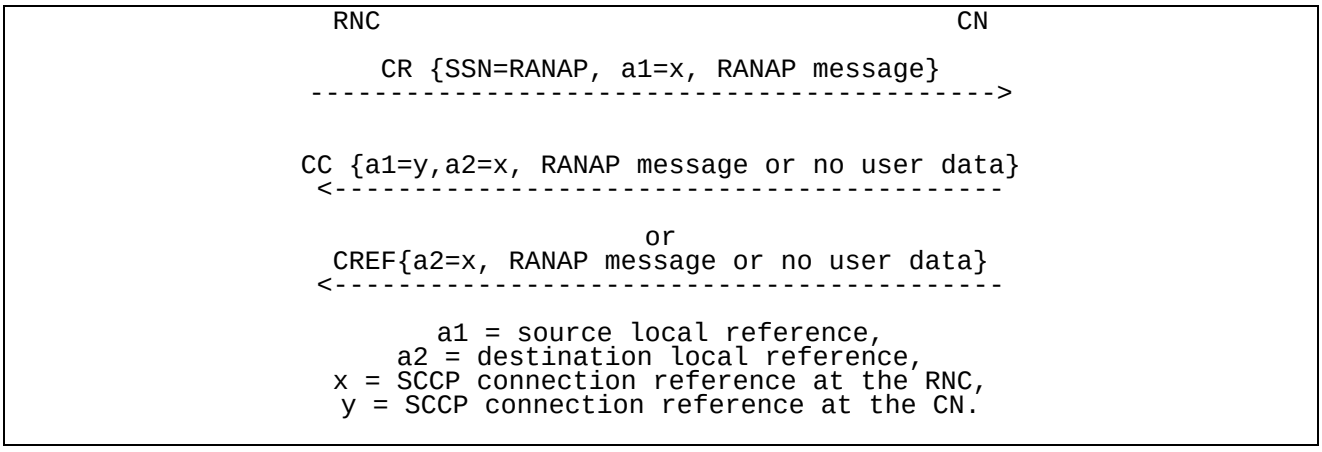

Figure 4.2: Setting-up of RNC Initiated SCCP Signalling Connection

4.5.1.1.2.2 Establishment procedure in case ii

The SCCP signalling connection establishment is initiated, by the Core Network, in connection with performing a Relocation.

Initiation

The Core Network initiates the connection establishment by sending an SCCP connection request message to the RNC. Optionally, a RANAP message may be included in the user data field of the SCCP connection request message.

Termination

- **successful outcome**
  - The SCCP connection confirm message, which may optionally contain a connection oriented RANAP message in the user data field, is returned to the Core Network.
- **unsuccessful outcome**
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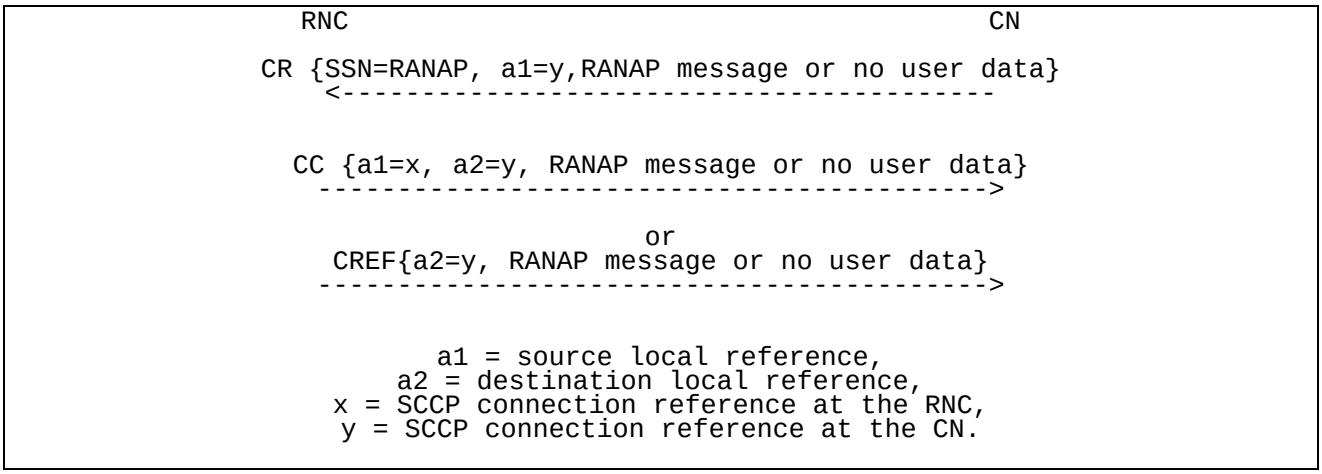

Figure 4.3: Setting-up of CN Initiated SCCP Signalling Connection

3GPP TSG-RAN WG3 Meeting #20 **R3-011345**
Beijing, China, April 2nd – April 6th, 2001

CR-Form-v3

CHANGE REQUEST

⌘ **25.410** **CR** **018** ⌘ rev **-** ⌘ Current version: **4.0.0** ⌘

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Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☒

Title:	⌘	RANAP message in Connection Refusal
Source:	⌘	R-WG3
Work item code:	⌘	TEI
Date:	⌘	2001-04-23
Category:	⌘	**A**
Release:	⌘	REL-4

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Clauses affected:	⌘	4.5.1.1.2.1		
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Other comments:	⌘			

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Termination

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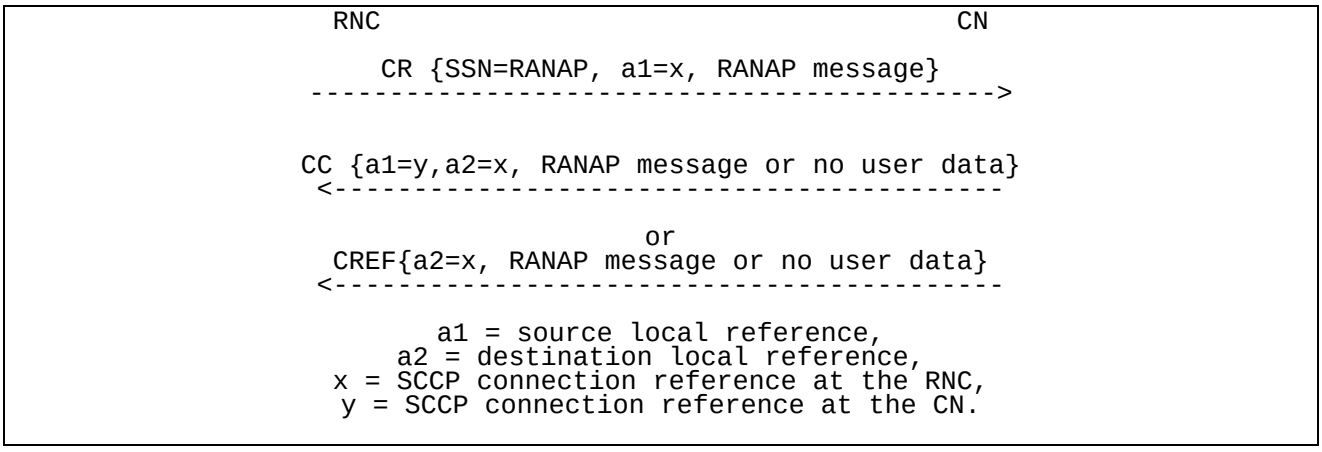

Figure 4.2: Setting-up of RNC Initiated SCCP Signalling Connection

4.5.1.1.2.2 Establishment procedure in case ii

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Termination

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  - The SCCP connection confirm message, which may optionally contain a connection oriented RANAP message in the user data field, is returned to the Core Network.
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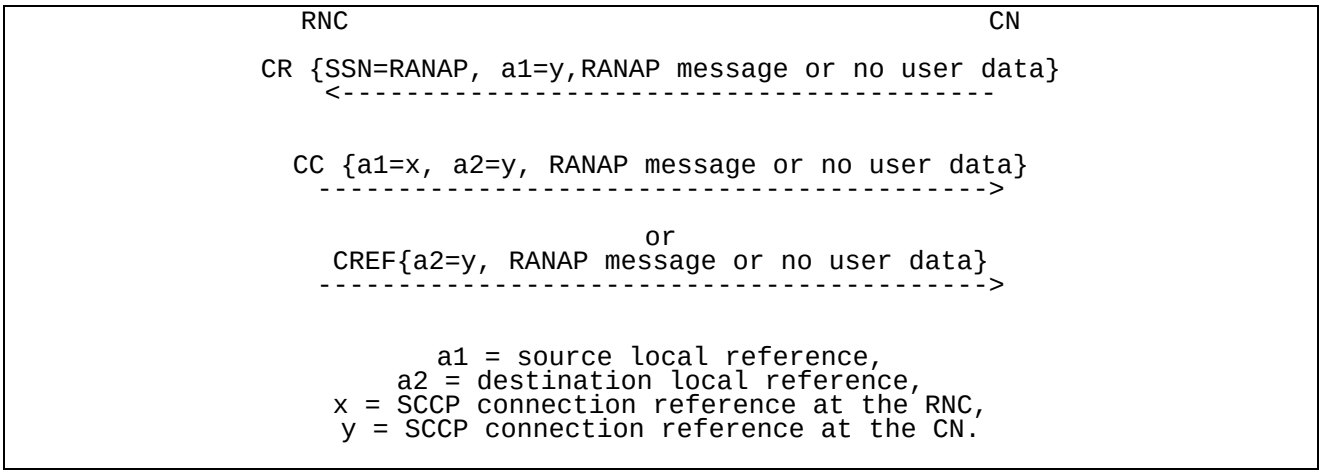

Figure 4.3: Setting-up of CN Initiated SCCP Signalling Connection