

**3GPP TSG CN Plenary
Meeting #11, Palm Springs, U.S.A
14th - 16th March 2001**

Tdoc NP-010166

Source: Siemens AG
Title: CRs to R99 Work Item T.E.I
Agenda item: 7.6
Document for: APPROVAL

Introduction:

This document contains 2 CRs on R99 Work Item "T.E.I", that have not been discussed by TSG_CN WG3, but correcting 2 CRs that have been discussed in TSG_CN WG3 and are forwarded directly to TSG CN Plenary meeting #11 for approval.

Doc-2nd-Level	Spec	CR	Rev	Cat	Subject	Phase	Version-Current	Workitem
N3-010160rev	27.001	057	1	A	Corrections for a mobile terminated call using the single numbering scheme	REL-4	4.2.0	CORRECT
N3-010159rev	27.001	056	1	F	Corrections for a mobile terminated call using the single numbering scheme	R99	3.7.0	TEI

CHANGE REQUEST

⌘ **27.001** **CR 056** ⌘ rev **1** ⌘ Current vers **3.7.0** ⌘

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:	⌘ Corrections for a mobile terminated call using the single numbering scheme.		
Source:	⌘ Siemens AG		
Work item code:	⌘ TEI	Date:	⌘ 2001-03-09
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> 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 <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)

Reason for change:	⌘ Removal of a contradiction in TS 27.001. Removal of a restriction preventing the use of ITC = UDI in a single numbering case where the network does not send a service definition in the call setup.
Summary of change:	⌘ A contradictory and restrictive sentence is removed from the specification.
Consequences if not approved:	⌘ TS 27.001 contains controversial information. The MS cannot receive UDI calls in a single numbering case where the network does not send a service definition in the call setup.

Clauses affected:	⌘ B.1.1.1	
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> 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://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.

B.1 Bearer Capability Information Element

B.1.1 Introduction

B.1.1.1 General Consideration

In general, the purpose of the bearer capability information element (BC-IE) is to request a particular bearer service to be provided by the network. This indication is carried by certain connection control messages which for the subject matter of the present document may be categorized into those messages:

- related to the call set-up phase; and
- those used during the established connection.

During the call set-up phase the PLMN BC-IE (single or multiple) is included in:

- the SETUP message generated by the requesting entity (either MS or MSC) to establish a mobile-originated or mobile-terminated call, respectively, and in
- the CALL CONFIRMED or CALL PROCEEDING messages, respectively, generated by the responding entity (either MS or MSC) in order to negotiate certain parameter values. If no BC-IE is contained in the SETUP message (~~PSTN-originated a mobile terminated call with the single-numbering scheme~~) the CALL CONFIRMED message indicates the complete applicable BC-IE. ~~In this case neither the value "unrestricted digital" for the information transfer capability nor the multislot for TCH/14 related parameters shall be used.~~ The network may release the call if it does not support the service indicated by the BC-IE. Also, if the service does not match with the service requested from the fixed network terminal the call may subsequently fail.

During the established connection the PLMN BC-IE is included in the MODIFY, MODIFY COMPLETE, and MODIFY REJECT messages in order to change the service (bearer capability) or to change the maximum number of traffic channels and/or wanted air interface user rate when a non-transparent multislot data service is in use.

If the maximum number of traffic channels and/or wanted air interface user rate is to be changed, the BC-IE included in the MODIFY message shall not indicate a different bearer service than the one used at this stage of the connection - the values of the parameters 'maximum number of traffic channels' and/or 'wanted air interface user rate' may be changed, only.

The subsequent tables and subsections of clause B.1 deal with the representation of the individual contents of the PLMN BC-IE during the call set-up phase. For the use during the established connection refer to 3GPP TS 24.008.

With respect to the individual parameter settings at the MS the following cases may be distinguished (ref. 3GPP TS 27.002 and 3GPP TS 27.003):

- Mobile-originated call set up by a MS consisting of a MT with R interface:
 - The setting results from respective MMI actions and/or MT internal settings.
- Mobile-originated call set up by a MS consisting of a MT with S interface:
 - The setting of the PLMN BC is derived from the ISDN BC and LLC/HLC elements contained in the ISDN SETUP message received from the terminal. It is complemented by information resulting from respective MMI actions and/or MT internal settings.
- Mobile-terminated call set up to a MS consisting of a MT with R interface:
 - The BC related part of the compatibility check is carried out according to the knowledge of the MT concerning its implemented functions (i.e. answering the call). The requested field values of the non-negotiable parameters and the selected field values of the negotiable parameters determine the selection of the terminal function to be used for the intended connection.
- Mobile-terminated call set up to a MS consisting of a MT with S interface:

- The PLMN BC received from the MSC is mapped by the MT onto an applicable ISDN BC. In some cases a HLC may be generated, if it is not otherwise available (e.g. for group 3 facsimile). The BC related part of the compatibility check is up to the terminal connected to the S interface of the MT, as is the selection of the terminal function (i.e. answering the call) to be used for the intended connection.

CHANGE REQUEST

⌘ **27.001 CR 057** ⌘ rev **1** ⌘ Current vers **4.2.0** ⌘

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

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

Title:	⌘ Corrections for a mobile terminated call using the single numbering scheme.		
Source:	⌘ Siemens AG		
Work item code:	⌘ TEI	Date:	⌘ 2001-03-09
Category:	⌘ A	Release:	⌘ REL-4
	<i>Use one of the following categories:</i> 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.		<i>Use one of the following releases:</i> 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:	⌘ Removal of a contradiction in TS 27.001. Removal of a restriction preventing the use of ITC = UDI in a single numbering case where the network does not send a service definition in the call setup.		
Summary of change:	⌘ A contradictory and restrictive sentence is removed from the specification.		
Consequences if not approved:	⌘ TS 27.001 contains controversial information. The MS cannot receive UDI calls in a single numbering case where the network does not send a service definition in the call setup.		

Clauses affected:	⌘ B.1.1.1		
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> 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://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.

B.1 Bearer Capability Information Element

B.1.1 Introduction

B.1.1.1 General Consideration

In general, the purpose of the bearer capability information element (BC-IE) is to request a particular bearer service to be provided by the network. This indication is carried by certain connection control messages which for the subject matter of the present document may be categorized into those messages:

- related to the call set-up phase; and
- those used during the established connection.

During the call set-up phase the PLMN BC-IE (single or multiple) is included in:

- the SETUP message generated by the requesting entity (either MS or MSC) to establish a mobile-originated or mobile-terminated call, respectively, and in
- the CALL CONFIRMED or CALL PROCEEDING messages, respectively, generated by the responding entity (either MS or MSC) in order to negotiate certain parameter values. If no BC-IE is contained in the SETUP message (~~PSTN-originated a mobile terminated call with the single-numbering scheme~~) the CALL CONFIRMED message indicates the complete applicable BC-IE. ~~In this case neither the value "unrestricted digital" for the information transfer capability nor the multislot for TCH/14 related parameters shall be used.~~ The network may release the call if it does not support the service indicated by the BC-IE. Also, if the service does not match with the service requested from the fixed network terminal the call may subsequently fail.

During the established connection the PLMN BC-IE is included in the MODIFY, MODIFY COMPLETE, and MODIFY REJECT messages in order to change the service (bearer capability) or to change the maximum number of traffic channels and/or wanted air interface user rate when a non-transparent multislot data service is in use.

If the maximum number of traffic channels and/or wanted air interface user rate is to be changed, the BC-IE included in the MODIFY message shall not indicate a different bearer service than the one used at this stage of the connection - the values of the parameters 'maximum number of traffic channels' and/or 'wanted air interface user rate' may be changed, only.

The subsequent tables and subsections of clause B.1 deal with the representation of the individual contents of the PLMN BC-IE during the call set-up phase. For the use during the established connection refer to 3GPP TS 24.008.

With respect to the individual parameter settings at the MS the following cases may be distinguished (ref. 3GPP TS 27.002 and 3GPP TS 27.003):

- Mobile-originated call set up by a MS consisting of a MT with R interface:
 - The setting results from respective MMI actions and/or MT internal settings.
- Mobile-originated call set up by a MS consisting of a MT with S interface:
 - The setting of the PLMN BC is derived from the ISDN BC and LLC/HLC elements contained in the ISDN SETUP message received from the terminal. It is complemented by information resulting from respective MMI actions and/or MT internal settings.
- Mobile-terminated call set up to a MS consisting of a MT with R interface:
 - The BC related part of the compatibility check is carried out according to the knowledge of the MT concerning its implemented functions (i.e. answering the call). The requested field values of the non-negotiable parameters and the selected field values of the negotiable parameters determine the selection of the terminal function to be used for the intended connection.
- Mobile-terminated call set up to a MS consisting of a MT with S interface:

- The PLMN BC received from the MSC is mapped by the MT onto an applicable ISDN BC. In some cases a HLC may be generated, if it is not otherwise available (e.g. for group 3 facsimile). The BC related part of the compatibility check is up to the terminal connected to the S interface of the MT, as is the selection of the terminal function (i.e. answering the call) to be used for the intended connection.