

Source: TSG CN WG 1
Title: CR to R99 (with mirror CRs) on Work Item TEI towards 24.008
Agenda item: 7.11
Document for: APPROVAL

Introduction:

This document contains 3 CRs, **R99 with mirror CRs to Work Item "TEI"**, that have been agreed by **TSG CN WG1**, and are forwarded to TSG CN Plenary meeting #19 for approval.

Spec	CR	Rev	Cat	Phase	Subject	Version-Current	Version-New	Meeting-2nd-Level	Doc-2nd-Level
24.008	728		F	R99	Correction on CC Capabilities IE length	3.14.0	3.15.0	N1-28	N1-030066
24.008	729		A	Rel-4	Correction on CC Capabilities IE length	4.9.0	4.10.0	N1-28	N1-030067
24.008	730		A	Rel-5	Correction on CC Capabilities IE length	5.6.0	5.7.0	N1-28	N1-030068

CR-Form-v7

CHANGE REQUEST

⌘ **24.008 CR 728** ⌘ rev **-** ⌘ Current version: **3.14.0** ⌘

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:	⌘ Correction on CC Capabilities IE length		
Source:	⌘ Orange, Nokia		
Work item code:	⌘ TEI	Date:	⌘ 16/01/2003
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:	⌘ Error within TS24.008 regarding CC Capabilities IE length		
Summary of change:	⌘ In sections 9.3.2, 9.3.23.2, 9.3.23a, the length of CC Capabilities IE is corrected from 3 to 4.		
Consequences if not approved:	⌘ Error within TS24.008 which can lead to interoperability problem between MS and network.		

Clauses affected:	⌘ 9.3.2, 9.3.23.2, 9.3.23a						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
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	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	<input checked="" type="checkbox"/>					
<input checked="" type="checkbox"/>							
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.

-----First Change-----

9.3.2 Call confirmed

This message is sent by the called mobile station to confirm an incoming call request.

See table 9.56/3GPP TS 24.008.

Message type: CALL CONFIRMED

Significance: local

Direction: mobile station to network

Table 9.56/3GPP TS 24.008: CALL CONFIRMED message content

IEI	Information element	Type / Reference	Presence	Format	Length
	Call control protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Call confirmed message type	Message type 10.4	M	V	1
D-	Repeat Indicator	Repeat Indicator 10.5.4.22	C	TV	1
04	Bearer capability 1	Bearer capability 10.5.4.5	O	TLV	3-16
04	Bearer capability 2	Bearer capability 10.5.4.5	O	TLV	3-16
08	Cause	Cause 10.5.4.11	O	TLV	4-32
15	CC Capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3
2D	Stream Identifier	Stream Identifier 10.5.4.28	O	TLV	3

9.3.2.1 Repeat indicator

The *repeat indicator* information element shall be included if *bearer capability 1* information element and *bearer capability 2* IE are both included in the message.

9.3.2.2 Bearer capability 1 and bearer capability 2

The *bearer capability 1* information element shall be included if and only if at least one of the following six cases holds:

- the mobile station wishes another bearer capability than that given by the *bearer capability 1* information element of the incoming SETUP message;
- the *bearer capability 1* information element is missing or not fully specified in the SETUP message;
- the *bearer capability 1* information element received in the SETUP message is accepted and the "radio channel requirement" of the mobile station is other than "full rate support only mobile station";
- the *bearer capability 1* information element received in the SETUP message indicates speech and is accepted and the mobile station supports CTM text telephony;
- the *bearer capability 1* information element received in the SETUP message indicates speech and is accepted and the mobile station supports other speech versions than GSM version 1; Except in the case of UMTS speech where default UMTS AMR speech version shall be assumed.
- the *bearer capability 1* information element received in the SETUP message included the "fixed network user rate" parameter.

When the *bearer capability 1* information element is followed by the *bearer capability 2* IE in the SETUP, the above rules apply to both *bearer capability 1* IE and *bearer capability 2* IE. Except those cases identified in 3GPP TS 27.001, if either *bearer capability* needs to be included, both shall be included.

Furthermore, both *bearer capability* information elements may be present if the mobile station wishes to reverse the order of occurrence of the *bearer capability* information elements (which is referred to in the *repeat indicator* information element, see clause 10.5.4.22) in cases identified in 3GPP TS 27.001.

If the mobile station wishes to indicate capability for an alternative call mode, which can be entered during the call through in-call modification, this is indicated by adding a *bearer capability information element* (*bearer capability*) 2 element (see clause 5.3.6).

9.3.2.3 Cause

This information element is included if the mobile station is compatible but the user is busy.

9.3.2.4 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities.

9.3.2.5 Stream Identifier

This information element shall be included by the mobile station supporting multicall.

-----Second Change-----

9.3.23.2 Setup (mobile originating call establishment)

This message is sent from the mobile station to the network to initiate a mobile originating call establishment.

See table 9.70a/3GPP TS 24.008.

Message type: SETUP
 Significance: global
 Direction: mobile station to network

Table 9.70a/3GPP TS 24.008: SETUP message content (mobile station to network direction)

IEI	Information element	Type / Reference	Presence	Format	Length
	Call control protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Setup message type	Message type 10.4	M	V	1
D-	BC repeat indicator	Repeat indicator 10.5.4.22	C	TV	1
04	Bearer capability 1	Bearer capability 10.5.4.5	M	TLV	3-16
04	Bearer capability 2	Bearer capability 10.5.4.5	O	TLV	3-16
1C	Facility(simple recall alignment)	Facility 10.5.4.15	O	TLV	2-
5D	Calling party sub-address	Calling party subaddr. 10.5.4.10	O	TLV	2-23
5E	Called party BCD number	Called party BCD num. 10.5.4.7	M	TLV	3-43
6D	Called party sub-address	Called party subaddr. 10.5.4.8	O	TLV	2-23
D-	LLC repeat indicator	Repeat indicator 10.5.4.22	O	TV	1
7C	Low layer compatibility I	Low layer comp. 10.5.4.18	O	TLV	2-18
7C	Low layer compatibility II	Low layer comp. 10.5.4.18	O	TLV	2-18
D-	HLC repeat indicator	Repeat indicator 10.5.4.22	O	TV	1
7D	High layer compatibility i	High layer comp. 10.5.4.16	O	TLV	2-5
7D	High layer compatibility ii	High layer comp. 10.5.4.16	O	TLV	2-5
7E	User-user	User-user 10.5.4.25	O	TLV	3-35
7F	SS version	SS version indicator 10.5.4.24	O	TLV	2-3
A1	CLIR suppression	CLIR suppression 10.5.4.11a	C	T	1
A2	CLIR invocation	CLIR invocation 10.5.4.11b	C	T	1
15	CC capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3
1D	Facility \$(CCBS)\$ (advanced recall alignment)	Facility 10.5.4.15	O	TLV	2-?
1B	Facility (recall alignment Not essential) \$(CCBS)\$	Facility 10.5.4.15	O	TLV	2-?
2D	Stream Identifier	Stream Identifier 10.5.4.28	O	TLV	3

9.3.23.2.1 BC repeat indicator

The *BC repeat indicator* information element is included if and only if *bearer capability 1 IE* and *bearer capability 2 IE* are both present in the message.

9.3.23.2.2 Facility

The information element may be included for functional operation of supplementary services.

Three different codings of this IE exist, for further details see 3GPP TS 24.010.

9.3.23.2.3 LLC repeat indicator

The *LLC repeat indicator* information element is included if and only if both following conditions hold:

- The *BC repeat indicator* IE is contained in the message.
- The *low layer compatibility I* IE is contained in the message.

If included, the *LLC repeat indicator* shall specify the same repeat indication as the *BC repeat indicator* IE.

9.3.23.2.4 Low layer compatibility I

The information element is included in the MS-to-network direction when the calling MS wants to pass low layer compatibility information to the called user.

9.3.23.2.5 Low layer compatibility II

Included if and only if the *LLC repeat indicator* information element is contained in the message.

9.3.23.2.6 HLC repeat indicator

The *HLC repeat indicator* information element is included if and only if both following conditions hold:

- The *BC repeat indicator* IE is contained in the message.
- The *high layer compatibility i* IE is contained in the message.

If included, the *HLC repeat indicator* shall specify the same repeat indication as the *BC repeat indicator* IE.

9.3.23.2.7 High layer compatibility i

The information element is included when the calling MS wants to pass high layer compatibility information to the called user.

9.3.23.2.8 High layer compatibility ii

Included if and only if the *HLC repeat indicator* information element is contained in the message.

9.3.23.2.9 User-user

The information element is included in the calling mobile station to network direction when the calling mobile station wants to pass user information to the called remote user.

9.3.23.2.10 SS version

This information element shall not be included if the *facility* information element is not present in this message.

This information element shall be included or excluded as defined in 3GPP TS 24.010. This information element should not be transmitted unless explicitly required by 3GPP TS 24.010.

9.3.23.2.11 CLIR suppression

The information element may be included by the MS (see 3GPP TS 24.081). If this information element is included the *CLIR invocation* IE shall not be included.

9.3.23.2.12 CLIR invocation

The information element may be included by the MS (see 3GPP TS 24.081). If this information element is included the *CLIR suppression* IE shall not be included.

9.3.23.2.13 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities.

9.3.23.2.14 Stream Identifier

This information element shall be included by the mobile station supporting multicall.

9.3.23.2.15 Bearer capability 1 and bearer capability 2

If the mobile station wishes to indicate capability for an alternative call mode, which can be entered through fallback, this is indicated by adding a *bearer capability information element* (bearer capability) 2 element (see clause 5.3.6).

-----Third Change-----

9.3.23a Start CC \$(CCBS)\$

A Network that does not support the "Network initiated MO call" option shall treat this message as a message with message type not defined for the PD.

This message is sent by the mobile station to the network to open a Call Control transaction which the network has requested the mobile station to open.

See Table 9.70b/3GPP TS 24.008.

Message type: START CC
 Significance: local
 Direction: mobile station to network

Table 9.70b/3GPP TS 24.008: START CC message content

IEI	Information element	Type / Reference	Presence	Format	Length
	Call control Protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Start CC message type	Message type 10.4	M	V	1
15	CC Capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3

9.3.23a.1 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities

-----For information (no change)-----

10.5.4.5a Call Control Capabilities

The purpose of the Call Control Capabilities information element is to identify the call control capabilities of the mobile station.

The Call Control Capabilities information element is coded as shown in figure 10.5.89/3GPP TS 24.008 and table 10.5.116/3GPP TS 24.008.

The Call Control Capabilities is a type 4 information element with a length of 4 octets.

8	7	6	5	4	3	2	1	
Call Control Capabilities IEI								octet 1
Length of Call Control Capabilities contents								octet 2
Maximum number of supported bearers				0	0	PCP	DTMF	octet 3
0	0	0	0	Maximum number of speech bearers				octet 4
spare								

Figure 10.5.89/3GPP TS 24.008 Call Control Capabilities information element

Table 10.5.116/3GPP TS 24.008: Call Control Capabilities

DTMF (octet 3, bit 1)	
0	This value is reserved for earlier versions of the protocol.
1	This value indicates that the mobile station supports DTMF as specified in clause 5.5.7 of the present document.
PCP (octet 3, bit 2)	
0	This value indicates that the mobile station does not support the Prolonged Clearing Procedure
1	This value indicates that the mobile station supports the Prolonged Clearing Procedure.
Maximum number of supported bearers (octet 3, bit 5 to bit 8)	
0 0 0 0	1 bearer supported
All values are interpreted as the binary representation of the number of bearers supported.	
Bit 5 of octet 3 is the least significant bit and bit 8 of octet 3 is the most significant bit.	
Maximum number of speech bearers (octet 4, bit 1 to bit 4)	
All values are interpreted as the binary representation of the number of bearers supported.	
Bit 1 of octet 4 is the least significant bit and bit 4 of octet 4 is the most significant bit.	
Note:	In this version of the protocol, the MS should not indicate more than one speech bearer.

CR-Form-v7

CHANGE REQUEST

⌘ **24.008 CR 729** ⌘ rev **-** ⌘ Current version: **4.9.0** ⌘

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:	⌘ Correction on CC Capabilities IE length		
Source:	⌘ Orange, Nokia		
Work item code:	⌘ TEI	Date:	⌘ 16/01/2003
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:	⌘ Error within TS24.008 regarding CC Capabilities IE length		
Summary of change:	⌘ In sections 9.3.2, 9.3.23.2, 9.3.23a, the length of CC Capabilities IE is corrected from 3 to 4.		
Consequences if not approved:	⌘ Error within TS24.008 which can lead to interoperability problem between MS and network.		

Clauses affected:	⌘ 9.3.2, 9.3.23.2, 9.3.23a						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
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Y	N						
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Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
Other comments:	⌘						

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- 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.

-----First Change-----

9.3.2 Call confirmed

This message is sent by the called mobile station to confirm an incoming call request.

See table 9.56/3GPP TS 24.008.

Message type: CALL CONFIRMED

Significance: local

Direction: mobile station to network

Table 9.56/3GPP TS 24.008: CALL CONFIRMED message content

IEI	Information element	Type/Reference	Presence	Format	Length
	Call control protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Call confirmed message type	Message type 10.4	M	V	1
D-	Repeat Indicator	Repeat Indicator 10.5.4.22	C	TV	1
04	Bearer capability 1	Bearer capability 10.5.4.5	O	TLV	3-16
04	Bearer capability 2	Bearer capability 10.5.4.5	O	TLV	3-16
08	Cause	Cause 10.5.4.11	O	TLV	4-32
15	CC Capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3
2D	Stream Identifier	Stream Identifier 10.5.4.28	O	TLV	3
40	Supported Codecs	Supported Codec List 10.5.4.32	O	TLV	5-n

9.3.2.1 Repeat indicator

The *repeat indicator* information element shall be included if *bearer capability 1* information element and *bearer capability 2* IE are both included in the message.

9.3.2.2 Bearer capability 1 and bearer capability 2

The *bearer capability 1* information element shall be included if and only if at least one of the following six cases holds:

- the mobile station wishes another bearer capability than that given by the *bearer capability 1* information element of the incoming SETUP message;
- the *bearer capability 1* information element is missing or not fully specified in the SETUP message;
- the *bearer capability 1* information element received in the SETUP message is accepted and the "radio channel requirement" of the mobile station is other than "full rate support only mobile station";
- the *bearer capability 1* information element received in the SETUP message indicates speech and is accepted and the mobile station supports CTM text telephony;
- the *bearer capability 1* information element received in the SETUP message indicates speech and is accepted and the mobile station supports other GSM codecs than GSM speech version 1;
- the *bearer capability 1* information element received in the SETUP message included the "fixed network user rate" parameter.

When the *bearer capability 1* information element is followed by the *bearer capability 2* IE in the SETUP, the above rules apply to both *bearer capability 1* IE and *bearer capability 2* IE. Except those cases identified in 3GPP TS 27.001, if either *bearer capability* needs to be included, both shall be included.

Furthermore, both *bearer capability* information elements may be present if the mobile station wishes to reverse the order of occurrence of the *bearer capability* information elements (which is referred to in the *repeat indicator* information element, see subclause 10.5.4.22) in cases identified in 3GPP TS 27.001 [36].

If the mobile station wishes to indicate capability for an alternative call mode, which can be entered during the call through in-call modification, this is indicated by adding a *bearer capability information element* (*bearer capability*) 2 element (see subclause 5.3.6).

9.3.2.3 Cause

This information element is included if the mobile station is compatible but the user is busy.

9.3.2.4 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities.

9.3.2.5 Stream Identifier

This information element shall be included by the mobile station supporting multicall.

9.3.2.6 Supported Codecs

This information element shall be included for speech calls, if the mobile station supports UMTS radio access.

-----**Second Change**-----

9.3.23.2 Setup (mobile originating call establishment)

This message is sent from the mobile station to the network to initiate a mobile originating call establishment.

See table 9.70a/3GPP TS 24.008.

Message type: SETUP

Significance: global

Direction: mobile station to network

Table 9.70a/3GPP TS 24.008: SETUP message content (mobile station to network direction)

IEI	Information element	Type/Reference	Presence	Format	Length
	Call control protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Setup message type	Message type 10.4	M	V	1
D-	BC repeat indicator	Repeat indicator 10.5.4.22	C	TV	1
04	Bearer capability 1	Bearer capability 10.5.4.5	M	TLV	3-16
04	Bearer capability 2	Bearer capability 10.5.4.5	O	TLV	3-16
1C	Facility(simple recall alignment)	Facility 10.5.4.15	O	TLV	2-
5D	Calling party sub-address	Calling party subaddr. 10.5.4.10	O	TLV	2-23
5E	Called party BCD number	Called party BCD num. 10.5.4.7	M	TLV	3-43
6D	Called party sub-address	Called party subaddr. 10.5.4.8	O	TLV	2-23
D-	LLC repeat indicator	Repeat indicator 10.5.4.22	O	TV	1
7C	Low layer compatibility I	Low layer comp. 10.5.4.18	O	TLV	2-18
7C	Low layer compatibility II	Low layer comp. 10.5.4.18	O	TLV	2-18
D-	HLC repeat indicator	Repeat indicator 10.5.4.22	O	TV	1
7D	High layer compatibility i	High layer comp. 10.5.4.16	O	TLV	2-5
7D	High layer compatibility ii	High layer comp. 10.5.4.16	O	TLV	2-5
7E	User-user	User-user 10.5.4.25	O	TLV	3-35
7F	SS version	SS version indicator 10.5.4.24	O	TLV	2-3
A1	CLIR suppression	CLIR suppression 10.5.4.11a	C	T	1
A2	CLIR invocation	CLIR invocation 10.5.4.11b	C	T	1
15	CC capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3
1D	Facility \$(CCBS)\$ (advanced recall alignment)	Facility 10.5.4.15	O	TLV	2-?
1B	Facility (recall alignment Not essential) \$(CCBS)\$	Facility 10.5.4.15	O	TLV	2-?
2D	Stream Identifier	Stream Identifier 10.5.4.28	O	TLV	3
40	Supported Codecs	Supported Codec List 10.5.4.32	O	TLV	5-n

9.3.23.2.1 BC repeat indicator

The *BC repeat indicator* information element is included if and only if *bearer capability 1* IE and *bearer capability 2* IE are both present in the message.

9.3.23.2.2 Facility

The information element may be included for functional operation of supplementary services.

Three different codings of this IE exist, for further details see 3GPP TS 24.010.

9.3.23.2.3 LLC repeat indicator

The *LLC repeat indicator* information element is included if and only if both following conditions hold:

- The *BC repeat indicator* IE is contained in the message.
- The *low layer compatibility I* IE is contained in the message.

If included, the *LLC repeat indicator* shall specify the same repeat indication as the *BC repeat indicator* IE.

9.3.23.2.4 Low layer compatibility I

The information element is included in the MS-to-network direction when the calling MS wants to pass low layer compatibility information to the called user.

9.3.23.2.5 Low layer compatibility II

Included if and only if the *LLC repeat indicator* information element is contained in the message.

9.3.23.2.6 HLC repeat indicator

The *HLC repeat indicator* information element is included if and only if both following conditions hold:

- The *BC repeat indicator* IE is contained in the message.
- The *high layer compatibility i* IE is contained in the message.

If included, the *HLC repeat indicator* shall specify the same repeat indication as the *BC repeat indicator* IE.

9.3.23.2.7 High layer compatibility i

The information element is included when the calling MS wants to pass high layer compatibility information to the called user.

9.3.23.2.8 High layer compatibility ii

Included if and only if the *HLC repeat indicator* information element is contained in the message.

9.3.23.2.9 User-user

The information element is included in the calling mobile station to network direction when the calling mobile station wants to pass user information to the called remote user.

9.3.23.2.10 SS version

This information element shall not be included if the *facility* information element is not present in this message.

This information element shall be included or excluded as defined in 3GPP TS 24.010 [21]. This information element should not be transmitted unless explicitly required by 3GPP TS 24.010.

9.3.23.2.11 CLIR suppression

The information element may be included by the MS (see 3GPP TS 24.081 [25]). If this information element is included the *CLIR invocation* IE shall not be included.

9.3.23.2.12 CLIR invocation

The information element may be included by the MS (see 3GPP TS 24.081). If this information element is included the *CLIR suppression* IE shall not be included.

9.3.23.2.13 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities.

9.3.23.2.14 Stream Identifier

This information element shall be included by the mobile station supporting multicall.

9.3.23.2.15 Bearer capability 1 and bearer capability 2

If the mobile station wishes to indicate capability for an alternative call mode, which can be entered through fallback, this is indicated by adding a *bearer capability information element* (bearer capability) 2 element (see subclause 5.3.6).

9.3.23.2.16 Supported Codecs

This information element shall be included for speech calls, if the mobile station supports UMTS radio access.

-----Third Change-----

9.3.23a Start CC \$(CCBS)\$

A Network that does not support the "Network initiated MO call" option shall treat this message as a message with message type not defined for the PD.

This message is sent by the mobile station to the network to open a Call Control transaction which the network has requested the mobile station to open.

See Table 9.70b/3GPP TS 24.008.

Message type: START CC
 Significance: local
 Direction: mobile station to network

Table 9.70b/3GPP TS 24.008: START CC message content

IEI	Information element	Type/Reference	Presence	Format	Length
	Call control Protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Start CC message type	Message type 10.4	M	V	1
15	CC Capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3

9.3.23a.1 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities

-----For information (no change)-----

10.5.4.5a Call Control Capabilities

The purpose of the Call Control Capabilities information element is to identify the call control capabilities of the mobile station.

The Call Control Capabilities information element is coded as shown in figure 10.5.89/3GPP TS 24.008 and table 10.5.116/3GPP TS 24.008.

The Call Control Capabilities is a type 4 information element with a length of 4 octets.

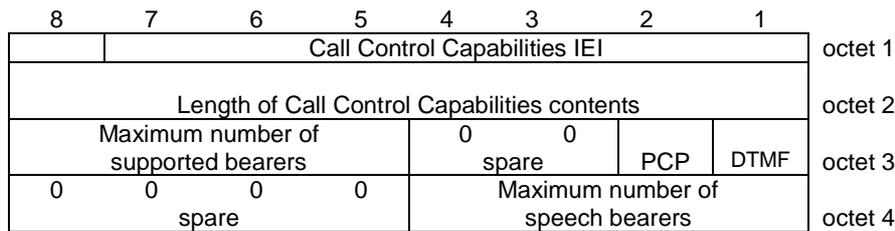


Figure 10.5.89/3GPP TS 24.008 Call Control Capabilities information element

Table 10.5.116/3GPP TS 24.008: Call Control Capabilities

DTMF (octet 3, bit 1)	
0	This value is reserved for earlier versions of the protocol.
1	This value indicates that the mobile station supports DTMF as specified in subclause 5.5.7 of the present document.
PCP (octet 3, bit 2)	
0	This value indicates that the mobile station does not support the Prolonged Clearing Procedure
1	This value indicates that the mobile station supports the Prolonged Clearing Procedure.
Maximum number of supported bearers (octet 3, bit 5 to bit 8)	
0 0 0 0	1 bearer supported
All values are interpreted as the binary representation of the number of bearers supported.	
Bit 5 of octet 3 is the least significant bit and bit 8 of octet 3 is the most significant bit.	
Maximum number of speech bearers (octet 4, bit 1 to bit 4)	
All values are interpreted as the binary representation of the number of bearers supported.	
Bit 1 of octet 4 is the least significant bit and bit 4 of octet 4 is the most significant bit.	
Note:	In this version of the protocol, the MS should not indicate more than one speech bearer.

CR-Form-v7

CHANGE REQUEST

⌘ **24.008 CR 730** ⌘ rev **-** ⌘ Current version: **5.6.0** ⌘

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:	⌘ Correction on CC Capabilities IE length		
Source:	⌘ Orange, Nokia		
Work item code:	⌘ TEI	Date:	⌘ 16/01/2003
Category:	⌘ A	Release:	⌘ Rel-5
	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:	⌘ Error within TS24.008 regarding CC Capabilities IE length		
Summary of change:	⌘ In sections 9.3.2, 9.3.23.2, 9.3.23a, the length of CC Capabilities IE is corrected from 3 to 4.		
Consequences if not approved:	⌘ Error within TS24.008 which can lead to interoperability problem between MS and network.		

Clauses affected:	⌘ 9.3.2, 9.3.23.2, 9.3.23a										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications Test specifications O&M Specifications	⌘
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
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.

-----First Change-----

9.3.2 Call confirmed

This message is sent by the called mobile station to confirm an incoming call request.

See table 9.56/3GPP TS 24.008.

Message type: CALL CONFIRMED

Significance: local

Direction: mobile station to network

Table 9.56/3GPP TS 24.008: CALL CONFIRMED message content

IEI	Information element	Type/Reference	Presence	Format	Length
	Call control protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Call confirmed message type	Message type 10.4	M	V	1
D-	Repeat Indicator	Repeat Indicator 10.5.4.22	C	TV	1
04	Bearer capability 1	Bearer capability 10.5.4.5	O	TLV	3-16
04	Bearer capability 2	Bearer capability 10.5.4.5	O	TLV	3-16
08	Cause	Cause 10.5.4.11	O	TLV	4-32
15	CC Capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3
2D	Stream Identifier	Stream Identifier 10.5.4.28	O	TLV	3
40	Supported Codecs	Supported Codec List 10.5.4.32	O	TLV	5-n

9.3.2.1 Repeat indicator

The *repeat indicator* information element shall be included if *bearer capability 1* information element and *bearer capability 2* IE are both included in the message.

9.3.2.2 Bearer capability 1 and bearer capability 2

The *bearer capability 1* information element shall be included if and only if at least one of the following six cases holds:

- the mobile station wishes another bearer capability than that given by the *bearer capability 1* information element of the incoming SETUP message;
- the *bearer capability 1* information element is missing or not fully specified in the SETUP message;
- the *bearer capability 1* information element received in the SETUP message is accepted and the "radio channel requirement" of the mobile station is other than "full rate support only mobile station";
- the *bearer capability 1* information element received in the SETUP message indicates speech and is accepted and the mobile station supports CTM text telephony;
- the *bearer capability 1* information element received in the SETUP message indicates speech and is accepted and the mobile station supports other GSM codecs than GSM speech version 1.
- the *bearer capability 1* information element received in the SETUP message included the "fixed network user rate" parameter.

When the *bearer capability 1* information element is followed by the *bearer capability 2* IE in the SETUP, the above rules apply to both *bearer capability 1* IE and *bearer capability 2* IE. Except those cases identified in 3GPP TS 27.001, if either *bearer capability* needs to be included, both shall be included.

Furthermore, both *bearer capability* information elements may be present if the mobile station wishes to reverse the order of occurrence of the *bearer capability* information elements (which is referred to in the *repeat indicator* information element, see subclause 10.5.4.22) in cases identified in 3GPP TS 27.001 [36].

If the mobile station wishes to indicate capability for an alternative call mode, which can be entered during the call through in-call modification, this is indicated by adding a *bearer capability information element* (*bearer capability*) 2 element (see subclause 5.3.6).

9.3.2.3 Cause

This information element is included if the mobile station is compatible but the user is busy.

9.3.2.4 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities.

9.3.2.5 Stream Identifier

This information element shall be included by the mobile station supporting multicall.

9.3.2.6 Supported Codecs

This information element shall be included for speech calls, if the mobile station supports UMTS radio access.

-----**Second Change**-----

9.3.23.2 Setup (mobile originating call establishment)

This message is sent from the mobile station to the network to initiate a mobile originating call establishment.

See table 9.70a/3GPP TS 24.008.

Message type: SETUP

Significance: global

Direction: mobile station to network

Table 9.70a/3GPP TS 24.008: SETUP message content (mobile station to network direction)

IEI	Information element	Type/Reference	Presence	Format	Length
	Call control protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Setup message type	Message type 10.4	M	V	1
D-	BC repeat indicator	Repeat indicator 10.5.4.22	C	TV	1
04	Bearer capability 1	Bearer capability 10.5.4.5	M	TLV	3-16
04	Bearer capability 2	Bearer capability 10.5.4.5	O	TLV	3-16
1C	Facility(simple recall alignment)	Facility 10.5.4.15	O	TLV	2-
5D	Calling party sub-address	Calling party subaddr. 10.5.4.10	O	TLV	2-23
5E	Called party BCD number	Called party BCD num. 10.5.4.7	M	TLV	3-43
6D	Called party sub-address	Called party subaddr. 10.5.4.8	O	TLV	2-23
D-	LLC repeat indicator	Repeat indicator 10.5.4.22	O	TV	1
7C	Low layer compatibility I	Low layer comp. 10.5.4.18	O	TLV	2-18
7C	Low layer compatibility II	Low layer comp. 10.5.4.18	O	TLV	2-18
D-	HLC repeat indicator	Repeat indicator 10.5.4.22	O	TV	1
7D	High layer compatibility i	High layer comp. 10.5.4.16	O	TLV	2-5
7D	High layer compatibility ii	High layer comp. 10.5.4.16	O	TLV	2-5
7E	User-user	User-user 10.5.4.25	O	TLV	3-35
7F	SS version	SS version indicator 10.5.4.24	O	TLV	2-3
A1	CLIR suppression	CLIR suppression 10.5.4.11a	C	T	1
A2	CLIR invocation	CLIR invocation 10.5.4.11b	C	T	1
15	CC capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3
1D	Facility \$(CCBS)\$ (advanced recall alignment)	Facility 10.5.4.15	O	TLV	2-?
1B	Facility (recall alignment Not essential) \$(CCBS)\$	Facility 10.5.4.15	O	TLV	2-?
2D	Stream Identifier	Stream Identifier 10.5.4.28	O	TLV	3
40	Supported Codecs	Supported Codec List 10.5.4.32	O	TLV	5-n

9.3.23.2.1 BC repeat indicator

The *BC repeat indicator* information element is included if and only if *bearer capability 1* IE and *bearer capability 2* IE are both present in the message.

9.3.23.2.2 Facility

The information element may be included for functional operation of supplementary services.

Three different codings of this IE exist, for further details see 3GPP TS 24.010.

9.3.23.2.3 LLC repeat indicator

The *LLC repeat indicator* information element is included if and only if both following conditions hold:

- The *BC repeat indicator* IE is contained in the message.
- The *low layer compatibility I* IE is contained in the message.

If included, the *LLC repeat indicator* shall specify the same repeat indication as the *BC repeat indicator* IE.

9.3.23.2.4 Low layer compatibility I

The information element is included in the MS-to-network direction when the calling MS wants to pass low layer compatibility information to the called user.

9.3.23.2.5 Low layer compatibility II

Included if and only if the *LLC repeat indicator* information element is contained in the message.

9.3.23.2.6 HLC repeat indicator

The *HLC repeat indicator* information element is included if and only if both following conditions hold:

- The *BC repeat indicator* IE is contained in the message.
- The *high layer compatibility i* IE is contained in the message.

If included, the *HLC repeat indicator* shall specify the same repeat indication as the *BC repeat indicator* IE.

9.3.23.2.7 High layer compatibility i

The information element is included when the calling MS wants to pass high layer compatibility information to the called user.

9.3.23.2.8 High layer compatibility ii

Included if and only if the *HLC repeat indicator* information element is contained in the message.

9.3.23.2.9 User-user

The information element is included in the calling mobile station to network direction when the calling mobile station wants to pass user information to the called remote user.

9.3.23.2.10 SS version

This information element shall not be included if the *facility* information element is not present in this message.

This information element shall be included or excluded as defined in 3GPP TS 24.010 [21]. This information element should not be transmitted unless explicitly required by 3GPP TS 24.010.

9.3.23.2.11 CLIR suppression

The information element may be included by the MS (see 3GPP TS 24.081 [25]). If this information element is included the *CLIR invocation* IE shall not be included.

9.3.23.2.12 CLIR invocation

The information element may be included by the MS (see 3GPP TS 24.081). If this information element is included the *CLIR suppression* IE shall not be included.

9.3.23.2.13 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities.

9.3.23.2.14 Stream Identifier

This information element shall be included by the mobile station supporting multicall.

9.3.23.2.15 Bearer capability 1 and bearer capability 2

If the mobile station wishes to indicate capability for an alternative call mode, which can be entered through fallback, this is indicated by adding a *bearer capability information element* (bearer capability) 2 element (see subclause 5.3.6).

9.3.23.2.16 Supported Codecs

This information element shall be included for speech calls, if the mobile station supports UMTS radio access.

-----**Third Change**-----

9.3.23a Start CC \$(CCBS)\$

A Network that does not support the "Network initiated MO call" option shall treat this message as a message with message type not defined for the PD.

This message is sent by the mobile station to the network to open a Call Control transaction which the network has requested the mobile station to open.

See Table 9.70b/3GPP TS 24.008.

Message type: START CC
 Significance: local
 Direction: mobile station to network

Table 9.70b/3GPP TS 24.008: START CC message content

IEI	Information element	Type/Reference	Presence	Format	Length
	Call control Protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Transaction identifier	Transaction identifier 10.3.2	M	V	1/2
	Start CC message type	Message type 10.4	M	V	1
15	CC Capabilities	Call Control Capabilities 10.5.4.5a	O	TLV	4 3

9.3.23a.1 CC Capabilities

This information element may be included by the mobile station to indicate its call control capabilities

-----**For information (no change)**-----

10.5.4.5a Call Control Capabilities

The purpose of the Call Control Capabilities information element is to identify the call control capabilities of the mobile station.

The Call Control Capabilities information element is coded as shown in figure 10.5.89/3GPP TS 24.008 and table 10.5.116/3GPP TS 24.008.

The Call Control Capabilities is a type 4 information element with a length of 4 octets.

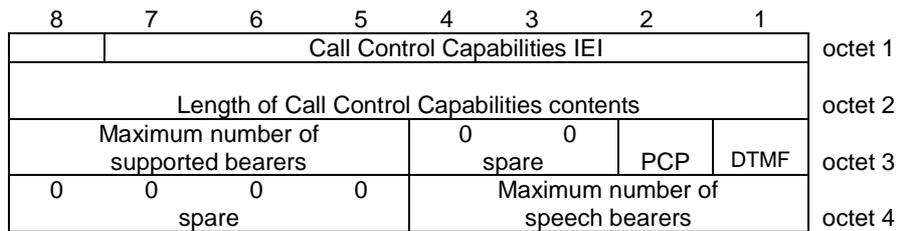


Figure 10.5.89/3GPP TS 24.008 Call Control Capabilities information element

Table 10.5.116/3GPP TS 24.008: Call Control Capabilities

DTMF (octet 3, bit 1)	
0	This value is reserved for earlier versions of the protocol.
1	This value indicates that the mobile station supports DTMF as specified in subclause 5.5.7 of the present document.
PCP (octet 3, bit 2)	
0	This value indicates that the mobile station does not support the Prolonged Clearing Procedure
1	This value indicates that the mobile station supports the Prolonged Clearing Procedure.
Maximum number of supported bearers (octet 3, bit 5 to bit 8)	
0 0 0 0	1 bearer supported
All values are interpreted as the binary representation of the number of bearers supported.	
Bit 5 of octet 3 is the least significant bit and bit 8 of octet 3 is the most significant bit.	
Maximum number of speech bearers (octet 4, bit 1 to bit 4)	
All values are interpreted as the binary representation of the number of bearers supported.	
Bit 1 of octet 4 is the least significant bit and bit 4 of octet 4 is the most significant bit.	
Note:	In this version of the protocol, the MS should not indicate more than one speech bearer.