

TSG RAN Meeting #19
Birmingham, UK, 11 - 14 March 2003

RP-030079

Title CRs (R99 and Rel-4/Rel-5 Category A) to TS 29.108 linked to CN1 (23.009) on
Corrections to the list of RANAP messages transferred on the E-interface
Source TSG RAN WG3
Agenda Item 8.3.6

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-030326	29.108	3.2.0	3.3.0	R99	011	1	F	Corrections to the list of RANAP messages transferred on the E-interface	GSM/UMTS interworking
R3-030327	29.108	4.3.0	4.4.0	REL-4	012	1	A	Corrections to the list of RANAP messages transferred on the E-interface	GSM/UMTS interworking
R3-030328	29.108	5.2.0	5.3.0	REL-5	013	1	A	Corrections to the list of RANAP messages transferred on the E-interface	GSM/UMTS interworking

Note: CRs are linked to TS 23.009 R99 CR091, TS 23.009 Rel-4 CR092, TS 23.009 Rel-5 CR093 of CN WG1.

CHANGE REQUEST

⌘ **29.108 CR 011** ⌘ rev **1** ⌘ Current version: **3.2.0** ⌘

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 Core Network

Title:	⌘ Corrections to the list of RANAP messages transferred on the E-interface		
Source:	⌘ RAN WG3		
Work item code:	⌘ GSM/UMTS interworking	Date:	⌘ 29/01/2003
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> 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 <u>one</u> 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) Rel-6 (Release 6)

Reason for change:	⌘ <ol style="list-style-type: none"> 1) The lu RELEASE REQUEST message may also be sent by MSC-T during relocation execution, e.g. if the relocation fails and the MS reverts to the old channel. 2) The RELOCATION FAILURE message may be sent from MSC-A to MSC-I, but not in the opposite direction. 3) The CN INVOKE TRACE message may also be sent from MSC-A to MSC-T during relocation resource allocation. 4) Wrong procedure name in subclause 5.13. 5) CN Deactivate Trace is not indicated as trace related message.
Summary of change:	⌘ Missing descriptions for 1) and 3) are added in subclauses 5.3 and 5.7. The table in clause 6 is updated.
Consequences if not approved:	⌘ Inconsistent, ambiguous specification. Since there is also the possibility to send BSSMAP messages via the E-interface, this ambiguity may result in wrong implementations (i.e. the sending MSC might use the wrong radio access network protocol). E.g., if MSC-T sends the BSSMAP message Clear Request instead of the RANAP message lu-Release-Request, MSC-A could ignore the message, because it does not expect such a BSSMAP message. <u>Impact assessment towards the previous version of the specification (same release):</u> This CR has isolated impact towards the previous version of the specification (same release). This CR has an impact under functional point of view. The impact can be considered isolated because it only affects the relocation

system function.

Clauses affected: ⌘ 5.3, 5.4, 5.7, 5.13, 6

	Y	N		
Other specs	X		Other core specifications	⌘ TS 29.108 Rel-4 CR012 TS 29.108 Rel-5 CR013 TS 23.009 R99 CR91 TS 23.009 Rel-4 CR92 TS 23.009 Rel-5 CR93
affected:		X	Test specifications	
		X	O&M Specifications	

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/specs/CR.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://ftp.3gpp.org/specs/>. For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 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.

5 Use of the RANAP on the E-interface

The dedicated RANAP procedures used on the E-interface to some extent are:

- RAB assignment;
- RAB Release Request;
- Iu Release Request;
- Relocation resource allocation;
- Relocation Detect;
- Relocation Complete;
- Relocation Cancel;
- CN Invoke Trace;
- Security mode control;
- Location Reporting Control;
- Location Report;
- Direct Transfer;
- Error Indication;
- Common ID.

5.1 RAB Assignment

The RAB Assignment procedure (TS 25.413 subclause 8.2) is applied on the E-interface with following conditions:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

The handling of terrestrial resources is not applicable, i.e. the RANAP IEs *Transport Layer Address* and *Iu Transport Association* will be assigned by the 3G_MSC-I.

5.2 RAB Release Request

For the RAB Release Request procedure (TS 25.413 subclause 8.3) the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-I acts as the RNS;
- the 3G_MSC-A acts as the 3G_MSC.

5.3 Iu Release Request

For the Iu Release Request procedure (TS 25.413 subclause 8.4) the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-I acts as the RNS;
- the 3G_MSC-A acts as the 3G_MSC.

Additionally, at basic Inter-3G_MSC relocation and at subsequent Inter-3G_MSC relocation (3GPP TS 23.009), if the 3G_MSC that is the 3G_MSC-A is not also the 3G_MSC-T, the Iu Release Request procedure (TS 25.413 subclause 8.4) is applied on the E-interface with the following conditions:

- the 3G_MSC-T acts as the RNS;
- the 3G_MSC-A acts as the 3G_MSC.

5.4 Relocation Resource Allocation

At basic Inter-3G_MSC relocation (TS 23.009) the Relocation Resource Allocation procedure (TS 25.413 subclause 8.7) is applied on the E-interface with the following conditions:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-T acts as the target RNS.

At subsequent Inter-3G_MSC relocation the Relocation Resource Allocation procedure is applied on the E-interface with the following conditions:

- the 3G_MSC-I acts as the 3G_MSC;
- the 3G_MSC-T acts as the target RNS;
- if the 3G_MSC that is the 3G_MSC-A is not also the 3G_MSC-T, then this 3G_MSC shall act as the target RNS towards the 3G_MSC-I and as the 3G_MSC towards the 3G_MSC-T.

The handling of terrestrial resources is not applicable, i.e. the RANAP IEs *Transport Layer Address* and *Iu Transport Association* will be assigned by the 3G_MSC-T.

5.5 Relocation Cancel

For subsequent Inter-3G_MSC relocation the Relocation Cancel procedure (TS 25.413 subclause 8.10) is applied on the E-interface with the following conditions:

- the 3G_MSC-A, acts as the 3G_MSC;
- the 3G_MSC-I, acts as the serving RNS.

5.6 Relocation Detect and Relocation Complete

For the Relocation Detect and Relocation Complete procedure (TS 25.413 subclauses 8.8 and 8.9) the applicable parts on the E-interface are the transfer of RELOCATION DETECT, RELOCATION COMPLETE messages at inter 3G_MSC relocation. For those parts, the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-T acts as the target RNS.

5.7 CN Trace invocation

For the CN Trace invocation procedure (TS 25.413, subclause 8.17), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

Additionally, at basic Inter-3G_MSC relocation and at subsequent Inter-3G_MSC relocation (TS 23.009), if the 3G_MSC that is the 3G_MSC-A is not also the 3G_MSC-T, the CN Trace invocation procedure (TS 25.413, subclause 8.17) is applied on the E-interface with the following conditions:

- [the 3G_MSC-A acts as the 3G_MSC;](#)

- [the 3G_MSC-T acts as the RNS.](#)

5.8 Security mode control

For the Security mode control procedure (TS 25.413, subclause 8.18), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.9 Location Reporting Control

For the Location Reporting Control procedure (TS 25.413, subclause 8.19) the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.10 Location Report

For the Location Report procedure (TS 25.413, subclause 8.20, the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.11 Direct Transfer

For the Direct Transfer procedure (TS 25.413, subclause 8.23), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.12 Error Indication

For the Error Indication procedure (TS 25.413, subclause 8.27), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.13 CN Deactivate Trace

For the [CN Deactivate Trace procedure](#) ~~Error Indication procedure~~ (TS 25.413, subclause 8.28), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.14 Common ID

For the Common ID procedure (TS 25.413, subclause 8.16), the involved 3G MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

6 RANAP messages transferred on the E-interface

The list given below shows the RANAP messages, defined in TS 25.413 subclause 9.1 (tabular format) and 9.3 (ASN.1 notation) that are transferred on the E-interface.

RAB ASSIGNMENT REQUEST	(3G_MSC-A -> 3G_MSC-I)
RAB ASSIGNMENT RESPONSE	(3G_MSC-I -> 3G_MSC-A)
RAB RELEASE REQUEST	(3G_MSC-I -> 3G_MSC-A)
IU RELEASE REQUEST	(3G_MSC-I -> 3G_MSC-A and 3G_MSC-T -> 3G_MSC-A)
* RELOCATION REQUEST	(3G_MSC-A -> 3G_MSC-T and 3G_MSC-I -> 3G_MSC-A)
* RELOCATION REQUEST ACKNOWLEDGE	(3G_MSC-T -> 3G_MSC-A and 3G_MSC-A -> 3G_MSC-I)
* RELOCATION DETECT	(3G_MSC-T -> 3G_MSC-A)
* RELOCATION COMPLETE	(3G_MSC-T -> 3G_MSC-A)
* RELOCATION FAILURE	(3G_MSC-T -> 3G_MSC-A and 3G_MSC- A I -> 3G_MSC- I A)
* RELOCATION CANCEL	(3G_MSC-I -> 3G_MSC-A)
* RELOCATION CANCEL ACKNOWLEDGE	(3G_MSC-A -> 3G_MSC-I)
# CN INVOKE TRACE	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-A -> 3G_MSC-T)
SECURITY MODE COMMAND	(3G_MSC-A -> 3G_MSC-I)
SECURITY MODE COMPLETE	(3G_MSC-I -> 3G_MSC-A)
SECURITY MODE REJECT	(3G_MSC-I -> 3G_MSC-A)
LOCATION REPORTING CONTROL	(3G_MSC-A -> 3G_MSC-I)
LOCATION REPORT	(3G_MSC-I -> 3G_MSC-A)
DIRECT TRANSFER	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-I -> 3G_MSC-A)
ERROR INDICATION	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-I -> 3G_MSC-A)
# CN DEACTIVATE TRACE	(3G_MSC-A -> 3G_MSC-I)
COMMON ID	(3G_MSC-A->3G_MSC-I)

All other RANAP messages shall be considered as non-existent on the E-interface.

[Some of the messages above are qualified by * or #. This indicates whether the message, when sent on the E-interface, is considered as:](#)

- [relocation related message \(*\)](#); or
- [trace related message \(#\)](#).

CHANGE REQUEST

⌘ **29.108 CR 012** ⌘ rev **1** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Corrections to the list of RANAP messages transferred on the E-interface		
Source:	⌘ RAN WG3		
Work item code:	⌘ GSM/UMTS interworking	Date:	⌘ 29/01/2003
Category:	⌘ A	Release:	⌘ Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ <ol style="list-style-type: none"> 1) The lu RELEASE REQUEST message may also be sent by MSC-T during relocation execution, e.g. if the relocation fails and the MS reverts to the old channel. 2) The RELOCATION FAILURE message may be sent from MSC-A to MSC-I, but not in the opposite direction. 3) The CN INVOKE TRACE message may also be sent from MSC-A to MSC-T during relocation resource allocation. 4) Wrong procedure name in subclause 5.13. 5) CN Deactivate Trace is not indicated as trace related message.
Summary of change:	⌘ Missing descriptions for 1) and 3) are added in subclauses 5.3 and 5.7. The table in clause 6 is updated.
Consequences if not approved:	⌘ Inconsistent, ambiguous specification. Since there is also the possibility to send BSSMAP messages via the E-interface, this ambiguity may result in wrong implementations (i.e. the sending MSC might use the wrong radio access network protocol). E.g., if MSC-T sends the BSSMAP message Clear Request instead of the RANAP message lu-Release-Request, MSC-A could ignore the message, because it does not expect such a BSSMAP message.
	⌘ <u>Impact assessment towards the previous version of the specification (same release):</u>
	⌘ This CR has isolated impact towards the previous version of the specification (same release).
	⌘ This CR has an impact under functional point of view.
	⌘ The impact can be considered isolated because it only affects the relocation

system function.

Clauses affected: ⌘ 5.3, 5.4, 5.7, 5.13, 5.15, 6

	Y	N		
Other specs	X		Other core specifications	⌘ TS 29.108 R99 CR011 TS 29.108 Rel-5 CR013 TS 23.009 R99 CR91 TS 23.009 Rel-4 CR92 TS 23.009 Rel-5 CR93
affected:		X	Test specifications	
		X	O&M Specifications	

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/specs/CR.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://ftp.3gpp.org/specs/>. For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 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.

5 Use of the RANAP on the E-interface

The dedicated RANAP procedures used on the E-interface to some extent are:

- RAB assignment;
- RAB Release Request;
- Iu Release Request;
- Relocation resource allocation;
- Relocation Detect;
- Relocation Complete;
- Relocation Cancel;
- CN Invoke Trace;
- Security mode control;
- Location Reporting Control;
- Location Report;
- Direct Transfer;
- Error Indication;
- Common ID;
- Location Related Data.

5.1 RAB Assignment

The RAB Assignment procedure (TS 25.413 subclause 8.2) is applied on the E-interface with following conditions:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

The handling of terrestrial resources is not applicable, i.e. the RANAP IEs *Transport Layer Address* and *Iu Transport Association* will be assigned by the 3G_MSC-I.

5.2 RAB Release Request

For the RAB Release Request procedure (TS 25.413 subclauses 8.3) the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-I acts as the RNS;
- the 3G_MSC-A acts as the 3G_MSC.

5.3 Iu Release Request

For the Iu Release Request procedure (TS 25.413 subclause 8.4) the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-I acts as the RNS;

- the 3G_MSC-A acts as the 3G_MSC.

Additionally, at basic Inter-3G_MSC relocation and at subsequent Inter-3G_MSC relocation (3GPP TS 23.009), if the 3G_MSC that is the 3G_MSC-A is not also the 3G_MSC-T, the Iu Release Request procedure (TS 25.413 subclause 8.4) is applied on the E-interface with the following conditions:

- the 3G_MSC-T acts as the RNS;
- the 3G_MSC-A acts as the 3G_MSC.

5.4 Relocation Resource Allocation

At basic Inter-3G_MSC relocation (TS 23.009) the Relocation Resource Allocation procedure (TS 25.413 subclause 8.7) is applied on the E-interface with the following conditions:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-T acts as the target RNS.

At subsequent Inter-3G_MSC relocation the Relocation Resource Allocation procedure is applied on the E-interface with the following conditions:

- the 3G_MSC-I acts as the 3G_MSC;
- the 3G_MSC-T acts as the [target RNS](#);
- if the 3G_MSC that is the 3G_MSC-A is not also the 3G_MSC-T, then this 3G_MSC shall act as the target RNS towards the 3G_MSC-I and as the 3G_MSC towards the 3G_MSC-T.

The handling of terrestrial resources is not applicable, i.e. the RANAP IEs *Transport Layer Address* and *Iu Transport Association* will be assigned by the 3G_MSC-T.

5.5 Relocation Cancel

For subsequent Inter-3G_MSC relocation the Relocation Cancel procedure (TS 25.413 subclause 8.10) is applied on the E-interface with the following conditions.

- the 3G_MSC-A, acts as the 3G_MSC;
- the 3G_MSC-I, acts as the serving RNS.

5.6 Relocation Detect and Relocation Complete

For the Relocation Detect and Relocation Complete procedure (TS 25.413 subclauses 8.8 and 8.9) the applicable parts on the E-interface are the transfer of RELOCATION DETECT, RELOCATION COMPLETE messages at inter 3G_MSC relocation. For those parts, the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-T acts as the target RNS.

5.7 CN Trace invocation

For the CN Trace invocation procedure (TS 25.413, subclause 8.17), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

Additionally, at basic Inter-3G MSC relocation and at subsequent Inter-3G MSC relocation (TS 23.009), if the 3G MSC that is the 3G MSC-A is not also the 3G MSC-T, the CN Trace invocation procedure (TS 25.413, subclause 8.17) is applied on the E-interface with the following conditions:

- the 3G MSC-A acts as the 3G MSC;
- the 3G MSC-T acts as the RNS.

5.8 Security mode control

For the Security mode control procedure (TS 25.413, subclause 8.18), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.9 Location Reporting Control

For the Location Reporting Control procedure (TS 25.413, subclause 8.19), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.10 Location Report

For the Location Report procedure (TS 25.413, subclause 8.20), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.11 Direct Transfer

For the Direct Transfer procedure (TS 25.413, subclause 8.23), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.12 Error Indication

For the Error Indication procedure (TS 25.413, subclause 8.27), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.13 CN Deactivate Trace

For the [CN Deactivate Trace procedure](#) ~~Error-Indication~~-procedure (TS 25.413, subclause 8.28), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.14 Common ID

For the Common ID procedure (TS 25.413, subclause 8.16), the involved 3G MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.15 Location Related Data

For the Location Related Data procedure (TS 25.413, subclause 8.31), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC=A acts as the 3G_MSC;
- the 3G_MSC=I acts as the RNS.

6 RANAP messages transferred on the E-interface

The list given below shows the RANAP messages, defined in TS 25.413 subclause 9.1 (tabular format) and 9.3 (ASN.1 notation) that are transferred on the E-interface.

RAB ASSIGNMENT REQUEST	(3G_MSC-A -> 3G_MSC-I)
RAB ASSIGNMENT RESPONSE	(3G_MSC-I -> 3G_MSC-A)
RAB RELEASE REQUEST	(3G_MSC-I -> 3G_MSC-A)
IU RELEASE REQUEST	(3G_MSC-I -> 3G_MSC-A and 3G_MSC-T -> 3G_MSC-A)
* RELOCATION REQUEST	(3G_MSC-A -> 3G_MSC-T and 3G_MSC-I -> 3G_MSC-A)
* RELOCATION REQUEST ACKNOWLEDGE	(3G_MSC-T -> 3G_MSC-A and 3G_MSC-A -> 3G_MSC-I)
* RELOCATION DETECT	(3G_MSC-T -> 3G_MSC-A)
* RELOCATION COMPLETE	(3G_MSC-T -> 3G_MSC-A)
* RELOCATION FAILURE	(3G_MSC-T -> 3G_MSC-A and 3G_MSC- A I -> 3G_MSC-I A)
* RELOCATION CANCEL	(3G_MSC-I -> 3G_MSC-A)
* RELOCATION CANCEL ACKNOWLEDGE	(3G_MSC-A -> 3G_MSC-I)
# CN INVOKE TRACE	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-A -> 3G_MSC-T)
SECURITY MODE COMMAND	(3G_MSC-A -> 3G_MSC-I)
SECURITY MODE COMPLETE	(3G_MSC-I -> 3G_MSC-A)
SECURITY MODE REJECT	(3G_MSC-I -> 3G_MSC-A)

LOCATION REPORTING CONTROL	(3G_MSC-A -> 3G_MSC-I)
LOCATION REPORT	(3G_MSC-I -> 3G_MSC-A)
DIRECT TRANSFER	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-I -> 3G_MSC-A)
ERROR INDICATION	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-I -> 3G_MSC-A)
# CN DEACTIVATE TRACE	(3G_MSC-A -> 3G_MSC-I)
COMMON ID	(3G_MSC-A->3G_MSC-I)
LOCATION RELATED DATA REQUEST	(3G_MSC-A -> 3G_MSC-I)
LOCATION RELATED DATA RESPONSE	(3G_MSC-I -> 3G_MSC-A)
LOCATION RELATED DATA FAILURE	(3G_MSC-I -> 3G_MSC-A)

All other RANAP messages shall be considered as non-existent on the E-interface.

Some of the messages above are qualified by * or #. This indicates whether the message, when sent on the E interface, is considered as:

- relocation related message (*); or
- trace related message (#).

CHANGE REQUEST

⌘ **29.108 CR 013** ⌘ rev **1** ⌘ Current version: **5.2.0** ⌘

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 Core Network

Title:	⌘ Corrections to the list of RANAP messages transferred on the E-interface		
Source:	⌘ RAN WG3		
Work item code:	⌘ GSM/UMTS interworking	Date:	⌘ 29/01/2003
Category:	⌘ A	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ <ol style="list-style-type: none"> 1) The lu RELEASE REQUEST message may also be sent by MSC-T during relocation execution, e.g. if the relocation fails and the MS reverts to the old channel. 2) The RELOCATION FAILURE message may be sent from MSC-A to MSC-I, but not in the opposite direction. 3) The CN INVOKE TRACE message may also be sent from MSC-A to MSC-T during relocation resource allocation. 4) The LOCATION REPORTING CONTROL message may also be sent from MSC-A to MSC-T during relocation. 5) Wrong procedure name in subclause 5.13. 6) CN Deactivate Trace is not indicated as trace related message.
Summary of change:	⌘ Missing descriptions for 1), 3) and 4) are added in subclauses 5.3, 5.7 and 5.9. The table in clause 6 is updated.
Consequences if not approved:	⌘ Inconsistent, ambiguous specification. Since there is also the possibility to send BSSMAP messages via the E-interface, this ambiguity may result in wrong implementations (i.e. the sending MSC might use the wrong radio access network protocol). E.g., if MSC-T sends the BSSMAP message Clear Request instead of the RANAP message lu-Release-Request, MSC-A could ignore the message, because it does not expect such a BSSMAP message.
	⌘ <u>Impact assessment towards the previous version of the specification (same release):</u>
	⌘ This CR has isolated impact towards the previous version of the specification (same release).

This CR has an impact under functional point of view.

The impact can be considered isolated because it only affects the relocation system function.

Clauses affected: ⌘ 5.3, 5.4, 5.7, 5.9, 5.13, 5.15, 6

	Y	N		
Other specs	X		Other core specifications	⌘ TS 29.108 R99 CR011 TS 29.108 Rel-4 CR012 TS 23.009 R99 CR91 TS 23.009 Rel-4 CR92 TS 23.009 Rel-5 CR93
affected:		X	Test specifications	
		X	O&M Specifications	

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/specs/CR.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://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 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.

5 Use of the RANAP on the E-interface

The dedicated RANAP procedures used on the E-interface to some extent are:

- RAB assignment;
- RAB Release Request;
- Iu Release Request;
- Relocation resource allocation;
- Relocation Detect;
- Relocation Complete;
- Relocation Cancel;
- CN Invoke Trace;
- Security mode control;
- Location Reporting Control;
- Location Report;
- Direct Transfer;
- Error Indication;
- Common ID;
- Location Related Data.

5.1 RAB Assignment

The RAB Assignment procedure (TS 25.413 subclause 8.2) is applied on the E-interface with following conditions:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

The handling of terrestrial resources is not applicable, i.e. the RANAP IEs *Transport Layer Address* and *Iu Transport Association* will be assigned by the 3G_MSC-I.

5.2 RAB Release Request

For the RAB Release Request procedure (TS 25.413 subclauses 8.3) the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-I acts as the RNS;
- the 3G_MSC-A acts as the 3G_MSC.

5.3 Iu Release Request

For the Iu Release Request procedure (TS 25.413 subclause 8.4) the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-I acts as the RNS;

- the 3G_MSC-A acts as the 3G_MSC.

Additionally, at basic Inter-3G_MSC relocation and at subsequent Inter-3G_MSC relocation (3GPP TS 23.009), if the 3G_MSC that is the 3G_MSC-A is not also the 3G_MSC-T, the Iu Release Request procedure (TS 25.413 subclause 8.4) is applied on the E-interface with the following conditions:

- the 3G_MSC-T acts as the RNS;
- the 3G_MSC-A acts as the 3G_MSC.

5.4 Relocation Resource Allocation

At basic Inter-3G_MSC relocation (TS 23.009) the Relocation Resource Allocation procedure (TS 25.413 subclause 8.7) is applied on the E-interface with the following conditions:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-T acts as the target RNS.

At subsequent Inter-3G_MSC relocation the Relocation Resource Allocation procedure is applied on the E-interface with the following conditions:

- the 3G_MSC-I acts as the 3G_MSC;
- the 3G_MSC-T acts as the [target RNS](#);
- if the 3G_MSC that is the 3G_MSC-A is not also the 3G_MSC-T, then this 3G_MSC shall act as the target RNS towards the 3G_MSC-I and as the 3G_MSC towards the 3G_MSC-T.

The handling of terrestrial resources is not applicable, i.e. the RANAP IEs *Transport Layer Address* and *Iu Transport Association* will be assigned by the 3G_MSC-T.

5.5 Relocation Cancel

For subsequent Inter-3G_MSC relocation the Relocation Cancel procedure (TS 25.413 subclause 8.10) is applied on the E-interface with the following conditions.

- the 3G_MSC-A, acts as the 3G_MSC;
- the 3G_MSC-I, acts as the serving RNS.

5.6 Relocation Detect and Relocation Complete

For the Relocation Detect and Relocation Complete procedure (TS 25.413 subclauses 8.8 and 8.9) the applicable parts on the E-interface are the transfer of RELOCATION DETECT, RELOCATION COMPLETE messages at inter 3G_MSC relocation. For those parts, the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-T acts as the target RNS.

5.7 CN Trace invocation

For the CN Trace invocation procedure (TS 25.413, subclause 8.17), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

Additionally, at basic Inter-3G MSC relocation and at subsequent Inter-3G MSC relocation (TS 23.009), if the 3G MSC that is the 3G MSC-A is not also the 3G MSC-T, the CN Trace invocation procedure (TS 25.413, subclause 8.17) is applied on the E-interface with the following conditions:

- the 3G MSC-A acts as the 3G MSC;
- the 3G MSC-T acts as the RNS.

5.8 Security mode control

For the Security mode control procedure (TS 25.413, subclause 8.18), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.9 Location Reporting Control

For the Location Reporting Control procedure (TS 25.413, subclause 8.19), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

Additionally, at basic Inter-3G MSC relocation and at subsequent Inter-3G MSC relocation (3GPP TS 23.009), if the 3G MSC that is the 3G MSC-A is not also the 3G MSC-T, the Location Reporting Control procedure (TS 25.413 subclause 8.19) is applied on the E-interface with the following conditions:

- the 3G MSC-A acts as the 3G MSC;
- the 3G MSC-T acts as the RNS.

5.10 Location Report

For the Location Report procedure (TS 25.413, subclause 8.20), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.11 Direct Transfer

For the Direct Transfer procedure (TS 25.413, subclause 8.23), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.12 Error Indication

For the Error Indication procedure (TS 25.413, subclause 8.27), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;

- the 3G_MSC-I acts as the RNS.

5.13 CN Deactivate Trace

For the [CN Deactivate Trace procedure](#) ~~Error Indication~~ procedure (TS 25.413, subclause 8.28), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.14 Common ID

For the Common ID procedure (TS 25.413, subclause 8.16), the involved 3G MSCs shall act according to the following:

- the 3G_MSC-A acts as the 3G_MSC;
- the 3G_MSC-I acts as the RNS.

5.15 Location Related Data

For the Location Related Data procedure (TS 25.413, subclause 8.31), the involved 3G_MSCs shall act according to the following:

- the 3G_MSC=~~A~~ acts as the 3G_MSC;
- the 3G_MSC=~~I~~ acts as the RNS.

6 RANAP messages transferred on the E-interface

The list given below shows the RANAP messages, defined in TS 25.413 subclause 9.1 (tabular format) and 9.3 (ASN.1 notation) that are transferred on the E-interface.

RAB ASSIGNMENT REQUEST	(3G_MSC-A -> 3G_MSC-I)
RAB ASSIGNMENT RESPONSE	(3G_MSC-I -> 3G_MSC-A)
RAB RELEASE REQUEST	(3G_MSC-I -> 3G_MSC-A)
IU RELEASE REQUEST	(3G_MSC-I -> 3G_MSC-A and 3G_MSC-T -> 3G_MSC-A)
* RELOCATION REQUEST	(3G_MSC-A -> 3G_MSC-T and 3G_MSC-I -> 3G_MSC-A)
* RELOCATION REQUEST ACKNOWLEDGE	(3G_MSC-T -> 3G_MSC-A and 3G_MSC-A -> 3G_MSC-I)
* RELOCATION DETECT	(3G_MSC-T -> 3G_MSC-A)
* RELOCATION COMPLETE	(3G_MSC-T -> 3G_MSC-A)
* RELOCATION FAILURE	(3G_MSC-T -> 3G_MSC-A and 3G_MSC- A -> 3G_MSC- I)
* RELOCATION CANCEL	(3G_MSC-I -> 3G_MSC-A)
* RELOCATION CANCEL ACKNOWLEDGE	(3G_MSC-A -> 3G_MSC-I)
# CN INVOKE TRACE	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-A -> 3G_MSC-T)
SECURITY MODE COMMAND	(3G_MSC-A -> 3G_MSC-I)
SECURITY MODE COMPLETE	(3G_MSC-I -> 3G_MSC-A)

SECURITY MODE REJECT	(3G_MSC-I -> 3G_MSC-A)
LOCATION REPORTING CONTROL	(3G_MSC-A -> 3G_MSC-I <u>and 3G_MSC-A -> 3G_MSC-T</u>)
LOCATION REPORT	(3G_MSC-I -> 3G_MSC-A)
DIRECT TRANSFER	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-I -> 3G_MSC-A)
ERROR INDICATION	(3G_MSC-A -> 3G_MSC-I and 3G_MSC-I -> 3G_MSC-A)
# CN DEACTIVATE TRACE	(3G_MSC-A -> 3G_MSC-I)
COMMON ID	(3G_MSC-A->3G_MSC-I)
LOCATION RELATED DATA REQUEST	(3G_MSC-A -> 3G_MSC-I)
LOCATION RELATED DATA RESPONSE	(3G_MSC-I -> 3G_MSC-A)
LOCATION RELATED DATA FAILURE	(3G_MSC-I -> 3G_MSC-A)

All other RANAP messages shall be considered as non-existent on the E-interface.

Some of the messages above are qualified by * or #. This indicates whether the message, when sent on the E interface, is considered as:

- relocation related message (*); or
- trace related message (#).