3GPP TSG-T (Terminals) Meeting #16
Marco Island, FL, USA, 5 - 7 June, 2002

Tdoc TP-020103

Agenda Item: 5.2.3

Source: T2

Title: "Terminal Interfaces and Capabilities" Change Requests

Document for: Approval

Spec	CR	Rev	Rel	Subject	Cat	Vers-	Vers-	T2 Tdoc	Workitem
27.005	003	-	R99	Correction in description of +CNMA	F	3.1.0	3.2.0	T2-020438	TEI
27.005	004	-	Rel-4	Correction in description of +CNMA	A	4.1.0	4.2.0	T2-020439	TI-ATC
27.007	085	-	Rel-6	Enhancement of AT command +CIND to indicate SMS rejection	B	5.1.0	6.0.0	T2-020429	TEI6

3GPP TSG-T2 #17
Vancouver, BC, Canada
13 -17 May 2002

T2-020438

CR-Form-v5

CHANGE REQUEST

⌘ **27.005** **CR** **003** ⌘ **rev** **-** ⌘ Current version: **3.1.0** ⌘

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

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

Title:	⌘	Correction in description of +CNMA
Source:	⌘	T2
Work item code:	⌘	TEI
Date:	⌘	16/05/2002
Category:	⌘	**F**
Release:	⌘	R99

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:
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:	⌘	The description of +CNMA says that the ME should send an RP-ERROR to the network if it doesn't acknowledge the reception of a new message within the required time. This is in contradiction to 3GPP TS 24.011 requiring a CP-ERROR as the answer to an unacknowledged short message.
Summary of change:	⌘	Wrong message 'RP-ERROR' is replaced by a reference to 3GPP TS 24.011
Consequences if not approved:	⌘	Inconsistent specifications and therefore the risk of different implementations.

Clauses affected:	⌘	3.4.4 and 4.6
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ 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/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://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.

3.4.4 New Message Acknowledgement to ME/TA +CNMA

Action Command Syntax

Command	Possible response(s)
if text mode (+CMGF=1): +CNMA	*+CMS ERROR: <err>*
+CNMA=?	

Description

Execution command confirms correct reception of a new message (SMS-DELIVER or SMS-STATUS-REPORT) which is routed directly to the TE (refer command +CNMI tables **Error! Bookmark not defined.** and **Error! Bookmark not defined.**). This acknowledgement command (causing ME to send RP-ACK to the network) shall be used when +CSMS parameter <service> equals 1. TA shall not send another +CMT or +CDS result code to TE before previous one is acknowledged.

If ME does not get acknowledgement within required time (network timeout), ME should ~~send RP-ERROR~~respond as specified in 3GPP TS 24.011 [6] to the network. ME/TA shall automatically disable routing to TE by setting both <mt> and <ds> values of +CNMI to zero.

If command is executed, but no acknowledgement is expected, or some other ME related error occurs, final result code +CMS ERROR: <err> is returned. See chapter Message Service Failure Result Code for a list of <err> values.

NOTE: In case that a directly routed message must be buffered in ME/TA (possible when +CNMI parameter <mode> equals 0 or 2) or AT interpreter remains too long in a state where result codes cannot be sent to TE (e.g. user is entering a message using +CMGS), acknowledgement (RP-ACK) must be sent to the network without waiting +CNMA command from TE. Later, when buffered result codes are flushed to TE, TE must send +CNMA acknowledgement for each result code. In this way, ME/TA can determine if message should be placed in non-volatile memory and routing to TE disabled (+CNMA not received). Refer command +CNMI for more details how to use <mode> parameter reliably.

Implementation
Mandatory when <service> value 1 of command Select Message Service +CSMS is supported.

4.6 New Message Acknowledgement to ME/TA +CNMA

Action Command Syntax

Command	Possible response(s)
if PDU mode (+CMGF=0): +CNMA[=<n>[,<length>[<CR>***PDU is given***<ctrl-Z/ESC>]]]	*+CMS ERROR: <err>*
+CNMA=?	**if PDU mode (+CMGF=0):** +CNMA: (list of supported <n>s)

Description

Execution command confirms reception of a new message (SMS-DELIVER or SMS-STATUS-REPORT) which is routed directly to the TE (refer command +CNMI tables **Error! Bookmark not defined.** and **Error! Bookmark not defined.**). This acknowledgement command shall be used when +CSMS parameter <service> equals 1. In PDU mode, it is possible to send either positive (RP-ACK) or negative (RP-ERROR) acknowledgement to the network. Parameter <n> defines which one will be sent. Optionally (when <length> is greater than zero) an acknowledgement TPDU (SMS-DELIVER-REPORT for RP-ACK or RP-ERROR) may be sent to the network. The entering of PDU is done similarly as specified in command Send Message +CMGS, except that the format of <ackpdu> is used instead of <pdu> (i.e. SMSC address field is not present). PDU shall not be bounded by double quotes. TA shall not send another +CMT or +CDS result code to TE before previous one is acknowledged.

If ME does not get acknowledgement within required time (network timeout), ME should ~~send RP-ERROR~~respond as specified in 3GPP TS 24.011 [6] to the network. ME/TA shall automatically disable routing to TE by setting both <mt> and <ds> values of +CNMI to zero.

If command is executed, but no acknowledgement is expected, or some other ME related error occurs, final result code +CMS ERROR: <err> is returned. See chapter Message Service Failure Result Code for a list of <err> values.

NOTE: In case that a directly routed message must be buffered in ME/TA (possible when +CNMI parameter <mode> equals 0 or 2) or AT interpreter remains too long in a state where result codes cannot be sent to TE (e.g. user is entering a message using +CMGS), acknowledgement (RP-ACK) must be sent to the network without waiting +CNMA command from TE. Later, when buffered result codes are flushed to TE, TE must send +CNMA[=0] acknowledgement for each result code. In this way, ME/TA can determine if message should be placed in non-volatile memory and routing to TE disabled (+CNMA[=0] not received). Refer command +CNMI for more details how to use <mode> parameter reliably.

Test command returns a list of supported <n> values. If the only value supported is 0, the device does not support sending of TPDU.

Defined Values

<n>:

0 command operates similarly as defined for the text mode

1 send RP-ACK (or buffered result code received correctly)

2 send RP-ERROR (if PDU is not given, ME/TA shall send SMS-DELIVER-REPORT with 3G TS 23.040 [3] TP-FCS value set to 'FF' (unspecified error cause))

Implementation

Mandatory when <service> value 1 of command Select Message Service +CSMS is supported.

3GPP TSG-T2 #17
Vancouver, BC, Canada
13 -17 May 2002

T2-020439

CR-Form-v5

CHANGE REQUEST

⌘ **27.005** **CR** **004** ⌘ **rev** **-** ⌘ Current version: **4.1.0** ⌘

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

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

Title:	⌘	Correction in description of +CNMA
Source:	⌘	T2
Work item code:	⌘	TI-ATC
Date:	⌘	06/05/2002
Category:	⌘	**A**
Release:	⌘	REL-4

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:
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:	⌘	The description of +CNMA says that the ME should send an RP-ERROR to the network if it doesn't acknowledge the reception of a new message within the required time. This is in contradiction to 3GPP TS 24.011 requiring a CP-ERROR as the answer to an unacknowledged short message.
Summary of change:	⌘	Wrong message 'RP-ERROR' is replaced by a reference to 3GPP TS 24.011
Consequences if not approved:	⌘	Inconsistent specifications and therefore the risk of different implementations.

Clauses affected:	⌘	3.4.4 and 4.6
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

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3.4.4 New Message Acknowledgement to ME/TA +CNMA

Action Command Syntax

Command	Possible response(s)
if text mode (+CMGF=1): +CNMA	*+CMS ERROR: <err>*
+CNMA=?	

Description

Execution command confirms correct reception of a new message (SMS-DELIVER or SMS-STATUS-REPORT) which is routed directly to the TE (refer command +CNMI tables **Error! Bookmark not defined.** and **Error! Bookmark not defined.**). This acknowledgement command (causing ME to send RP-ACK to the network) shall be used when +CSMS parameter <service> equals 1. TA shall not send another +CMT or +CDS result code to TE before previous one is acknowledged.

If ME does not get acknowledgement within required time (network timeout), ME should ~~send RP-ERROR~~respond as specified in 3GPP TS 24.011 [6] to the network. ME/TA shall automatically disable routing to TE by setting both <mt> and <ds> values of +CNMI to zero.

If command is executed, but no acknowledgement is expected, or some other ME related error occurs, final result code +CMS ERROR: <err> is returned. See chapter Message Service Failure Result Code for a list of <err> values.

NOTE: In case that a directly routed message must be buffered in ME/TA (possible when +CNMI parameter <mode> equals 0 or 2) or AT interpreter remains too long in a state where result codes cannot be sent to TE (e.g. user is entering a message using +CMGS), acknowledgement (RP-ACK) must be sent to the network without waiting +CNMA command from TE. Later, when buffered result codes are flushed to TE, TE must send +CNMA acknowledgement for each result code. In this way, ME/TA can determine if message should be placed in non-volatile memory and routing to TE disabled (+CNMA not received). Refer command +CNMI for more details how to use <mode> parameter reliably.

Implementation
Mandatory when <service> value 1 of command Select Message Service +CSMS is supported.

4.6 New Message Acknowledgement to ME/TA +CNMA

Action Command Syntax

Command	Possible response(s)
if PDU mode (+CMGF=0): +CNMA[=<n>[,<length>[<CR>***PDU is given***<ctrl-Z/ESC>]]]	*+CMS ERROR: <err>*
+CNMA=?	**if PDU mode (+CMGF=0):** +CNMA: (list of supported <n>s)

Description

Execution command confirms reception of a new message (SMS-DELIVER or SMS-STATUS-REPORT) which is routed directly to the TE (refer command +CNMI tables **Error! Bookmark not defined.** and **Error! Bookmark not defined.**). This acknowledgement command shall be used when +CSMS parameter <service> equals 1. In PDU mode, it is possible to send either positive (RP-ACK) or negative (RP-ERROR) acknowledgement to the network. Parameter <n> defines which one will be sent. Optionally (when <length> is greater than zero) an acknowledgement TPDU (SMS-DELIVER-REPORT for RP-ACK or RP-ERROR) may be sent to the network. The entering of PDU is done similarly as specified in command Send Message +CMGS, except that the format of <ackpdu> is used instead of <pdu> (i.e. SMSC address field is not present). PDU shall not be bounded by double quotes. TA shall not send another +CMT or +CDS result code to TE before previous one is acknowledged.

If ME does not get acknowledgement within required time (network timeout), ME should ~~send RP-ERROR~~respond as specified in 3GPP TS 24.011 [6] to the network. ME/TA shall automatically disable routing to TE by setting both <mt> and <ds> values of +CNMI to zero.

If command is executed, but no acknowledgement is expected, or some other ME related error occurs, final result code +CMS ERROR: <err> is returned. See chapter Message Service Failure Result Code for a list of <err> values.

NOTE: In case that a directly routed message must be buffered in ME/TA (possible when +CNMI parameter <mode> equals 0 or 2) or AT interpreter remains too long in a state where result codes cannot be sent to TE (e.g. user is entering a message using +CMGS), acknowledgement (RP-ACK) must be sent to the network without waiting +CNMA command from TE. Later, when buffered result codes are flushed to TE, TE must send +CNMA[=0] acknowledgement for each result code. In this way, ME/TA can determine if message should be placed in non-volatile memory and routing to TE disabled (+CNMA[=0] not received). Refer command +CNMI for more details how to use <mode> parameter reliably.

Test command returns a list of supported <n> values. If the only value supported is 0, the device does not support sending of TPDU.

Defined Values

<n>:

0 command operates similarly as defined for the text mode

1 send RP-ACK (or buffered result code received correctly)

2 send RP-ERROR (if PDU is not given, ME/TA shall send SMS-DELIVER-REPORT with GSM 03.40 TP-FCS value set to 'FF' (unspecified error cause))

Implementation

Mandatory when <service> value 1 of command Select Message Service +CSMS is supported.

3GPP TSG-T2 #17
Vancouver, BC, Canada
13 -17 May 2002

T2-020429

CR-Form-v5

CHANGE REQUEST

⌘ **27.007** **CR** **085** ⌘ **rev** **-** ⌘ Current version: **5.1.0** ⌘

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

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

Title:	⌘	Enhancement of AT command +CIND to indicate SMS rejection
Source:	⌘	T2
Work item code:	⌘	TEI6
Date:	⌘	07/05/2002
Category:	⌘	**B**
Release:	⌘	REL-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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C *(functional modification of feature)*
D *(editorial modification)*
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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:	⌘	With +CIND and indication “smsfull” it is not possible to indicate that an MT short message was rejected due to a full sms storage.
Summary of change:	⌘	New value 2 for indication “smsfull”.
Consequences if not approved:	⌘	MT SMS congestions can happen more often because the user doesn’t know if there is a waiting SMS in the SCA.

Clauses affected:	⌘	8.9
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

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8.9 Indicator control +CIND

Table 69: +CIND parameter command syntax

Command	Possible response(s)
+CIND=[<ind>[,<ind>[,...]]]	*+CME ERROR: <err>*
+CIND?	+CIND: <ind>[,<ind>[,...]] *+CME ERROR: <err>*
+CIND=?	+CIND: (<descr>,(list of supported <ind>s)) [,(<descr>,(list of supported <ind>s))[,...]] *+CME ERROR: <err>*

Description

Set command is used to set the values of MT indicators. <ind> value 0 means that the indicator is off (or in state which can be identified as "off"-state), 1 means that indicator is on (or in a state which is more substantial than "off"-state), 2 is more substantial than 1, and so on. If the indicator is a simple on/off style element, it has values 0 and 1. The number of elements is MT specific. If MT does not allow setting of indicators or MT is not currently reachable, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values. If certain indicator is not writable, setting of it should be ignored. If parameter is empty field, indicator shall remain in the previous value.

Read command returns the status of MT indicators. If MT is not currently reachable, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values.

Test command returns pairs, where string value <descr> is a maximum 16 character description of the indicator and compound value is the allowed values for the indicator. If MT is not currently reachable, +CME ERROR: <err> is returned. Refer subclause 9.2 for <err> values.

NOTE: MT manufacturer should offer the description of supported indicators not listed here and their value ranges and default values.

Defined values

<ind>: integer type value, which shall be in range of corresponding <descr>

<descr> values reserved by the present document and their <ind> ranges:

"battchg" battery charge level (0-5)

"signal" signal quality (0-5)

"service" service availability (0-1)

"sounder" sounder activity (0-1)

"message" message received (0-1)

"call" call in progress (0-1)

"vox" transmit activated by voice activity (0-1)

"roam" roaming indicator (0-1)

"smsfull" a short message memory storage in the MT has become full and a short message has been rejected (2), has become full (1), or memory locations are available (0); i.e. the range is (0-1-2)

Implementation

Optional.