3GPP TSG-CN Plenary Meeting #11
Palm Springs, USA, 14th -16th March 2001

Tdoc NP-010099

CR-Form-v3

CHANGE REQUEST

⌘ **04.07** **CR** ⌘ rev **-** ⌘ Current version: **7.3.0** ⌘

*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 **X** Radio Access Network ☐ Core Network ☐

Title:	⌘	Addition of RR_NO_ABORT_IND primitive at RR-SAP in MS side
Source:	⌘	Nokia
Work item code:	⌘	LCS
Date:	⌘	07.03.2001
Category:	⌘	**F**
Release:	⌘	R98

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:	⌘	LCS communication occurs in RR layer. For MT-LR/NI-LR case the MM layer is not active after authentication which causes that RR connection will be closed even if RR is needed for LCS signalling. The connection is closed by MS via T3240 timer within 10 seconds after last MM interaction. The LCS signalling may take longer than 10 seconds. This correction enables RR to indicate MM that RR connection is still needed. This change together with CR to 04.08 will correct the problem.
Summary of change:	⌘	Addition of RR_NO_ABORT_IND primitive at RR-SAP in MS side
Consequences if not approved:	⌘	RR connection is released even if the RR is needed for LCS signalling

Clauses affected:	⌘	2., 9.1.1, 9.1.2, 9.1.2.xx (added)
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	This CR is coupled with CR to 04.08 (tdoc NP-0100101, 102 & 103). *Section 9.1.2.11 is missing!*

********** **First Modified Sections** **********

2 REFERENCES

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.
- For this Release 1998 document, references to GSM documents are for Release 1998 versions (version 7.x.y).

[1] GSM 01.04: "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".

[2] GSM 03.01: "Digital cellular telecommunications system (Phase 2+); Network functions".

[3a] GSM 03.60: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS) Description; Stage 2".

[3b] GSM 03.56: "Digital cellular telecommunications system (Phase 2+); GSM Cordless Telephony System (CTS), phase 1; CTS Architecture Description; Stage 2".

[3] GSM 04.01: "Digital cellular telecommunications system (Phase 2+); Mobile Station - Base Station System (MS - BSS) interface General aspects and principles".

[3c~~b~~] GSM 03.71: "Digital cellular telecommunications system (Phase 2+); Location Services (LCS) Functional Description; Stage 2".

[3d] GSM 04.31: "3rd Generation Partnership Project; Technical Specification Group GSM EDGE Radio Access Network; Location Services (LCS); Mobile Station (MS) - Serving Mobile Location Centre (SMLC) Radio Resource LCS Protocol (RRLP)."

[4] GSM 04.05: "Digital cellular telecommunications system (Phase 2+); Data Link (DL) layer General aspects".

[5] GSM 04.06: "Digital cellular telecommunications system (Phase 2+); Mobile Station - Base Station System (MS - BSS) interface Data Link (DL) layer specification".

[6] GSM 04.08: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 specification".

[7] GSM 04.10: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 Supplementary services specification General aspects".

[8a] GSM 04.71: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 specification; Location Services (LCS) ".

[8] GSM 04.11: "Digital cellular telecommunications system (Phase 2+); Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface".

[9] GSM 04.80: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 supplementary services specification Formats and coding".

[10] GSM 04.81: "Digital cellular telecommunications system (Phase 2+); Line identification supplementary services - Stage 3".

[10a] GSM 04.60: "Digital cellular telecommunications system (Phase 2+);
General Packet Radio Services (GPRS); Mobile Station (MS) - Base Station System (BSS) interface;
Radio Link Control and medium Access Control (RLS/MAC) layer specification"

[10b] GSM 04.56: "Digital cellular telecommunications system (Phase 2+);
GSM Cordless Telephony System (CTS), phase 1; CTS Radio Interface Layer 3 specification

[11] GSM 04.82: "Digital cellular telecommunications system (Phase 2+); Call Forwarding (CF) supplementary services - Stage 3".

[11a] GSM 04.64 ; "Digital cellular telecommunications system (Phase 2+); Mobile Station - GPRS support node (MS-SGSN) Logical Link Control Layer Specification".

[12] GSM 04.83: "Digital cellular telecommunications system (Phase 2+); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 3".

[12a] GSM 04.65: "Digital cellular telecommunications system (Phase 2+); General Packet Radio Service (GPRS); Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP)".

[13] GSM 04.84: "Digital cellular telecommunications system (Phase 2+); MultiParty (MPTY) supplementary services - Stage 3".

[14] GSM 04.85: "Digital cellular telecommunications system (Phase 2+); Closed User Group (CUG) supplementary services - Stage 3".

[15] GSM 04.86: "Digital cellular telecommunications system (Phase 2+); Advice of Charge (AoC) supplementary services - Stage 3".

[16] GSM 04.88: "Digital cellular telecommunications system (Phase 2+); Call Barring (CB) supplementary services - Stage 3".

[17] GSM 04.90: "Digital cellular telecommunications system (Phase 2+); Unstructured supplementary services operation - Stage 3".

[18] CCITT Recommendation X.200: "Reference Model of Open systems interconnection for CCITT Applications".

********** Next Modified Section **********'

9.1.1 Service state diagram

The primitives provided by the Radio Resource Management entity and the transition between permitted states are shown in figure 9.2.

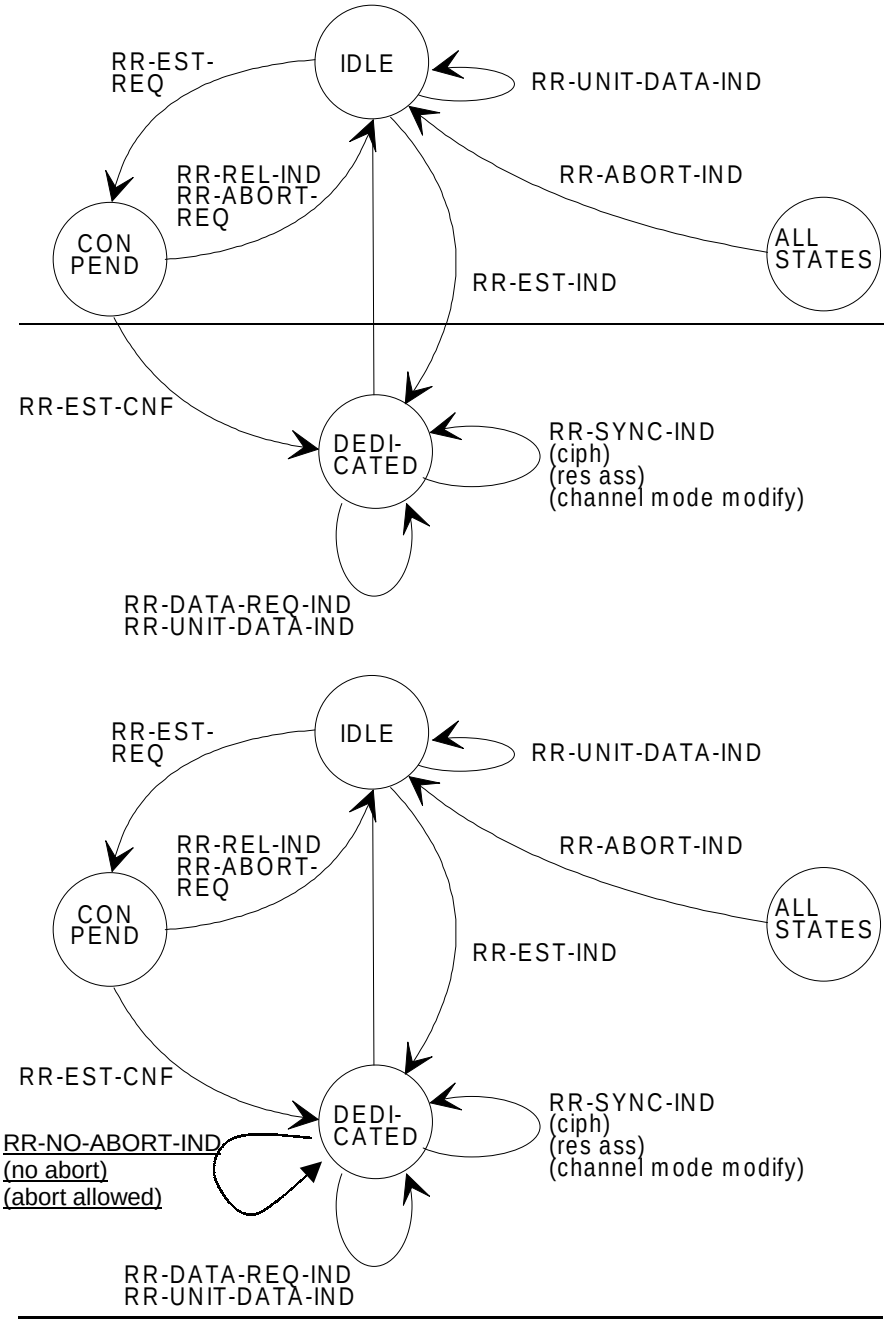

Figure 9.2: Service graph of the Radio Resource Management - MS side

9.1.2 Service primitives

Table 9.1: Primitives and parameters at the RR-SAP - MS side

PRIMITIVES	PARAMETERS	REFERENCE
RR_EST_REQ	Layer 3 message transferred in the SABM frame	9.1.2.1
RR_EST_IND	-	9.1.2.2
RR_EST_CNF	-	9.1.2.3

RR_REL_IND	cause	9.1.2.4
RR_SYNC_IND	cause (ciphering, res. ass., channel mode modify)	9.1.2.5
RR_DATA_REQ	Layer 3 message	9.1.2.6
RR_DATA_IND	Layer 3 message	9.1.2.7
RR_UNIT DATA_IND	Layer 3 message	9.1.2.8
RR_ABORT_REQ	cause	9.1.2.9
RR_ABORT_IND	cause	9.1.2.10
RR_ACT_REQ	reselection mode	9.1.2.11
RR_NO_ABORT_IND	no abort/abort allowed	9.1.2.xx

********** Next Modified Section **********'

9.1.2.xx RR_NO_ABORT_IND

RR_NO_ABORT_IND is used by RR to indicate MM that RR connection is still needed for signalling. This indication is sent to MM in the following case:

- RR needs RR connection (no abort);
- RR does not need RR connection (abort allowed).

RR_NO_ABORT_IND (no abort) shall be sent to MM when any RRLP message is received. RR shall send RR_NO_ABORT_IND (abort allowed) when the RRLP Procedure has been completed (LCS procedures specified in GSM 03.71 [3c] and RRLP procedures in GSM 04.31 [3d]). RR_NO_ABORT_IND (abort allowed) shall be sent also when RR has received any RR message with high priority (as defined in GSM 04.08).

RR_NO_ABORT_IND primitive shall be supported by LCS capable MSs (MSs that support RRLP protocol, GSM 04.31 [3d]).