3GPP TSG CN Plenary Meeting #20 **NP-030189**
4th - 6th June 2003. HÄMEENLINNA, Finland.

Source: **CN2**

Title: **CRs on Rel-5 Work Item CAMEL4**

Agenda item: **8.3**

Document for: **APPROVAL**

Introduction:

This document contains 10 CR on Rel-5 WI CAMEL4 (TS 23.078). TheseCRs has been agreed by TSG CN WG2 and are forwarded to TSG CN Plenary meeting #20 for approval.

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
23.078	565		N2-030207	Rel-5	TC-ABORT shall not cause "same signal" output in GPRS dialogue handler	F	5.3.0
23.078	567		N2-030209	Rel-5	Adding of TIF-CSI into CAMEL stage 2 MAP-ISD for Call Deflection	F	5.3.0
23.078	572	1	N2-030289	Rel-5	Receiving Int_CWA after reporting Abandon	F	5.3.0
23.078	576		N2-030232	Rel-5	Correction to TC Establishment procedure	F	5.3.0
23.078	585		N2-030254	Rel-5	VLR number in ERB is not needed	F	5.3.0
23.078	586		N2-030255	Rel-5	Removal of Int_CWA in Process CAMEL_T_CHANGE_OF_POSITION_MSC	F	5.3.0
23.078	587		N2-030256	Rel-5	SRI Handling and CAMEL phase 4	F	5.3.0
23.078	593		N2-030277	Rel-5	Behavior of HLR upon location updating in CAMEL Phase 4	F	5.3.0
23.078	594		N2-030285	Rel-5	Inclusion of DFC IF for assisting gsmSSF	F	5.3.0
23.078	596		N2-030287	Rel-5	Replacing DP numbers by DP names	F	5.3.0

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030207

CR-Form-v7

CHANGE REQUEST

⌘ **23.078** **CR** **565** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	TC-ABORT shall not cause "same signal" output in GPRS dialogue handler
Source:	⌘	Nokia
Work item code:	⌘	CAMEL4
Date:	⌘	29.4.2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

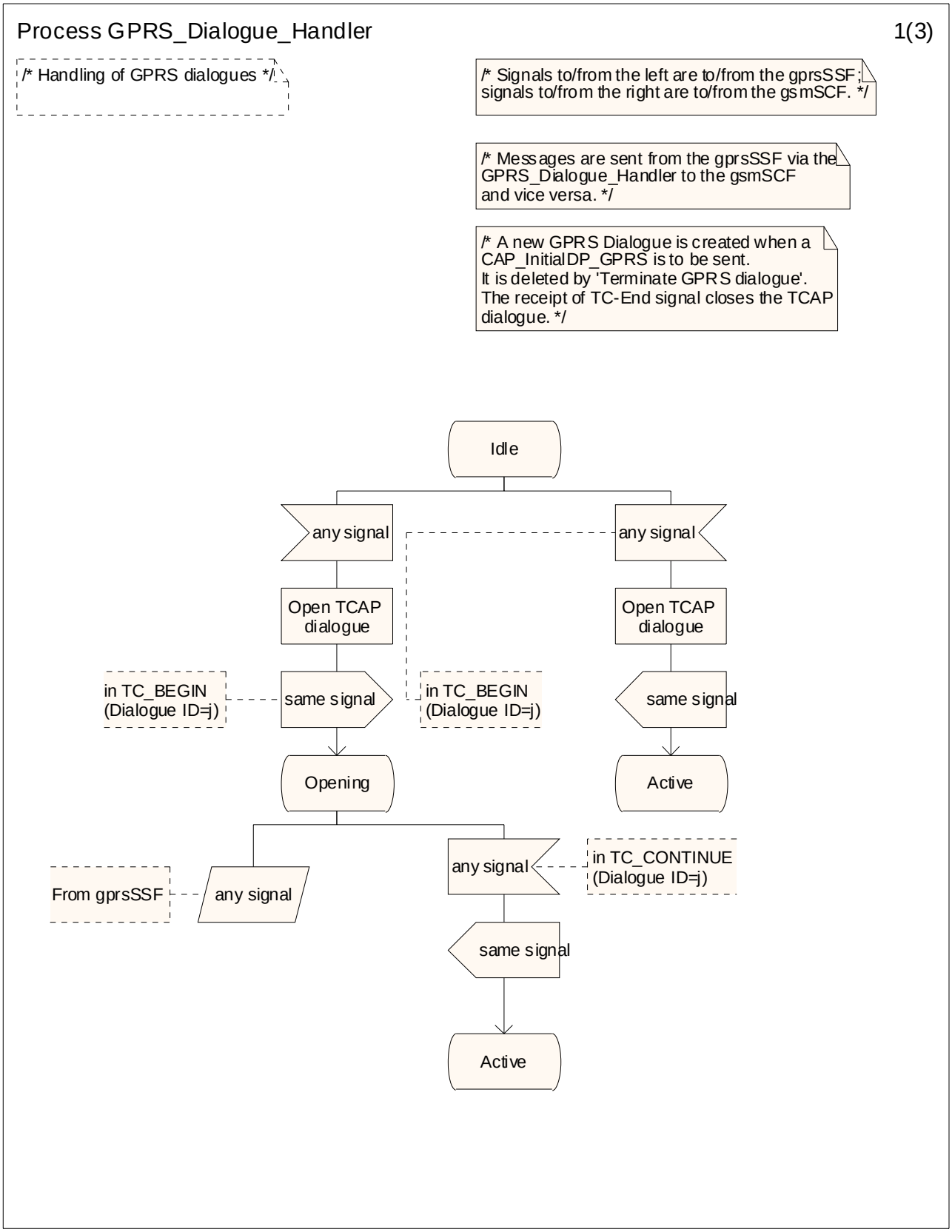
2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The CR approved in CN2#28 had an editing error. The TC-ABORT also outputs the same signal, which is incorrect.
Summary of change:	⌘	The output "same signal" is moved under TC-END only.
Consequences if not approved:	⌘	Minor error in the sec.

Clauses affected:	⌘				
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

-- For Your Information --

6.5.3.9 SDL diagrams for process GPRS_SSF and procedures



-- First Modified Section --

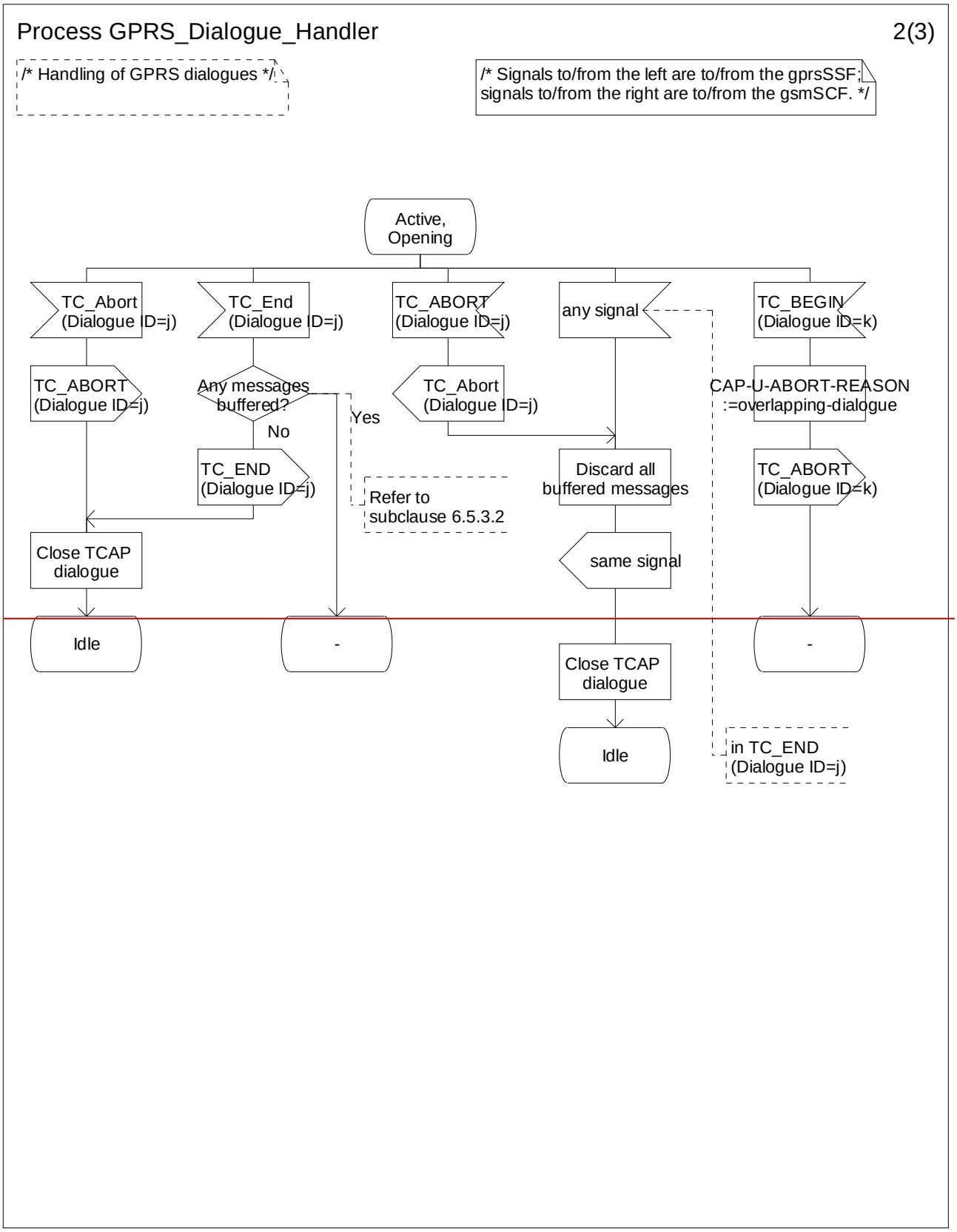
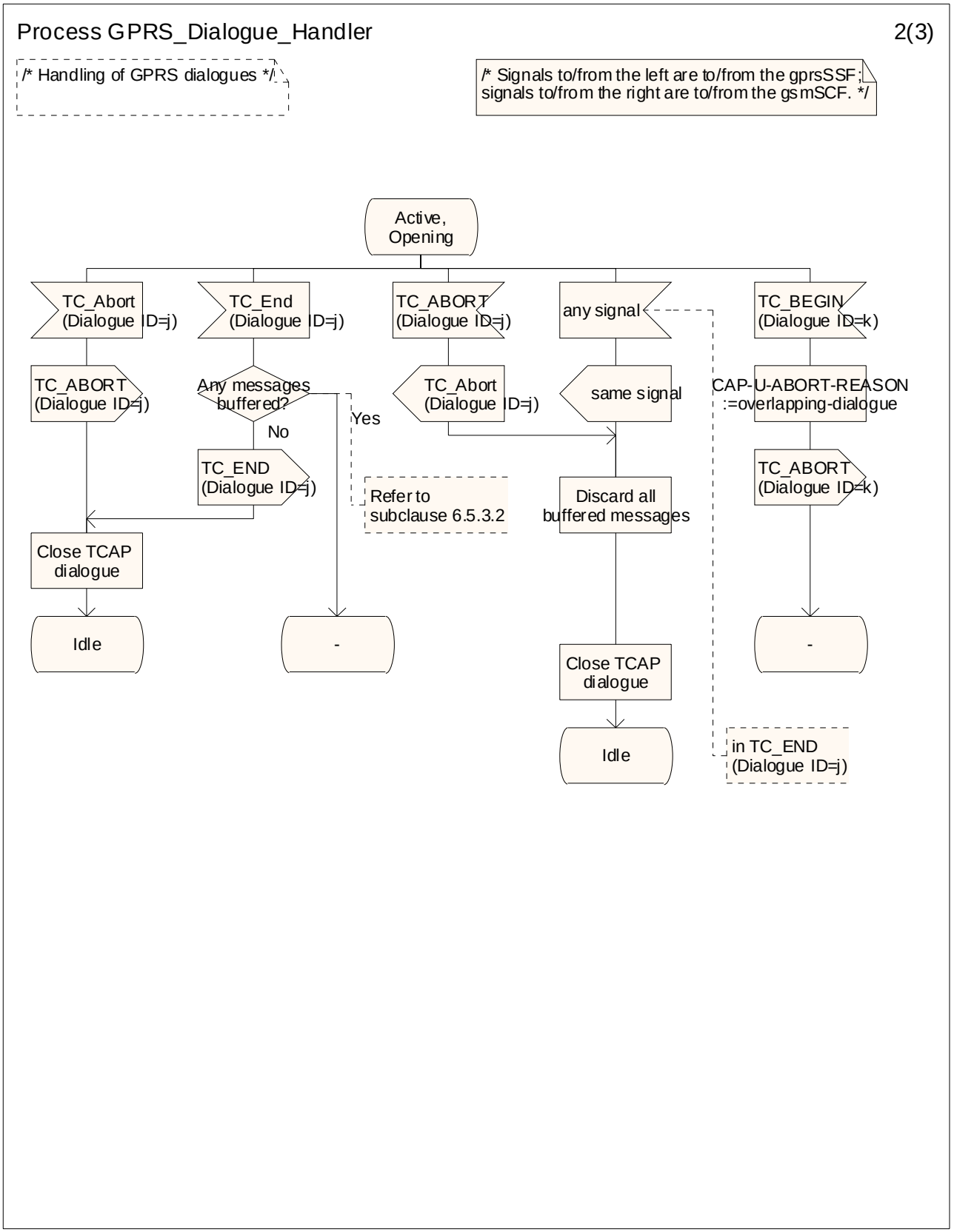


Figure 6.18-2: Process GPRS_Dialogue_Handler (sheet 2)


Process GPRS_Dialogue_Handler
2(3)
/* Handling of GPRS dialogues */
/* Signals to/from the left are to/from the gprsSSF; signals to/from the right are to/from the gsmSCF. */
Active, Opening
TC_Abort (Dialogue ID=j)
TC_End (Dialogue ID=j)
TC_ABORT (Dialogue ID=j)
any signal
TC_BEGIN (Dialogue ID=k)
TC_ABORT (Dialogue ID=j)
Any messages buffered?
Yes
No
TC_Abort (Dialogue ID=j)
same signal
CAP-U-ABORT-REASON := overlapping-dialogue
TC_END (Dialogue ID=j)
Refer to subclause 6.5.3.2
Discard all buffered messages
TC_ABORT (Dialogue ID=k)
Close TCAP dialogue
Idle
-
Close TCAP dialogue
Idle
-
in TC_END (Dialogue ID=j)

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San Diego, USA, 19th – 23rd May 2003

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CHANGE REQUEST

⌘ **23.078** **CR** **567** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Adding of TIF-CSI into CAMEL stage 2 MAP-ISD for Call Deflection
Source:	⌘	Nokia
Work item code:	⌘	CAMEL4
Date:	⌘	25/04/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change:	⌘	TIF-CSI is missing from CAMEL stage 2 although it shall be sent to VLR if the subscriber has it. TIF-CSI is needed for Call Deflection supplementary service interworking.
Summary of change:	⌘	1. TIF-CSI is added to information flows (InsertSubscriberData). 2. TIF-CSI is removed from MSC part, since the modelling refers to VLR only.
Consequences if not approved:	⌘	Inconsistent specification. The Call Deflection would not work properly if the HLR did not send the TIF-CSI to the VLR. 23.078 is the place where the sending shall be specified. It should be adequate to fix this issue in Rel-5 only. Pre-Rel-5 HLRs can send the TIF-CSI given that the 29.002 has the parameter already.

Clauses affected:	⌘	

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	According to the 3GPP TS 23.072 Rel5: If the served subscriber is provided with a Translation Information Flag (TIF-CSI) as defined in TS 23.018 the VLR shall neither perform checks regarding the validity of the deflected-to number nor perform interactions with BOIC and BOIC-exHC barring programs.

-- For Your Information 29.002 ASN for ISD --

```
InsertSubscriberDataArg ::= SEQUENCE {
     imsi                                  [0] IMSI                                 OPTIONAL,
     COMPONENTS OF                         SubscriberData,
     extensionContainer                    [14] ExtensionContainer                  OPTIONAL,
     ... ,
     naea-PreferredCI                      [15] NAEA-PreferredCI                    OPTIONAL,
     -- naea-PreferredCI is included at the discretion of the HLR operator.
     gprsSubscriptionData                  [16] GPRSSubscriptionData                OPTIONAL,
     roamingRestrictedInSgsnDueToUnsupportedFeature [23]                            NULL
                                                                                    OPTIONAL,
     networkAccessMode                     [24] NetworkAccessMode                   OPTIONAL,
     lsaInformation                        [25] LSAInformation                      OPTIONAL,
     lmu-Indicator                         [21] NULL                                OPTIONAL,
     lcsInformation                        [22] LCSInformation                      OPTIONAL,
     istAlertTimer                         [26] IST-AlertTimerValue                 OPTIONAL,
     superChargerSupportedInHLR            [27] AgeIndicator                        OPTIONAL,
     mc-SS-Info                            [28] MC-SS-Info                          OPTIONAL,
     cs-AllocationRetentionPriority        [29] CS-AllocationRetentionPriority    OPTIONAL,
     sgsn-CAMEL-SubscriptionInfo           [17] SGSN-CAMEL-SubscriptionInfo         OPTIONAL,
     chargingCharacteristics               [18] ChargingCharacteristics             OPTIONAL
 }
```

```
SubscriberData ::= SEQUENCE {
     msisdn                                [1] ISDN-AddressString                   OPTIONAL,
     category                              [2] Category                             OPTIONAL,
     subscriberStatus                      [3] SubscriberStatus                     OPTIONAL,
     bearerServiceList                     [4] BearerServiceList                    OPTIONAL,
     -- The exception handling for reception of unsupported / not allocated
     -- bearerServiceCodes is defined in section 8.8.1
     teleserviceList                       [6] TeleserviceList                      OPTIONAL,
     -- The exception handling for reception of unsupported / not allocated
     -- teleserviceCodes is defined in section 8.8.1
     provisionedSS                         [7] Ext-SS-InfoList                      OPTIONAL,
     odb-Data                              [8] ODB-Data                             OPTIONAL,
     roamingRestrictionDueToUnsupportedFeature  [9] NULL                            OPTIONAL,
     regionalSubscriptionData              [10] ZoneCodeList                        OPTIONAL,
     vbsSubscriptionData                   [11] VBSDataList                         OPTIONAL,
     vgcsSubscriptionData                  [12] VGCSDataList                        OPTIONAL,
     vlrCamelSubscriptionInfo              [13] VlrCamelSubscriptionInfo            OPTIONAL
     }
```

```
VlrCamelSubscriptionInfo ::= SEQUENCE {
     o-CSI                                 [0] O-CSI                                OPTIONAL,
     extensionContainer                    [1] ExtensionContainer                   OPTIONAL,
     ...,
     ss-CSI                                [2] SS-CSI                               OPTIONAL,
     o-BcsmCamelTDP-CriteriaList           [4] O-BcsmCamelTDPCriteriaList           OPTIONAL,
     tif-CSI                               [3] NULL                                 OPTIONAL,
     m-CSI                                 [5] M-CSI                                OPTIONAL,
     mo-sms-CSI                            [6] SMS-CSI                              OPTIONAL,
     vt-CSI                                [7] T-CSI                                OPTIONAL,
     t-BCSM-CAMEL-TDP-CriteriaList         [8] T-BCSM-CAMEL-TDP-CriteriaList        OPTIONAL,
     d-CSI                                 [9] D-CSI                                OPTIONAL,
     mt-sms-CSI                            [10] SMS-CSI                             OPTIONAL,
     mt-smsCAMELTDP-CriteriaList           [11] MT-smsCAMELTDP-CriteriaList         OPTIONAL
     }
```

-- First Modified Section --

4 Circuit switched Call Control

4.1 Architecture

4.1.1 Functional Entities used for CAMEL

This subclause describes the functional architecture needed to support CAMEL. Also the additions needed to the basic functionality are described. Figure 4.1 shows the functional entities involved in calls requiring CAMEL support. The architecture is applicable to the forth phase of CAMEL.

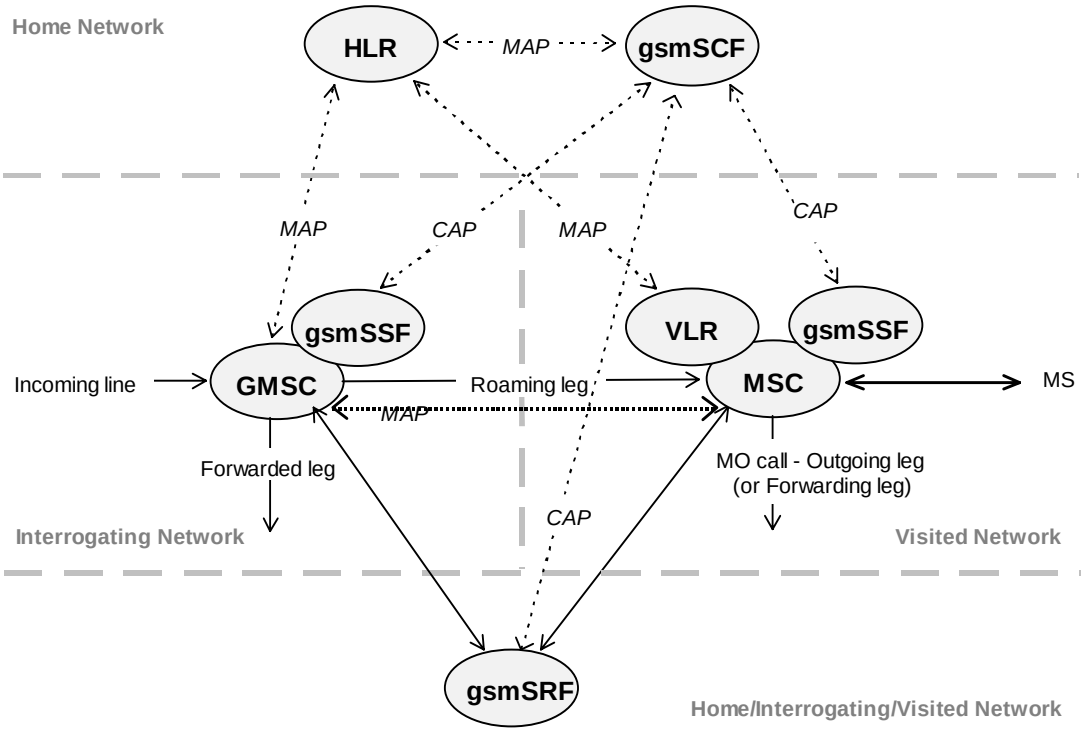


Figure 4.1: Functional architecture for support of CAMEL

HLR: For subscribers requiring CAMEL support, the HLR stores the information relevant to the current subscription regarding O-CSI, D-CSI, T-CSI, VT-CSI and TIF-CSI. The O-CSI is sent to the VLR at Location Update, on data restoration or if the O-CSI is updated by administrative action. The D-CSI is sent to the VLR at Location Update, on data restoration or if the D-CSI is updated by administrative action. The VT-CSI is sent to the VLR at Location Update, on data restoration or if the VT-CSI is updated by administrative action. The TIF-CSI is sent to the VLR at Location Update, on data restoration or if the TIF-CSI is updated by administrative action. The O/D/T-CSI is sent to the GMSC when the HLR responds to a request for routeing information.

GMSC: When processing the calls for subscribers requiring CAMEL support, the GMSC receives an O/D/T-CSI from the HLR, indicating the GMSC to request instructions from the gsmSSF. The GMSC monitors on request the call states (events) and informs the gsmSSF of these states during processing, enabling the gsmSSF to control the execution of the call in the GMSC.

MSC: When processing the calls for subscribers requiring CAMEL support, the MSC receives an O-CSI and / or D-CSI ~~and / or TIF-CSI~~ and / or VT-CSI from the VLR indicating the MSC to request instructions from the gsmSSF. The MSC monitors on request the call states (events) and informs the gsmSSF of these states during processing, enabling the gsmSSF to control the execution of the call in the MSC.

VLR: The VLR stores the O-CSI, D-CSI, VT-CSI and TIF-CSI as a part of the subscriber data for subscribers roaming in the VLR area.

gsmSSF: see subclause Error! Reference source not found.**.**

gsmSCF: see subclause Error! Reference source not found.**.**

gsmSRF: see subclause Error! Reference source not found.**.**

-- Next Modified Section --

4.6.7 HLR to VLR information flows

4.6.7.1 Delete Subscriber Data

4.6.7.1.1 Description

This IF is used by an HLR to delete CAMEL subscription data from a VLR. It is specified in 3GPP TS 29.002 [**Error! Reference source not found.**].

4.6.7.1.2 Information Elements

The Delete Subscriber Data IF contains the following CAMEL specific information elements:

Information element name	Status	Description
CAMEL Subscription Info Withdraw	O,E	This IE identifies that all CSIs shall be deleted from the subscriber data in the VLR.
Specific CSI Withdraw	O,E	This IE indicates that one or more specific elements of CAMEL Subscription Info shall be deleted from the VLR. The specific elements of CAMEL Subscription Info which may be deleted are: - O-CSI with TDP criteria for O-CSI; - TIF-CSI; - D-CSI; - VT-CSI with TDP criteria for VT-CSI. This IE should not be present when CAMEL Subscription Info Withdraw is present.

4.6.7.2 Insert Subscriber Data

4.6.7.2.1 Description

This IF is used by an HLR to update a VLR with certain subscriber data. This IF is specified in 3GPP TS 29.002 [**Error! Reference source not found.**].

4.6.7.2.2 Information Elements

Insert Subscriber Data contains the following CAMEL specific information elements for circuit switched call control:

Information element name	Status	Description
O-CSI	O	This IE is described in a table below. This IE identifies the subscriber as having originating CAMEL services.
D-CSI	O	This IE is described in a table below. This IE identifies the subscriber as having originating CAMEL dialled services.
VT-CSI	O	This IE is described in a table below. This IE identifies the subscriber as having terminating CAMEL services in the VMSC.
TIF-CSI	O	See 3GPP TS 23.072 [16].

O-CSI contains the following information elements:

Information element name	Status	Description
gsmSCF Address	M	This IE is described in subclause **Error! Reference source not found.**
Service Key	M	This IE is described in subclause **Error! Reference source not found.**.
Default Call Handling	M	This IE is described in subclause **Error! Reference source not found.**.
TDP List	M	This IE is described in subclause **Error! Reference source not found.**.
DP Criteria	O	This IE is described in subclause **Error! Reference source not found.**.
CAMEL Capability Handling	C	This IE is described in subclause **Error! Reference source not found.**. If this IE is absent, this indicates that CAMEL phase 1 support is requested.

D-CSI contains the following information elements:

Information element name	Status	Description
gsmSCF Address	M	This IE is described in subclause **Error! Reference source not found.**.
Service Key	M	This IE is described in subclause **Error! Reference source not found.**.
Default Call Handling	M	This IE is described in subclause **Error! Reference source not found.**.
DP Criteria	M	This IE is described in subclause **Error! Reference source not found.**.
CAMEL Capability Handling	M	This IE is described in subclause **Error! Reference source not found.**. The CAMEL Capability Handling shall indicate CAMEL phase 3 or higher.

VT-CSI contains the following information elements:

Information element name	Status	Description
gsmSCF Address	M	This IE is described in subclause **Error! Reference source not found.**.
Service Key	M	This IE is described in subclause **Error! Reference source not found.**.
Default Call Handling	M	This IE is described in subclause **Error! Reference source not found.**.
TDP List	M	This IE is described in subclause **Error! Reference source not found.**.
DP Criteria	O	This IE is described in subclause **Error! Reference source not found.**.
CAMEL Capability Handling	M	This IE is described in subclause **Error! Reference source not found.**. The CAMEL Capability Handling shall indicate CAMEL phase 3 or higher.

3GPP TSG CN WG2 Meeting #29 **N2-030232**
San Diego, CA, USA, 19th - 23th May 2003

CHANGE REQUEST

⌘ **23.078** **CR** **576** ⌘ **rev** ⌘ Current version: **5.3.0** ⌘

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Correction to TC Establishment procedure
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	May 7, 2003
Category:	⌘	F
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change:	⌘	Refer to figure 4.95-20, process CS_gsmSSF (sheet 20). When gsmSSF FSM is in the state WFI and receives Int_ETC from CSA_gsmSSF, it forwards Int_ETC to the MSC, for the establishment of a temporary connection; gsmSSF FSM then transits to the state Await_TC_Establishment. When procedure CAMEL_OCH_INIT receives Int_ETC from gsmSSF, it calls procedure CAMEL_OCH_ETC. CAMEL_OCH_ETC sends ISUP IAM to the assisting MSC or to the SRF and then waits for ACM. When CAMEL_OCH_ETC receives ISUP ACM, it transits to the state Wait_for_Assisting_Answer. In the state Wait_for_Assisting_Answer, CAMEL_OCH_ETC may receive Int_TC_Released from the assisting MSC or from the SRF; refer to figure 4.22, Procedure CAMEL_OCH_ETC. sheet 3. CAMEL_OCH_ETC then sends Int_TC_Released to gsmSSF. The gsmSSF FSM is still in the state Await_TC_Establishment. The SDL does not reflect Int_TC_Released in that state. This signal needs to be added.
Summary of change:	⌘	Add input signal Int_TC_Released to gsmSSF FSM state Await_TC_Establishment. When gsmSSF receives Int_TC_Released in that state, it shall follow the branch of Int_ETC_Failed, i.e. send Error “ETC Failed” to CSA_gsmSSF.
Consequences if not approved:	⌘	A premature release from the assisting MSC or from the SRF, after Alerting but before Answer, may not be received by the gsmSSF. The gsmSSF process may therefore “hang” in that case.

Clauses affected:	⌘	Process CS_gsmSSF, sheet 20.

		Y	N			
Other specs affected:	⌘		X	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

— For Information —

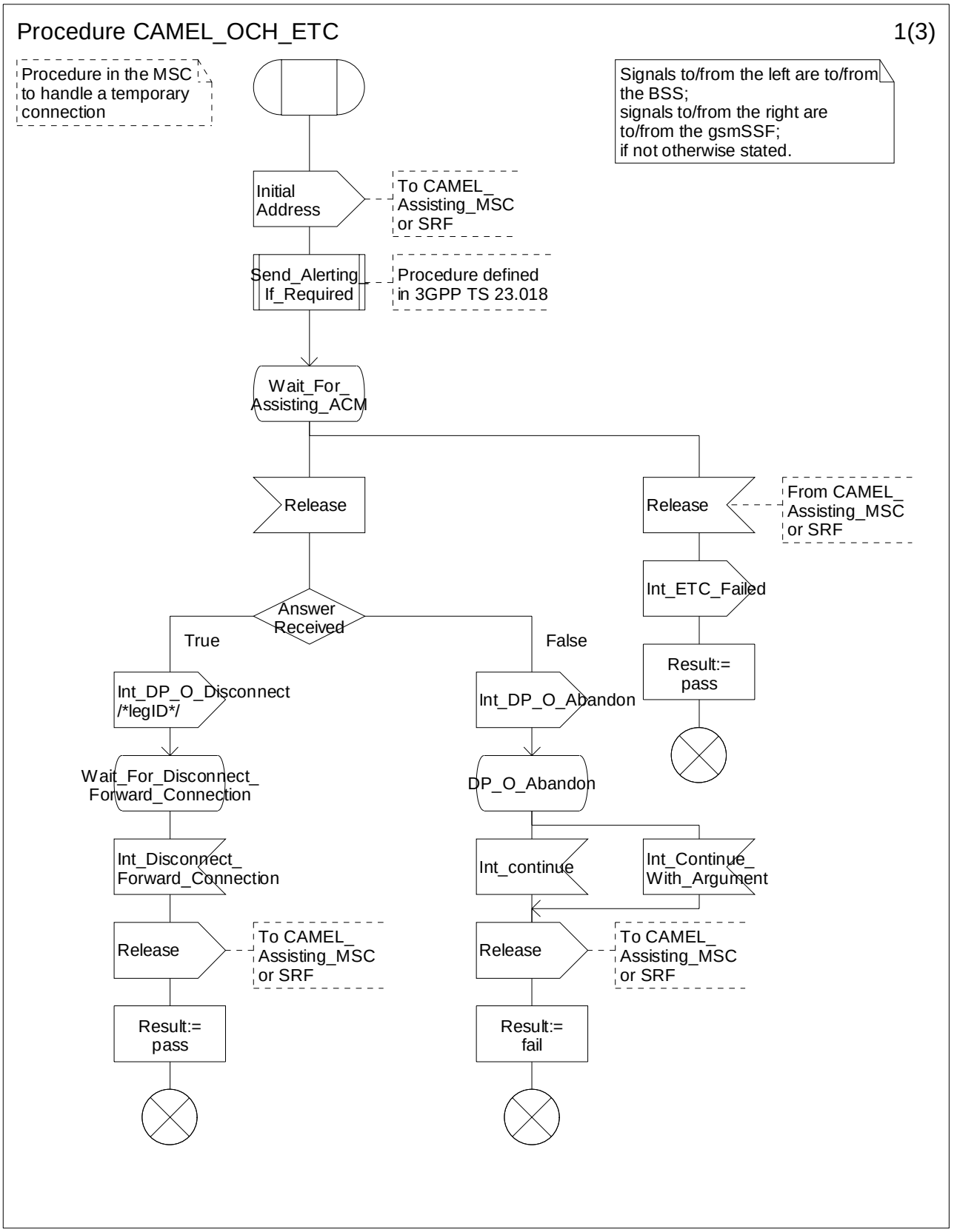


Figure 4.22-1: Procedure CAMEL_OCH_ETC (sheet 1)

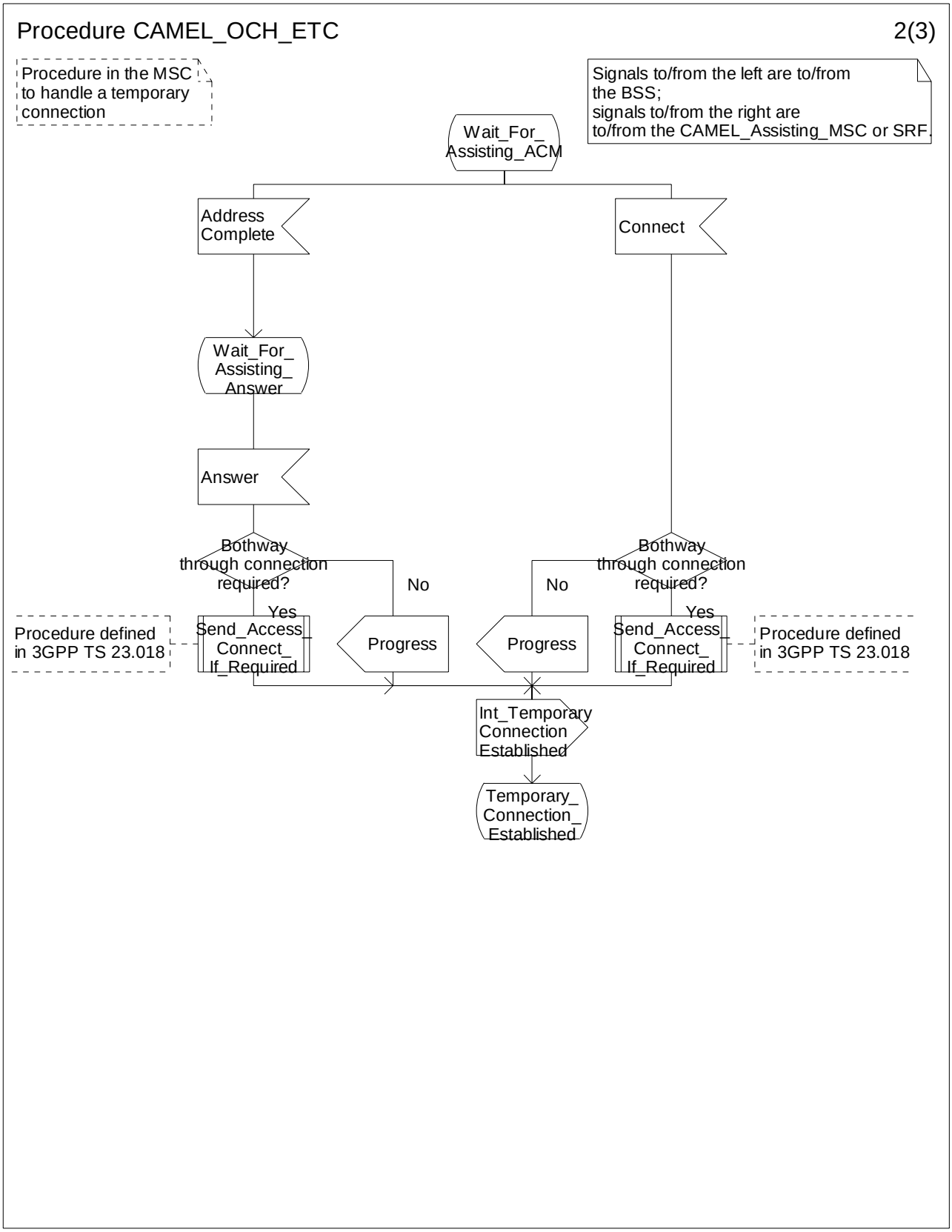


Figure 4.22-2: Procedure CAMEL_OCH_ETC (sheet 2)

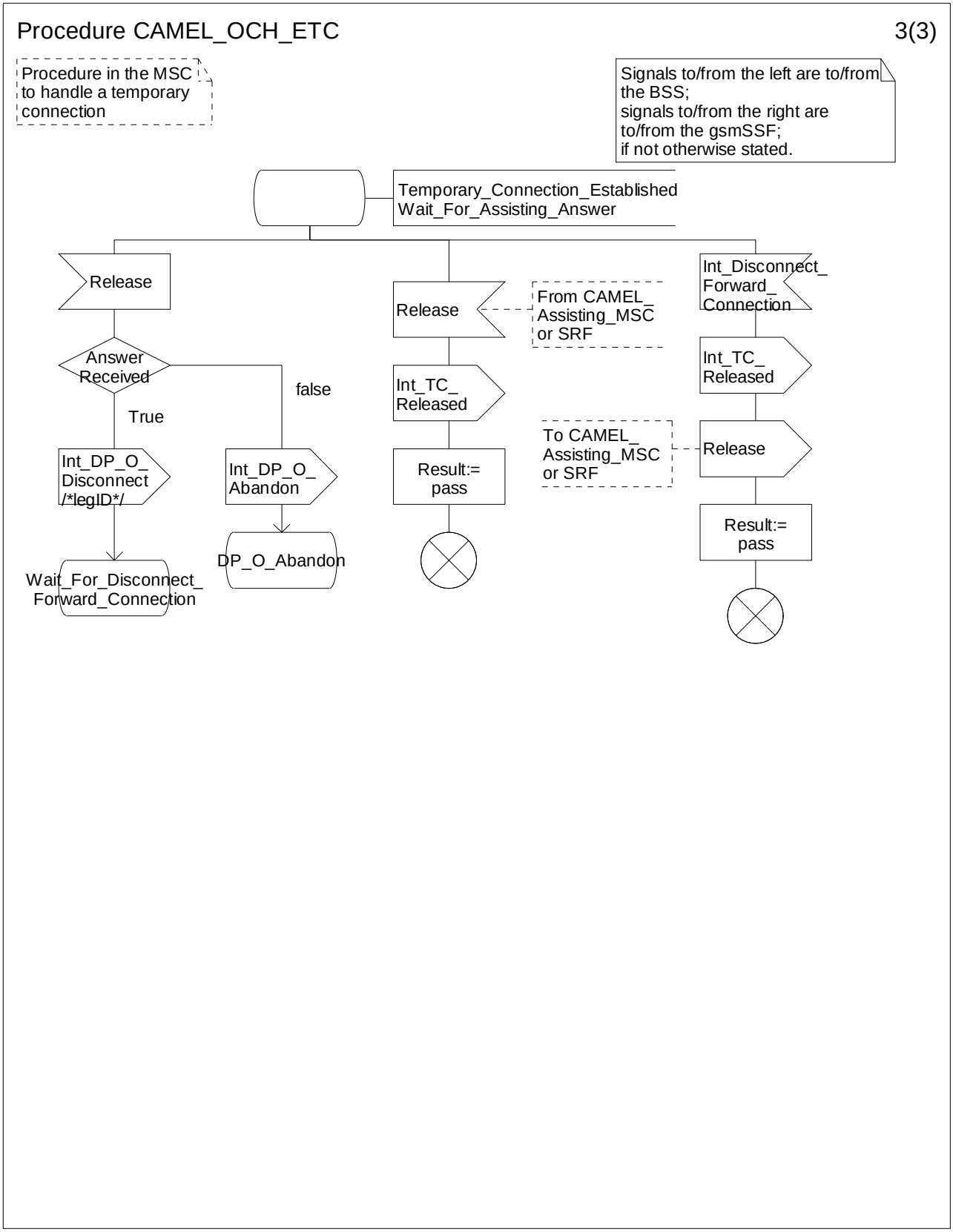
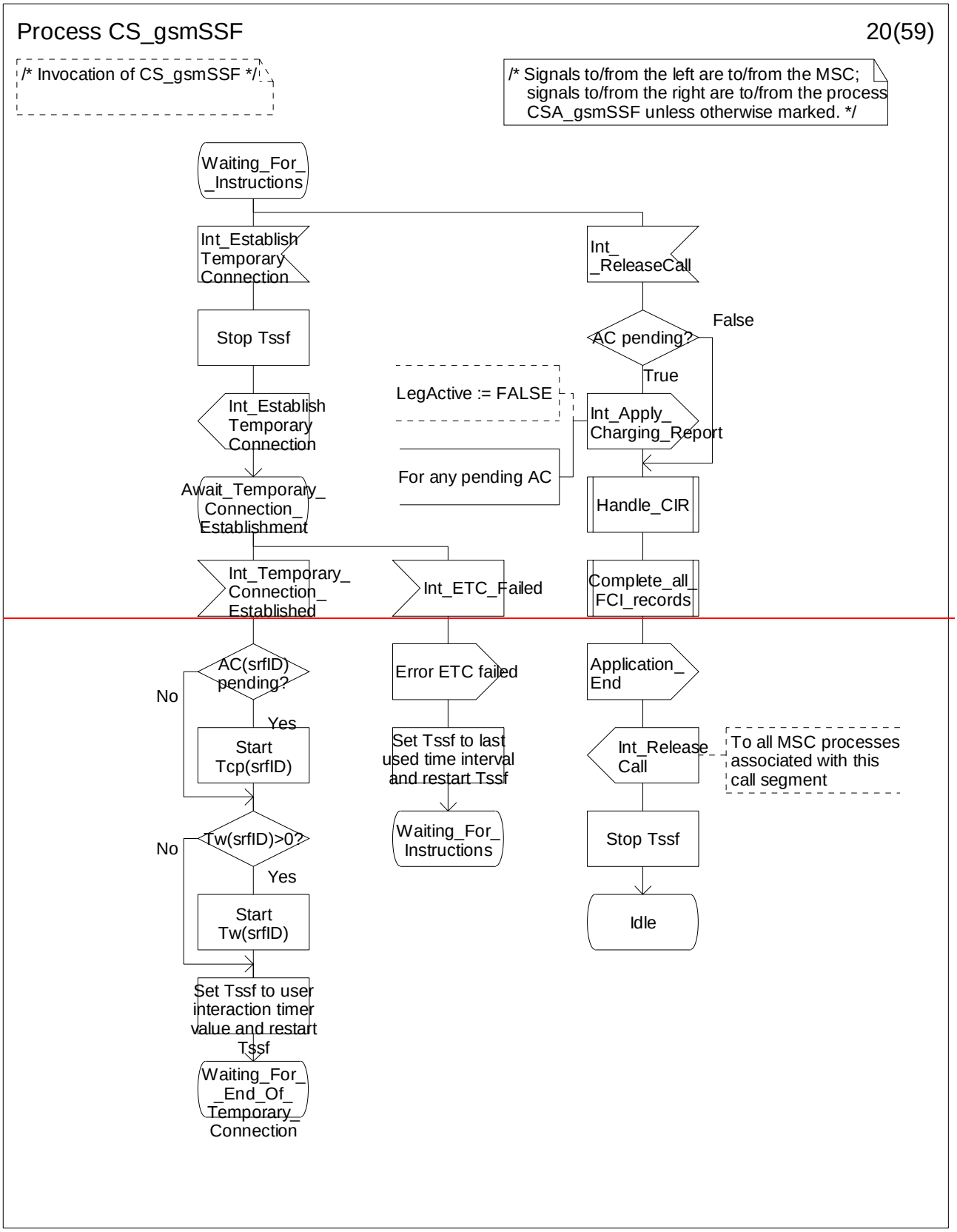


Figure 4.22-3: Procedure CAMEL_OCH_ETC (sheet 3)

— First modified section —



~~Figure 4.95-20: Process CS_gsmSSF (sheet 20)~~

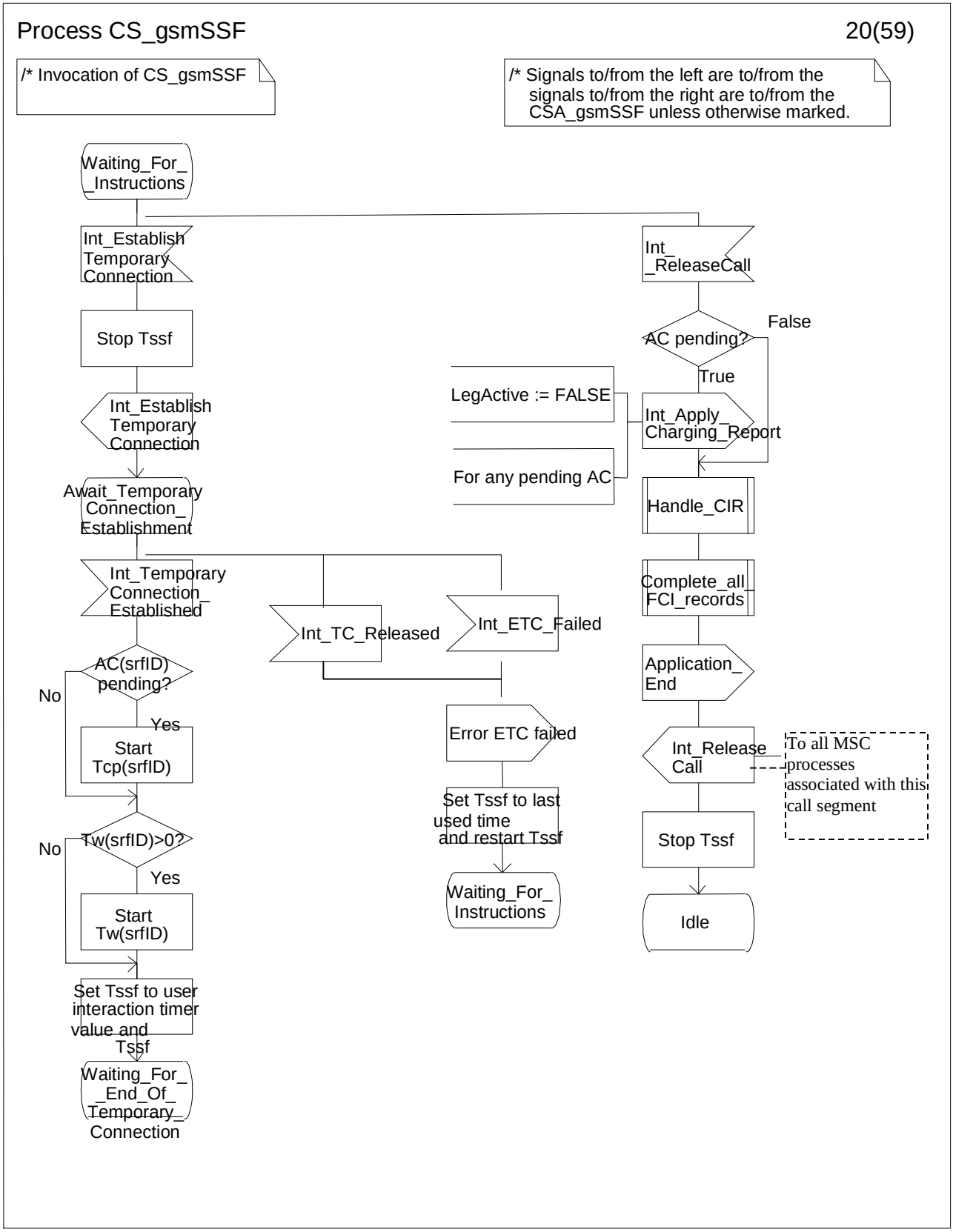


Figure 4.95-20: Process CS_gsmSSF (sheet 20)

— End of CR —

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030254

CR-Form-v7

CHANGE REQUEST

⌘ **23.078** **CR** **585** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	VLR number in ERB is not needed
Source:	⌘	Siemens AG
Work item code:	⌘	CAMEL4
Date:	⌘	08/05/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	VLR number in the location information IE stays constant during a call. Only one-time information is valid throughout one complete call. Fortunately, this information is sent at the first contact to the gsmSCF through Initial DP IF as a mandatory IE. For several DPs, the Location Information IE is sent in the Event Report BCSM IF if armed. As ERB is never sent before IDP, the VLR number is never needed in ERB.
Summary of change:	⌘	Remove VLR number from the Location Information IE in ERB.
Consequences if not approved:	⌘	Unnecessary signaling load for ERB. If the armed DP is O/T_Change_Of_Position, the difference between with and without this IE could be huge in total.

Clauses affected:	⌘	4.6.1

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments:	⌘	

*** For Information (extracted from 4.6.1.8 Initial DP) ***

Location Information is defined in 3GPP TS 23.018 [12]. The following differences apply:

Information element name	MO	MF	MT	VT	NC	NP	Description
Location Number	-	-	C	C	-	-	See 3GPP TS 23.018 [12].
Service area ID	C,E	-	C,E	C,E	-	-	See 3GPP TS 23.018 [12].
Cell ID	C,E	-	C,E	C,E	-	-	See 3GPP TS 23.018 [12].
Geographical information	C	-	C	C	-	-	See 3GPP TS 23.018 [12].
Geodetic information	C	-	C	C	-	-	See 3GPP TS 23.018 [12].
VLR number	M	-	C	M	-	-	See 3GPP TS 23.018 [12].
Age Of location information	M	-	C	C	-	-	See 3GPP TS 23.018 [12].
Current Location Retrieved	-	-	-	-	-	-	Not applicable
Location area ID	C,E	-	C,E	C,E	-	-	See 3GPP TS 23.003 [7].
Selected LSA Identity	S	-	S	S	-	-	This IE indicates the LSA identity associated with the current position of the MS. It 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 present. See 3GPP TS 23.073 [17]. This IE shall be present if available and SoLSA is supported, otherwise it shall be absent.

*** Modified part ***

4.6.1 gsmSSF to gsmSCF information flows

4.6.1.6 Event Report BCSM

4.6.1.6.1 Description

This IF is used to notify the gsmSCF of a call-related event (i.e., BCSM events as answer and disconnect) previously requested by the gsmSCF in a Request Report BCSM Event IF.

4.6.1.6.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
Event Type BCSM	M	M	M	M	M	M	This IE specifies the type of event that is reported.
Event Specific Information BCSM	C	C	C	C	C	C	This IE indicates the call related information specific to the event.
Leg ID	M	M	M	M	M	M	This IE indicates the party in the call for which the event is reported.
Misc Call Info	M	M	M	M	M	M	This IE indicates the DP type.

If the Event Type BCSM IE contains either O_Answer or T_Answer, then the Event Specific Information BCSM IE contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Destination Address	M	M	M	M	M	M	This IE specifies the destination address for the call leg. The *NatureOfAddress indicator* may contain a national-specific value. For some national-specific *NatureOfAddress indicator* values the length of the digit part of destination address may be zero.
OR	-	C	C	-	-	-	This IE indicates that the call was subject to basic Optimal Routeing as specified in 3GPP TS 23.079 [18].
Forwarded Call	-	M	C	C	-	-	This IE indicates that the call has been subject to a Call Forwarding supplementary service.
Charge Indicator	S	S	S	S	S	S	This IE specifies the value which will be stored in the Call Data Record. See ITU-T Recommendation Q.763 [40].

If the Event Type BCSM IE contains either O_Mid_Call or T_Mid_Call, then the Event Specific Information BCSM IE contains the following information element:

Information element name	MO	MF	MT	VT	NC	NP	Description
Midcall Info	M	-	-	M	-	-	This IE is described in a table below.

MidCall Info contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
DTMF Digits Completed	S,E	-	-	S,E	-	-	This IE contains the detected mid-call digits. This IE shall be present when triggering takes place after the minimum number of digits has been detected.
DTMF Digits Timeout	S,E	-	-	S,E	-	-	This IE contains the detected mid-call digits. This IE shall be present when triggering takes place before the minimum number of digits has been detected.

If the Event Type BCSM IE contains one of Route_Select_Failure, O_Busy, O_Disconnect or T_Disconnect, then the Event Specific Information BCSM IE contains the following information element:

Information element name	MO	MF	MT	VT	NC	NP	Description
Cause	C	C	C	C	C	C	This IE indicates the cause.

If the Event Type BCSM IE contains T_Busy, then the Event Specific Information BCSM IE contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Cause	C	C	C	C	-	-	This IE indicates the cause.
Call forwarded	-	-	C	C	-	-	This IE indicates that the call may be forwarded by the appropriate Call Forwarding supplementary service or Call Deflection supplementary service. If T_Busy is reported from the GMSC, then this IE shall be present in the following cases: - The event is triggered by the reception of an FTN in the 2nd Send Routeing Info ack from the HLR; - The event is triggered by the reception of the Resume Call Handling information flow from the VMSC. If T_Busy is reported from the VMSC, then this IE shall be present in the following cases: - The event is triggered by the invocation of conditional call forwarding (Busy or Not_Reachable); - The event notification is triggered by the invocation of Call Deflection.
Route Not permitted	-	-	S	-	-	-	This IE indicates that the further call setup will not take place in this GMSC due to the rules of basic optimal routeing. See 3GPP TS 23.079 [18].
Forwarding Destination Number	-	-	C	C	-	-	This IE contains the Forwarded-to-Number or the Deflected-to-Number. It shall be present if the Call Forwarded IE is present. Otherwise, it shall be absent.

If the Event Type BCSM IE contains T_No_Answer, then the Event Specific Information BCSM IE contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Call Forwarded	-	-	C	C	-	-	This IE indicates that the call may be forwarded by the appropriate Call Forwarding supplementary service. If T_No_Answer is reported from the GMSC, then this IE shall be present in the following cases: - The event is triggered by the reception of the Resume Call Handling information flow from the VMSC. If the T_No_Answer is reported from the VMSC, then this IE shall be present in the following cases: - The event is triggered by the invocation of conditional call forwarding (No_Answer).
Forwarding Destination Number	-	-	C	C	-	-	This IE contains the Forwarded-to-Number or the Deflected-to-Number. It shall be present if the Call Forwarded IE is present. Otherwise, it shall be absent.

If the Event Type BCSM IE contains Call_Accepted, O_Term_Seized, O_Change_Of_Position or T_Change_Of_Position, then the Event Specific Information BCSM IE contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Location Information	C	-	-	C	-	-	See subclause 4.6.1.8~~.~~ with VLR number IE as "- (not applicable)".

If the Event Type BCSM IE contains O_Abandon, then the Event Specific Information BCSM IE contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Route Not Permitted	-	S	-	-	-	-	This IE indicates that the further call setup will not take place in this MSC due to the rules of basic optimal routeing. See 3GPP TS 23.079 [18].

If the Event Type BCSM IE contains O_No_Answer, then the Event Specific Information BCSM IE is not included.

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030255

CR-Form-v7

CHANGE REQUEST

⌘ **23.078** **CR** **586** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Removal of Int_CWA in Process CAMEL_T_CHANGE_OF_POSITION_MSC
Source:	⌘	Siemens AG
Work item code:	⌘	CAMEL4
Date:	⌘	08/05/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

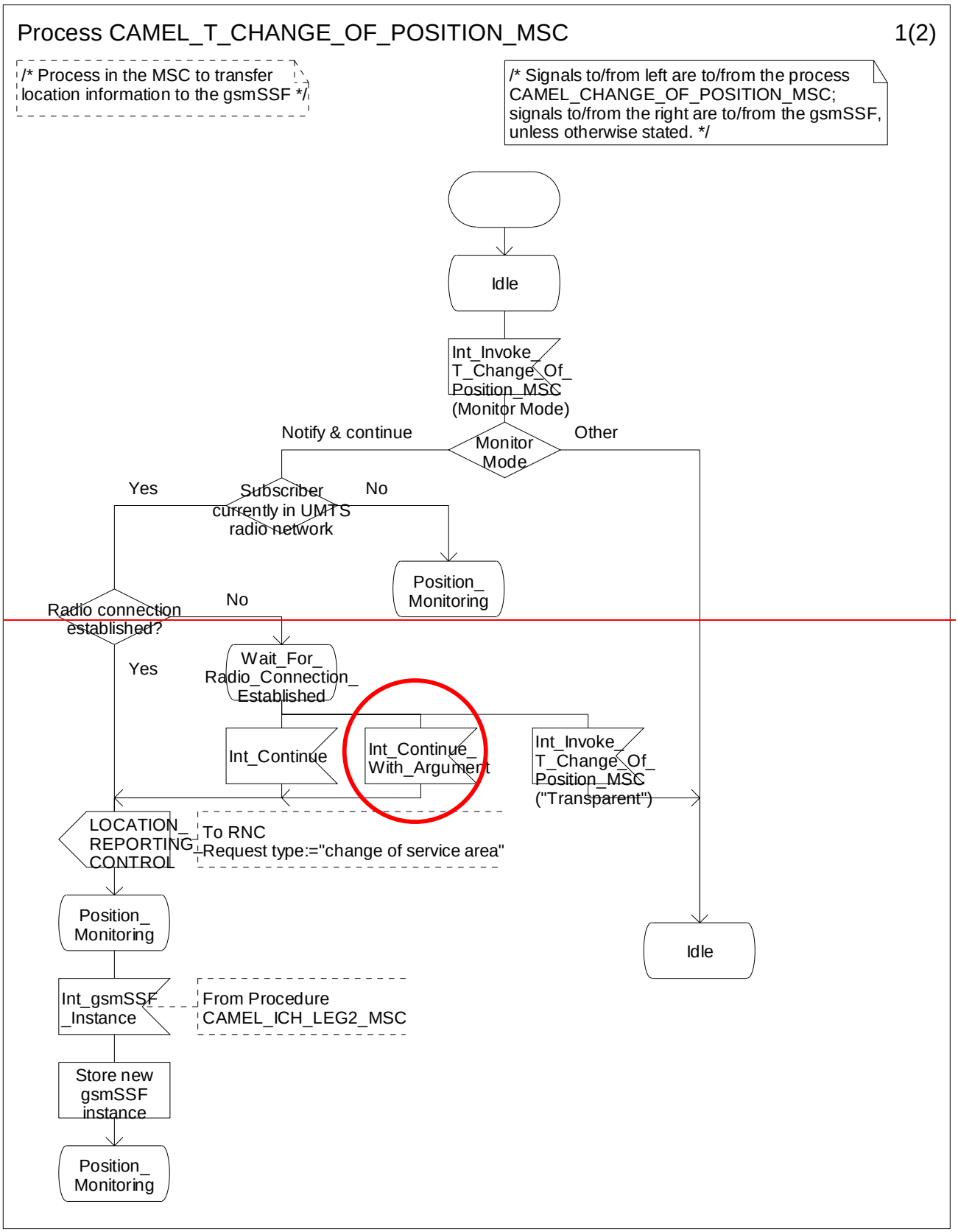
Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:
2 *(GSM Phase 2)*
R96 *(Release 1996)*
R97 *(Release 1997)*
R98 *(Release 1998)*
R99 *(Release 1999)*
Rel-4 *(Release 4)*
Rel-5 *(Release 5)*
Rel-6 *(Release 6)*

Reason for change:	⌘	In the UMTS-VT case, when DP_T_Change_Of_Position is armed and the subscriber is not yet radio-contacted, the process CAMEL_T_CHANGE_OF_POSITION_MSC wait until the subscriber is radio-contacted. When he/she is contacted, Int_CallAccepted is sent by MSC process/procedure to the CS_gsmSSF and the CS_gsmSSF issues Int_Continue to this process. The process CAMEL_T_CHANGE_OF_POSITION_MSC stays at Wait_For_Radio_Connection_Established until it receives Int_Continue from the CS_gsmSSF. Another possibility at this state,according to the SDL: CAMEL_T_CHANGE_OF_POSITION_MSC, is to receive Int_Invoke... to disarm this DP at very early stage or Int_Continue_With_Argument. The CS_gsmSSF never sends Int_Continue_With_Argument! The Int_CWA was originally added during the drafting period of CAMEL Phase 4 for the future proof in case any necessity would arise, however there have never been any needs and this issue has been forgotten until today.
Summary of change:	⌘	Remove Int_Continue_With_Argument
Consequences if not approved:	⌘	Confusion. Readers may spend a lot of time to look for Int_CWA to be sent in the process CS_gsmSSF (currently 59 sheets!), in vain.

Clauses affected:	⌘	4
Other specs	⌘	Y ☐ N ☒ Other core specifications ⌘

affected:	X Test specifications X O&M Specifications	
Other comments: ⌘		


Process CAMEL_T_CHANGE_OF_POSITION_MSC
1(2)
/* Process in the MSC to transfer location information to the gsmSSF */
/* Signals to/from left are to/from the process CAMEL_CHANGE_OF_POSITION_MSC; signals to/from the right are to/from the gsmSSF, unless otherwise stated. */
Idle
Int_Invoke_ T_Change_Of_ Position_MSC (Monitor Mode)
Monitor Mode
Notify & continue
Other
Subscriber currently in UMTS radio network
Yes
No
Position_ Monitoring
Radio connection established?
No
Yes
Wait_For_ Radio_Connection_ Established
Int_Continue
Int_Continue_ With_Argument
Int_Invoke_ T_Change_Of_ Position_MSC ("Transparent")
LOCATION_ REPORTING_ CONTROL
To RNC
Request type:="change of service area"
Position_ Monitoring
Idle
Int_gsmSSF _Instance
From Procedure CAMEL_ICH_LEG2_MSC
Store new gsmSSF instance
Position_ Monitoring

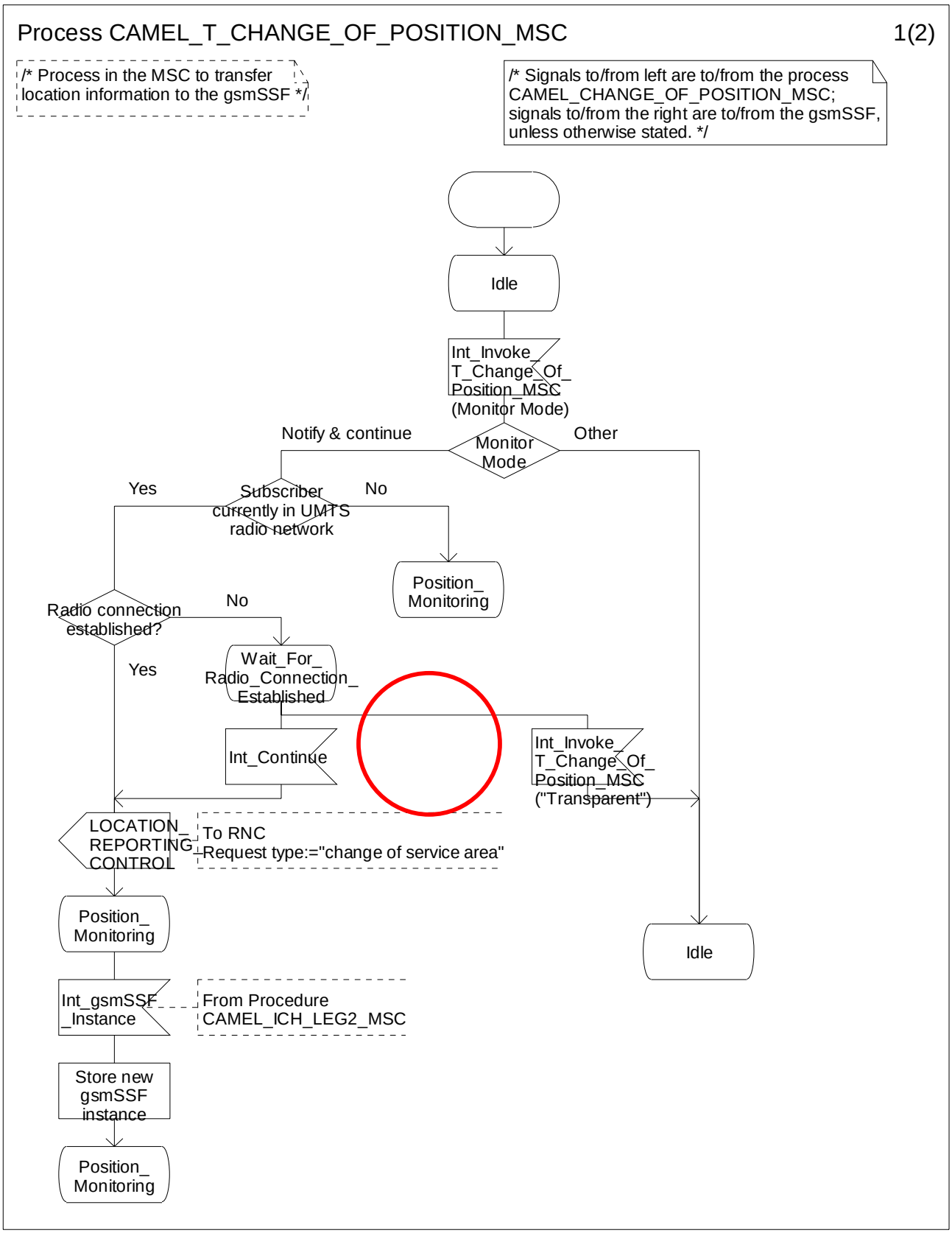


Figure 4.71-1: Process CAMEL_T_CHANGE_OF_POSITION_MSC (sheet 1)

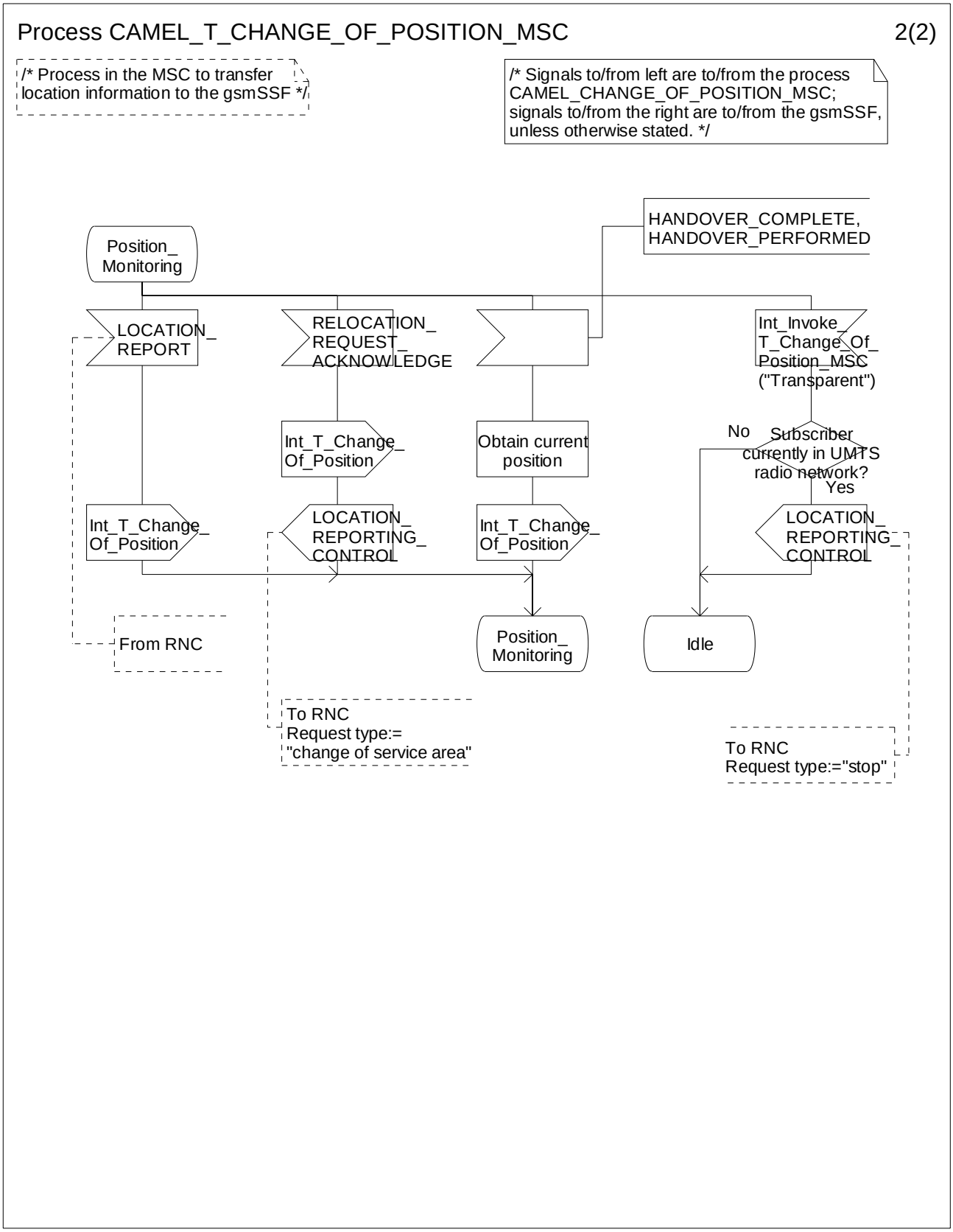


Figure 4.71-2: Procedure CAMEL_T_CHANGE_OF_POSITION_MSC (sheet 2)

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030256

CR-Form-v7

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⌘ **23.078** **CR** 587 ⌘**rev** **-** ⌘ Current version: **5.3.0** ⌘

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Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	SRI Handling and CAMEL phase 4
Source:	⌘	Alcatel
Work item code:	⌘	CAMEL4
Date:	⌘	16/04/2003
Category:	⌘	**F**
Release:	⌘	*Rel-5*

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The fact that CAMEL phase 4 is supported or not by the GMSC is not taken into account by the HLR on receipt of Send Routing Information operation.
Summary of change:	⌘	In the HLR on receipt of Send Routing Information operation, the HLR shall check whether or not the CAMEL phase 4 is supported and which CSIs are supported in order to take the appropriate action regarding the terminating call.
Consequences if not approved:	⌘	Problem on terminating call at the GMSC when the subscriber has subscribed to CAMEL phase 4 services.

Clauses affected:	⌘	4.5.3.2

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

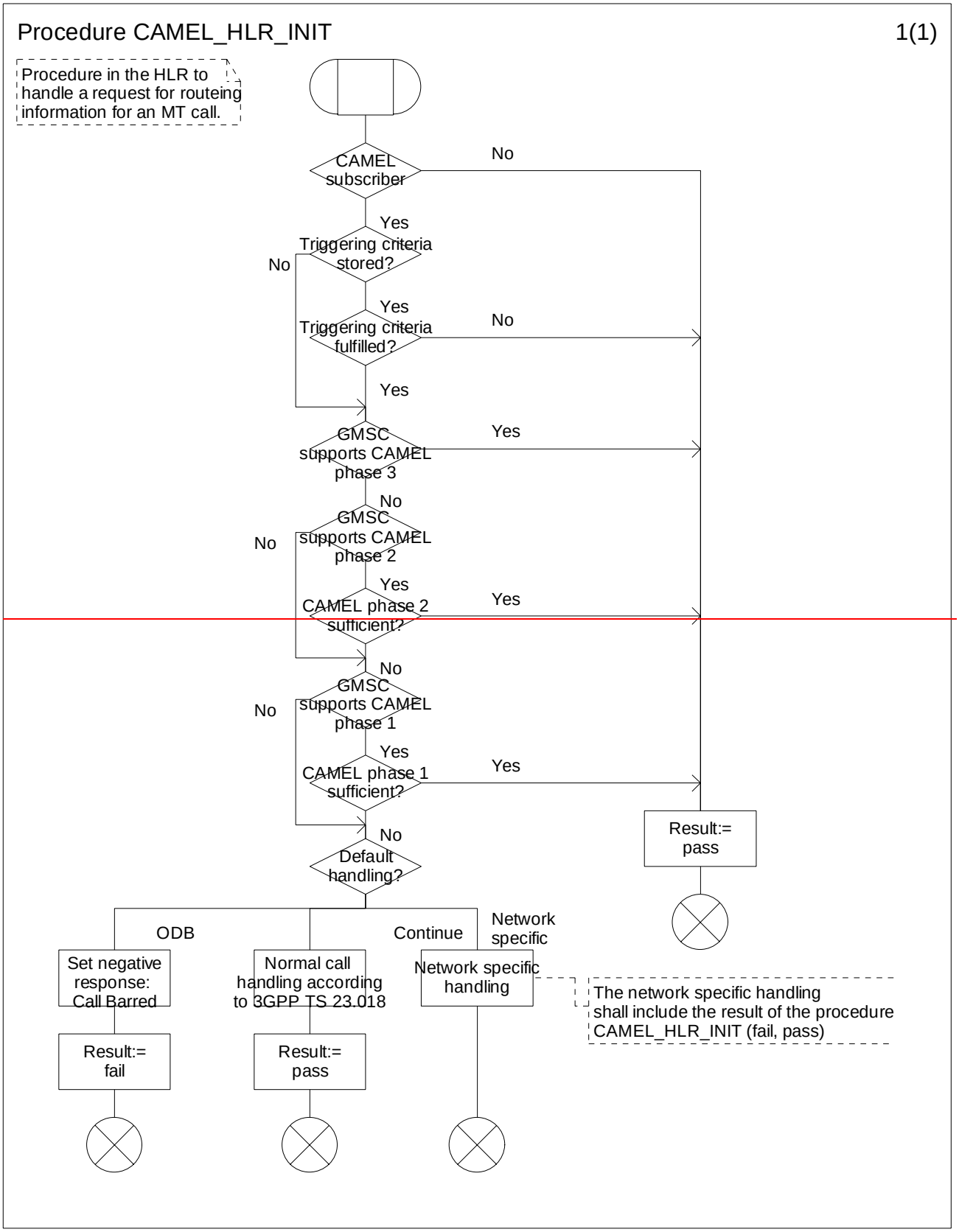
Other comments:	⌘	

4.5.3.2 Retrieval of routeing information in the HLR

The functional behaviour of the HLR is specified in 3GPP TS 23.018 [12]. The procedures specific to CAMEL are specified in this subclause:

- Procedure CAMEL_HLR_INIT;
- Procedure CAMEL_CSI_Check_HLR;
- Procedure CAMEL_O_CSI_CHECK_HLR;
- Procedure CAMEL_D_CSI_CHECK_HLR;
- Procedure CAMEL_T_CSI_CHECK_HLR;
- Procedure CAMEL_CHECK_SII2_CDTI.

The procedure CAMEL_Provide_Subscriber_Info is specified in subclause 4.5.9.


Procedure CAMEL_HLR_INIT
1(1)
Procedure in the HLR to handle a request for routeing information for an MT call.
CAMEL subscriber
No
Yes
Triggering criteria stored?
No
Yes
Triggering criteria fulfilled?
No
Yes
GMSC supports CAMEL phase 3
Yes
No
GMSC supports CAMEL phase 2
No
Yes
CAMEL phase 2 sufficient?
Yes
No
GMSC supports CAMEL phase 1
No
Yes
CAMEL phase 1 sufficient?
Yes
No
Default handling?
Result:= pass
ODB
Continue
Network specific
Set negative response: Call Barred
Normal call handling according to 3GPP TS 23.018
Network specific handling
The network specific handling shall include the result of the procedure CAMEL_HLR_INIT (fail, pass)
Result:= fail
Result:= pass

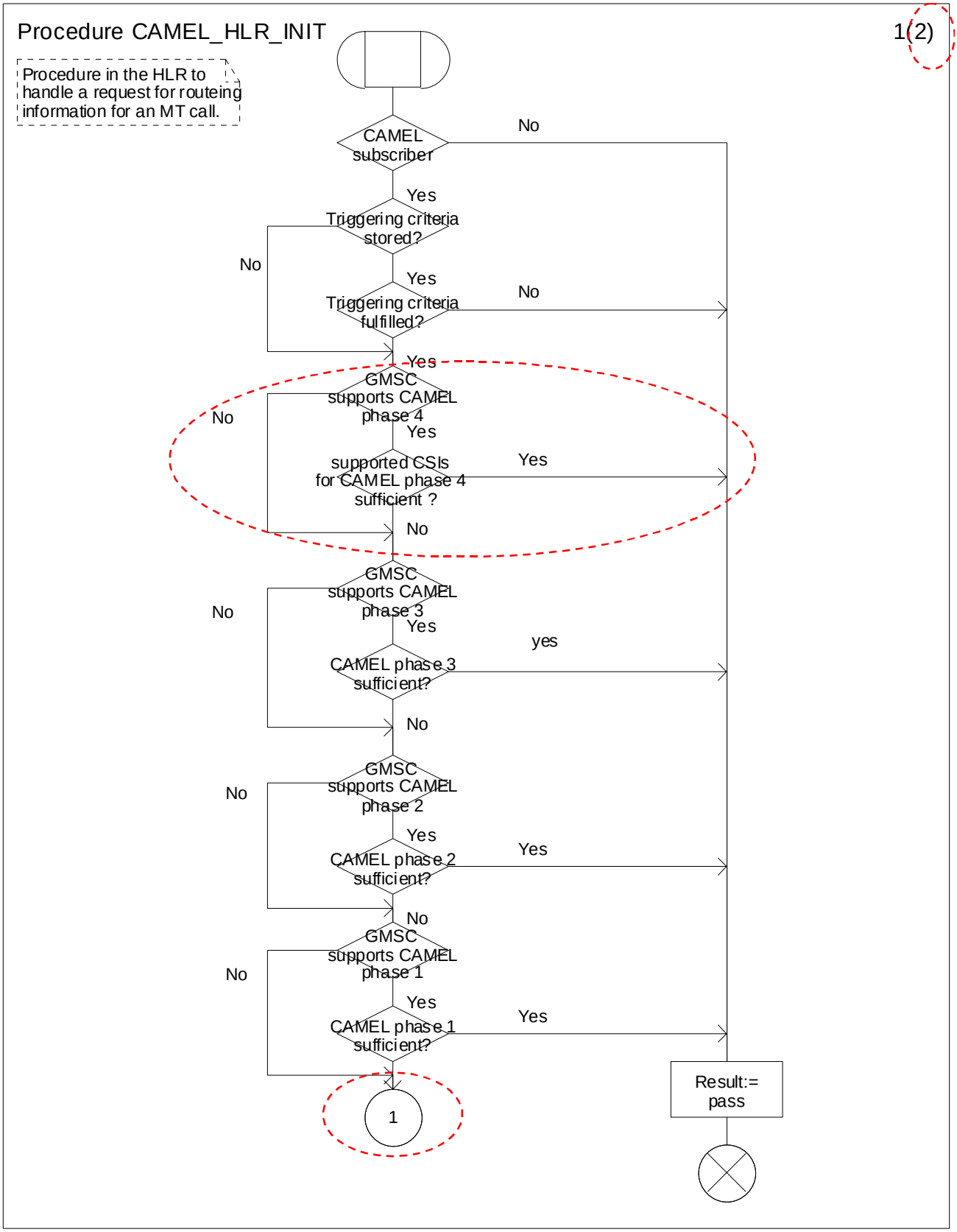


Figure 4.54-1: Procedure CAMEL_HLR_INIT (sheet 1)

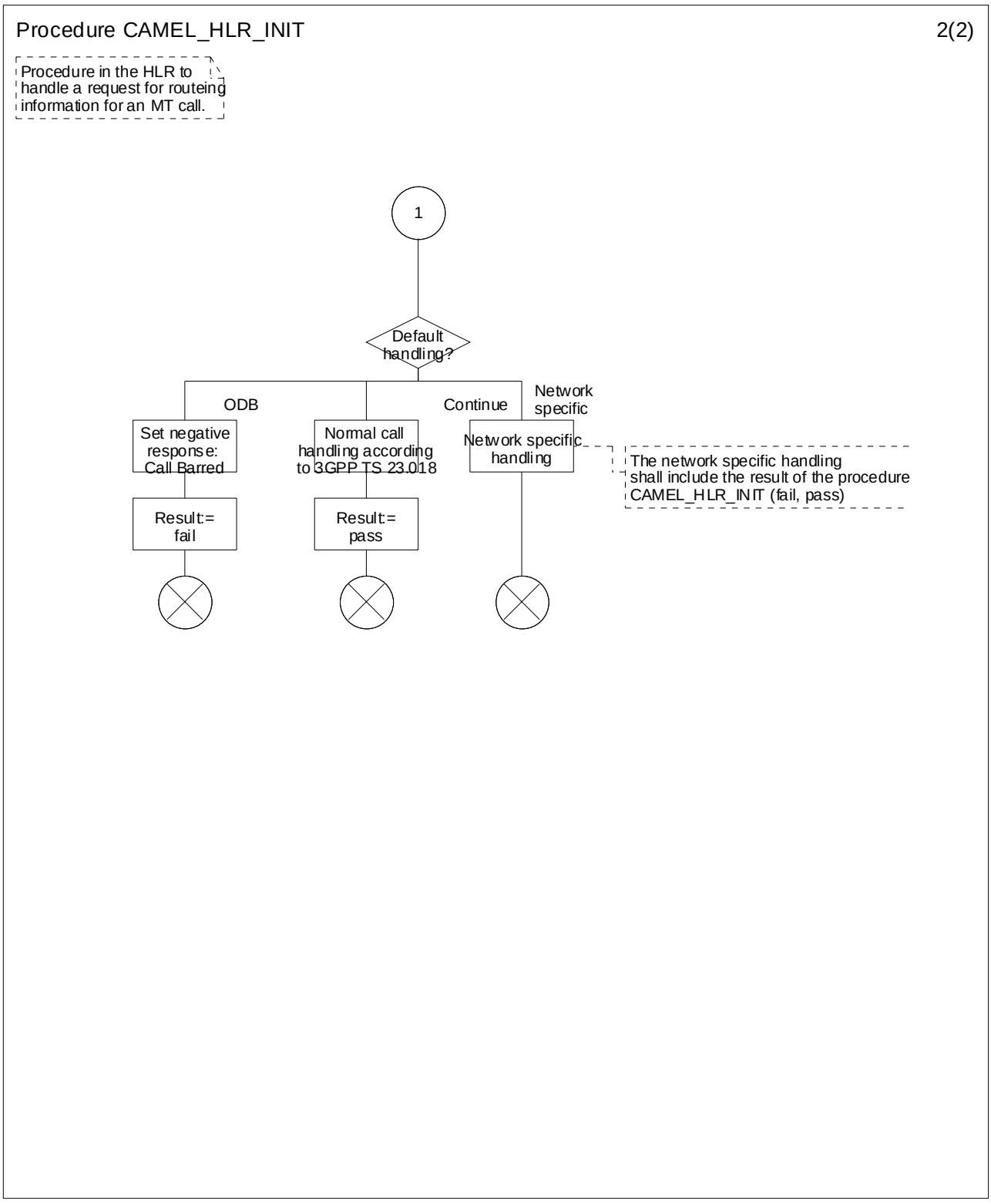


Figure 4.54-2: Procedure CAMEL_HLR_INIT (sheet 2)

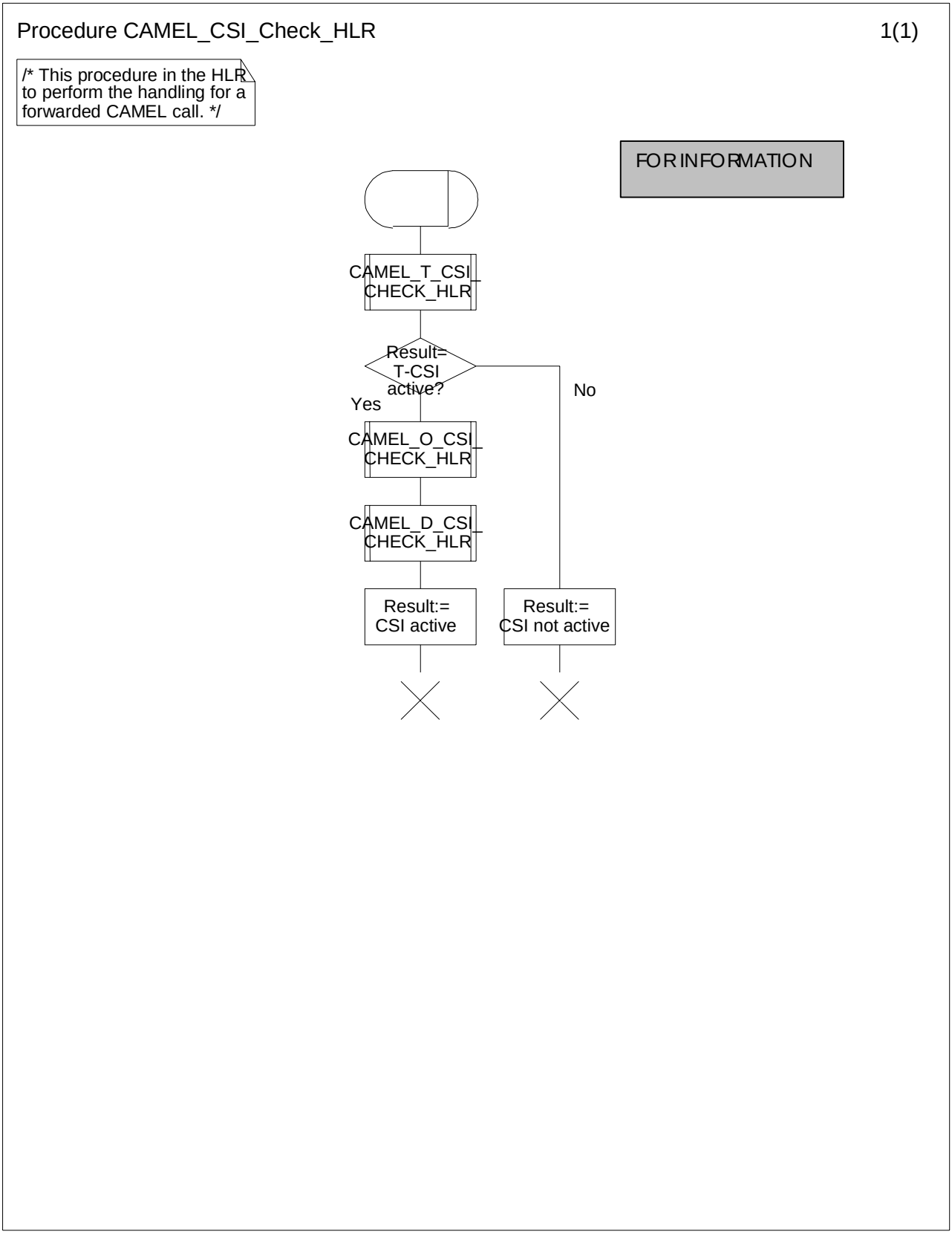
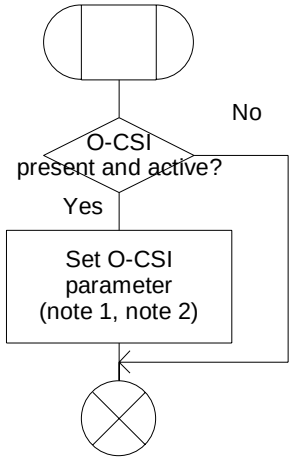


Figure 4.55-1: Procedure CAMEL_CSI_Check_HLR (sheet 1)

Procedure CAMEL_O_CSI_CHECK_HLR 1(1)

/* Procedure in the HLR to check the O-CSI and set the O-CSI parameter for SRI ack accordingly. */



Note 1:
In case of GSM call forwarding, as an implementation option, the HLR may perform conditional triggering check for DP Collected Info services in O-CSI.
If the check passes, O-CSI shall be sent to the GMSC without conditional triggering criteria for DP Collected info.
If the check fails, DP Collected Info triggers shall not be sent to the GMSC.

Note 2:
The HLR shall not send O-CSI data to the GMSC if the GMSC does not support the indicated CAMEL Capability Handling in O-CSI.

Procedure CAMEL_O_CSI_CHECK_HLR 1(1)

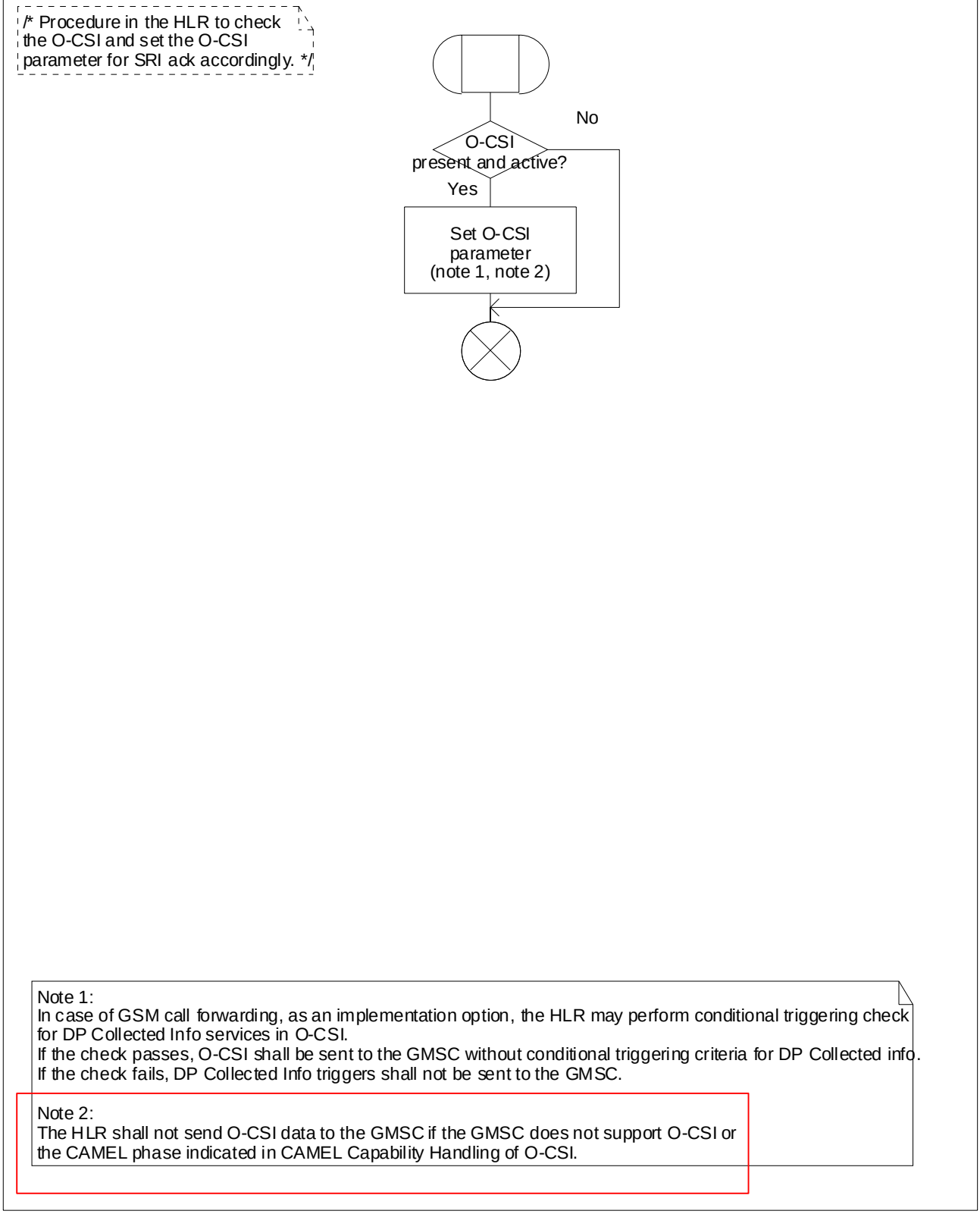
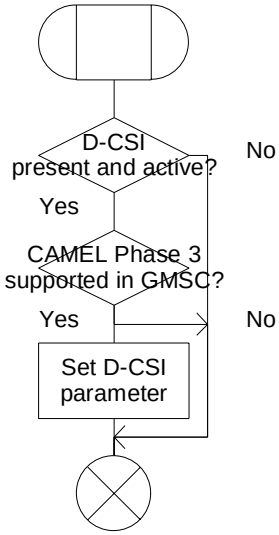


Figure 4.56-1: Procedure CAMEL_O_CSI_CHECK_HLR (sheet 1)

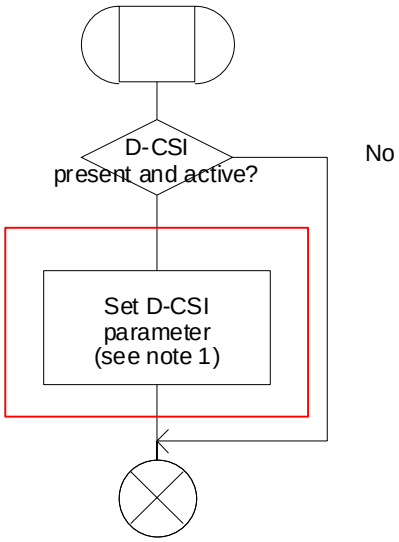
Procedure CAMEL_D_CSI_CHECK_HLR 1(1)

/* Procedure in the HLR to check the D-CSI and set the D-CSI parameter for SRI ack accordingly. */



Procedure CAMEL_D_CSI_CHECK_HLR 1(1)

/* Procedure in the HLR to check the D-CSI and set the D-CSI parameter for SRI ack accordingly. */



Note 1 :
The HLR shall not send D-CSI data to the GMSC if the GMSC does not support D-CSI or the CAMEL phase indicated in CAMEL capability Handling of D-CSI .

Figure 4.57-1: Procedure CAMEL_D_CSI_CHECK_HLR (sheet 1)

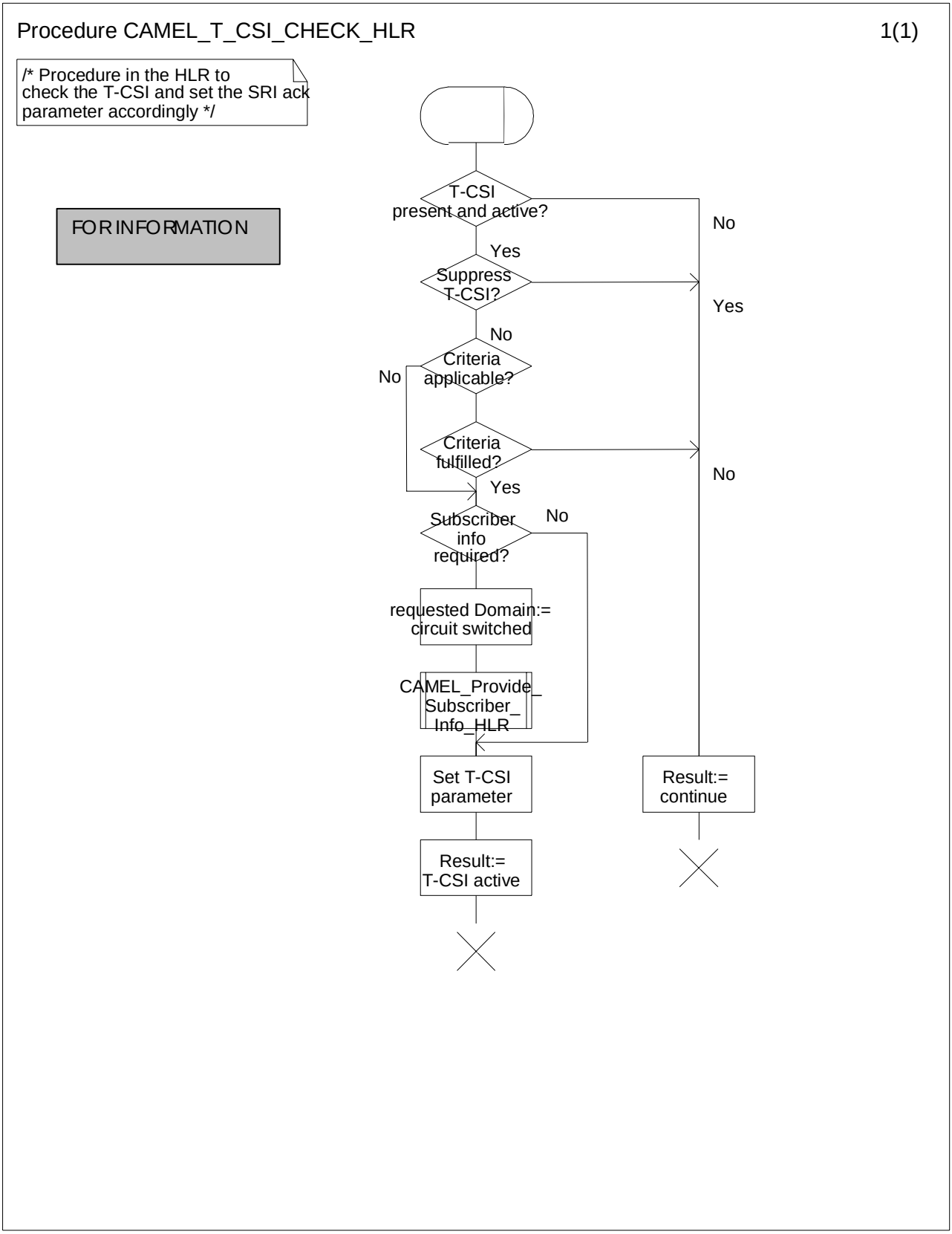


Figure 4.58-1: Procedure CAMEL_T_CSI_CHECK_HLR (sheet 1)

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030277

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CHANGE REQUEST

⌘ **23.078** **CR** **593** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

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Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Behavior of HLR upon location updating in CAMEL Phase 4
Source:	⌘	T-Mobile Deutschland
Work item code:	⌘	CAMEL4
Date:	⌘	19/05/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently, subclause 4.5.10 (CAMEL specific handling of location updating and data restoration) does not fully cover the case when the VLR supports only certain CAMEL phase 4 CSIs (i.e. not all of them). The second paragraph of that subclause was essentially taken from previous CAMEL phases, when partial implementations of CAMEL were not considered.
Summary of change:	⌘	Introduce a sentence to cover all conditions in the VLR for the sending of CAMEL subscription data.
Consequences if not approved:	⌘	Conditions for the sending of CAMEL subscription data remain unclear for the case when the VLR does not support all CAMEL phase 4 CSIs. The HLR would be allowed to send CAMEL phase 4 CSIs that are not supported in the VLR.

Clauses affected:	⌘	4.5.10

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments:	⌘	

*** Modified part ***

4.5.10 CAMEL specific handling of location updating and data restoration

When requesting a location update or data restoration the VLR shall indicate to the HLR which CAMEL phases it supports and which CAMEL phase 4 CSIs can be downloaded.

The HLR may then send ~~to the VLR~~ CAMEL subscription data to the VLR ~~for one of the CAMEL phases supported by the VLR~~ or, if some different handling is required, data for substitute handling. The CAMEL subscription data sent by the HLR shall comply with the indication of supported CAMEL phases and supported CAMEL phase 4 CSIs as received from the VLR.

When the location update has been completed, the MSC/VLR in which the subscriber is registered after the location update shall check the M-CSI. If a Mobility Management notification to the gsmSCF is required for this subscriber, then the MSC/VLR shall send the notification to the gsmSCF.

Refer to subclause 9.2.1 for a description of M-CSI and the conditions under which a notification shall be sent.

3GPP TSG CN WG2#29
San Diego, USA, 19th – 23rd May 2003

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CR-Form-v7

CHANGE REQUEST

⌘ **23.078** **CR** **594** ⌘**rev** ⌘ Current version: **5.3.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Inclusion of DFC IF for assisting gsmSSF
Source:	⌘	Alcatel, Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	19/05/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	- The gsmSSF can receive the Disconnect Forward Connection Information Flow from the gsmSCF. However this Information Flow is not defined in clause "4.6.5 gsmSCF to Assisting SSF information flows". - The SDLs indicates that the signal "CAP_DisconnectForward_Connection" has the parameter "legID". However, the Disconnect Forward Connection Information Flow and as such signal "CAP_DisconnectForward_Connection" do not have any parameter.
Summary of change:	⌘	- Include Disconnect Forward Connection Information Flow into subclause 4.6.5. - Delete parameter "legID" of signal "CAP_DisconnectForward_Connection". - Renaming of signal "CAP_Disconnect_Forward_Connection" (inclusion of an extra "_"). Please note the SDT notation of linebreaking. - Do some layout of the input signals.
Consequences if not approved:	⌘	Use of undefined information flows.

Clauses affected:	⌘	4.5.8, new subclause of 4.6.5

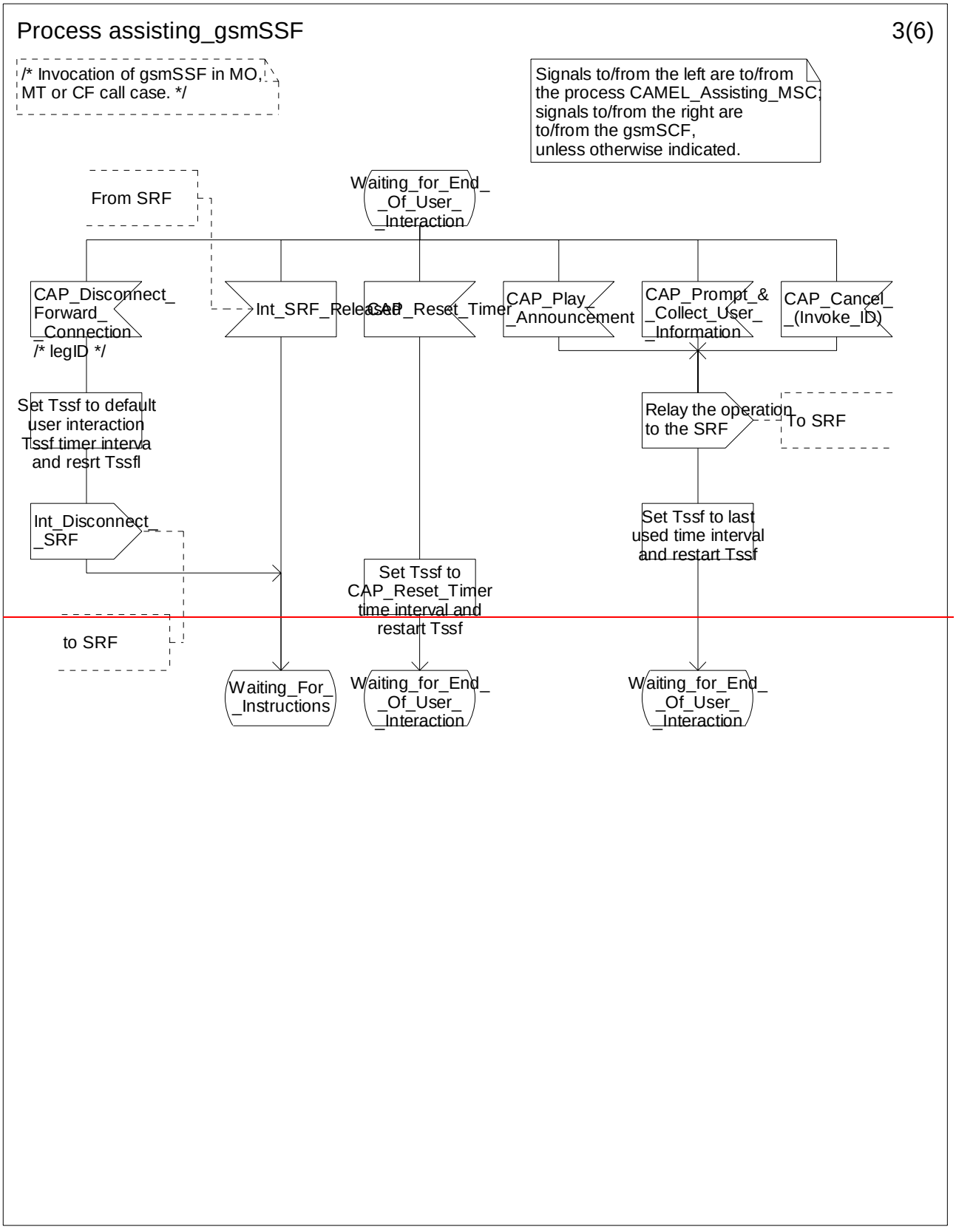
Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments:	⌘	

— Modified section —

4.5.8 Assisting case

…



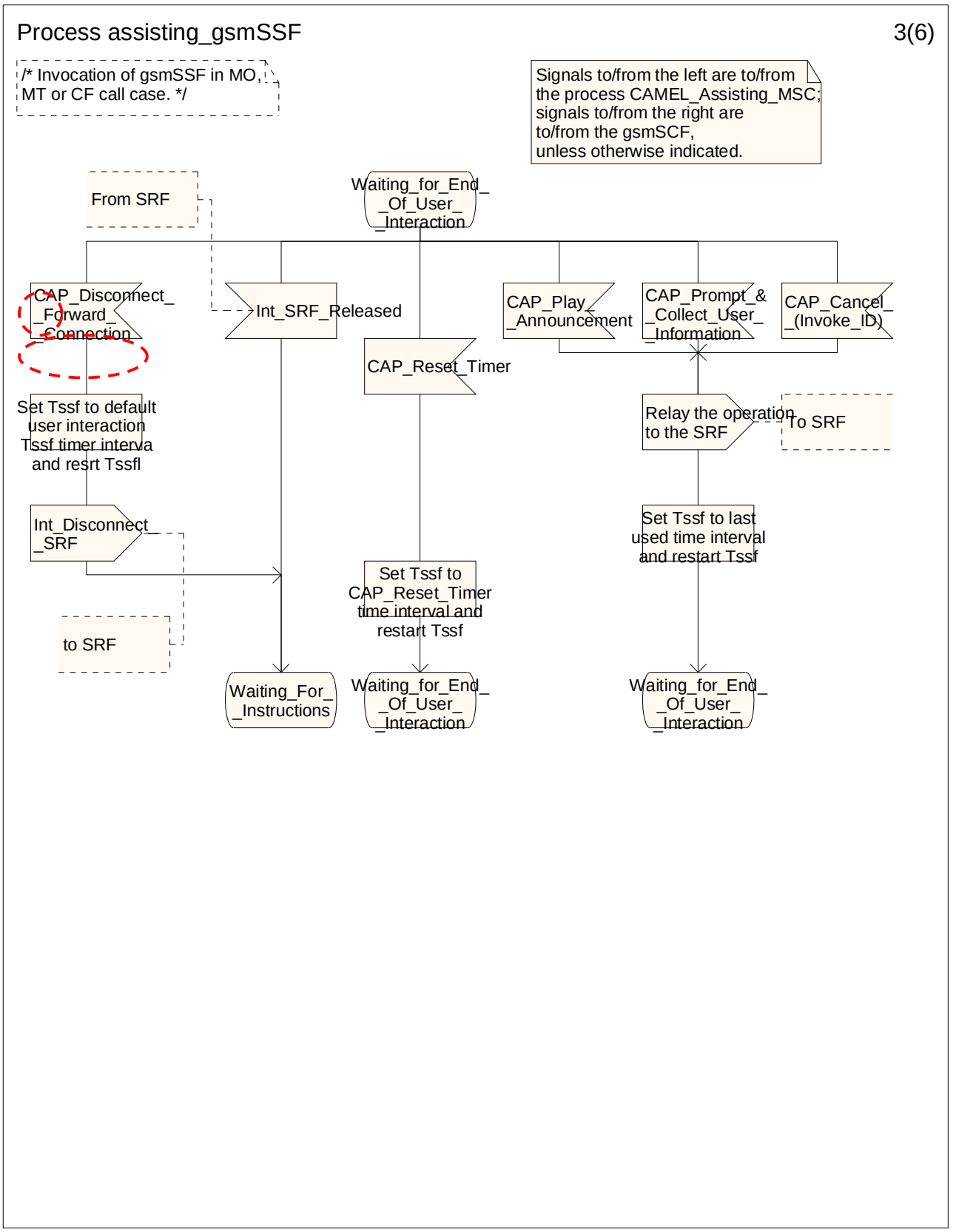


Figure 4.114-3: Process Assisting_gsmSSF (sheet 3)

CR Editor's Note: Please re-arrange the input symbols.

— Next modified section —

4.6.5 gsmSCF to Assisting SSF information flows

…

4.6.5.3 bis Disconnect Forward Connection

4.6.5.3 bis.1 Description

This IF is used:

- to disconnect a connection with a gsmSRF previously established with a Connect To Resource IF.

4.6.5.3 bis.2 Information Elements

This IF contains no information elements.

…

CR Editor's Note: Please re-number subclauses accordingly.

— END —

3GPP TSG CN WG2 Meeting #29
San Diego, USA, 19th – 23rd May 2003

N2-030287

CR-Form-v7

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Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☒

Title:	⌘	Replacing DP numbers by DP names
Source:	⌘	Siemens AG
Work item code:	⌘	CAMEL4
Date:	⌘	20/05/2003
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	DPs had been named either by their actual names or by numbers before CAMEL Phase 3 (R99). In R99, all the DP numbers were decided to be replaced by names to avoid annoying readers. Recently, a missing replacement was found in CAMEL_Start_TNRy.
Summary of change:	⌘	Replace DP6 and DP14 by O_No_Answer and T_No_Answer, respectively
Consequences if not approved:	⌘	There is no reference in the document about the DP numbers. Reader would not be able to find the meaning of the DP numbers.

Clauses affected:	⌘	4

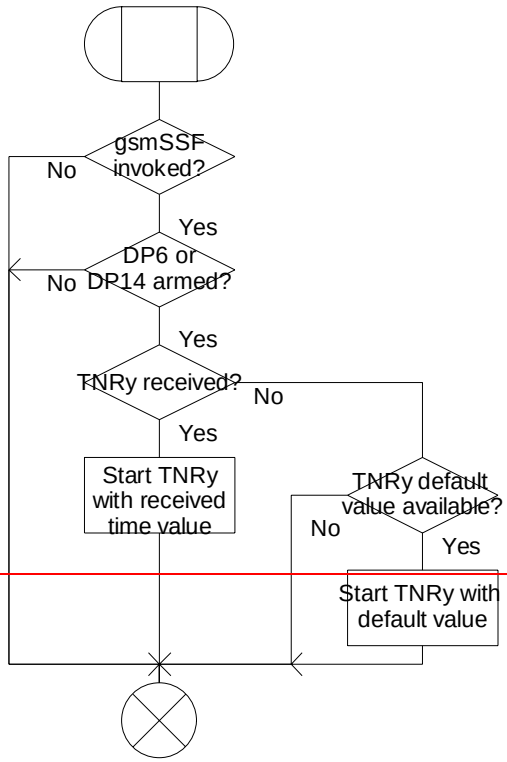
Other specs affected: ⌘	Y	N	
		X	Other core specifications
		X	Test specifications
		X	O&M Specifications

⌘

Other comments:	⌘	

Procedure CAMEL_Start_TNRy 1(1)

Prodedure in MSC to start the timer TNRy



Procedure CAMEL_Start_TNRy 1(1)

Prodedure in MSC to start the timer TNRy

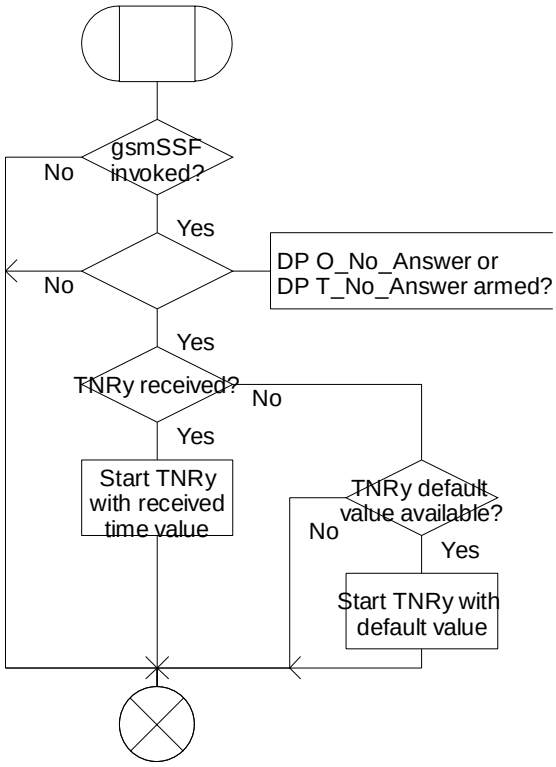


Figure 4.24-1: Procedure CAMEL_Start_TNRy (sheet 1)

3GPP TSG CN WG2 Meeting #29 **N2-030289**
San Diego, CA, USA, 19th - 23th May 2003 (revision of N2-030228)

CHANGE REQUEST

⌘ **23.078** **CR** **572** ⌘**rev** **1** ⌘ Current version: **5.3.0** ⌘

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Receiving Int_CWA after reporting Abandon
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	May 20, 2003
Category:	⌘	F
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The gsmSSF may report O_Abandon or O_Term_Seized as EDP-R to the gsmSCF. In that case, the gsmSSF FSM transits to the state WFI (if not already in that state). The gsmSSF may receive the CAP Operations Continue or Continue With Argument. Th reception of CAP Continue results in the sending of Int_Continue to the MSC procedure; the reception of CAP Continue With Argument results in the sending of Int_Continue_With_Argument to the MSC procedure. Figure 4.10-4: Procedure CAMEL_OCH_MSC_INIT (sheet 4) reflects the above. However, in procedure CAMEL_MT_VMSC_Notify_CF, Abandon is reported to the gsmSSF, but that procedure can't receive Int_Continue_With_Argument. In Procedure CAMEL_MT_VMSC_Notify_CF, a SDL correction is required.
Summary of change:	⌘	All MSC Procedures that report O_Abandon or O_Term_Seized to the gsmSSF and where the gsmSSF may report the event to the gsmSCF as EDP-R, shall be able to receive Int_Continue_With_Argument.
Consequences if not approved:	⌘	Malfunctioning system. When a gsmSCF responds with CAP Continue With Argument after Abandon or Term Seized EDP-R, then the MSC may not receive this signal and the MSC process may "hang".

Clauses affected:	⌘	- Figure 4.39-4: Procedure CAMEL_MT_GMSC_INIT - Figure 4.66-1: Procedure CAMEL_MT_VMSC_Notify_CF

		Y	N			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		

	X	O&M Specifications

Other comments: ⌘

— First modified section —

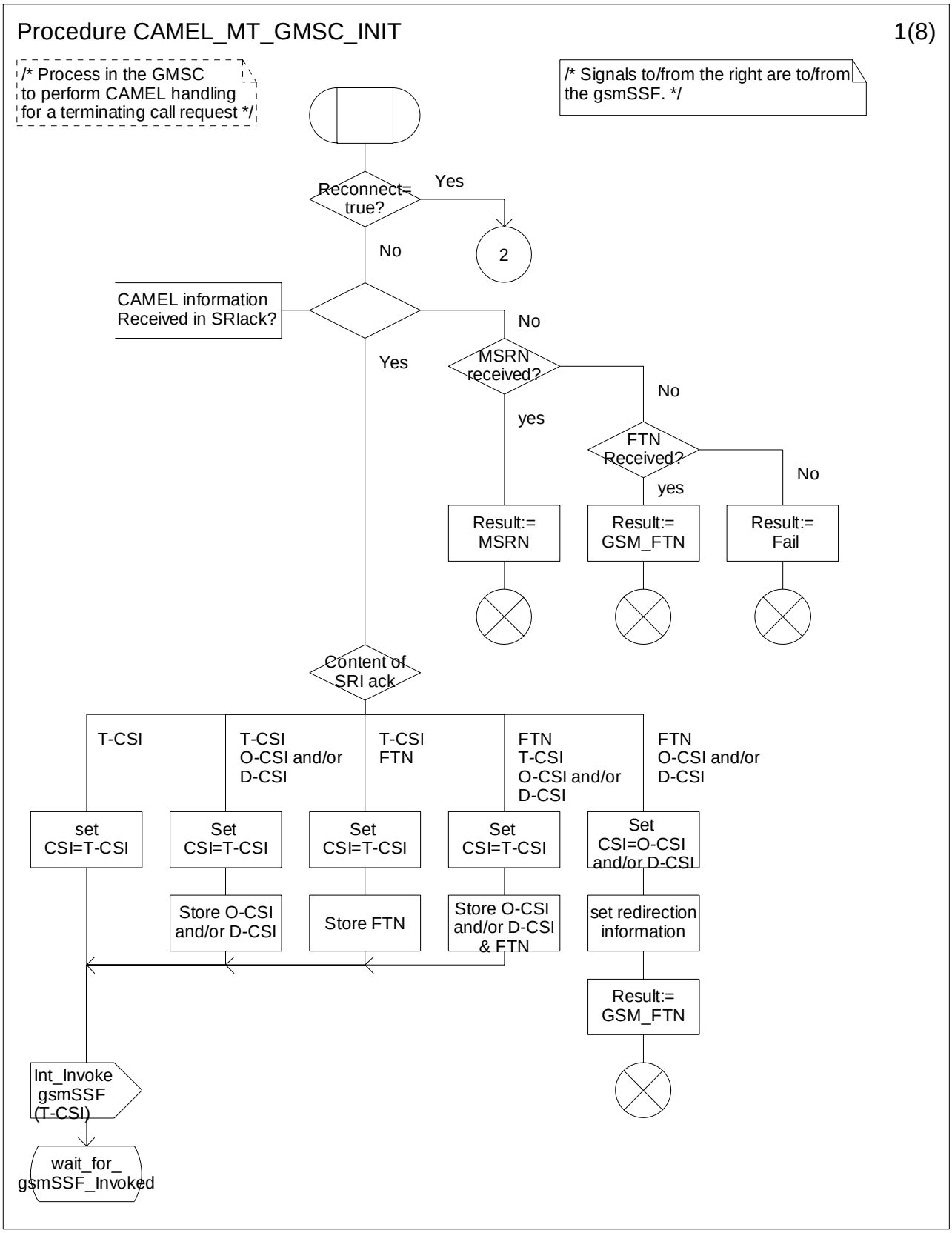


Figure 4.39-1: Procedure CAMEL_MT_GMSC_INIT (sheet 1)

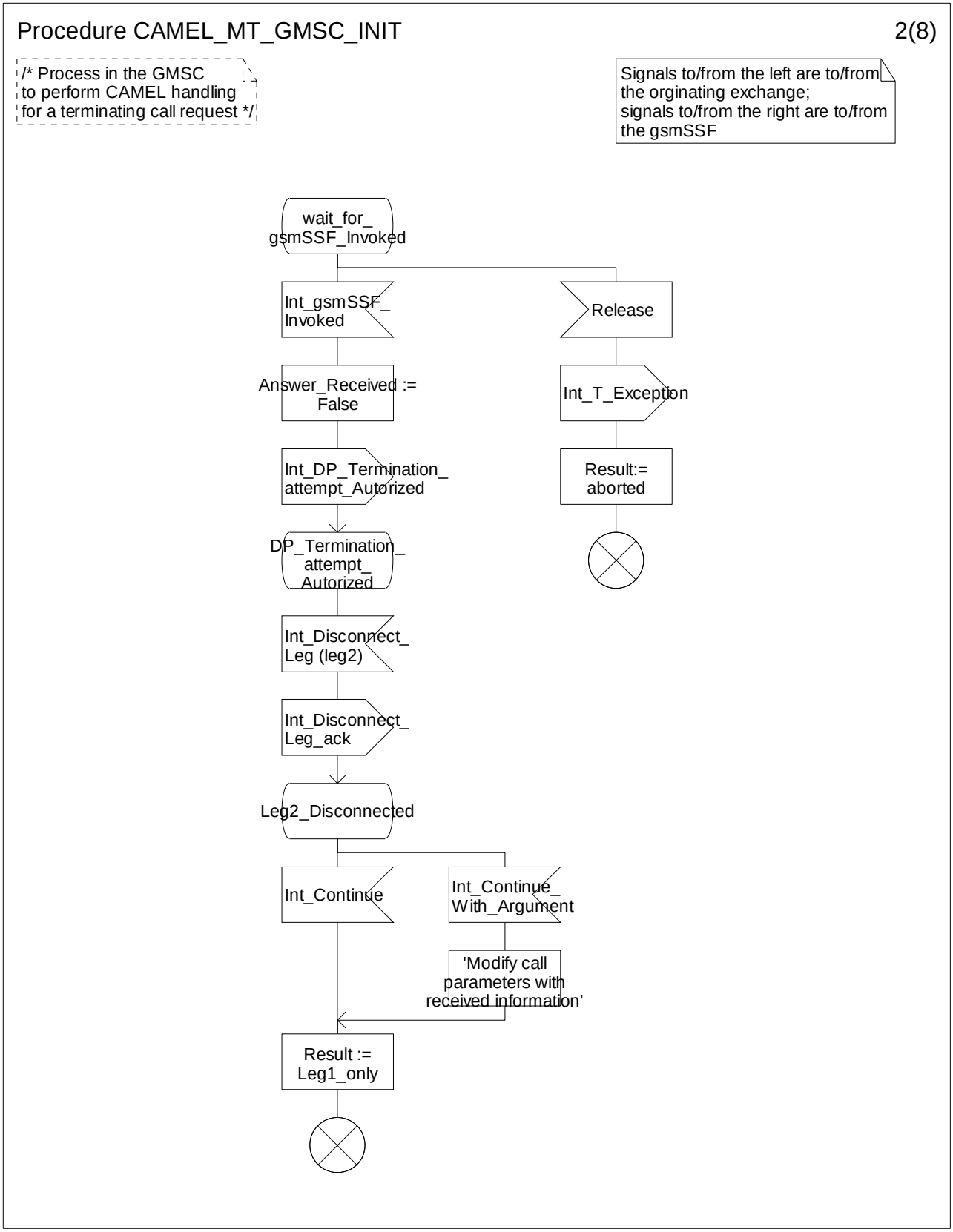


Figure 4.39-2: Procedure CAMEL_MT_GMSC_INIT (sheet 2)

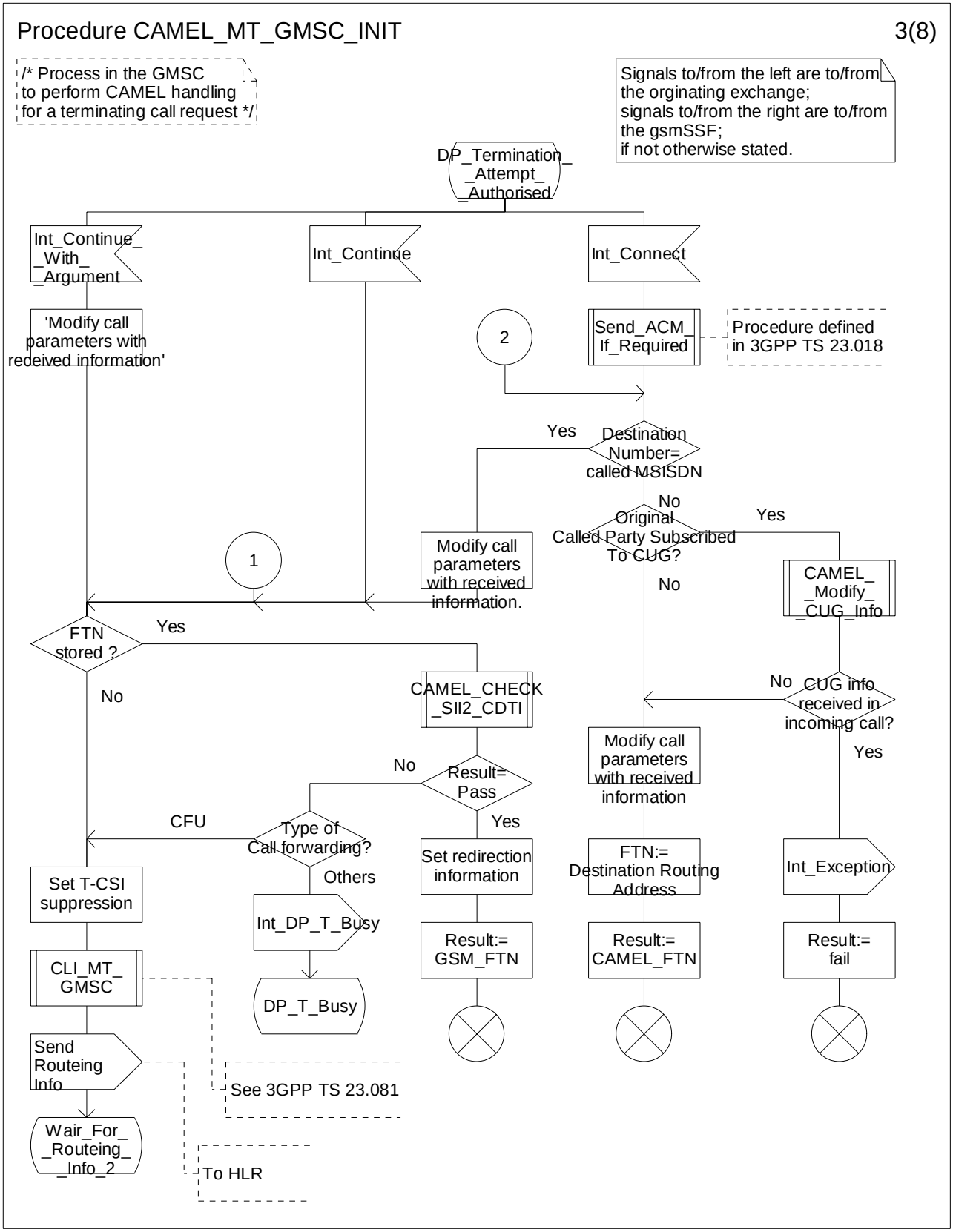


Figure 4.39-3: Procedure CAMEL_MT_GMSC_INIT (sheet 3)

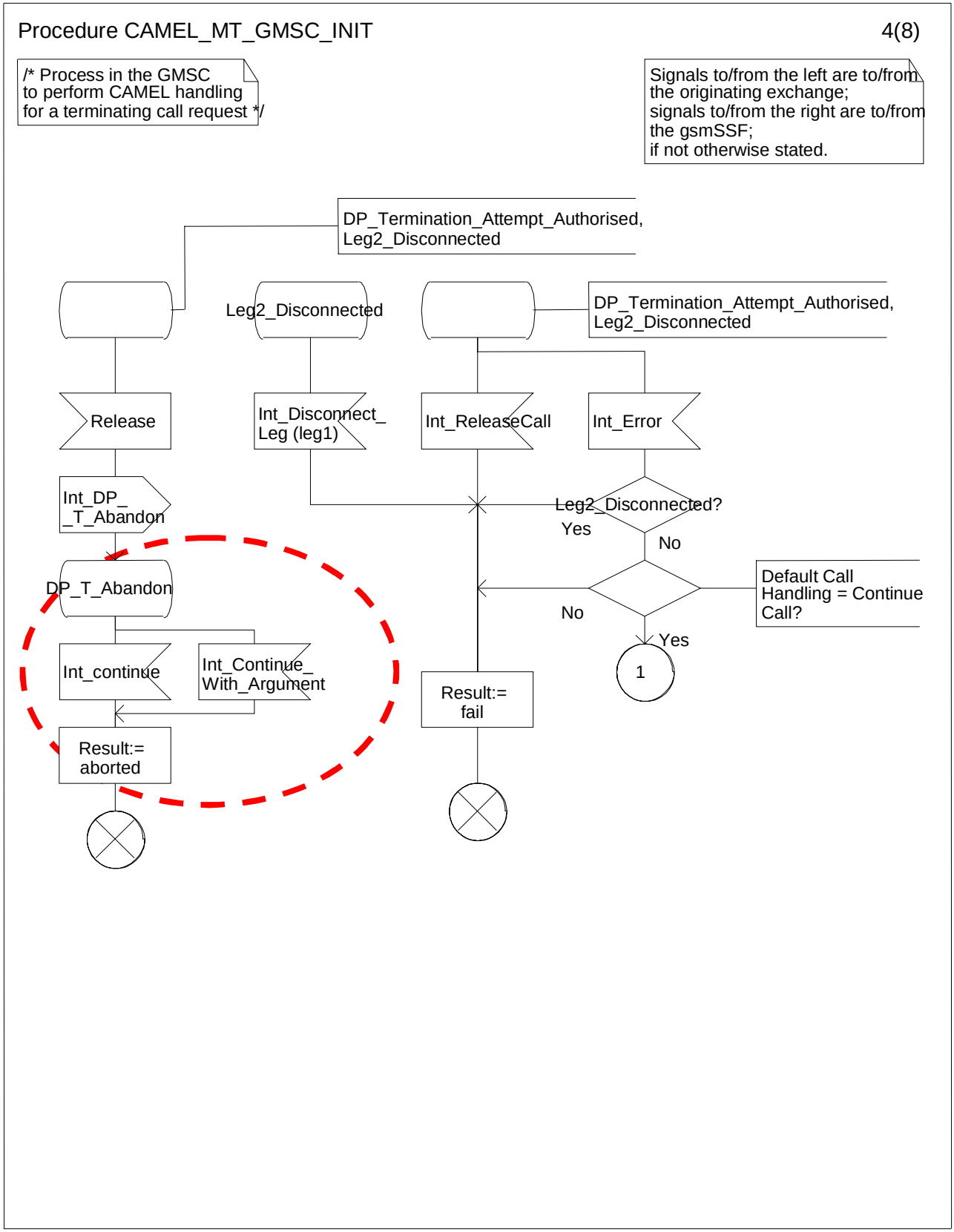


Figure 4.39-4: Procedure CAMEL_MT_GMSC_INIT (sheet 4)

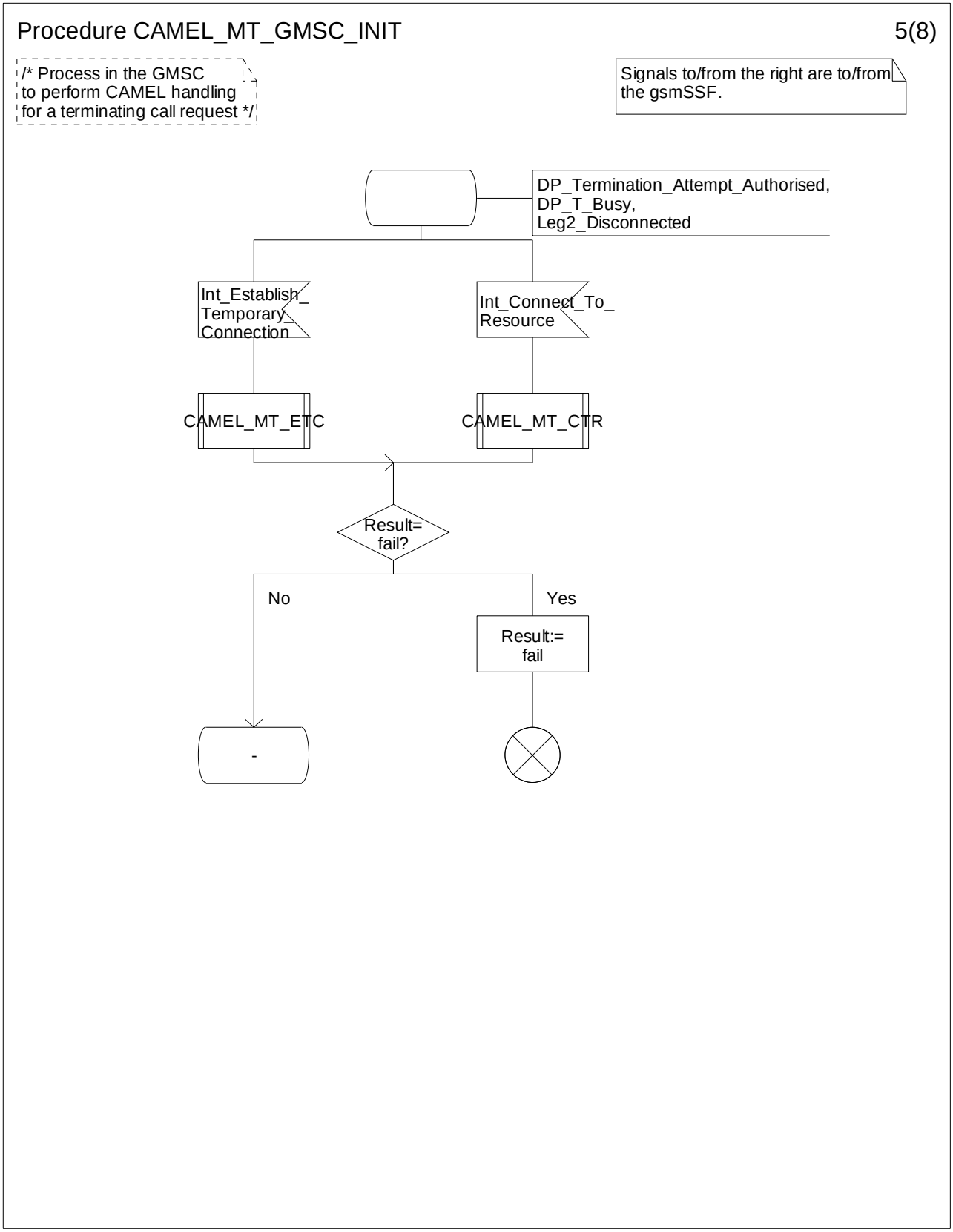


Figure 4.39-5: Procedure CAMEL_MT_GMSC_INIT (sheet 5)

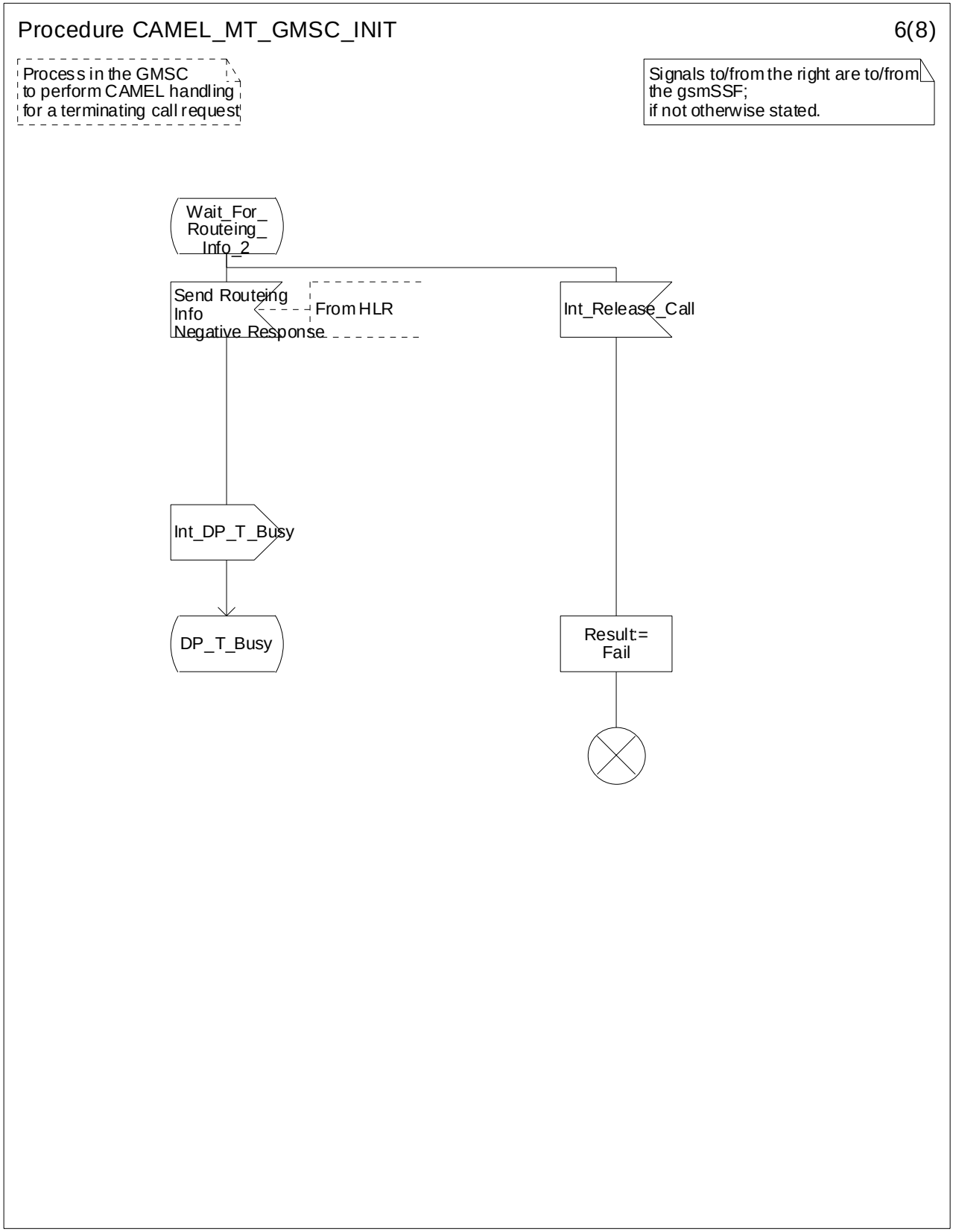


Figure 4.39-6: Procedure CAMEL_MT_GMSC_INIT (sheet 6)

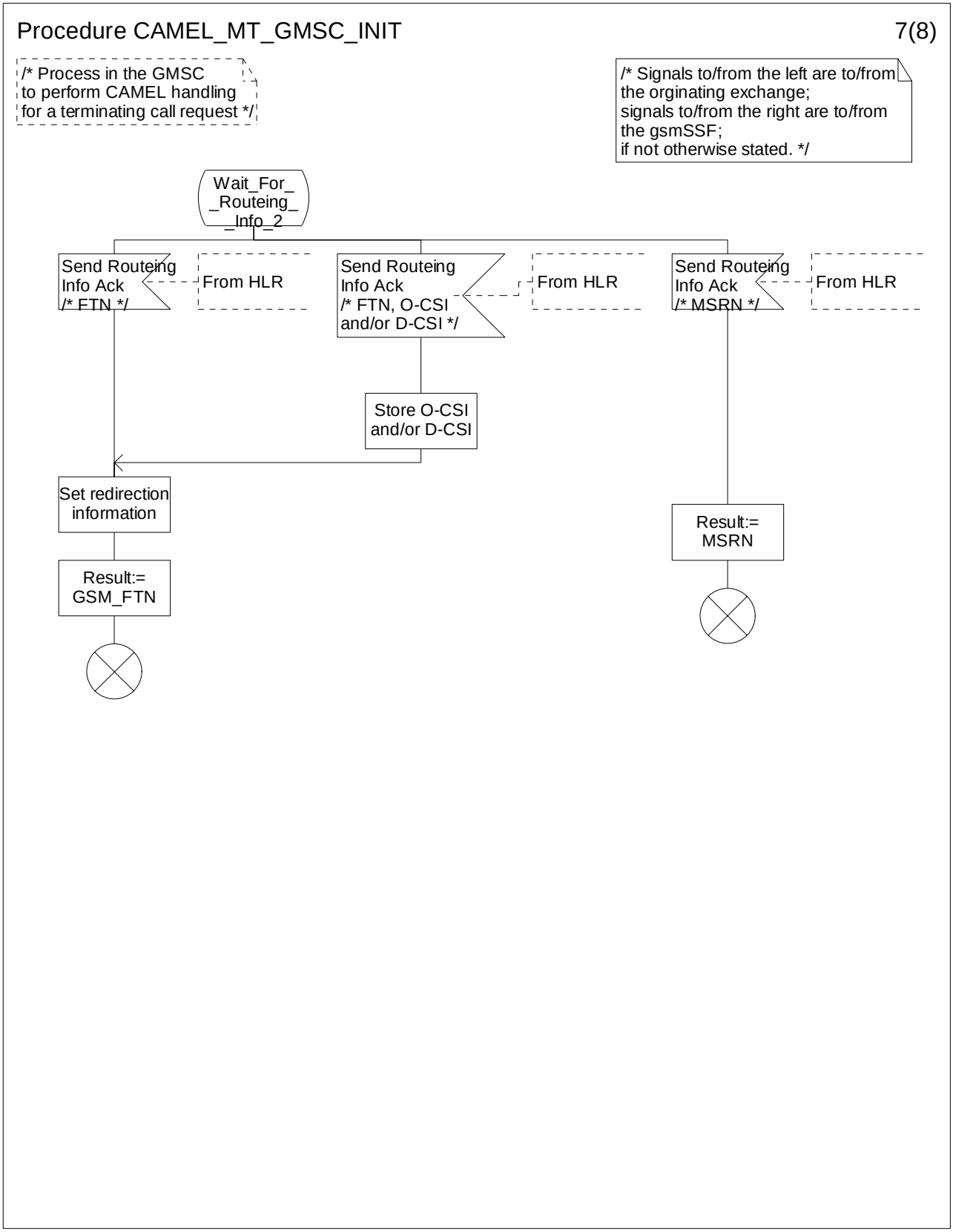
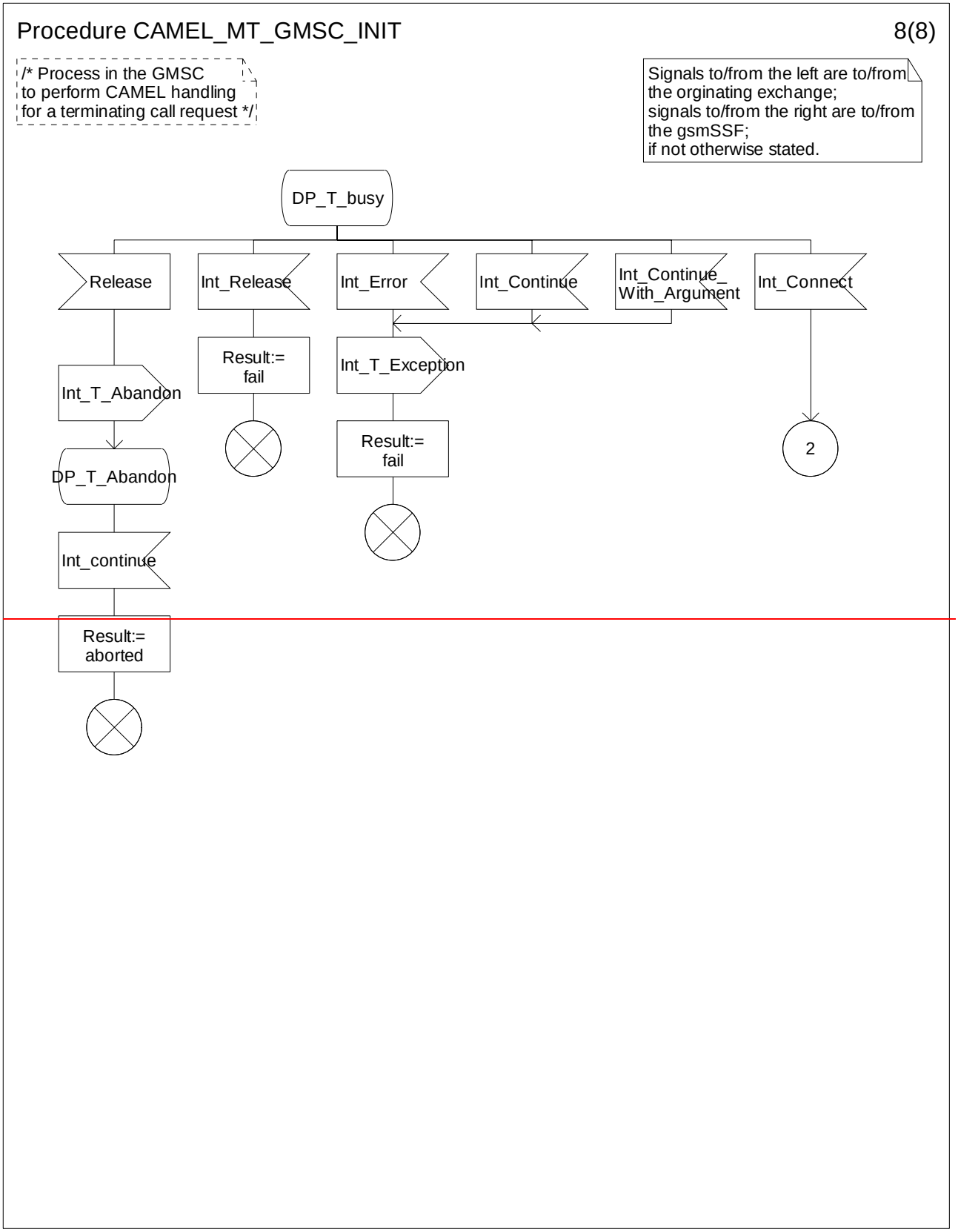


Figure 4.39-7: Procedure CAMEL_MT_GMSC_INIT (sheet 7)



~~Figure 4.39-8: Procedure CAMEL_MT_GMSC_INIT (sheet 8)~~

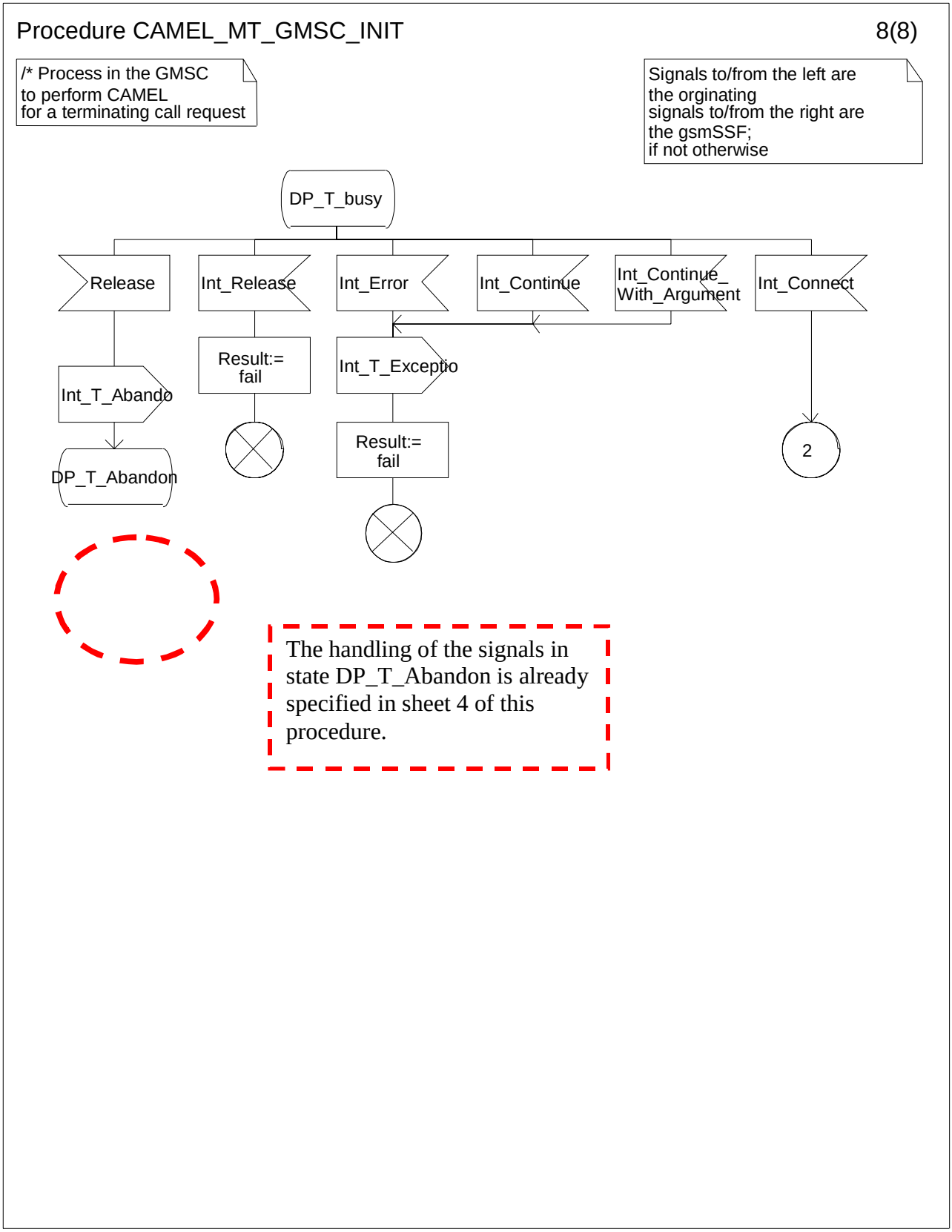
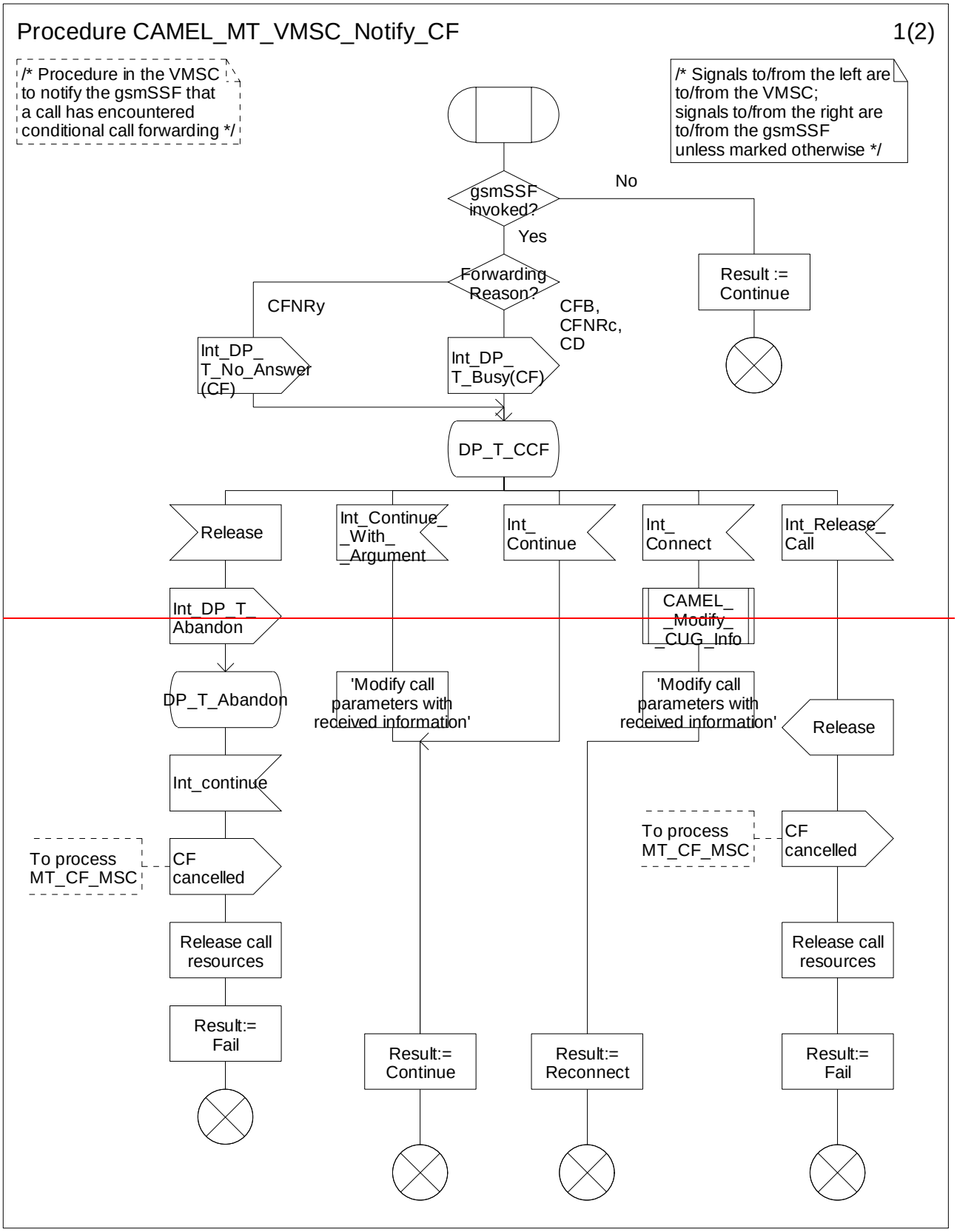


Figure 4.39-8: Procedure CAMEL_MT_GMSC_INIT (sheet 8)

— Next modified section —



~~Figure 4.66-1: Procedure CAMEL_MT_VMSC_Notify_CF (sheet 1)~~

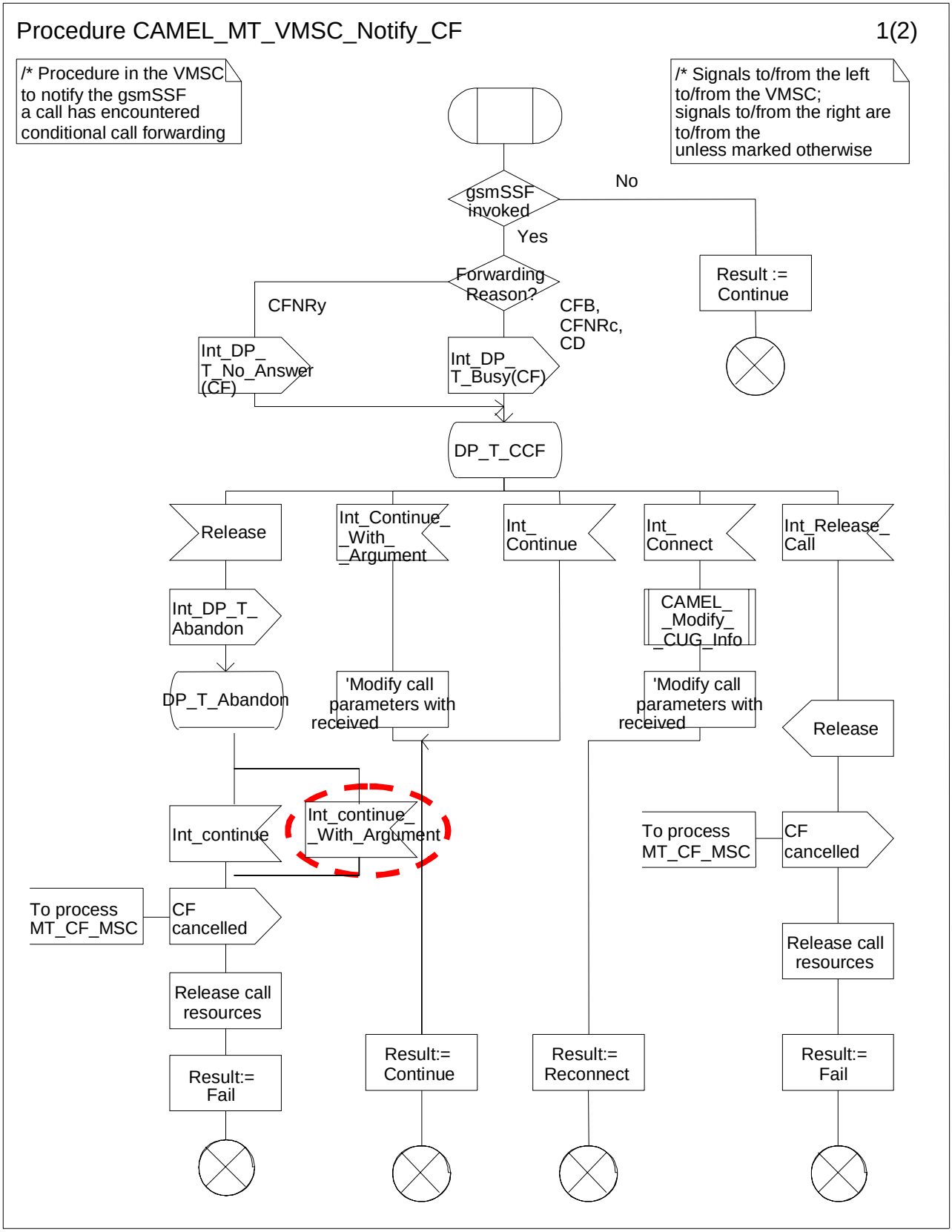


Figure 4.66-1: Procedure CAMEL_MT_VMSC_Notify_CF (sheet 1)

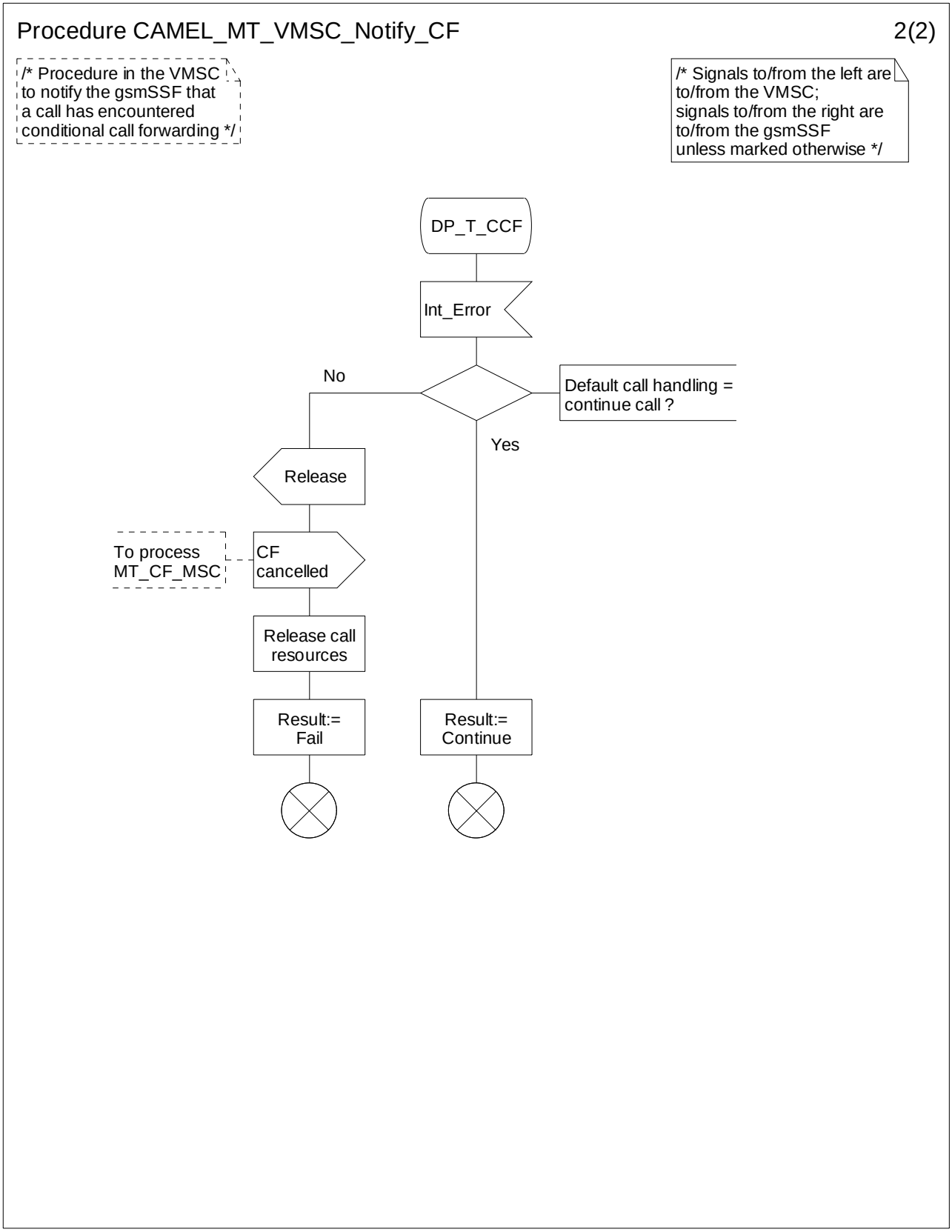


Figure 4.66-2: Procedure CAMEL_MT_VMSC_Notify_CF (sheet 2)

— End of CR —