3GPP TSG-CN Meeting #23 **NP-040091**

10th - 12th March 2004, Phoenix, USA

Source: **3GPP TSG CN2**

Title: **CRs for Rel-5 WI CAMEL4**

Agenda item: **8.3**

Document for: **APPROVAL**

This document contains following CRs for Rel-5 WI CAMEL4 that are approved by CN2 and are forwarded to TSG CN#23 for approval:

TDoc #	Title	Spec	CR #	Rev	Cat	Rel	Versi	WI
N2-040027	Correction to No Answer handling (CAMEL_OCH_MSC2)	23.078	663		F	Rel-5	5.6.0	CAMEL4
N2-040108	Correction to No Answer handling (CAMEL_OCH_MSC2)	23.078	695		A	Rel-6	6.0.0	CAMEL4
N2-040034	Correction to handling of DFC in CS_gsmSSF	23.078	670		F	Rel-5	5.6.0	CAMEL4
N2-040109	Correction to handling of DFC in CS_gsmSSF	23.078	696		A	Rel-6	6.0.0	CAMEL4
N2-040042	Correction to Information Location at DP O_Term_Seized	23.078	678		F	Rel-5	5.6.0	CAMEL4
N2-040151	Correction to Information Location at DP O_Term_Seized	23.078	708		A	Rel-6	6.0.0	CAMEL4
N2-040047	Correction to temporary connection establishment	29.078	347		F	Rel-5	5.6.0	CAMEL4
N2-040120	Correction to temporary connection establishment	29.078	361		A	Rel-6	6.0.0	CAMEL4
N2-040092	Handling of DFCWA in ETC and CTR procedures	23.078	666	1	F	Rel-5	5.6.0	CAMEL4
N2-040124	Handling of DFCWA in ETC and CTR procedures	23.078	700		A	Rel-6	6.0.0	CAMEL4
N2-040106	Correction to dialed services triggering for NP and NC calls	23.078	661	1	F	Rel-5	5.6.0	CAMEL4
N2-040107	Correction to dialed services triggering for NP and NC calls	23.078	694		A	Rel-6	6.0.0	CAMEL4
N2-040111	Correction to both way through parameter for ETC and CTR	23.078	674	1	F	Rel-5	5.6.0	CAMEL4
N2-040112	Correction to both way through parameter for ETC and CTR	23.078	697		A	Rel-6	6.0.0	CAMEL4
N2-040113	Correction to description of Service Interaction Indicators Two parameter	29.078	351	1	F	Rel-5	5.6.0	CAMEL4
N2-040114	Correction to description of Service Interaction Indicators Two parameter	29.078	360		A	Rel-6	6.0.0	CAMEL4
N2-040115	Correction to forwarded leg handling with Suppress O-CSI	23.078	676	1	F	Rel-5	5.6.0	CAMEL4
N2-040116	Correction to forwarded leg handling with Suppress O-CSI	23.078	698		A	Rel-6	6.0.0	CAMEL4

N2-040117	Correction to ORLCF handling for CAMEL calls in VMSC	23.078	677	1	F	Rel-5	5.6.0	CAMEL4
N2-040118	Correction to ORLCF handling for CAMEL calls in VMSC	23.078	699		A	Rel-6	6.0.0	CAMEL4

3GPP TSG CN WG2 Meeting #32 N2-040027
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **23.078** **CR** 663 ⌘**rev** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Correction to No Answer handling (CAMEL_OCH_MSC2)
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-01-28
Category:	⌘	F (essential correction)
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 4.17-1, CAMEL_OCH_MSC2. In state DP_O_No_Answer, Int_Continue_With_Argument may be received, similar to CAMEL_OCH_MSC1, figure 4.16.
Summary of change:	⌘	Add Int_Continue_With_Argument to figure 4.17-1.
Consequences if not approved:	⌘	Implementation difficulty for both gsmSSF and gsmSCF; the sending of Continue With Argument may fail at No_Answer DP.

Clauses affected:	⌘	Figure **Error! Reference source not found.**.1-1: Procedure CAMEL_OCH_MSC2

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

Other comments: ⌘

***** *For Information* *****

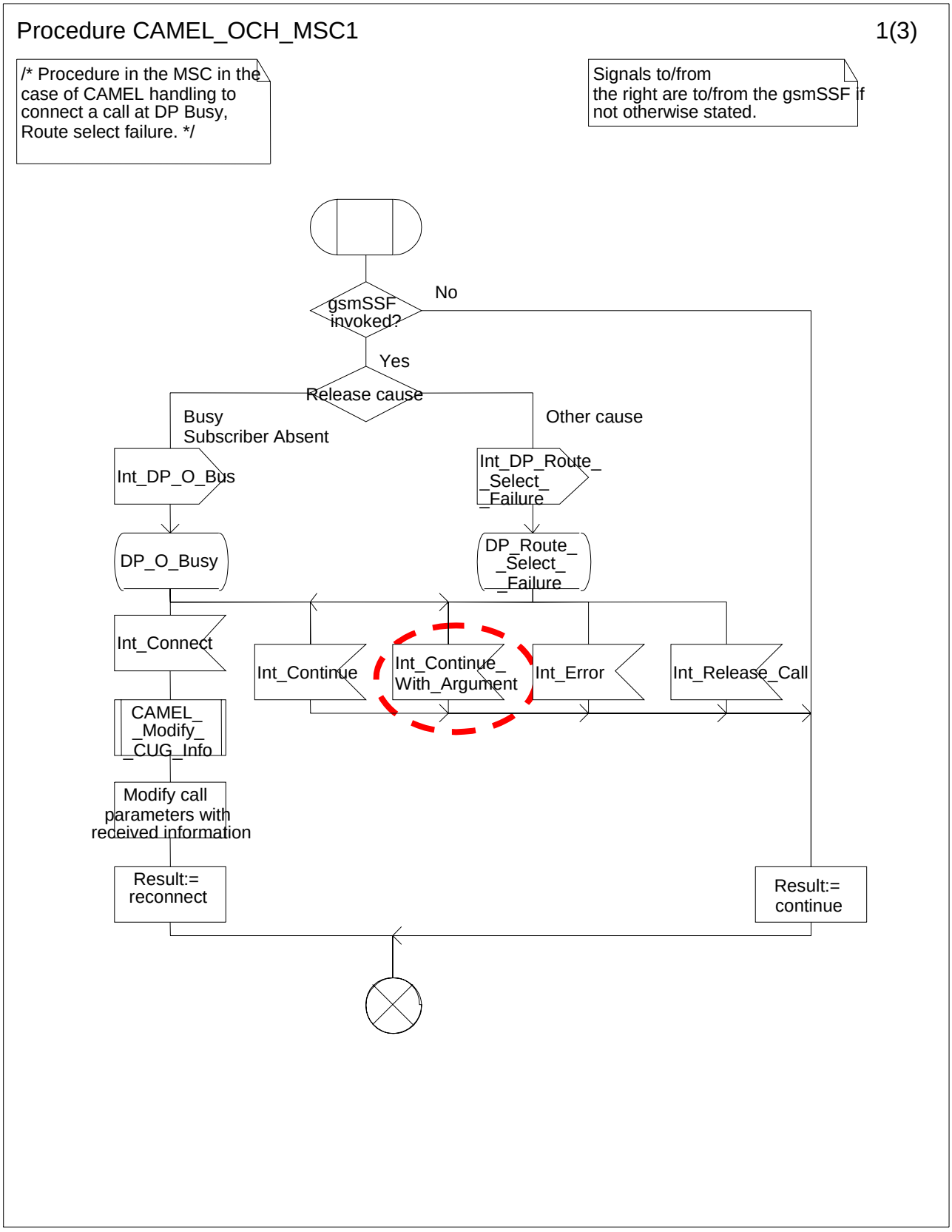
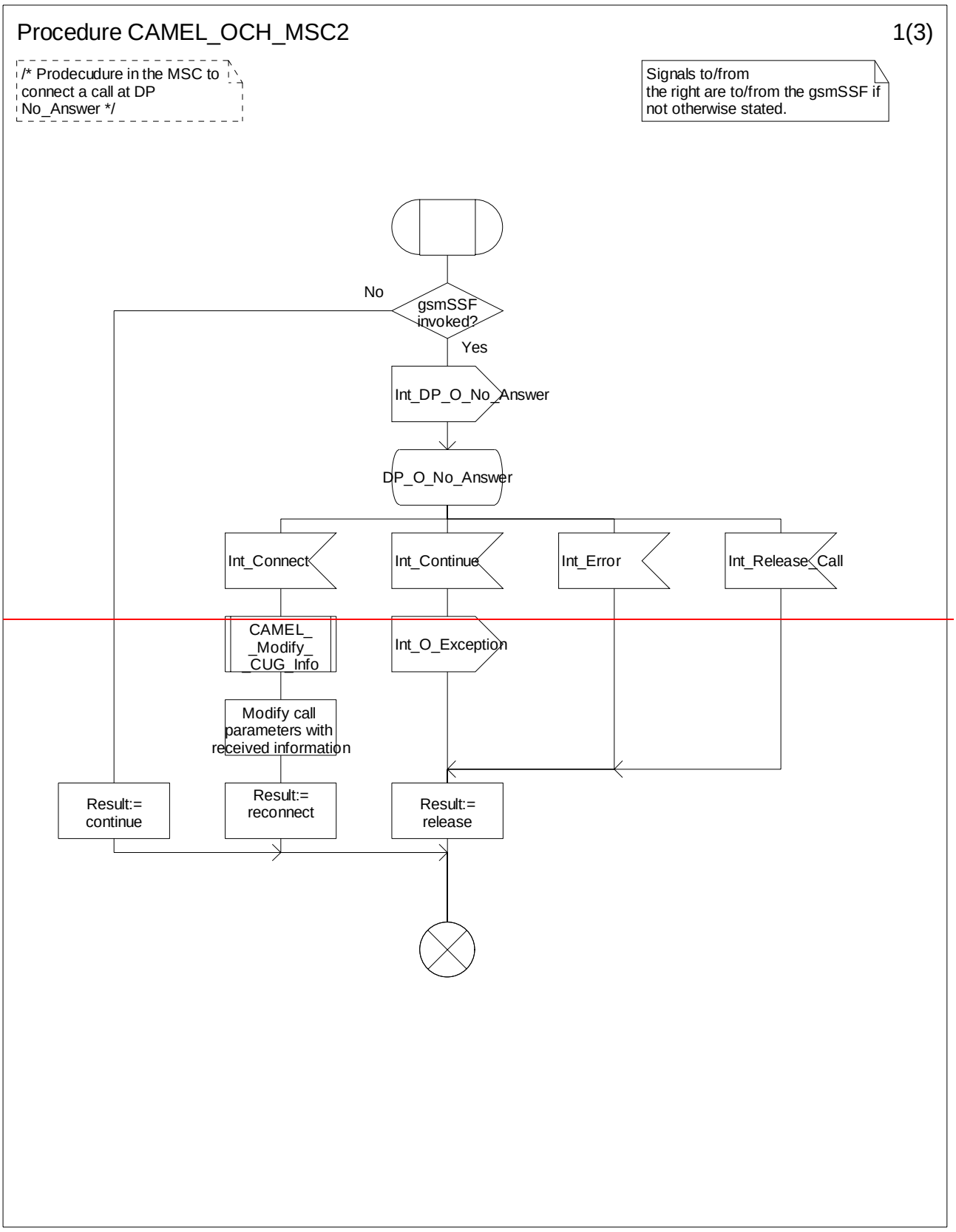


Figure Error! Reference source not found..**2-1: Procedure CAMEL_OCH_MSC1 (sheet 1)**

***** *First Modification* *****



~~**Figure 4.17-1: Procedure CAMEL_OCH_MSC2 (sheet 1)**~~

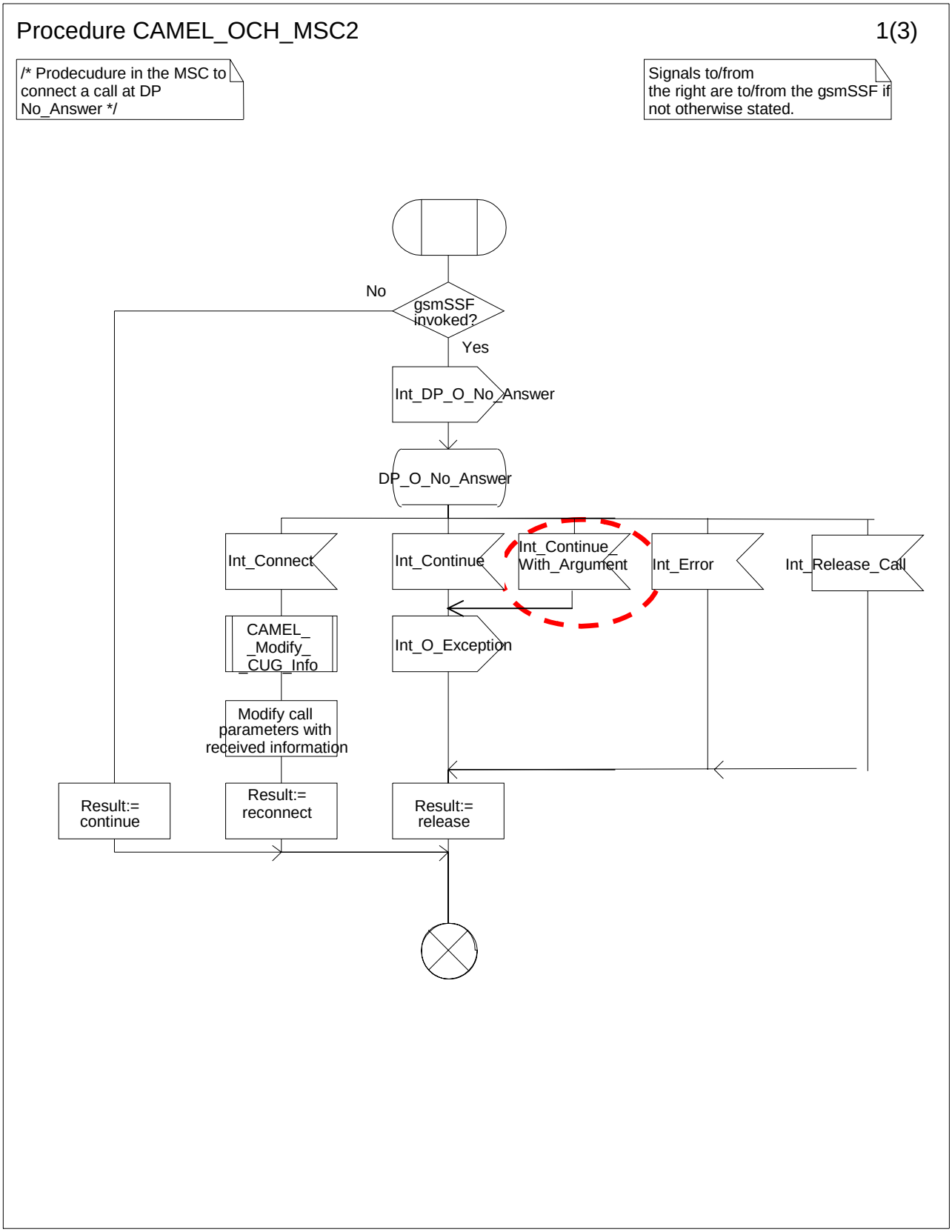


Figure Error! Reference source not found.**-4-1: Procedure CAMEL_OCH_MSC2 (sheet 1)**

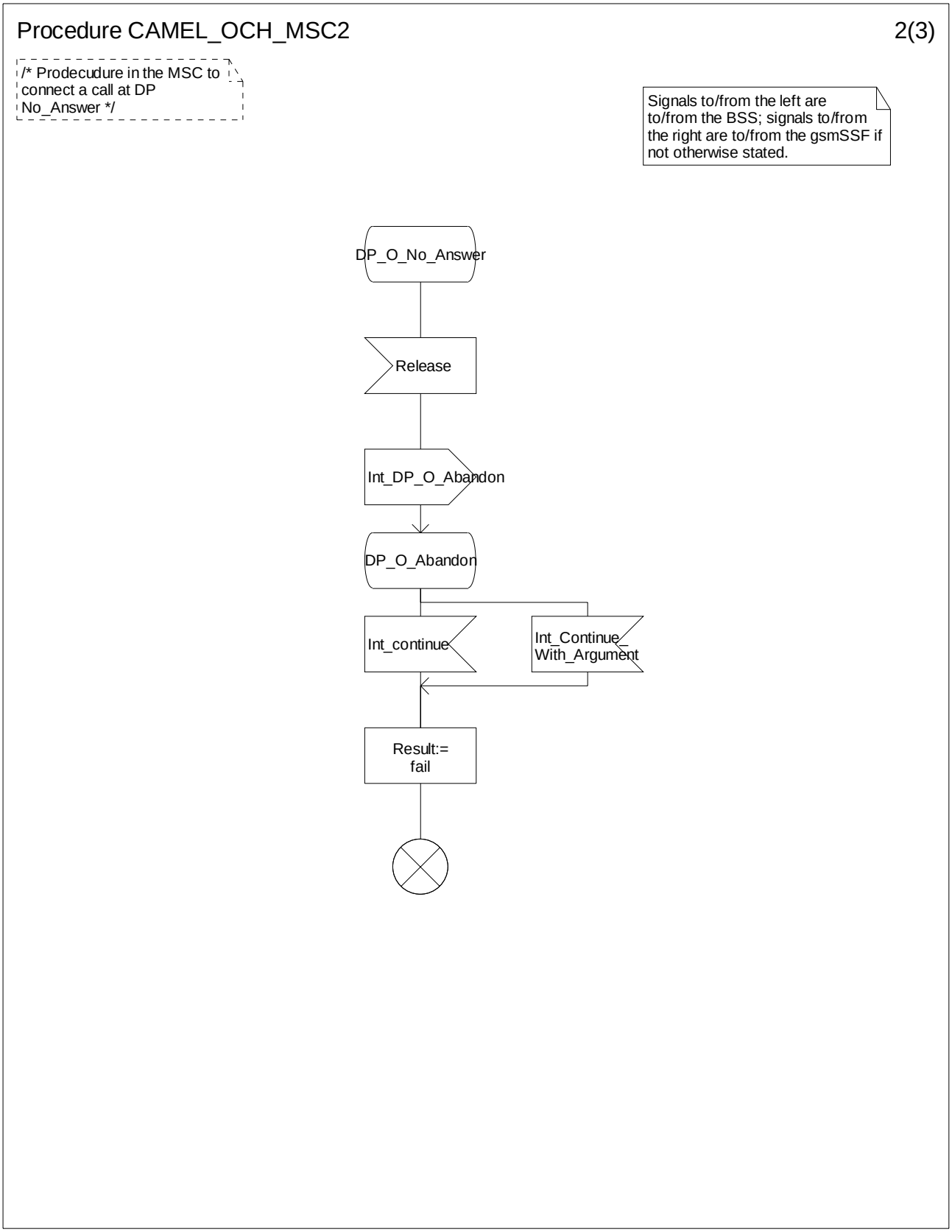


Figure -2: Procedure CAMEL_OCH_MSC2 (sheet 2)

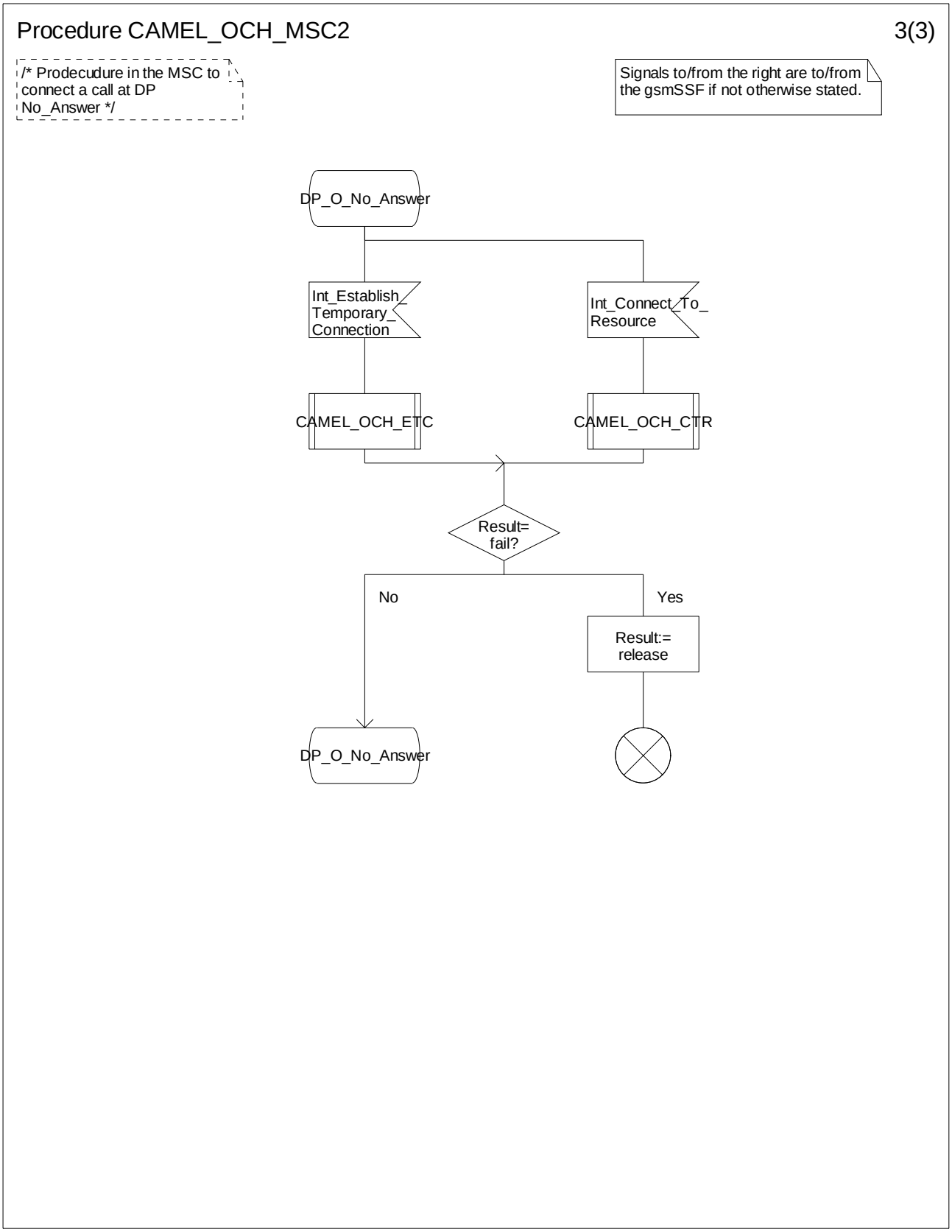


Figure -3: Procedure CAMEL_OCH_MSC2 (sheet 3)

****** End of Document******

3GPP TSG CN WG2 Meeting #32 N2-040034
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **23.078** **CR** 670 ⌘**rev** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Correction to handling of DFC in CS_gsmSSF
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-01-28
Category:	⌘	F (essential correction)
Release:	⌘	Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
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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 figure 4.96, CS_gsmSSF, sheet 38.

When gsmSSF has sent Int_DFC to MSC, it will receive the signal Int_TC_Released; refer to rightmost branch in the same sheet. So, gsmSSF should have this input signal. Currently, the gsmSSF does not have an input for that signal. As a result, gsmSSF transits to state WFI and the Int_TC_Released signal will arrive in an unexpected state.

Refer figure 4.96, CS_gsmSSF, sheet 39

After sending Int_DFC or Int_DFCWA, gsmSSF should expect signal Int_SRF_Released, as is the case in sheet 41 of CS_gsmSSF.

CS_gsmSSF may send Int_DFC or Int_DFCWA to the following procedures (see "for information section" of present CR):

- CAMEL_OCH_ETC;
- CAMEL_OCH_CTR;
- CAMEL_MT_ETC;
- CAMEL_MT_CTR;
- CAMEL_CF_ETC;
- CAMEL_CF_CTR.

Summary of change: ⌘

Correct CS_gsmSSF, sheet 38: after CS_gsmSSF has sent Int_DFC to the MSC, it shall transit to state TC_Release_Pending_2 and wait for signal Int_TC_Released.

Correct CS_gsmSSF, sheet 39: after CS_gsmSSF has sent Int_DFC to the MSC, it shall transit to state SRF_Release_Pending_2 and wait for signal

		Int_SRF_Released. On sheets 56 and 58, similar corrections are needed, for User Interaction and Temporary Connections for Dialed Services.
Consequences if not approved:	⌘	Possible malfunctioning in gsmSSF for User Interaction. CS_gsmSSF would receive signal Int_TC_Released or Int_SRF_Released when it has returned to Waiting for Instruction and possilby to another state already.

Clauses affected:	⌘	Figure **Error! Reference source not found.** (Process CS_gsmSSF), sheets 38, 39, 56 and 58			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

***** *For Information* *****

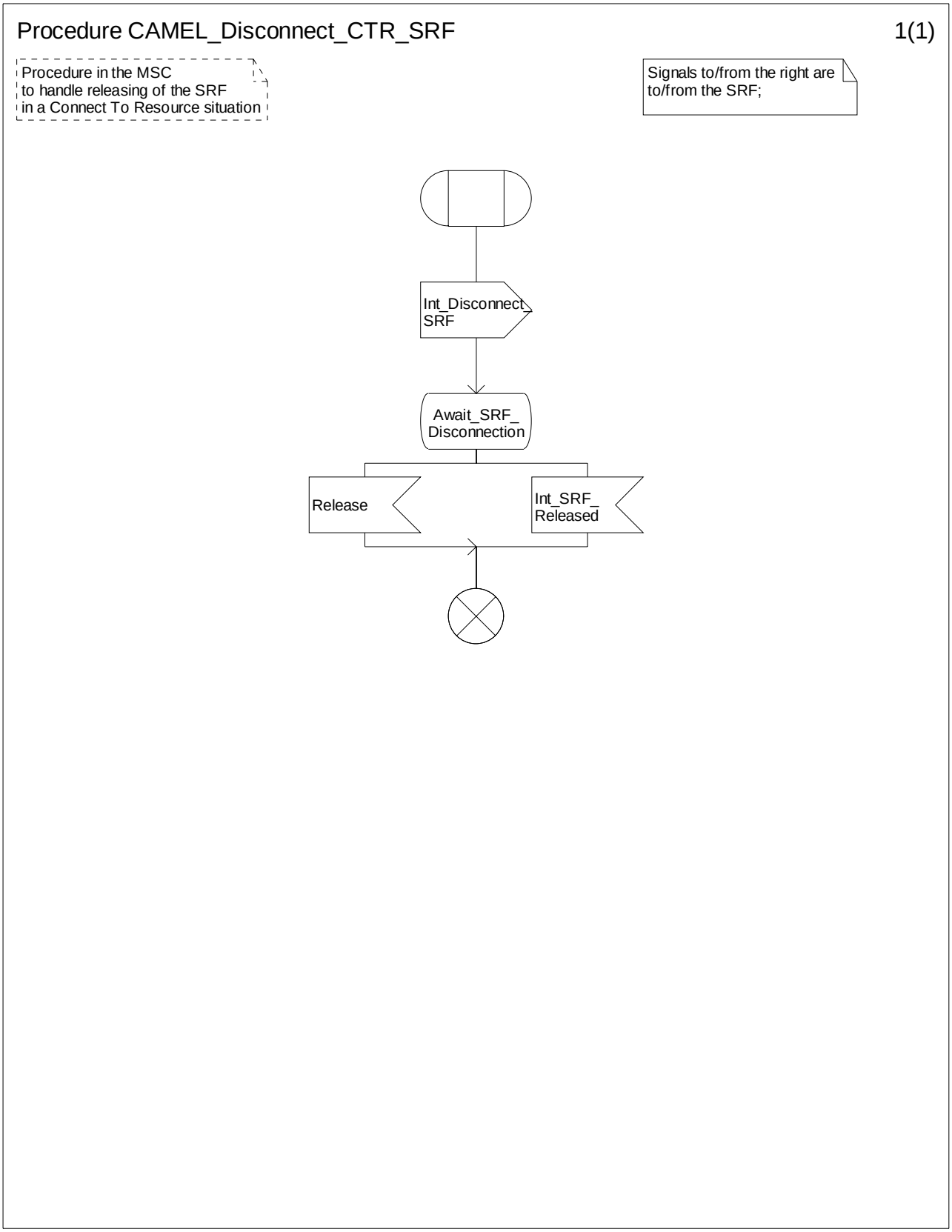


Figure Error! Reference source not found.**.1-1: Procedure CAMEL_Disconnect_CTR_SRF (sheet 1)**

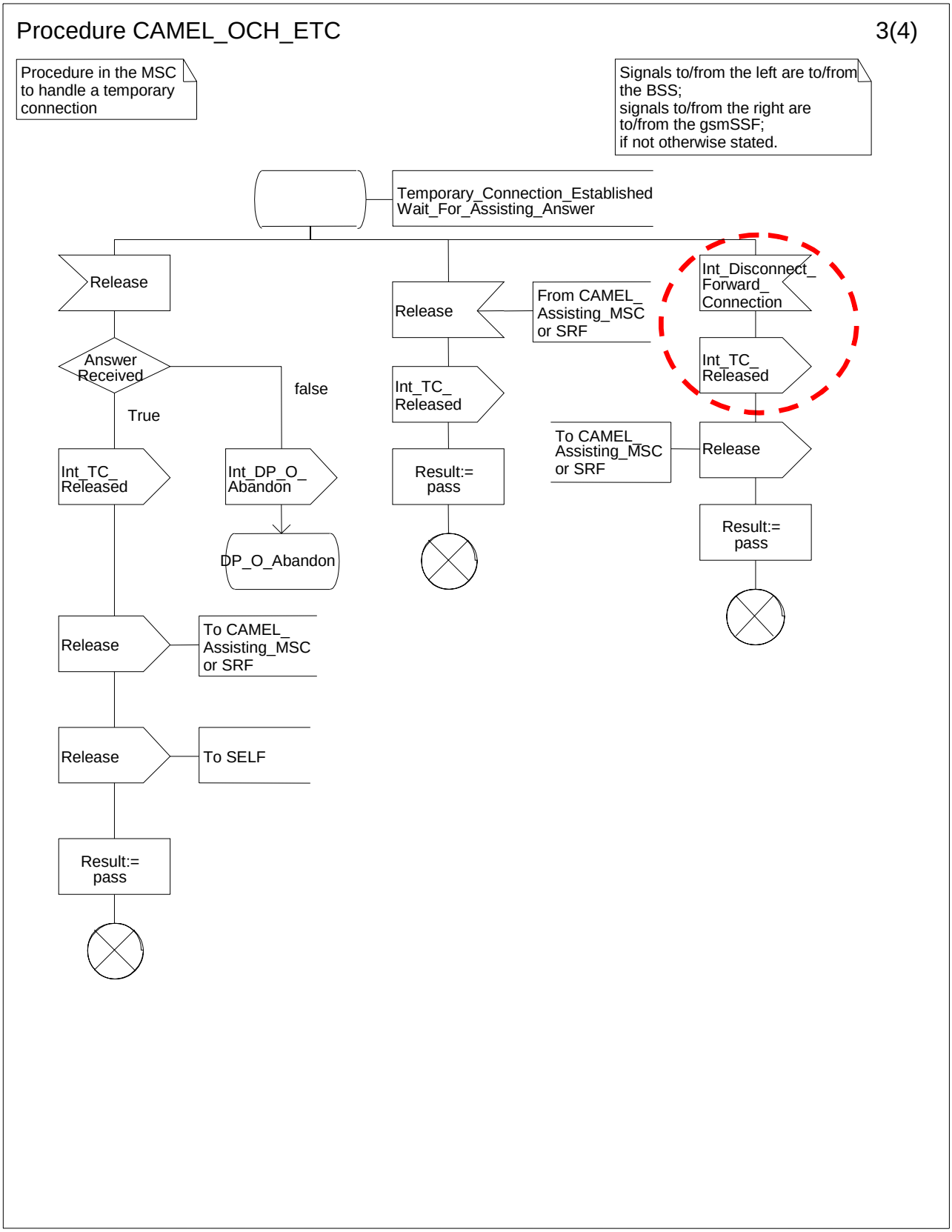


Figure Error! Reference source not found.**-2: Procedure CAMEL_OCH_ETC (sheet 2)**

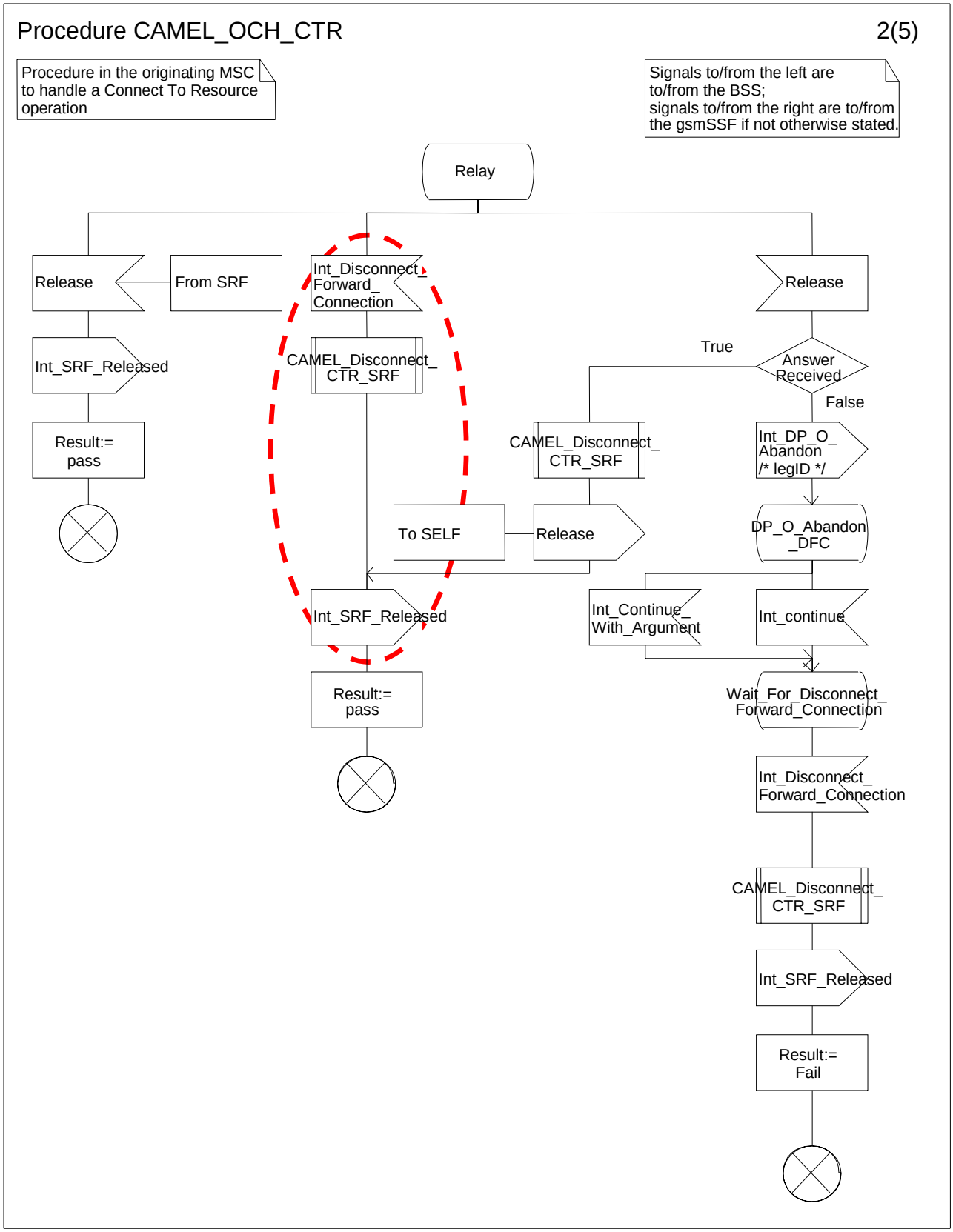


Figure Error! Reference source not found.**-3: Procedure CAMEL_OCH_CTR (sheet 3)**

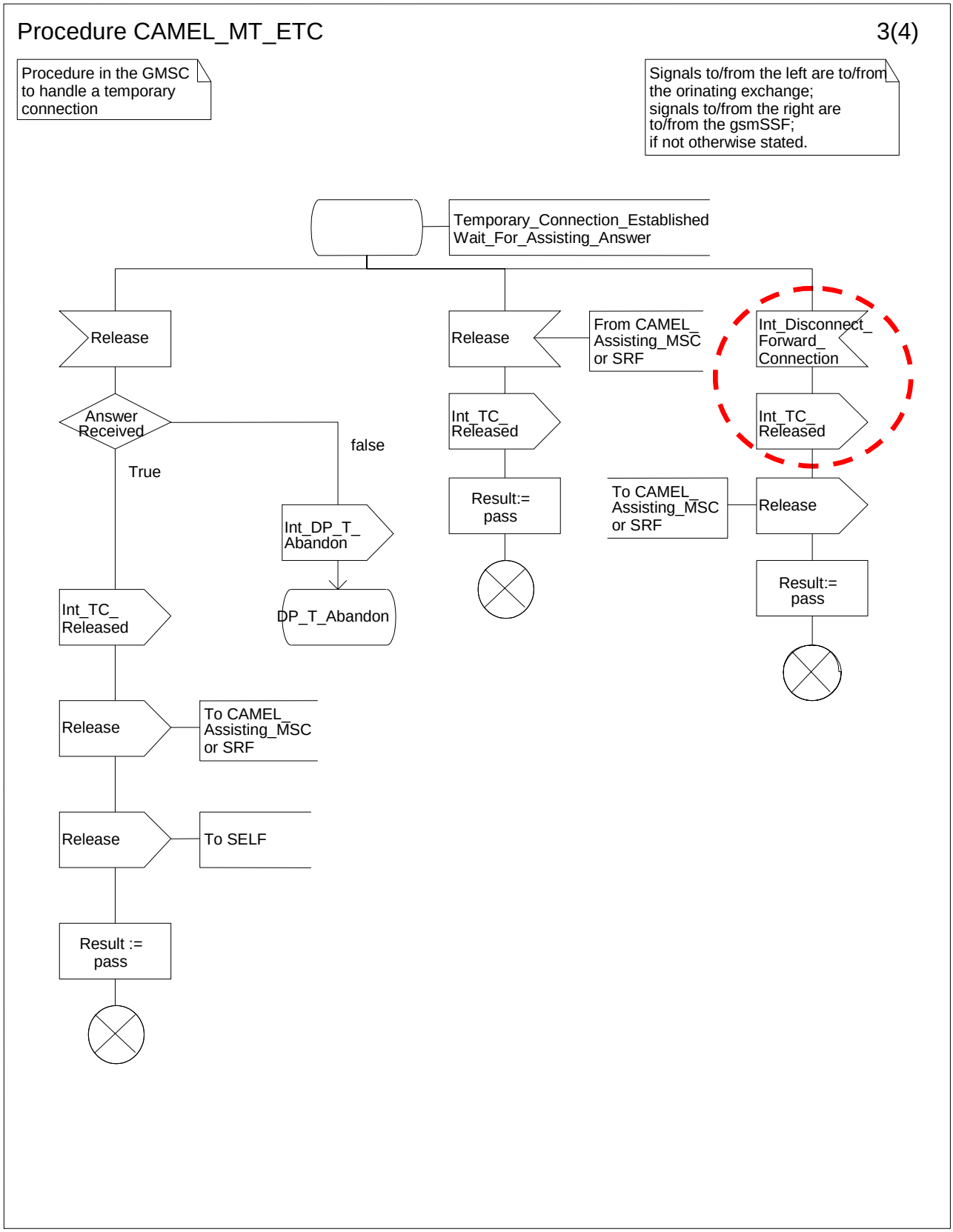


Figure Error! Reference source not found.**-4: Procedure CAMEL_MT_ETC (sheet 4)**

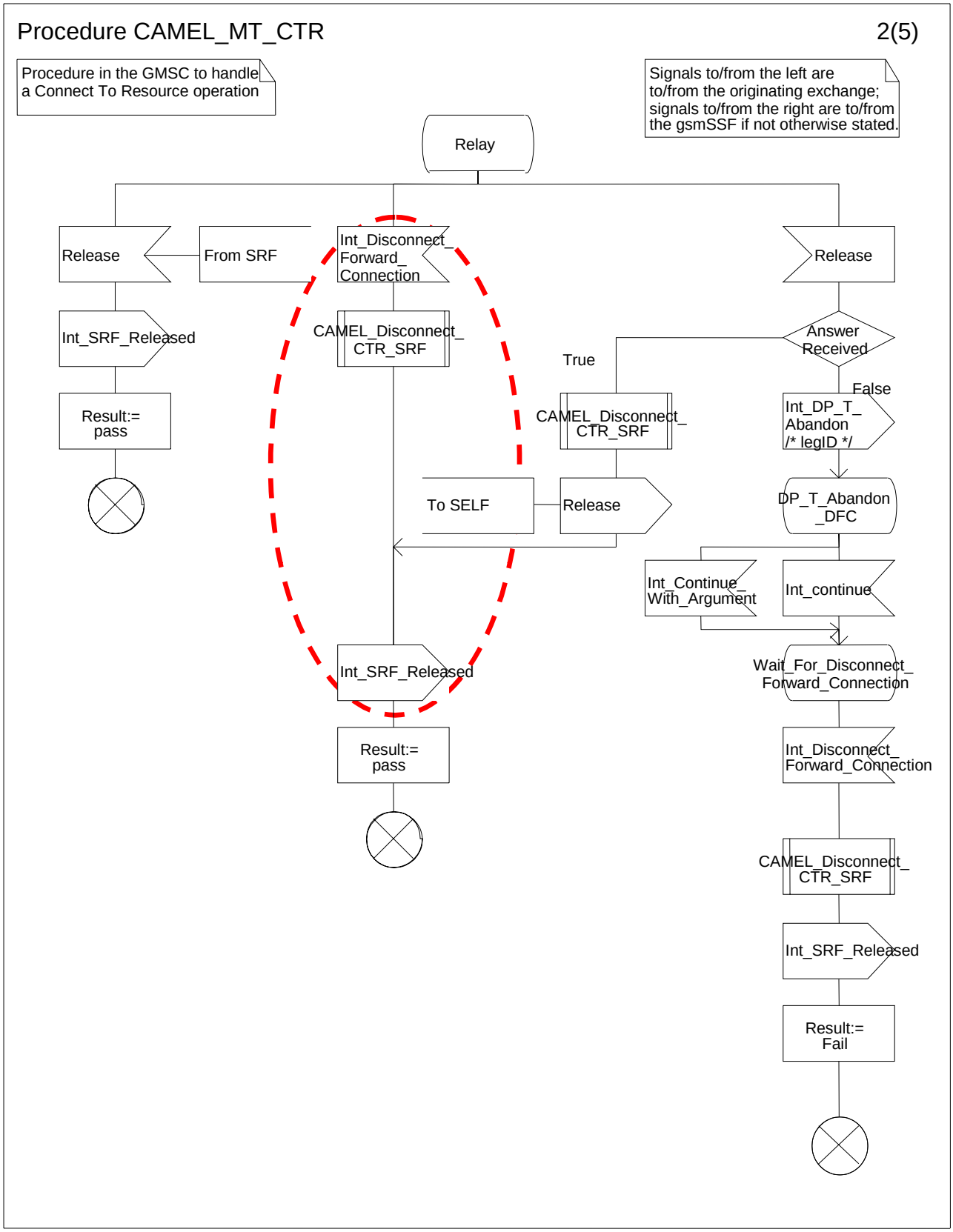


Figure Error! Reference source not found.**-5: Procedure CAMEL_MT_CTR (sheet 5)**

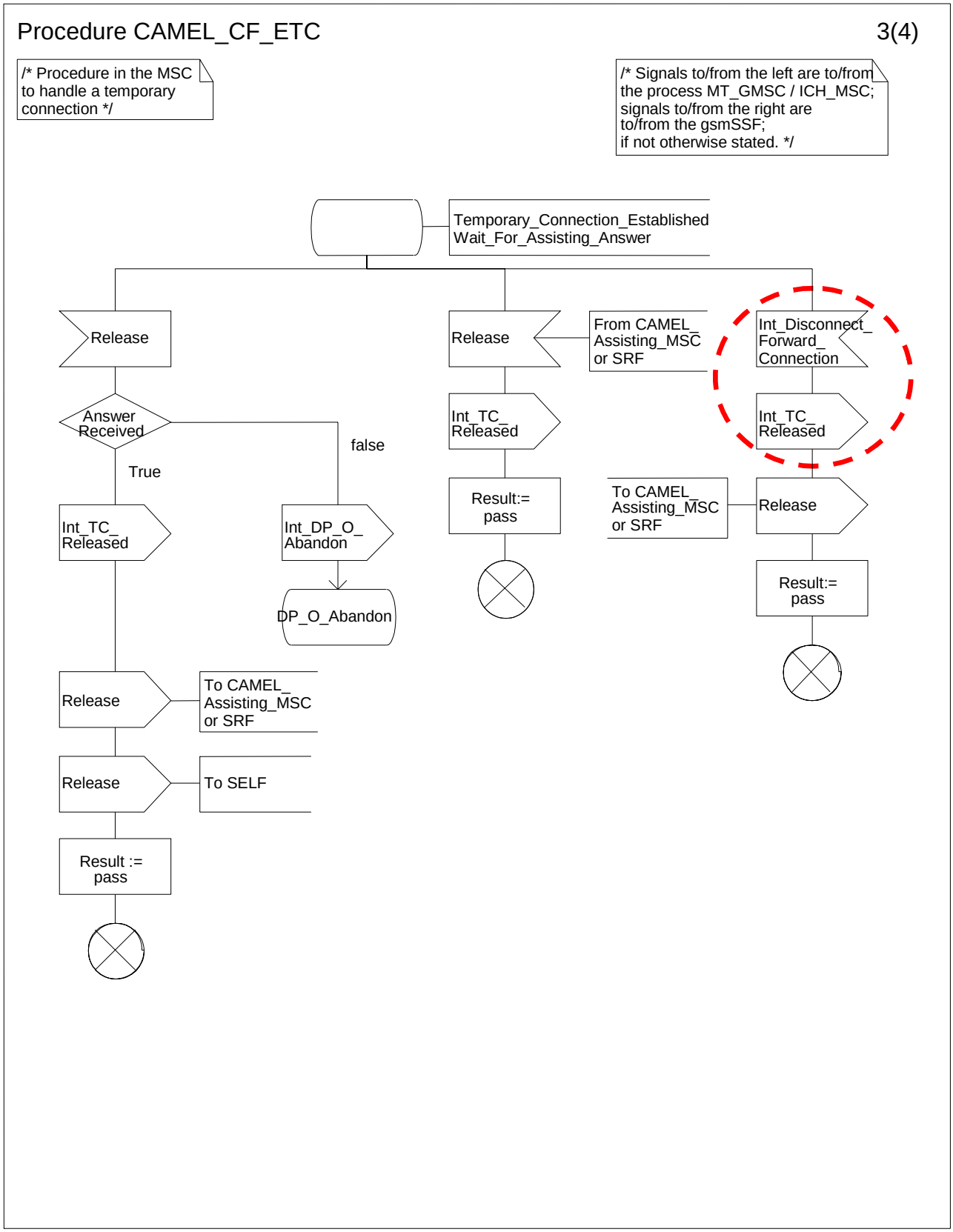


Figure Error! Reference source not found.**-6: Procedure CAMEL_CF_ETC (sheet 6)**

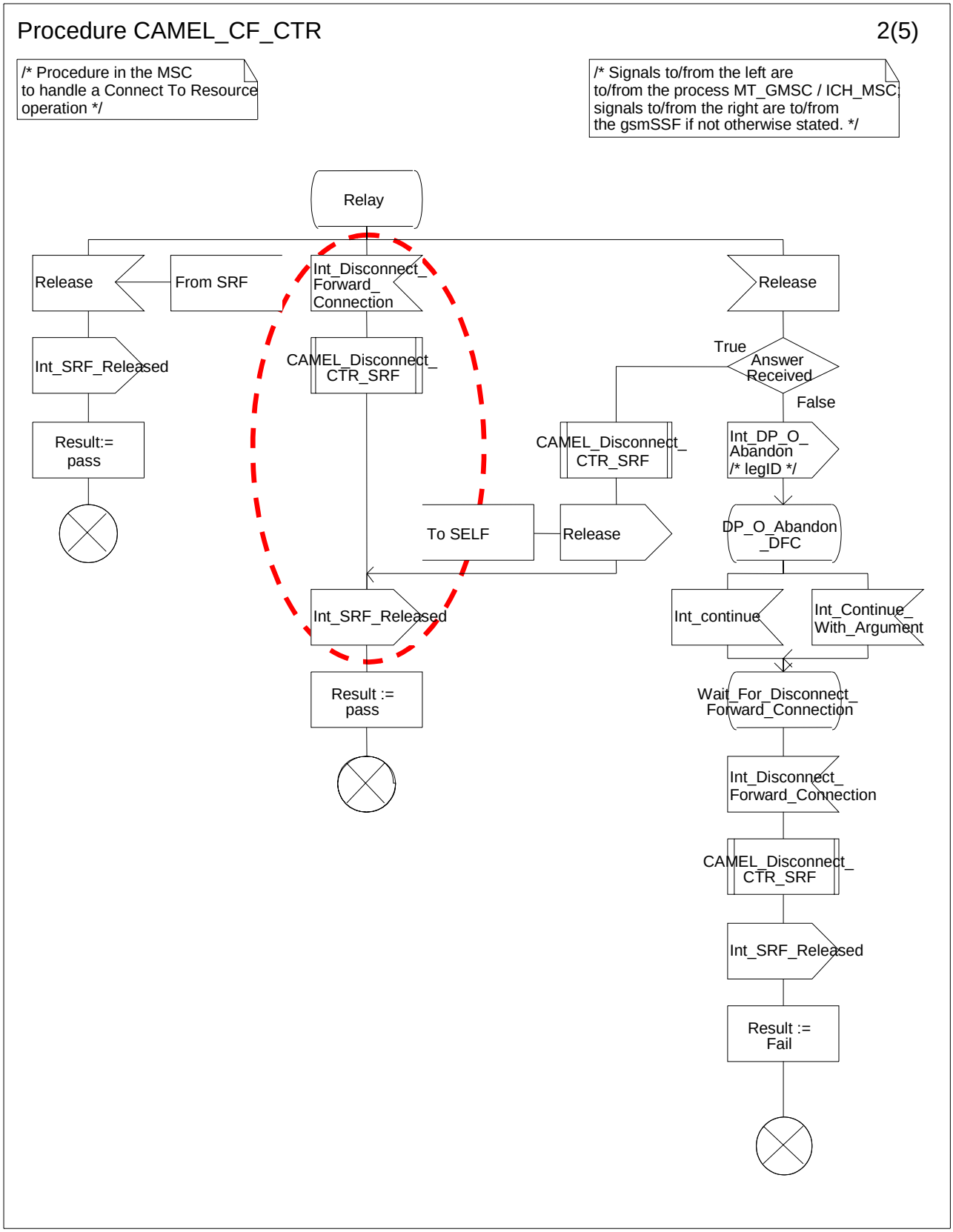
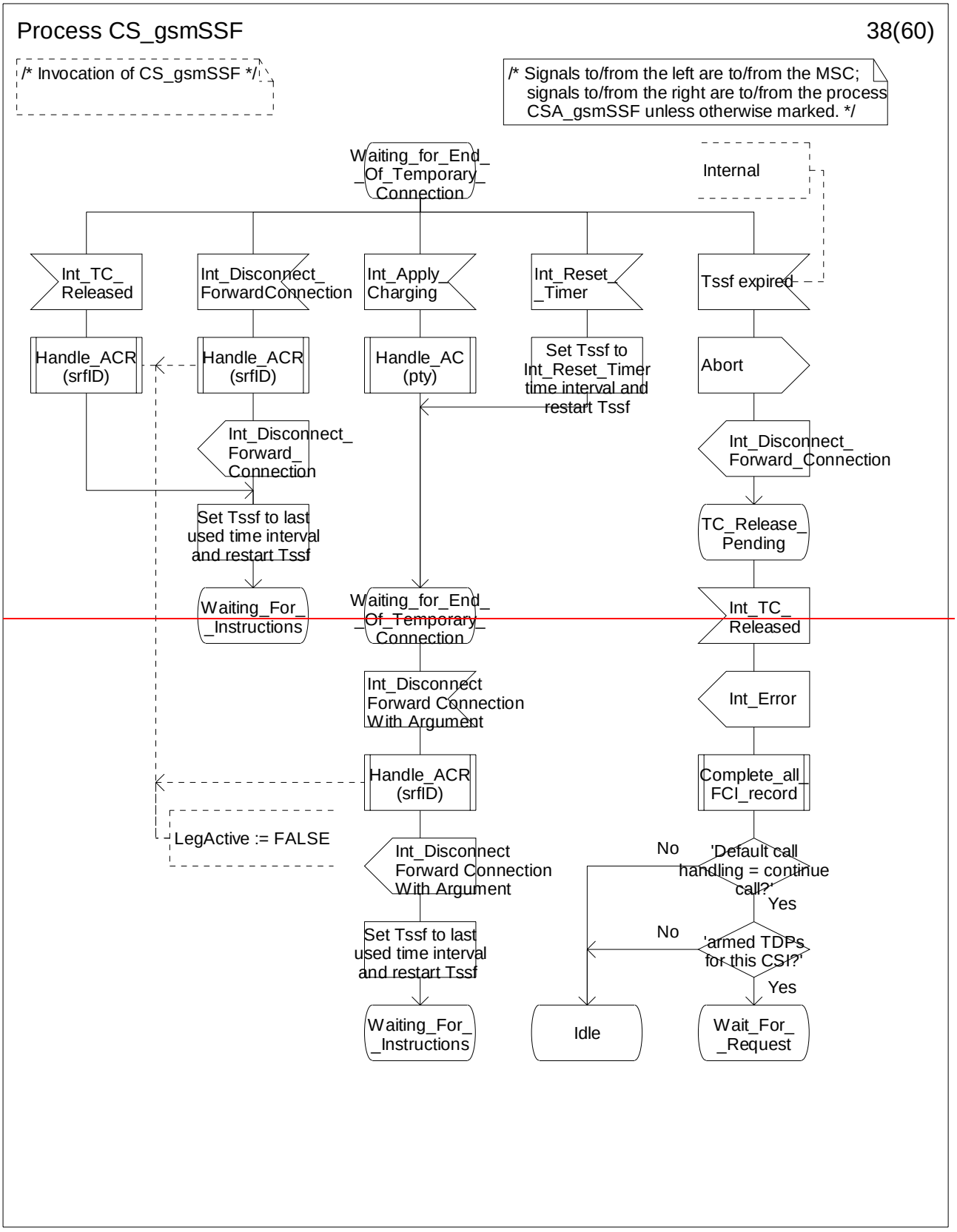


Figure Error! Reference source not found.**-7: Procedure CAMEL_CF_CTR (sheet 7)**

***** *First Modification* *****



~~**Figure 4.96-38: Process CS_gsmSSF (sheet 38)**~~

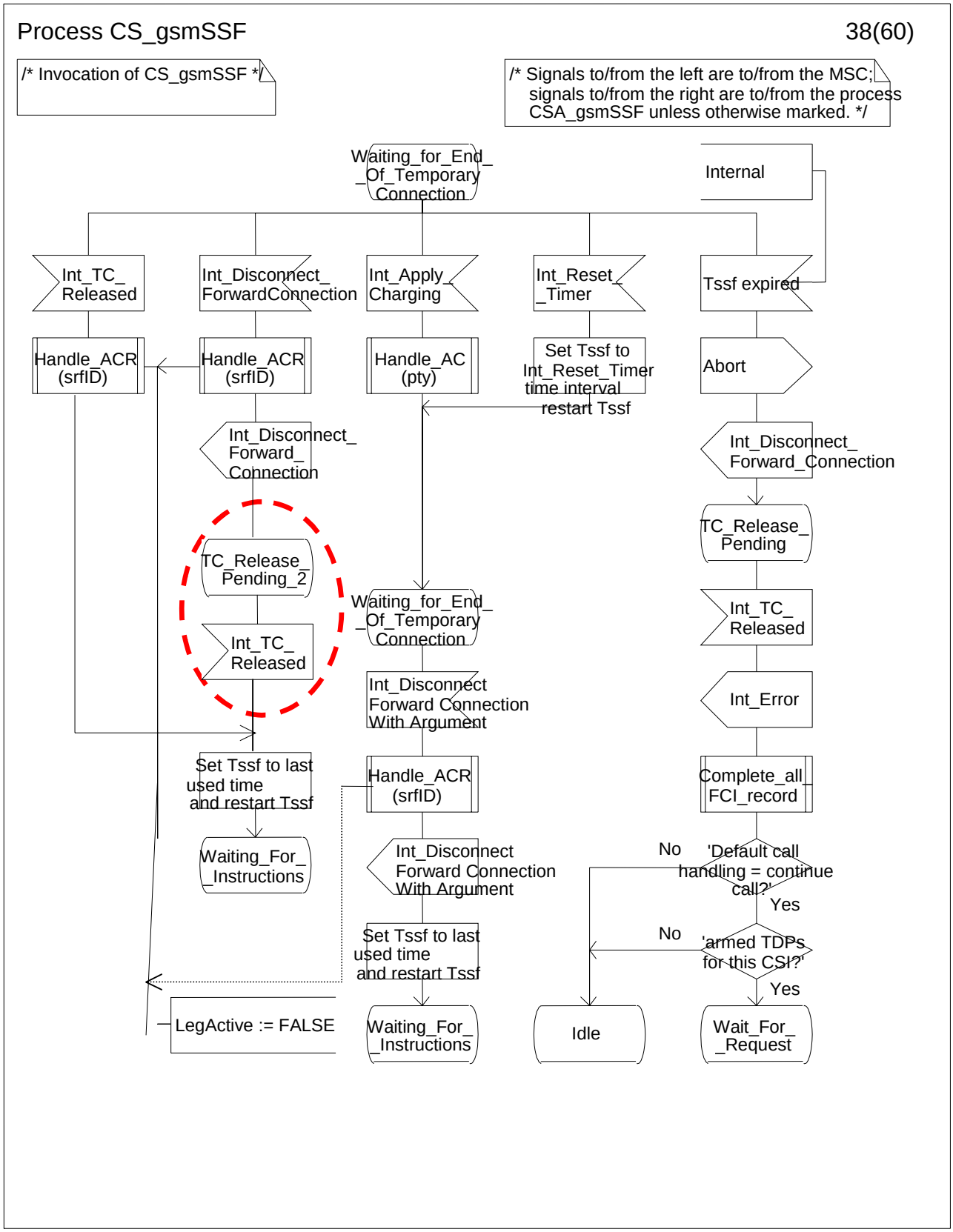


Figure Error! Reference source not found.-9: Process CS_gsmSSF (sheet 9)

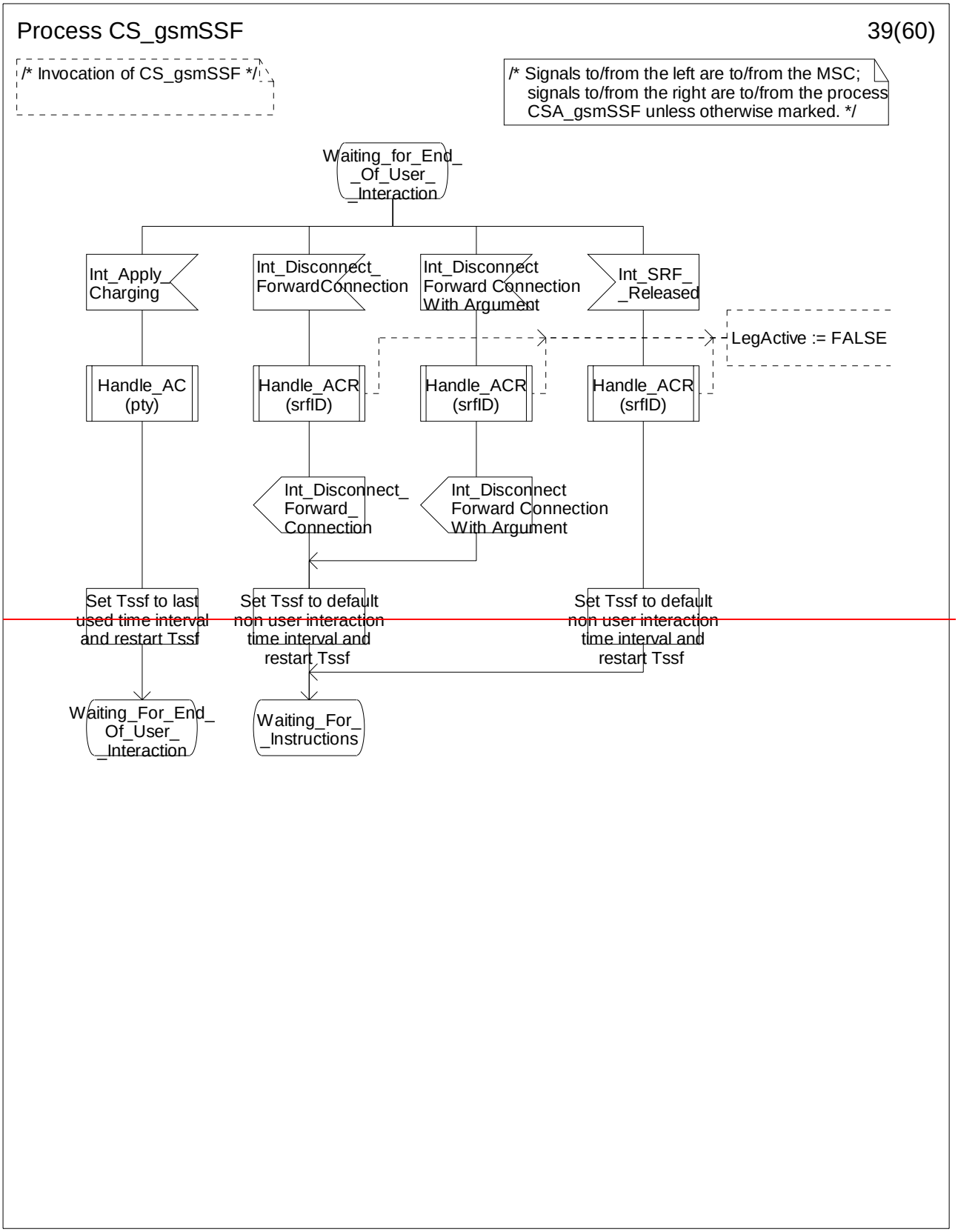


Figure 4.96-39: Process CS_gsmSSF (sheet 39)

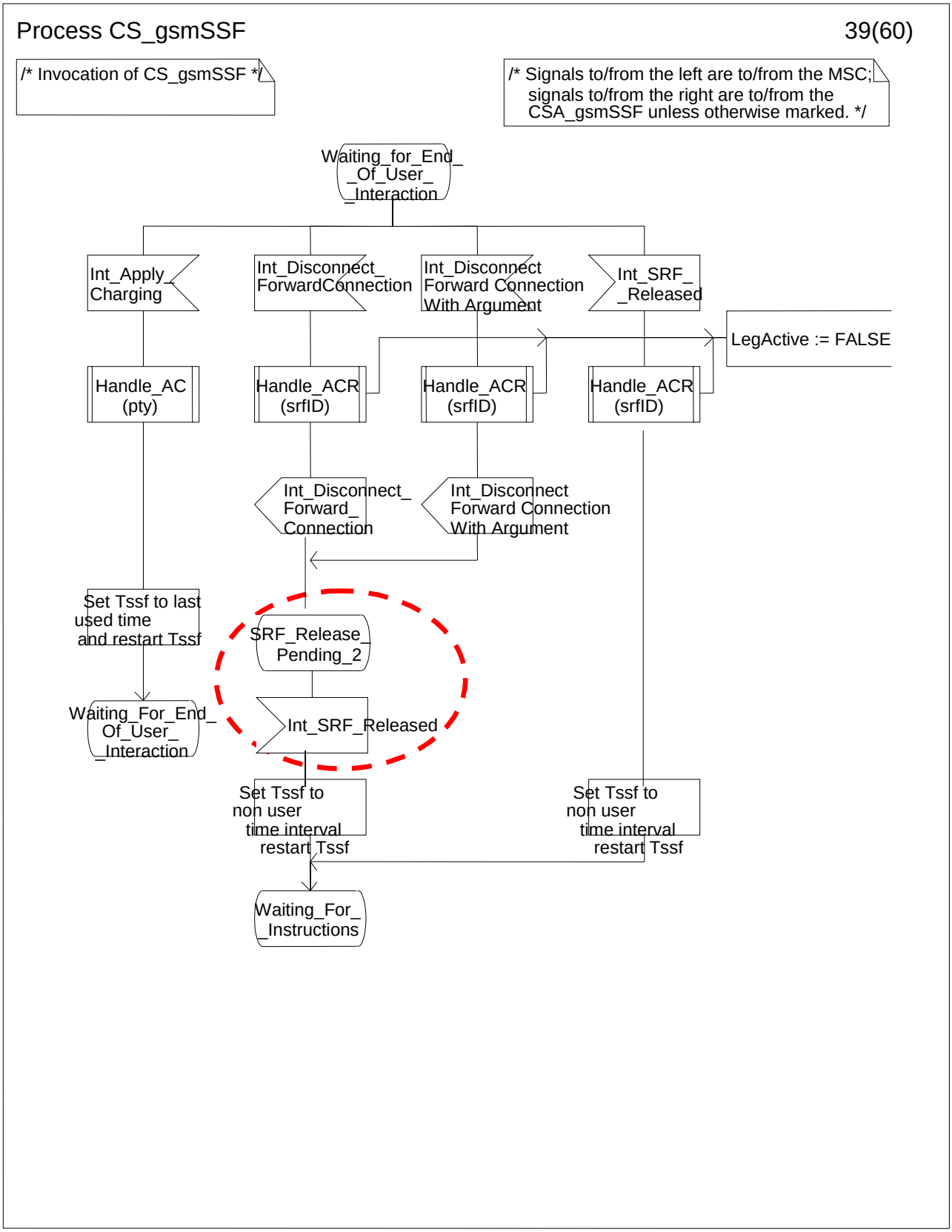


Figure Error! Reference source not found.**-11: Process CS_gsmSSF (sheet 11)**

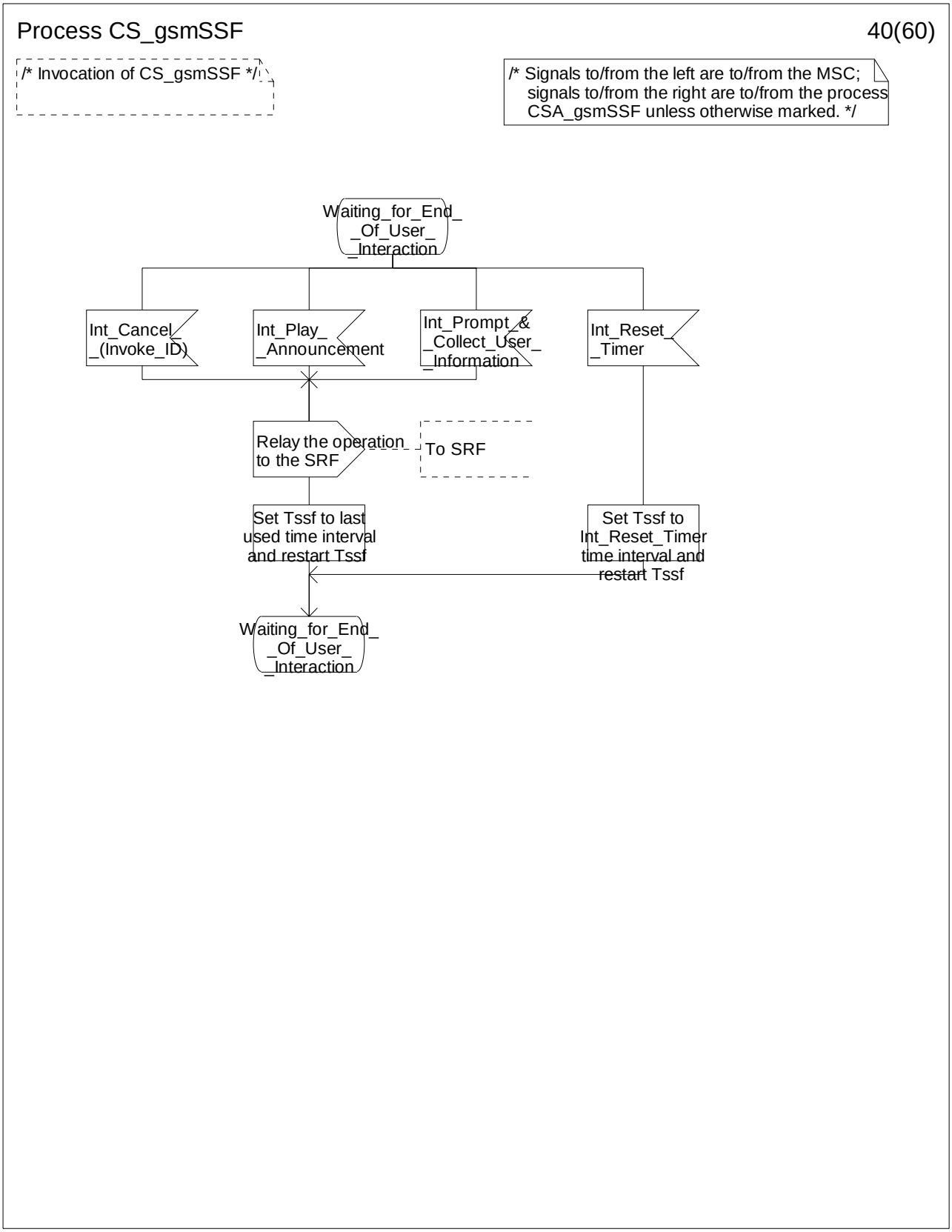


Figure Error! Reference source not found.**-12: Process CS_gsmSSF (sheet 12)**

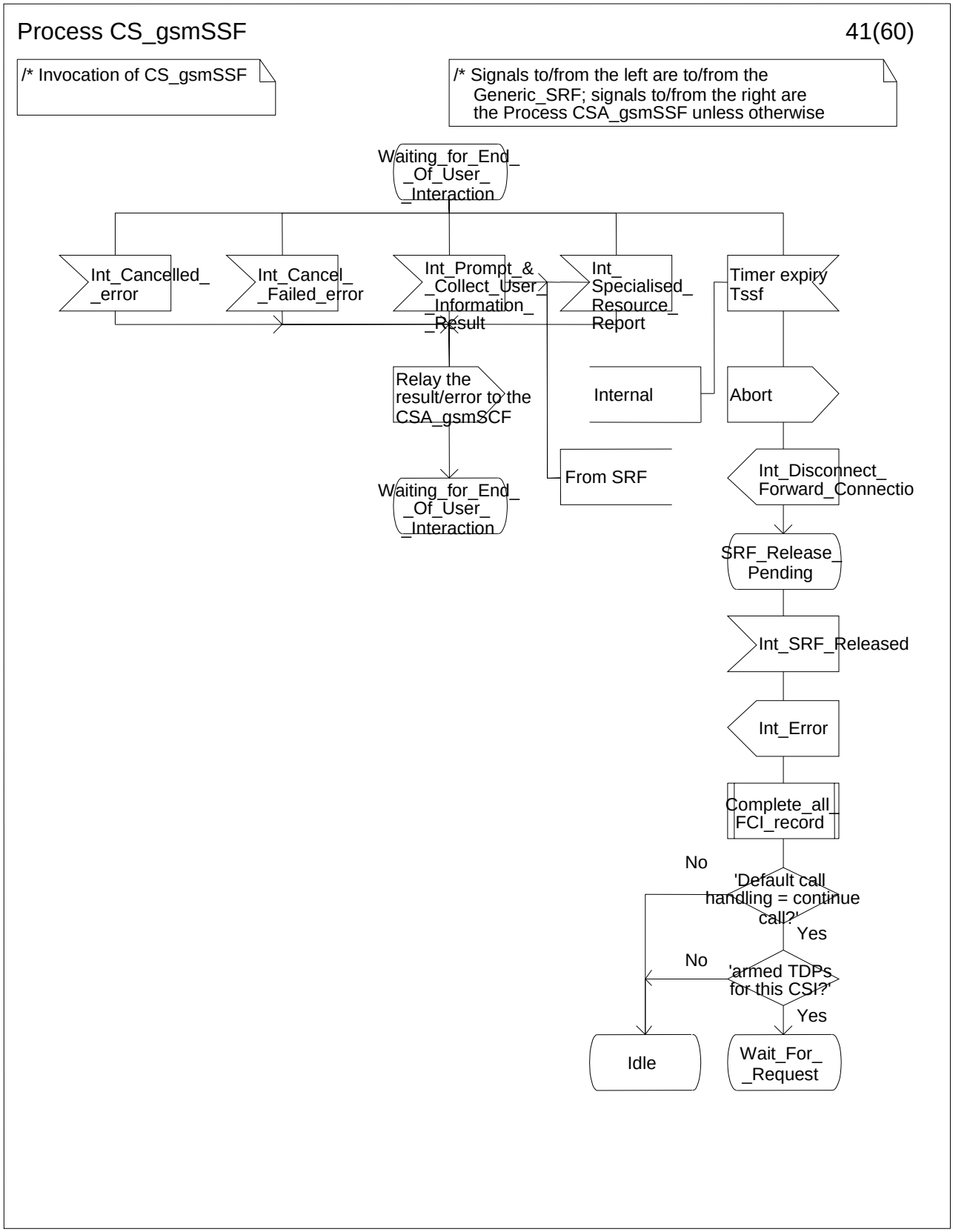
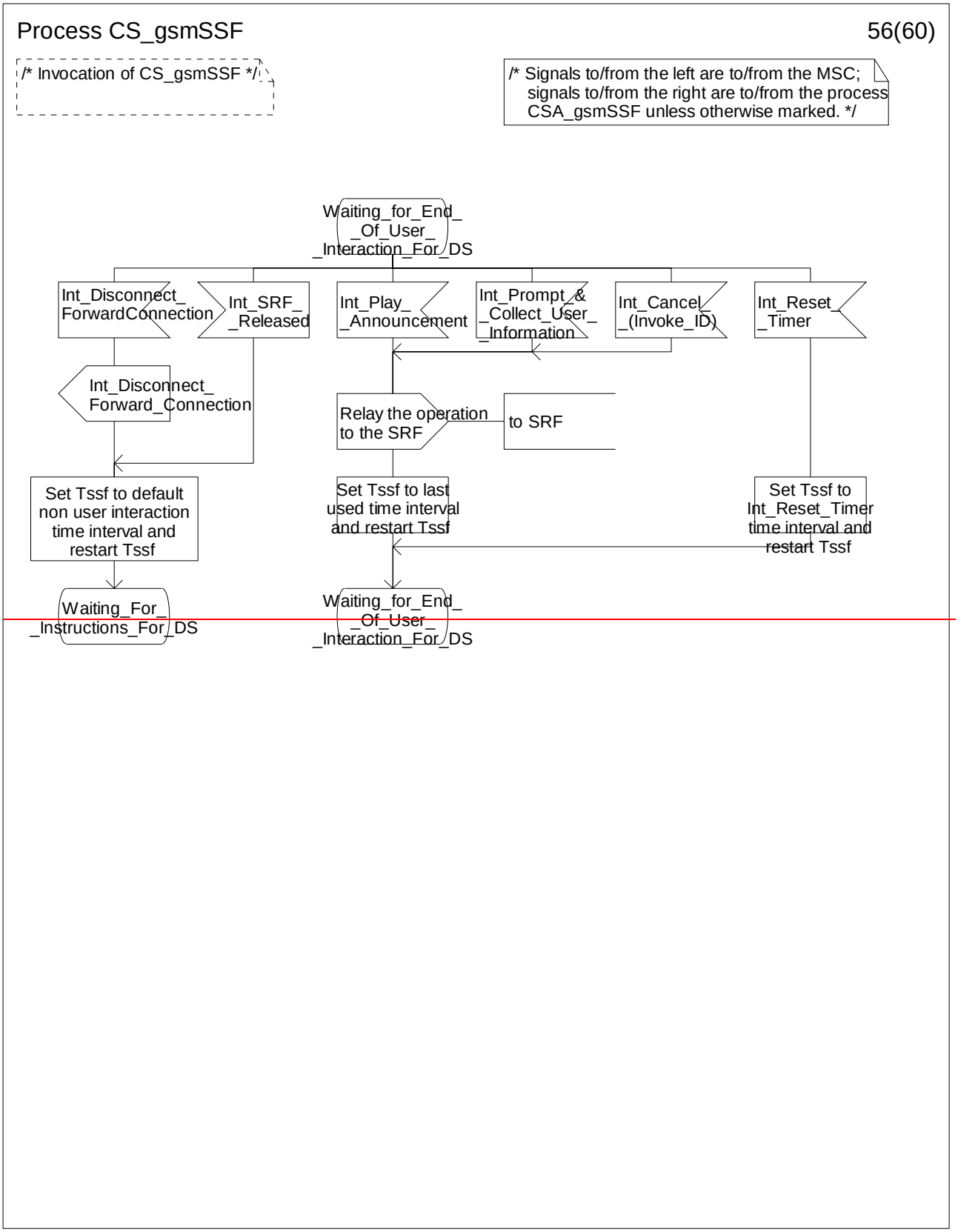


Figure Error! Reference source not found.**-13: Process CS_gsmSSF (sheet 13)**



~~**Figure 4.96-56: Process CS_gsmSSF (sheet 56)**~~

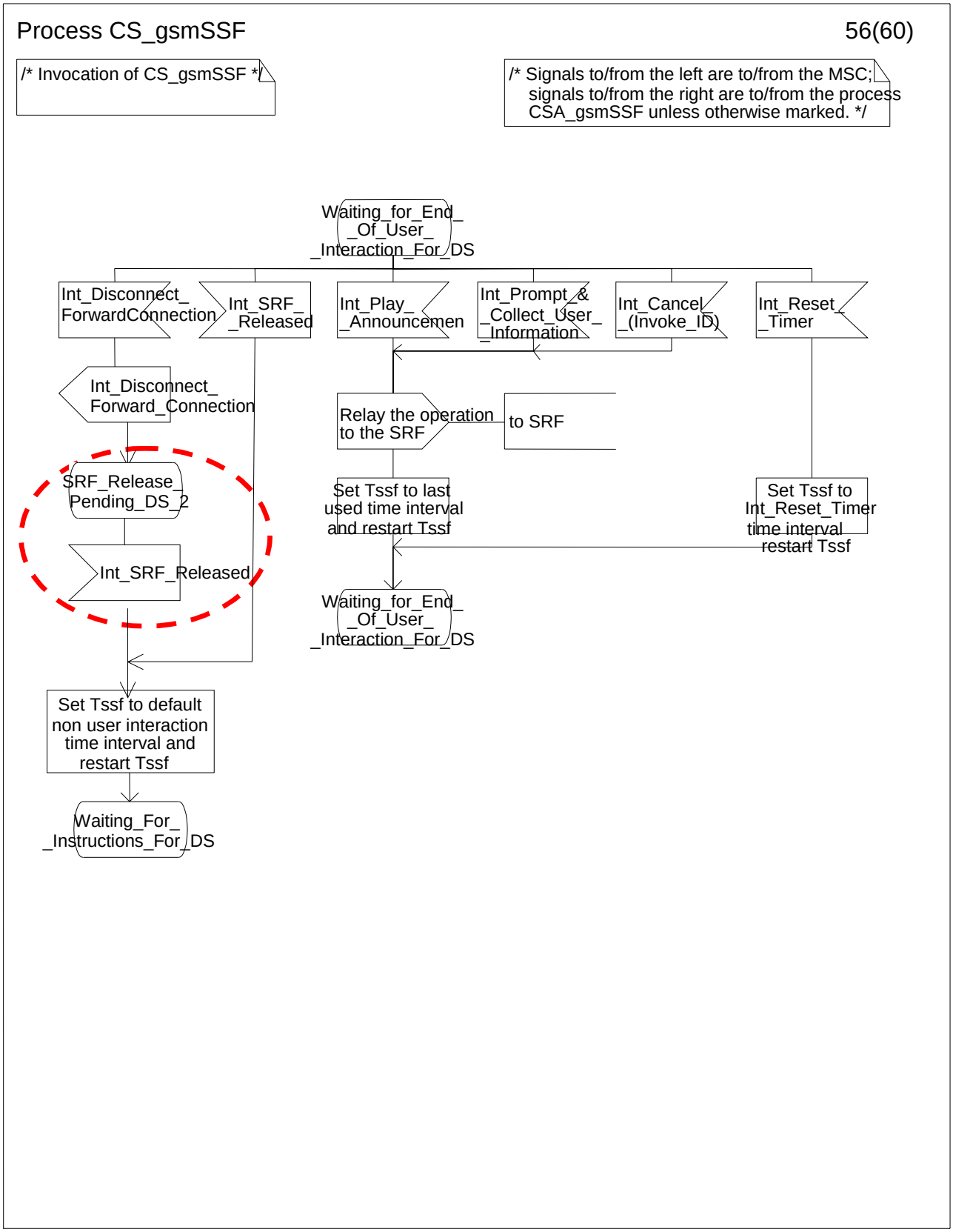
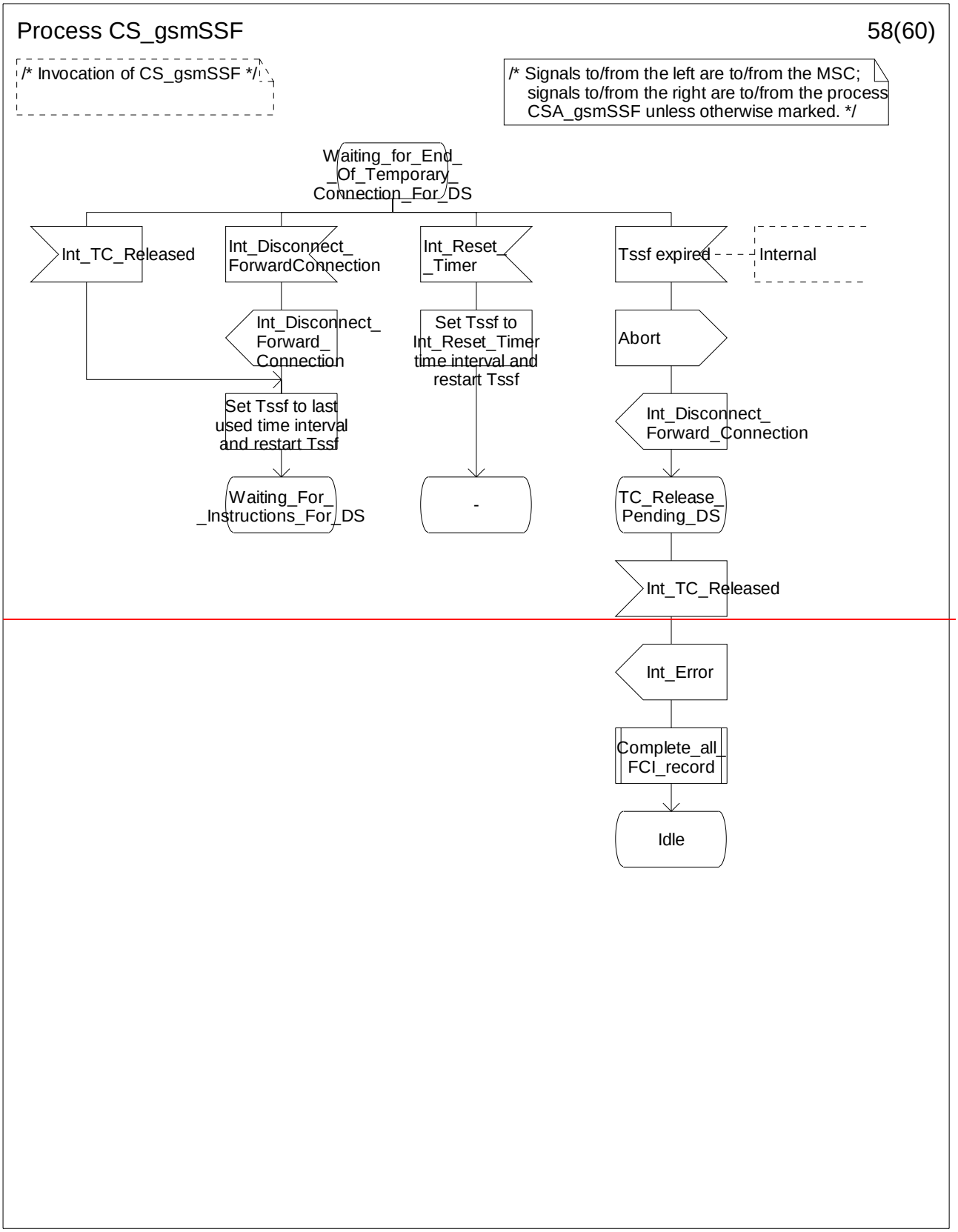


Figure Error! Reference source not found.**-15: Process CS_gsmSSF (sheet 15)**



~~Figure 4.96-58: Process CS_gsmSSF (sheet 58)~~

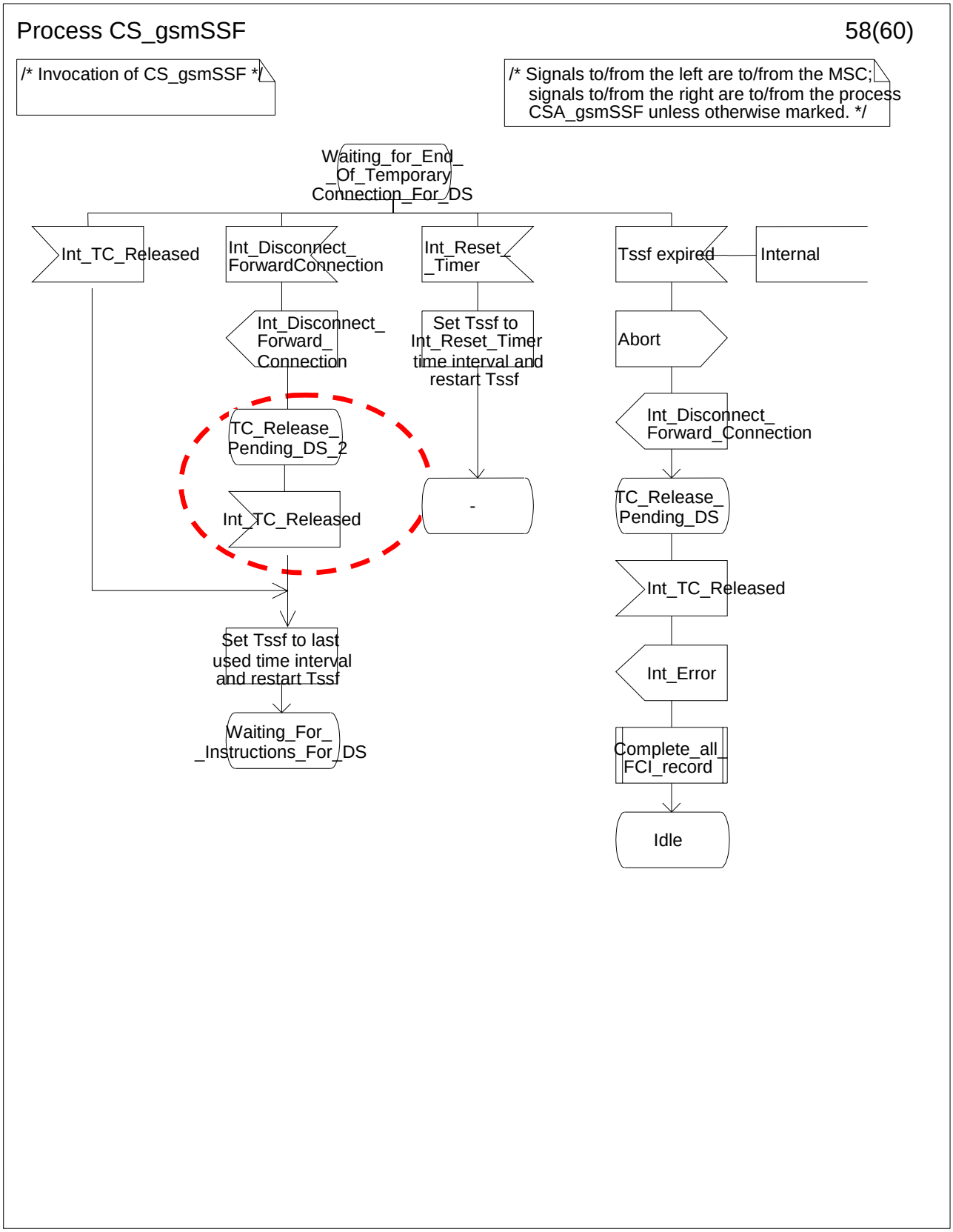


Figure Error! Reference source not found.-17: Process CS_gsmSSF (sheet 17)

*** End of Document***

3GPP TSG CN WG2 Meeting #32 N2-040042
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **23.078** **CR** 678 ⌘**rev** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Correction to Information Location at DP O_Term_Seized
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-01-28
Category:	⌘	F (agreed by consensus)
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:	⌘	When the SCP does not arm DP O_Change_of_Position for an MO call, then the Location Information to be reported at DP DP O_Term_Seized will be the same as the Location Information at DP Collected Information. Reason is as follows. When the MSC invokes a gsmSSF instance, then the MSC includes the Location Information in the internal information flow to gsmSSF. The gsmSSF then has the possibility to request notifications from the MSC when the Location Information has changed. This request is done under instruction from the gsmSCF (RRB). If, however, the gsmSSF does not request these notifications, then the gsmSSF will not have the updated Location Information available by the time that DP O_Term_Seized is reported to gsmSCF. Hence, in that case, the gsmSSF will report the Location Information which it received at DP Collected Info. This behaviour of the MSC/gsmSSF shall be described in the Event Report BCSM information flow section, by means of a Note.
Summary of change:	⌘	Include a description in the Event Report BCSM information flow, for the reporting of Location Information at DP O_Term_Seized.
Consequences if not approved:	⌘	A CAMEL Service that does not arm O_Change_of_Position DP may be expecting updated Location Information at DP O_Term_Seized, whereas the MSC/gsmSSF may be providing the Location Information from DP Collected Info.

Clauses affected:	⌘	4.6.1.6

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

****** First Modification ******

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 [**Error! Reference source not found.**].
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 [**Error! Reference source not found.**].
Ext-Basic Service Code	S	S	S	S	-	-	This IE is used for SCUDIF calls. It indicates the type of basic service, i.e. teleservice or bearer service. It indicates the service active at answer for the SCUDIF call (as defined in 3GPP TS 23.172 [**Error! Reference source not found.**]).
Ext-Basic Service Code 2	S	S	S	S	-	-	This IE is used for SCUDIF calls. It indicates the type of basic service, i.e. teleservice or bearer service. It indicates the service which is not active at answer for the SCUDIF call (as defined in 3GPP TS 23.172 [**Error! Reference source not found.**]). It shall be present if the negotiation of the SCUDIF services resulted in both basic services for the SCUDIF call. Otherwise shall be absent.

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 [**Error! Reference source not found.**].
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

Information element name	MO	MF	MT	VT	NC	NP	Description
							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 **Error! Reference source not found.** with VLR Number IE as "- (not applicable)".

NOTE If gsmSCF does not arm DP O_Change_Of_Position, then the Location Information reported at DP O_Term_Seized may be the same as the Location Information reported at DP Collected Information, even when the subscriber has changed location between DP Collected Information and DP O_Term_Seized.

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 [**Error! Reference source not found.**].

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

****** End of Document******

CHANGE REQUEST

⌘ **29.078** **CR** 347 ⌘ **rev** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Correction to temporary connection establishment	
Source:	⌘	Ericsson	
Work item code:	⌘	CAMEL4	***Date:*** ⌘ 2004-01-28
Category:	⌘	F (essential correction)	***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:	⌘	Annex A.6 (EstablishTemporaryConnection operation) specifies that the gsmSCF shall be allowed to include a Hex B digit in AssistingSSPIPRoutingAddress. See NOTE 2 in that annex. The Hex B digit may be used in the assisting gsmSSF, to extract the SCF Id from ISUP IAM.Called Party Number. Annex A.4 (AssistRequestInstructions operation) specifies that the CorrelationId in CAP Assist Request Instructions Operation may contain the entire ISUP IAM.Called Party Number. AssistingSSPIPRoutingAddress in CAP ETC is defined as data type ***Digits***, to be encoded as Generic Number. Correlation in CAP ARI is defined as data type ***Digits***, to be encoded as Generic Number. The encoding rules for Generic Number do not define an encoding for Hex B; refer to ITU-T Recommendation Q.763. Hence, there is no standardised mechanism for using Hex B for temporary connection establishment. The transportation of the Hex B digit over ISUP is not a problem; the definition of the Called Party Number in ISUP allows for Hex B as addess signal.
Summary of change:	⌘	Include a ASN.1 comment in section 5.1, to indicate that when Digits is used to carry the AssistingSSPIPRoutingAddress in ETC or the CorrelationId in ARI, then it may contain digit Hex B.
Consequences if not approved:	⌘	- Temporary connection establishment may fail; MSCs may reject an AssistingSSPIPRoutingAddress, containing a Hex B digit; - Implementation difficulty for system designers.

Clauses affected:	⌘	5.1			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

***** *For Information* *****

Extracts from ITU-T Recommendation Q.763

3.9 Called party number

	8	7	6	5	4	3	2	1
1	O/E	Nature of address indicator						
2	INN	Numbering plan indicator			spare			
3	2nd address signal				1st address signal			
:								
:								
m	Filler (if necessary)				*n*th address signal			

Figure 10/Q.763 – Called party number parameter field

e) *Address signal*

0 0 0 0	digit 0
0 0 0 1	digit 1
0 0 1 0	digit 2
0 0 1 1	digit 3
0 1 0 0	digit 4
0 1 0 1	digit 5
0 1 1 0	digit 6
0 1 1 1	digit 7
1 0 0 0	digit 8
1 0 0 1	digit 9
1 0 1 0	Spare
1 0 1 1	code 11
1 1 0 0	code 12
1 1 0 1	Spare
1 1 1 0	Spare
1 1 1 1	ST

The most significant address signal is sent first. Subsequent address signals are sent in successive 4-bit fields.

3.26 Generic number

	8	7	6	5	4	3	2	1
1	Number qualifier indicator							
2	O/E	Nature of address indicator						
3	NI	Numbering plan indicator			Address presentation restricted indicator		Screening indicator	
4	2nd address signal				1st address signal			
:								
:								
m	Filler (if necessary)				*n*th address signal			

Figure 26/Q.763 – Generic number parameter field

h) *Address signal*:

0 0 0 0	digit 0
0 0 0 1	digit 1
0 0 1 0	digit 2
0 0 1 1	digit 3
0 1 0 0	digit 4
0 1 0 1	digit 5
0 1 1 0	digit 6
0 1 1 1	digit 7
1 0 0 0	digit 8
1 0 0 1	digit 9
1 0 1 0 to 1 1 1 1	spare

i) *Filler:* as for 3.9 f)

Extracts from 3GPP Ts 29.078 V5.6.0

[23] ETSI EN 300 356-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 1: Basic services [ITU-T Recommendations Q.761 to Q.764 (1997), modified]".

```
AssistRequestInstructionsArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {
    correlationID                   [0] CorrelationID {bound},
    iPSSPCapabilities               [2] IPSSPCapabilities {bound},
    extensions                      [3] Extensions {bound}                  OPTIONAL,
    ...
    }
-- OPTIONAL denotes network operator specific use. The value of the correlationID may be the
-- Called Party Number supplied by the initiating gsmSSF.

EstablishTemporaryConnectionArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {
    assistingSSPIPRoutingAddress    [0] AssistingSSPIPRoutingAddress {bound},
    correlationID                   [1] CorrelationID {bound}               OPTIONAL,
    scfID                           [3] ScfID {bound}                       OPTIONAL,
    extensions                      [4] Extensions {bound}                  OPTIONAL,
    carrier                         [5] Carrier {bound}                     OPTIONAL,
    serviceInteractionIndicatorsTwo [6] ServiceInteractionIndicatorsTwo     OPTIONAL,
    callSegmentID                   [7] CallSegmentID {bound}               OPTIONAL,
    naOliInfo                       [50] NAOliInfo                          OPTIONAL,
    chargeNumber                    [51] ChargeNumber {bound}               OPTIONAL,
    ...
    }

AssistingSSPIPRoutingAddress {PARAMETERS-BOUND : bound} ::= Digits {bound}
-- Indicates the destination address of the gsmSRF for the assist procedure.

CorrelationID {PARAMETERS-BOUND : bound} ::= Digits {bound}
-- used by gsmSCF for correlation with a previous operation.
```

A.4 AssistRequestInstructions operation

If an ISUP IAM is received at an assisting SSP containing an assisting gsmSSF or at an IP containing a gsmSRF, then an AssistRequestInstructions operation is sent to the gsmSCF. The correlationID parameter in the AssistRequestInstructions operation can contain:

a) the CorrelationID digits extracted from the ISUP IAM Called Party Number,

b) the whole Called Party Number received in the ISUP IAM (CorrelationID digits extracted at gsmSCF),

c) the contents of the ISUP IAM CorrelationID parameter.

In the case where the gsmSCF and the assisting gsmSSF are both in the HPLMN and ISUP 97 is supported then any of these mechanisms may be used.

In the case where the gsmSCF and the assisting gsmSSF are both in the HPLMN and ISUP 97 is not supported then mechanisms a) and b) may be used.

In the case where the gsmSCF is in the HPLMN and the assisting gsmSSF is in the VPLMN then only mechanism b) may be used when an all-ISUP 97 signalling path cannot be guaranteed. Mechanism a) may be used if bilateral agreements on the format of the information transferred in the ISUP IAM Called Party Number are defined between the HPLMN and the VPLMN.

In the case where the gsmSCF is in the HPLMN and the assisting gsmSSF is in the VPLMN then mechanism c) may only be used if an all-ISUP 97 signalling path can be guaranteed between the HPLMN and the VPLMN.

…

A.6 EstablishTemporaryConnection operation

On receipt of an EstablishTemporaryConnection operation from the gsmSCF then if the triggering of the CAMEL service was made for a mobile terminating or forwarded call, an ISUP ACM shall be sent to the preceding exchange. The encoding of the backward call indicators in the ISUP ACM is specified in 3GPP TS 09.12 [1]. In addition, an ISUP IAM shall be sent to the succeeding exchange.

Table A.5 illustrates the mapping of parameters received in the EstablishTemporaryConnection operation to parameters sent in the ISUP IAM to the succeeding exchange. On sending of the ISUP IAM the awaiting address complete timer is started. If the timer expires, then the call is released in both directions and an appropriate indication is returned to the calling subscriber.

Table A.5

CAP Operation EstablishTemporaryConnection (Note 1)	ISUP message IAM
AssistingSSPIPRoutingAddress	Called party number
CorrelationID	Correlation id (note 1)
ScfId	GsmSCF id (note 1)

NOTE 1: These optional parameters may be absent, i.e. they are mapped only if received. If they are received and cannot be mapped, then an error is sent to the gsmSCF as detailed in clause 11.

NOTE 2: The AssistingSSPIPRoutingAddress parameter may also include a Hex B digit, in order to delineate the boundary between digits used for routeing and digits forming part of the SCFiD and/or CorrelationID.

…

****** First Modification ******

5 Common CAP Types

5.1 Data types

…

```
Digits {PARAMETERS-BOUND : bound} ::= OCTET STRING (SIZE(
    bound.&minDigitsLength .. bound.&maxDigitsLength))
-- Indicates the address signalling digits.
-- Refer to ETSI EN 300 356-1 [23] Generic Number & Generic Digits parameters for encoding.
-- The coding of the subfields 'NumberQualifier' in Generic Number and 'TypeOfDigits' in
-- Generic Digits are irrelevant to the CAP;
-- the ASN.1 tags are sufficient to identify the parameter.
-- The ISUP format does not allow to exclude these subfields,
-- therefore the value is network operator specific.
```

```
--
-- The following parameters shall use Generic Number:
--  - AdditionalCallingPartyNumber for InitialDP
--  - AssistingSSPIPRoutingAddress for EstablishTemporaryConnection
--  - CorrelationID for AssistRequestInstructions
--  - CalledAddressValue for all occurrences, CallingAddressValue for all occurrences.
--
-- The following parameters shall use Generic Digits:
--  - CorrelationID in EstablishTemporaryConnection
--  - number in VariablePart
--  - digitsResponse in ReceivedInformationArg
--  - midCallEvents in oMidCallSpecificInfo and tMidCallSpecificInfo
--
-- In the digitsResponse and midCallEvents, the digits may also include the '*', '#',
-- a, b, c and d digits by using the IA5 character encoding scheme. If the BCD even or
-- BCD odd encoding scheme is used, then the following encoding shall be applied for the
-- non-decimal characters: 1011 (*), 1100 (#).
--
-- AssistingSSPIPRoutingAddress in EstablishTemporaryConnection and CorrelationID in
-- AssistRequestInstructions may contain a Hex B digit as address signal. Refer to
-- Annex A.6 for the usage of the Hex B digit.

-- Note that when CorrelationID is transported in Generic Digits, then the digits shall
-- always be BCD encoded.
...
```

****** End of Document******

3GPP TSG CN WG2 Meeting #32 N2-040092
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **23.078** **CR** 666 ⌘ **rev** **1** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Handling of DFCWA in ETC and CTR procedures
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-01-28
Category:	⌘	F (essential correction)
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 procedures CAMEL_OCH_ETC and CAMEL_OCH_CTR may also be called for NC/NP legs; refer e.g. to figure 4.88 (CAMEL_ICA_MSC_ANSWER). Therefore, CAMEL_OCH_ETC and CAMEL_OCH_CTR (figures 4.23 and 4.24) shall be able to receive signal Int_DFCWA; Int_DFCWA contains the Call Segment Id.
Summary of change:	⌘	Add Int_DFCWA to procedure CAMEL_OCH_ETC and to procedure CAMEL_OCH_CTR.
Consequences if not approved:	⌘	Temporary Connection Establishment and Resource Connection in Call Party Handling can not be accomplished.

Clauses affected:	⌘	Figure **Error! Reference source not found.**.1 (Procedure CAMEL_OCH_ETC), figure 4.24 (Procedure CAMEL_OCH_CTR)

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

Other comments: ⌘

***** *First Modification* *****

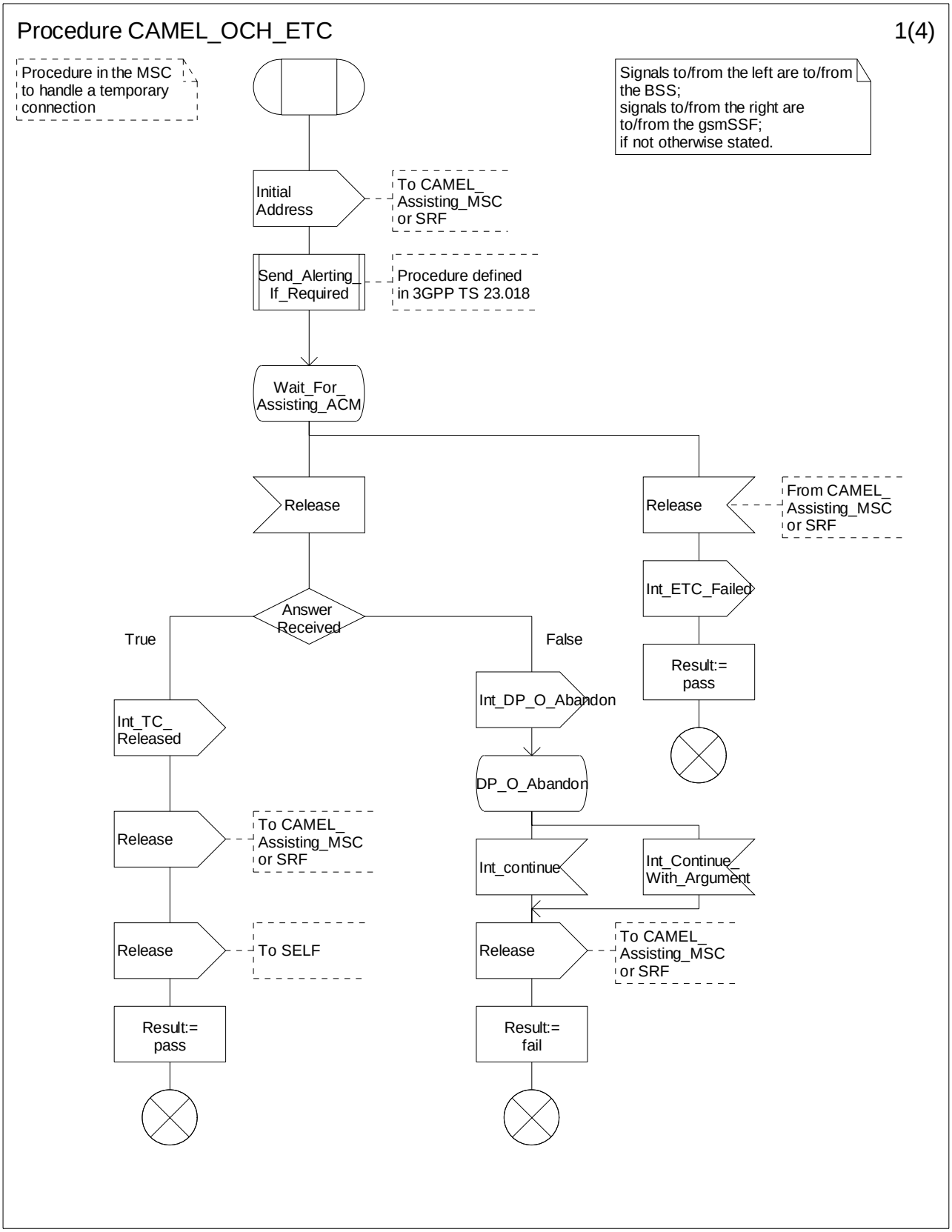


Figure Error! Reference source not found.**.2-1: Procedure CAMEL_OCH_ETC (sheet 1)**

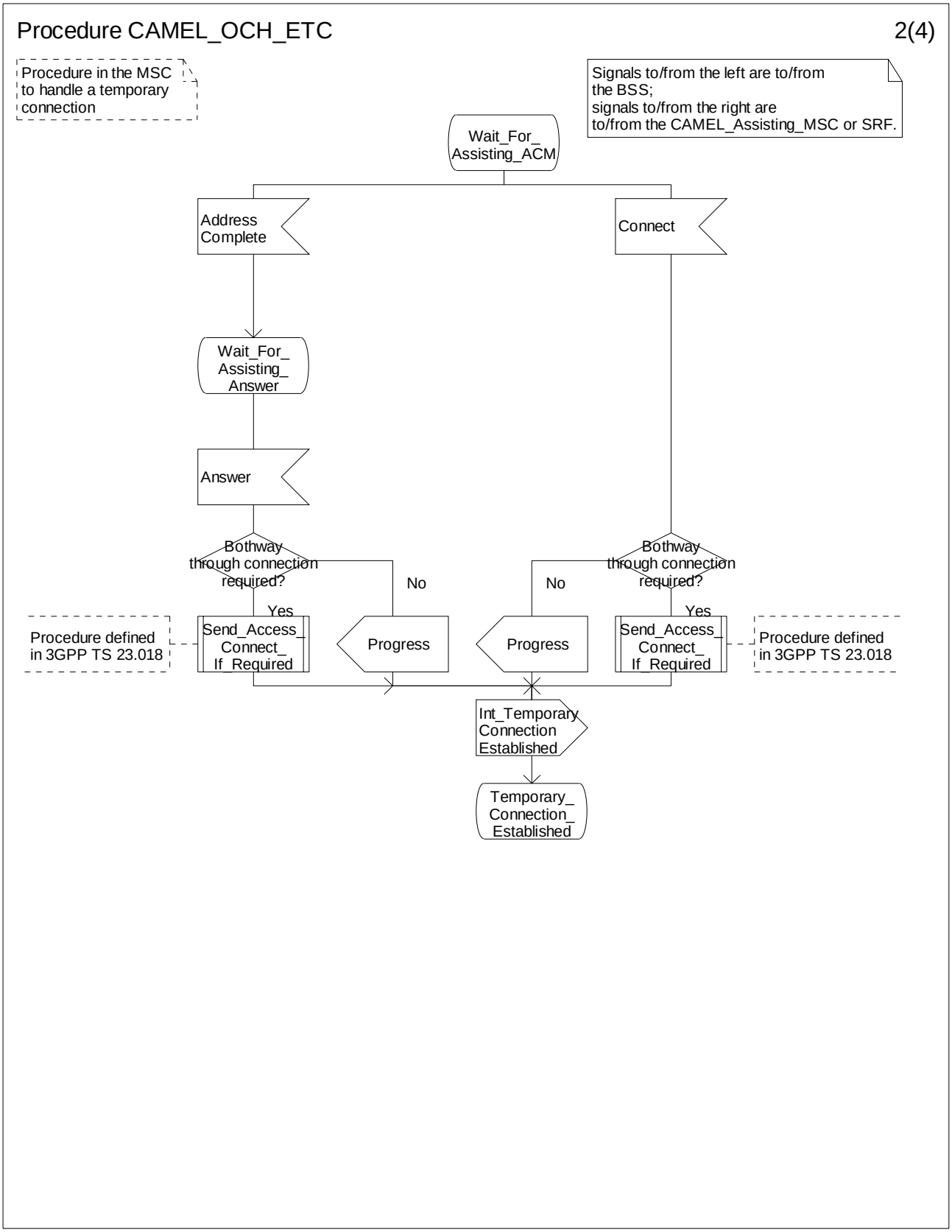


Figure Error! Reference source not found..**2-2: Procedure CAMEL_OCH_ETC (sheet 2)**

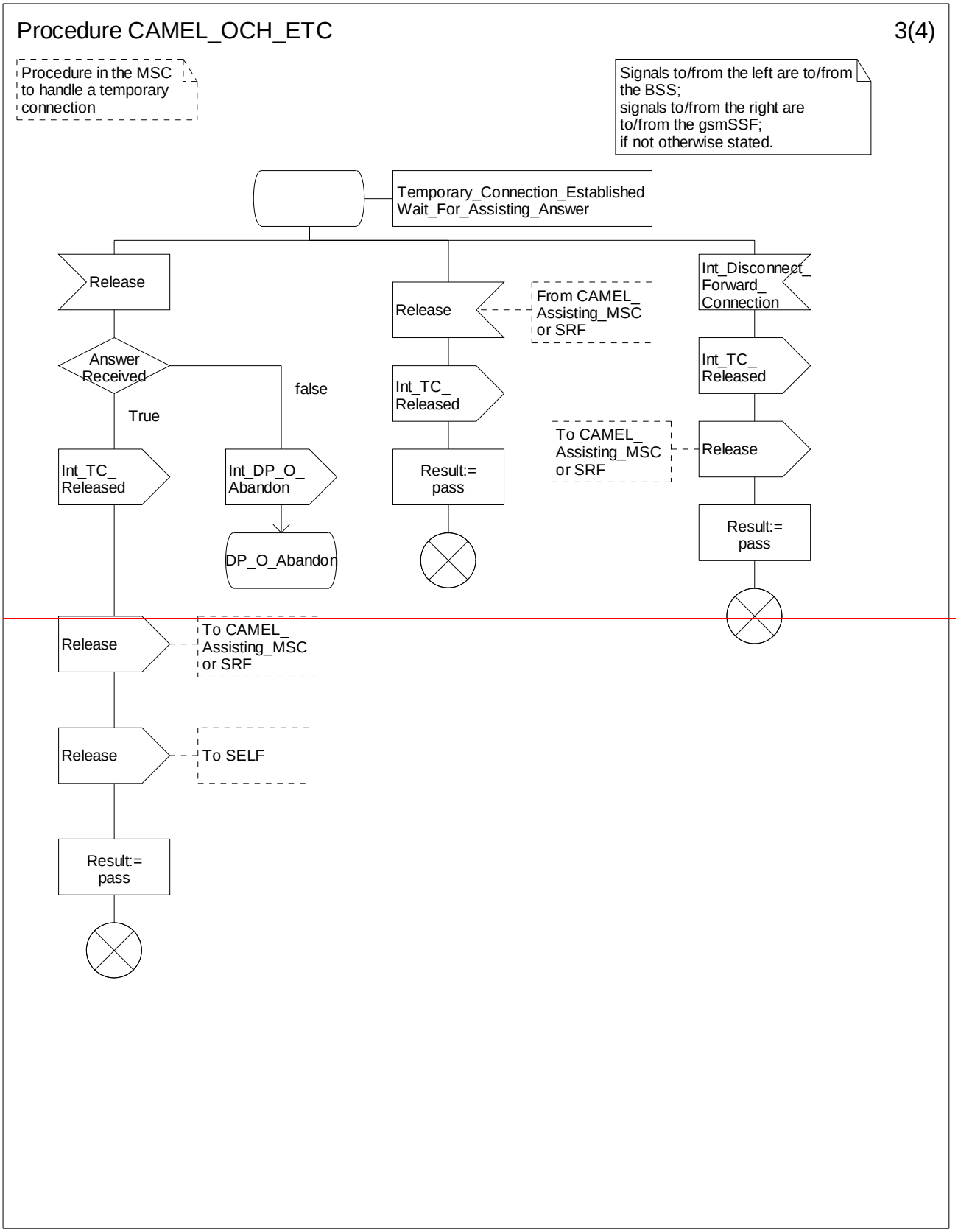


Figure 4.23-3: Procedure CAMEL_OCH_ETC (sheet 3)

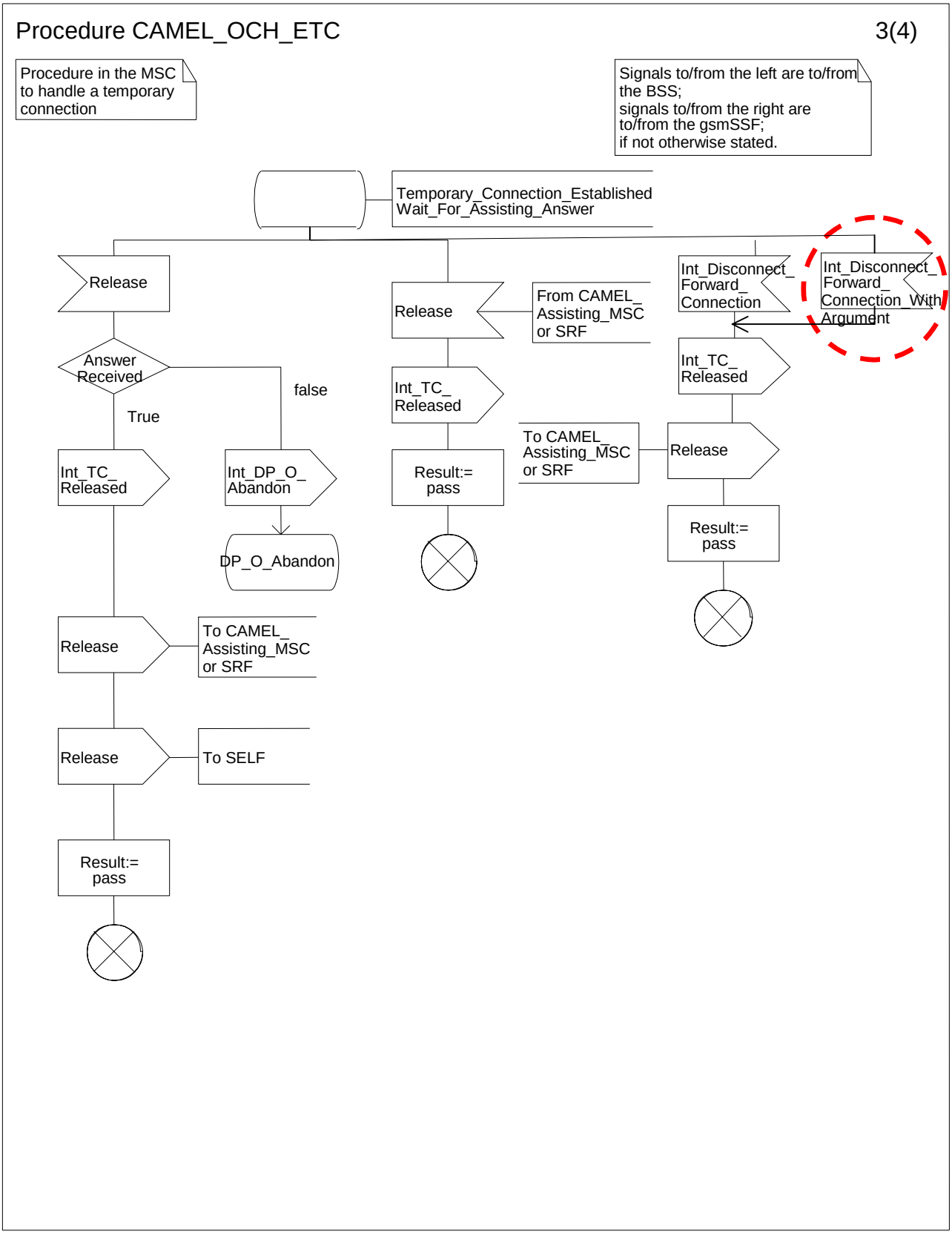


Figure Error! Reference source not found..**2-4: Procedure CAMEL_OCH_ETC (sheet 4)**

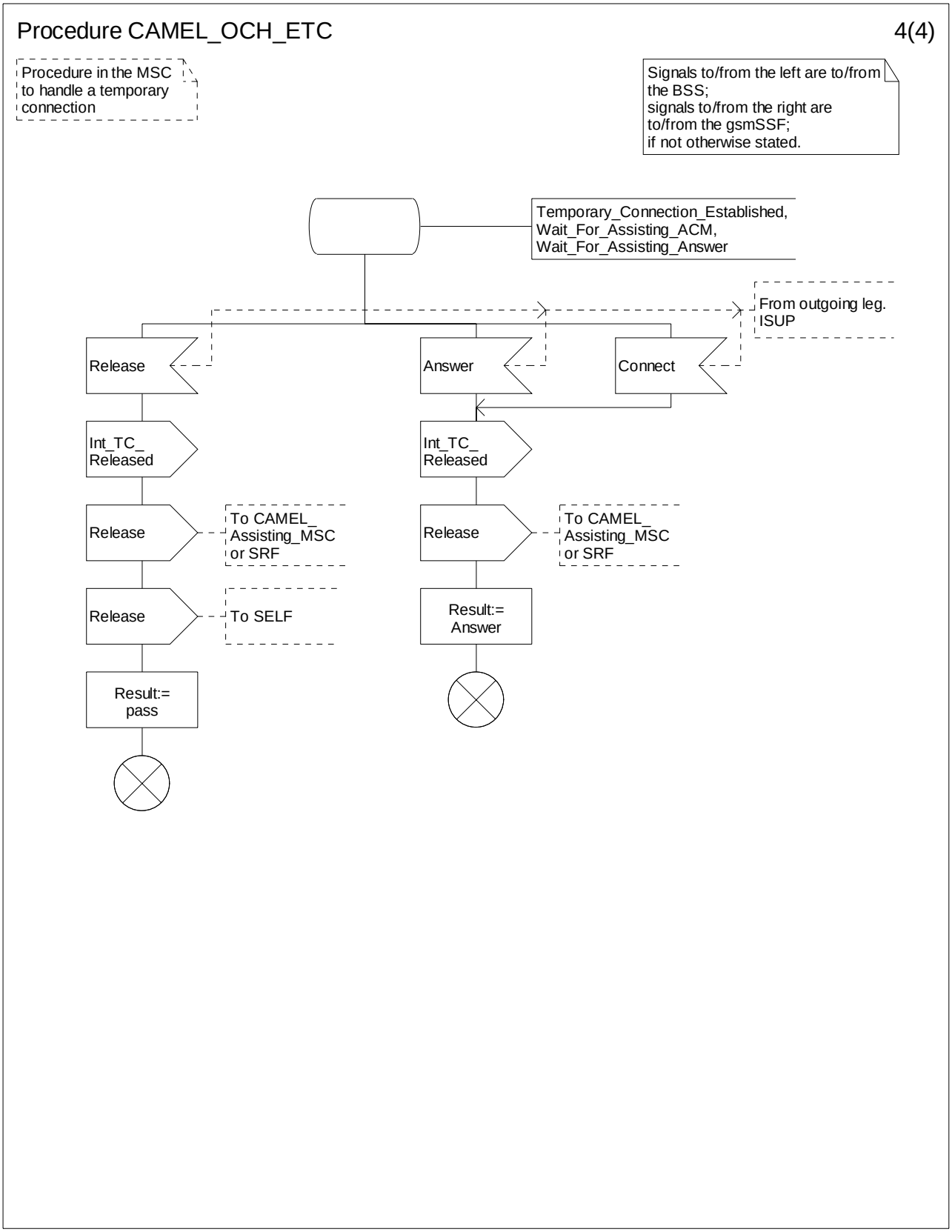


Figure Error! Reference source not found..**2-5: Procedure CAMEL_OCH_ETC (sheet 5)**

***** *Next Modification* *****

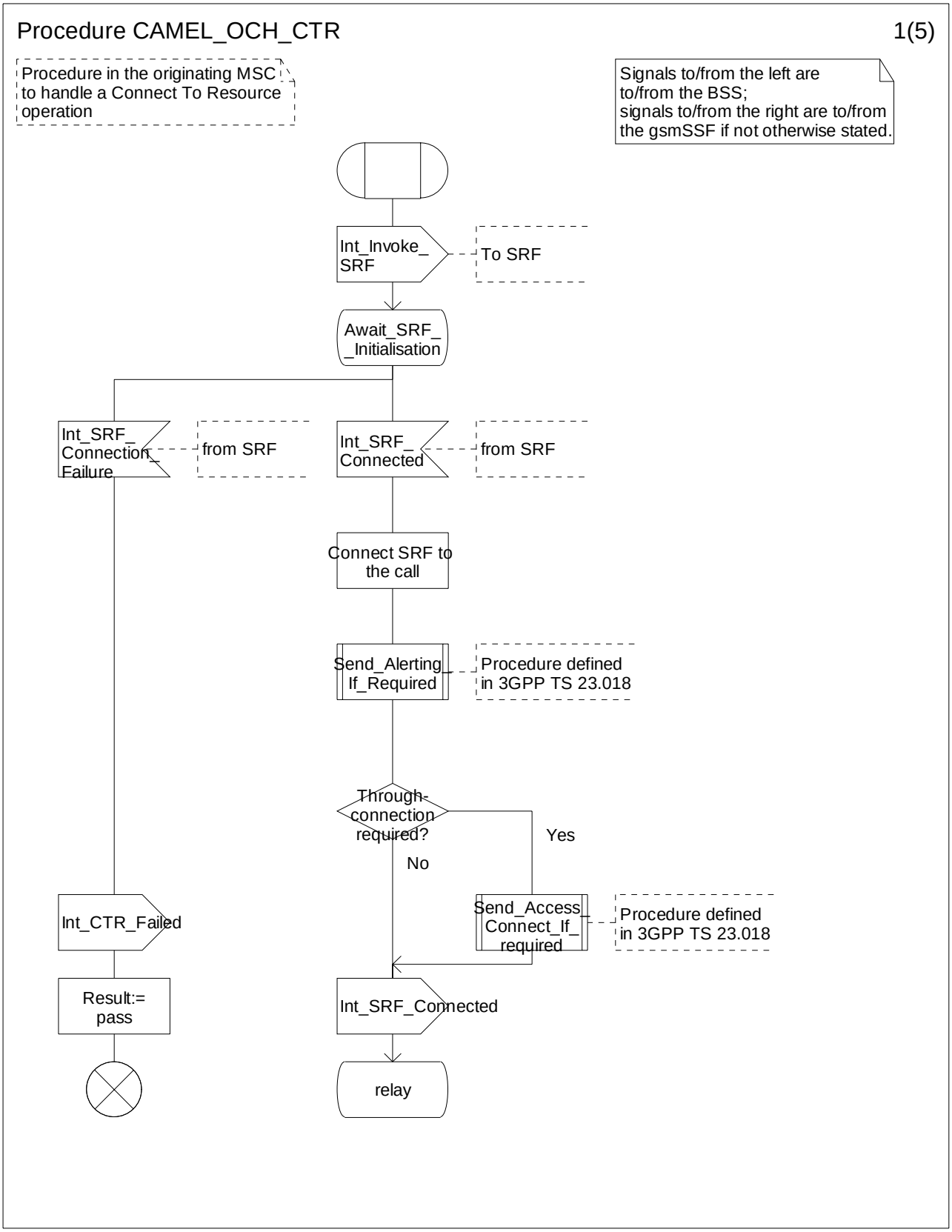


Figure Error! Reference source not found.**.3-1: Procedure CAMEL_OCH_CTR (sheet 1)**

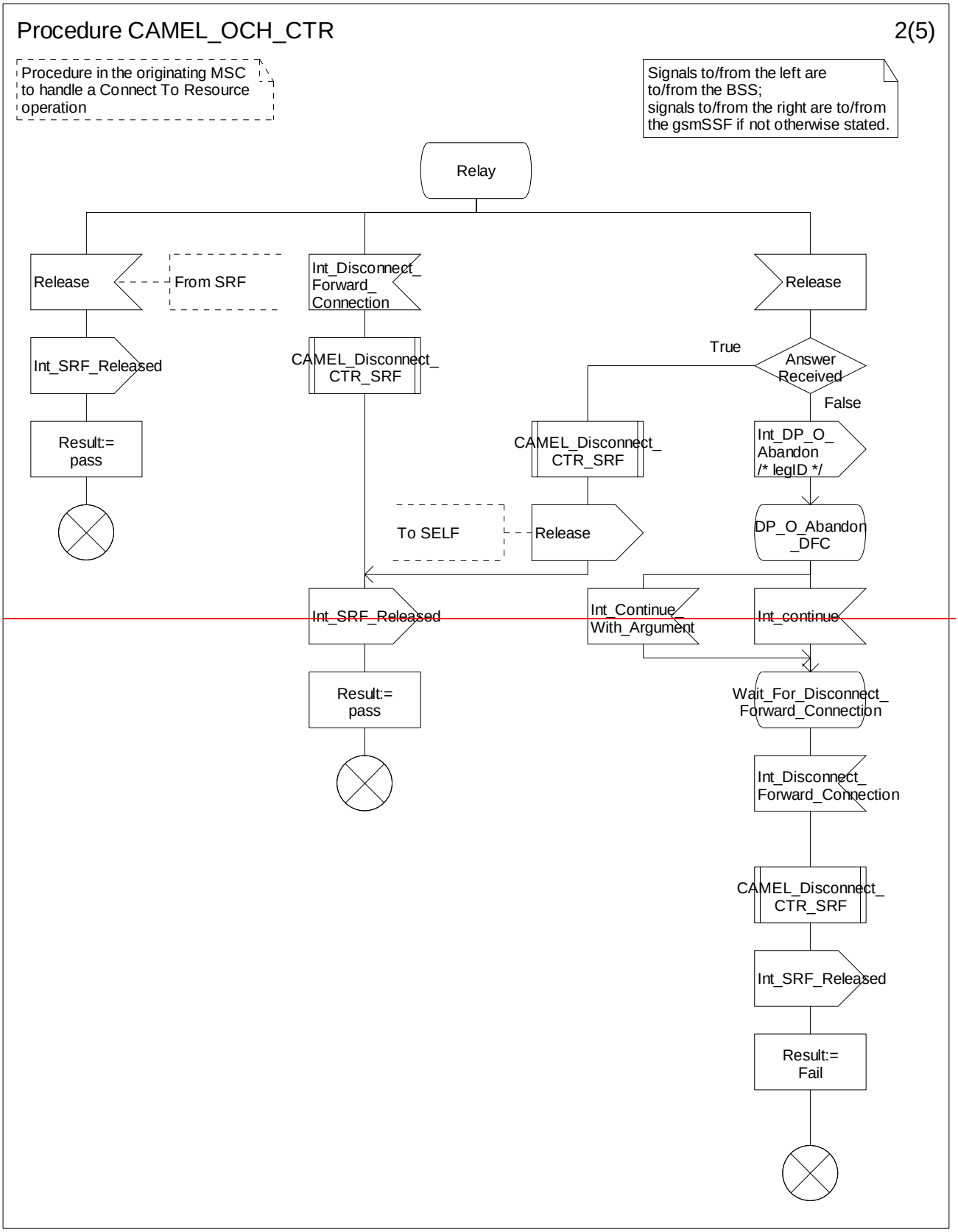


Figure 4.24-2: Procedure CAMEL_OCH_CTR (sheet 2)

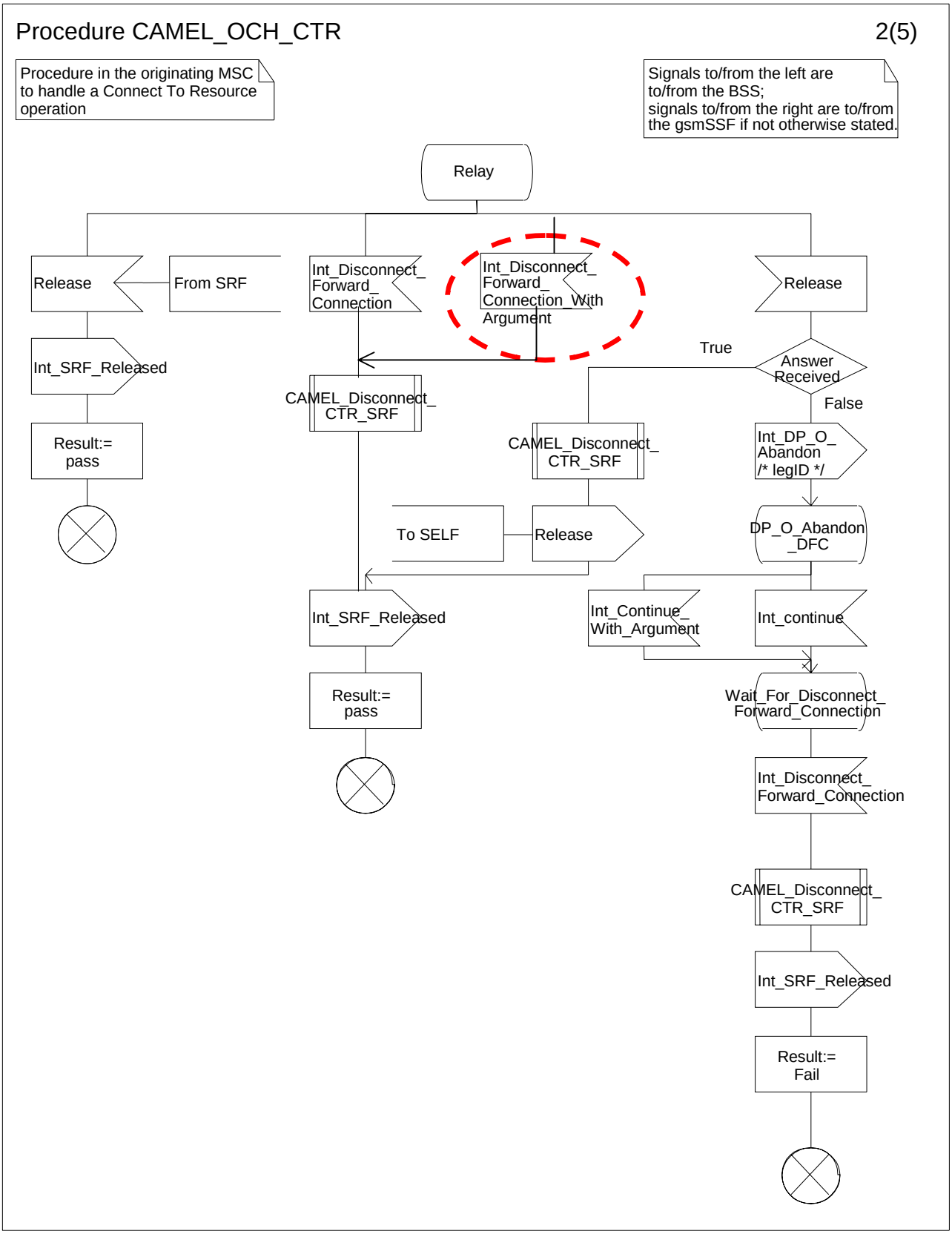


Figure Error! Reference source not found..**3-3: Procedure CAMEL_OCH_CTR (sheet 3)**

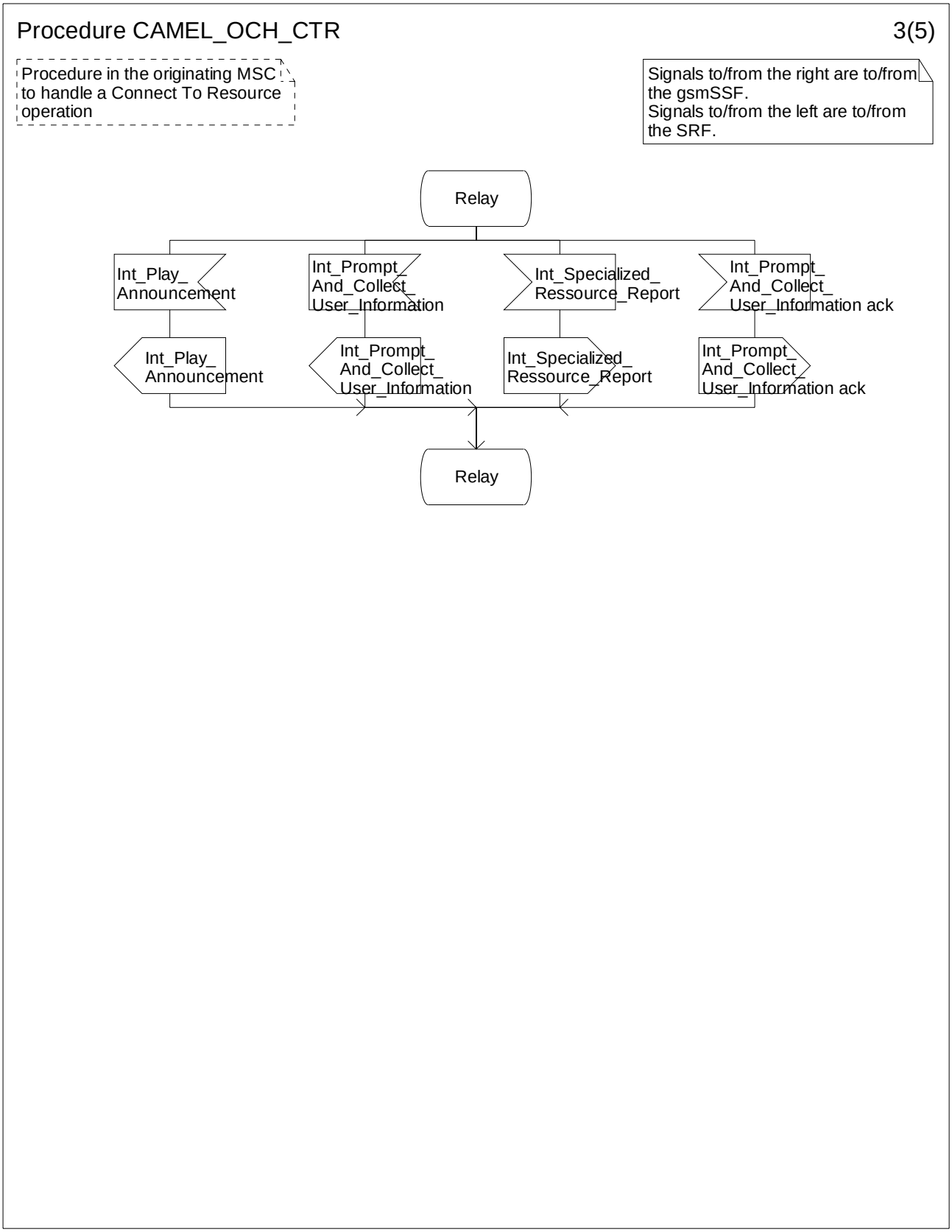


Figure Error! Reference source not found..**3-4: Procedure CAMEL_OCH_CTR (sheet 4)**

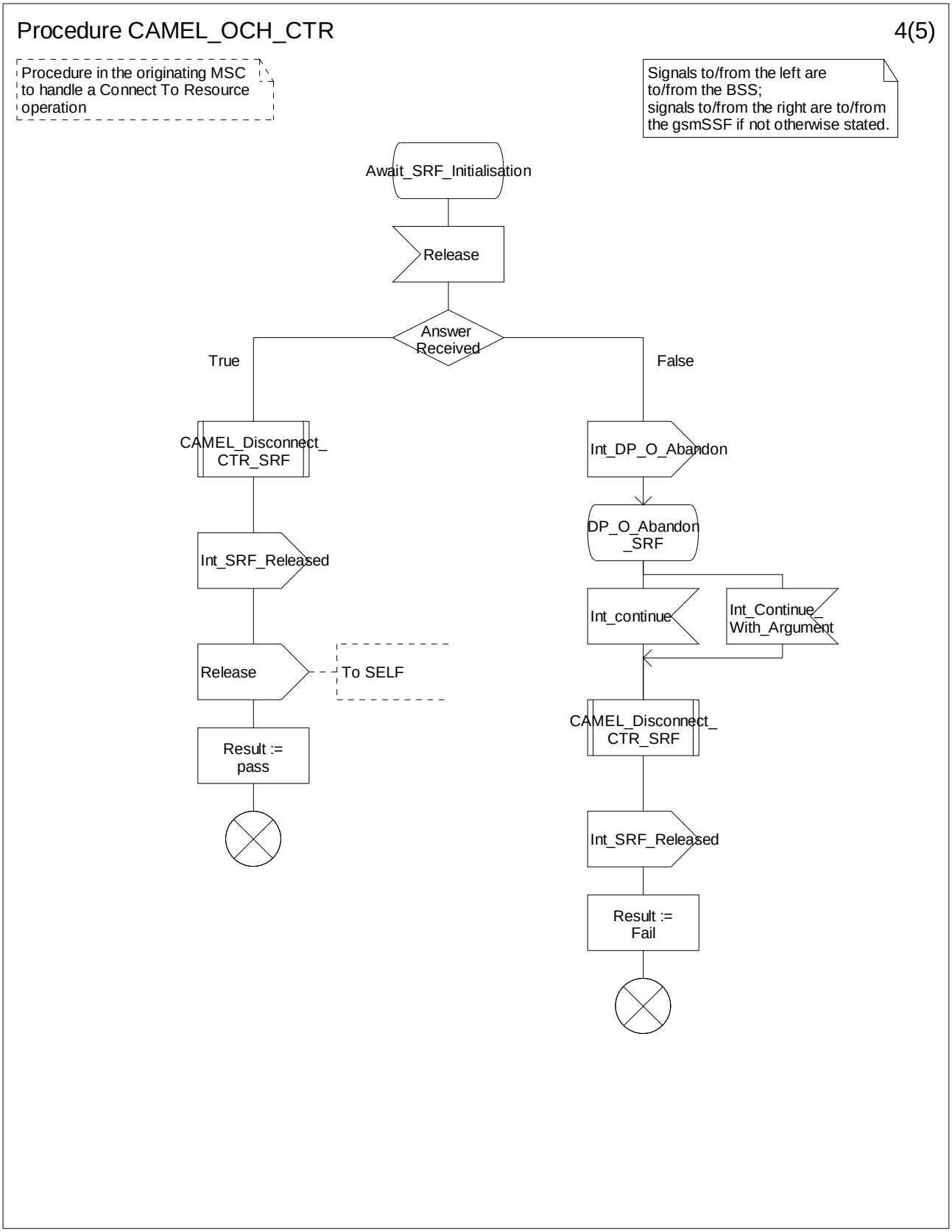


Figure Error! Reference source not found..**3-5: Procedure CAMEL_OCH_CTR (sheet 5)**

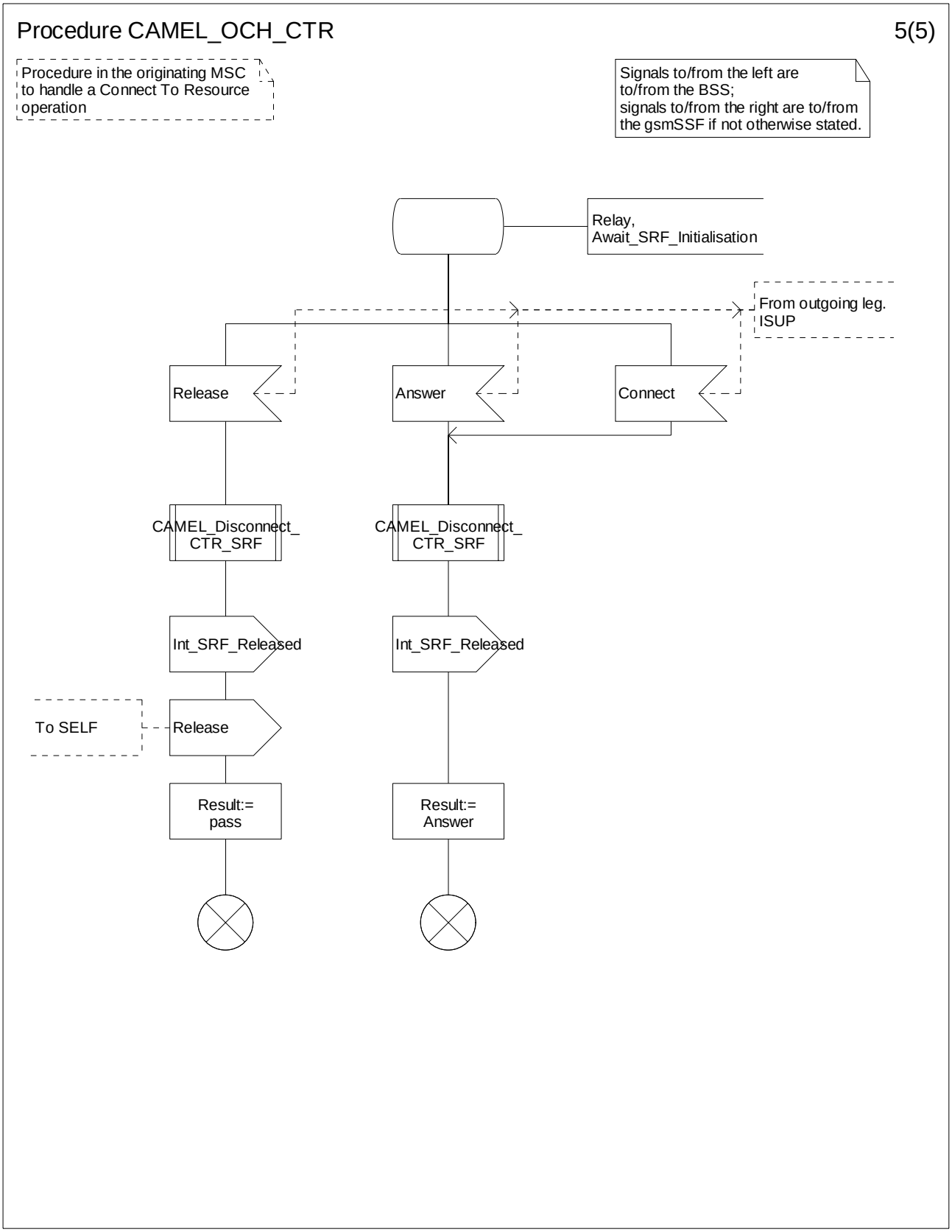


Figure Error! Reference source not found..**3-6: Procedure CAMEL_OCH_CTR (sheet 6)**

****** End of Document******

CHANGE REQUEST

⌘ **23.078** **CR** **661** ⌘**rev** **1** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Correction to dialed services triggering for NP and NC calls
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	F (essential correction)
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: ⌘

Section 4.2.1.2.2.1 specifies rules for triggering check at DP Analysed Info. That section specifies, amongst others, which number shall be used in the different call cases, for the triggering check. The call cases for which this is specified, are MO, MF in VMSC and MF in GMSC.

However, triggering at DP Analysed Info is also applicable to NP calls and NC calls. Process CAMEL_ICA_MSC allows for Dialed Services for NP calls and NC calls. The rules laid down in CAMEL_ICA_MSC are:

- NP calls in VMSC of served subscriber: D-CSI and N-CSI triggering is allowed;
- NP calls in an MSC other than VMSC of served subscriber: N-CSI triggering is allowed; (see note 1)
- NC calls: N-CSI triggering is allowed. (see note 1)

Note 1 Process CAMEL_ICA_MSC has no restriction on triggering N-CSI service for these call types. See “for information” section of the present CR.

As a result, the Continue With Argument information flow, should allow the information element “suppress N-CSI” for both NP calls and NC calls.

Summary of change: ⌘

- correct section 4.2.1.2.2.1 as described above; specify which number shall be used for DP Analysed Info triggering check for NP calls and NC calls;
- correct Continue With Argument information flow; allow “suppress N-CSI” also for NC calls; the textual description for that “suppress N-CSI” shall be modified accordingly.

Consequences if ⌘

- It would not be specified how triggering at DP Analysed Info for NP calls shall

not approved:	be done; - It would be ambiguous whether N-CSI services are allowed for NC calls; - The gsmSCF would not have the possibility to suppress N-CSI triggering for NC calls.

Clauses affected:	⌘	4.2.1.2.2.1, 4.6.2.9			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

***** *For Information* *****

extract from Ts 23.078

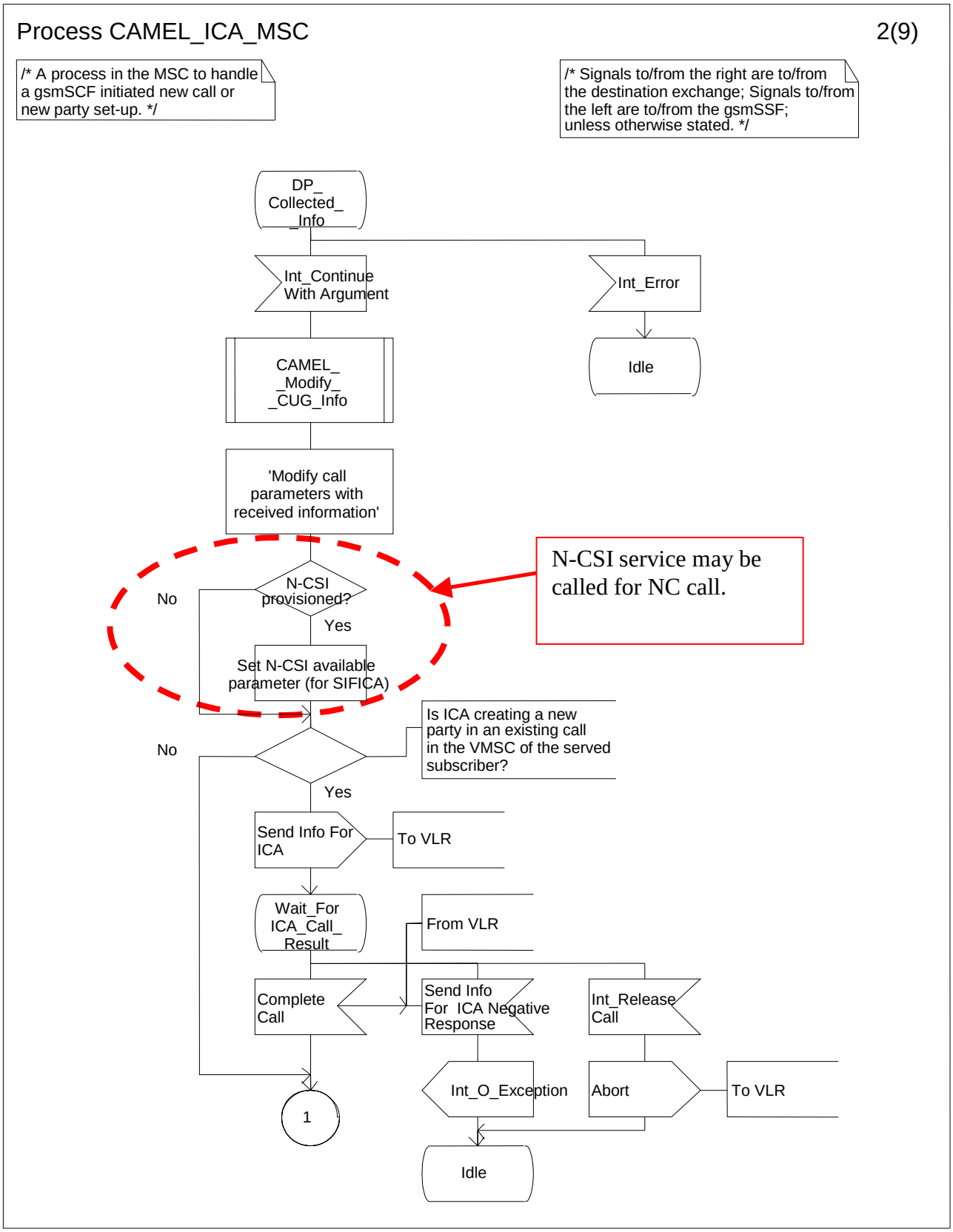


Figure Error! Reference source not found.**-1: Process CAMEL_ICA_MSC (sheet 1)**

****** First Modification ******

4.2 Detection Points (DPs)

4.2.1 Definition and description

…

4.2.1.2 Criteria

Criteria are the conditions that must be met in order for the gsmSSF to request instructions from the gsmSCF.

4.2.1.2.1 Criteria at DP Collected_Info

…

4.2.1.2.2 Criteria at DP Analysed_Information

4.2.1.2.2.1 General

The criteria for a mobile originating call are checked in the originating MSC. The criteria for a mobile forwarded call are checked in the forwarding MSC.

For early forwarded calls in the GMSC, the HLR shall always include the trigger criteria in the subscriber data sent to the GMSC because that the HLR can not check the criteria applicable at DP Analysed_Info, since the number that the criteria check shall be based on, may be modified by a Mobile Terminating or Mobile Forwarding Service Logic for this call.

For optimally routed late forwarded calls, the MSC shall always include the trigger criteria in the Resume Call Handling information flow sent to the GMSC because the MSC can not check the criteria applicable at DP Analysed_Info, since the number that the criteria check shall be based on, may be modified by a Mobile Terminating or Mobile Forwarding Service Logic for this call.

The following criteria are applicable for DP Analysed_Information:

- Destination number triggering criterion: The HLR may store a list of up to 10 destination numbers. There is no restriction on the nature of address. There is no restriction on the numbering plan indicator.

NOTE: The order in which the destination number criteria are checked in the MSC or GMSC is not determined. Hence, overlapping destination number criteria (e.g. use of "0800" and "0800123" for two different services) should be avoided, because they lead to unpredictable behaviour (i.e. either service might be triggered).

For MO calls, triggering at DP Analysed_Info shall be based on the called party number received over the access network or the Destination Routing Address in the Connect information flow from the gsmSCF during a Mobile Originating CAMEL Service.

For MF calls at the VMSC, triggering at DP Analysed_Info shall be based on the number received over the access network (the Deflected-to-Number in the case of Call Deflection), the Forwarded-to-Number retained in the VLR, or the Destination Routing Address in the Connect information flow from the gsmSCF during a Mobile Terminated or Mobile Forwarded CAMEL Service.

For MF calls at the GMSC, triggering at DP Analysed_Info shall be based on the Forwarded-to-Number received from the HLR, on the Destination Routing Address received in the Connect information flow from gsmSCF during a Mobile Terminated or Mobile Forwarded CAMEL Service, or on the Forwarded-to-Number received in the Resume Call Handling information flow.

For NP calls, triggering at DP Analysed_Info shall be based on the number received from gsmSCF. An NP call that is created in the VMSC or GMSC of the served subscriber may be subject to D-CSI service and N-CSI service. An NP

call that is created in an MSC other than the VMSC or GMSC of the served subscriber, may be subject to N-CSI service.

For NC calls, triggering at DP Analysed_Info shall be based on the number received from the gsmSCF. An NC call may be subject to N-CSI service.

***** *Next Modification* *****

4.6 Description of information flows

…

4.6.1 gsmSSF to gsmSCF information flows

…

4.6.2 gsmSCF to gsmSSF information flows

…

4.6.2.9 Continue With Argument

4.6.2.9.1 Description

…

4.6.2.9.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
Alerting Pattern	-	-	O	O	O	-	This IE indicates the kind of Alerting Pattern to be applied.
Calling Partys Category	O	O	O	O	O	O	This IE indicates the type of calling party (e.g., operator, pay phone, ordinary subscriber).
Generic Number	O	O	O	O	O	O	This IE contains the generic number. It is used to convey the additional calling party number, which e.g. could be used to modify the calling line ID presented to the called user.
Carrier	O	O	O	O	O	O	This IE is described in a table below.
NA Originating Line Information	O	O	O	O	O	O	This IE identifies the type of number in the Charge Number (e.g. subscriber versus PLMN operator number).
Charge Number	O	O	O	O	O	O	This IE identifies the chargeable number for the usage of a North American carrier.
Suppression Of Announcements	-	-	O	O	O	O	This IE indicates that announcements or tones generated as a result of unsuccessful call establishment shall be suppressed.
Service Interaction Indicators Two	O	O	O	O	O	O	This IE is described in a table below.
CUG Interlock Code	O	O	-	-	O	O	See 3GPP TS 23.085 [**Error! Reference source not found.**] for details of this IE.
Outgoing Access Indicator	O	O	-	-	O	O	See 3GPP TS 23.085 [**Error! Reference source not found.**] for details of this IE.

Information element name	MO	MF	MT	VT	NC	NP	Description
Basic OR Interrogation Requested	O	O	-	-	O	O,S	This IE indicates that a Basic Optimal Routeing interrogation is requested for the call. If Basic Optimal Routeing is successful, this will be reported to the gsmSCF in the Answer event report. This IE shall be ignored if the VMSC associated with the gsmSSF does not support Basic Optimal Routeing. This IE shall be ignored if it is received in a gsmSSF which is handling the MF call case in the GMSC function of the forwarding subscriber. For an NP call leg, this IE can only be included if the original call was an MO or NC call.
Leg ID	O,E	O,E	O,E	O,E	O,E	O,E	This IE indicates the party for which call processing is to be resumed.
Call Segment ID	O,E	O,E	O,E	O,E	O,E	O,E	This IE indicates the call segment for which call processing is to be resumed.
Suppress O-CSI	-	-	O	O	-	-	This IE indicates that O-CSI shall be suppressed for the forwarding leg or deflecting leg.
Suppress D-CSI	-	-	-	-	-	O	This IE indicates that D-CSI shall be suppressed for the new call leg. This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber.
Suppress N-CSI	-	-	-	-	~~-~~O	O	This IE indicates that N-CSI shall be suppressed for the new call leg. ~~This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber~~.
Suppress Outgoing Call Barring	-	-	-	-	-	O	This IE indicates that Outgoing Call Barrings for the created leg shall be suppressed. This IE can only be included if the Initiate Call Attempt IF is sent to the VMSC of the CAMEL subscriber.

…

****** End of Document******

CHANGE REQUEST

⌘ **23.078** **CR** **694** ⌘**rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to dialed services triggering for NP and NC calls
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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: ⌘ Section 4.2.1.2.2.1 specifies rules for triggering check at DP Analysed Info. That section specifies, amongst others, which number shall be used in the different call cases, for the triggering check. The call cases for which this is specified, are MO, MF in VMSC and MF in GMSC.

However, triggering at DP Analysed Info is also applicable to NP calls and NC calls. Process CAMEL_ICA_MSC allows for Dialed Services for NP calls and NC calls. The rules laid down in CAMEL_ICA_MSC are:

- NP calls in VMSC of served subscriber: D-CSI and N-CSI triggering is allowed;
- NP calls in an MSC other than VMSC of served subscriber: N-CSI triggering is allowed; (see note 1)
- NC calls: N-CSI triggering is allowed. (see note 1)

Note 1 Process CAMEL_ICA_MSC has no restriction on triggering N-CSI service for these call types. See “for information” section of the present CR.

As a result, the Continue With Argument information flow, should allow the information element “suppress N-CSI” for both NP calls and NC calls.

Summary of change: ⌘
- correct section 4.2.1.2.2.1 as described above; specify which number shall be used for DP Analysed Info triggering check for NP calls and NC calls;
- correct Continue With Argument information flow; allow “suppress N-CSI” also for NC calls; the textual description for that “suppress N-CSI” shall be modified accordingly.

Consequences if ⌘
- It would not be specified how triggering at DP Analysed Info for NP calls shall

not approved:	be done; - It would be ambiguous whether N-CSI services are allowed for NC calls; - The gsmSCF would not have the possibility to suppress N-CSI triggering for NC calls.

Clauses affected:	⌘	4.2.1.2.2.1, 4.6.2.9			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

***** *For Information* *****

extract from TS 23.078

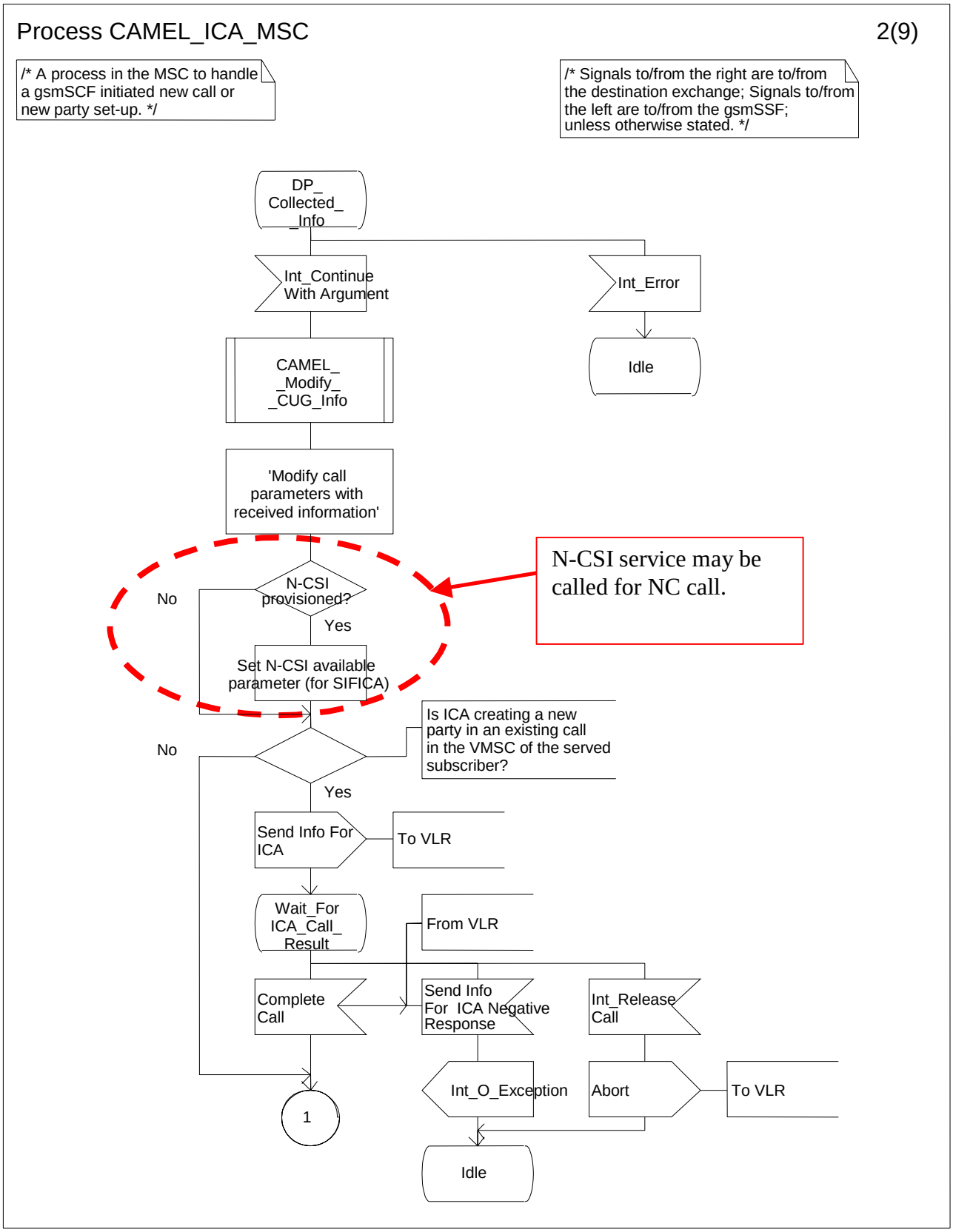


Figure 4.87-2: Process CAMEL_ICA_MSC (sheet 2)

****** First Modification ******

4.2 Detection Points (DPs)

4.2.1 Definition and description

…

4.2.1.2 Criteria

Criteria are the conditions that must be met in order for the gsmSSF to request instructions from the gsmSCF.

4.2.1.2.1 Criteria at DP Collected_Info

…

4.2.1.2.2 Criteria at DP Analysed_Information

4.2.1.2.2.1 General

The criteria for a mobile originating call are checked in the originating MSC. The criteria for a mobile forwarded call are checked in the forwarding MSC.

For early forwarded calls in the GMSC, the HLR shall always include the trigger criteria in the subscriber data sent to the GMSC because that the HLR can not check the criteria applicable at DP Analysed_Info, since the number that the criteria check shall be based on, may be modified by a Mobile Terminating or Mobile Forwarding Service Logic for this call.

For optimally routed late forwarded calls, the MSC shall always include the trigger criteria in the Resume Call Handling information flow sent to the GMSC because the MSC can not check the criteria applicable at DP Analysed_Info, since the number that the criteria check shall be based on, may be modified by a Mobile Terminating or Mobile Forwarding Service Logic for this call.

The following criteria are applicable for DP Analysed_Information:

- Destination number triggering criterion: The HLR may store a list of up to 10 destination numbers. There is no restriction on the nature of address. There is no restriction on the numbering plan indicator.

NOTE: The order in which the destination number criteria are checked in the MSC or GMSC is not determined. Hence, overlapping destination number criteria (e.g. use of "0800" and "0800123" for two different services) should be avoided, because they lead to unpredictable behaviour (i.e. either service might be triggered).

For MO calls, triggering at DP Analysed_Info shall be based on the called party number received over the access network or the Destination Routing Address in the Connect information flow from the gsmSCF during a Mobile Originating CAMEL Service.

For MF calls at the VMSC, triggering at DP Analysed_Info shall be based on the number received over the access network (the Deflected-to-Number in the case of Call Deflection), the Forwarded-to-Number retained in the VLR, or the Destination Routing Address in the Connect information flow from the gsmSCF during a Mobile Terminated or Mobile Forwarded CAMEL Service.

For MF calls at the GMSC, triggering at DP Analysed_Info shall be based on the Forwarded-to-Number received from the HLR, on the Destination Routing Address received in the Connect information flow from gsmSCF during a Mobile Terminated or Mobile Forwarded CAMEL Service, or on the Forwarded-to-Number received in the Resume Call Handling information flow.

For NP calls, triggering at DP Analysed_Info shall be based on the number received from gsmSCF. An NP call that is created in the VMSC or GMSC of the served subscriber may be subject to D-CSI service and N-CSI service. An NP

call that is created in an MSC other than the VMSC or GMSC of the served subscriber, may be subject to N-CSI service.

For NC calls, triggering at DP Analysed_Info shall be based on the number received from the gsmSCF. An NC call may be subject to N-CSI service.

***** *Next Modification* *****

4.6 Description of information flows

…

4.6.1 gsmSSF to gsmSCF information flows

…

4.6.2 gsmSCF to gsmSSF information flows

…

4.6.2.9 Continue With Argument

4.6.2.9.1 Description

…

4.6.2.9.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
Alerting Pattern	-	-	O	O	O	-	This IE indicates the kind of Alerting Pattern to be applied.
Calling Partys Category	O	O	O	O	O	O	This IE indicates the type of calling party (e.g., operator, pay phone, ordinary subscriber).
Generic Number	O	O	O	O	O	O	This IE contains the generic number. It is used to convey the additional calling party number, which e.g. could be used to modify the calling line ID presented to the called user.
Carrier	O	O	O	O	O	O	This IE is described in a table below.
NA Originating Line Information	O	O	O	O	O	O	This IE identifies the type of number in the Charge Number (e.g. subscriber versus PLMN operator number).
Charge Number	O	O	O	O	O	O	This IE identifies the chargeable number for the usage of a North American carrier.
Suppression Of Announcements	-	-	O	O	O	O	This IE indicates that announcements or tones generated as a result of unsuccessful call establishment shall be suppressed.
Service Interaction Indicators Two	O	O	O	O	O	O	This IE is described in a table below.
CUG Interlock Code	O	O	-	-	O	O	See 3GPP TS 23.085 [**Error! Reference source not found.**] for details of this IE.
Outgoing Access Indicator	O	O	-	-	O	O	See 3GPP TS 23.085 [**Error! Reference source not found.**] for details of this IE.

Information element name	MO	MF	MT	VT	NC	NP	Description
Basic OR Interrogation Requested	O	O	-	-	O	O,S	This IE indicates that a Basic Optimal Routeing interrogation is requested for the call. If Basic Optimal Routeing is successful, this will be reported to the gsmSCF in the Answer event report. This IE shall be ignored if the VMSC associated with the gsmSSF does not support Basic Optimal Routeing. This IE shall be ignored if it is received in a gsmSSF which is handling the MF call case in the GMSC function of the forwarding subscriber. For an NP call leg, this IE can only be included if the original call was an MO or NC call.
Leg ID	O,E	O,E	O,E	O,E	O,E	O,E	This IE indicates the party for which call processing is to be resumed.
Call Segment ID	O,E	O,E	O,E	O,E	O,E	O,E	This IE indicates the call segment for which call processing is to be resumed.
Suppress O-CSI	-	-	O	O	-	-	This IE indicates that O-CSI shall be suppressed for the forwarding leg or deflecting leg.
Suppress D-CSI	-	-	-	-	-	O	This IE indicates that D-CSI shall be suppressed for the new call leg. This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber.
Suppress N-CSI	-	-	-	-	~~-~~O	O	This IE indicates that N-CSI shall be suppressed for the new call leg.~~ This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber~~.
Suppress Outgoing Call Barring	-	-	-	-	-	O	This IE indicates that Outgoing Call Barrings for the created leg shall be suppressed. This IE can only be included if the Initiate Call Attempt IF is sent to the VMSC of the CAMEL subscriber.

…

****** End of Document******

CHANGE REQUEST

⌘ **23.078** **CR** **695** ⌘ **rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to No Answer handling (CAMEL_OCH_MSC2)
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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 4.17-1, CAMEL_OCH_MSC2. In state DP_O_No_Answer, Int_Continue_With_Argument may be received, similar to CAMEL_OCH_MSC1, figure 4.16.
Summary of change:	⌘	Add Int_Continue_With_Argument to figure 4.17-1.
Consequences if not approved:	⌘	Implementation difficulty for both gsmSSF and gsmSCF; the sending of Continue With Argument may fail at No_Answer DP.

Clauses affected:	⌘	Figure **Error! Reference source not found.**.1-1: Procedure CAMEL_OCH_MSC2

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

Other comments:	⌘	

*** For Information ***

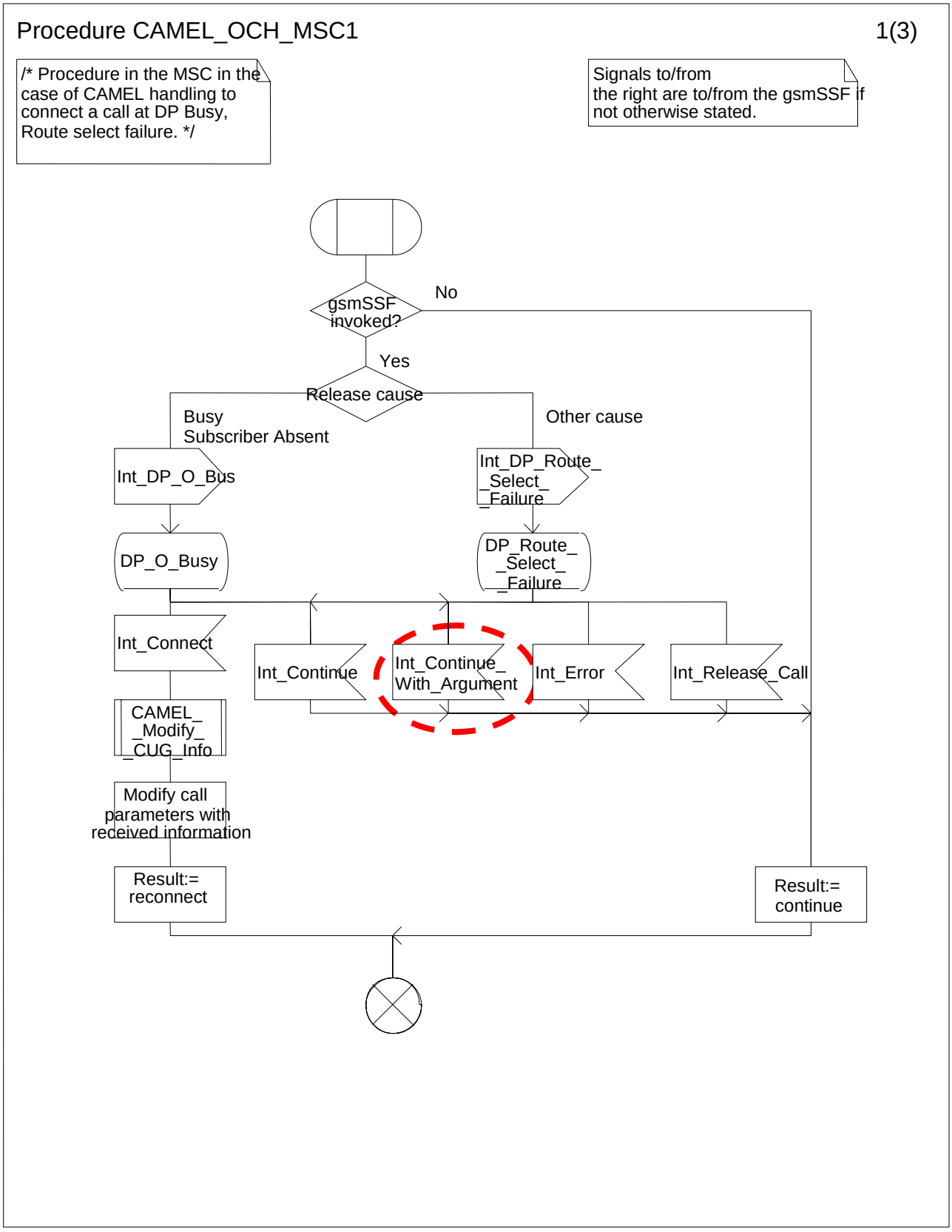
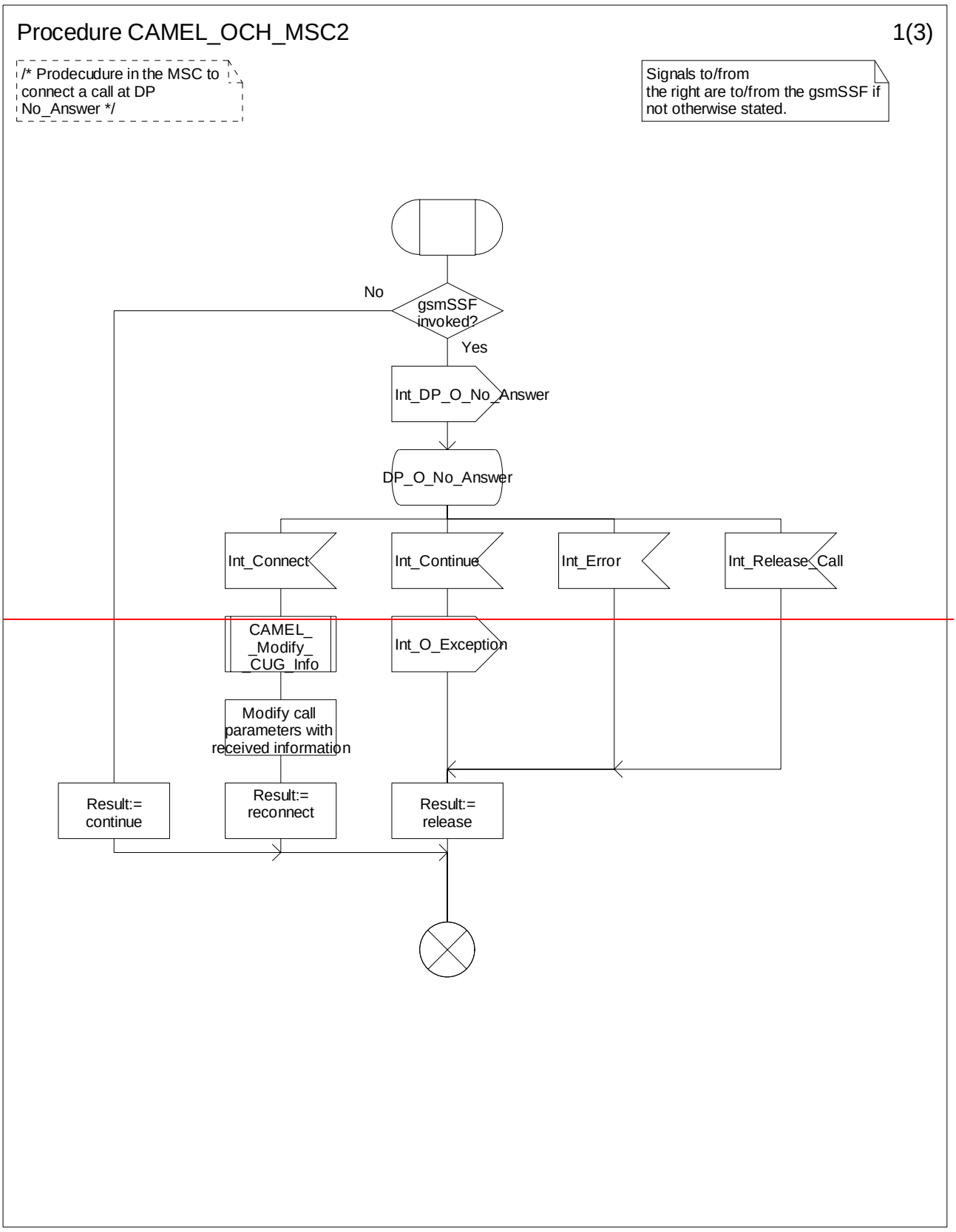


Figure 4.16-1: Procedure CAMEL_OCH_MSC1 (sheet 1)

***** *First Modification* *****



~~**Figure 4.17-1: Procedure CAMEL_OCH_MSC2 (sheet 1)**~~

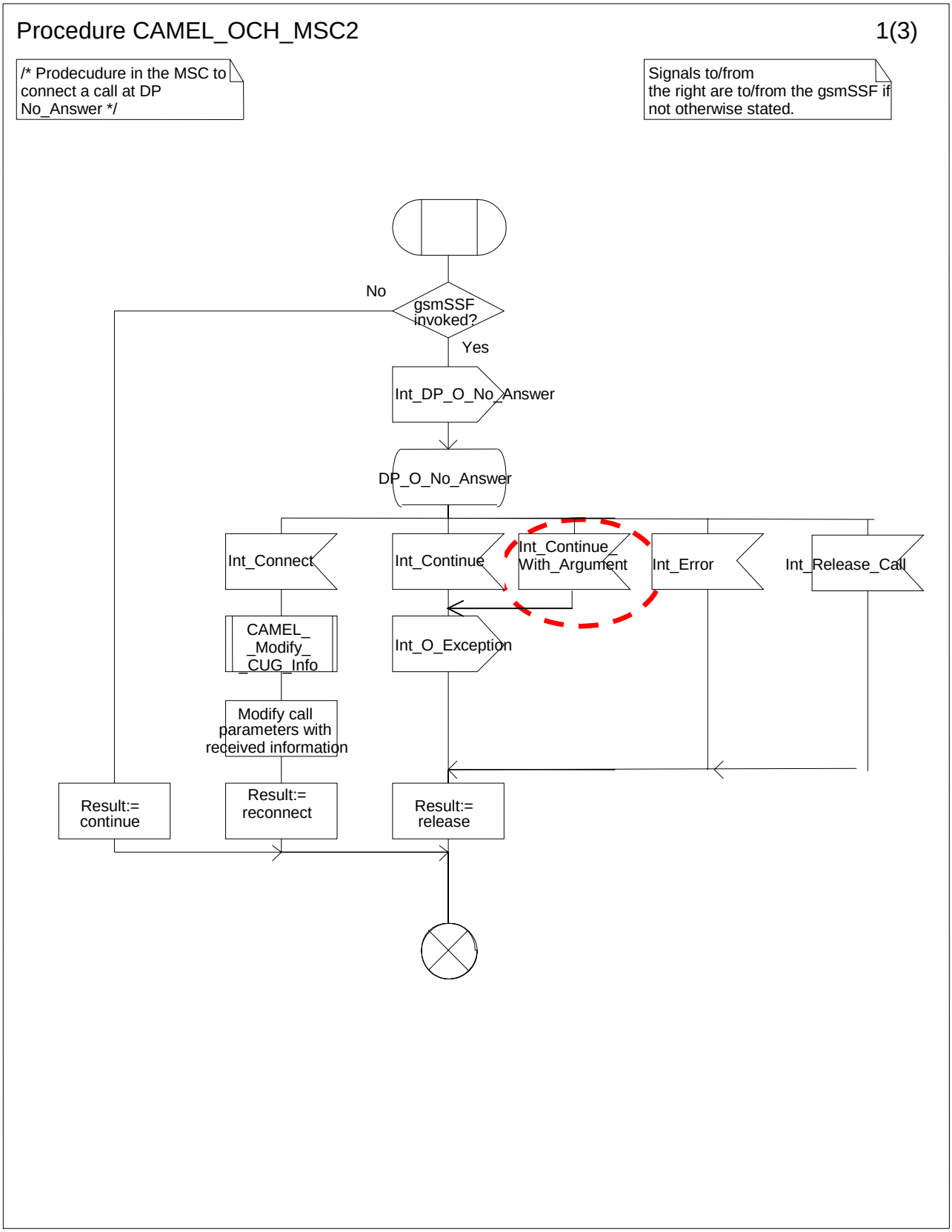


Figure 4.17-1: Procedure CAMEL_OCH_MSC2 (sheet 1)

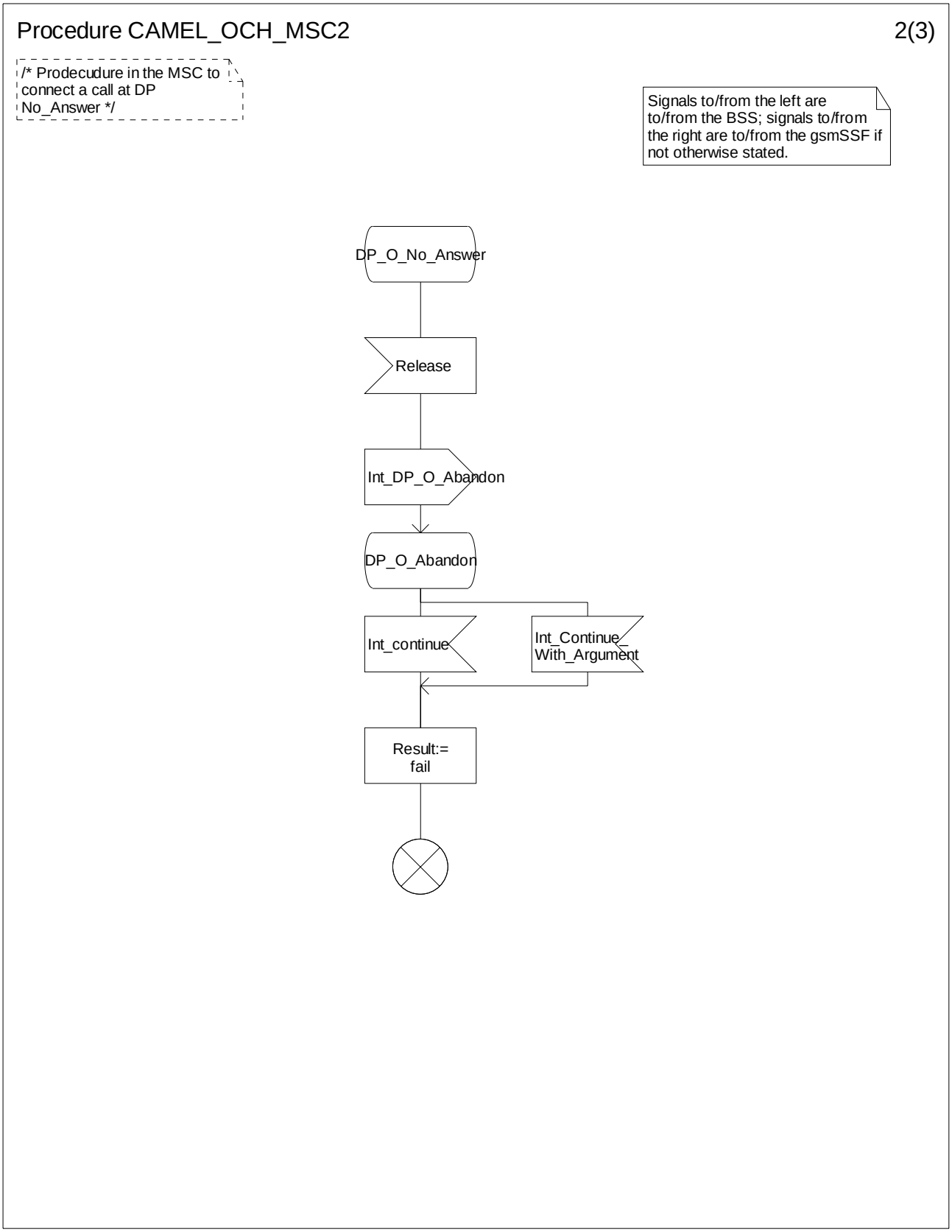


Figure 4.17-2: Procedure CAMEL_OCH_MSC2 (sheet 2)

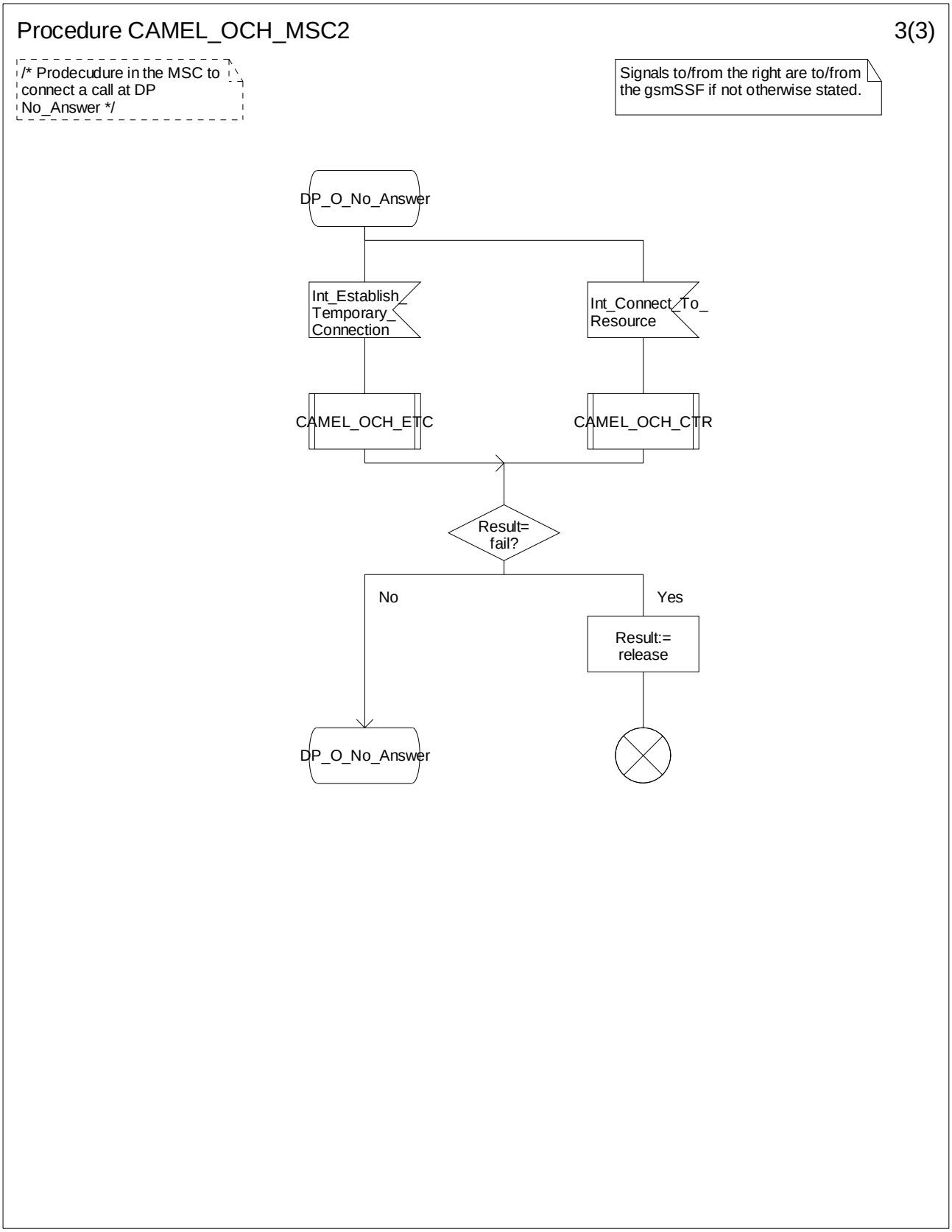


Figure 4.17-3: Procedure CAMEL_OCH_MSC2 (sheet 3)

****** End of Document******

CHANGE REQUEST

⌘ **23.078** **CR** **696** ⌘**rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to handling of DFC in CS_gsmSSF
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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 figure 4.96, CS_gsmSSF, sheet 38.

When gsmSSF has sent Int_DFC to MSC, it will receive the signal Int_TC_Released; refer to rightmost branch in the same sheet. So, gsmSSF should have this input signal. Currently, the gsmSSF does not have an input for that signal. As a result, gsmSSF transits to state WFI and the Int_TC_Released signal will arrive in an unexpected state.

Refer figure 4.96, CS_gsmSSF, sheet 39

After sending Int_DFC or Int_DFCWA, gsmSSF should expect signal Int_SRF_Released, as is the case in sheet 41 of CS_gsmSSF.

CS_gsmSSF may send Int_DFC or Int_DFCWA to the following procedures (see "for information section" of present CR):

- CAMEL_OCH_ETC;
- CAMEL_OCH_CTR;
- CAMEL_MT_ETC;
- CAMEL_MT_CTR;
- CAMEL_CF_ETC;
- CAMEL_CF_CTR.

Summary of change: ⌘

Correct CS_gsmSSF, sheet 38: after CS_gsmSSF has sent Int_DFC to the MSC, it shall transit to state TC_Release_Pending_2 and wait for signal Int_TC_Released.

Correct CS_gsmSSF, sheet 39: after CS_gsmSSF has sent Int_DFC to the MSC, it shall transit to state SRF_Release_Pending_2 and wait for signal

		Int_SRF_Released. On sheets 56 and 58, similar corrections are needed, for User Interaction and Temporary Connections for Dialed Services.
Consequences if not approved:	⌘	Possible malfunctioning in gsmSSF for User Interaction. CS_gsmSSF would receive signal Int_TC_Released or Int_SRF_Released when it has returned to Waiting for Instruction and possilby to another state already.

Clauses affected:	⌘	Figure **Error! Reference source not found.** (Process CS_gsmSSF), sheets 38, 39, 56 and 58			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

*** *For Information* ***

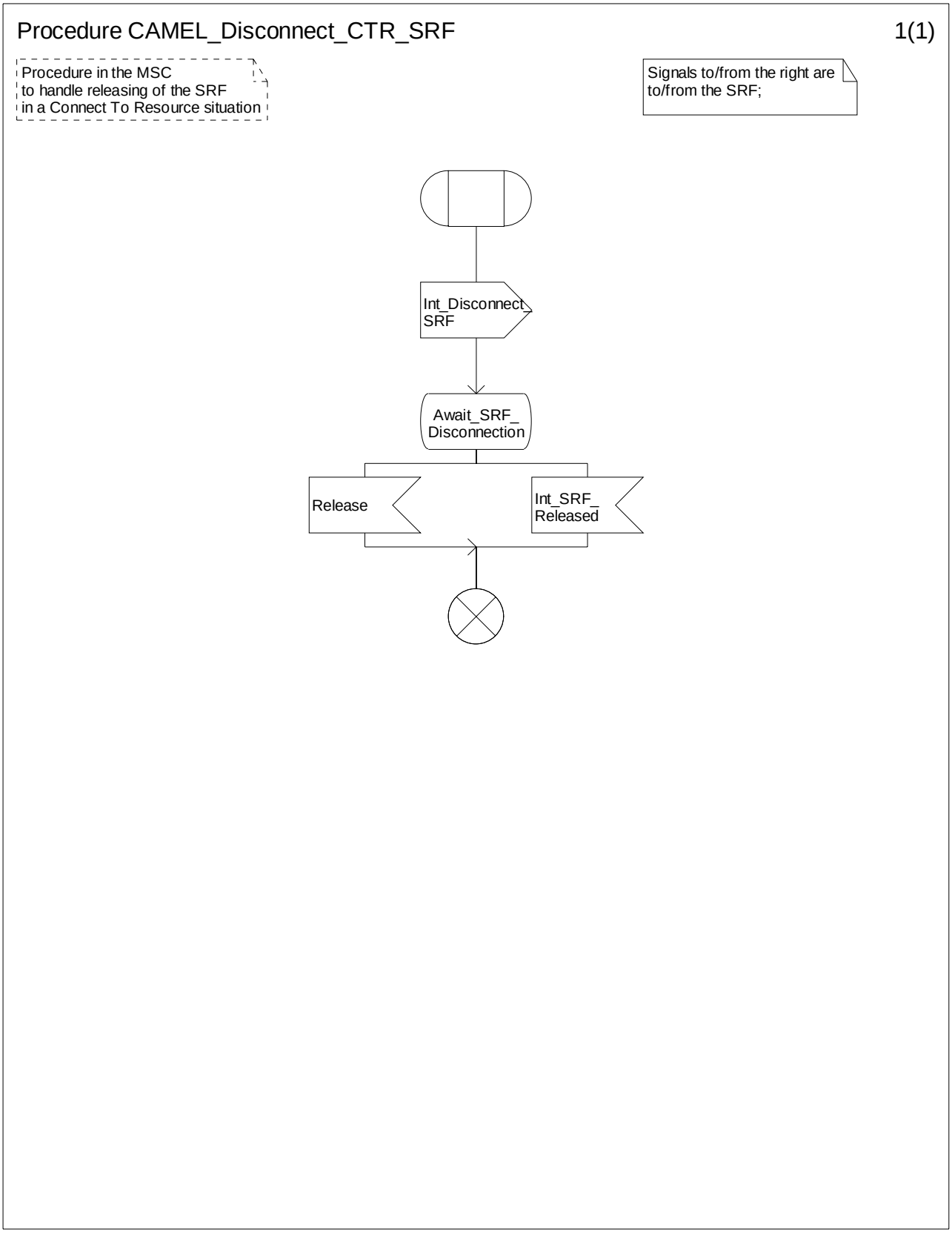


Figure 4-22-1: Procedure CAMEL_Disconnect_CTR_SRF (sheet 01)

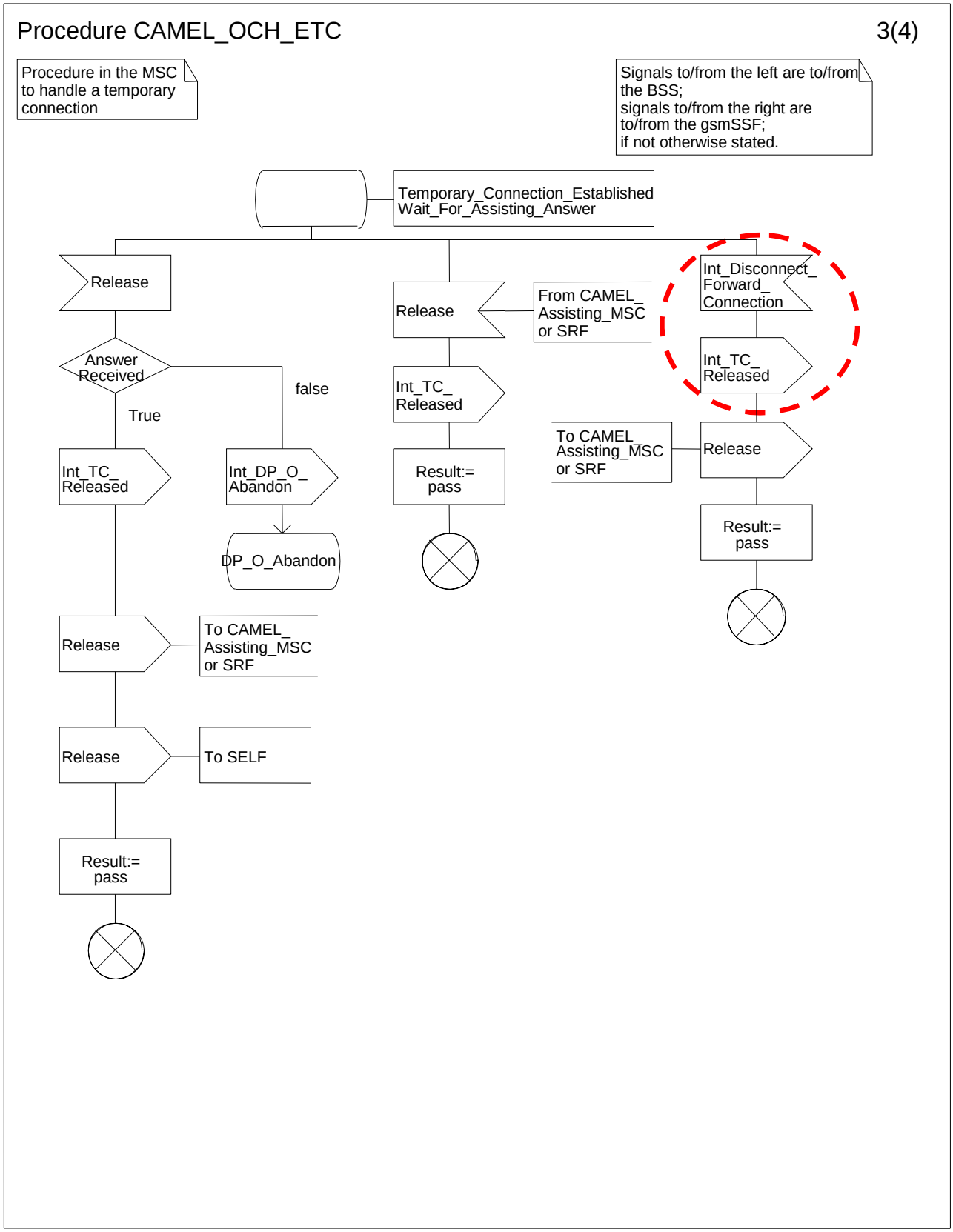


Figure 4-23.3: Procedure CAMEL_OCH_ETC (sheet 3)

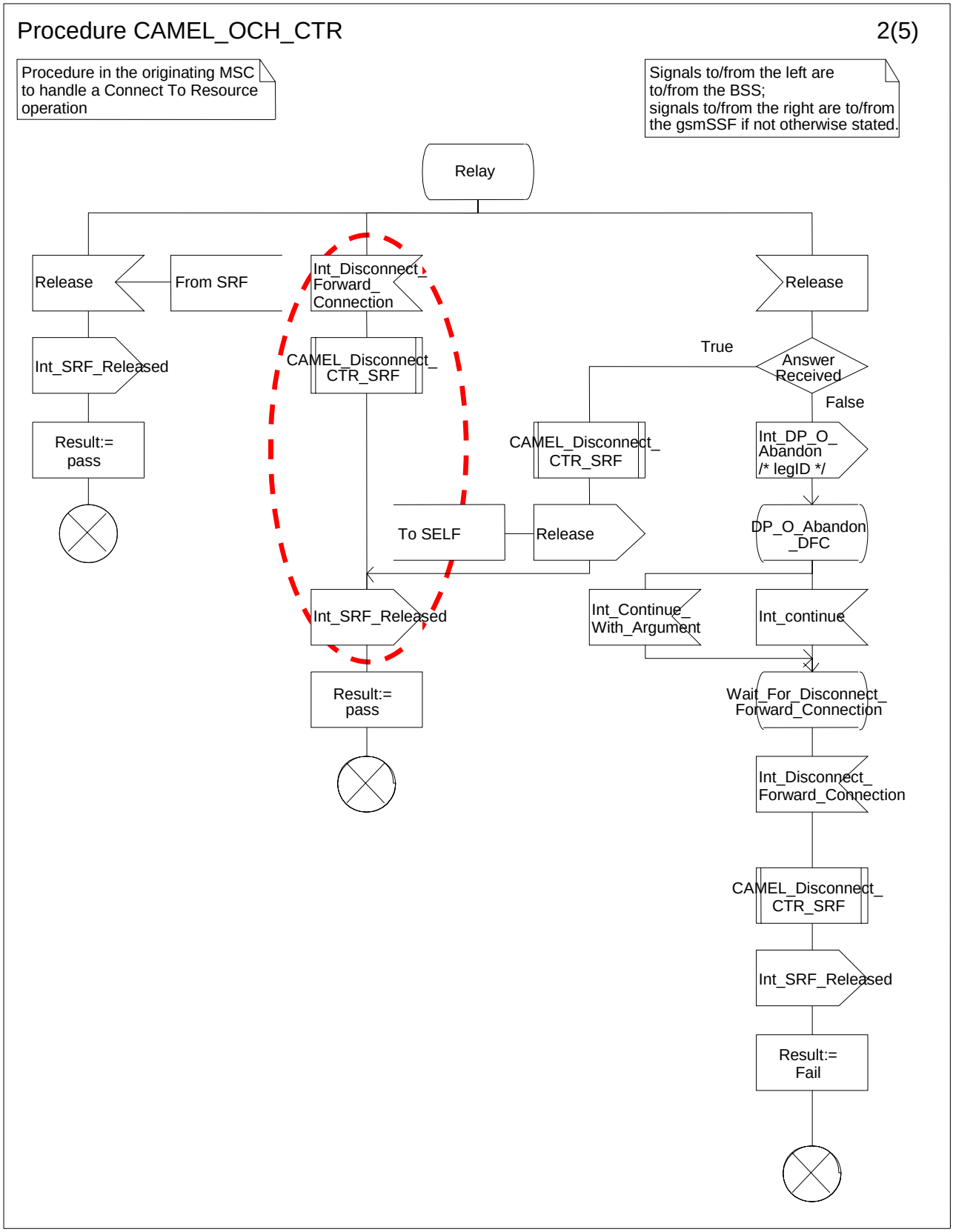


Figure 4.24-2: Procedure CAMEL_OCH_CTR (sheet 2)

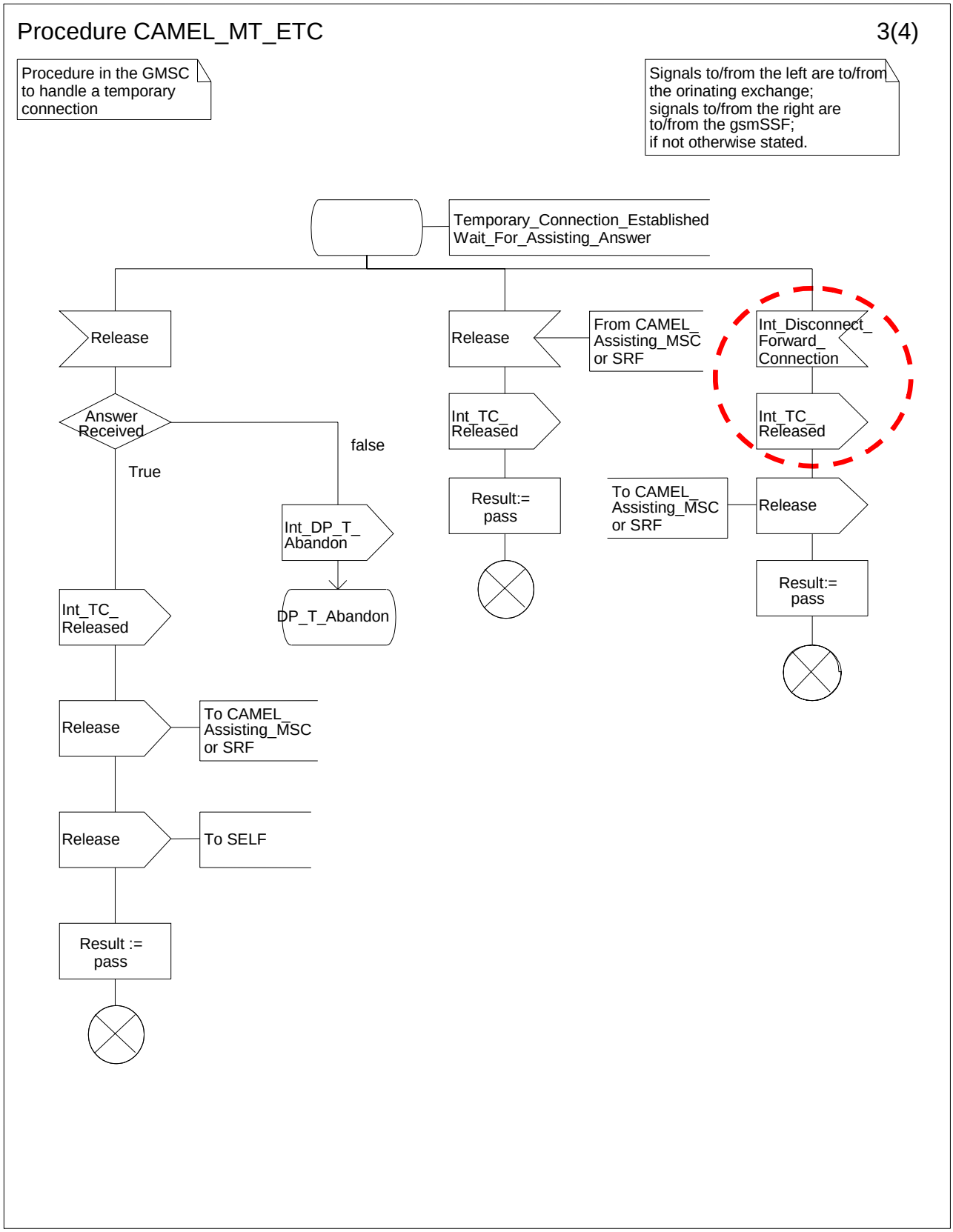


Figure 4.50-3: Procedure CAMEL_MT_ETC (sheet 3)

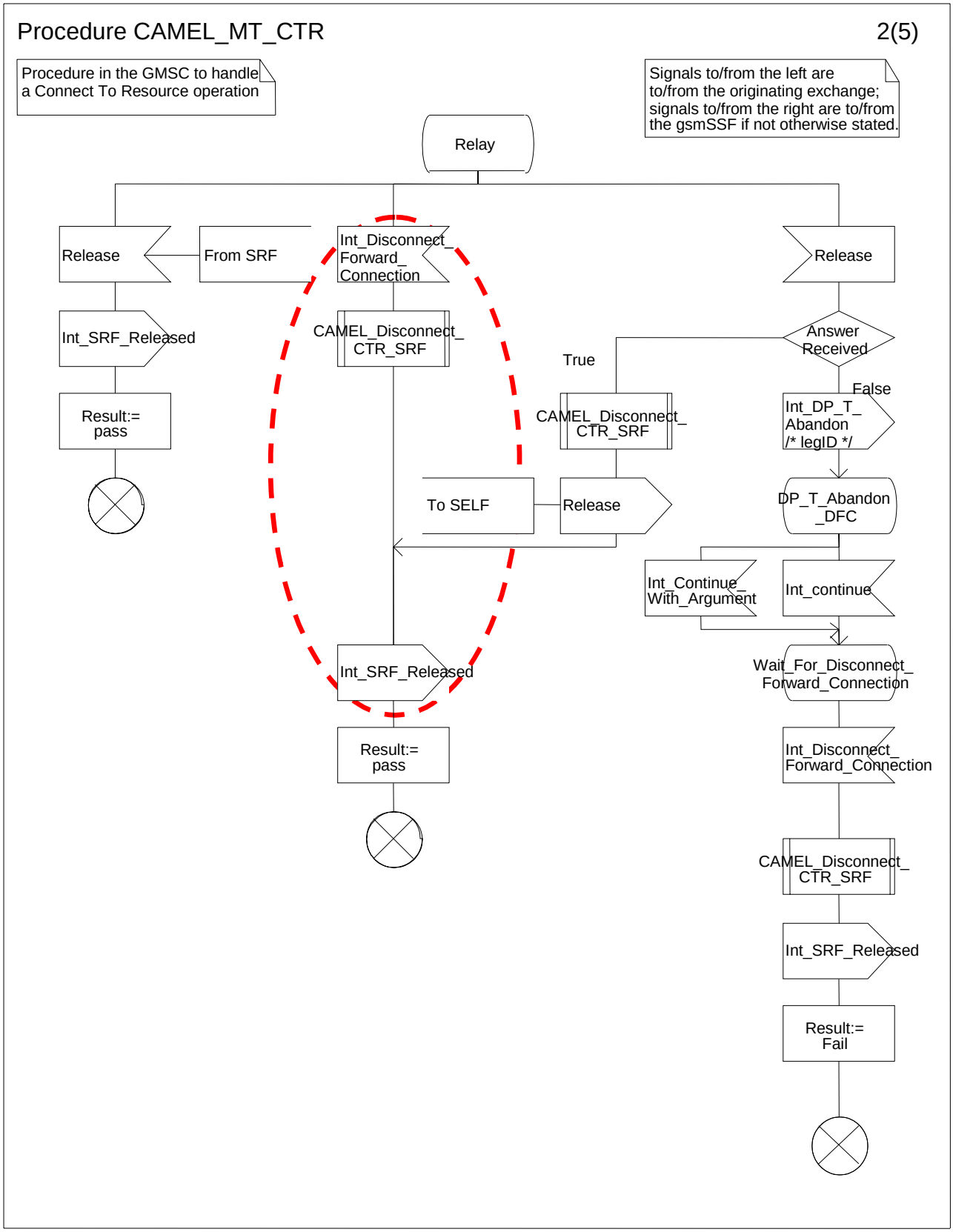


Figure 4.51-2: Procedure CAMEL_MT_CTR (sheet 2)

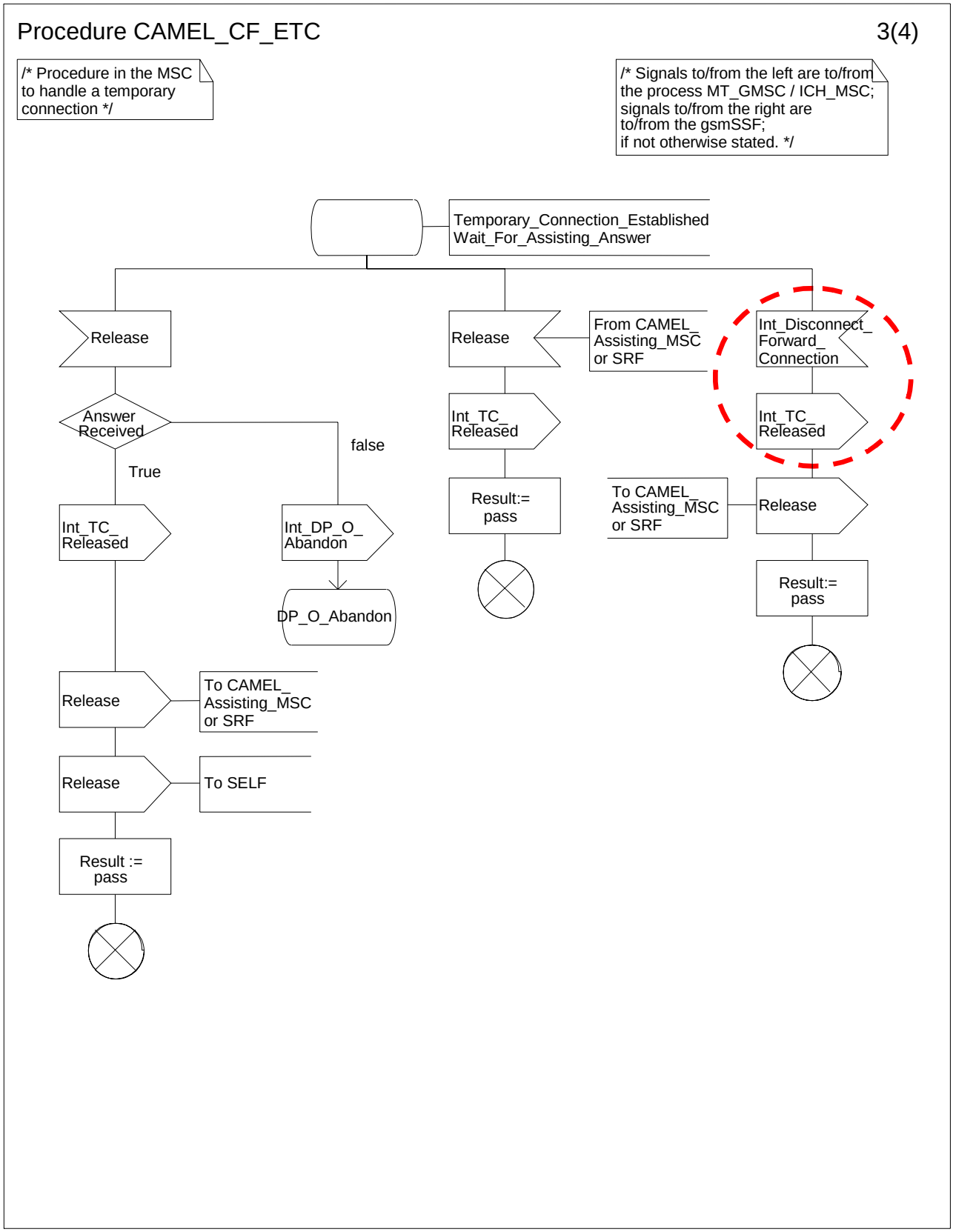


Figure 4.82-3: Procedure CAMEL_CF_ETC (sheet 3)

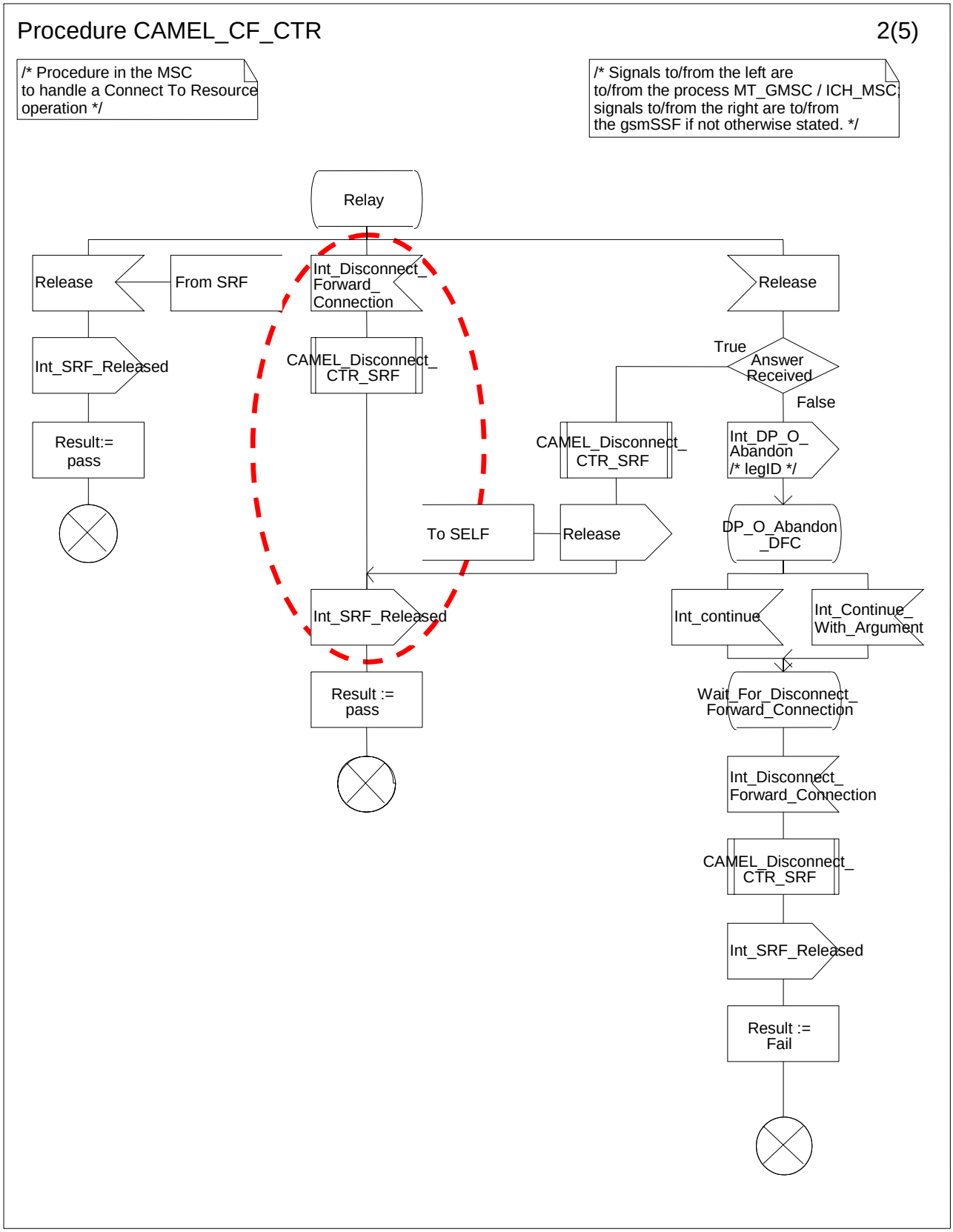
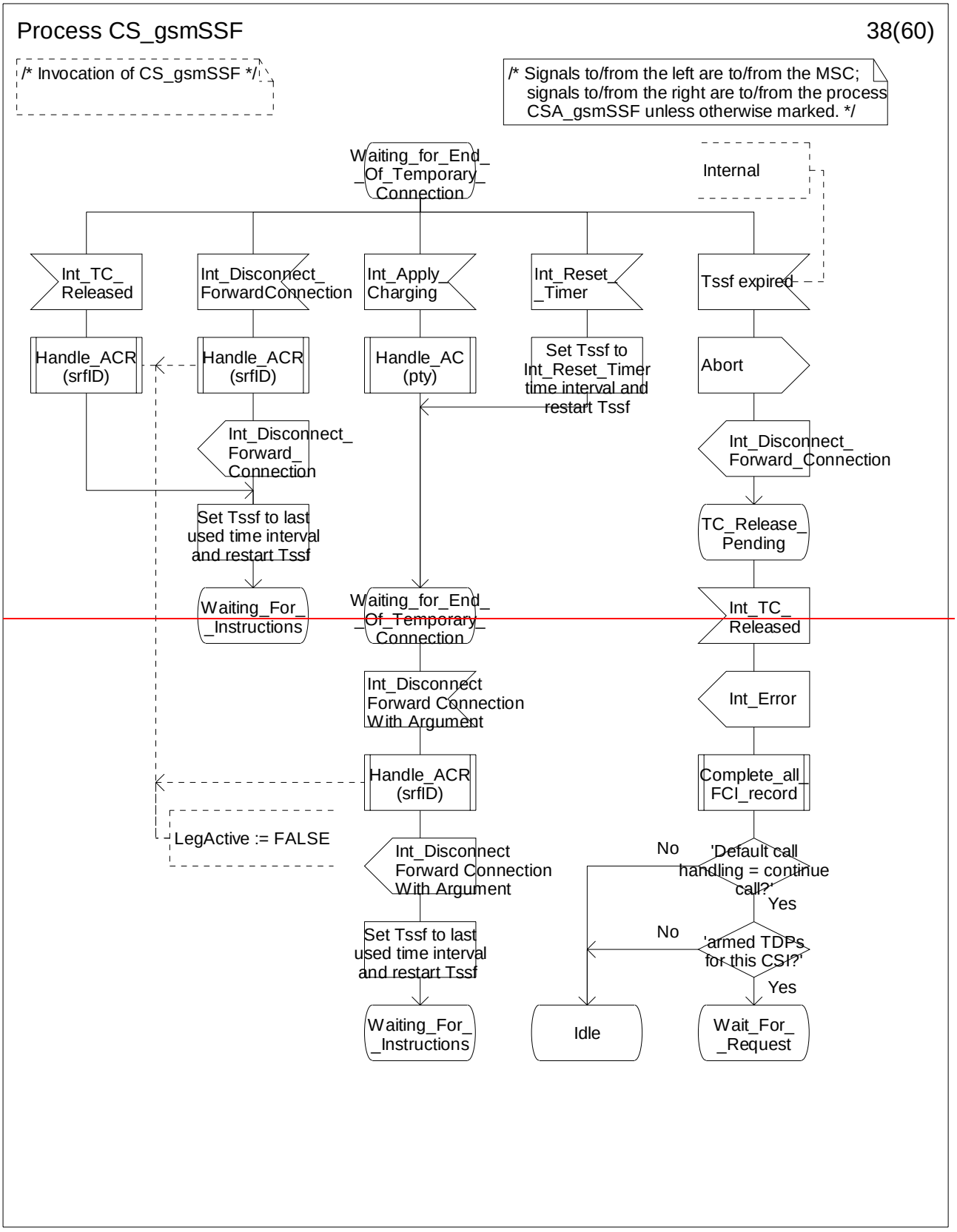


Figure 4.83-2: Procedure CAMEL_CF_CTR (sheet 2)

***** *First Modification* *****



~~**Figure 4.96-38: Process CS_gsmSSF (sheet 38)**~~

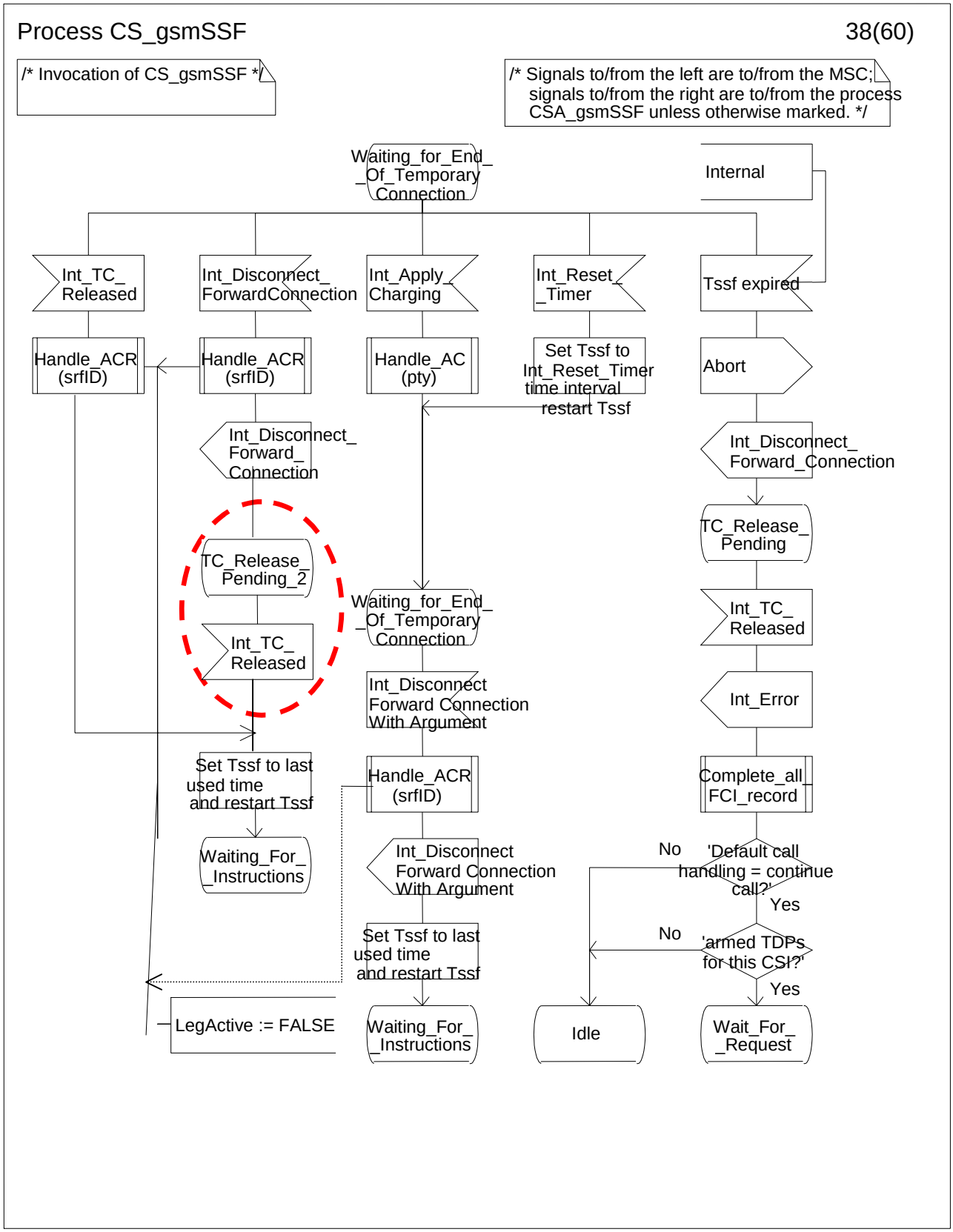


Figure 4.96-38: Process CS_gsmSSF (sheet 38)

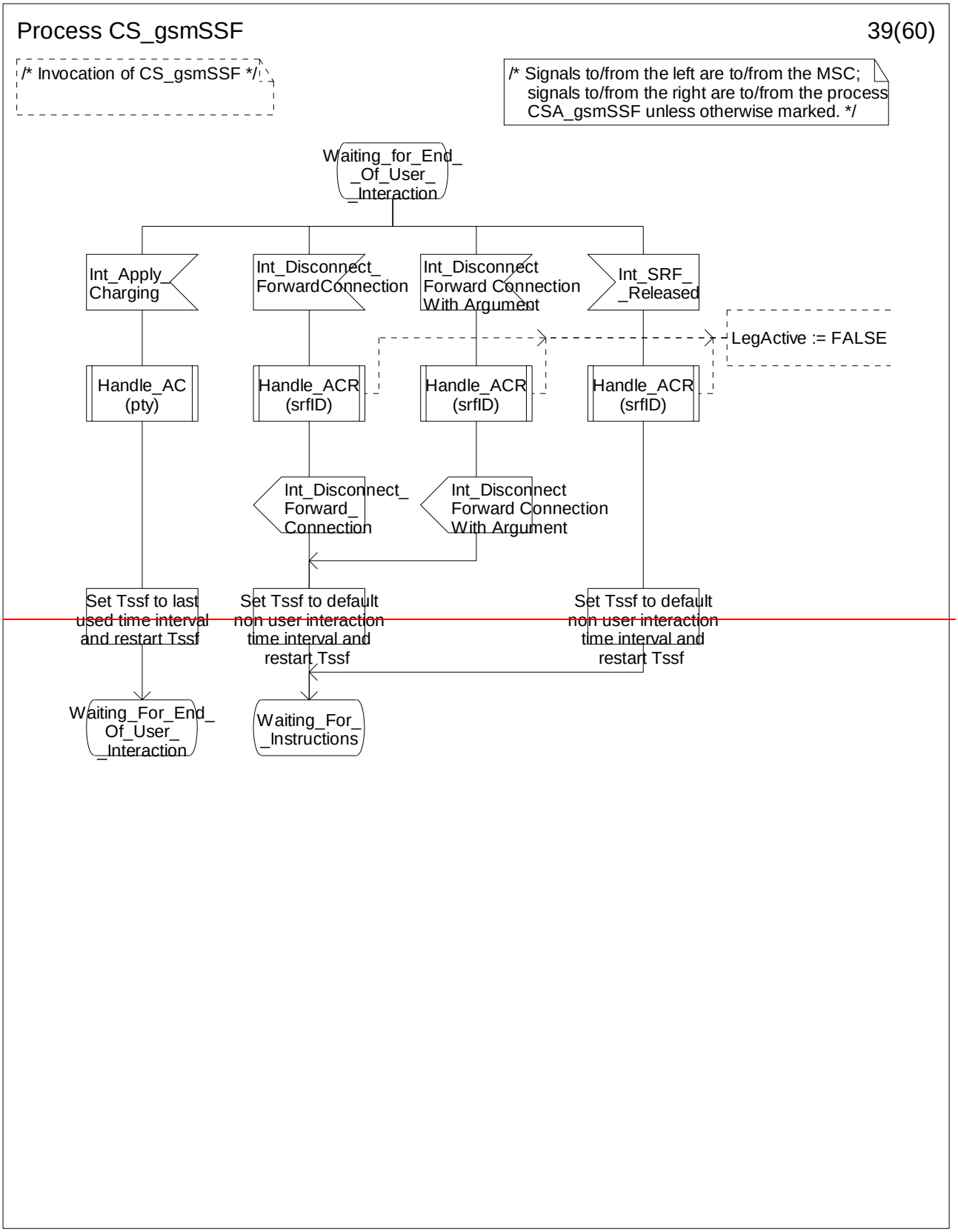


Figure 4.96-39: Process CS_gsmSSF (sheet 39)

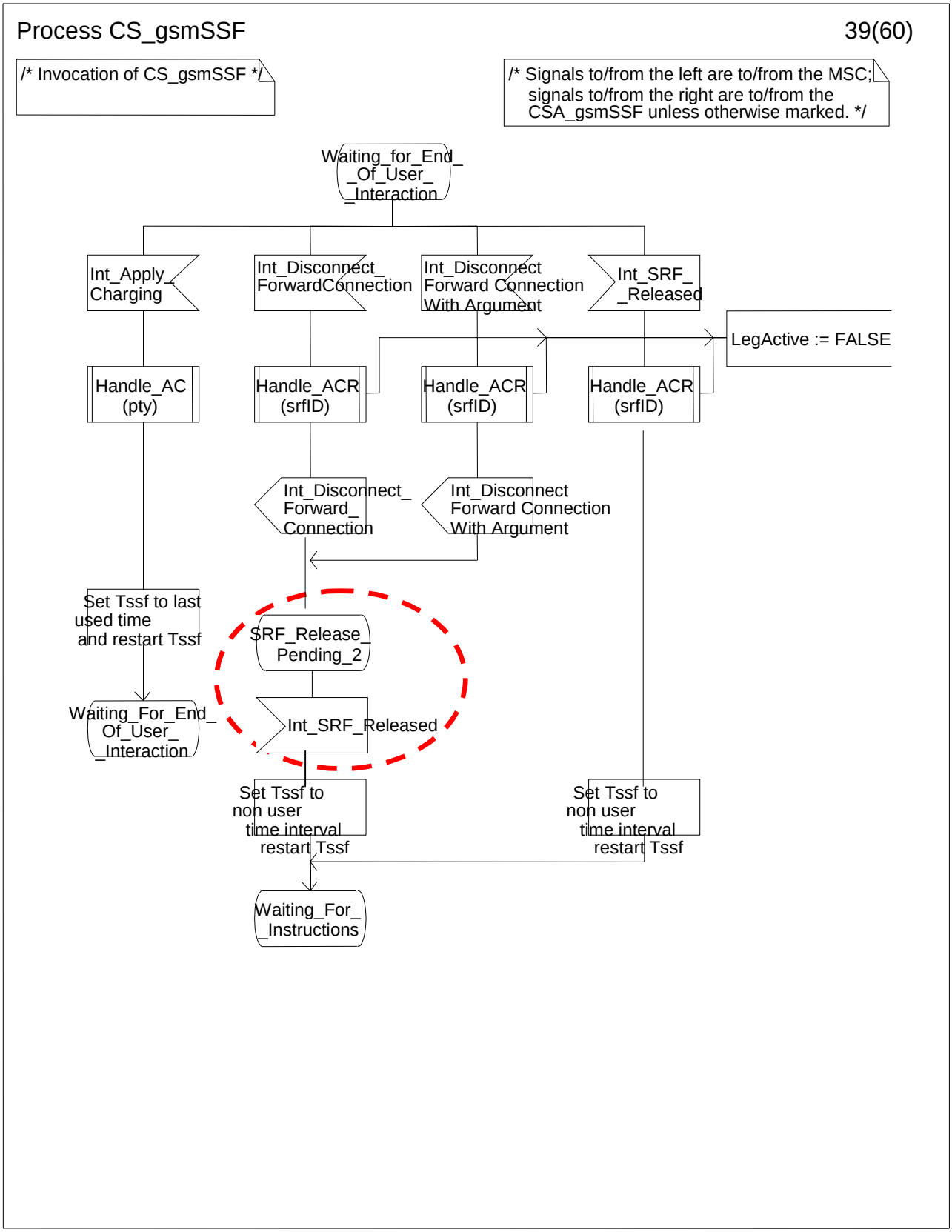


Figure 4.96-39: Process CS_gsmSSF (sheet 39)

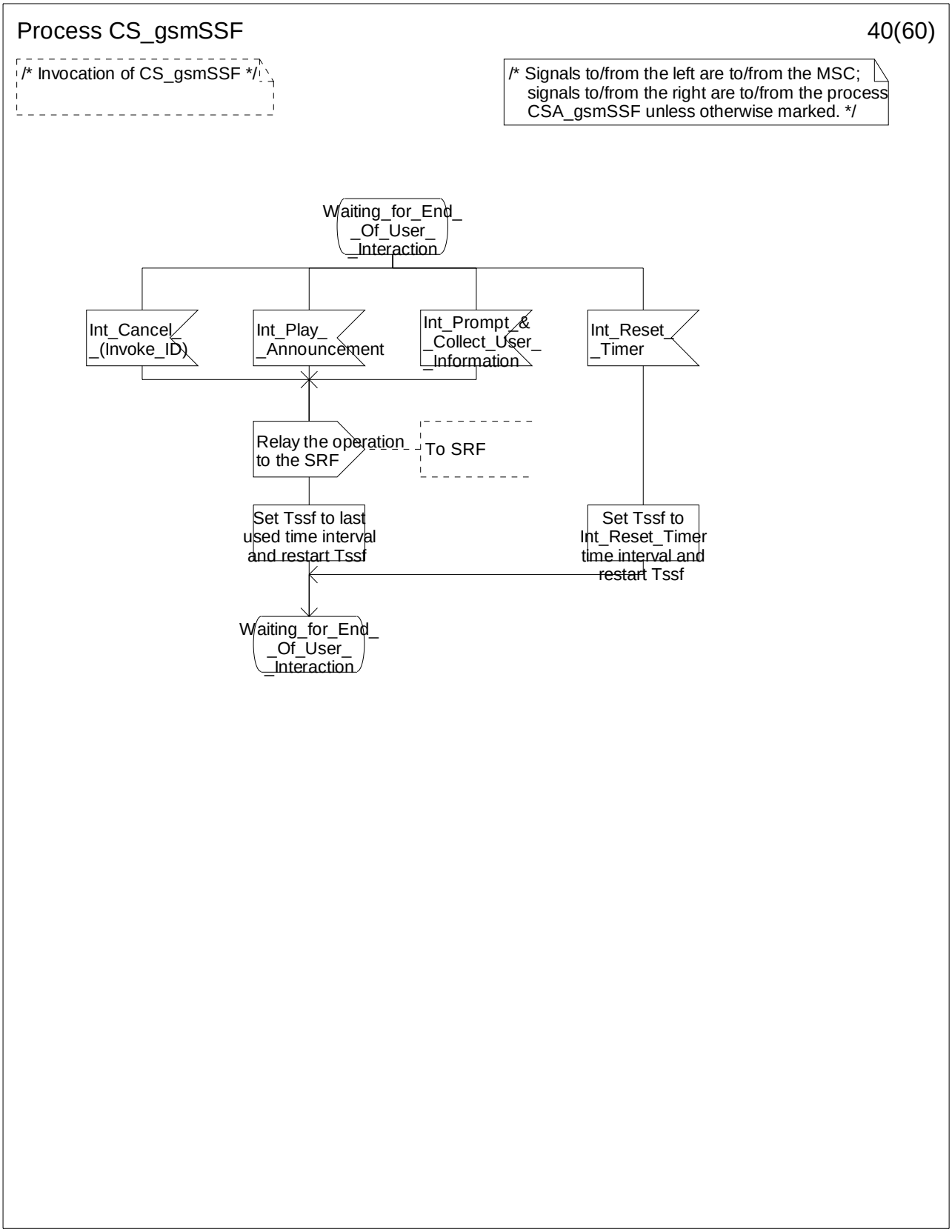


Figure 4.96-40: Process CS_gsmSSF (sheet 40)

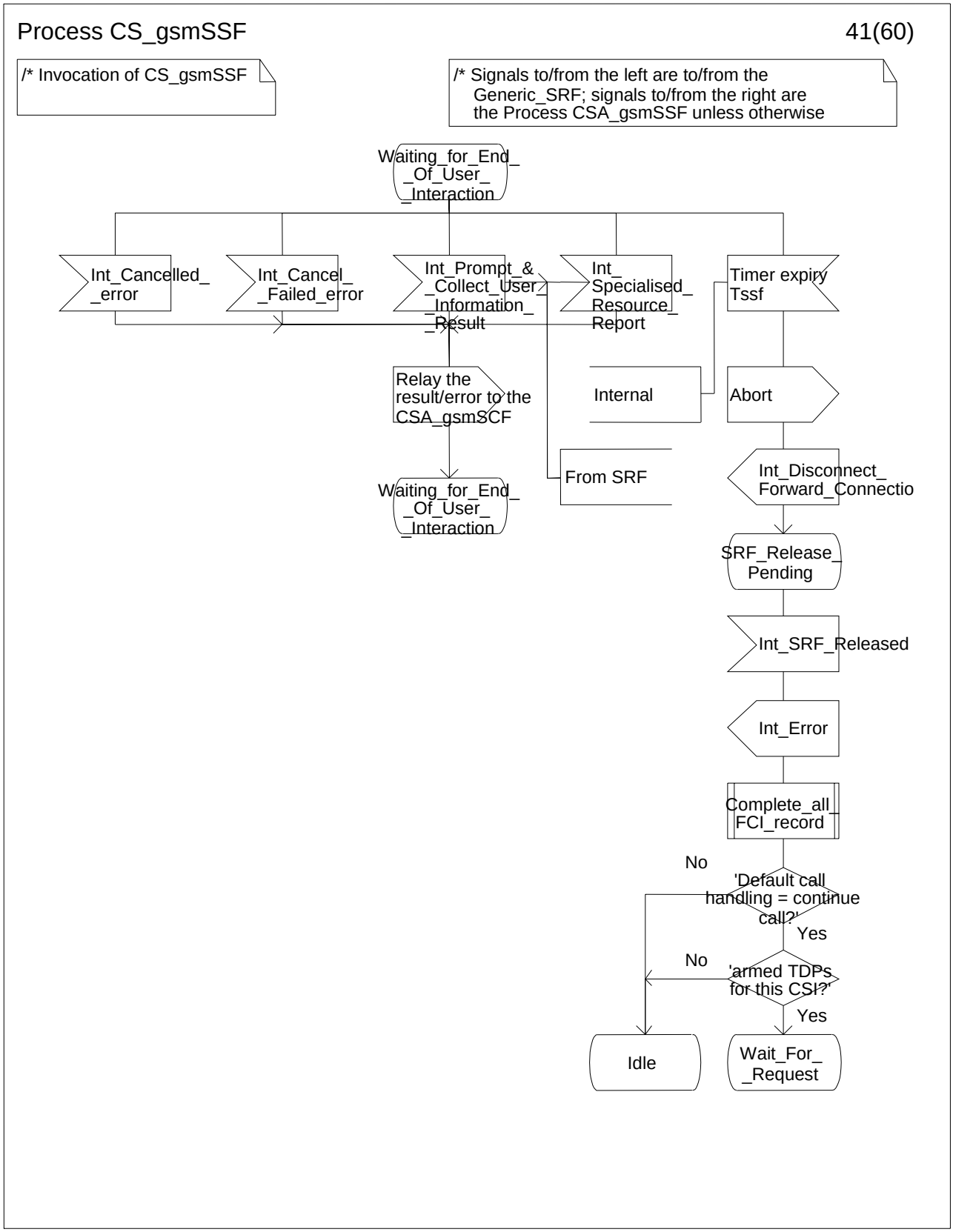
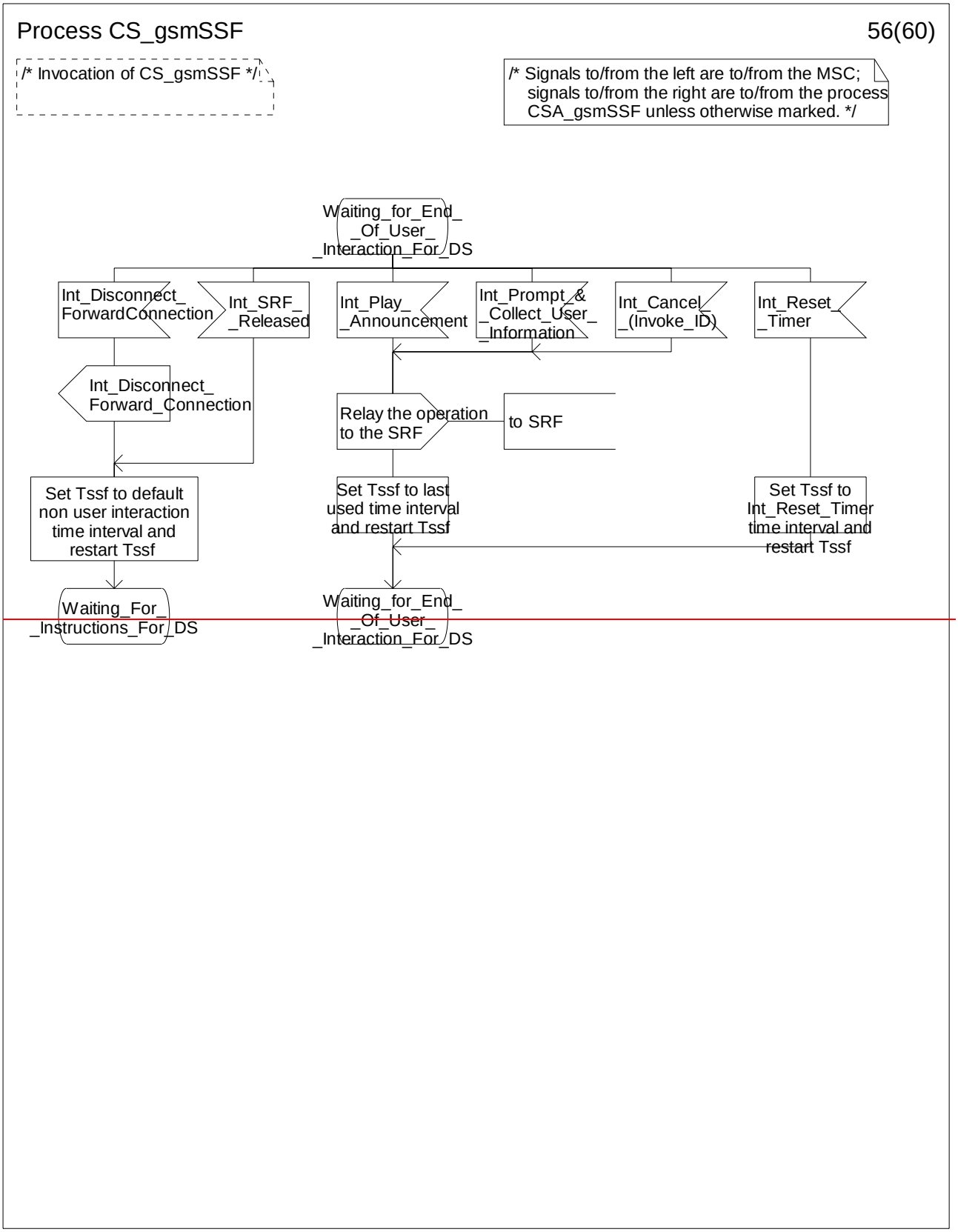


Figure 4.96-41: Process CS_gsmSSF (sheet 41)



~~**Figure 4.96-56: Process CS_gsmSSF (sheet 56)**~~

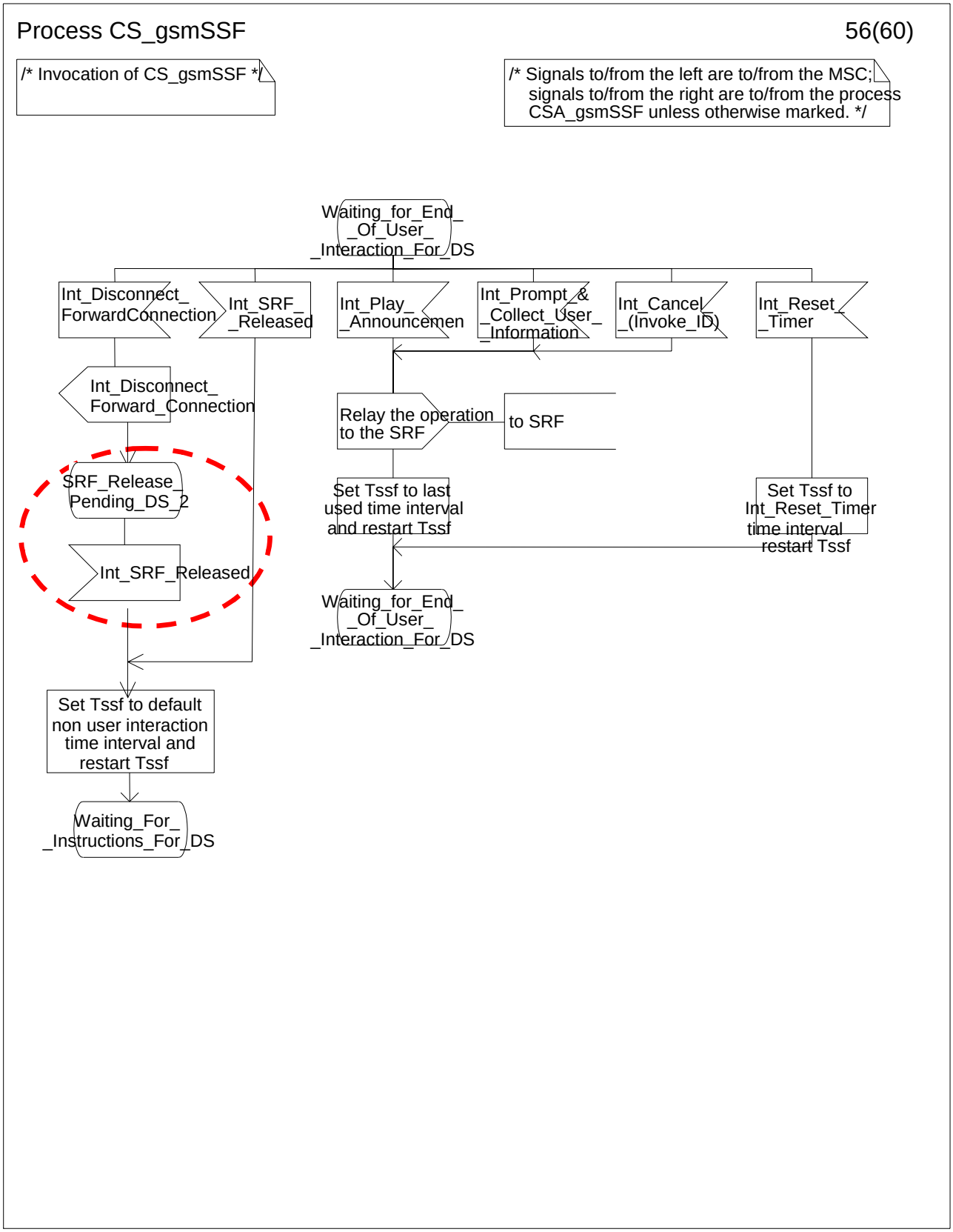
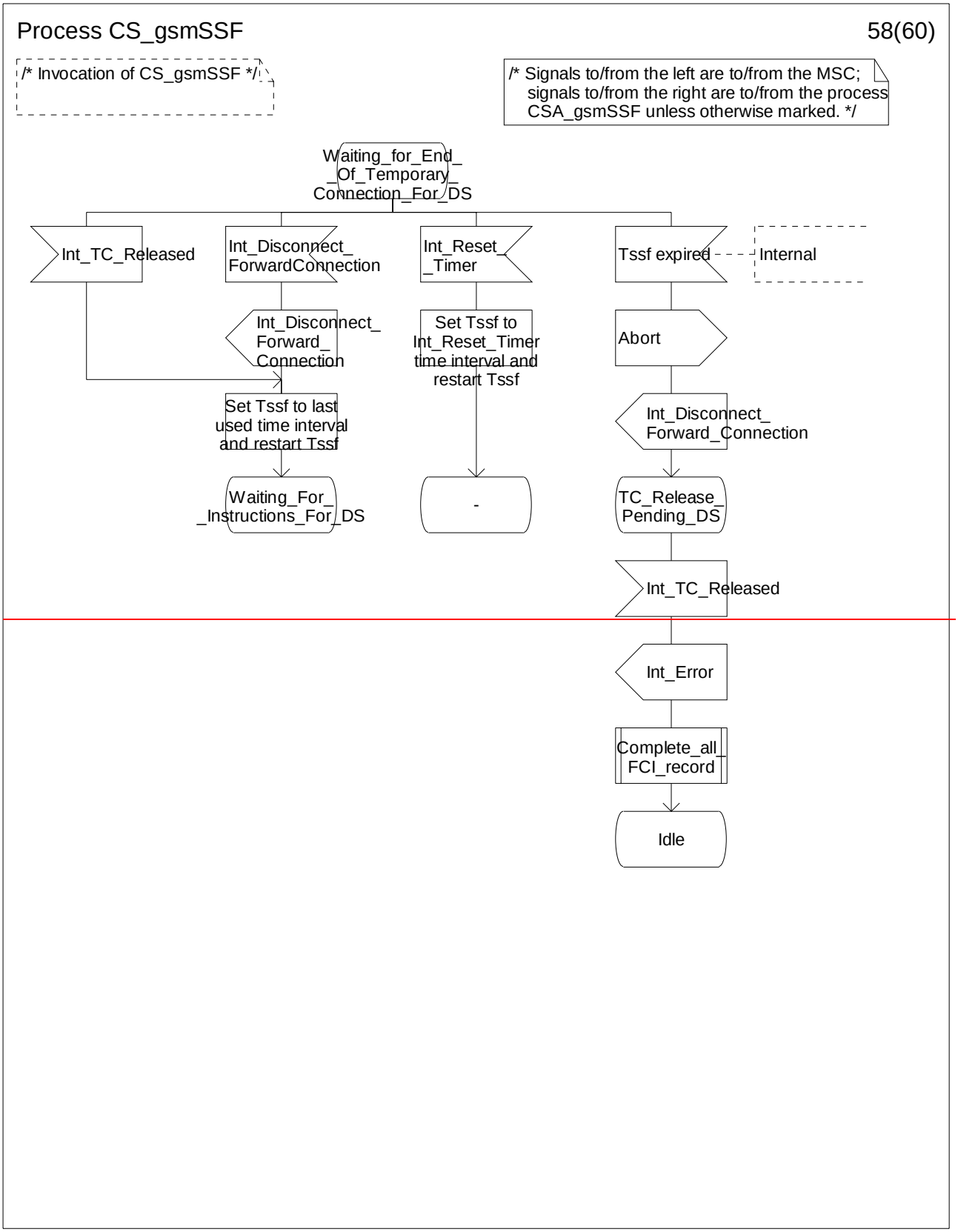


Figure 4.96-56: Process CS_gsmSSF (sheet 56)



~~Figure 4.96-58: Process CS_gsmSSF (sheet 58)~~

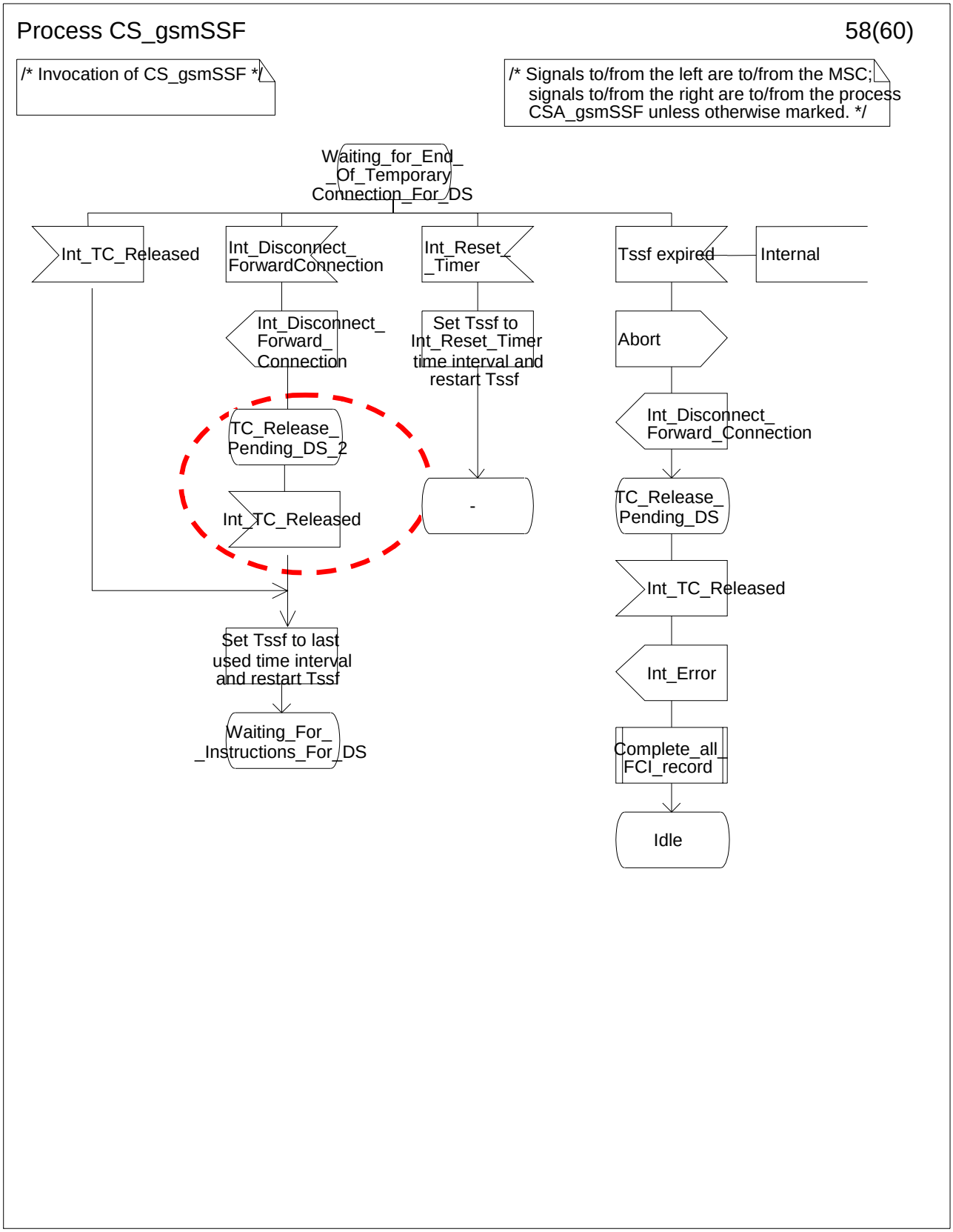


Figure 4.96-60: Process CS_gsmSSF (sheet 60)

*** End of Document***

3GPP TSG CN WG2 Meeting #32
Atlanta, USA, 16th – 20st February 2004

N2-040111
revision of N2-040038

CHANGE REQUEST

⌘ **23.078** **CR** **674** ⌘ **rev** **1** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Correction to both way through parameter for ETC and CTR
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	F (essential correction)
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 section 4.6.2.7, Connect To Resource (CTR). The Service Interaction Indicators Two (SII2) information element does not control the bothway through connection between the Call Segment and the ***gsmSRF***, but the bothway through connection between the Call Segment and the ***Calling Party***. The same correction needed in section 4.6.2.13, Establish Temporary Connection (ETC). In CAMEL Phase 4, User Interaction may be applied to a call segment that has no calling party connected to it. In that case, the SII2 information element has no effect. This is currently not reflected in the description of SII2.
Summary of change:	⌘	Correct the description of the Service Interaction Indicators Two information element in Connect To Resource and in Establish Temporary Connection.
Consequences if not approved:	⌘	Ambiguity for designers: gsmSSF designers will not be able to implement the SII2 information element as currently specified; gsmSCF designers will not know how to use the SII2 information element. As a result, the through connection control feature of CAMEL may not work, especially when CTR and ETC are used in combination with call party handling.

Clauses affected:	⌘	4.6.2.7, 4.6.2.13			
Other specs affected:	⌘	**Y** / **N**	Other core specifications	⌘	29.078-CR351
		X /	Other core specifications		
		/ **X**	Test specifications		
		/ **X**	O&M Specifications		
Other comments:	⌘				

*** First Modification ***

4.6.2.7 Connect To Resource

4.6.2.7.1 Description

This IF is used to connect a call from the gsmSSF to a gsmSRF.

4.6.2.7.2 Information Elements

Information element name	Status	Description
Resource Address	M	This IE indicates the address of the gsmSRF to which the connection shall be established. It is described in a table below.
Service Interaction Indicators Two	O	This IE indicates whether or not a bothway through connection is required between the call segment and the ~~gsmSRF~~calling party. When there is no calling party connected to the call segment, then the gsmSSF shall ignore this IE, if received. The handling when this IE is not present is defined in ETSI EN 301 070-1 ([**Error! Reference source not found.**]).
Call Segment ID	M	This IE indicates the call segment to be connected to the resource. The subsequent user interaction shall apply to all parties connected to the call segment.

Resource Address contains the following information elements:

Information element name	Status	Description
IP Routing Address	E	This IE indicates the routeing address to set up a connection between the call segment and the gsmSRF.
None	E	This IE indicates that the call segment shall be connected to a predefined gsmSRF.

*** Next Modification ***

4.6.2.13 Establish Temporary Connection

4.6.2.13.1 Description

This IF is used to create a connection between an initiating gsmSSF and an assisting gsmSSF as a part of the assist procedure. It can also be used to create a connection between a gsmSSF and a gsmSRF.

4.6.2.13.2 Information Elements

Information element name	Status	Description
Assisting SSP IP Routing Address	M	This IE indicates the destination address of the gsmSRF or assisting gsmSSF for the assist procedure. As a network operator option, the Assisting gsmSSF IP Routing Address may contain embedded within it, a "Correlation ID" and "gsmSCF ID", but only if "Correlation ID" and "gsmSCF ID" are not specified separately.
Correlation ID	O	This IE is used for: - the correlation of dialogues from the initiating gsmSSF-> gsmSCF with dialogues from gsmSRF -> gsmSCF; - the correlation of dialogues from the initiating gsmSSF-> gsmSCF with dialogues from assisting gsmSSF -> gsmSCF.
Carrier	O	This IE is described in a table below.
NA Originating Line Information	O	This IE identifies the type of number in the Charge Number (e.g. subscriber versus PLMN operator number).
Charge Number	O	This IE identifies the chargeable number for the usage of a North American carrier.
gsmSCF ID	O	This IE indicates the gsmSCF identifier.
Service Interaction Indicators	O	This IE indicates whether or not a bothway through connection is required

Information element name	Status	Description
Two		between the call segment and the ~~gsmSRF~~calling party. When there is no calling party connected to the call segment, then the gsmSSF shall ignore this IE, if received. The handling when this IE is not present is defined in ETSI EN 301 070-1 [**Error! Reference source not found.**].
Call Segment ID	M	This IE indicates the call segment to be connected to the resource. The subsequent user interaction shall apply to all parties connected to the call segment.

Carrier contains the following information elements:

Information element name	Status	Description
Carrier Identification Code	M	This IE uniquely identifies a North American long distance carrier.
Carrier Selection Information	M	This IE indicates the way the carrier was selected, i.e.: - dialled; - subscribed.

****** End of Document******

CHANGE REQUEST

⌘ **23.078** **CR** **697** ⌘ **rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to both way through parameter for ETC and CTR
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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 section 4.6.2.7, Connect To Resource (CTR). The Service Interaction Indicators Two (SII2) information element does not control the bothway through connection between the Call Segment and the ***gsmSRF***, but the bothway through connection between the Call Segment and the ***Calling Party***. The same correction needed in section 4.6.2.13, Establish Temporary Connection (ETC). In CAMEL Phase 4, User Interaction may be applied to a call segment that has no calling party connected to it. In that case, the SII2 information element has no effect. This is currently not reflected in the description of SII2.
Summary of change:	⌘	Correct the description of the Service Interaction Indicators Two information element in Connect To Resource and in Establish Temporary Connection.
Consequences if not approved:	⌘	Ambiguity for designers: gsmSSF designers will not be able to implement the SII2 information element as currently specified; gsmSCF designers will not know how to use the SII2 information element. As a result, the through connection control feature of CAMEL may not work, especially when CTR and ETC are used in combination with call party handling.

Clauses affected:	⌘	4.6.2.7, 4.6.2.13			
Other specs affected:	⌘	**Y** / **N**	Other core specifications	⌘	29.078-CR351
		X /	Other core specifications		
		/ **X**	Test specifications		
		/ **X**	O&M Specifications		
Other comments:	⌘				

*** First Modification ***

4.6.2.7 Connect To Resource

4.6.2.7.1 Description

This IF is used to connect a call from the gsmSSF to a gsmSRF.

4.6.2.7.2 Information Elements

Information element name	Status	Description
Resource Address	M	This IE indicates the address of the gsmSRF to which the connection shall be established. It is described in a table below.
Service Interaction Indicators Two	O	This IE indicates whether or not a bothway through connection is required between the call segment and the ~~gsmSRF~~calling party. When there is no calling party connected to the call segment, then the gsmSSF shall ignore this IE, if received. The handling when this IE is not present is defined in ETSI EN 301 070-1 ([41]).
Call Segment ID	M	This IE indicates the call segment to be connected to the resource. The subsequent user interaction shall apply to all parties connected to the call segment.

Resource Address contains the following information elements:

Information element name	Status	Description
IP Routing Address	E	This IE indicates the routeing address to set up a connection between the call segment and the gsmSRF.
None	E	This IE indicates that the call segment shall be connected to a predefined gsmSRF.

*** Next Modification ***

4.6.2.13 Establish Temporary Connection

4.6.2.13.1 Description

This IF is used to create a connection between an initiating gsmSSF and an assisting gsmSSF as a part of the assist procedure. It can also be used to create a connection between a gsmSSF and a gsmSRF.

4.6.2.13.2 Information Elements

Information element name	Status	Description
Assisting SSP IP Routing Address	M	This IE indicates the destination address of the gsmSRF or assisting gsmSSF for the assist procedure. As a network operator option, the Assisting gsmSSF IP Routing Address may contain embedded within it, a "Correlation ID" and "gsmSCF ID", but only if "Correlation ID" and "gsmSCF ID" are not specified separately.
Correlation ID	O	This IE is used for: - the correlation of dialogues from the initiating gsmSSF-> gsmSCF with dialogues from gsmSRF -> gsmSCF; - the correlation of dialogues from the initiating gsmSSF-> gsmSCF with dialogues from assisting gsmSSF -> gsmSCF.
Carrier	O	This IE is described in a table below.
NA Originating Line Information	O	This IE identifies the type of number in the Charge Number (e.g. subscriber versus PLMN operator number).
Charge Number	O	This IE identifies the chargeable number for the usage of a North American carrier.
gsmSCF ID	O	This IE indicates the gsmSCF identifier.
Service Interaction Indicators	O	This IE indicates whether or not a bothway through connection is required

Information element name	Status	Description
Two		between the call segment and the ~~gsmSRF~~calling party. When there is no calling party connected to the call segment, then the gsmSSF shall ignore this IE, if received. The handling when this IE is not present is defined in ETSI EN 301 070-1 [41].
Call Segment ID	M	This IE indicates the call segment to be connected to the resource. The subsequent user interaction shall apply to all parties connected to the call segment.

Carrier contains the following information elements:

Information element name	Status	Description
Carrier Identification Code	M	This IE uniquely identifies a North American long distance carrier.
Carrier Selection Information	M	This IE indicates the way the carrier was selected, i.e.: - dialled; - subscribed.

****** End of Document******

3GPP TSG CN WG2 Meeting #32
Atlanta, USA, 16th – 20st February 2004

N2-040113
revision of N2-040060

CHANGE REQUEST

⌘	29.078	CR	351	⌘ rev	1	⌘	Current version:	5.6.0	⌘

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

Title:	⌘	Correction to description of Service Interaction Indicators Two parameter
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	F (essential correction)
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 description of the serviceInteractionIndicatorsTwo parameter in the ConnectToResource Procedure description is misleading. This parameter may be used by gsmSCF to control the through connection between (1) the calling party and (2) the call segment in the MSC. That is not reflected in the description of the ConnectToResource procedure description. The present CR proposes a simplified description for this parameter; the proposed text is in line with the text currently used for the description of the same parameter in the EstablishTemporaryConnection Operation.
Summary of change:	⌘	Refine the description of serviceInteractionIndicatorsTwo parameter in the ConnectToResource procedure description.
Consequences if not approved:	⌘	Confusion for gsmSSF designers and CAMEL Service Logic designers. The description of the serviceInteractionIndicatorsTwo parameter in ConnectToResource and in EstablishTemporaryConnection are different, but the processing of these parameters by the MSC/gsmSSF should be the same.

Clauses affected:	⌘	11.10			
Other specs Affected:	⌘	**Y** / **N**	Other core specifications	⌘	23.078-CR674
		X /	Test specifications		
		X /	O&M Specifications		
Other comments:	⌘				

****** For Information ******

Extract from 3GPP Ts 29.078 V5.6.0

11.17 EstablishTemporaryConnection procedure

11.17.1 General Description

...

11.17.1.1 Parameters

…

- serviceInteractionIndicatorsTwo:
  This parameter contains an indicator that is used for the control of the through connection to the Calling Party.

…

****** First Modification ******

11.10 ConnectToResource procedure

11.10.1 General description

The gsmSCF uses this operation to connect a call segment from the gsmSSF to a specialized resource. After successful connection to the gsmSRF, the interaction with the parties in the call segment can take place. The gsmSSF relays all operations for the gsmSRF and all responses from the gsmSRF.

11.10.1.1 Parameters

- resourceAddress:
  This parameter identifies the physical location of the gsmSRF. It may be one of the following parameters.

  - iPRoutingAddress:
    This parameter indicates the routeing address to set up a connection towards the gsmSRF.

  - none:
    This parameter indicates that the call segment shall be connected to a predefined gsmSRF.

- serviceInteractionIndicatorsTwo:
  ~~This parameter contains an indicator that is used for the control of the through connection between the calling party and the gsmSRF~~This parameter contains an indicator that is used for the control of the through connection to the Calling Party.

  NOTE The call segment to which the ConnectToResource applies does not have to contain a leg to the calling party.

  The assisting gsmSSF shall always assume that Bothway Throughconnection is required, and hence will ignore this parameter if received.

- callSegmentId:
  This parameter indicates the call segment to which the Connect To Resource procedure applies.

11.10.2 Responding entity (gsmSSF)

11.10.2.1 Normal procedure

< remainder of section 11.10 is unmodified >

****** End of Document******

3GPP TSG CN WG2 Meeting #32 N2-040114
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **29.078** **CR** **360** ⌘ **rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to description of Service Interaction Indicators Two parameter
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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 description of the serviceInteractionIndicatorsTwo parameter in the ConnectToResource Procedure description is misleading. This parameter may be used by gsmSCF to control the through connection between (1) the calling party and (2) the call segment in the MSC. That is not reflected in the description of the ConnectToResource procedure description. The present CR proposes a simplified description for this parameter; the proposed text is in line with the text currently used for the description of the same parameter in the EstablishTemporaryConnection Operation.
Summary of change:	⌘	Refine the description of serviceInteractionIndicatorsTwo parameter in the ConnectToResource procedure description.
Consequences if not approved:	⌘	Confusion for gsmSSF designers and CAMEL Service Logic designers. The description of the serviceInteractionIndicatorsTwo parameter in ConnectToResource and in EstablishTemporaryConnection are different, but the processing of these parameters by the MSC/gsmSSF should be the same.

Clauses affected:	⌘	11.10			
		Y	**N**		
Other specs Affected:	⌘	**X**		Other core specifications	⌘ 23.078-CR674
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

****** For Information ******

Extract from 3GPP Ts 29.078

11.17 EstablishTemporaryConnection procedure

11.17.1 General Description

...

11.17.1.1 Parameters

…

- serviceInteractionIndicatorsTwo:
  This parameter contains an indicator that is used for the control of the through connection to the Calling Party.

…

****** First Modification ******

11.10 ConnectToResource procedure

11.10.1 General description

The gsmSCF uses this operation to connect a call segment from the gsmSSF to a specialized resource. After successful connection to the gsmSRF, the interaction with the parties in the call segment can take place. The gsmSSF relays all operations for the gsmSRF and all responses from the gsmSRF.

11.10.1.1 Parameters

- resourceAddress:
  This parameter identifies the physical location of the gsmSRF. It may be one of the following parameters.

  - iPRoutingAddress:
    This parameter indicates the routeing address to set up a connection towards the gsmSRF.

  - none:
    This parameter indicates that the call segment shall be connected to a predefined gsmSRF.

- serviceInteractionIndicatorsTwo:
  ~~This parameter contains an indicator that is used for the control of the through connection between the calling party and the gsmSRF~~This parameter contains an indicator that is used for the control of the through connection to the Calling Party.

  NOTE The call segment to which the ConnectToResource applies does not have to contain a leg to the calling party.

  The assisting gsmSSF shall always assume that Bothway Throughconnection is required, and hence will ignore this parameter if received.

- callSegmentId:
  This parameter indicates the call segment to which the Connect To Resource procedure applies.

11.10.2 Responding entity (gsmSSF)

11.10.2.1 Normal procedure

< remainder of section 11.10 is unmodified >

****** End of Document******

3GPP TSG CN WG2 Meeting #32
Atlanta, USA, 16th – 20st February 2004

N2-040115
revision of N2-040040

CHANGE REQUEST

⌘	23.078	CR	676	⌘ rev	1	⌘	Current version:	5.6.0	⌘

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

Title:	⌘	Correction to forwarded leg handling with Suppress O-CSI
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18

Category: ⌘ F (essential correction)

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)*

Release: ⌘ Rel-5

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 fig. 4.76, Procedure CAMEL_CF_MSC_INIT. Call forwarding without CAMEL invocation for the forwarded leg may be the result of:

CAP Connect["Destination Routeing Address" <> called MSISDN; "O-CSI Applicable" = FALSE];
CAP Continue With Argument when forwarding is pending (at EDP or IDP), CAP CWA contains "suppress O-CSI" = TRUE.

This is not correctly reflected in the SDL, CAMEL_CF_MSC_INIT sheet 1.

When the forwarding is started, (G)MSC shall check whether O-CSI is available. If not, then forwarded leg handling continues without CAMEL.

Otherwise, (G)MSC shall check whether O-CSI needs to be suppressed (see above for criteria to suppress O-CSI). Note that the information element "Suppress D-CSI" is not applicable for MT and VT calls.

If O-CSI is applicable (in the case of CAP Connect) or is not supressed (in the case of CAP Continue With Argument), then forwarded leg handling continues with CAMEL; forwarded leg will be subject to O-CSI.
If O-CSI is to be suppressed, then (G)MSC shall continue without CAMEL.

Note that the information element "O-CSI applicable" is used only when the forwarding is the result of CAP Connect with modified Destination Subscriber Number; the information element "suppress O-CSI" is used only when the forwarding is the result of GSM forwarding or Call Deflecting. This distinction is reflected in the check box "type of forwarding".

Summary of change:	⌘	Correct figure 4.76, sheet 1 as described above.
Consequences if not approved:	⌘	Suppression of O-CSI for forwarded calls will not work. This feature is introduced in CAMEL Phase 4 for signaling optimisation.

Clauses affected:	⌘	Figure 4.76, Procedure CAMEL_CF_MSC_INIT, sheet 1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

****** For Information ******

< extract from 3GPP TS 23.078 V5.6.0 >

4.6.2.6 Connect

4.6.2.6.1 Description

…

4.6.2.6.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
…							
Charge Number	O	O	O	O	O	O	This IE identifies the chargeable number for the usage of a North American carrier.
O-CSI Applicable	-	-	O	O	-	-	This IE indicates that the O-CSI, if present shall be applied on the outgoing leg.
Suppression Of Announcements	-	-	O	O	O	O	This IE indicates that announcements or tones generated as a result of unsuccessful call establishment shall be suppressed.
…							

4.6.2.9 Continue With Argument

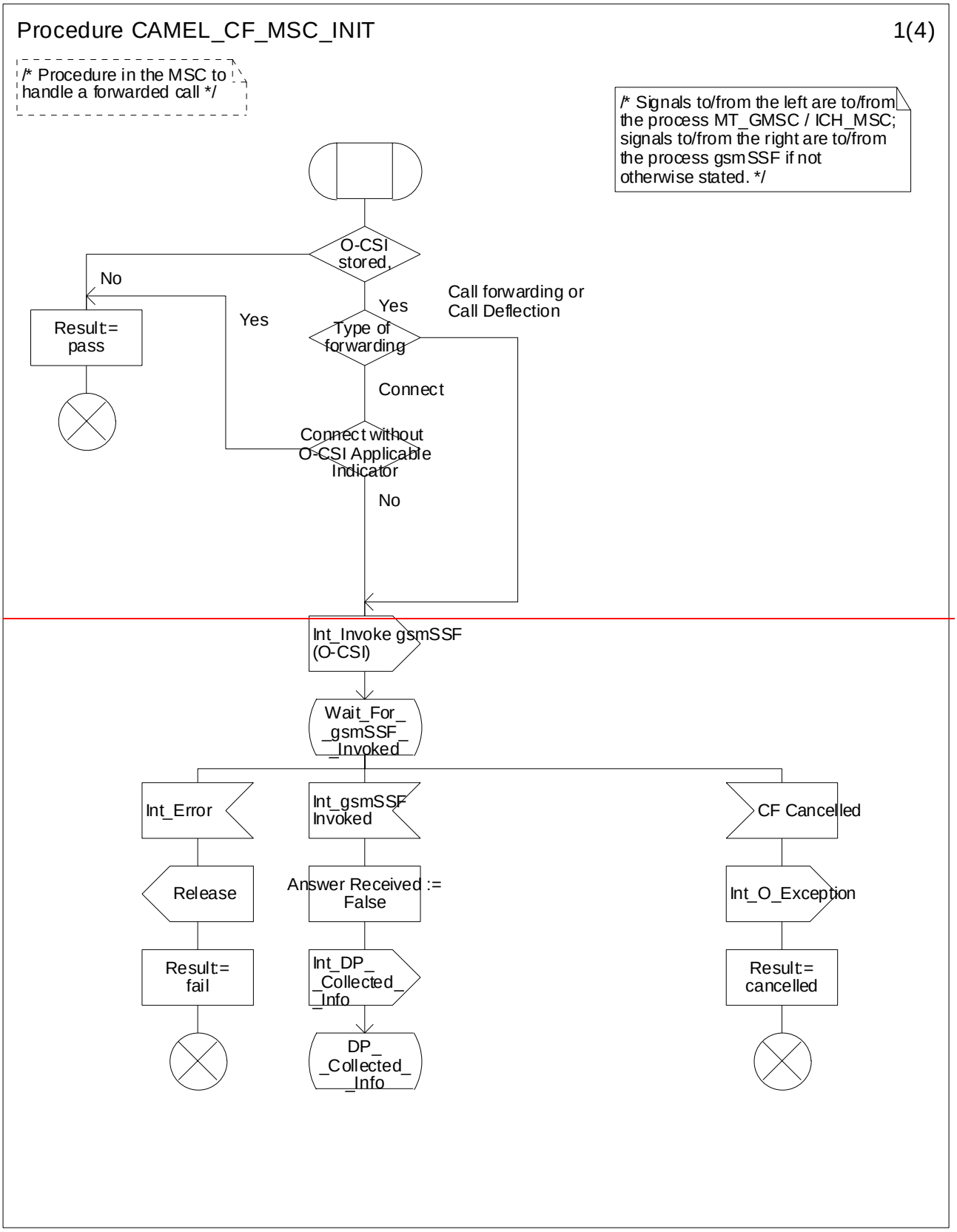
4.6.2.9.1 Description

…

4.6.2.9.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
…							
Suppress O-CSI	-	-	O	O	-	-	This IE indicates that O-CSI shall be suppressed for the forwarding leg or deflecting leg.
Suppress D-CSI	-	-	-	-	-	O	This IE indicates that D-CSI shall be suppressed for the new call leg. This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber.
Suppress N-CSI	-	-	-	-	-	O	This IE indicates that N-CSI shall be suppressed for the new call leg. This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber.

***** *First Modification* *****



~~**Figure 4.76-1: Procedure CAMEL_CF_MSC_INIT (sheet 1)**~~

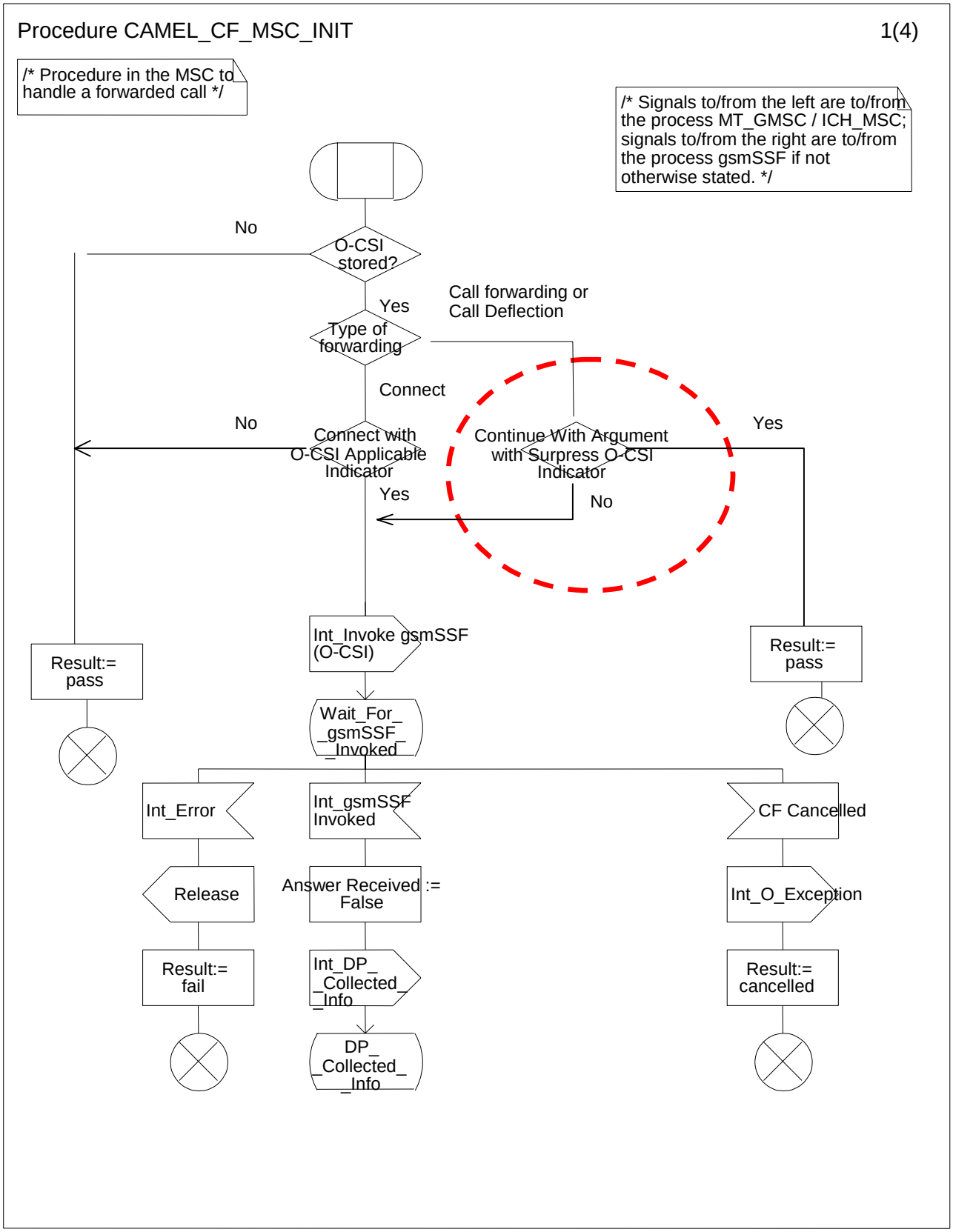


Figure 4.76-1: Procedure CAMEL_CF_MSC_INIT (sheet)

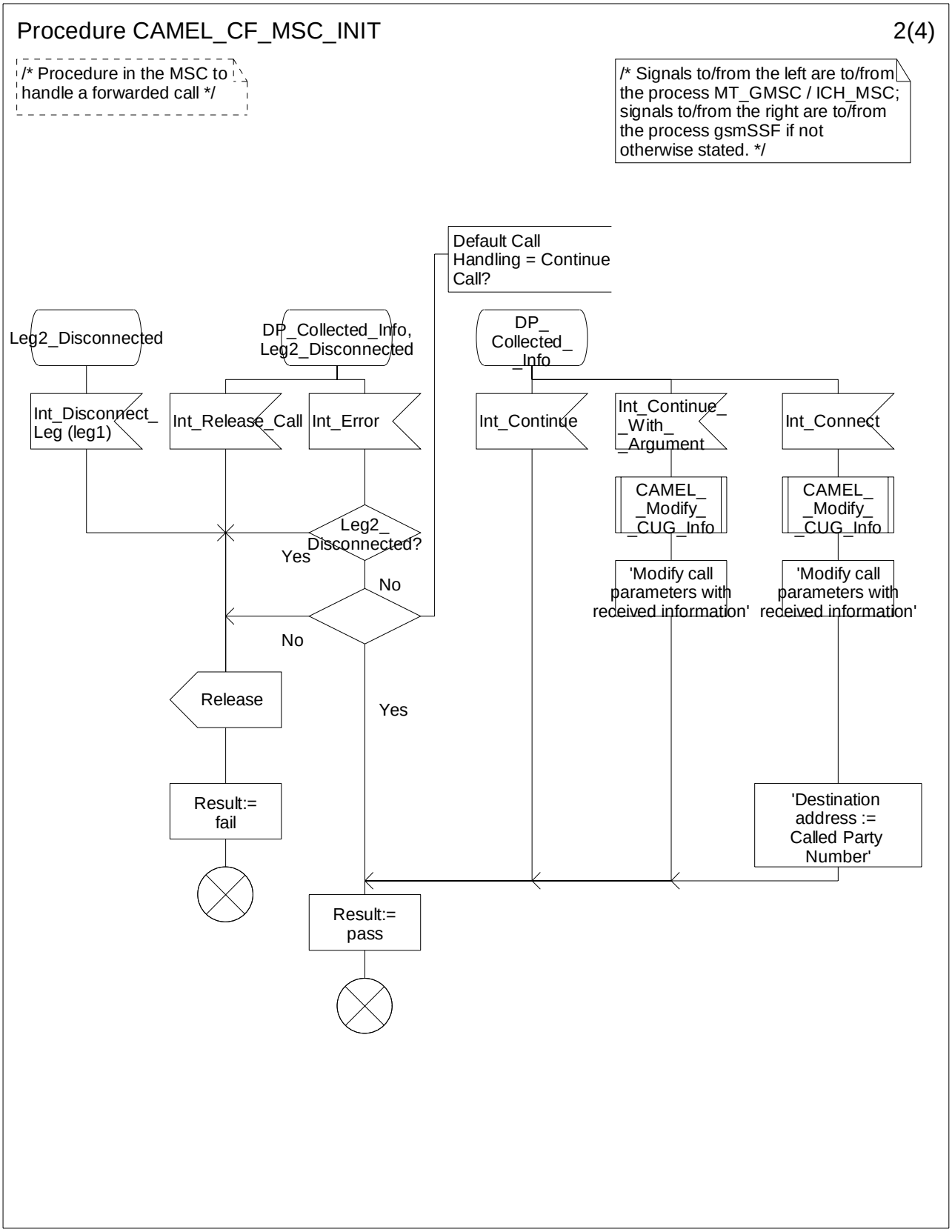


Figure 4.76-2: Procedure CAMEL_CF_MSC_INIT (sheet 2)

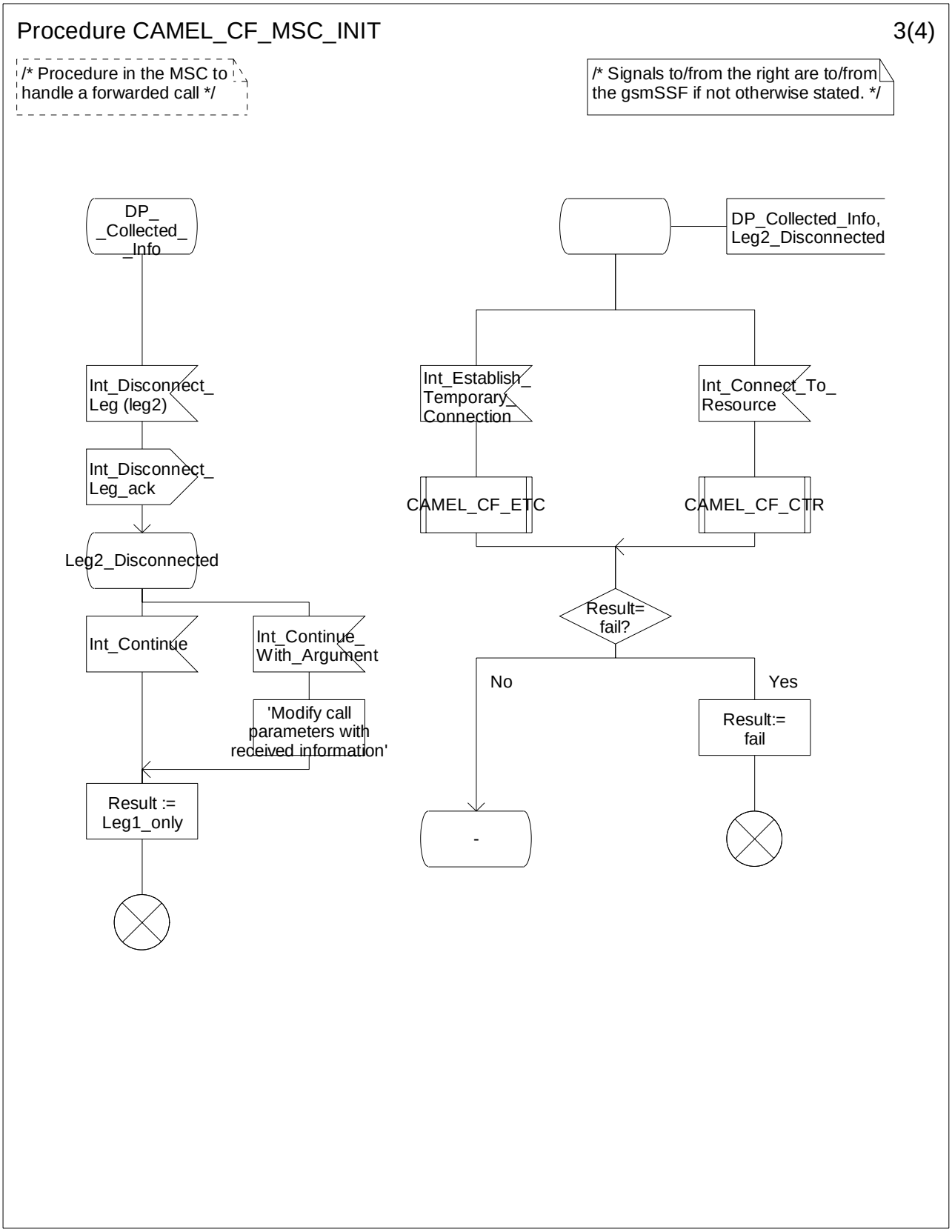


Figure 4.76-3: Procedure CAMEL_CF_MSC_INIT (sheet 3)

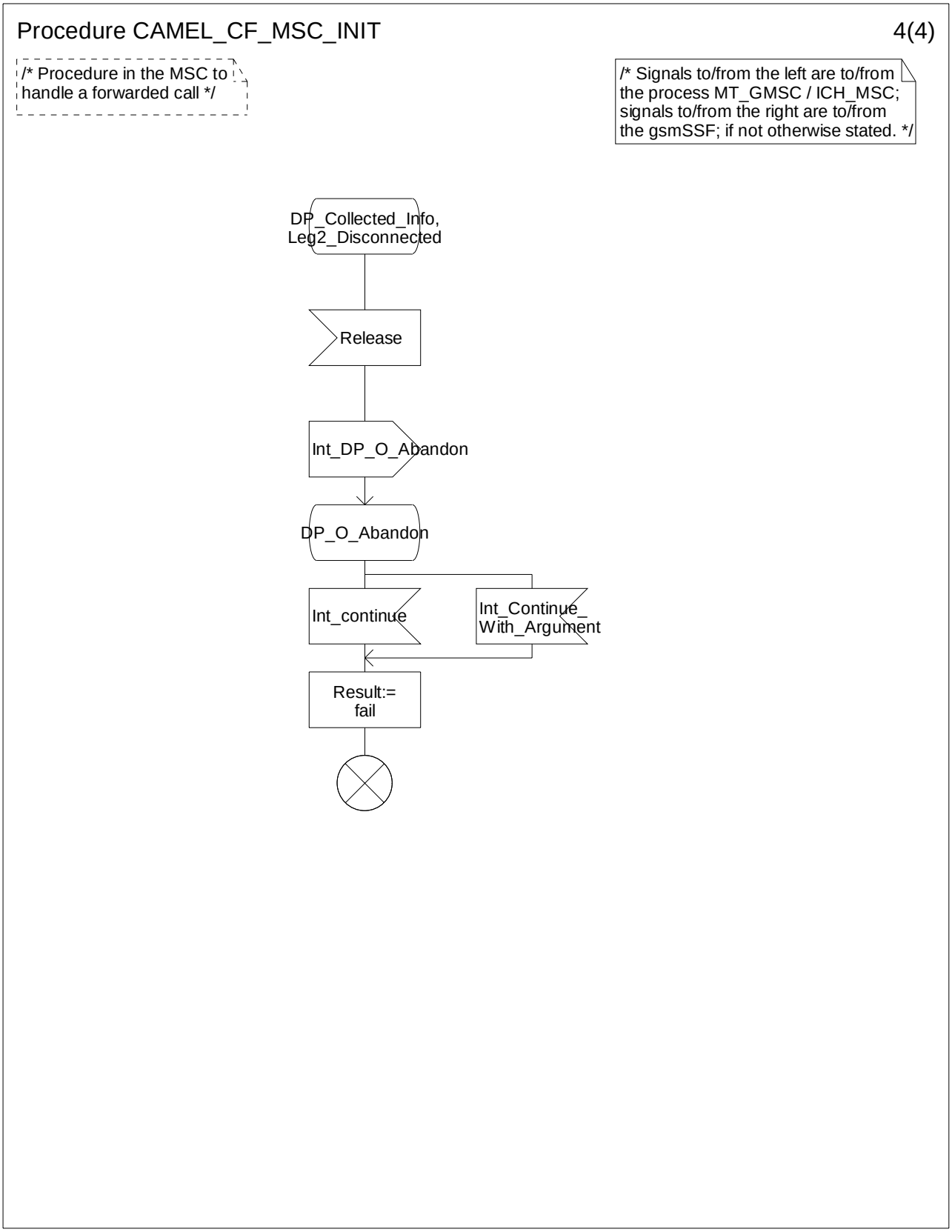


Figure 4.76-4: Procedure CAMEL_CF_MSC_INIT (sheet 4)

****** End of Document******

3GPP TSG CN WG2 Meeting #32 N2-040116
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **23.078** **CR** **698** ⌘**rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to forwarded leg handling with Suppress O-CSI
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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 fig. 4.77, Procedure CAMEL_CF_MSC_INIT. Call forwarding without CAMEL invocation for the forwarded leg may be the result of:

CAP Connect["Destination Routeing Address" <> called MSISDN; "O-CSI Applicable" = FALSE];
CAP Continue With Argument when forwarding is pending (at EDP or IDP), CAP CWA contains "suppress O-CSI" = TRUE.

This is not correctly reflected in the SDL, CAMEL_CF_MSC_INIT sheet 1.

When the forwarding is started, (G)MSC shall check whether O-CSI is available. If not, then forwarded leg handling continues without CAMEL.

Otherwise, (G)MSC shall check whether O-CSI needs to be suppressed (see above for criteria to suppress O-CSI). Note that the information element "Suppress D-CSI" is not applicable for MT and VT calls.

If O-CSI is applicable (in the case of CAP Connect) or is not supressed (in the case of CAP Continue With Argument), then forwarded leg handling continues with CAMEL; forwarded leg will be subject to O-CSI.
If O-CSI is to be suppressed, then (G)MSC shall continue without CAMEL.

Note that the information element "O-CSI applicable" is used only when the forwarding is the result of CAP Connect with modified Destination Subscriber Number; the information element "suppress O-CSI" is used only when the forwarding is the result of GSM forwarding or Call Deflecting. This distinction is reflected in the check box "type of forwarding".

Summary of change:	⌘	Correct figure 4.77, sheet 1 as described above.
Consequences if not approved:	⌘	Suppression of O-CSI for forwarded calls will not work. This feature is introduced in CAMEL Phase 4 for signaling optimisation.

Clauses affected:	⌘	Figure 4.77, Procedure CAMEL_CF_MSC_INIT, sheet 1			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

****** For Information ******

< extract from 3GPP TS 23.078 >

4.6.2.6 Connect

4.6.2.6.1 Description

…

4.6.2.6.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
…							
Charge Number	O	O	O	O	O	O	This IE identifies the chargeable number for the usage of a North American carrier.
O-CSI Applicable	-	-	O	O	-	-	This IE indicates that the O-CSI, if present shall be applied on the outgoing leg.
Suppression Of Announcements	-	-	O	O	O	O	This IE indicates that announcements or tones generated as a result of unsuccessful call establishment shall be suppressed.
…							

4.6.2.9 Continue With Argument

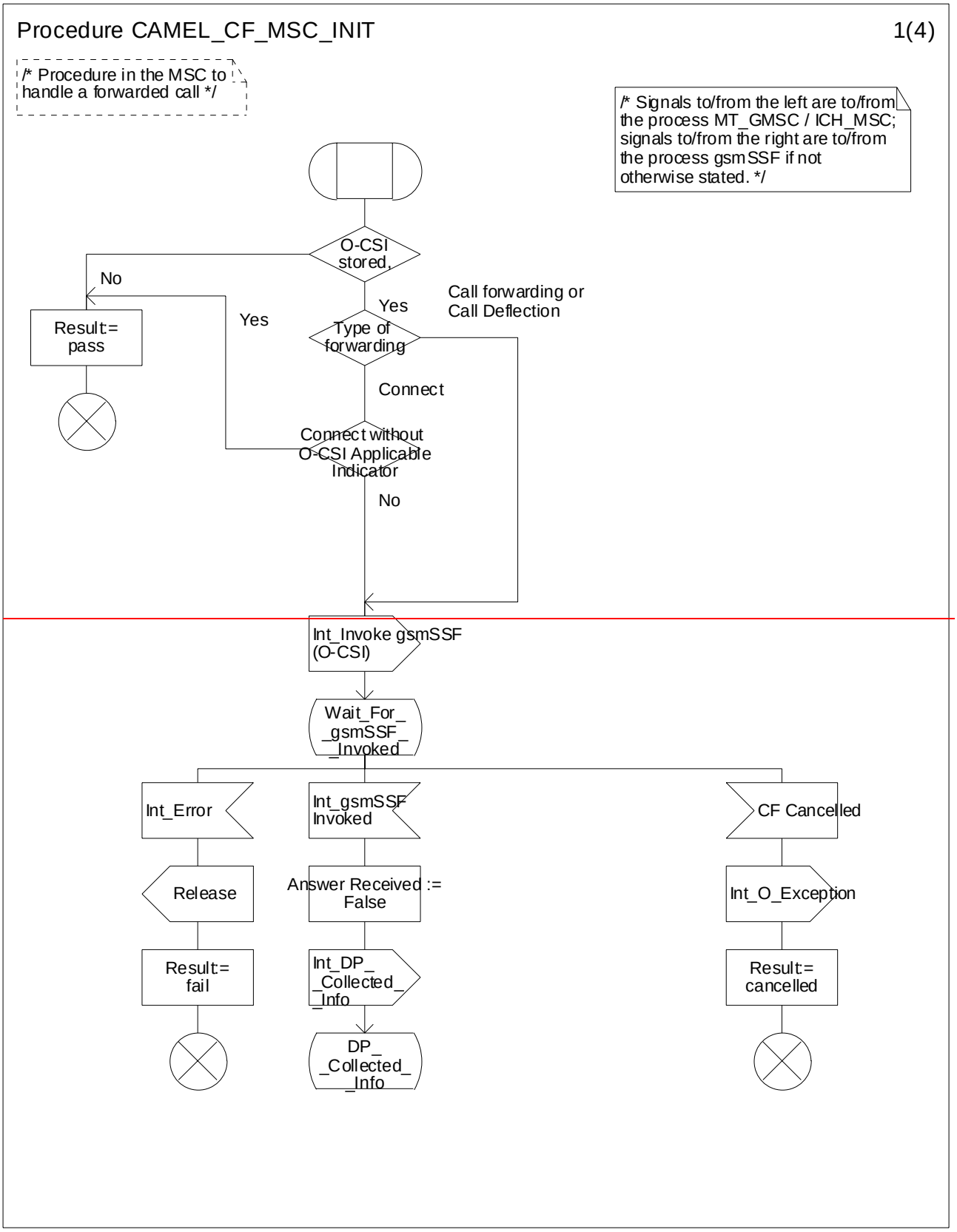
4.6.2.9.1 Description

…

4.6.2.9.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
…							
Suppress O-CSI	-	-	O	O	-	-	This IE indicates that O-CSI shall be suppressed for the forwarding leg or deflecting leg.
Suppress D-CSI	-	-	-	-	-	O	This IE indicates that D-CSI shall be suppressed for the new call leg. This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber.
Suppress N-CSI	-	-	-	-	-	O	This IE indicates that N-CSI shall be suppressed for the new call leg. This IE can only be included if this IE is sent to the VMSC of the CAMEL subscriber.

***** *First Modification* *****



~~**Figure 4.77-1: Procedure CAMEL_CF_MSC_INIT (sheet 1)**~~

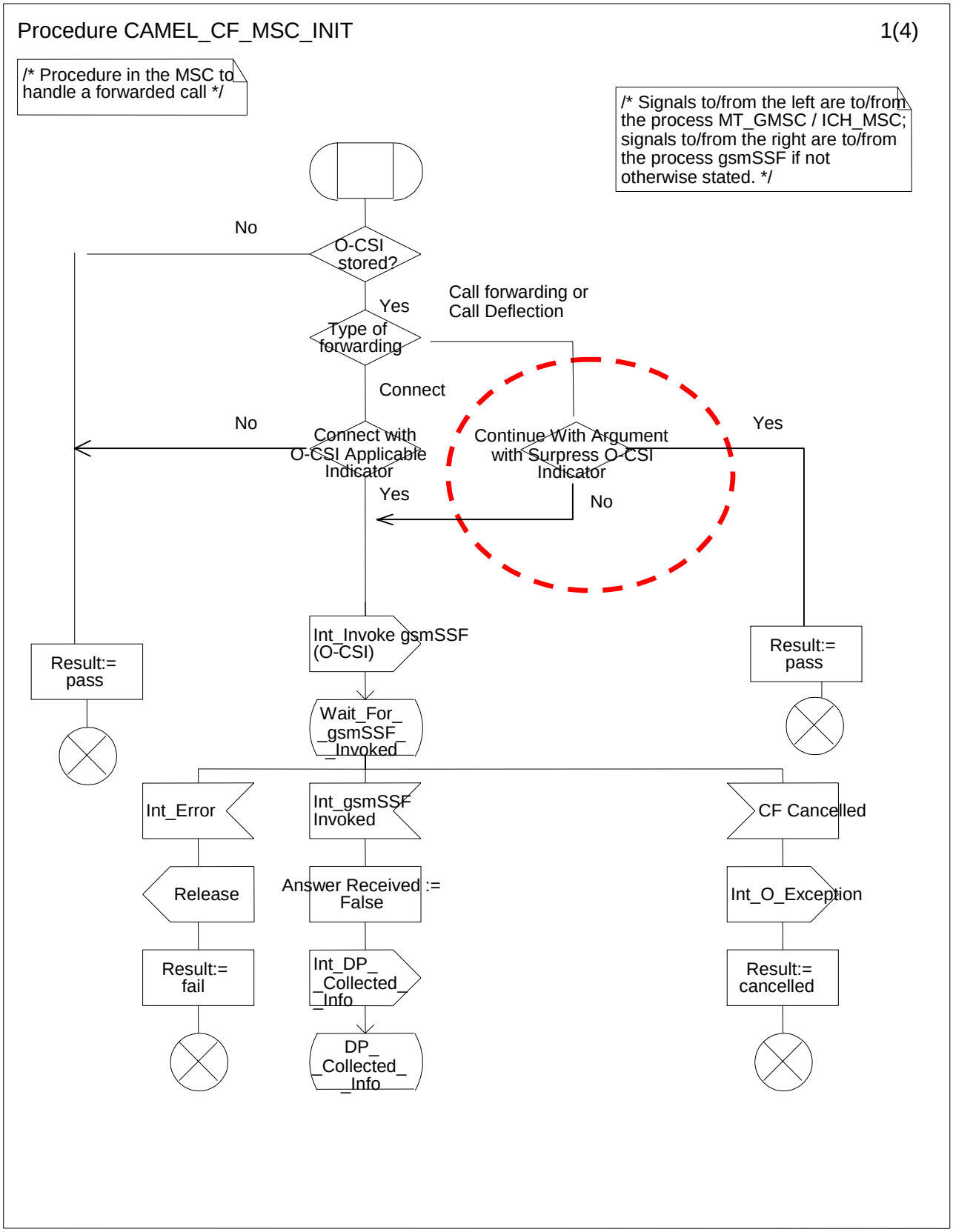


Figure 4.77-1: Procedure CAMEL_CF_MSC_INIT (sheet 1)

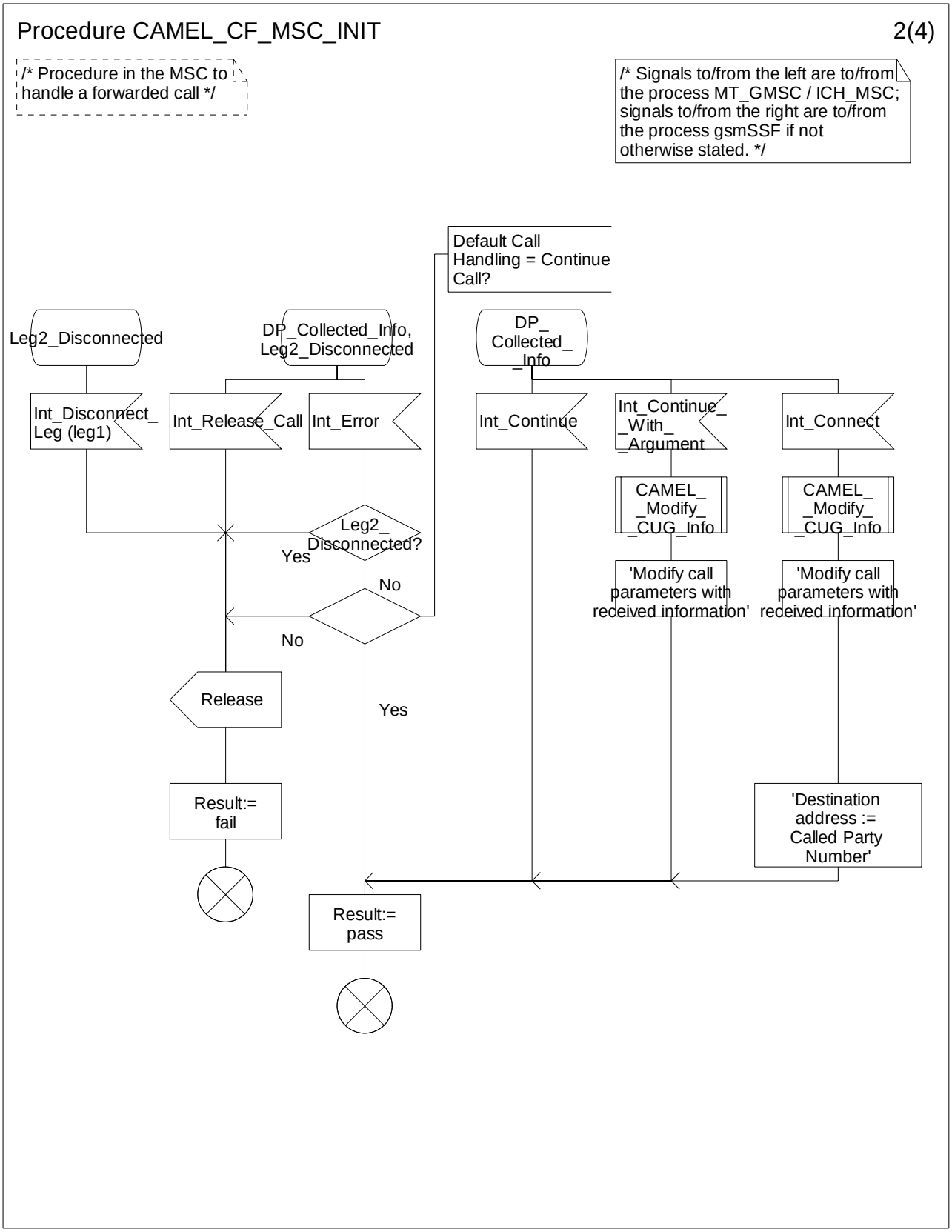


Figure 4.77-2: Procedure CAMEL_CF_MSC_INIT (sheet 2)

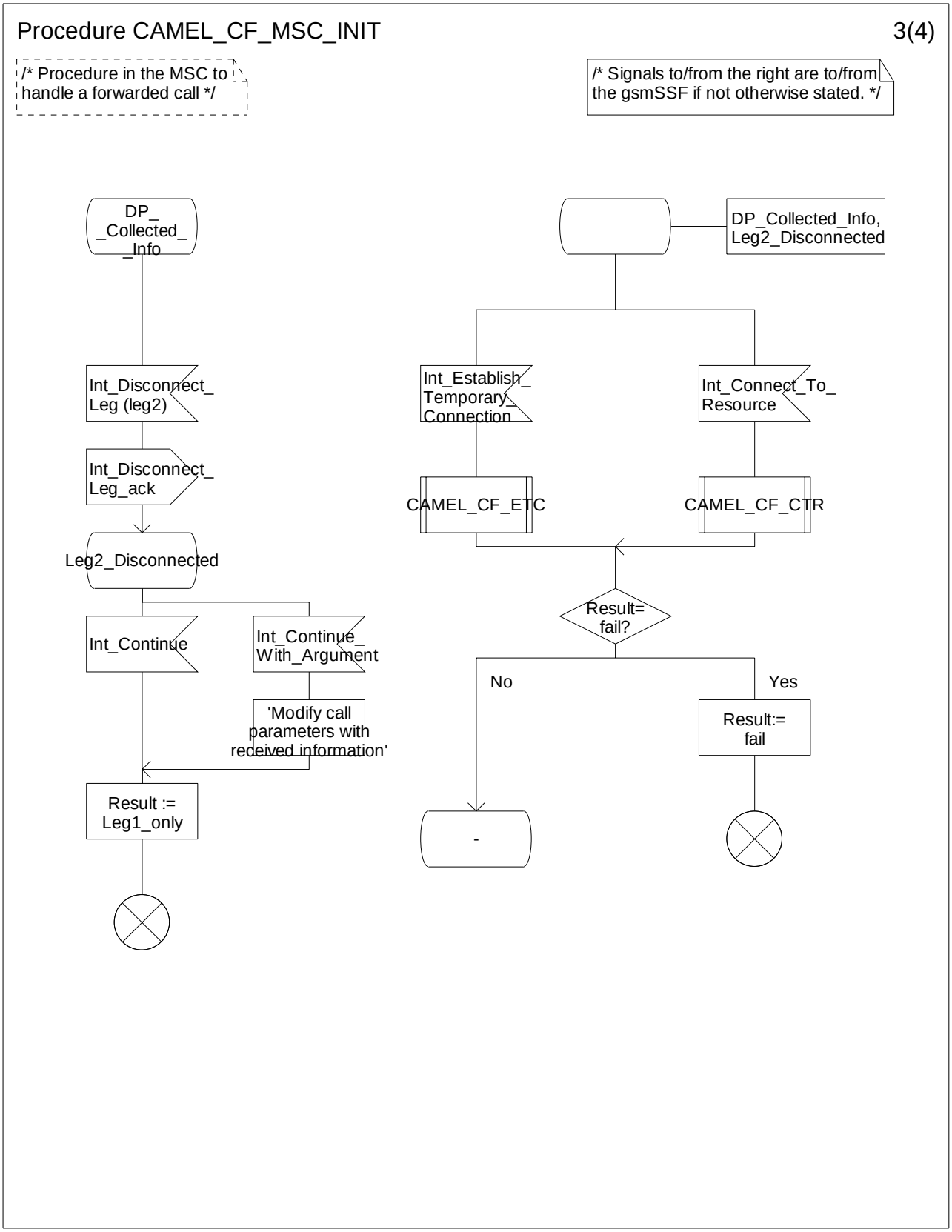


Figure 4.77-3: Procedure CAMEL_CF_MSC_INIT (sheet 3)

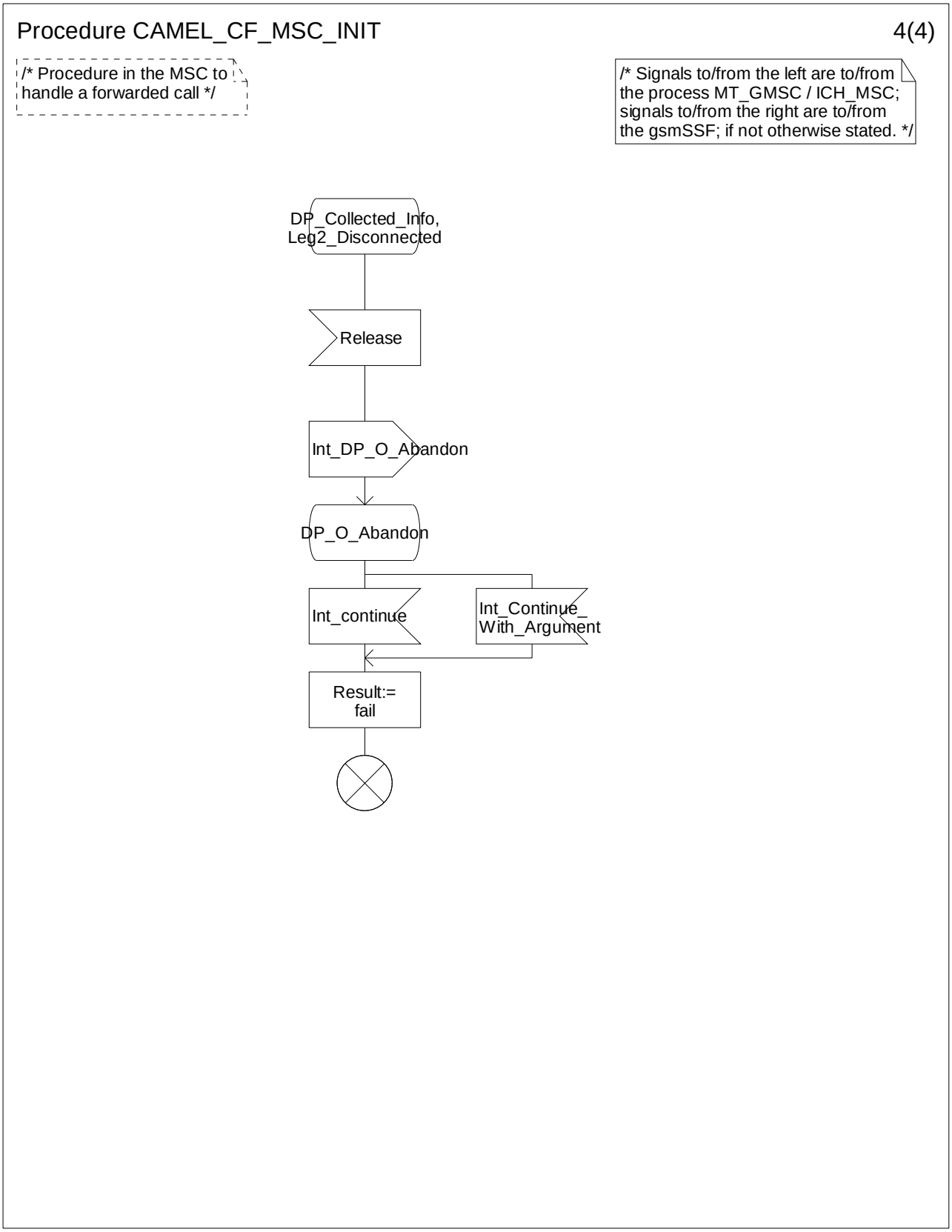


Figure 4.77-4: Procedure CAMEL_CF_MSC_INIT (sheet 4)

****** End of Document******

3GPP TSG CN WG2 Meeting #32 N2-040117
Atlanta, USA, 16th – 20st February 2004 revision of N2-040041

CHANGE REQUEST

⌘ **23.078** **CR** **677** ⌘ **rev** **1** ⌘ Current version: **5.6.0** ⌘

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

Title:	⌘	Correction to ORLCF handling for CAMEL calls in VMSC
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	F (essential correction)
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 fig. 4.74, Procedure CAMEL_Check_ORLCF_VMSC. If subscriber has CAMEL Phase 4 O-CSI or CAMEL Phase 4 D-CSI, and GMSC supports CAMEL Phase 4 ("Requested CAMEL Phases supported by GMSC" = yes), then VMSC shall check also "supported CSIs" from GMSC. Rationale: a particular GMSC may support CAMEL Phase 4, but only for T-CSI, not for O-CSI or D-CSI. In that case, the condition "***Requested CAMEL Phases supported by GMSC = yes***" is not sufficient to initiate ORLCF; the VMSC would in that case still have to initiate the call forwarding without optimal routeing, since the GMSC does not support CAMEL Phase 4 O-CSI or CAMEL Phase 4 D-CSI.
Summary of change:	⌘	Correct figure 4.74. Add a check for the supported CAMEL Phase 4 CSIs in the GMSC.
Consequences if not approved:	⌘	The invocation of Optimal Routeing of Late Call Forwarding (ORLCF) in combination with CAMEL Phase 4 may fail for certain call cases. As an example, it may occur that a VMSC initiates ORLCF for a subscriber with a CAMEL Phase 4 O-CSI, but the GMSC can't invoke the required CAMEL Phase 4 service for that subscriber, since the interrogating GMSC supports a subset of CAMEL Phase 4 only.

Clauses affected:	⌘	Figure 4.7.4

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

Other comments: ⌘

****** For Information ******

< extract from 3GPP TS 23.078 V5.6.0 >

4.6.7 HLR to VLR information flows

…

4.6.7.4 Provide Roaming Number

4.6.7.4.1 Description

This IF is specified in 3GPP TS 23.018 [**Error! Reference source not found.**]; it is used by the HLR to request a roaming number from the VLR.

4.6.7.4.2 Information Elements

Provide Roaming Number contains the following CAMEL specific information elements:

Information element name	Status	Description
Suppression Of Announcements	S	This IE indicates that announcements or tones generated as a result of unsuccessful call establishment shall be suppressed. It shall be present if the HLR received it in the Send Routeing Info IF.
Call Reference Number	M	This IE carries the Call Reference Number provided by the GMSC or the gsmSCF in the Send Routeing Info IF.
GMSC Or gsmSCF Address	M	This IE is the E.164 address of the GMSC for an MT call or the E.164 address of the gsmSCF for a gsmSCF initiated call.
Alerting Pattern	S	This IE indicates the kind of Alerting Pattern to be applied. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info IF.
Supported CAMEL Phases in Interrogating Node	S	This IE indicates the CAMEL Phases supported in the GMSC or the gsmSCF. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.
Offered CAMEL4 CSIs in Interrogating Node	S	This IE indicates the CAMEL phase 4 CSIs offered in the GMSC or the gsmSCF. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info. This IE is described in a table below.
Suppress VT-CSI	S	This IE indicates that VT-CSI shall be suppressed for the called party. This IE shall be present if the HLR received it in the Send Routeing Info IF.
OR not Supported In GMSC	S	This IE indicates that the VMSC should not attempt to invoke Optimal Routeing of late call forwarding. It shall be present if this IF was triggered by a Send Routeing IF for a gsmSCF initiated call.

Offered CAMEL4 CSIs in Interrogating Node contains the following information elements:

Information element name	Status	Description
O-CSI	S	This IE indicates the offer of CAMEL phase 4 O-CSI. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.
D-CSI	S	This IE indicates the offer of CAMEL phase 4 D-CSI. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.
T-CSI	S	This IE indicates the offer of CAMEL phase 4 T-CSI. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.

…

4.6.10 GMSC to HLR information flows

4.6.10.1 Send Routeing Info

4.6.10.1.1 Description

This IF is described in 3GPP TS 23.018 [**Error! Reference source not found.**]; it is used to request information from the HLR to route an MT call.

4.6.10.1.2 Information Elements

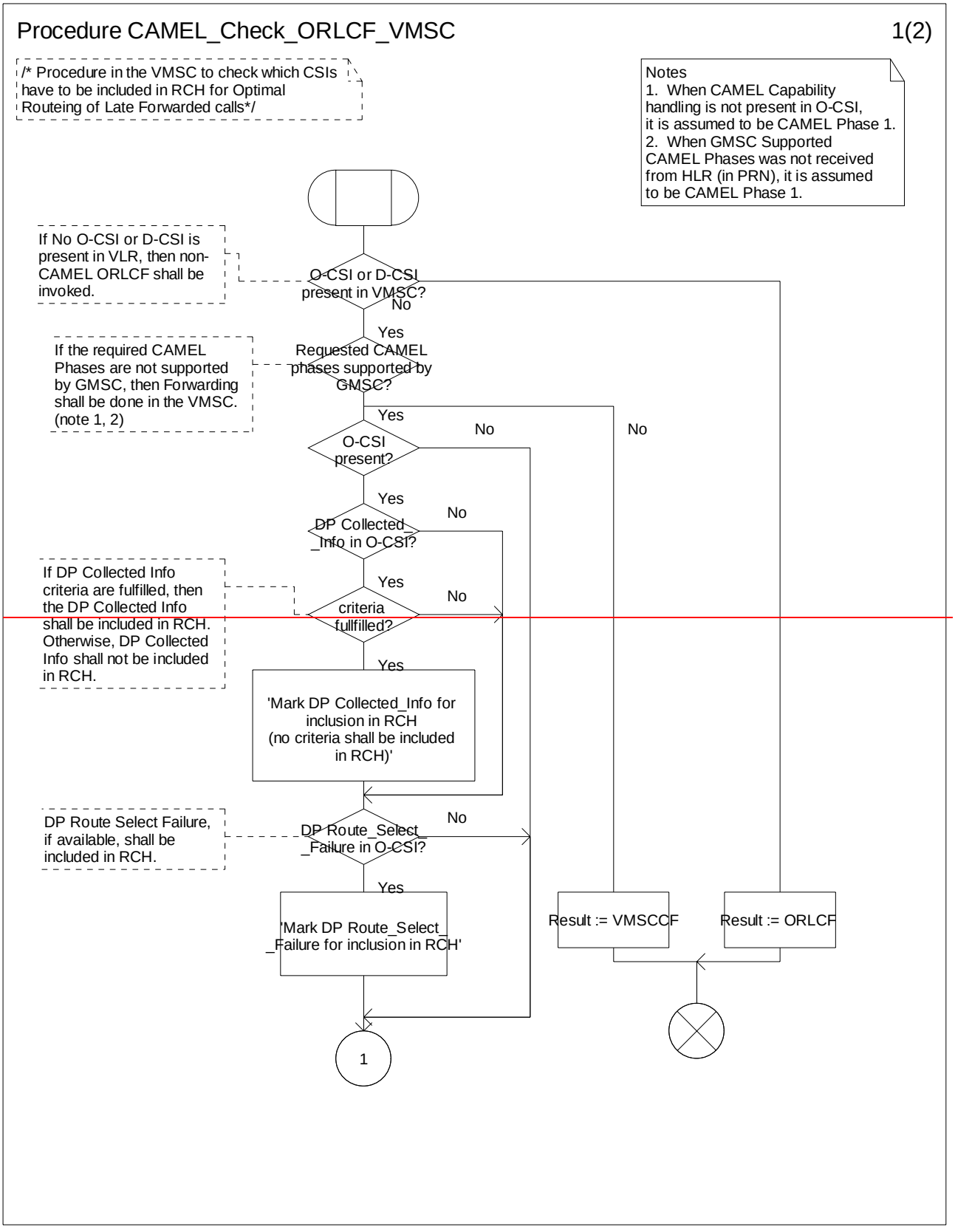
Send Routeing Info contains the following CAMEL specific information elements:

Information element name	Status	Description
Alerting Pattern	S	This IE indicates the kind of Alerting Pattern to be applied. It shall be present if it was received from the gsmSCF or set by the gsmSSF.
Suppression Of Announcement	S	This IE indicates that announcements or tones generated as a result of unsuccessful call setup shall be suppressed. It shall be present in the interrogation if available, i.e. when it has been received from the gsmSCF.
Suppress T-CSI	S	This IE indicates that T-CSI shall be suppressed. It shall always be present in the second interrogation or if it was received from the gsmSCF due to an Initiate Call Attempt IF.
Supported CAMEL Phases	M	This IE lists the supported CAMEL phases in the GMSC.
Offered CAMEL4 CSIs	M	This IE indicates the CAMEL phase 4 CSIs offered in the GMSC. This IE is described in a table below.
Call Reference Number	M	This IE carries the Call Reference Number allocated for the call by the GMSC. It shall be allocated once per call and present in both first and second interrogations.
GMSC Address	M	This IE is the E.164 address of the GMSC.
Call Diversion Treatment Indicator	S	This IE indicates whether or not the call can be forwarded using the Call Forwarding or Call Deflection supplementary services. It shall be present if it was received within Forward Service Interaction Indicator in Service Interaction Indicators Two from the ISUP Initial Address Message or previous CAMEL processing.

Offered CAMEL4 CSIs contains the following information elements:

Information element name	Status	Description
O-CSI	S	This IE indicates the offer of CAMEL phase 4 O-CSI.
D-CSI	S	This IE indicates the offer of CAMEL phase 4 D-CSI.
T-CSI	S	This IE indicates the offer of CAMEL phase 4 T-CSI.

***** *First Modification* *****



~~Figure 4.74-1: Procedure CAMEL_Check_ORLCF_VMSC (sheet 1)~~

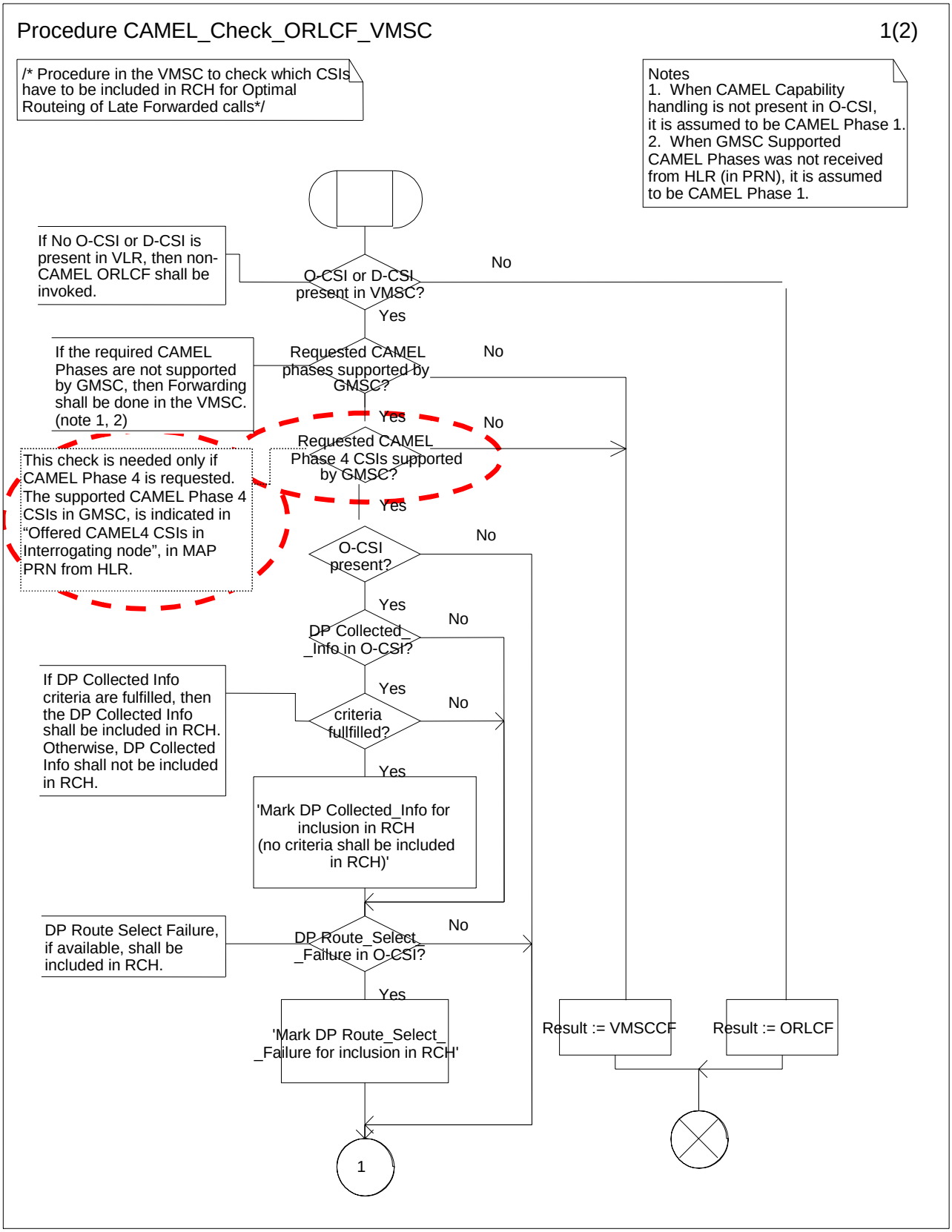


Figure Error! Reference source not found.**.2-1: Procedure CAMEL_Check_ORLCF_VMSC (sheet 1)**

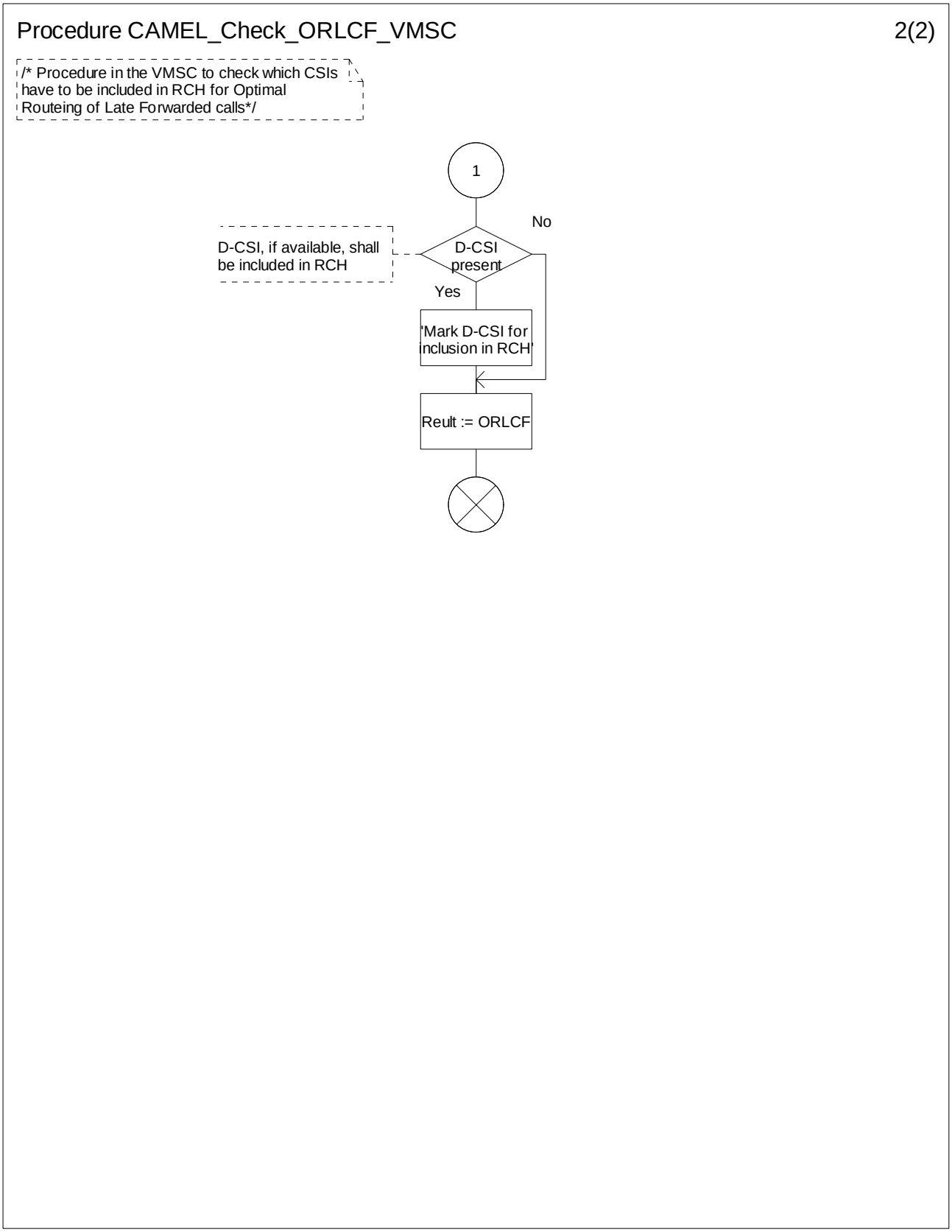


Figure -2: Procedure CAMEL_Check_ORLCF_VMSC (sheet 2)

****** End of Document******

CHANGE REQUEST

⌘ **23.078** **CR** **699** ⌘**rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to ORLCF handling for CAMEL calls in VMSC
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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 fig. 4.75, Procedure CAMEL_Check_ORLCF_VMSC. If subscriber has CAMEL Phase 4 O-CSI or CAMEL Phase 4 D-CSI, and GMSC supports CAMEL Phase 4 ("Requested CAMEL Phases supported by GMSC" = yes), then VMSC shall check also "supported CSIs" from GMSC. Rationale: a particular GMSC may support CAMEL Phase 4, but only for T-CSI, not for O-CSI or D-CSI. In that case, the condition "***Requested CAMEL Phases supported by GMSC = yes***" is not sufficient to initiate ORLCF; the VMSC would in that case still have to initiate the call forwarding without optimal routeing, since the GMSC does not support CAMEL Phase 4 O-CSI or CAMEL Phase 4 D-CSI.
Summary of change:	⌘	Correct figure 4.75. Add a check for the supported CAMEL Phase 4 CSIs in the GMSC.
Consequences if not approved:	⌘	The invocation of Optimal Routeing of Late Call Forwarding (ORLCF) in combination with CAMEL Phase 4 may fail for certain call cases. As an example, it may occur that a VMSC initiates ORLCF for a subscriber with a CAMEL Phase 4 O-CSI, but the GMSC can't invoke the required CAMEL Phase 4 service for that subscriber, since the interrogating GMSC supports a subset of CAMEL Phase 4 only.

Clauses affected:	⌘	Figure 4.7.5

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

Other comments: ⌘

****** For Information ******

< extract from 3GPP TS 23.078 >

4.6.7 HLR to VLR information flows

…

4.6.7.4 Provide Roaming Number

4.6.7.4.1 Description

This IF is specified in 3GPP TS 23.018 [**Error! Reference source not found.**]; it is used by the HLR to request a roaming number from the VLR.

4.6.7.4.2 Information Elements

Provide Roaming Number contains the following CAMEL specific information elements:

Information element name	Status	Description
Suppression Of Announcements	S	This IE indicates that announcements or tones generated as a result of unsuccessful call establishment shall be suppressed. It shall be present if the HLR received it in the Send Routeing Info IF.
Call Reference Number	M	This IE carries the Call Reference Number provided by the GMSC or the gsmSCF in the Send Routeing Info IF.
GMSC Or gsmSCF Address	M	This IE is the E.164 address of the GMSC for an MT call or the E.164 address of the gsmSCF for a gsmSCF initiated call.
Alerting Pattern	S	This IE indicates the kind of Alerting Pattern to be applied. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info IF.
Supported CAMEL Phases in Interrogating Node	S	This IE indicates the CAMEL Phases supported in the GMSC or the gsmSCF. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.
Offered CAMEL4 CSIs in Interrogating Node	S	This IE indicates the CAMEL phase 4 CSIs offered in the GMSC or the gsmSCF. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info. This IE is described in a table below.
Suppress VT-CSI	S	This IE indicates that VT-CSI shall be suppressed for the called party. This IE shall be present if the HLR received it in the Send Routeing Info IF.
OR not Supported In GMSC	S	This IE indicates that the VMSC should not attempt to invoke Optimal Routeing of late call forwarding. It shall be present if this IF was triggered by a Send Routeing IF for a gsmSCF initiated call.

Offered CAMEL4 CSIs in Interrogating Node contains the following information elements:

Information element name	Status	Description
O-CSI	S	This IE indicates the offer of CAMEL phase 4 O-CSI. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.
D-CSI	S	This IE indicates the offer of CAMEL phase 4 D-CSI. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.
T-CSI	S	This IE indicates the offer of CAMEL phase 4 T-CSI. It shall be present if the HLR received it from the GMSC or the gsmSCF in the Send Routeing Info.

…

4.6.10 GMSC to HLR information flows

4.6.10.1 Send Routeing Info

4.6.10.1.1 Description

This IF is described in 3GPP TS 23.018 [**Error! Reference source not found.**]; it is used to request information from the HLR to route an MT call.

4.6.10.1.2 Information Elements

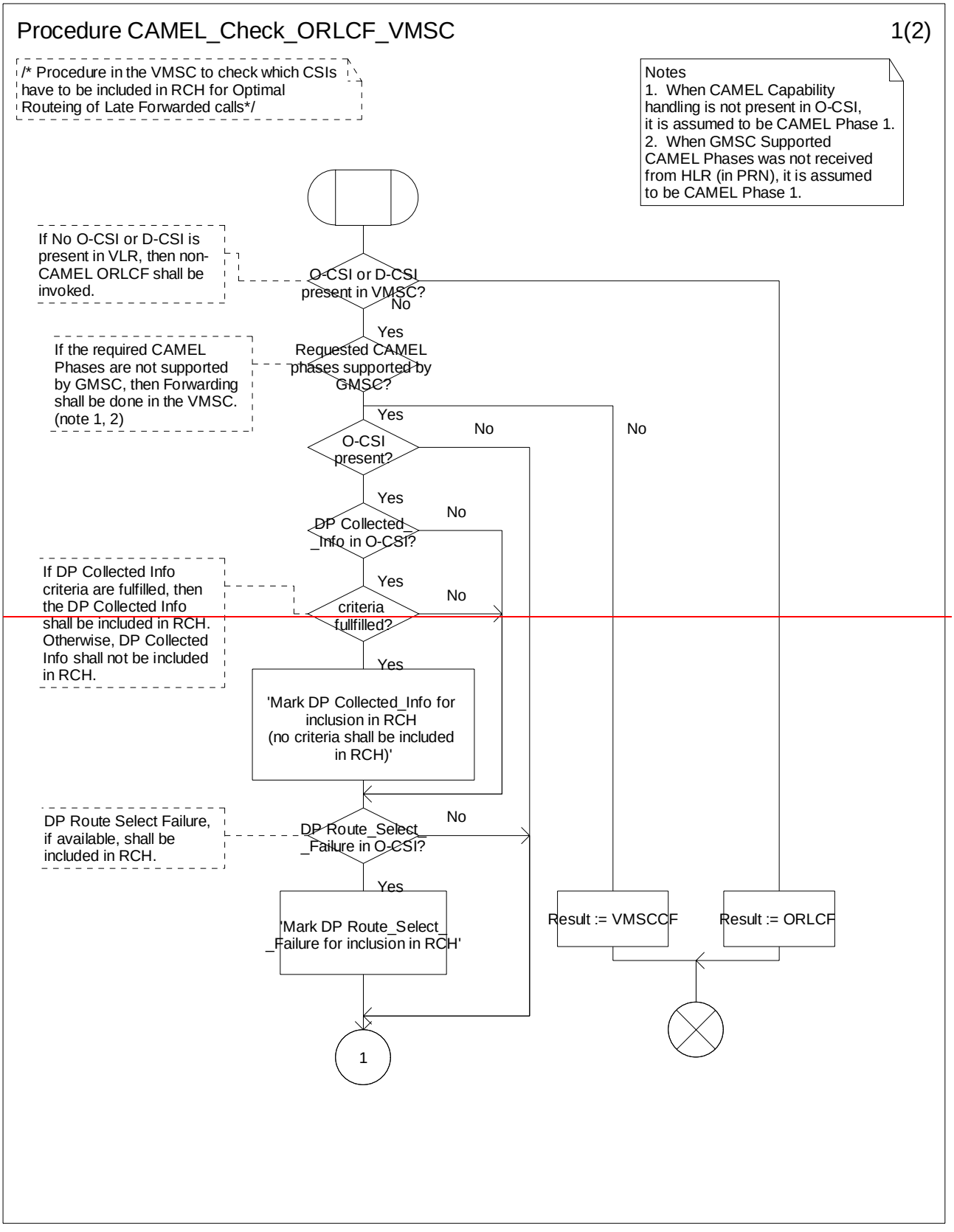
Send Routeing Info contains the following CAMEL specific information elements:

Information element name	Status	Description
Alerting Pattern	S	This IE indicates the kind of Alerting Pattern to be applied. It shall be present if it was received from the gsmSCF or set by the gsmSSF.
Suppression Of Announcement	S	This IE indicates that announcements or tones generated as a result of unsuccessful call setup shall be suppressed. It shall be present in the interrogation if available, i.e. when it has been received from the gsmSCF.
Suppress T-CSI	S	This IE indicates that T-CSI shall be suppressed. It shall always be present in the second interrogation or if it was received from the gsmSCF due to an Initiate Call Attempt IF.
Supported CAMEL Phases	M	This IE lists the supported CAMEL phases in the GMSC.
Offered CAMEL4 CSIs	M	This IE indicates the CAMEL phase 4 CSIs offered in the GMSC. This IE is described in a table below.
Call Reference Number	M	This IE carries the Call Reference Number allocated for the call by the GMSC. It shall be allocated once per call and present in both first and second interrogations.
GMSC Address	M	This IE is the E.164 address of the GMSC.
Call Diversion Treatment Indicator	S	This IE indicates whether or not the call can be forwarded using the Call Forwarding or Call Deflection supplementary services. It shall be present if it was received within Forward Service Interaction Indicator in Service Interaction Indicators Two from the ISUP Initial Address Message or previous CAMEL processing.

Offered CAMEL4 CSIs contains the following information elements:

Information element name	Status	Description
O-CSI	S	This IE indicates the offer of CAMEL phase 4 O-CSI.
D-CSI	S	This IE indicates the offer of CAMEL phase 4 D-CSI.
T-CSI	S	This IE indicates the offer of CAMEL phase 4 T-CSI.

***** *First Modification* *****



~~Figure 4.75-1: Procedure CAMEL_Check_ORLCF_VMSC (sheet 1)~~

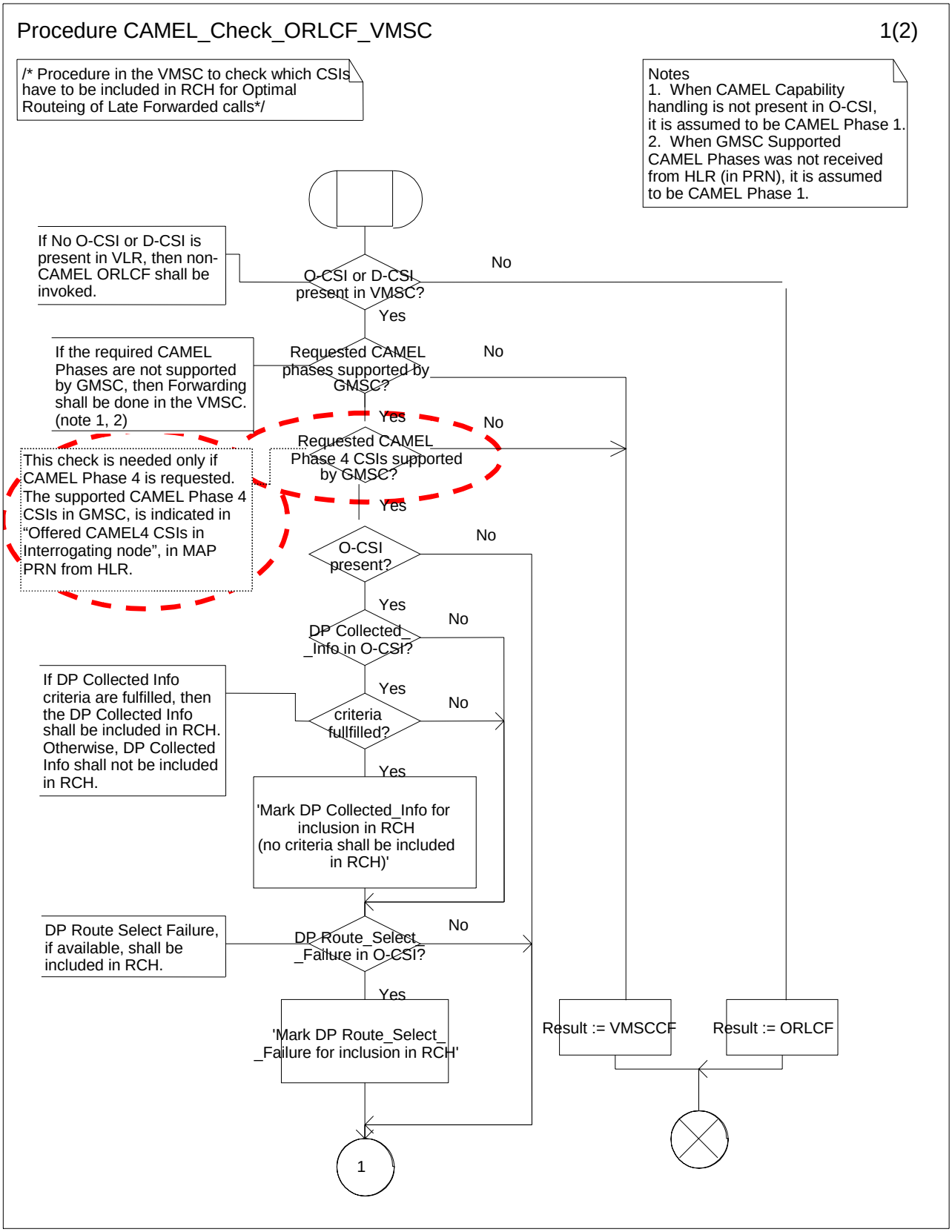


Figure 4.75-1: Procedure CAMEL_Check_ORLCF_VMSC (sheet 1)

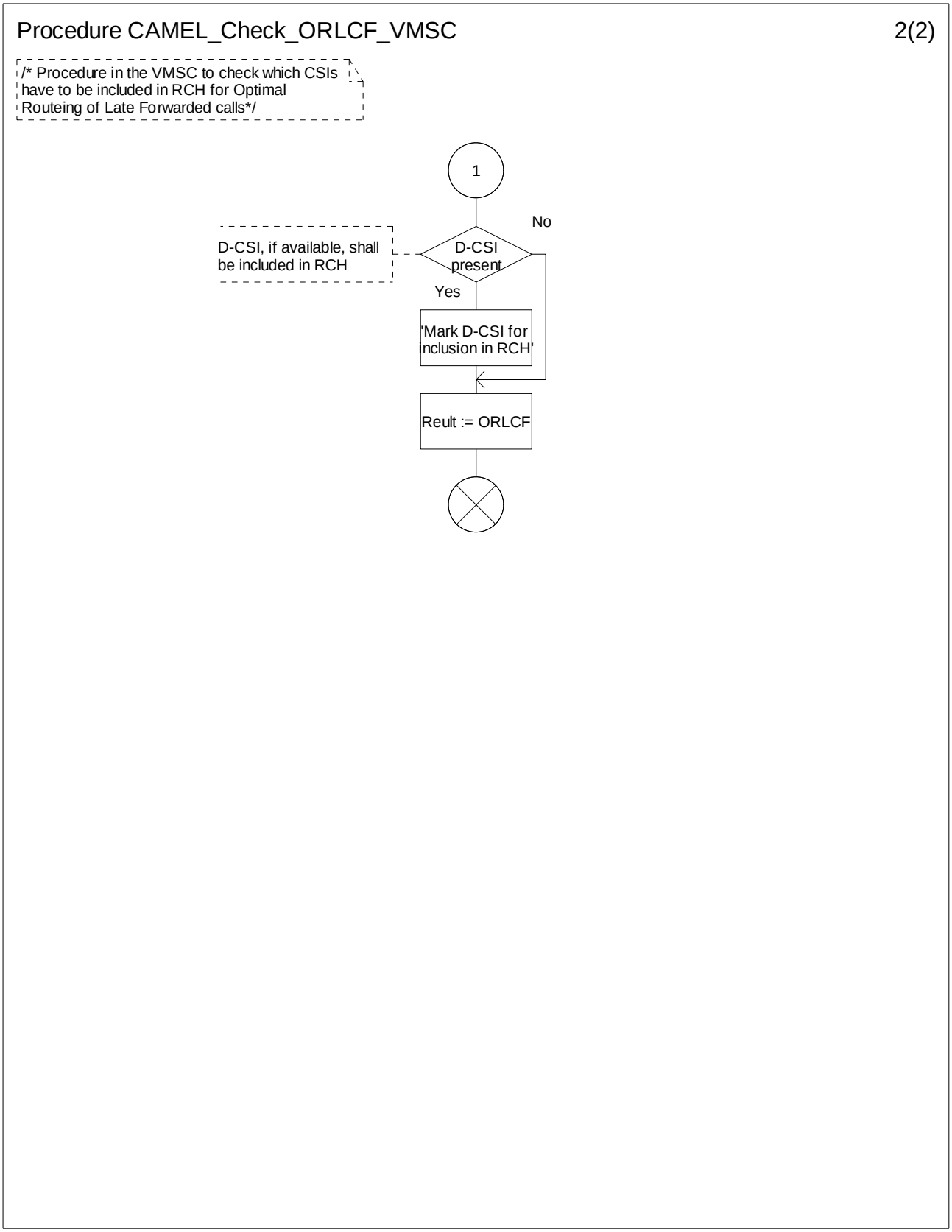


Figure 4.75-2: Procedure CAMEL_Check_ORLCF_VMSC (sheet 2)

****** End of Document******

3GPP TSG CN WG2 Meeting #32 N2-040120
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **29.078** **CR** **361** ⌘ **rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to temporary connection establishment		
Source:	⌘	Ericsson		
Work item code:	⌘	CAMEL4	***Date:*** ⌘	2004-02-18
Category:	⌘	A	***Release:*** ⌘	Rel-6

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:	⌘	Annex A.6 (EstablishTemporaryConnection operation) specifies that the gsmSCF shall be allowed to include a Hex B digit in AssistingSSPIPRoutingAddress. See NOTE 2 in that annex. The Hex B digit may be used in the assisting gsmSSF, to extract the SCF Id from ISUP IAM.Called Party Number. Annex A.4 (AssistRequestInstructions operation) specifies that the CorrelationId in CAP Assist Request Instructions Operation may contain the entire ISUP IAM.Called Party Number. AssistingSSPIPRoutingAddress in CAP ETC is defined as data type ***Digits***, to be encoded as Generic Number. Correlation in CAP ARI is defined as data type ***Digits***, to be encoded as Generic Number. The encoding rules for Generic Number do not define an encoding for Hex B; refer to ITU-T Recommendation Q.763. Hence, there is no standardised mechanism for using Hex B for temporary connection establishment. The transportation of the Hex B digit over ISUP is not a problem; the definition of the Called Party Number in ISUP allows for Hex B as addess signal.
Summary of change:	⌘	Include a ASN.1 comment in section 5.1, to indicate that when Digits is used to carry the AssistingSSPIPRoutingAddress in ETC or the CorrelationId in ARI, then it may contain digit Hex B.
Consequences if not approved:	⌘	- Temporary connection establishment may fail; MSCs may reject an AssistingSSPIPRoutingAddress, containing a Hex B digit; - Implementation difficulty for system designers.

Clauses affected:	⌘	5.1			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

***** *For Information* *****

Extracts from ITU-T Recommendation Q.763

3.9 Called party number

	8	7	6	5	4	3	2	1
1	O/E	Nature of address indicator						
2	INN	Numbering plan indicator			spare			
3	2nd address signal				1st address signal			
:								
:								
m	Filler (if necessary)				*n*th address signal			

Figure 10/Q.763 – Called party number parameter field

e) *Address signal*

0 0 0 0	digit 0
0 0 0 1	digit 1
0 0 1 0	digit 2
0 0 1 1	digit 3
0 1 0 0	digit 4
0 1 0 1	digit 5
0 1 1 0	digit 6
0 1 1 1	digit 7
1 0 0 0	digit 8
1 0 0 1	digit 9
1 0 1 0	Spare
1 0 1 1	code 11
1 1 0 0	code 12
1 1 0 1	Spare
1 1 1 0	Spare
1 1 1 1	ST

The most significant address signal is sent first. Subsequent address signals are sent in successive 4-bit fields.

3.26 Generic number

	8	7	6	5	4	3	2	1
1	Number qualifier indicator							
2	O/E	Nature of address indicator						
3	NI	Numbering plan indicator			Address presentation restricted indicator		Screening indicator	
4	2nd address signal				1st address signal			
:								
:								
m	Filler (if necessary)				*n*th address signal			

Figure 26/Q.763 – Generic number parameter field

h) *Address signal*:

0 0 0 0	digit 0
0 0 0 1	digit 1
0 0 1 0	digit 2
0 0 1 1	digit 3
0 1 0 0	digit 4
0 1 0 1	digit 5
0 1 1 0	digit 6
0 1 1 1	digit 7
1 0 0 0	digit 8
1 0 0 1	digit 9
1 0 1 0 to 1 1 1 1	spare

i) *Filler:* as for 3.9 f)

Extracts from 3GPP Ts 29.078

[23] ETSI EN 300 356-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 3 for the international interface; Part 1: Basic services [ITU-T Recommendations Q.761 to Q.764 (1997), modified]".

```
AssistRequestInstructionsArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {
    correlationID                   [0] CorrelationID {bound},
    iPSSPCapabilities               [2] IPSSPCapabilities {bound},
    extensions                      [3] Extensions {bound}                  OPTIONAL,
    ...
    }
-- OPTIONAL denotes network operator specific use. The value of the correlationID may be the
-- Called Party Number supplied by the initiating gsmSSF.

EstablishTemporaryConnectionArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {
    assistingSSPIPRoutingAddress    [0] AssistingSSPIPRoutingAddress {bound},
    correlationID                   [1] CorrelationID {bound}               OPTIONAL,
    scfID                           [3] ScfID {bound}                       OPTIONAL,
    extensions                      [4] Extensions {bound}                  OPTIONAL,
    carrier                         [5] Carrier {bound}                     OPTIONAL,
    serviceInteractionIndicatorsTwo [6] ServiceInteractionIndicatorsTwo     OPTIONAL,
    callSegmentID                   [7] CallSegmentID {bound}               OPTIONAL,
    naOliInfo                       [50] NAOliInfo                          OPTIONAL,
    chargeNumber                    [51] ChargeNumber {bound}               OPTIONAL,
    ...
    }

AssistingSSPIPRoutingAddress {PARAMETERS-BOUND : bound} ::= Digits {bound}
-- Indicates the destination address of the gsmSRF for the assist procedure.

CorrelationID {PARAMETERS-BOUND : bound} ::= Digits {bound}
-- used by gsmSCF for correlation with a previous operation.
```

A.4 AssistRequestInstructions operation

If an ISUP IAM is received at an assisting SSP containing an assisting gsmSSF or at an IP containing a gsmSRF, then an AssistRequestInstructions operation is sent to the gsmSCF. The correlationID parameter in the AssistRequestInstructions operation can contain:

a) the CorrelationID digits extracted from the ISUP IAM Called Party Number,

b) the whole Called Party Number received in the ISUP IAM (CorrelationID digits extracted at gsmSCF),

c) the contents of the ISUP IAM CorrelationID parameter.

In the case where the gsmSCF and the assisting gsmSSF are both in the HPLMN and ISUP 97 is supported then any of these mechanisms may be used.

In the case where the gsmSCF and the assisting gsmSSF are both in the HPLMN and ISUP 97 is not supported then mechanisms a) and b) may be used.

In the case where the gsmSCF is in the HPLMN and the assisting gsmSSF is in the VPLMN then only mechanism b) may be used when an all-ISUP 97 signalling path cannot be guaranteed. Mechanism a) may be used if bilateral agreements on the format of the information transferred in the ISUP IAM Called Party Number are defined between the HPLMN and the VPLMN.

In the case where the gsmSCF is in the HPLMN and the assisting gsmSSF is in the VPLMN then mechanism c) may only be used if an all-ISUP 97 signalling path can be guaranteed between the HPLMN and the VPLMN.

…

A.6 EstablishTemporaryConnection operation

On receipt of an EstablishTemporaryConnection operation from the gsmSCF then if the triggering of the CAMEL service was made for a mobile terminating or forwarded call, an ISUP ACM shall be sent to the preceding exchange. The encoding of the backward call indicators in the ISUP ACM is specified in 3GPP TS 09.12 [1]. In addition, an ISUP IAM shall be sent to the succeeding exchange.

Table A.5 illustrates the mapping of parameters received in the EstablishTemporaryConnection operation to parameters sent in the ISUP IAM to the succeeding exchange. On sending of the ISUP IAM the awaiting address complete timer is started. If the timer expires, then the call is released in both directions and an appropriate indication is returned to the calling subscriber.

Table A.5

CAP Operation EstablishTemporaryConnection (Note 1)	ISUP message IAM
AssistingSSPIPRoutingAddress	Called party number
CorrelationID	Correlation id (note 1)
ScfId	GsmSCF id (note 1)

NOTE 1: These optional parameters may be absent, i.e. they are mapped only if received. If they are received and cannot be mapped, then an error is sent to the gsmSCF as detailed in clause 11.

NOTE 2: The AssistingSSPIPRoutingAddress parameter may also include a Hex B digit, in order to delineate the boundary between digits used for routeing and digits forming part of the SCFiD and/or CorrelationID.

…

****** First Modification ******

5 Common CAP Types

5.1 Data types

…

```
Digits {PARAMETERS-BOUND : bound} ::= OCTET STRING (SIZE(
    bound.&minDigitsLength .. bound.&maxDigitsLength))
-- Indicates the address signalling digits.
-- Refer to ETSI EN 300 356-1 [23] Generic Number & Generic Digits parameters for encoding.
-- The coding of the subfields 'NumberQualifier' in Generic Number and 'TypeOfDigits' in
-- Generic Digits are irrelevant to the CAP;
-- the ASN.1 tags are sufficient to identify the parameter.
-- The ISUP format does not allow to exclude these subfields,
-- therefore the value is network operator specific.
```

```
--
-- The following parameters shall use Generic Number:
--  - AdditionalCallingPartyNumber for InitialDP
--  - AssistingSSPIPRoutingAddress for EstablishTemporaryConnection
--  - CorrelationID for AssistRequestInstructions
--  - CalledAddressValue for all occurrences, CallingAddressValue for all occurrences.
--
-- The following parameters shall use Generic Digits:
--  - CorrelationID in EstablishTemporaryConnection
--  - number in VariablePart
--  - digitsResponse in ReceivedInformationArg
--  - midCallEvents in oMidCallSpecificInfo and tMidCallSpecificInfo
--
-- In the digitsResponse and midCallEvents, the digits may also include the '*', '#',
-- a, b, c and d digits by using the IA5 character encoding scheme. If the BCD even or
-- BCD odd encoding scheme is used, then the following encoding shall be applied for the
-- non-decimal characters: 1011 (*), 1100 (#).
--
-- AssistingSSPIPRoutingAddress in EstablishTemporaryConnection and CorrelationID in
-- AssistRequestInstructions may contain a Hex B digit as address signal. Refer to
-- Annex A.6 for the usage of the Hex B digit.

-- Note that when CorrelationID is transported in Generic Digits, then the digits shall
-- always be BCD encoded.
...
```

****** End of Document******

3GPP TSG CN WG2 Meeting #32 N2-040124
Atlanta, USA, 16th – 20st February 2004

CHANGE REQUEST

⌘ **23.078** **CR** **700** ⌘ **rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Handling of DFCWA in ETC and CTR procedures
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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 procedures CAMEL_OCH_ETC and CAMEL_OCH_CTR may also be called for NC/NP legs; refer e.g. to figure 4.88 (CAMEL_ICA_MSC_ANSWER). Therefore, CAMEL_OCH_ETC and CAMEL_OCH_CTR (figures 4.23 and 4.24) shall be able to receive signal Int_DFCWA; Int_DFCWA contains the Call Segment Id.
Summary of change:	⌘	Add Int_DFCWA to procedure CAMEL_OCH_ETC and to procedure CAMEL_OCH_CTR.
Consequences if not approved:	⌘	Temporary Connection Establishment and Resource Connection in Call Party Handling can not be accomplished.

Clauses affected:	⌘	Figure **Error! Reference source not found.**.1 (Procedure CAMEL_OCH_ETC), figure 4.24 (Procedure CAMEL_OCH_CTR)

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

Other comments: ⌘

***** *First Modification* *****

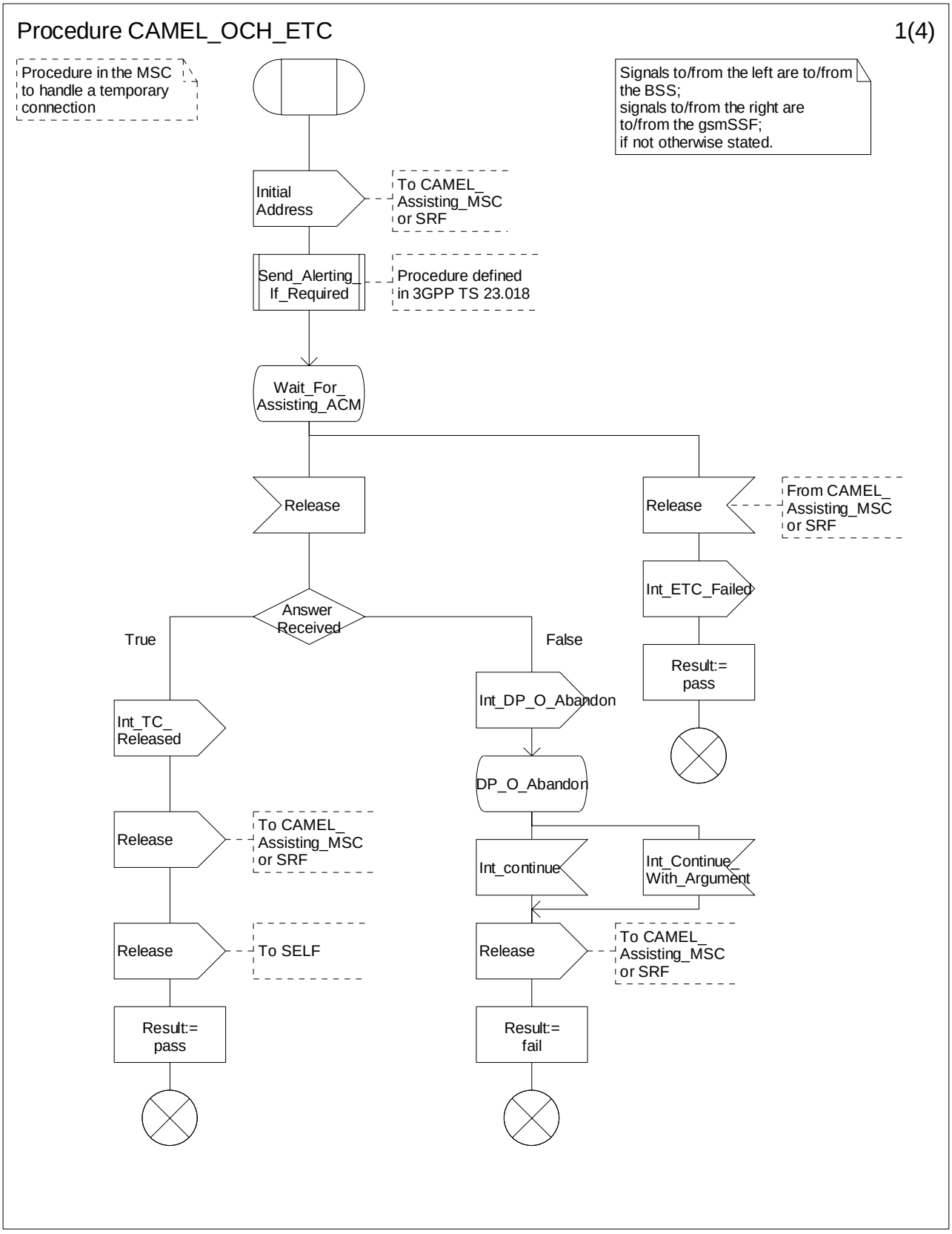


Figure 4.23-1: Procedure CAMEL_OCH_ETC (sheet 1)

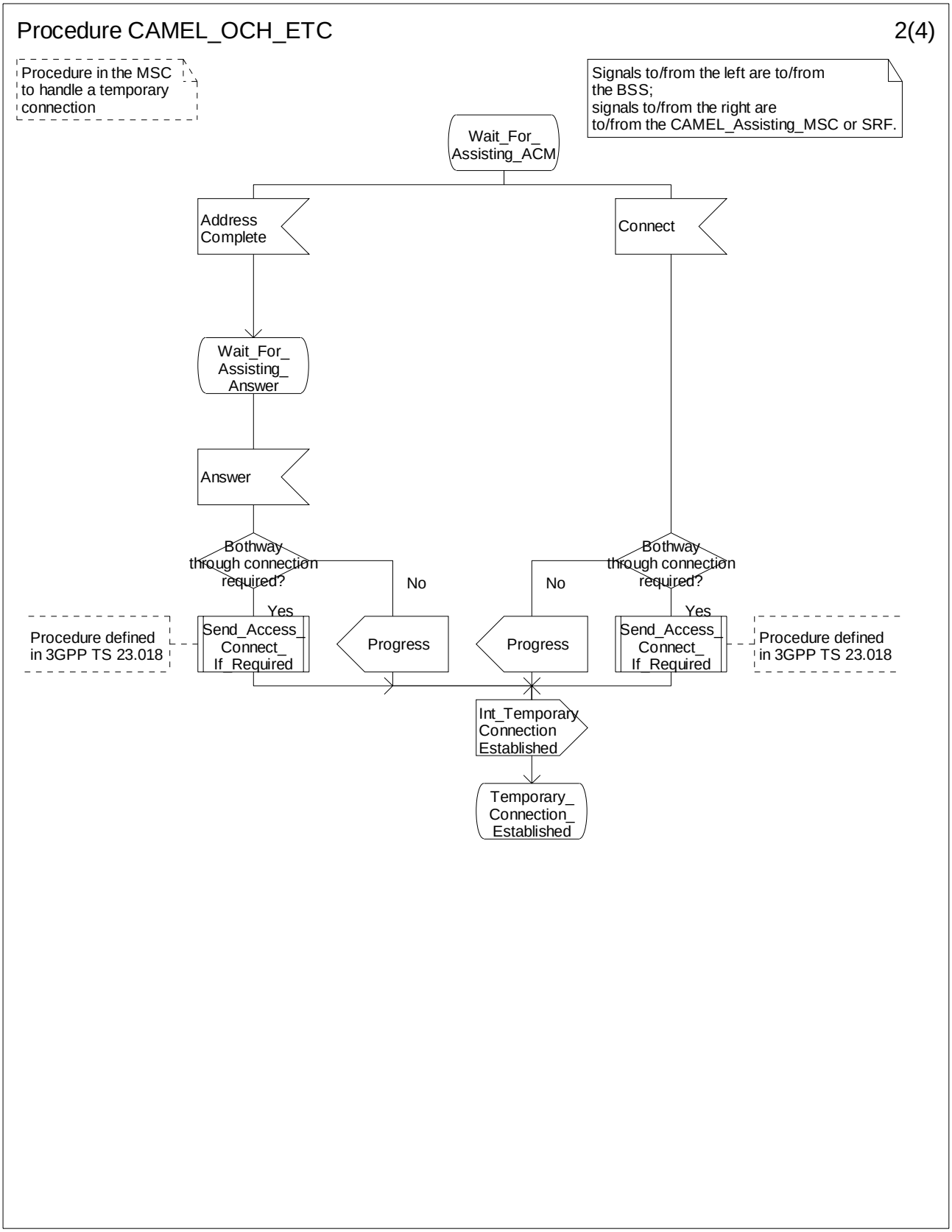


Figure 4.23-2: Procedure CAMEL_OCH_ETC (sheet 2)

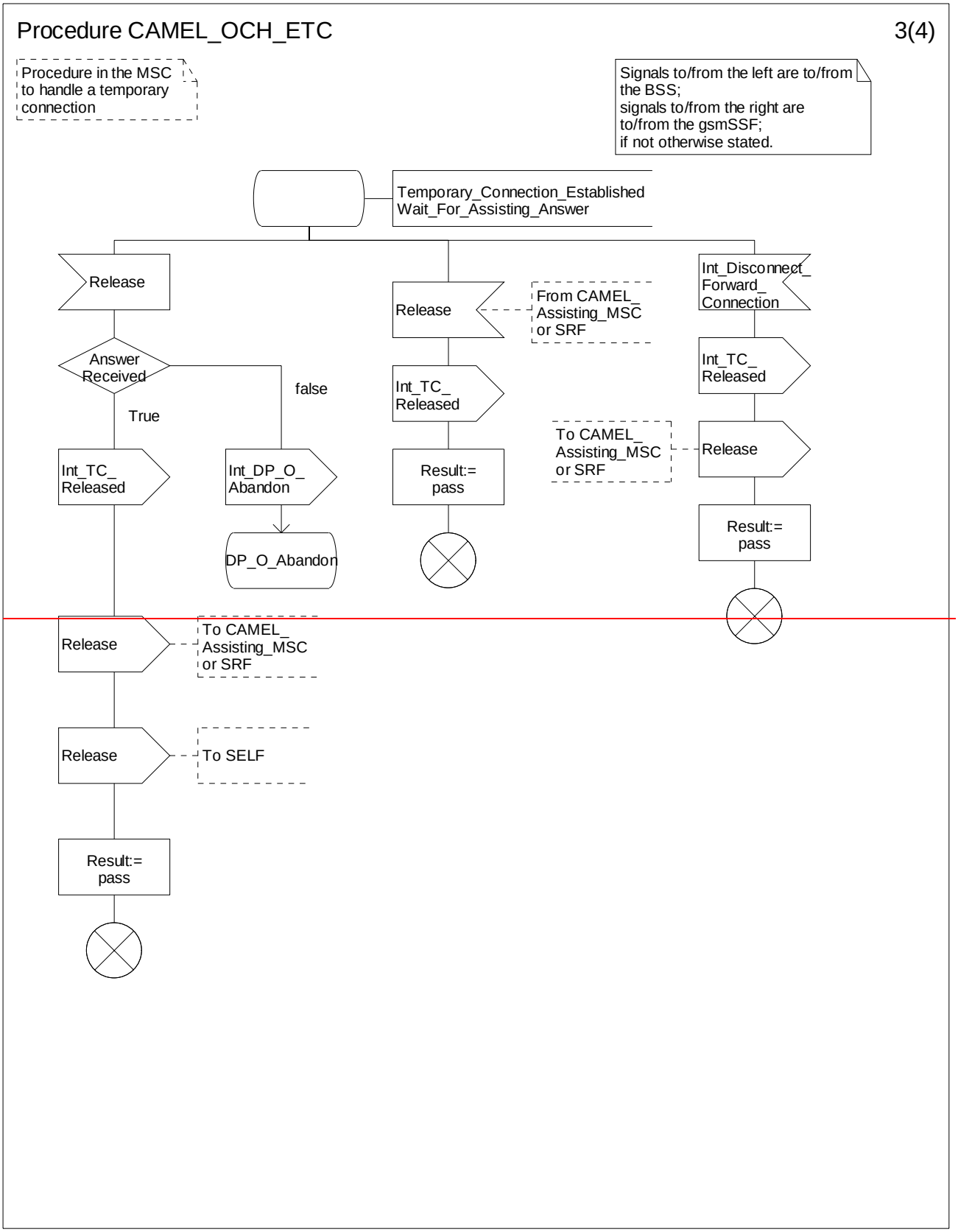


Figure 4.23-3: Procedure CAMEL_OCH_ETC (sheet 3)

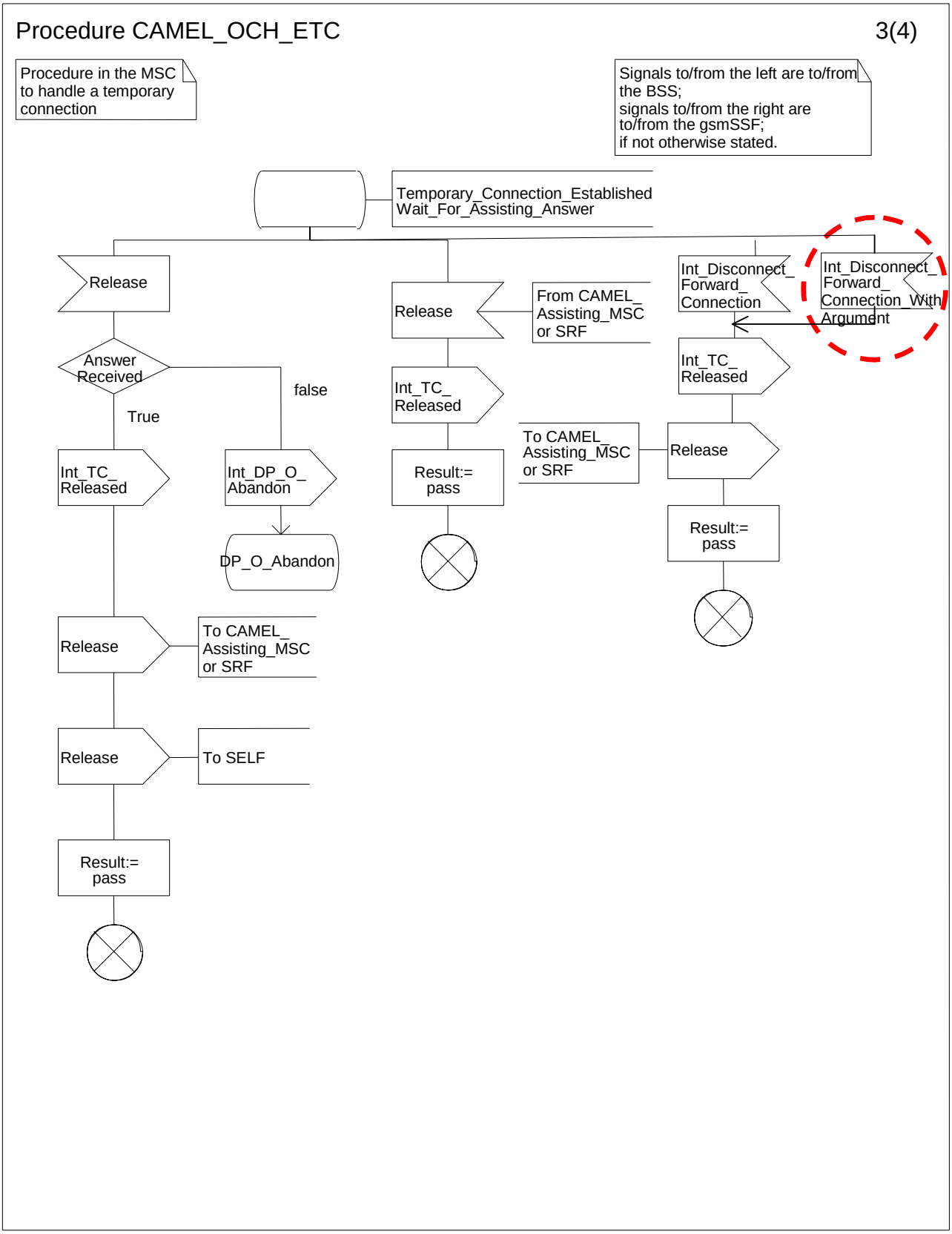


Figure 4.23-3: Procedure CAMEL_OCH_ETC (sheet 3)

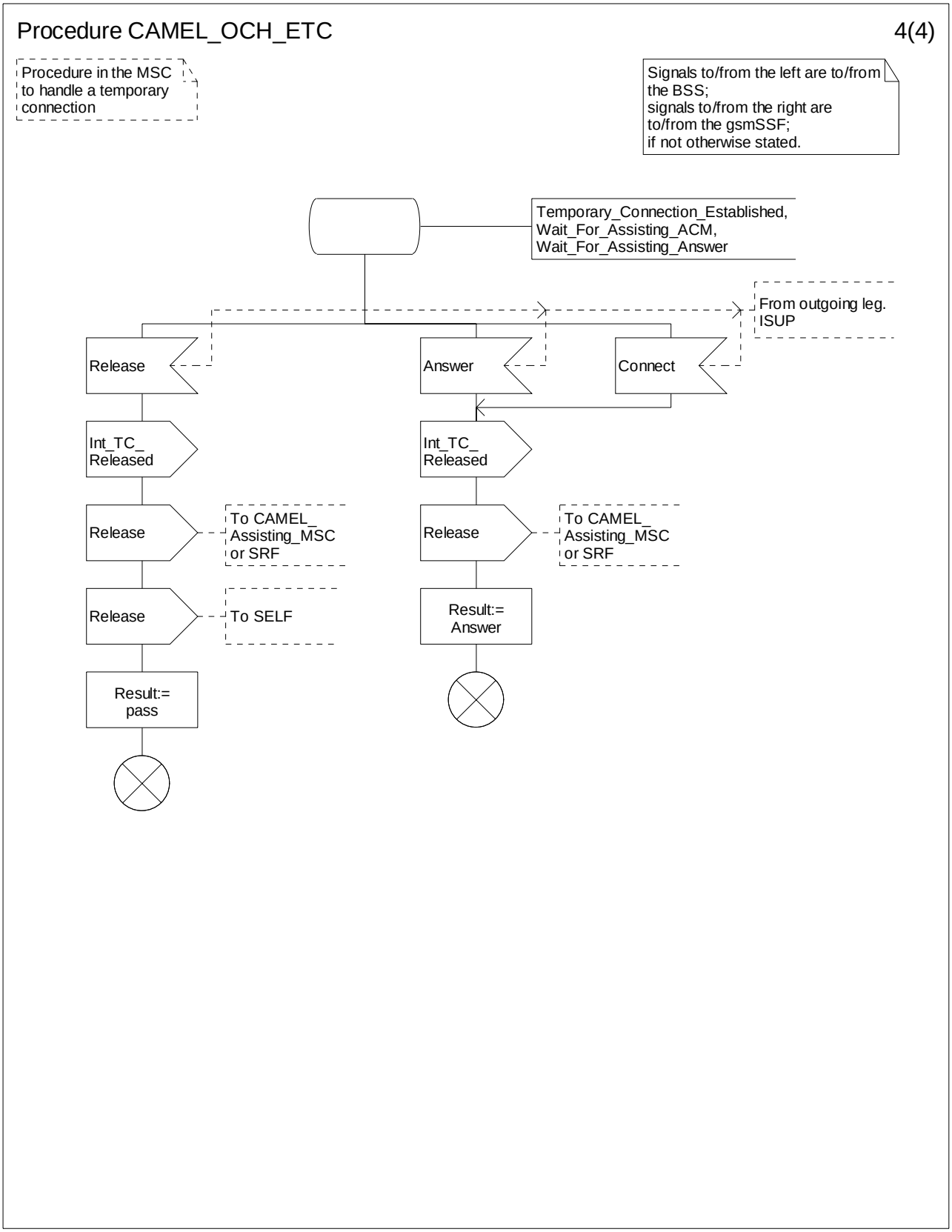


Figure 4.23-4: Procedure CAMEL_OCH_ETC (sheet 4)

***** *Next Modification* *****

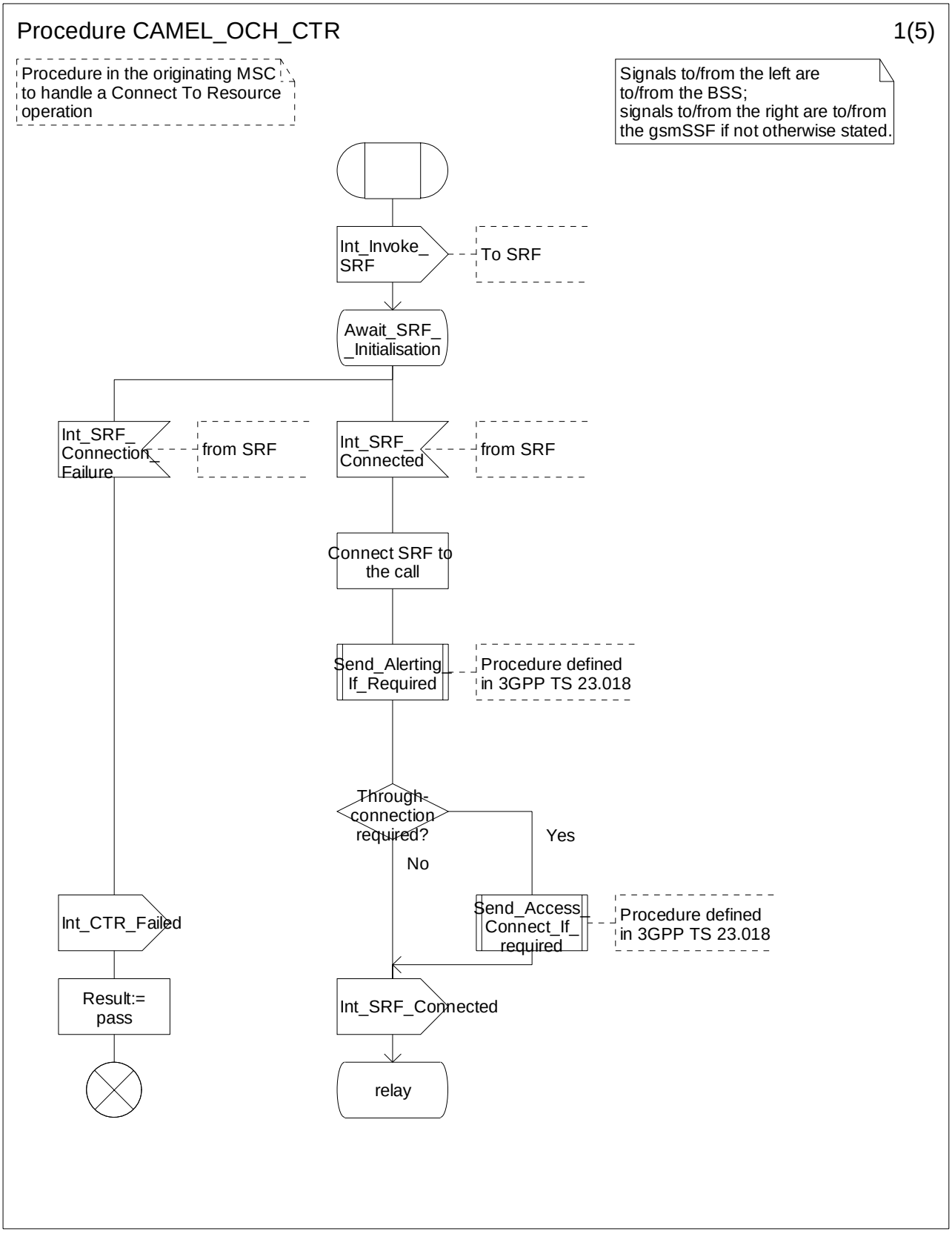


Figure 4.24-1: Procedure CAMEL_OCH_CTR (sheet 1)

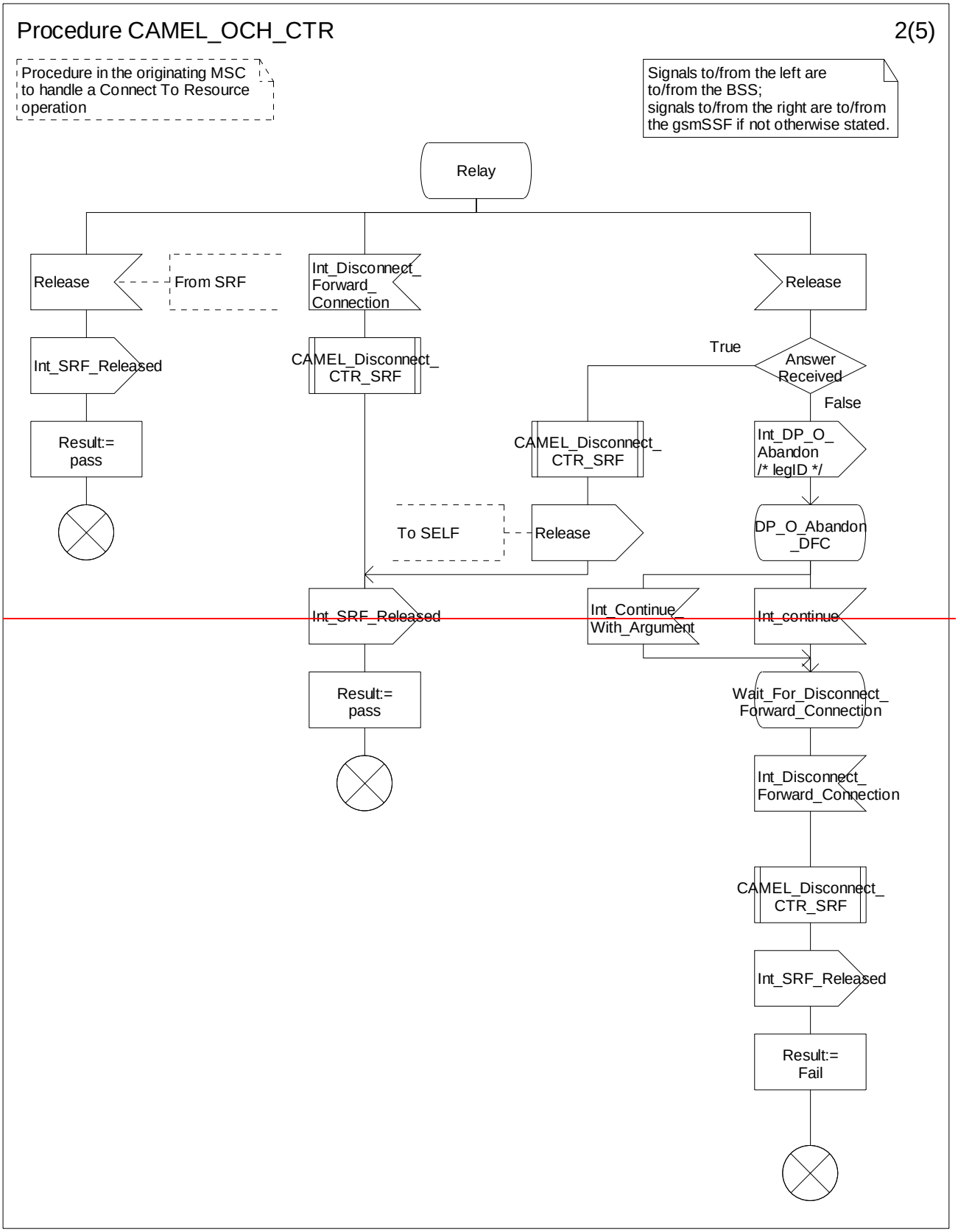


Figure 4.24-2: Procedure CAMEL_OCH_CTR (sheet 2)

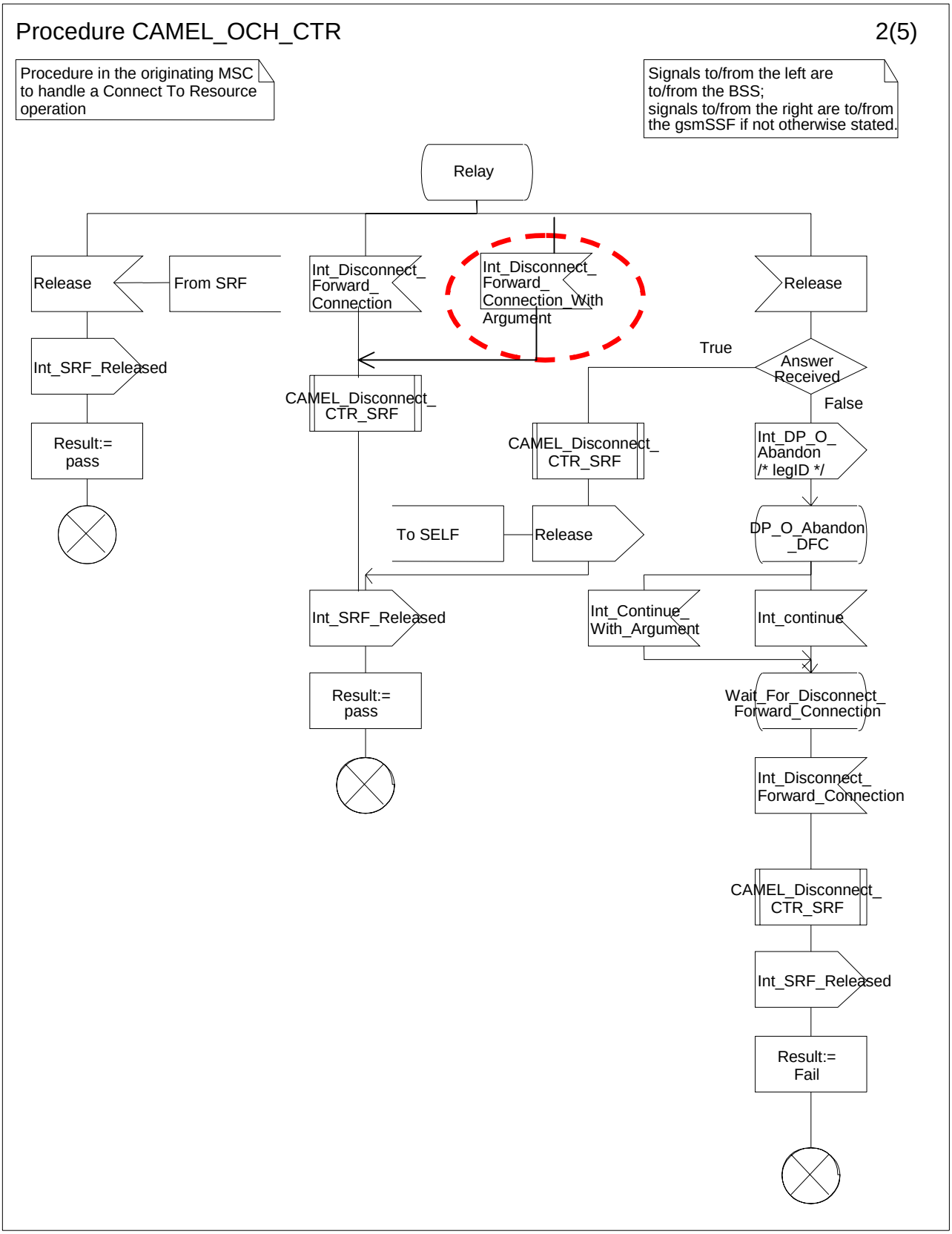


Figure 4.24-2: Procedure CAMEL_OCH_CTR (sheet 2)

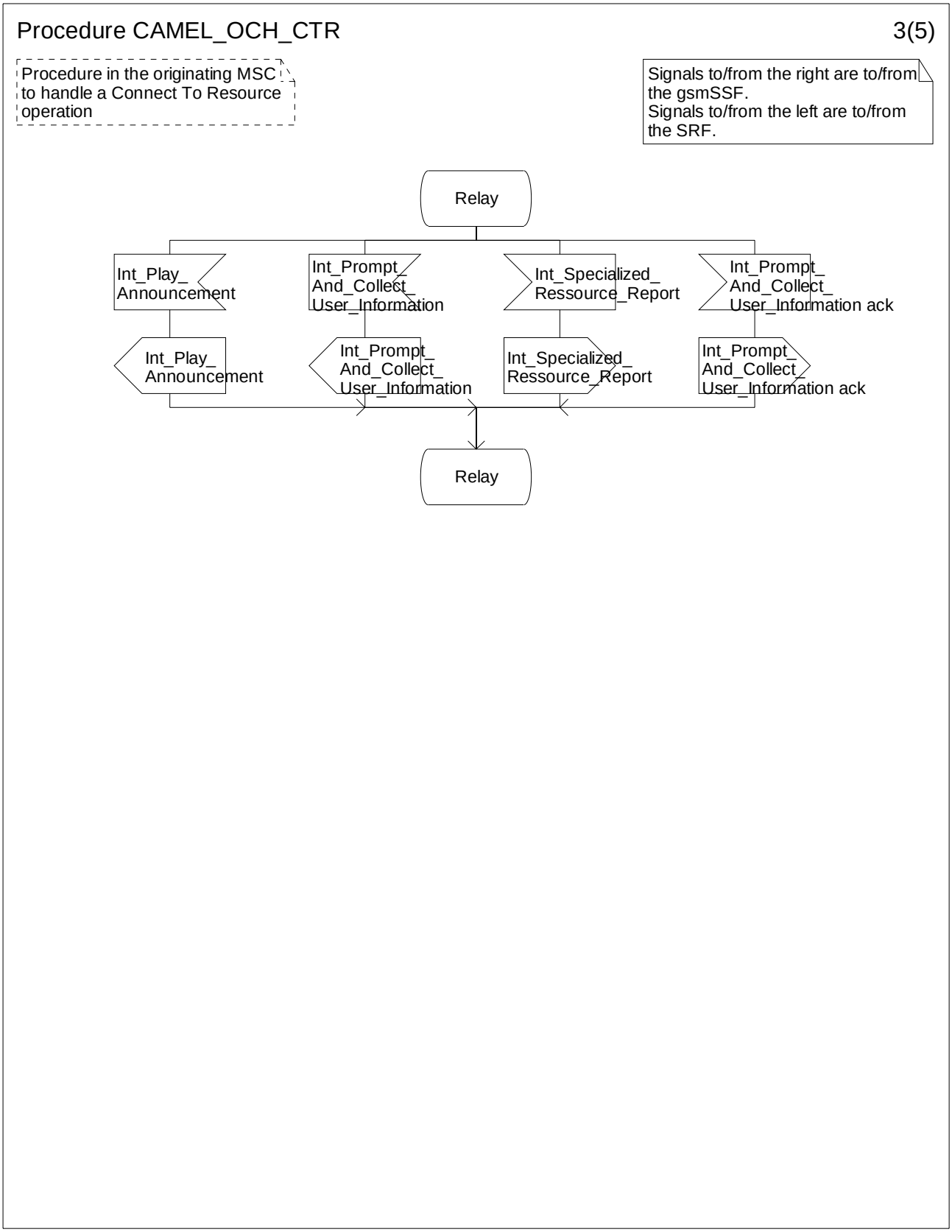


Figure 4.23-3: Procedure CAMEL_OCH_CTR (sheet 3)

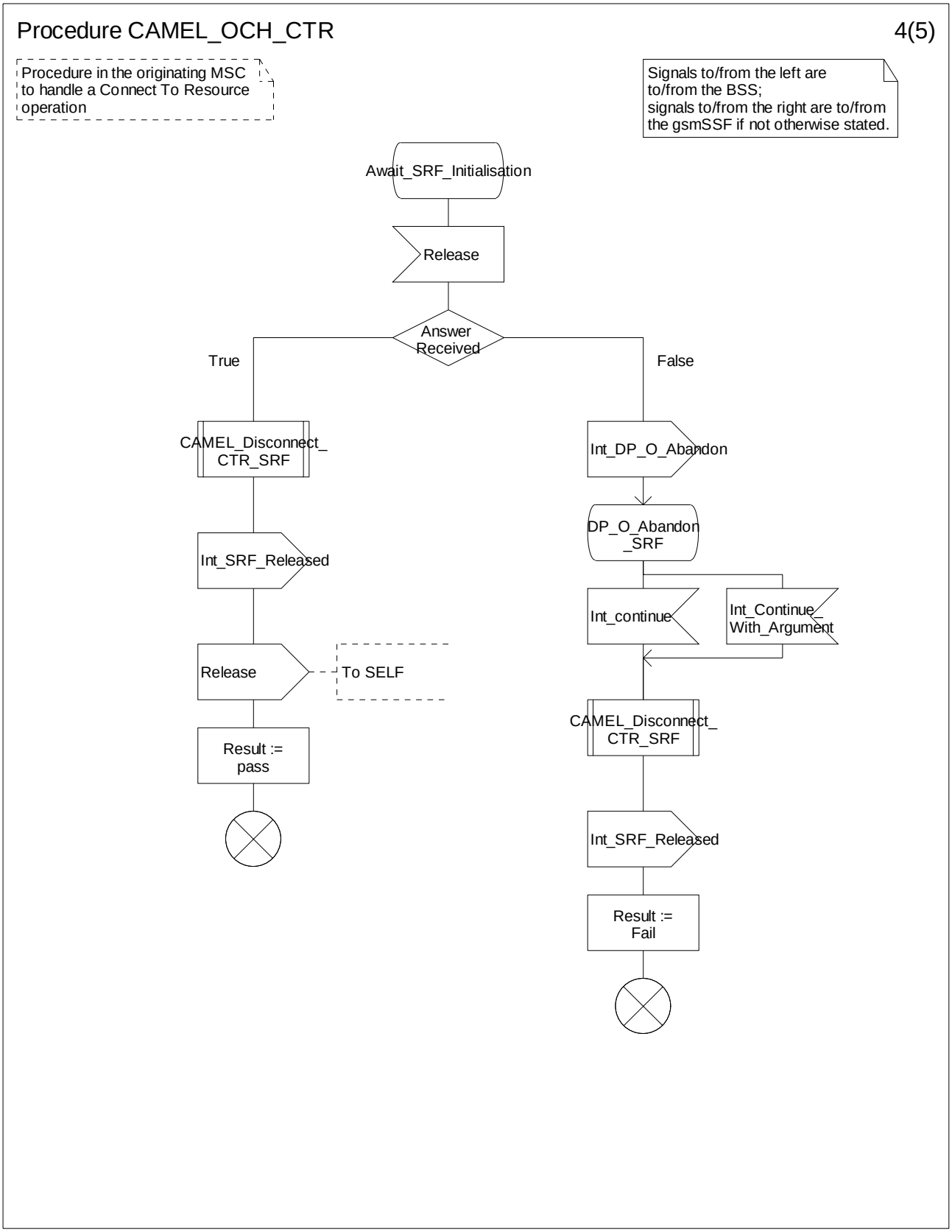


Figure 4.24-4: Procedure CAMEL_OCH_CTR (sheet 4)

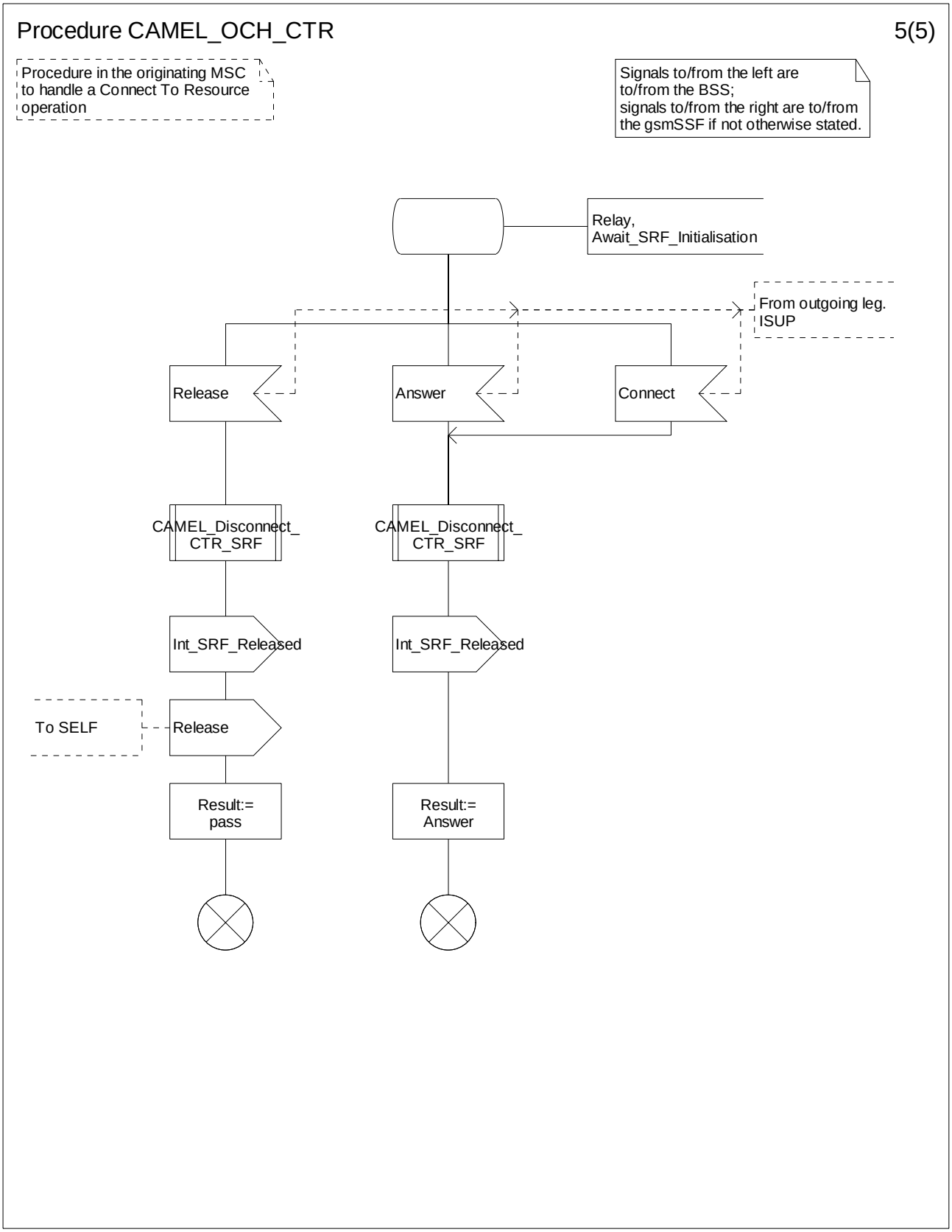


Figure 4.24-5: Procedure CAMEL_OCH_CTR (sheet 5)

****** End of Document******

CHANGE REQUEST

⌘ **23.078** **CR** **708** ⌘**rev** ⌘ Current version: **6.0.0** ⌘

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

Title:	⌘	Correction to Information Location at DP O_Term_Seized
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	2004-02-18
Category:	⌘	A
Release:	⌘	Rel-6

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:	⌘	When the SCP does not arm DP O_Change_of_Position for an MO call, then the Location Information to be reported at DP DP O_Term_Seized will be the same as the Location Information at DP Collected Information. Reason is as follows. When the MSC invokes a gsmSSF instance, then the MSC includes the Location Information in the internal information flow to gsmSSF. The gsmSSF then has the possibility to request notifications from the MSC when the Location Information has changed. This request is done under instruction from the gsmSCF (RRB). If, however, the gsmSSF does not request these notifications, then the gsmSSF will not have the updated Location Information available by the time that DP O_Term_Seized is reported to gsmSCF. Hence, in that case, the gsmSSF will report the Location Information which it received at DP Collected Info. This behaviour of the MSC/gsmSSF shall be described in the Event Report BCSM information flow section, by means of a Note.
Summary of change:	⌘	Include a description in the Event Report BCSM information flow, for the reporting of Location Information at DP O_Term_Seized.
Consequences if not approved:	⌘	A CAMEL Service that does not arm O_Change_of_Position DP may be expecting updated Location Information at DP O_Term_Seized, whereas the MSC/gsmSSF may be providing the Location Information from DP Collected Info.

Clauses affected:	⌘	4.6.1.6

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

****** First Modification ******

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 [**Error! Reference source not found.**].
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 [**Error! Reference source not found.**].
Ext-Basic Service Code	S	S	S	S	-	-	This IE is used for SCUDIF calls. It indicates the type of basic service, i.e. teleservice or bearer service. It indicates the service active at answer for the SCUDIF call (as defined in 3GPP TS 23.172 [**Error! Reference source not found.**]).
Ext-Basic Service Code 2	S	S	S	S	-	-	This IE is used for SCUDIF calls. It indicates the type of basic service, i.e. teleservice or bearer service. It indicates the service which is not active at answer for the SCUDIF call (as defined in 3GPP TS 23.172 [**Error! Reference source not found.**]). It shall be present if the negotiation of the SCUDIF services resulted in both basic services for the SCUDIF call. Otherwise shall be absent.

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 [**Error! Reference source not found.**].
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

Information element name	MO	MF	MT	VT	NC	NP	Description
							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 **Error! Reference source not found.** with VLR Number IE as "- (not applicable)".

NOTE If gsmSCF does not arm DP O_Change_Of_Position, then the Location Information reported at DP O_Term_Seized may be the same as the Location Information reported at DP Collected Information, even when the subscriber has changed location between DP Collected Information and DP O_Term_Seized.

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 [**Error! Reference source not found.**].

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

****** End of Document******