

**3GPP TSG CN Plenary Meeting #13
Beijing, China, 19th - 21st June 2001**

Tdoc NP-010447

Source: TSG CN WG2
Title: CRs on R99 and Rel-4 Work Item CAMEL3, Pack 1
Agenda item: 7.2
Document for: APPROVAL

Introduction:

This document contains 6 CRs on R99 and Rel-4 Work Item "CAMEL3", that have been agreed by TSG CN WG2, and are forwarded to TSG CN Plenary meeting #13 for approval.

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
23.078	310	1	N2-010525	R99	Correction of error implementing CR 23.078-194r3	F	3.9.0
23.078	311		N2-010526	Rel-4	Correction of error implementing CR 23.078-194r3	A	4.1.0
23.078	312	2	N2-010596	R99	Possible information in Initial DP	F	3.9.0
23.078	313	1	N2-010597	Rel-4	Possible information in Initial DP	A	4.1.0
23.078	317	1	N2-010577	R99	Correction of CUG information handling	F	3.9.0
23.078	318	1	N2-010578	Rel-4	Correction of CUG information handling	A	4.1.0

CR-Form-v4

CHANGE REQUEST

⌘ **23.078 CR 310** ⌘ rev **1** ⌘ Current version: **3.9.0** ⌘

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

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

Title:	⌘ Correction of error implementing CR 23.078-194r3		
Source:	⌘ Rapporteur		
Work item code:	⌘ CAMEL3	Date:	⌘ 4 July 2001
Category:	⌘ F (Correction of error implementing an approved CR)	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)	

Reason for change:	⌘ Error occured in implemetation of CR 23.078-194r3.
Summary of change:	⌘ Procedure name change on the SDL sheet and the title of the figure change as other section of this document.
Consequences if not approved:	⌘ Inconsistency remains. Strictly speaking, no procedure called "Handle_PDP_Acknowledgement" would be defined.

Clauses affected:	⌘ 6
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
Other comments:	⌘

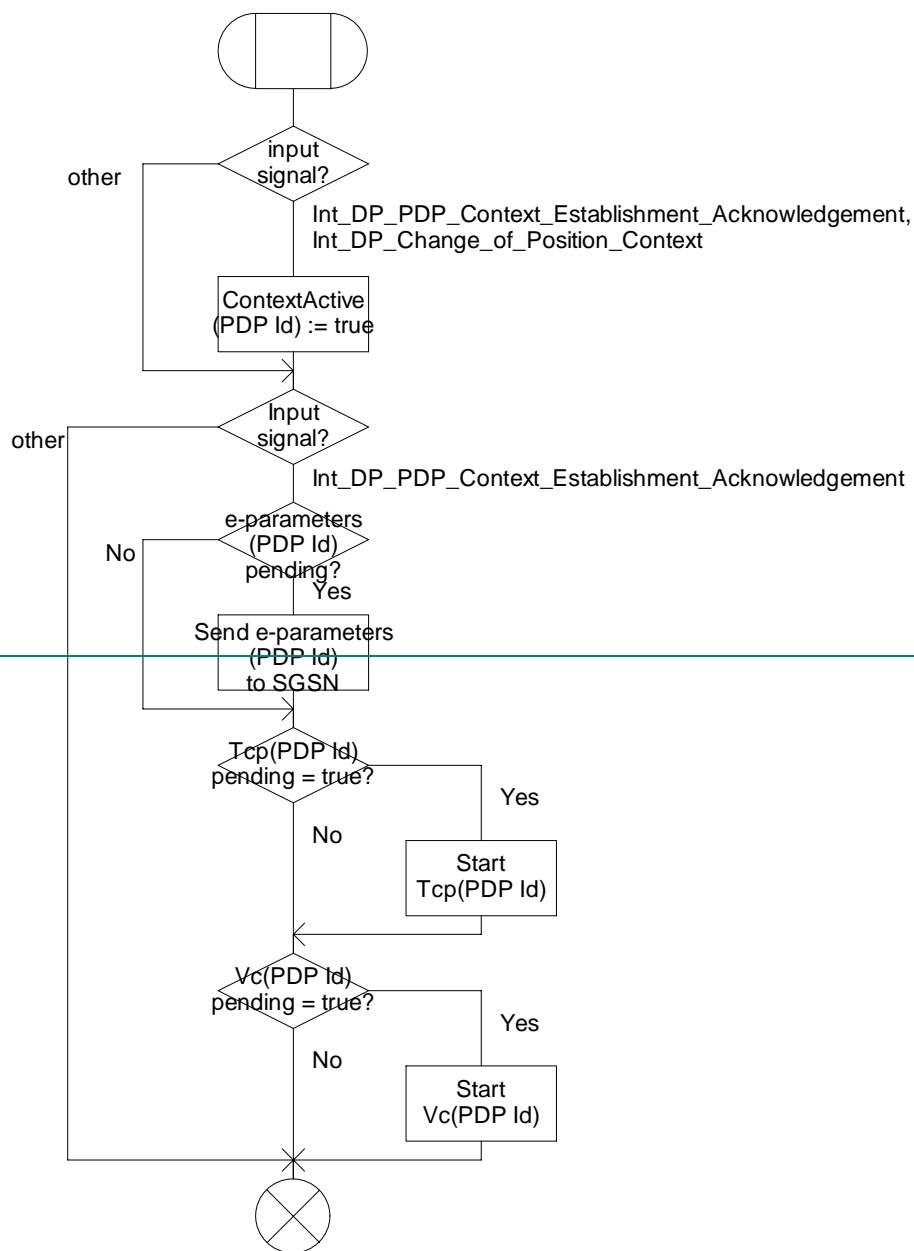
Procedure Handle_PDP_Context_Acknowledgement

1(1)

```

/* Procedure in the gprsSSF for
the handling of PDP Context
Acknowledgement. */

```



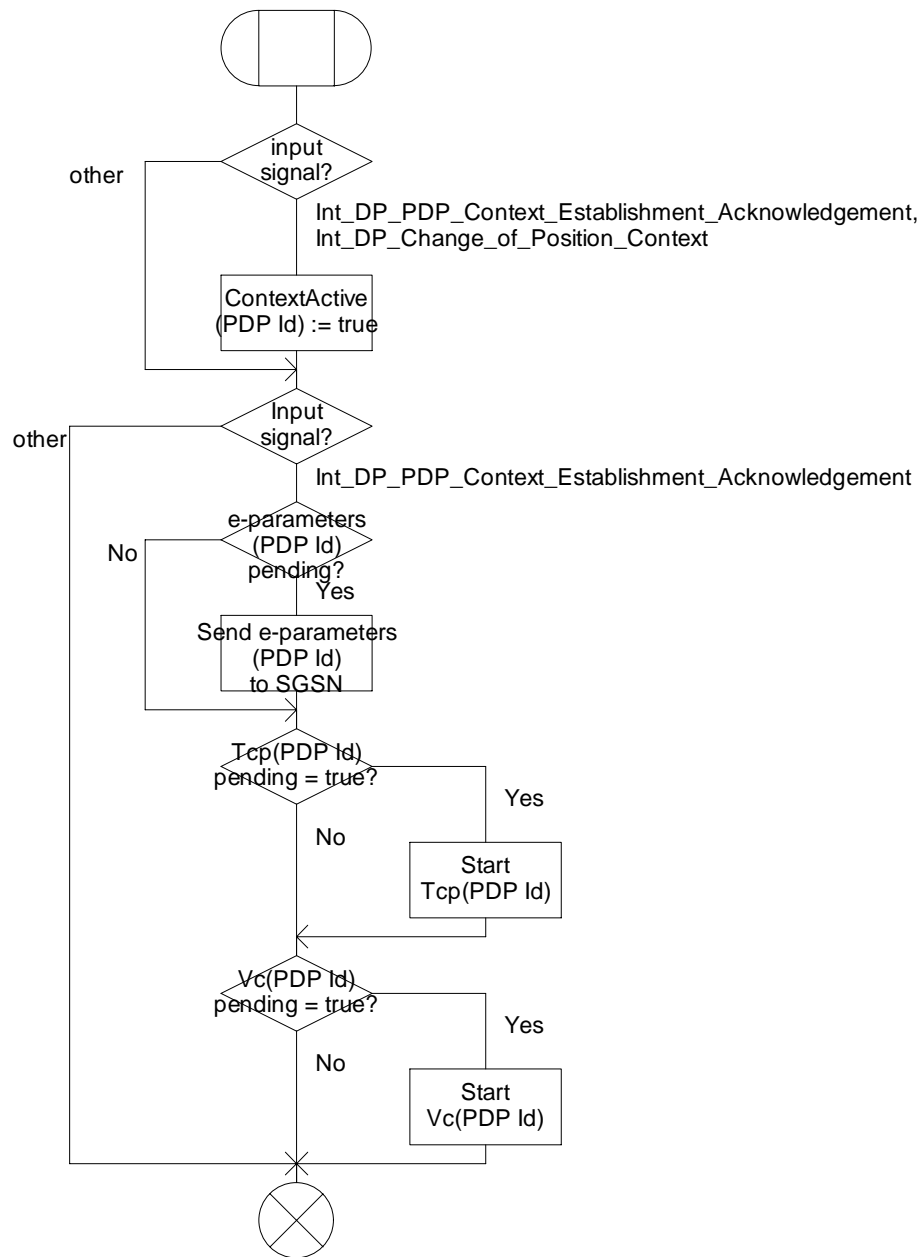
Procedure Handle_PDP_Acknowledgement

1(1)

```

/* Procedure in the gprsSSF for
the handling of PDP Context
Acknowledgement. */

```

Figure 6.24a: Procedure Handle_PDP_AcknowledgementContext_Disconnection (sheet 1)

CR-Form-v4

CHANGE REQUEST

⌘ **23.078 CR 311** ⌘ ev **-** ⌘ 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 of error implementing CR 23.078-194r3		
Source:	⌘ Rapporteur		
Work item code:	⌘ CAMEL3	Date:	⌘ 4 July 2001
Category:	⌘ A	Release:	⌘ Rel-4
	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)		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)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		

Reason for change:	⌘ Error occured in implemetation of CR 23.078-194r3.
Summary of change:	⌘ Procedure name change on the SDL sheet and the title of the figure change as other section of this document.
Consequences if not approved:	⌘ Inconsistency remains. Strictly speaking, no procedure called "Handle PDP Acknowledgement" would be defined.

Clauses affected:	⌘ 6	
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘
Other comments:	⌘	

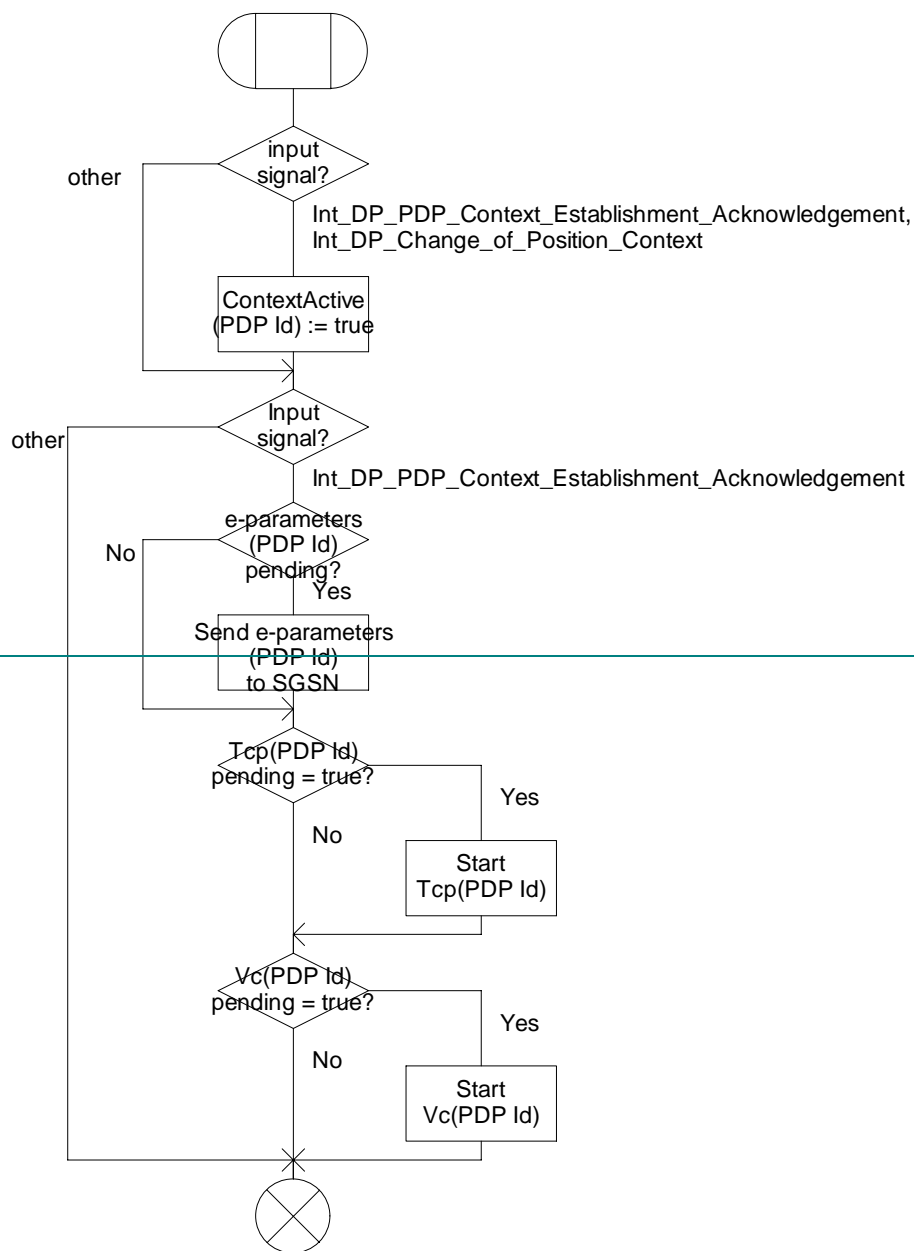
Procedure Handle_PDP_Context_Acknowledgement

1(1)

```

/* Procedure in the gprsSSF for
the handling of PDP Context
Acknowledgement. */

```



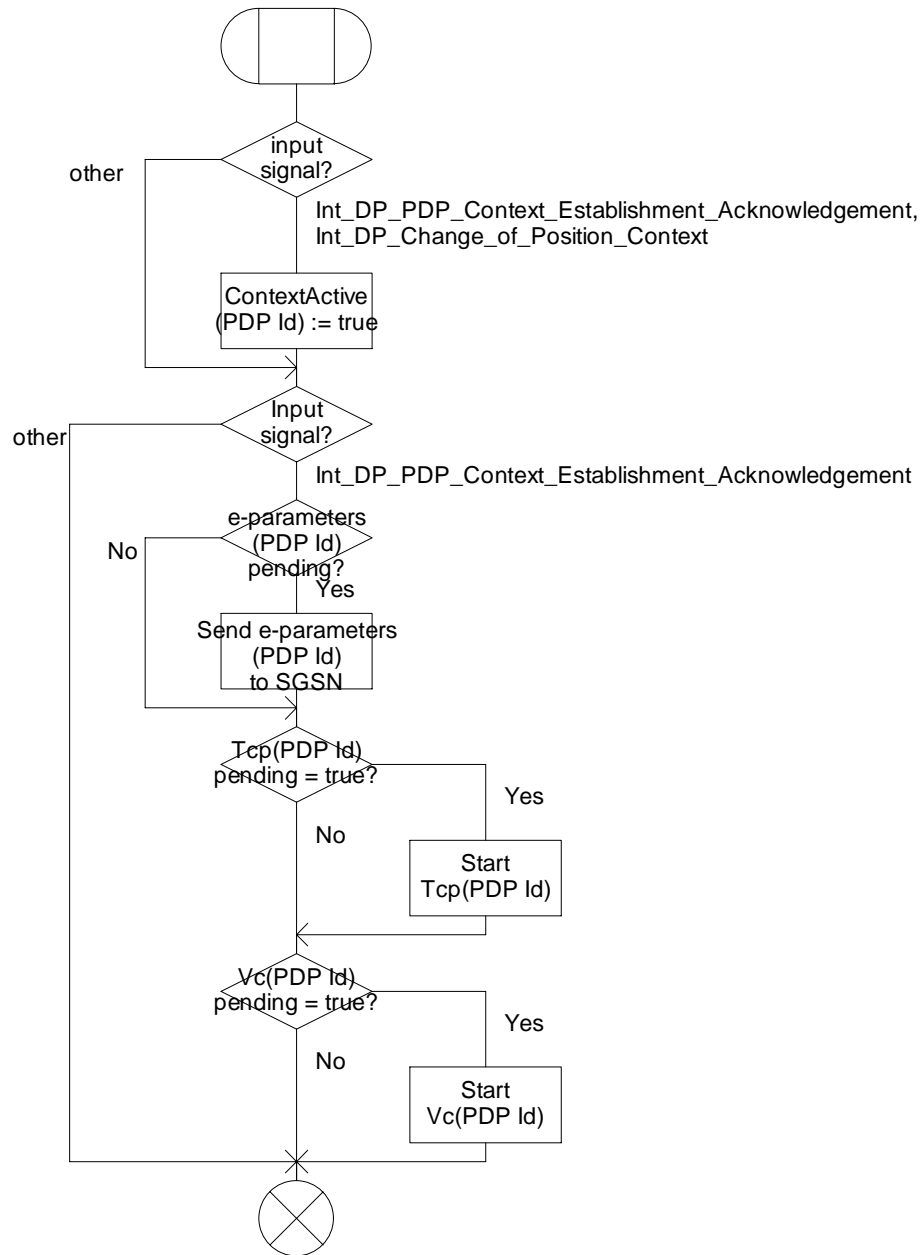
Procedure Handle_PDP_Acknowledgement

1(1)

```

/* Procedure in the gprsSSF for
the handling of PDP Context
Acknowledgement. */

```

Figure 6.24a: Procedure Handle_PDP_AcknowledgementContext_Disconnection (sheet 1)

CR-Form-v4

CHANGE REQUEST

⌘ **23.078 CR 317** ⌘ rev **1** ⌘ Current version: **3.9.0** ⌘

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

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

Title:	⌘ Correction of CUG information handling		
Source:	⌘ Siemens AG		
Work item code:	⌘ CAMEL3	Date:	⌘ 11 July 2001
Category:	⌘ F (Essential Correction)	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)

Reason for change:	⌘ SDLs for MT call, the procedures CAMEL_MT_GMSC_INIT (SDL 3(8)) and CAMEL_ICH_MSC_INIT (SDL 3(5)) allow CUG modification after receiving Int_Connect, however the description in 4.7.4 "Closed User Group" also allows CUG modification after receiving Continue With Argument message.
Summary of change:	⌘ Delete "continue with argument" for MT and VT call and clearly indicate that only a connect message is allowed.
Consequences if not approved:	⌘ Inconsistency and error description would remain.

Clauses affected:	⌘ 4.7.4		
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
Other comments:	⌘ This CR includes an editorial correction in the same subclause.		

Procedure CAMEL_MT_GMSC_INIT

3(8)

/* Process in the GMSC to perform CAMEL handling for a terminating call request */

Signals to/from the left are to/from the originating exchange; signals to/from the right are to/from the gsmSSF; if not otherwise stated.

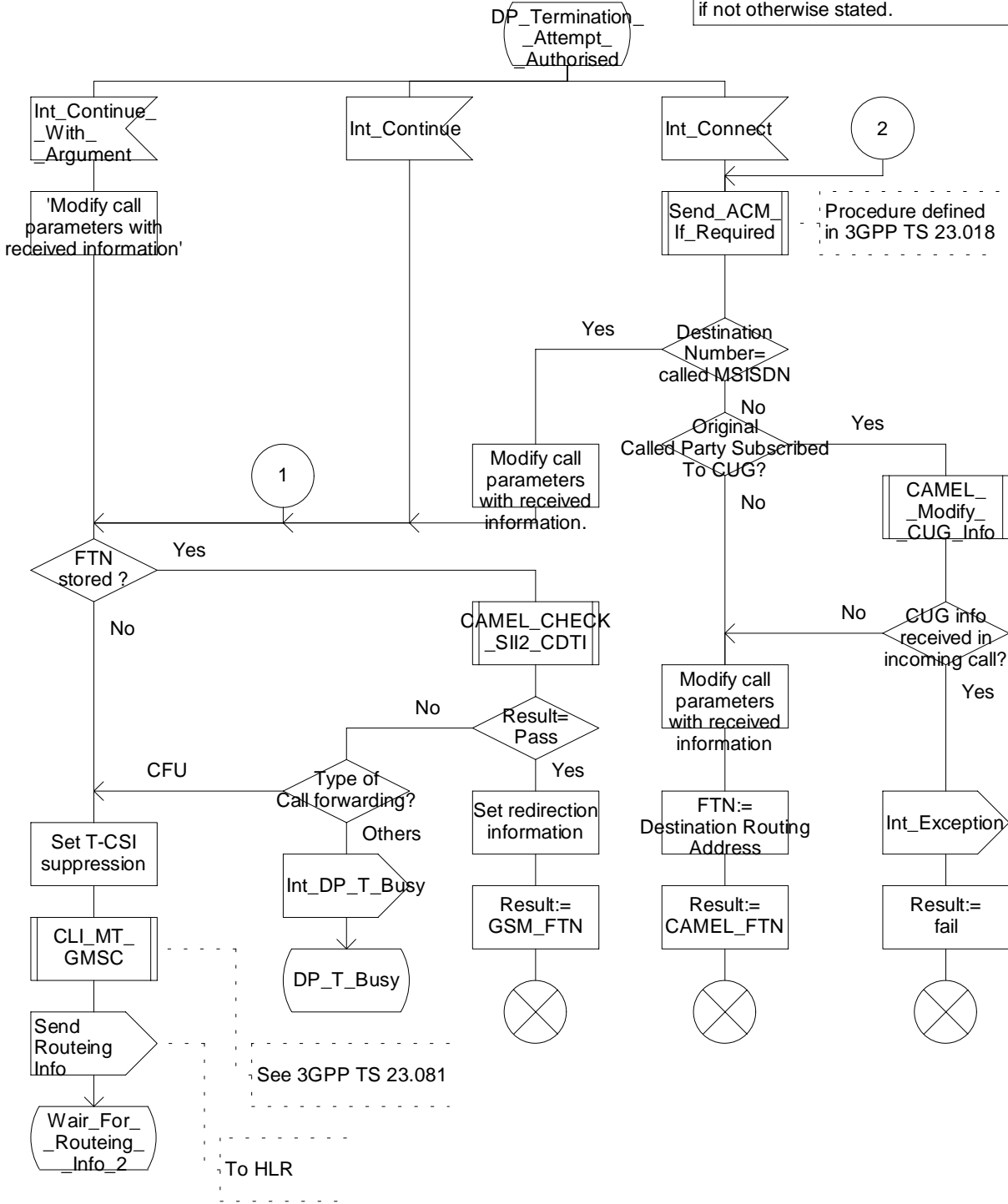


Figure Error! Reference source not found.c: Procedure CAMEL_MT_GMSC_INIT (sheet 1)

Procedure CAMEL_ICH_MSC_INIT

3(5)

/* Process in the VMSC-B to handle a terminating call request */

/* Signals to/from the left are to/from the originating exchange; signals to/from the right are to/from the gsmSSF; if not otherwise stated. */

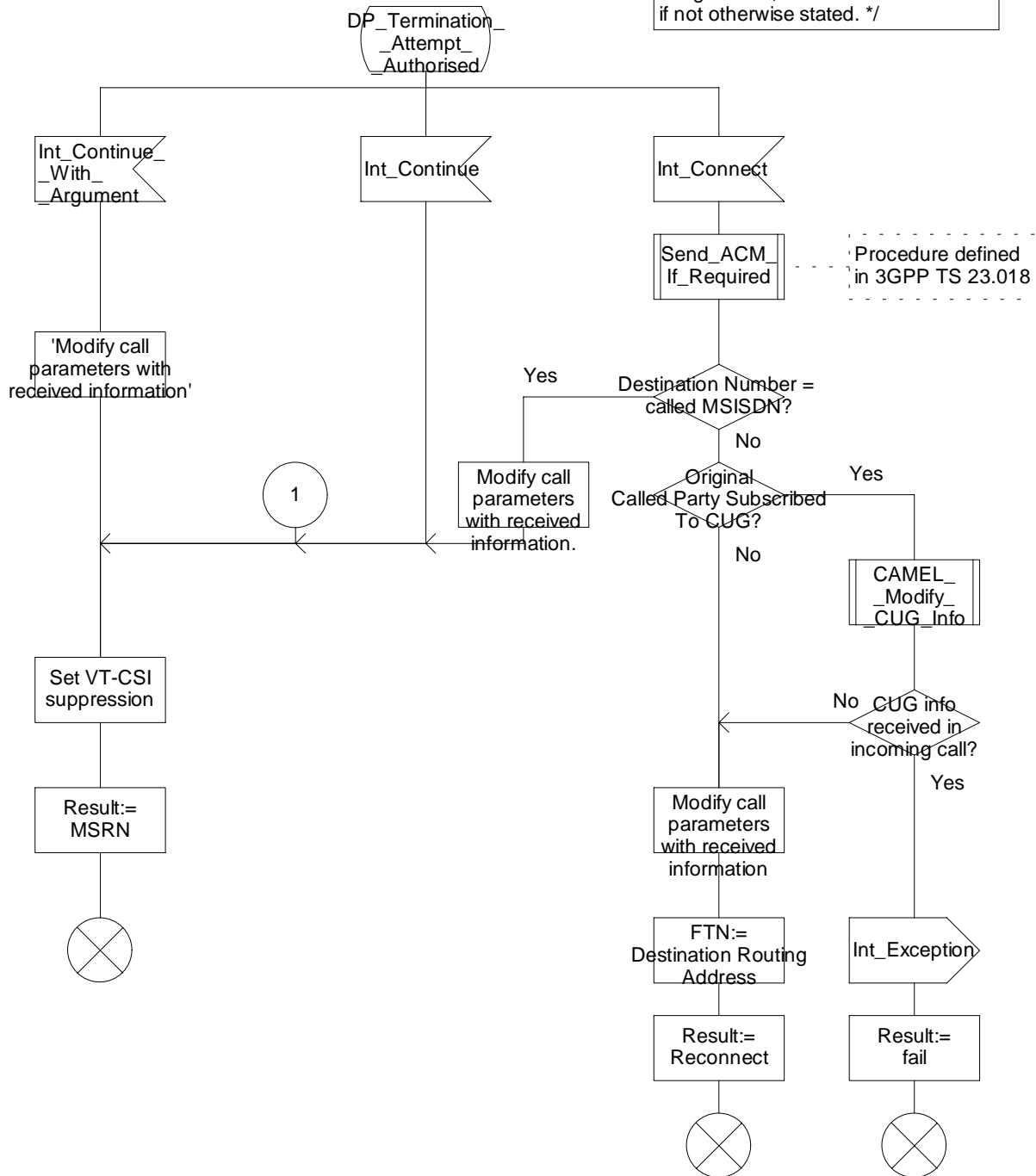


Figure Error! Reference source not found.c: Procedure CAMEL_ICH_MSC_INIT (sheet 3)

*** Modified part ***

4.7.4 Closed User Group

For a CUG subscriber with CAMEL services:

- The HLR shall store (and transfer to the VLR) the necessary subscriber data to ensure that the served subscriber is not unnecessarily prevented by CUG constraints from originating calls.
- The HLR shall store the necessary subscriber data to ensure that the served subscriber is not unnecessarily prevented by CUG constraints from receiving calls.

For an MO or MF call, the CUG information for that call shall be sent to the gsmSCF in the Initial DP.

If the gsmSCF returns a Continue message, the call shall continue with the original CUG information unchanged.

If the gsmSCF returns a Connect or Continue With Argument message, the CUG handling in table **Error! Reference source not found..1** applies.

Table Error! Reference source not found..1: CUG handling -on receipt of Connect or Continue With Argument for an MO or MF call

CUG parameters in message	Handling
Non-CUG call (note 1)	Remove CUG information for the call and continue as a non-CUG call
CUG information (note 2)	Call shall continue with modified CUG information
No CUG information	Call shall continue with original CUG information
NOTE 1: Received in Service Interaction Indicators Two IE.	
NOTE 2: CUG information consists of at least one of CUG Interlock Code and Outgoing Access Indicator.	

For an MT or VT call which is to be routed to the terminating subscriber, the CUG information shall be extracted from the incoming ISUP IAM and sent to the gsmSCF in the Initial DP, but the gsmSCF shall not have the ability to change the CUG information for the call.

For an MT or VT call which is ~~subject to be CAMEL forwarded under CAMEL control at DP Terminating Attempt Authorised~~, if the gsmSCF ~~shall~~ returns a Connect ~~or Continue With Argument~~ message, ~~then the CUG information is extracted~~ and the CUG handling in table **Error! Reference source not found..1** applies.

CR-Form-v4

CHANGE REQUEST

⌘ **23.078 CR 318** ⌘ rev **1** ⌘ 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 of CUG information handling		
Source:	⌘ Siemens AG		
Work item code:	⌘ CAMEL3	Date:	⌘ 11 July 2001
Category:	⌘ A	Release:	⌘ Rel-4
	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)

Reason for change:	⌘ SDLs for MT call, the procedures CAMEL_MT_GMSC_INIT (SDL 3(8)) and CAMEL_ICH_MSC_INIT (SDL 3(5)) allow CUG modification after receiving Int_Connect, however the description in 4.7.4 "Closed User Group" also allows CUG modification after receiving Continue With Argument message.
Summary of change:	⌘ Delete "continue with argument" for MT and VT call and clearly indicate that only a connect message is allowed.
Consequences if not approved:	⌘ Inconsistency and error description would remain.

Clauses affected:	⌘ 4.7.4		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
Other comments:	⌘ This CR includes an editorial correction in the same subclause.		

Procedure CAMEL_MT_GMSC_INIT

3(8)

/* Process in the GMSC to perform CAMEL handling for a terminating call request */

Signals to/from the left are to/from the originating exchange; signals to/from the right are to/from the gsmSSF; if not otherwise stated.

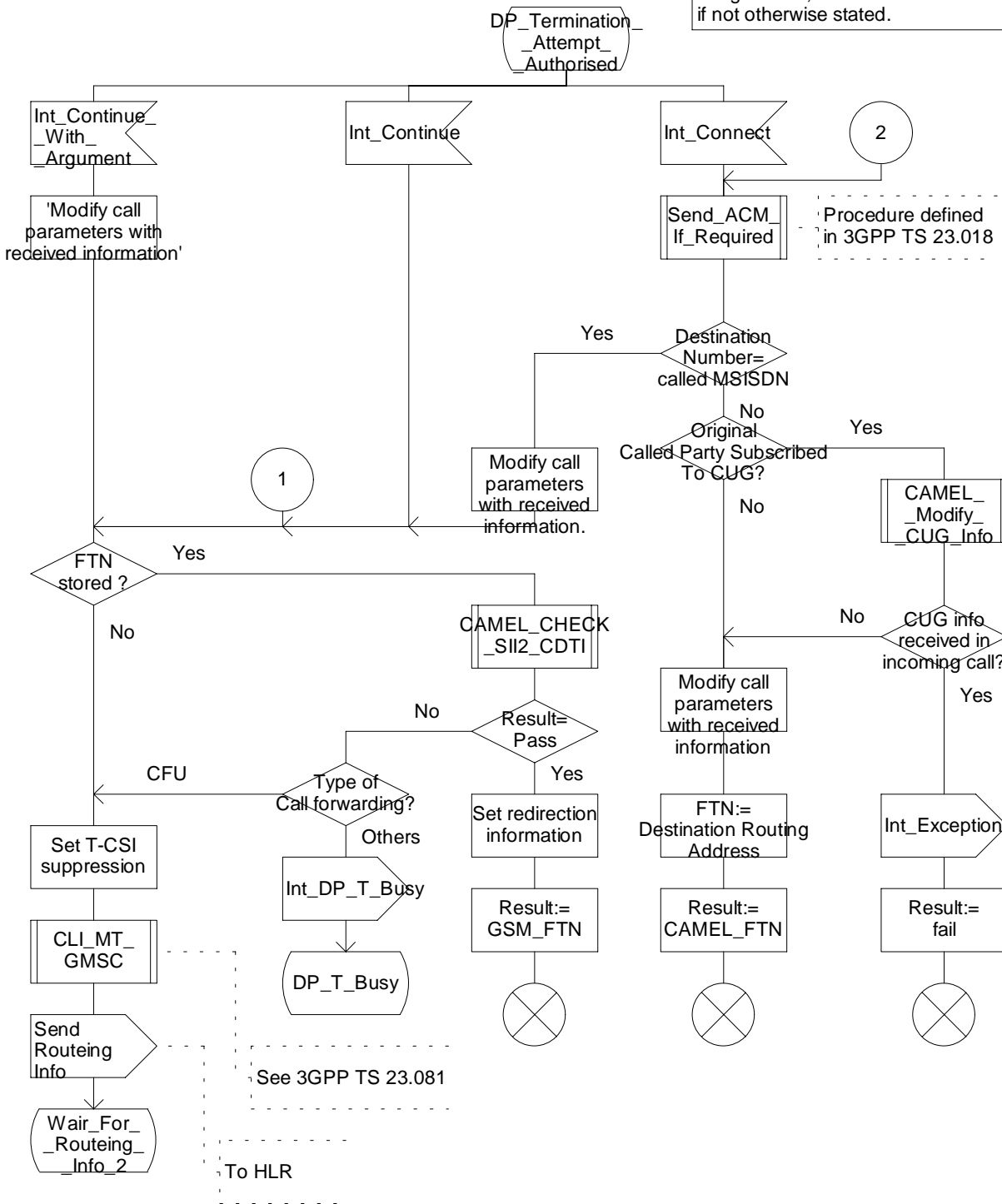


Figure Error! Reference source not found.c: Procedure CAMEL_MT_GMSC_INIT (sheet 1)

Procedure CAMEL_ICH_MSC_INIT

3(5)

/* Process in the VMSC-B to handle a terminating call request */

/* Signals to/from the left are to/from the originating exchange; signals to/from the right are to/from the gsmSSF; if not otherwise stated. */

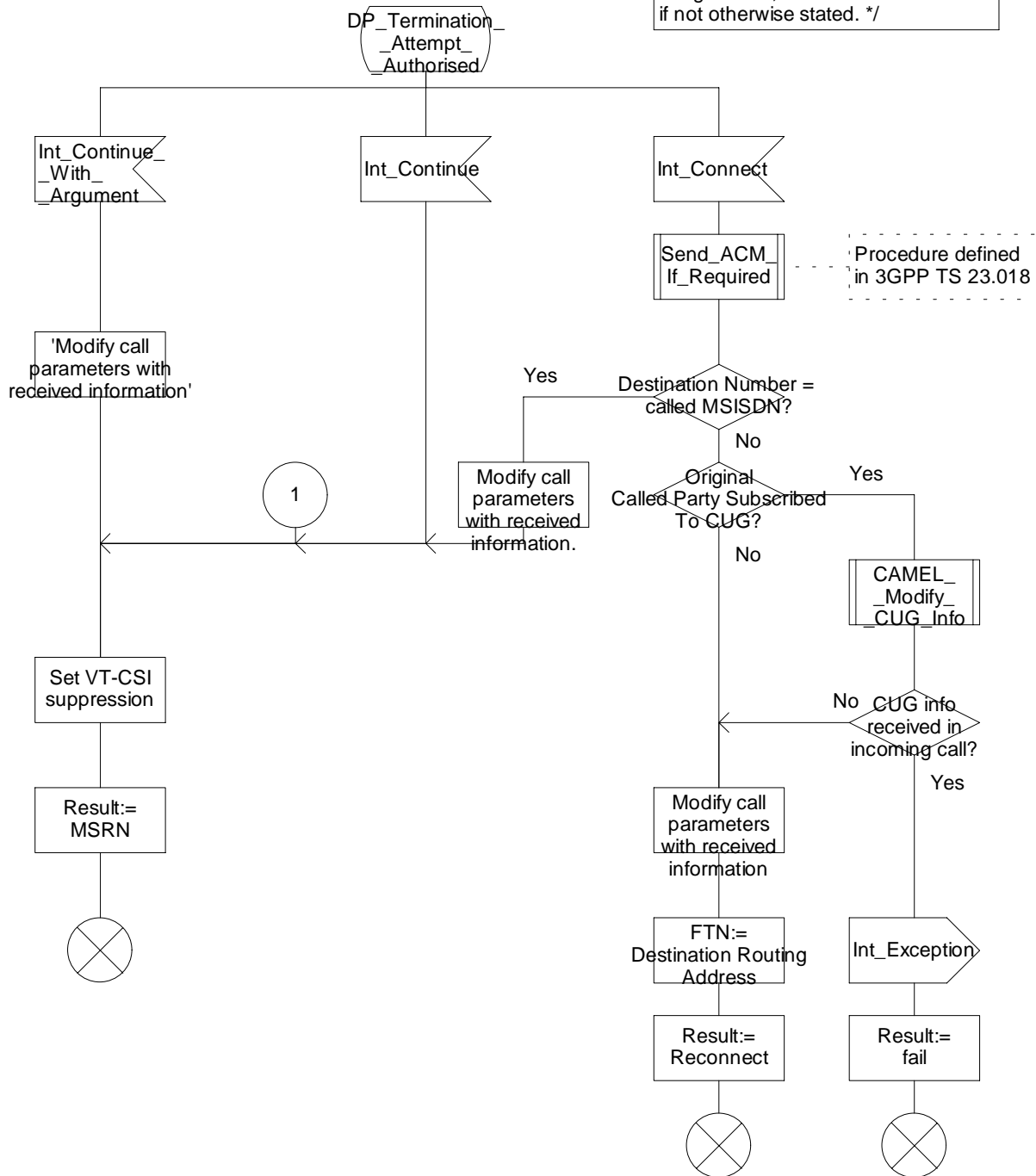


Figure Error! Reference source not found.c: Procedure CAMEL_ICH_MSC_INIT (sheet 3)

*** Modified part ***

4.7.4 Closed User Group

For a CUG subscriber with CAMEL services:

- The HLR shall store (and transfer to the VLR) the necessary subscriber data to ensure that the served subscriber is not unnecessarily prevented by CUG constraints from originating calls.
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For an MO or MF call, the CUG information for that call shall be sent to the gsmSCF in the Initial DP.

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If the gsmSCF returns a Connect or Continue With Argument message, the CUG handling in table **Error! Reference source not found..1** applies.

Table Error! Reference source not found..1: CUG handling -on receipt of Connect or Continue With Argument for an MO or MF call

CUG parameters in message	Handling
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CUG information (note 2)	Call shall continue with modified CUG information
No CUG information	Call shall continue with original CUG information
NOTE 1: Received in Service Interaction Indicators Two IE.	
NOTE 2: CUG information consists of at least one of CUG Interlock Code and Outgoing Access Indicator.	

For an MT or VT call which is to be routed to the terminating subscriber, the CUG information shall be extracted from the incoming ISUP IAM and sent to the gsmSCF in the Initial DP, but the gsmSCF shall not have the ability to change the CUG information for the call.

For an MT or VT call which is ~~subject to be CAMEL forwarded under CAMEL control at DP Terminating Attempt Authorised~~, if the gsmSCF ~~shall~~ returns a Connect ~~or Continue With Argument~~ message, ~~then the CUG information is extracted~~ and the CUG handling in table **Error! Reference source not found..1** applies.

CR-Form-v4

CHANGE REQUEST

⌘ **23.078 CR 312** ⌘ rev **2** ⌘ Current version: **3.9.0** ⌘

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

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

Title:	⌘ Possible information in Initial DP		
Source:	⌘ Siemens AG		
Work item code:	⌘ CAMEL3	Date:	⌘ 12 July 2001
Category:	⌘ F (essential correction)	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)

Reason for change:	⌘ In the case of the TDP Collected_Infor, it is possible that four information elements, Additional Calling Party Number, Original Called Party ID, Redirecting Party ID and Redirection Information, are received from the gsmSCF in CONNECT operation. In this case, these elements shall be sent in the subsequent Initial DP due to the TDP Analysed_Info.
Summary of change:	⌘ Change the attributes of the IEs above to "C" (conditional) from "-" (not applicable)
Consequences if not approved:	⌘ When these IEs were sent by the gsmSCF, D-CSI and/or N-CSI dialogue would not be able to use the information.

Clauses affected:	⌘ 4.6.1.5 (Initial DP)		
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
Other comments:	⌘		

4.6.1.5 Initial DP

4.6.1.5.1 Description

This IF is generated by the gsmSSF when a trigger is detected at a DP in the BCSM, to request instructions from the gsmSCF.

4.6.1.5.2 Information Elements

The following information elements are required:

Information element name	MO	MF	MT	VT	Description
Additional Calling Party Number	<u>C</u>	C	C	C	The calling party number provided by the access signalling system of the calling user <u>or received from the gsmSCF due to the previous CAMEL processing.</u>
Bearer Capability	M	C	C	C	This IE indicates the type of the bearer capability connection to the user.
Called Party Number	C	M	M	M	This IE contains the number used to identify the called party in the forward direction. For the MO and MF calls this parameter is used in the case of TDP Route_Select_Failure (this is the destination number used to route the call) and in the case of TDP Busy and TDP No Reply (this is the MSISDN when the destination number used for the call is a MSRN, or in the case of unsuccessful establishment received from the HLR via MAP interface, otherwise it is the number used to route the call). For the VT calls when there is no forwarding pending this is the MSISDN received in the Provide Roaming Number; if the MSISDN is not available, the basic MSISDN is used. For the MT and VT call case when there is call forwarding or call deflection pending, this is the MSISDN, i.e. not the forwarded-to or deflected-to number.
Called Party BCD Number	C	-	-	-	This IE contains the number used to identify the called party in the forward direction. It is used for MO call in all cases except in the case of TDP Route_Select_Failure. For the TDP Collected_Information, the number contained in this IE shall be identical to the number received over the access network. It may e.g. include service selection information, such as * and # digits, or carrier selection information dialled by the subscriber. For the TDP Analysed_Information, the number contained in this IE shall be the dialled number received over the network access or received from a gsmSCF in a CONNECT operation, service selection information, such as * and # digits may be present (see subclause 4.2.1.2.2), carrier selection information dialled by the subscriber is not present.
Calling Party Number	M	C	C	C	This IE carries the calling party number to identify the calling party or the origin of the call.
Calling Party Category	M	C	C	C	Indicates the type of calling party (e.g., operator, pay phone, ordinary subscriber).
CallGap Encountered	C	C	C	C	This parameter indicates the type of gapping the related call have been subjected to. This parameter shall be present only if a call gapping context is applicable to the initialDP operation.
Call Reference Number	M	M	M	M	This IE may be used by the gsmSCF for inclusion in a network optional gsmSCF call record. It has to be coupled with the identity of the MSC which allocated it in order to define unambiguously the identity of the call. For MO calls, the call reference number is set by the serving VMSC and included in the MO call record. For MT calls, the call reference number is set by the GMSC and included in the RCF call record in the GMSC and in the MT call record in the terminating MSC. For VT calls, the call reference number is set by the GMSC and included in the RCF call record in the GMSC and in the MT call record in the terminating MSC. For CF calls, the call reference number is set by the GMSC and included in the CF record in the forwarding MSC.
Cause	C	C	C	C	This IE indicates the cause specific to the armed BCSM DP event. This IE is applicable to DP Route_Select_Failure and DP T_Busy. The cause may be used by the SCF to decide about the further handling of the call.

Information element name	MO	MF	MT	VT	Description
Event Type BCSM	M	M	M	M	This IE indicates the armed BCSM DP event, resulting in the Initial DP IF.
Ext-Basic Service Code	C	C	C	C	This IE indicates the type of basic service i.e., teleservice or bearer service.
High Layer Compatibility	C	C	C	C	This IE indicates the type of the high layer compatibility, which will be used to determine the ISDN-teleservice of a connected ISDN terminal.
IMSI	M	M	M	M	This IE identifies the mobile subscriber.
IP SSP Capabilities	C	C	C	C	This IE indicates which SRF resources are supported within the gsmSSF and are available. If this IE is absent, this indicates that no gsmSRF is attached and available.
Location Information	M	-	C	M	This IE is described in the next table.
Location Number	M	C	C	C	For mobile originated calls this IE represents the location of the calling party. For all other call scenarios this IE contains the location number received in incoming ISUP signalling.
MSC Address	M	M	M	M	For MO calls, the MSC Address carries the international E.164 address of the serving VMSC. For MT calls, the MSC Address carries the international E.164 address of the GMSC. For VT calls, the MSC Address carries the international E.164 address of the serving VMSC. For CF calls, the MSC Address carries the international E.164 address of the forwarding MSC.
GMSC Address	-	M	-	M	For CF calls, the GMSC Address carries the international E.164 address of the GMSC. For VT calls, the GMSC Address carries the international E.164 address of the GMSC.
Carrier	C	C	C	C	The content of this IE is described in the next table. The IE may be sent when the VPLMN and the HPLMN of the subscriber are both North American. For MO calls, this IE shall contain any carrier that was dialled by the calling subscriber. If no carrier was dialled, the IE shall contain the calling subscriber's subscribed carrier. For MT and VT calls, the IE shall contain the carrier subscribed to by the called subscriber. For CF calls, the IE shall contain the carrier subscribed to by the forwarding subscriber.
Original Called Party ID	<u>-C</u>	C	C	C	This IE carries the dialled digits if the call has met call forwarding on the route to the gsmSSF. This IE shall also be sent if it was received from the gsmSCF due to the previous CAMEL processing.
Redirecting Party ID	<u>-C</u>	C	C	C	This IE indicates the directory number the call was redirected from. This IE shall also be sent if it was received from the gsmSCF due to the previous CAMEL processing.
Redirection Information	<u>-C</u>	C	C	C	This IE contains forwarding related information, such as redirection counter. This IE shall also be sent if it was received from the gsmSCF due to the previous CAMEL processing.
Service Key	M	M	M	M	This IE indicates to the gsmSCF the requested CAMEL Service. It is used to address the required application/SLP within the gsmSCF.
Subscriber State	-	-	C	C	This IE indicates the status of the MS. The states are: - CAMELBusy: The MS is engaged on a transaction for a mobile originating or terminated circuit-switched call. - NetworkDeterminedNotReachable: The network can determine from its internal data that the MS is not reachable. - AssumedIdle: The state of the MS is neither "CAMELBusy" nor "NetworkDeterminedNotReachable". - Not provided from VLR.
Time And Timezone	M	M	M	M	This IE contains the time that the gsmSSF was triggered, and the time zone the gsmSSF resides in.

Information element name	MO	MF	MT	VT	Description
GSM Forwarding Pending	-	-	C	C	This parameter indicates that a forwarded-to-number was received and the call will be forwarded due to GSM supplementary service call forwarding in the GMSC/VMSC. This parameter is present in the following cases: - When the FTN is received from the HLR prior to triggering in the Terminating_Attempt_Authorised DP. - When a conditional call forwarding or call deflection is invoked in the GMSC/MS, and T_Busy or T_No_answer is reported as a TDP.
Service Interaction Indicators Two	C	C	C	C	This IE is sent if it is received in the ISUP message or due to previous CAMEL processing. The IE is described in a table below.
CUG Index	C	-	-	-	See 3GPP TS 23.085 [9] for details of this IE.
CUG Interlock Code	C	C	C	C	See 3GPP TS 23.085 [9] for details of this IE. The latest available data shall be used, i.e., if the CUG data which had been obtained in the ISUP IAM or from the VLR has been modified by the previous Connect or Continue With Argument IF, this modified data shall be used.
Outgoing Access Indicator	C	C	C	C	See 3GPP TS 23.085 [9] for details of this IE. In the MO case this IE is received from the VLR.

M Mandatory (The IE shall always be sent).

C Conditional (The IE shall be sent, if available).

- Not applicable.

Location Information is defined in 3GPP TS 23.018 [3]. The following differences apply:

Information element name	MO	MF	MT	VT	Description
Location Number	-	-	C	C	See 3GPP TS 23.018 [3].
Service area ID	C2	-	C2	C2	See 3GPP TS 23.018 [3].
Cell ID	C2	-	C2	C2	See 3GPP TS 23.018 [3].
Geographical information	C	-	C	C	See 3GPP TS 23.018 [3].
Geodetic information	C	-	C	C	See 3GPP TS 23.018 [3].
VLR number	M	-	C	M	See 3GPP TS 23.018 [3].
Age Of location information	M	-	C	C	See 3GPP TS 23.018 [3].
Current Location Retrieved	-	-	-	-	Not applicable
Location area ID	C2	-	C2	C2	See 3GPP TS 23.003 [37].
Selected LSA Identity	C1	-	C1	C1	This IE indicates the LSA identity associated with the current position of the MS. Shall be present if the LSA ID in the subscriber data matches the LSA ID of the current cell. In the case of multiple matches the LSA ID with the highest priority shall be sent. See 3GPP TS 23.073 [23].

M Mandatory (The IE shall always be sent).

C Conditional (The IE shall be sent, if available. Further conditions are in the description column.).

C1 Conditional (The IE shall be sent, if available and SoLSA is supported).

C2 Conditional (One and only one of the three conditional IEs shall be sent).

- Not applicable.

Carrier contains the following information:

Information element name	MO	MF	MT	VT	Description
Carrier Identification Code	M	M	M	M	This IE uniquely identifies a North American long distance carrier.
Carrier Selection Information	M	M	M	M	This IE indicates the way the carrier was selected e.g.: – dialled – subscribed

M Mandatory (The IE shall always be sent).

Service Interaction Indicators Two contains the following information:

Information element name	MO	MF	MT	VT	Description
Forward Service Interaction Indicator	C	C	C	C	This IE is described in a table below.
HOLD Treatment Indicator	C	-	-	C	This IE indicates whether the CAMEL subscriber can invoke HOLD for the call.
CW Treatment Indicator	C	-	-	C	This IE indicates whether CW can be applied for a call to the CAMEL subscriber whilst this call is ongoing.
ECT Treatment Indicator	C	-	-	C	This IE indicates whether the call leg can become part of an ECT call initiated by the calling subscriber.

C Conditional (The IE shall be sent, if available).

- Not applicable.

Forward Service Interaction Indicator contains the following information:

Information element name	MO	MF	MT	VT	Description
Conference Treatment Indicator	C	C	C	C	This IE indicates whether the call leg can become part of a MPTY call initiated by the called subscriber.
Call Diversion Treatment Indicator	C	C	C	C	This IE indicates whether the call can be forwarded using the Call Forwarding or Call Deflection Supplementary Services.

C Conditional (The IE shall be sent, if available).

CR-Form-v4

CHANGE REQUEST

⌘ **23.078 CR 313** ⌘ rev **1** ⌘ 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:	⌘ Possible information in Initial DP		
Source:	⌘ Siemens AG		
Work item code:	⌘ CAMEL3	Date:	⌘ 12 July 2001
Category:	⌘ A	Release:	⌘ Rel-4
	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)

Reason for change:	⌘ In the case of the TDP Collected_Infor, it is possible that four information elements, Additional Calling Party Number, Original Called Party ID, Redirecting Party ID and Redirection Information, are received from the gsmSCF in CONNECT operation. In this case, these elements shall be sent in the subsequent Initial DP due to the TDP Analysed_Info.
Summary of change:	⌘ Change the attributes of the IEs above to "C" (conditional) from "-" (not applicable)
Consequences if not approved:	⌘ When these IEs were sent by the gsmSCF, D-CSI and/or N-CSI dialogue would not be able to use the information.

Clauses affected:	⌘ 4.6.1.5 (Initial DP)		
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
Other comments:	⌘		

4.6.1.5 Initial DP

4.6.1.5.1 Description

This IF is generated by the gsmSSF when a trigger is detected at a DP in the BCSM, to request instructions from the gsmSCF.

4.6.1.5.2 Information Elements

The following information elements are required:

Information element name	MO	MF	MT	VT	Description
Additional Calling Party Number	<u>-C</u>	C	C	C	The calling party number provided by the access signalling system of the calling user <u>or received from the gsmSCF due to the previous CAMEL processing.</u>
Bearer Capability	M	C	C	C	This IE indicates the type of the bearer capability connection to the user.
Called Party Number	C	M	M	M	This IE contains the number used to identify the called party in the forward direction. For the MO and MF calls this parameter is used in the case of TDP Route_Select_Failure (this is the destination number used to route the call) and in the case of TDP Busy and TDP No Reply (this is the MSISDN when the destination number used for the call is a MSRN, or in the case of unsuccessful establishment received from the HLR via MAP interface, otherwise it is the number used to route the call). For the VT calls when there is no forwarding pending this is the MSISDN received in the Provide Roaming Number; if the MSISDN is not available, the basic MSISDN is used. For the MT and VT call case when there is call forwarding or call deflection pending, this is the MSISDN, i.e. not the forwarded-to or deflected-to number.
Called Party BCD Number	C	-	-	-	This IE contains the number used to identify the called party in the forward direction. It is used for MO call in all cases except in the case of TDP Route_Select_Failure. For the TDP Collected_Information, the number contained in this IE shall be identical to the number received over the access network. It may e.g. include service selection information, such as * and # digits, or carrier selection information dialled by the subscriber. For the TDP Analysed_Information, the number contained in this IE shall be the dialled number received over the network access or received from a gsmSCF in a CONNECT operation, service selection information, such as * and # digits may be present (see subclause 4.2.1.2.2), carrier selection information dialled by the subscriber is not present.
Calling Party Number	M	C	C	C	This IE carries the calling party number to identify the calling party or the origin of the call.
Calling Party Category	M	C	C	C	Indicates the type of calling party (e.g., operator, pay phone, ordinary subscriber).
CallGap Encountered	C	C	C	C	This parameter indicates the type of gapping the related call have been subjected to. This parameter shall be present only if a call gapping context is applicable to the initialDP operation.
Call Reference Number	M	M	M	M	This IE may be used by the gsmSCF for inclusion in a network optional gsmSCF call record. It has to be coupled with the identity of the MSC which allocated it in order to define unambiguously the identity of the call. For MO calls, the call reference number is set by the serving VMSC and included in the MO call record. For MT calls, the call reference number is set by the GMSC and included in the RCF call record in the GMSC and in the MT call record in the terminating MSC. For VT calls, the call reference number is set by the GMSC and included in the RCF call record in the GMSC and in the MT call record in the terminating MSC. For CF calls, the call reference number is set by the GMSC and included in the CF record in the forwarding MSC.
Cause	C	C	C	C	This IE indicates the cause specific to the armed BCSM DP event. This IE is applicable to DP Route_Select_Failure and DP T_Busy. The cause may be used by the SCF to decide about the further handling of the call.

Information element name	MO	MF	MT	VT	Description
Event Type BCSM	M	M	M	M	This IE indicates the armed BCSM DP event, resulting in the Initial DP IF.
Ext-Basic Service Code	C	C	C	C	This IE indicates the type of basic service i.e., teleservice or bearer service.
High Layer Compatibility	C	C	C	C	This IE indicates the type of the high layer compatibility, which will be used to determine the ISDN-teleservice of a connected ISDN terminal.
IMSI	M	M	M	M	This IE identifies the mobile subscriber.
IP SSP Capabilities	C	C	C	C	This IE indicates which SRF resources are supported within the gsmSSF and are available. If this IE is absent, this indicates that no gsmSRF is attached and available.
Location Information	M	-	C	M	This IE is described in the next table.
Location Number	M	C	C	C	For mobile originated calls this IE represents the location of the calling party. For all other call scenarios this IE contains the location number received in incoming ISUP signalling.
MSC Address	M	M	M	M	For MO calls, the MSC Address carries the international E.164 address of the serving VMSC. For MT calls, the MSC Address carries the international E.164 address of the GMSC. For VT calls, the MSC Address carries the international E.164 address of the serving VMSC. For CF calls, the MSC Address carries the international E.164 address of the forwarding MSC.
GMSC Address	-	M	-	M	For CF calls, the GMSC Address carries the international E.164 address of the GMSC. For VT calls, the GMSC Address carries the international E.164 address of the GMSC.
Carrier	C	C	C	C	The content of this IE is described in the next table. The IE may be sent when the VPLMN and the HPLMN of the subscriber are both North American. For MO calls, this IE shall contain any carrier that was dialled by the calling subscriber. If no carrier was dialled, the IE shall contain the calling subscriber's subscribed carrier. For MT and VT calls, the IE shall contain the carrier subscribed to by the called subscriber. For CF calls, the IE shall contain the carrier subscribed to by the forwarding subscriber.
Original Called Party ID	<u>-C</u>	C	C	C	This IE carries the dialled digits if the call has met call forwarding on the route to the gsmSSF. This IE shall also be sent if it was received from the gsmSCF due to the previous CAMEL processing.
Redirecting Party ID	<u>-C</u>	C	C	C	This IE indicates the directory number the call was redirected from. This IE shall also be sent if it was received from the gsmSCF due to the previous CAMEL processing.
Redirection Information	<u>-C</u>	C	C	C	This IE contains forwarding related information, such as redirection counter. This IE shall also be sent if it was received from the gsmSCF due to the previous CAMEL processing.
Service Key	M	M	M	M	This IE indicates to the gsmSCF the requested CAMEL Service. It is used to address the required application/SLP within the gsmSCF.
Subscriber State	-	-	C	C	This IE indicates the status of the MS. The states are: - CAMELBusy: The MS is engaged on a transaction for a mobile originating or terminated circuit-switched call. - NetworkDeterminedNotReachable: The network can determine from its internal data that the MS is not reachable. - AssumedIdle: The state of the MS is neither "CAMELBusy" nor "NetworkDeterminedNotReachable". - Not provided from VLR.
Time And Timezone	M	M	M	M	This IE contains the time that the gsmSSF was triggered, and the time zone the gsmSSF resides in.

Information element name	MO	MF	MT	VT	Description
GSM Forwarding Pending	-	-	C	C	This parameter indicates that a forwarded-to-number was received and the call will be forwarded due to GSM supplementary service call forwarding in the GMSC/VMSC. This parameter is present in the following cases: - When the FTN is received from the HLR prior to triggering in the Terminating_Attempt_Authorised DP. - When a conditional call forwarding or call deflection is invoked in the GMSC/MS, and T_Busy or T_No_answer is reported as a TDP.
Service Interaction Indicators Two	C	C	C	C	This IE is sent if it is received in the ISUP message or due to previous CAMEL processing. The IE is described in a table below.
CUG Index	C	-	-	-	See 3GPP TS 23.085 [9] for details of this IE.
CUG Interlock Code	C	C	C	C	See 3GPP TS 23.085 [9] for details of this IE. The latest available data shall be used, i.e., if the CUG data which had been obtained in the ISUP IAM or from the VLR has been modified by the previous Connect or Continue With Argument IF, this modified data shall be used.
Outgoing Access Indicator	C	C	C	C	See 3GPP TS 23.085 [9] for details of this IE. In the MO case this IE is received from the VLR.

M Mandatory (The IE shall always be sent).

C Conditional (The IE shall be sent, if available).

- Not applicable.

Location Information is defined in 3GPP TS 23.018 [3]. The following differences apply:

Information element name	MO	MF	MT	VT	Description
Location Number	-	-	C	C	See 3GPP TS 23.018 [3].
Service area ID	C2	-	C2	C2	See 3GPP TS 23.018 [3].
Cell ID	C2	-	C2	C2	See 3GPP TS 23.018 [3].
Geographical information	C	-	C	C	See 3GPP TS 23.018 [3].
Geodetic information	C	-	C	C	See 3GPP TS 23.018 [3].
VLR number	M	-	C	M	See 3GPP TS 23.018 [3].
Age Of location information	M	-	C	C	See 3GPP TS 23.018 [3].
Current Location Retrieved	-	-	-	-	Not applicable
Location area ID	C2	-	C2	C2	See 3GPP TS 23.003 [37].
Selected LSA Identity	C1	-	C1	C1	This IE indicates the LSA identity associated with the current position of the MS. Shall be present if the LSA ID in the subscriber data matches the LSA ID of the current cell. In the case of multiple matches the LSA ID with the highest priority shall be sent. See 3GPP TS 23.073 [23].

M Mandatory (The IE shall always be sent).

C Conditional (The IE shall be sent, if available. Further conditions are in the description column.).

C1 Conditional (The IE shall be sent, if available and SoLSA is supported).

C2 Conditional (One and only one of the three conditional IEs shall be sent).

- Not applicable.

Carrier contains the following information:

Information element name	MO	MF	MT	VT	Description
Carrier Identification Code	M	M	M	M	This IE uniquely identifies a North American long distance carrier.
Carrier Selection Information	M	M	M	M	This IE indicates the way the carrier was selected e.g.: – dialled – subscribed

M Mandatory (The IE shall always be sent).

Service Interaction Indicators Two contains the following information:

Information element name	MO	MF	MT	VT	Description
Forward Service Interaction Indicator	C	C	C	C	This IE is described in a table below.
HOLD Treatment Indicator	C	-	-	C	This IE indicates whether the CAMEL subscriber can invoke HOLD for the call.
CW Treatment Indicator	C	-	-	C	This IE indicates whether CW can be applied for a call to the CAMEL subscriber whilst this call is ongoing.
ECT Treatment Indicator	C	-	-	C	This IE indicates whether the call leg can become part of an ECT call initiated by the calling subscriber.

C Conditional (The IE shall be sent, if available).

- Not applicable.

Forward Service Interaction Indicator contains the following information:

Information element name	MO	MF	MT	VT	Description
Conference Treatment Indicator	C	C	C	C	This IE indicates whether the call leg can become part of a MPTY call initiated by the called subscriber.
Call Diversion Treatment Indicator	C	C	C	C	This IE indicates whether the call can be forwarded using the Call Forwarding or Call Deflection Supplementary Services.

C Conditional (The IE shall be sent, if available).