

Source: CN2
Title: CRs on Rel-5 Work Item CAMEL4, CR Pack 2
Agenda item: 8.3
Document for: APPROVAL

Introduction:

This document contains 6 CRs on Rel-5 WI CAMEL4 (TS 23.078). These CRs have been agreed by TSG CN WG2 and are forwarded to TSG CN Plenary meeting #19 for approval.

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
23.078	491	2	N2-030125	Rel-5	Handling of a stand alone call segment in CS_gsmSSF	F	5.2.0
23.078	513		N2-030013	Rel-5	Handling of Int_Import_Leg in CS_gsmSSF	F	5.2.0
23.078	516	2	N2-030157	Rel-5	Correction to CAMEL interaction with Line Identification	F	5.2.0
23.078	517	1	N2-030113	Rel-5	Correction to implicit disarming of DPs in CS_gsmSSF	F	5.2.0
23.078	518	3	N2-030160	Rel-5	Correction to the ATI Information Flow table structure	F	5.2.0
23.078	520	1	N2-030114	Rel-5	Correction to CTR Information Flow	F	5.2.0

CHANGE REQUEST

23.078 CR 513 # rev - # Current version: 5.2.0

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

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	# Handling of Int_Import Leg in CS_gsmSSF		
Source:	# Vodafone		
Work item code:	# CAMEL4	Date:	# 07/01/2003
Category:	# F	Release:	# REL-5
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	# When the gsmSCF sends a CAP_Split Leg IF to the process CSA_gsmSSF, the CSA_gsmSSF invokes a new instance of the process CS_gsmSSF. The new instance of the process CS_gsmSSF moves into the state Wait_For_ICA. The CSA_gsmSSF then sends Int_Import Leg, but the SDLs specify the receipt of this signal in the Wait_For_Request state instead of the Wait_For_ICA state. This is incorrect SDL modelling.		
Summary of change:	# <ul style="list-style-type: none"> • CS_gsmSSF (sheet 4 and 6): Wait_For_ICA state is renamed to Wait_For_ICA_Or_Import_Leg to avoid confusion. • CS_gsmSSF (sheet 6): Handling of Int_Import Leg is moved from Wait_For_Request state to Wait_For_ICA_Or_Import_Leg state. 		
Consequences if not approved:	# Split Leg operation will not work.		

Clauses affected:	# 4.5.7.4										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications # Test specifications # O&M Specifications #	Y	N	#	X	#	X	#	X		
Y	N										
#	X										
#	X										
#	X										
Other comments:	# Some pages from Process CSA_gsmSSF are included for information.										

***** Modified Section *****

4.5.7.4 Process CS_gsmSSF and procedures

...

Process CS_gsmSSF

3(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

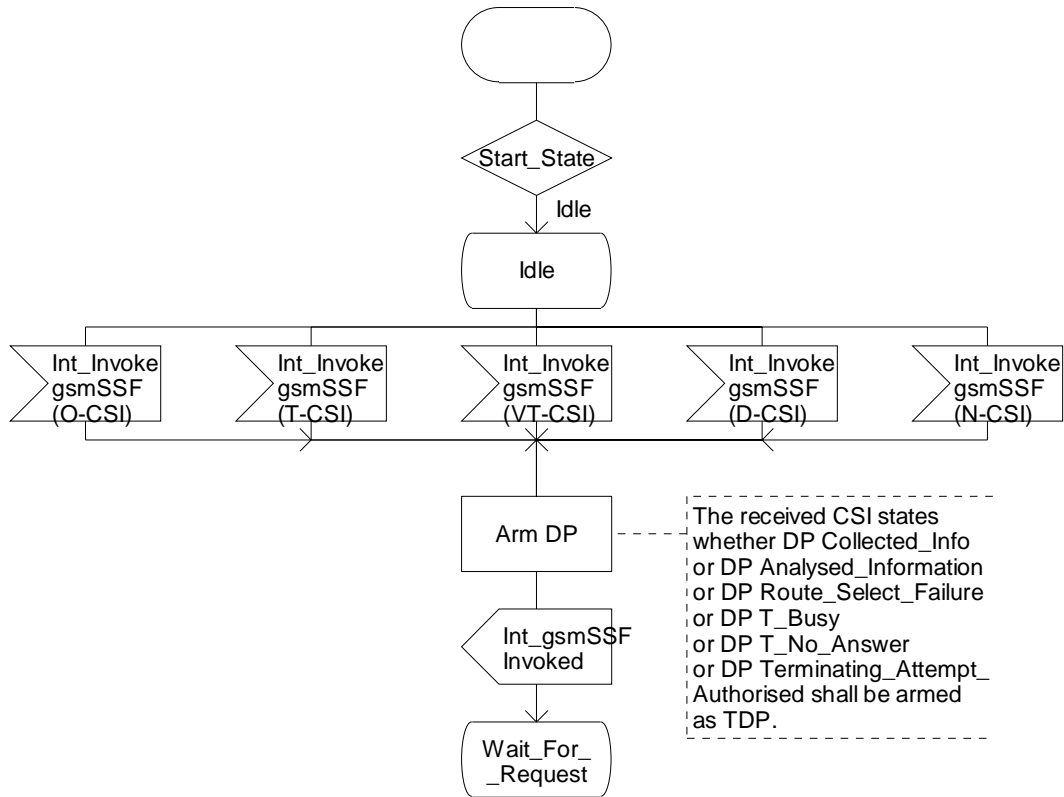


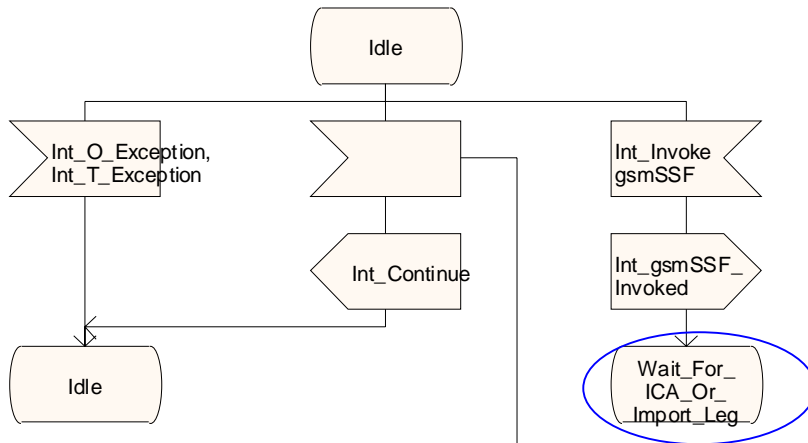
Figure 4.95-3: Process CS_gsmSSF (sheet 3)

Process CS_gsmSSF

4(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */



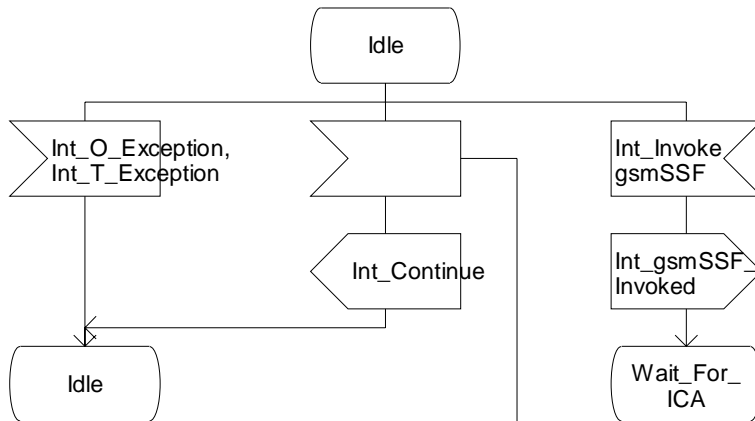
- Int_DP_O_Answer,
- Int_DP_T_Answer,
- Int_DP_O_Abandon,
- Int_DP_T_Abandon,
- Int_DP_Route_Select_Failure,
- Int_DP_O_No_Answer,
- Int_DP_T_No_Answer,
- Int_DP_O_Busy,
- Int_DP_T_Busy,
- Int_DP_Analysed_Info,
- Int_DP_O_Term_Seized,
- Int_DP_Call_Accepted,
- Int_DP_O_MidCall,
- Int_DP_T_MidCall,
- Int_DP_O_Change_Of_Position,
- Int_DP_T_Change_Of_Position

Process CS_gsmSSF

4(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */



- Int_DP_O_Answer,
- Int_DP_T_Answer,
- Int_DP_O_Abandon,
- Int_DP_T_Abandon,
- Int_DP_Route_Select_Failure,
- Int_DP_O_No_Answer,
- Int_DP_T_No_Answer,
- Int_DP_O_Busy,
- Int_DP_T_Busy,
- Int_DP_Analysed_Info,
- Int_DP_O_Term_Seized,
- Int_DP_Call_Accepted,
- Int_DP_O_MidCall,
- Int_DP_T_MidCall,
- Int_DP_O_Change_Of_Position,
- Int_DP_T_Change_Of_Position

Figure 4.95-4: Process CS_gsmSSF (sheet 4)

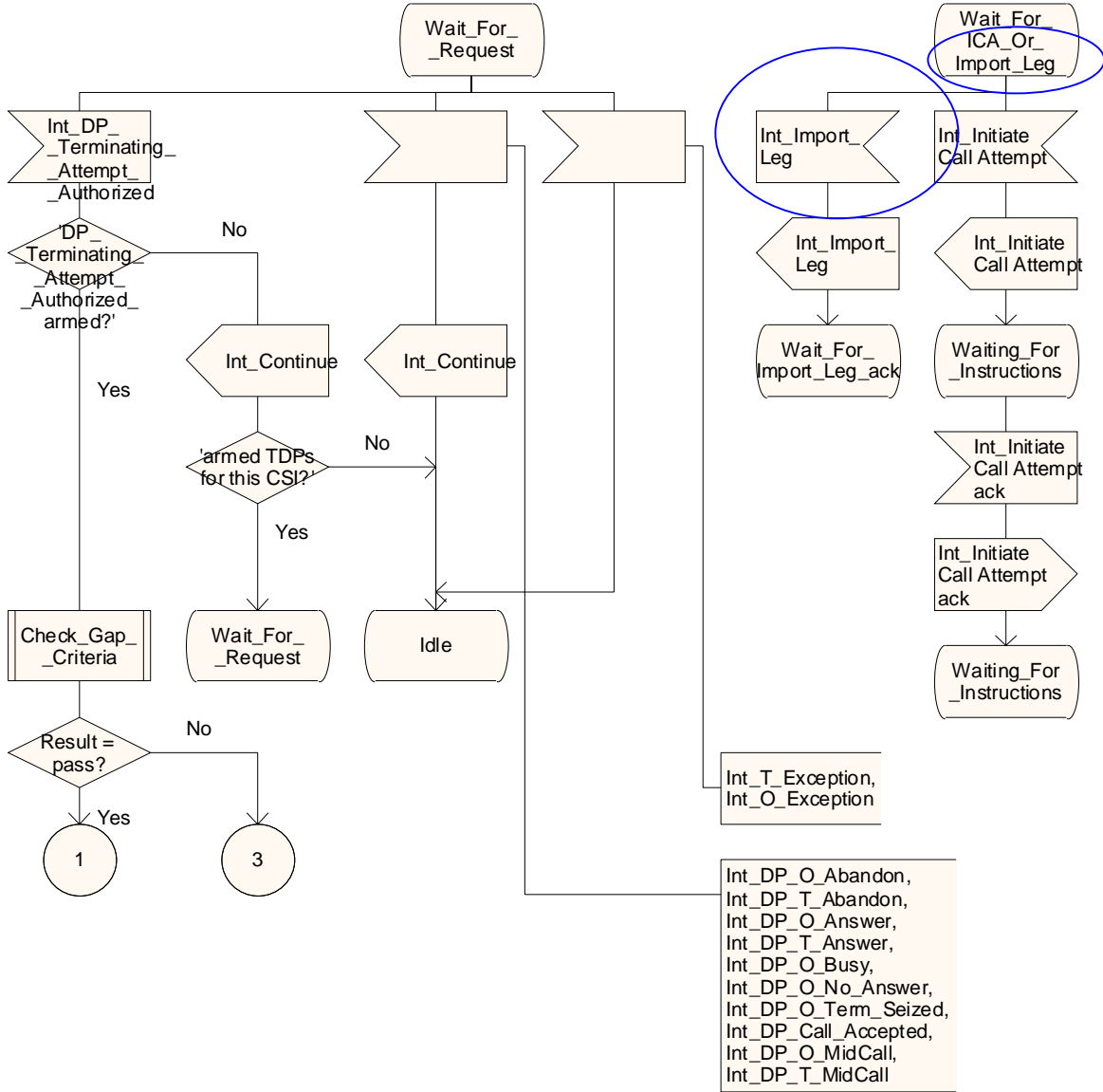
...

Process CS_gsmSSF

6(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */



Process CS_gsmSSF

6(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

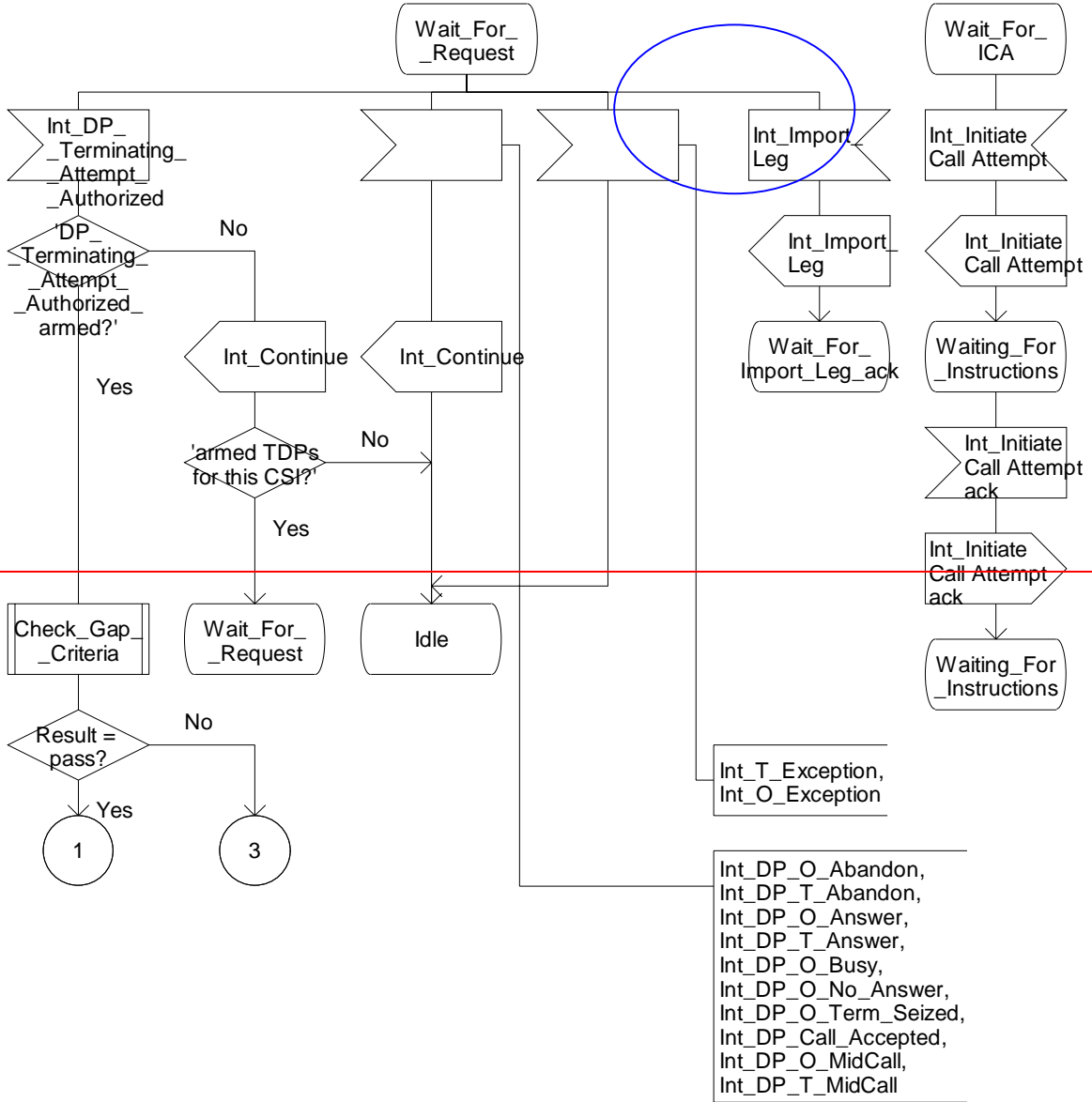


Figure 4.95-6: Process CS_gsmSSF (sheet 6)

...

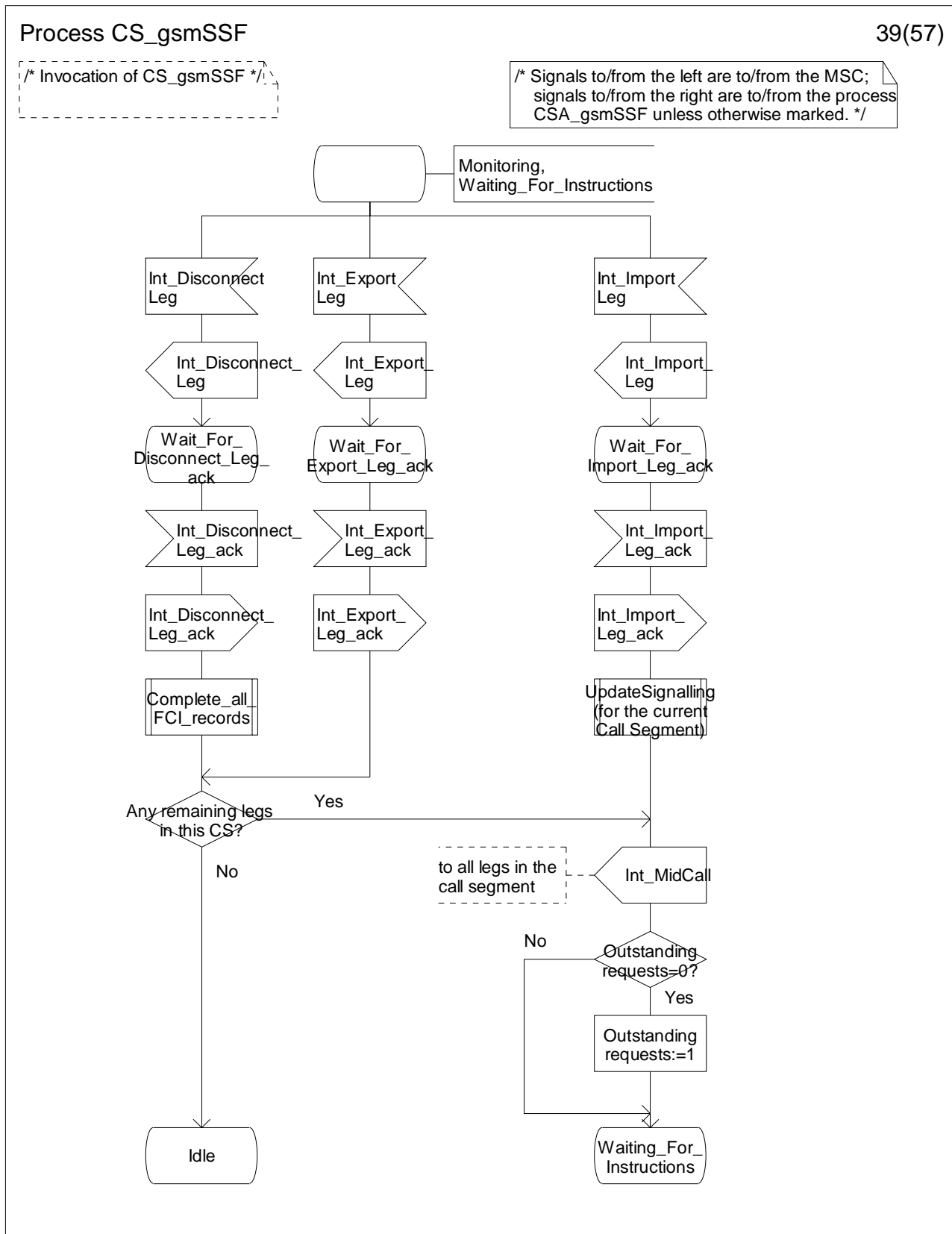


Figure 4.95-39: Process CS_gsmSSF (sheet 39)

...

***** Section For Information*****

4.5.7.6 Process CSA_gsmSSF and procedures

...

Process CSA_gsmSSF

1(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

/* TASK definition:
The Application_Begin signal opens a new relationship with the gsmSCF.
The Application_End or Abort signal terminates the relationship with the gsmSCF.
*/

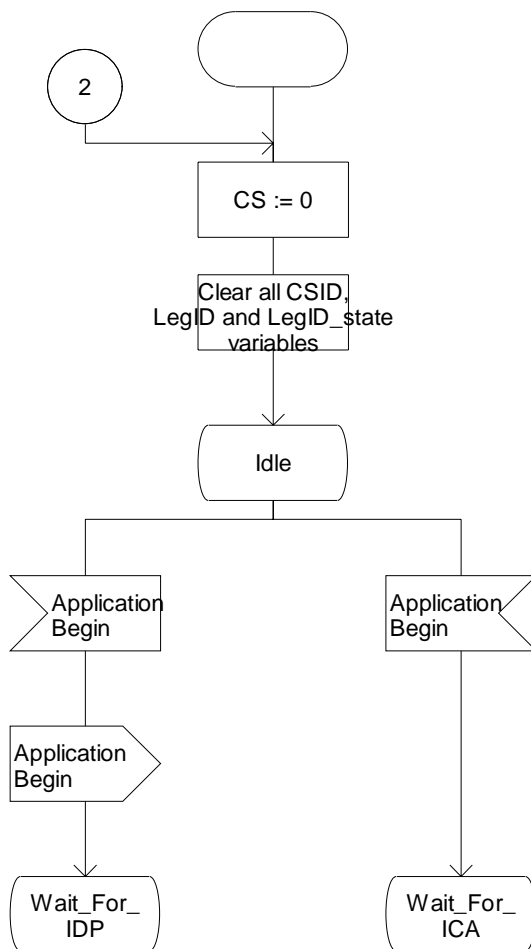


Figure 4.112-1: Process CSA_gsmSSF (sheet 1)

Process CSA_gsmSSF

2(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

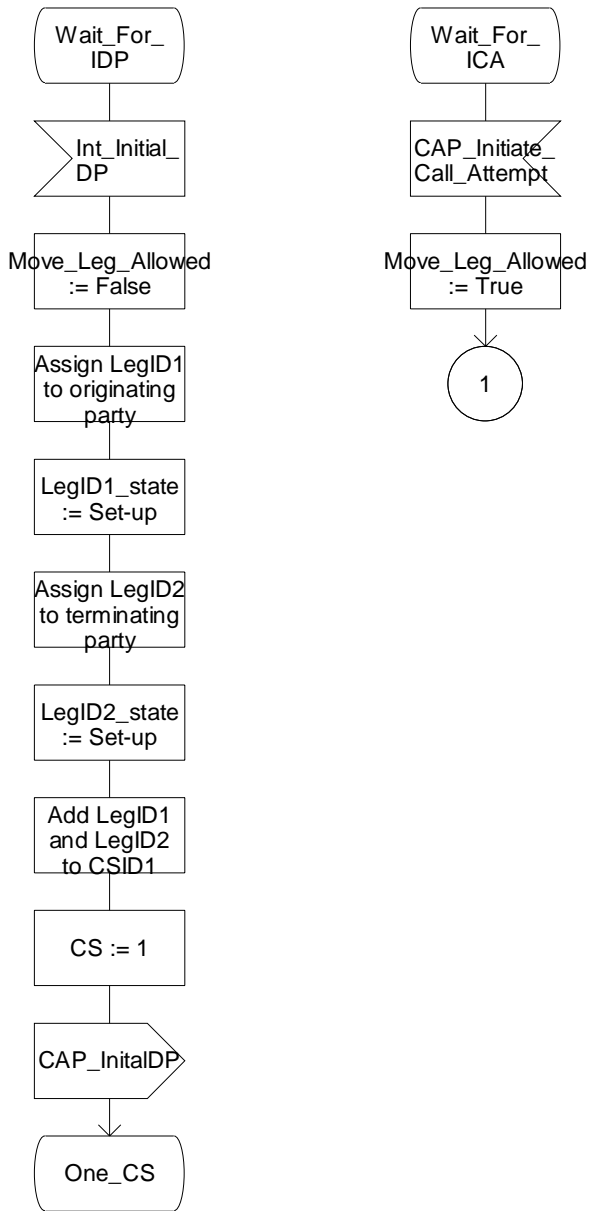


Figure 4.112-2: Process CSA_gsmSSF (sheet 2)

...

Process CSA_gsmSSF

9(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

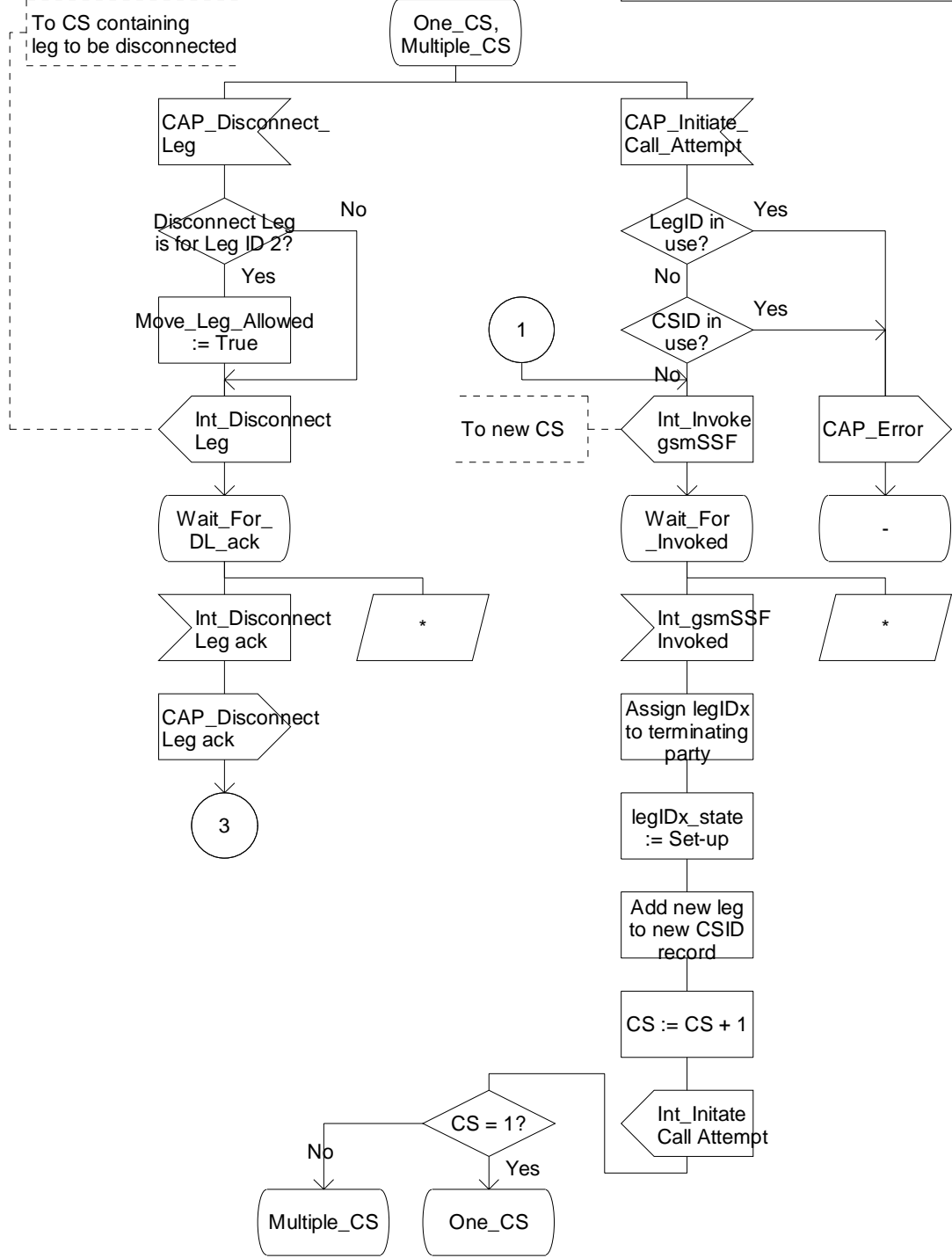


Figure 4.112-9: Process CSA_gsmSSF (sheet 9)

...

Process CSA_gsmSSF

11(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

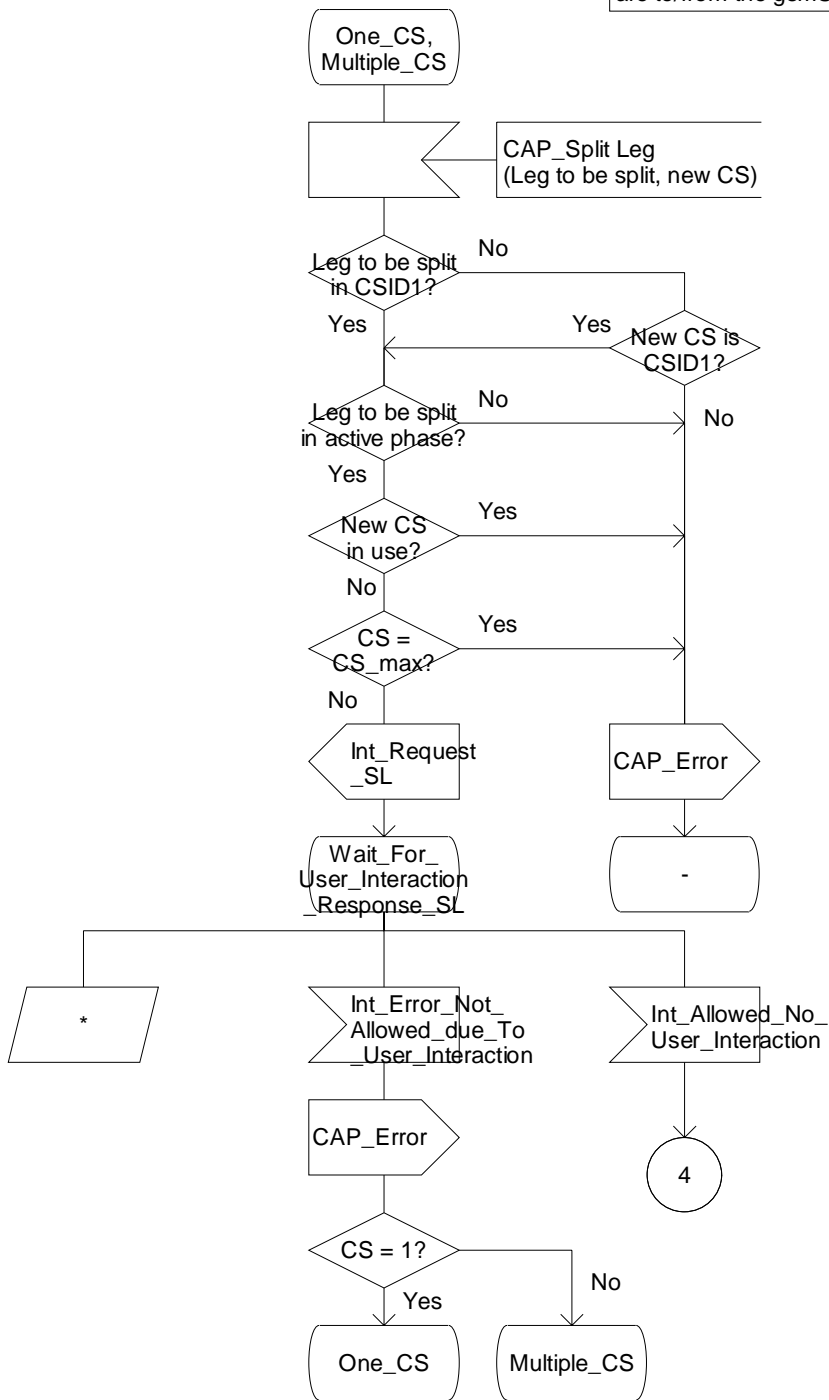


Figure 4.112-11: Process CSA_gsmSSF (sheet 11)

Process CSA_gsmSSF

12(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

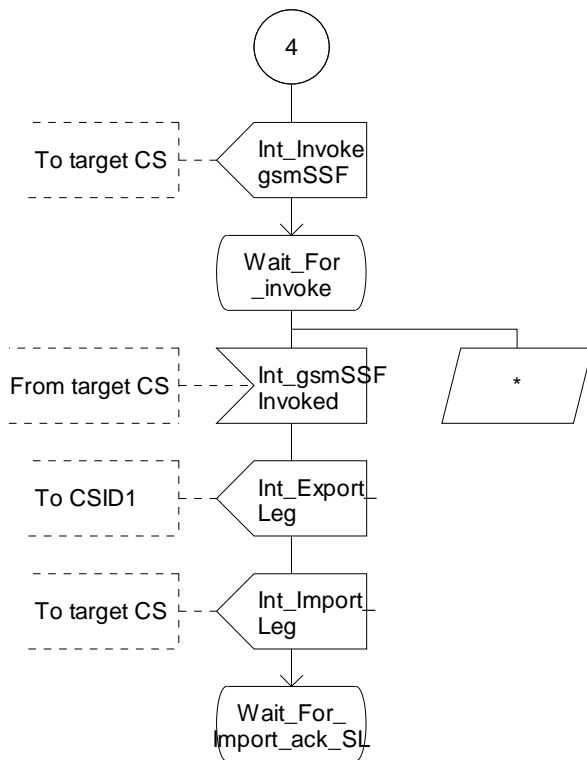


Figure 4.112-12: Process CSA_gsmSSF (sheet 12)

...

Process CSA_gsmSSF

21(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

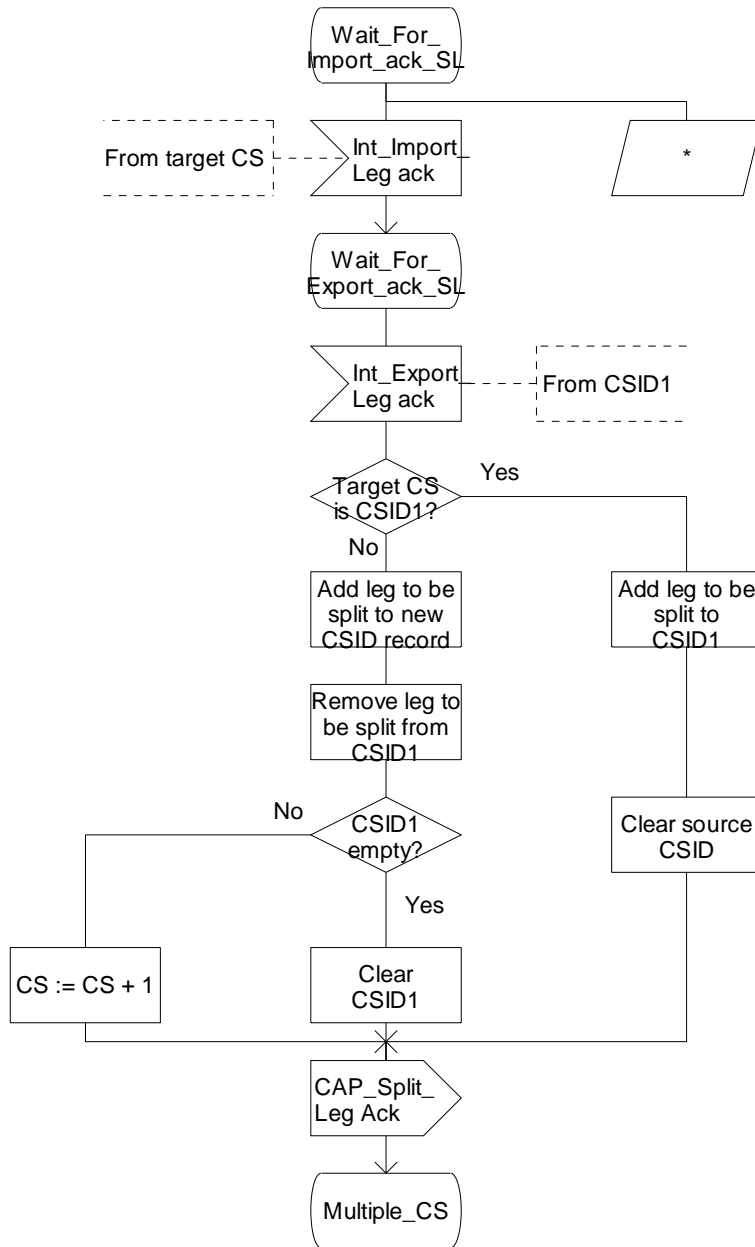


Figure 4.112-21: Process CSA_gsmSSF (sheet 21)

*** End Of Document ***

CHANGE REQUEST

⌘ 23.078 CR 517 ⌘ rev 1 ⌘ Current version: 5.2.0 ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title: ⌘ Correction to implicit disarming of DPs in CS_gsmSSF

Source: ⌘ Ericsson

Work item code: ⌘ CAMEL4

Date: ⌘ 11/02/2003

Category: ⌘ F

Release: ⌘ Rel-5

Use one of the following categories:

Use one of the following releases:

- F (correction)
- A (corresponds to a correction in an earlier release)
- B (addition of feature),
- C (functional modification of feature)
- D (editorial modification)

- 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: ⌘ Figure 4.95s: Process CS_gsmSSF (sheet 19) specifies the gsmSSF handling of the Request Report BCSM Event (RRB) information flow from the gsmSCF.

The comment in the figure about the leg for which RRB is received, should apply also to other DPs than O/T Disconnect, e.g. O_Answer, O_Busy etc. Reason is that other events, such as O_Answer, may occur for several legs. Hence, when RRB is received by the gsmSSF, it shall process RRB for the indicated leg only.

The present CR proposes that the comment be removed, since the processing of RRB in the gsmSSF is already specified in the Information Flow in TS 23.078 (sect. 4.6.2.19) and in the Procedure Description in TS 29.078 (sect. 11.27.1).

The RRB IF description in section 4.6.2.19 shall be corrected. The explanation of "Leg Id" currently reads "This IE indicates the party in the call for which the event shall be **reported**." This text shall be replaced by "reads "This IE indicates the party in the call for which the event shall be **armed or disarmed**.".

Sheets 25 and 26 of above mentioned figure, specify the processing in the gsmSSF of the Answer event and the call set up failure events. These sheets contain a comment that the implicit disarming of the O_/T_Disconnect DPs shall apply only to the leg for which the Answer event or the call set up failure event occurred.

However, this restriction applies also to other DPs that are subject to implicit disarming.

Therefore, the comment in sheets 25 and 26 shall either be removed or enhanced. The present CR proposes that the comments be removed, since the

		disarming of events is already specified the implicit disarming rules table.
Summary of change:	⌘	(1) Correct the Request Report BCSM Event IF table (2) Correct figure 4.95-19 (process CS_gsmSSF): remove the comment (3) Correct figure 4.95-25 (process CS_gsmSSF): remove the comment (4) Correct figure 4.95-26 (process CS_gsmSSF): remove the comment
Consequences if not approved:	⌘	- Incorrect implementation of RRB in the gsmSSF; misbehaviour of CAMEL services in CPH configuration - Incorrect implementation of implicit disarming

Clauses affected:	⌘	4.6.2.19, 4.5.7.4								
Other specs affected:	⌘	<table border="1"> <thead> <tr> <th>Y</th> <th>N</th> </tr> </thead> <tbody> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </tbody> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N		X		X		X
Y	N									
	X									
	X									
	X									
Other comments:	⌘									

***** First Modified Section *****

4.6.2.19 Request Report BCSM Event

4.6.2.19.1 Description

This IF is used to request the gsmSSF to monitor for a call-related event, then send a notification back to the gsmSCF when the event is detected (see Event Report BCSM).

4.6.2.19.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
BCSM Event	M	M	M	M	M	M	This IE specifies the event or events for which a report is requested.

BCSM Event contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Event type	M	M	M	M	M	M	This IE specifies the type of event for which a report is requested.
Leg ID	C	C	C	C	C	M	This IE indicates the party in the call for which the event shall be reported armed or disarmed .
Monitor Mode	M	M	M	M	M	M	If this IE is "interrupted" then the event shall be reported as a request, if this IE is "notify and continue" then the event shall be reported as a notification, if this IE is "transparent" then the event shall not be reported.
DP Specific Criteria	O	O	O	O	O	O	This IE is described in a table below.
Automatic Rearm	O	-	-	O	-	-	This IE indicates that the detection point shall be automatically rearmed by the gsmSSF when it is encountered. This IE may be present only if the Event Type is O_Mid_Call, T_Mid_Call, O_Change_Of_Position or T_Change_Of_Position and the Monitor Mode is "notify and continue".

...

< unmodified >

...

***** Next Modified Section *****

4.5.7.4 Process CS_gsmSSF and procedures

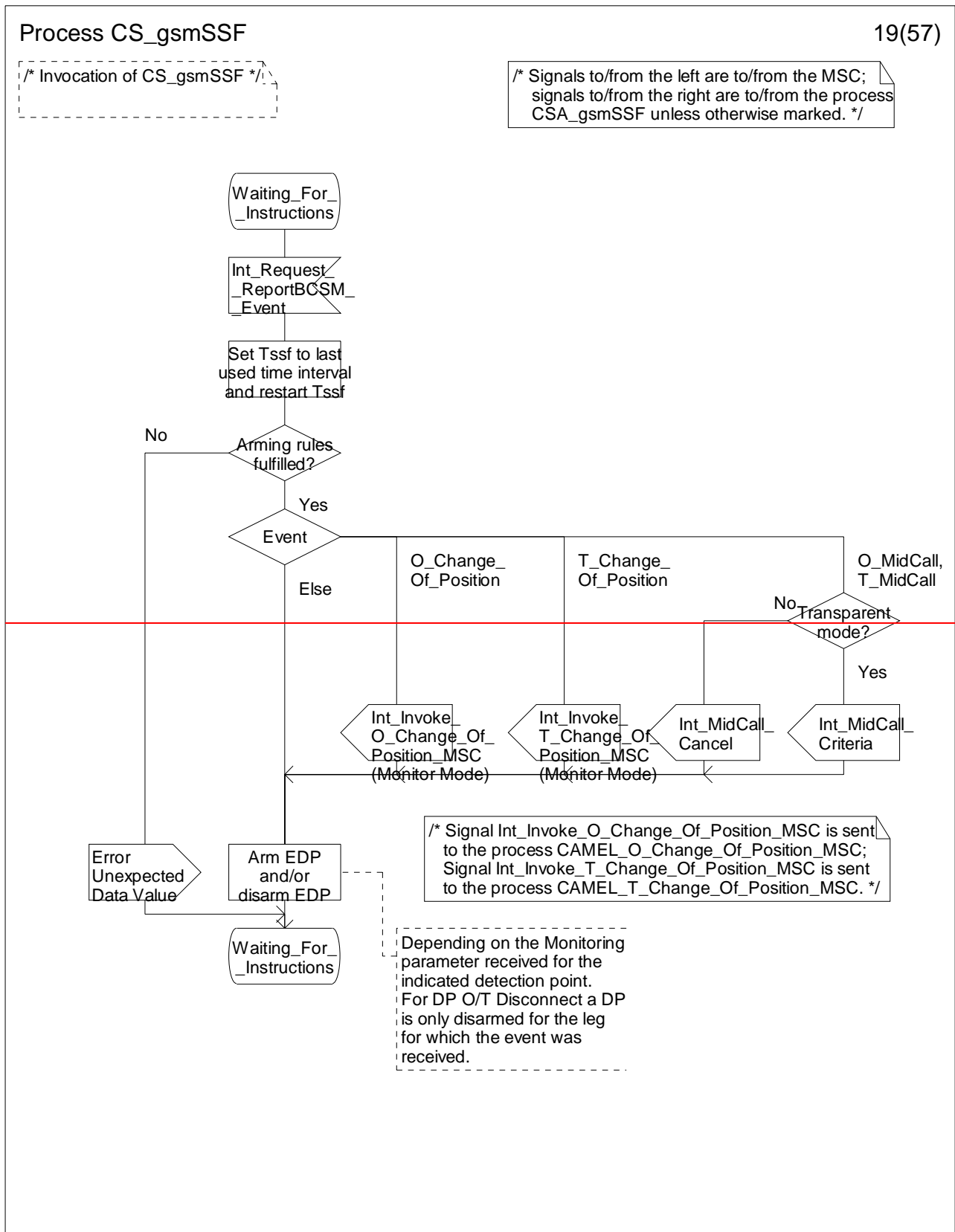


Figure 4.95-19: Process CS_gsmSSF (sheet 19)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

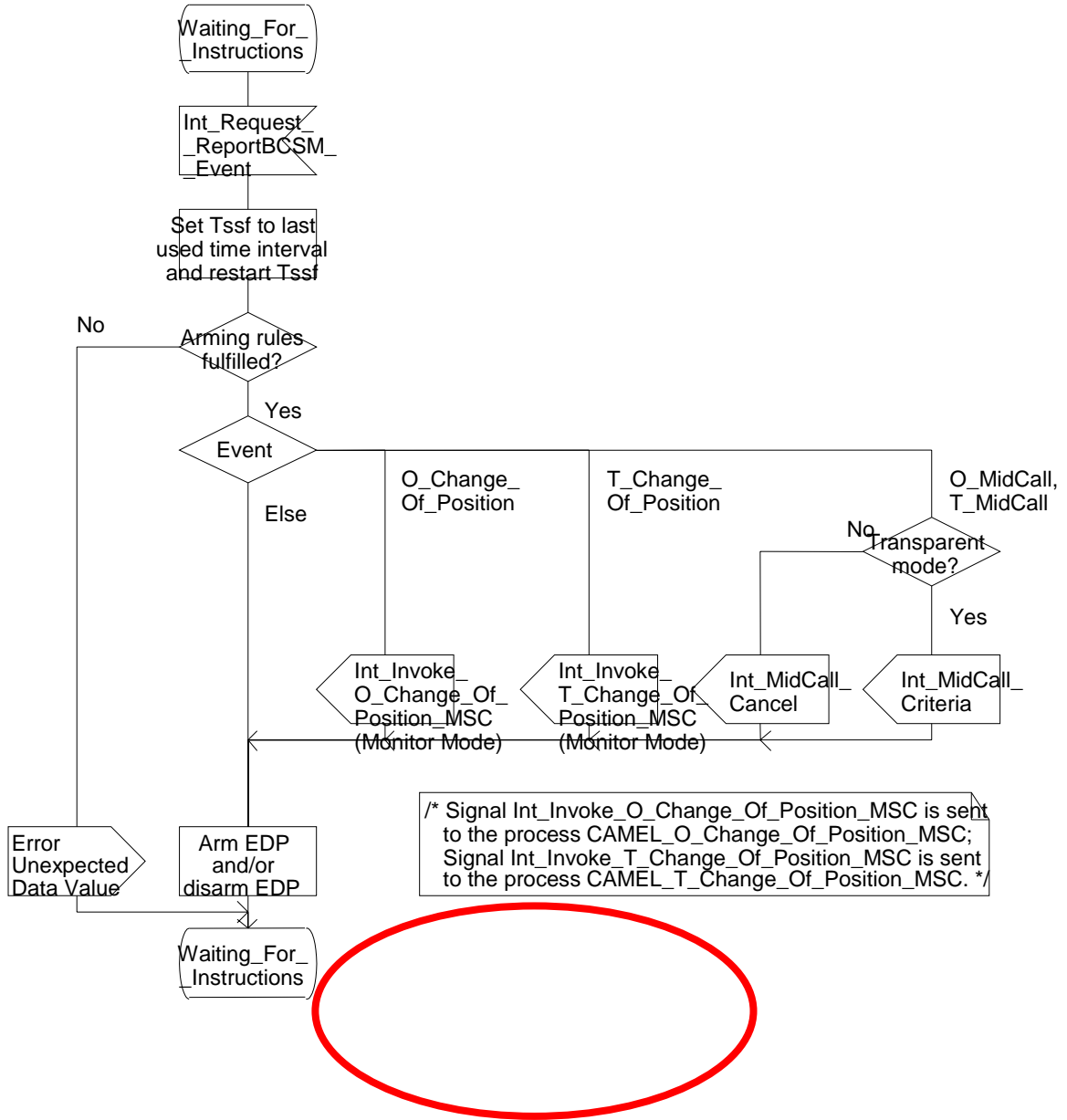


Figure 4.95-19: Process CS_gsmSSF (sheet 19)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

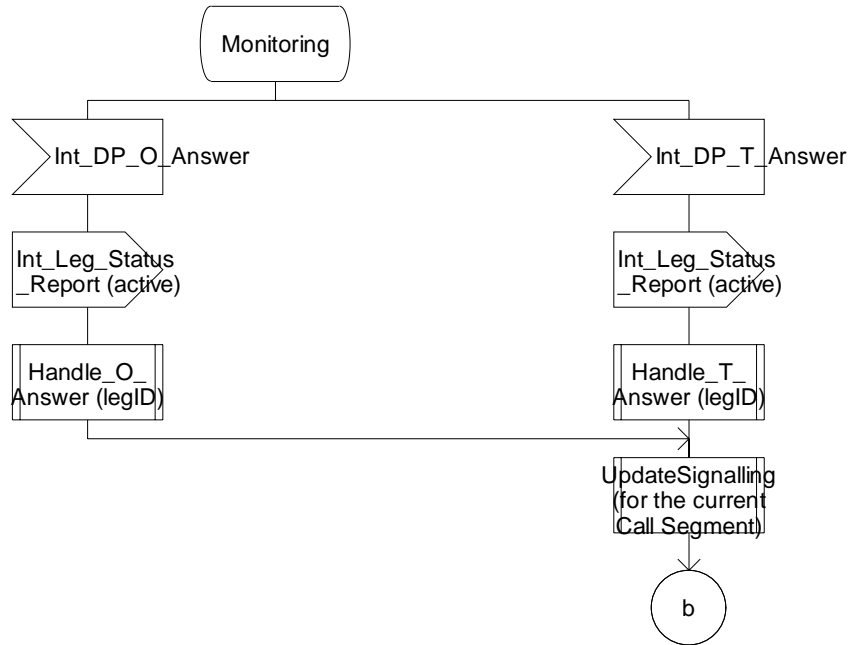


Figure 4.95-24: Process CS_gsmSSF (sheet 24)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

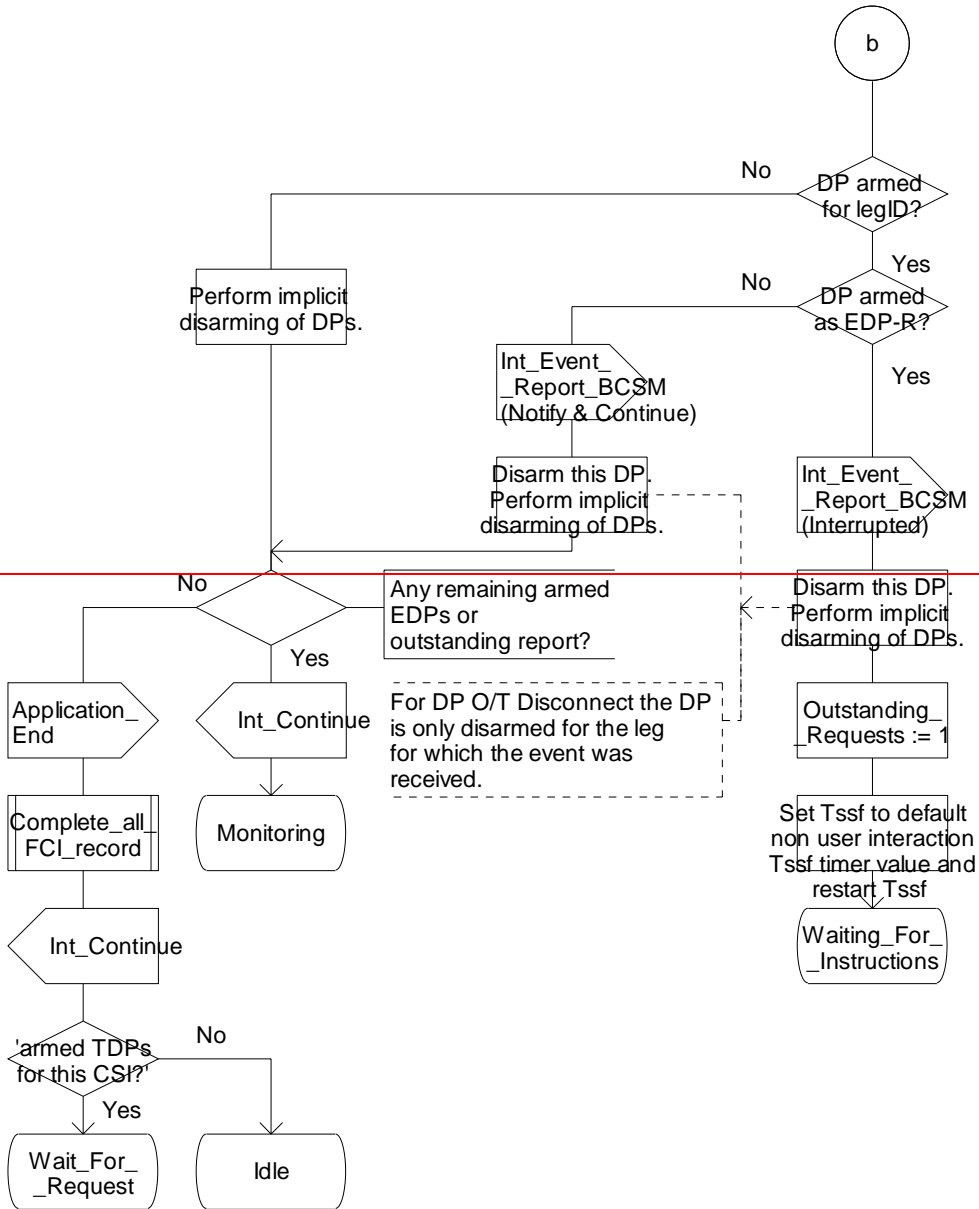


Figure 4.95-25: Process CS_gsmSSF (sheet 25)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

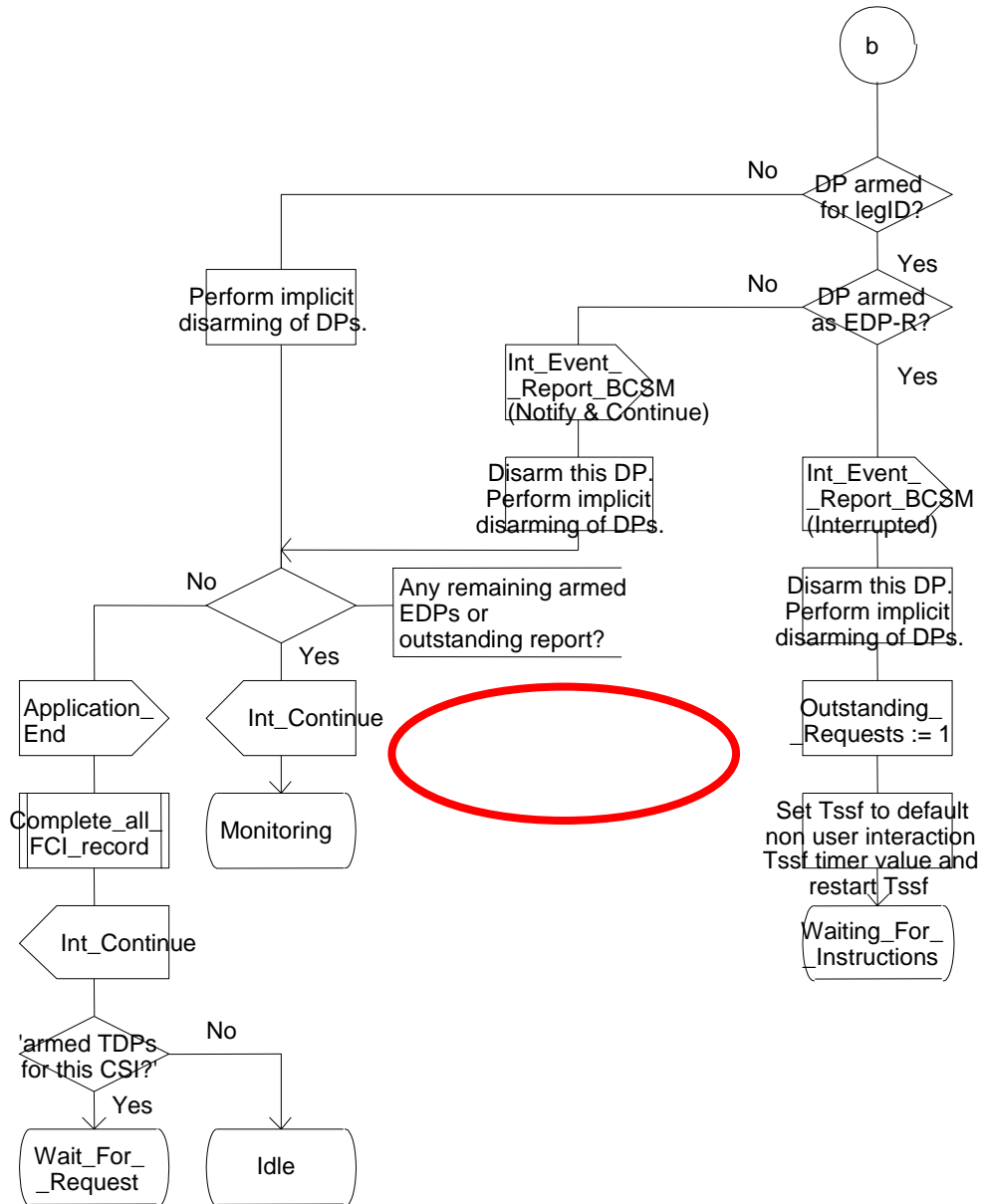


Figure 4.95-25: Process CS_gsmSSF (sheet 25)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

Int_DP_O_No_Answer,
Int_DP_T_No_Answer,
Int_DP_O_Busy,
Int_DP_T_Busy,
Int_DP_Route_Select_Failure

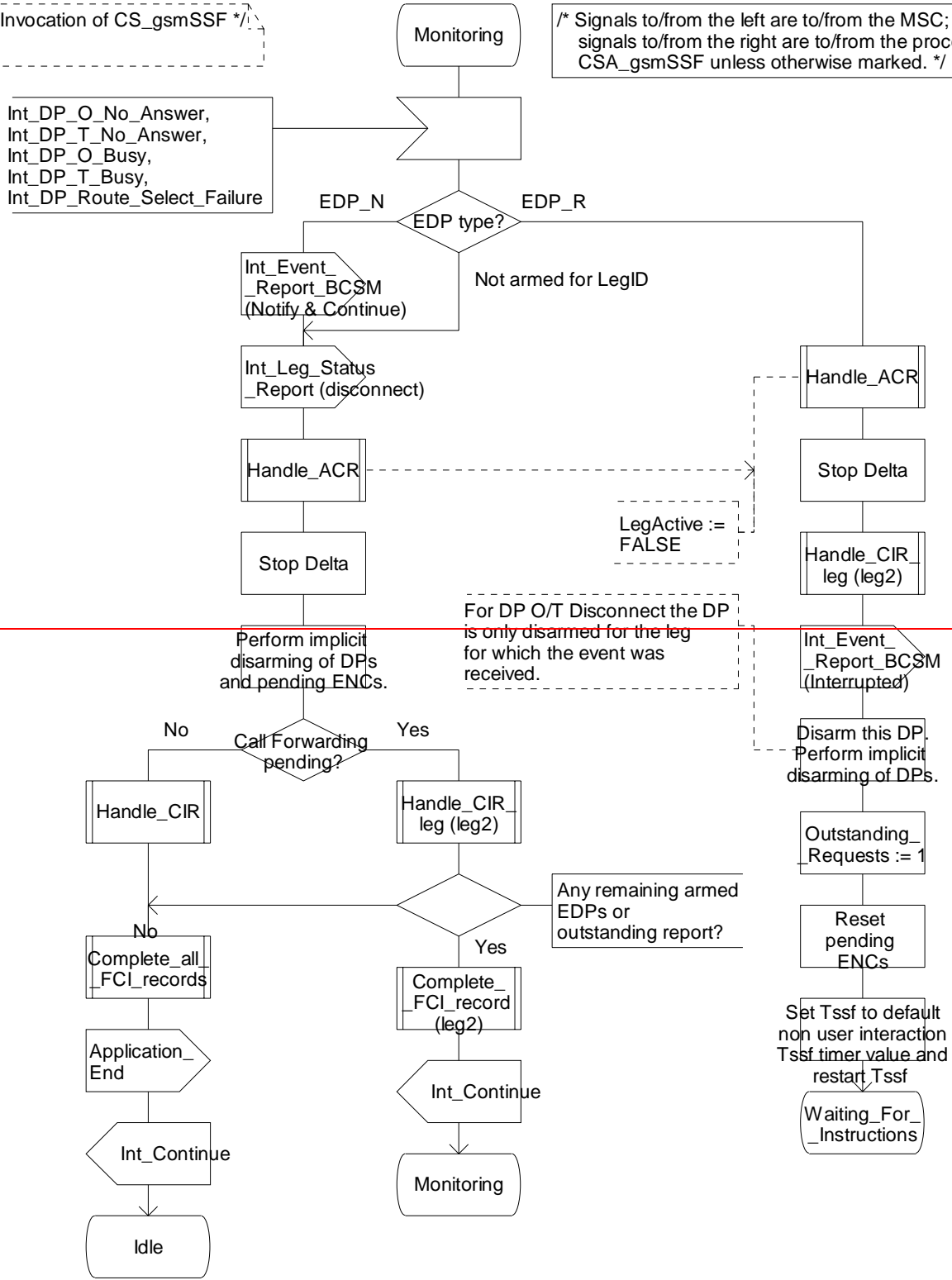


Figure 4.95-26: Process CS_gsmSSF (sheet 26)

Process CS_gsmSSF

26(57)

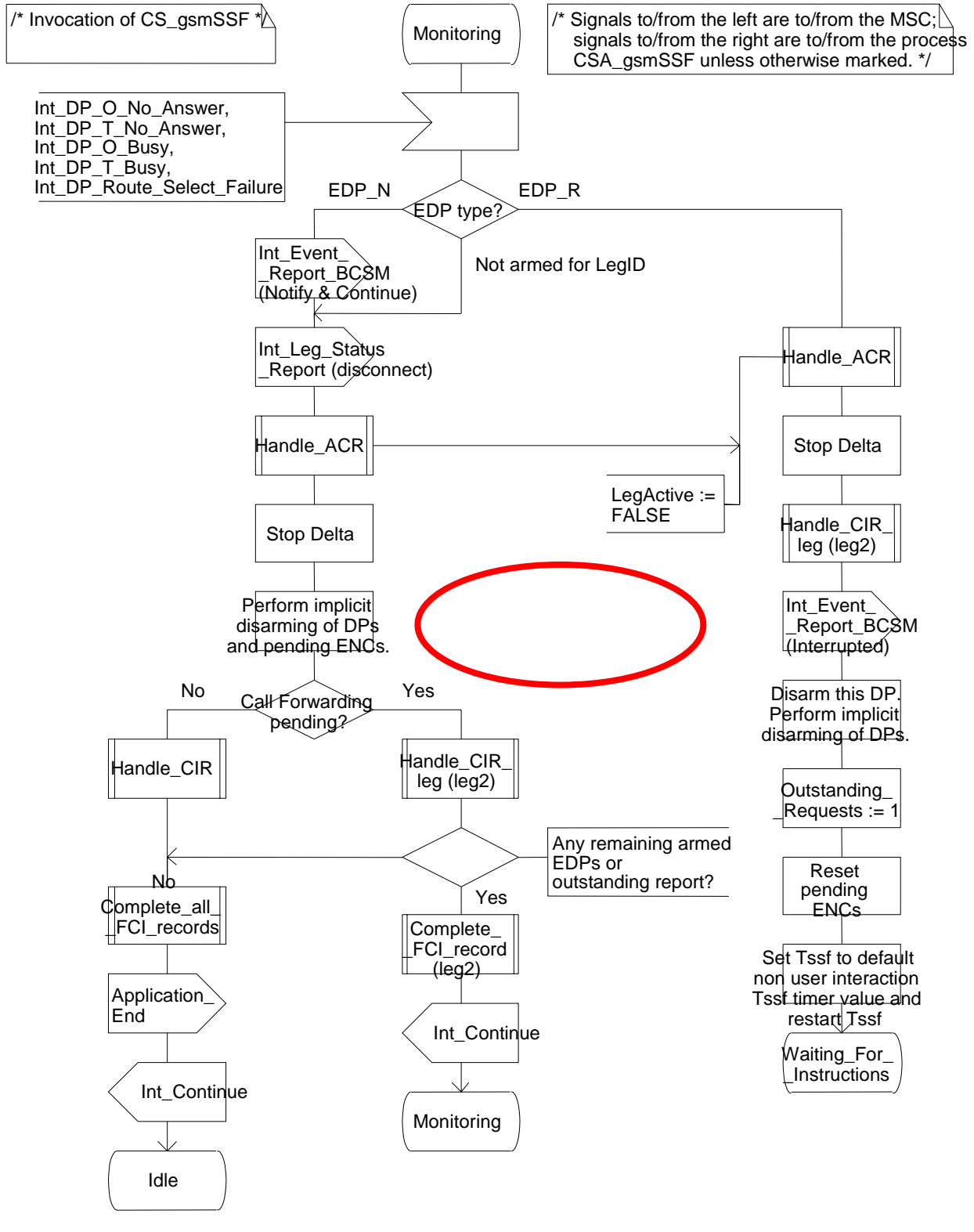


Figure 4.95-26: Process CS_gsmSSF (sheet 26)

*** End of Document ***

CHANGE REQUEST

⌘ **23.078** CR **520** ⌘ rev **1** ⌘ Current version: **5.2.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction to CTR Information Flow		
Source:	⌘ Ericsson		
Work item code:	⌘ CAMEL4	Date:	⌘ 11/02/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
			Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ The description of the Connect To Resource (CTR) information flow in TS 23.078 is not in alignment with the structure of the ConnectToResource Operation as specified in TS 29.078. This discrepancy has lead to confusion for designers and will continue to do so, if not corrected.
Summary of change:	⌘ Correct the information flow description of Connect To Resource.
Consequences if not approved:	⌘ Ambiguous specification; Service Logic designers may not know how to implement CTR in their services. System designers may have different implementations, resulting in compatibility problems.

Clauses affected:	⌘ 4.6.2.7										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	X	X	X	X	X	X	Other core specifications Test specifications O&M Specifications	⌘
Y	N										
X	X										
X	X										
X	X										
Other comments:	⌘ The "IP Routing Address" IE in the leftmost column of the CTR IF table should have been spelled "IP Routing Address". However, for the sake of alignment with the ASN.1 syntax, the incorrect spelling "Routing" is used.										

***** For Information – extract from TS 29.078 V5.2.0 *****

```

connectToResource {PARAMETERS-BOUND : bound} OPERATION ::= {
  ARGUMENT      ConnectToResourceArg {bound}
  RETURN RESULT FALSE
  ERRORS        {missingParameter |
                 systemFailure |
                 taskRefused |
                 unexpectedComponentSequence |
                 unexpectedDataValue |
                 unexpectedParameter |
                 unknownCSID}
  CODE          opcode-connectToResource}
-- Direction: gsmSCF -> gsmSSF, Timer: T_ctr
-- This operation is used to connect a call segment from the gsmSSF to the
-- gsmSRF.

ConnectToResourceArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {
  resourceAddress CHOICE {
    ipRoutingAddress [0] IPRoutingAddress {bound},
    none [3] NULL
  },
  extensions [4] Extensions {bound} OPTIONAL,
  serviceInteractionIndicatorsTwo [7] ServiceInteractionIndicatorsTwo OPTIONAL,
  callSegmentID [50] CallSegmentID {bound} OPTIONAL,
  ...
}

```

***** First Modified Section *****

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. The handling when this IE is not present is defined in ETSI EN 301 070-1 ([Error! Reference source not found.]).
IP Routing Address	O	This IE indicates the routing address to set up a connection towards the gsmSRF. If this IE is not present the call segment is connected to a predefined gsmSRF.
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 routing 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.

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

CR-Form-v7

CHANGE REQUEST

23.078 CR 491 # rev 2 # Current version: 5.2.0

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

Proposed change affects: UICC apps# ME Radio Access Network Core Network

Title:	# Handling of a Stand alone Call Segment in CS_gsmSSF		
Source:	# Vodafone		
Work item code:	# CAMEL4	Date:	# 11/02/2003
Category:	# F	Release:	# REL-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	# It is possible for the gsmSCF to "drop out" of the call handling when the CPH configuration is in a certain state (e.g. all parties answered and in CSID1). In this case, Process CSA_gsmSSF is no longer needed and can return to the Idle state. Process CS_gsmSSF also returns to the idle state, but has to ensure that when the penultimate party releases, the last party is also released. This functionality is not specified correctly in the SDLs.
Summary of change:	# <ul style="list-style-type: none"> Process CS_gsmSSF 4A(58): Handling of detection points leading to the release of a leg to ensure that the last leg is released. (This has implications to sheets 4, 5 and 6) Process CSA_gsmSSF 13(21): Addition of Cancel All and Continue sent to CSID1 if Abort is received from gsmSCF. This causes Process CS_gsmSSF to transit to the Idle (or Wait_For_Request) state. Process CSA_gsmSSF 19(21): On receipt of Abort or Application End from the CS_gsmSSF from the last call segment, CSA_gsmSSF sends Abort or Application End to the gsmSCF and transits to Idle.
Consequences if not approved:	# Incorrect handling if the gsmSCF drops out of the call handling. Potential for mis-interpretation about the status of the CAP dialogue.

Clauses affected:	# 4.5.7.4 and 4.5.7.6								
Other specs affected:	# <table style="display: inline-table; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">Y</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">N</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">#</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">#</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">#</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">X</td> </tr> </table> Other core specifications # Test specifications # O&M Specifications #	Y	N	#	X	#	X	#	X
Y	N								
#	X								
#	X								
#	X								
Other comments:	# Changes since the previous version:								

- CS_gsmSSF sheet 4A: Removal of Stop Tssf task box
- CS_gsmSSF sheet 4A: Removal of Complete_FCI_Record procedure call
- CSA_gsmSSF sheet 13: move of Int_Cancel signal to immediately after receipt of Abort.

***** First Modified Section *****

4.5.7.4 Process CS_gsmSSF and procedures

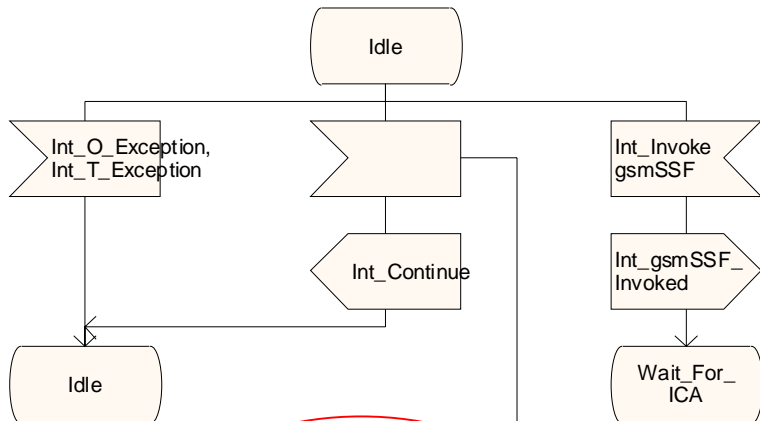
...

Process CS_gsmSSF

4(58)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */



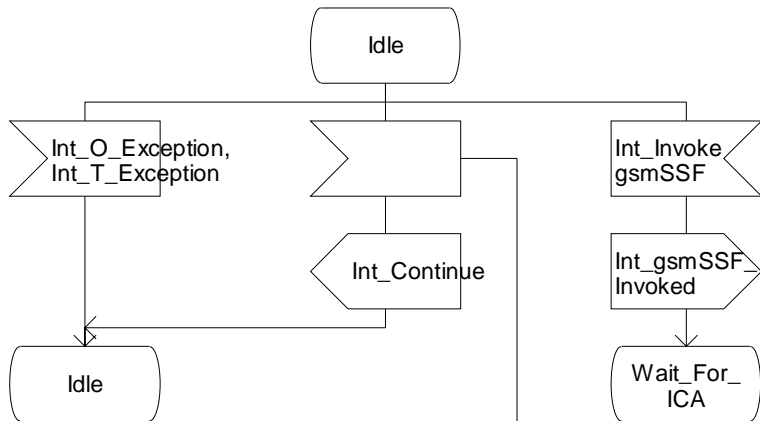
- Int_DP_O_Answer,
- Int_DP_T_Answer,
- Int_DP_Analysed_Info,
- Int_DP_O_Term_Seized,
- Int_DP_Call_Accepted,
- Int_DP_O_MidCall,
- Int_DP_T_MidCall,
- Int_DP_O_Change_Of_Position,
- Int_DP_T_Change_Of_Position

Process CS_gsmSSF

4(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */



- Int_DP_O_Answer,
- Int_DP_T_Answer,
- Int_DP_O_Abandon,
- Int_DP_T_Abandon,
- Int_DP_Route_Select_Failure,
- Int_DP_O_No_Answer,
- Int_DP_T_No_Answer,
- Int_DP_O_Busy,
- Int_DP_T_Busy,
- Int_DP_Analysed_Info,
- Int_DP_O_Term_Seized,
- Int_DP_Call_Accepted,
- Int_DP_O_MidCall,
- Int_DP_T_MidCall,
- Int_DP_O_Change_Of_Position,
- Int_DP_T_Change_Of_Position

Figure 4.95-4: Process CS_gsmSSF (sheet 4)

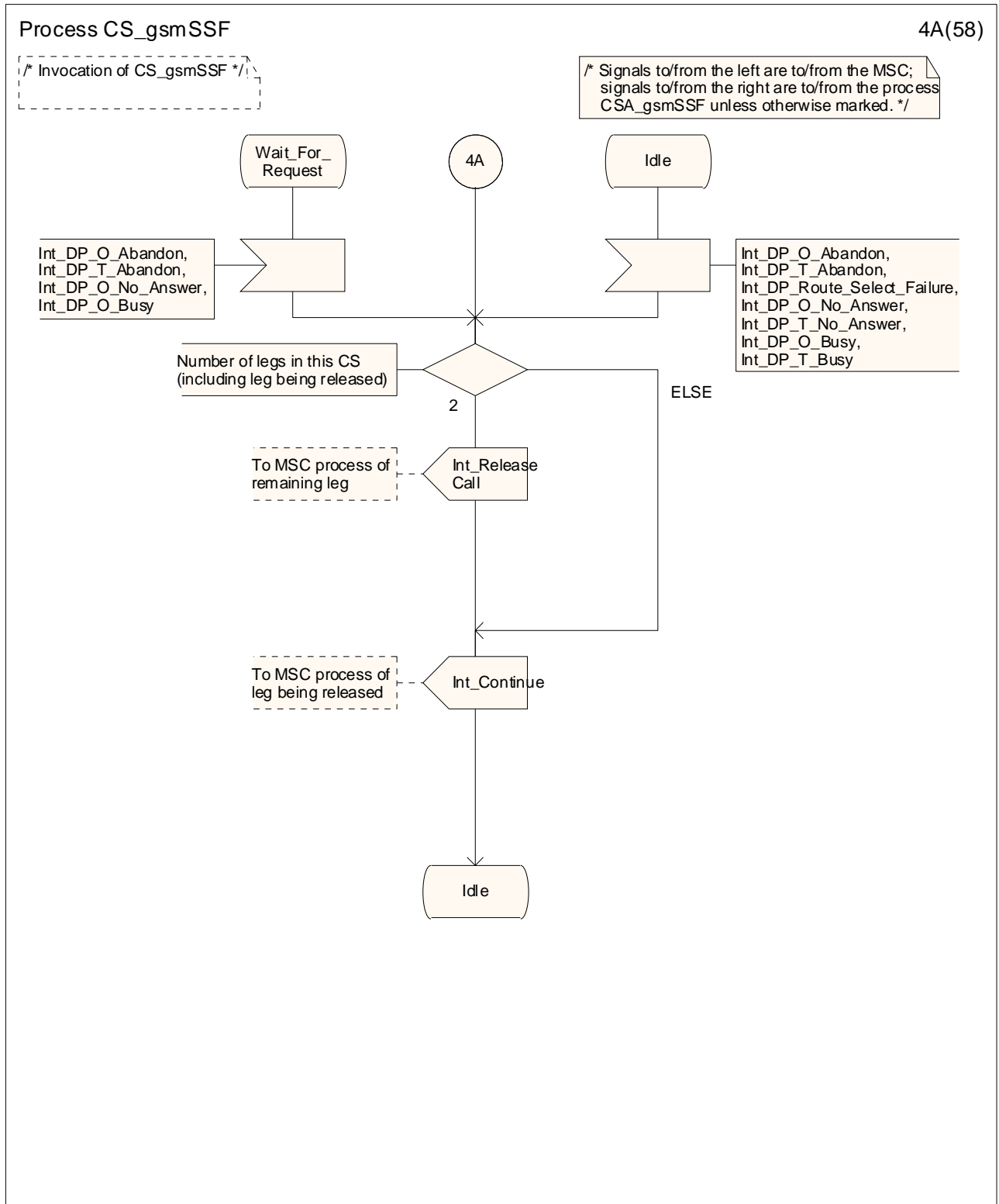


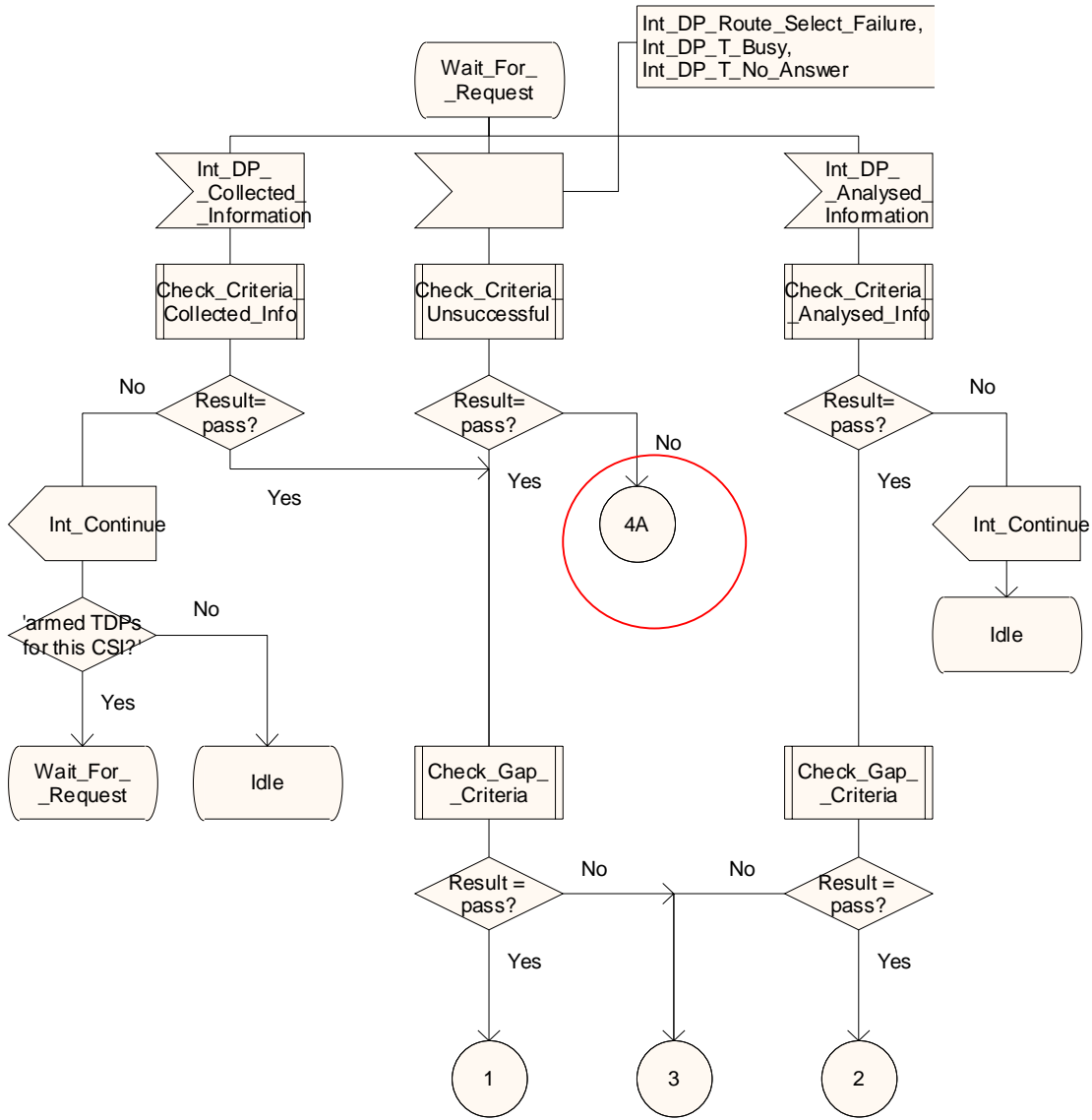
Figure 4.95-4A: Process CS_gsmSSF (sheet 4A)

Process CS_gsmSSF

5(58)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */



Process CS_gsmSSF

5(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

Int_DP_Route_Select_Failure,
Int_DP_T_Busy,
Int_DP_T_No_Answer

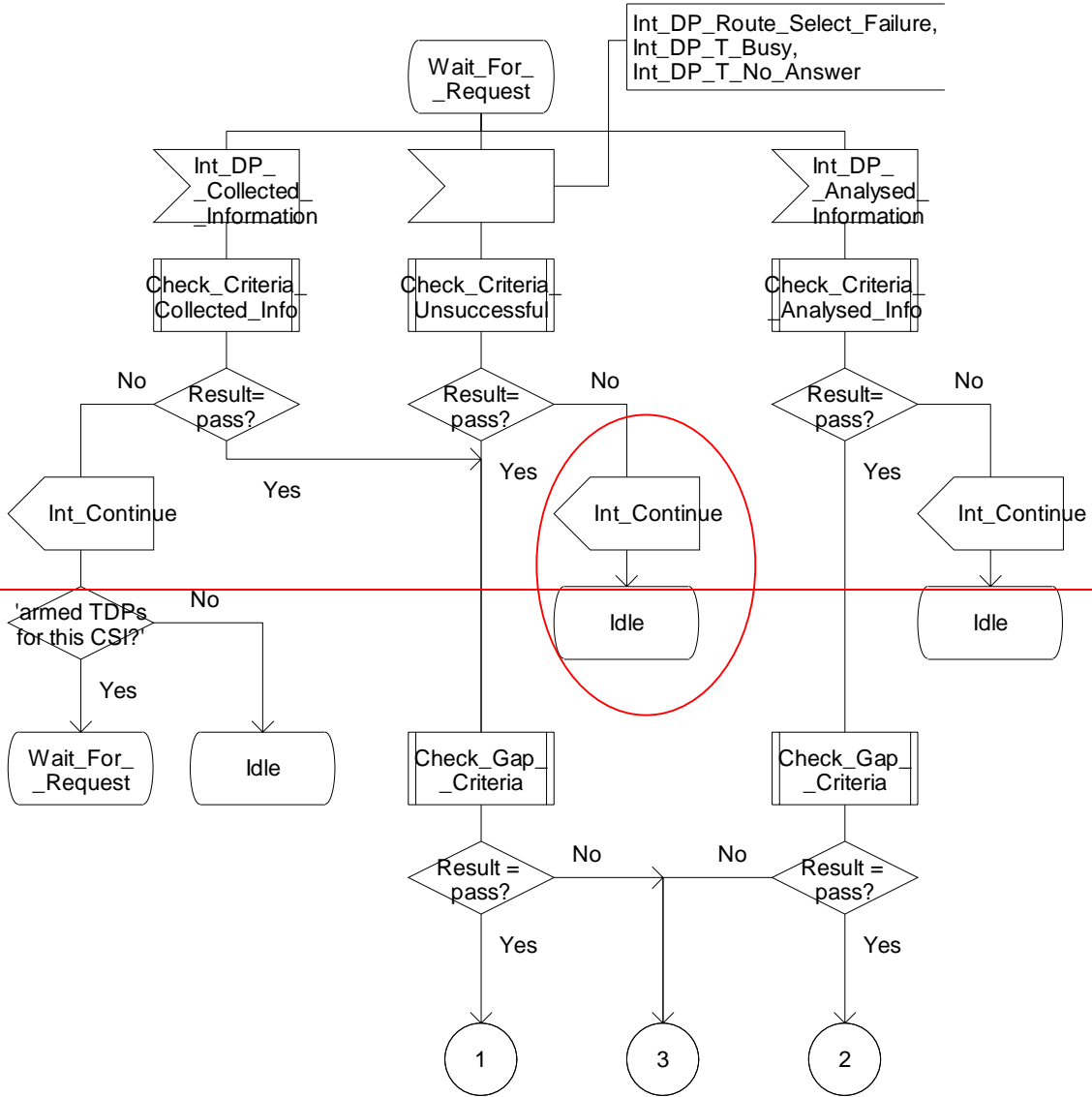


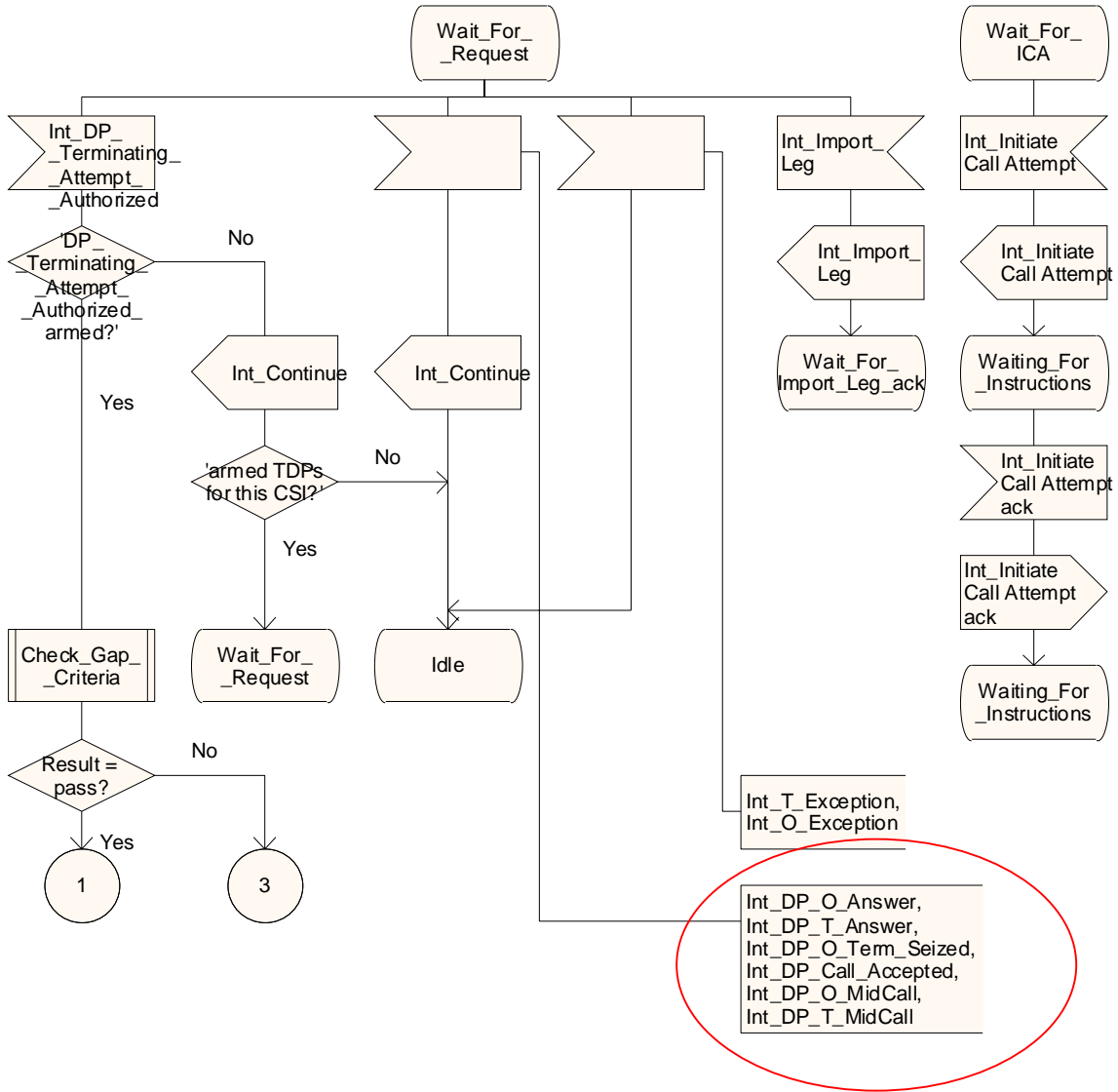
Figure 4.95-5: Process CS_gsmSSF (sheet 5)

Process CS_gsmSSF

6(58)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC;
signals to/from the right are to/from the process
CSA_gsmSSF unless otherwise marked. */



Process CS_gsmSSF

6(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

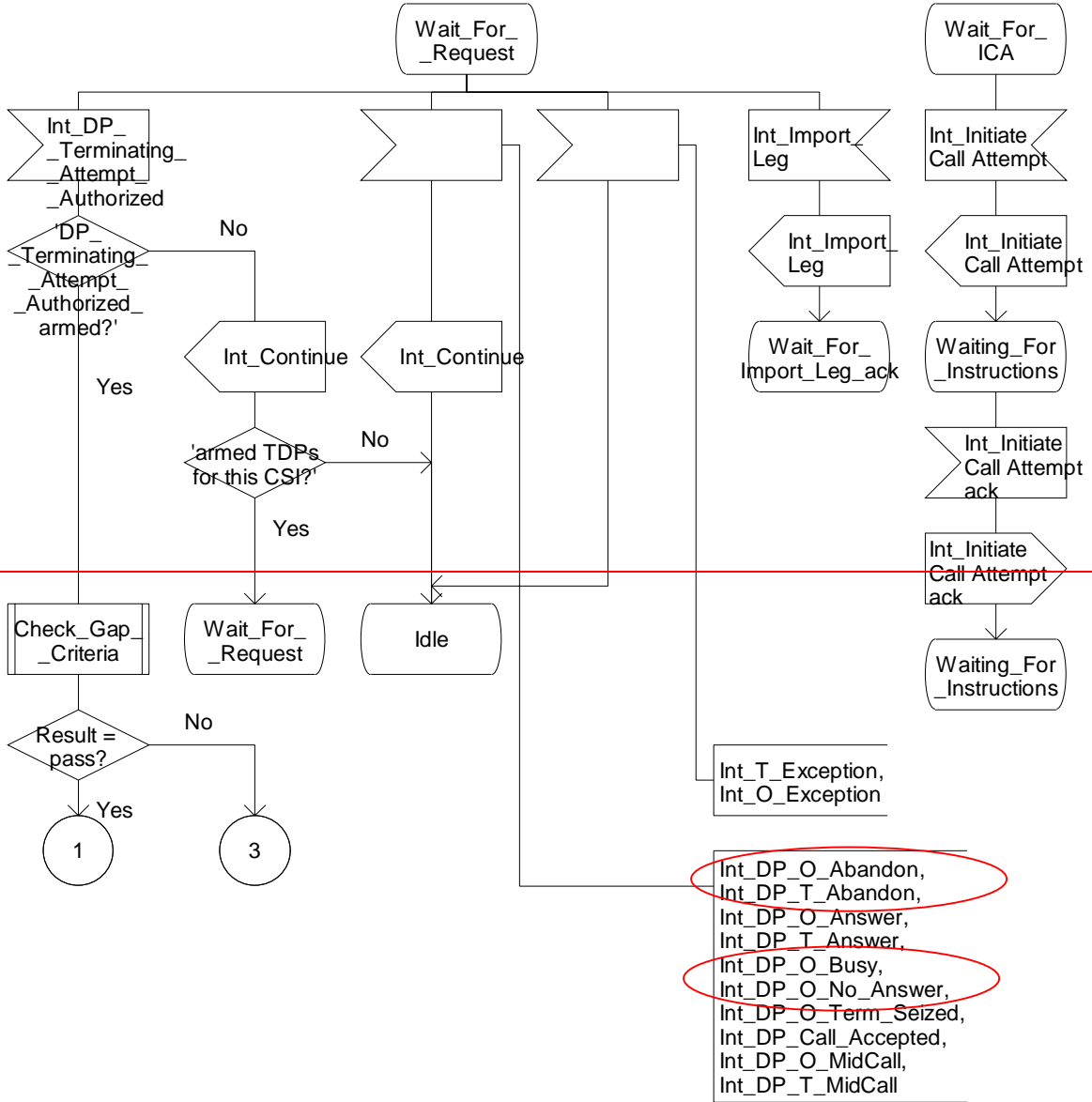


Figure 4.95-6: Process CS_gsmSSF (sheet 6)

...

Process CS_gsmSSF

13(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

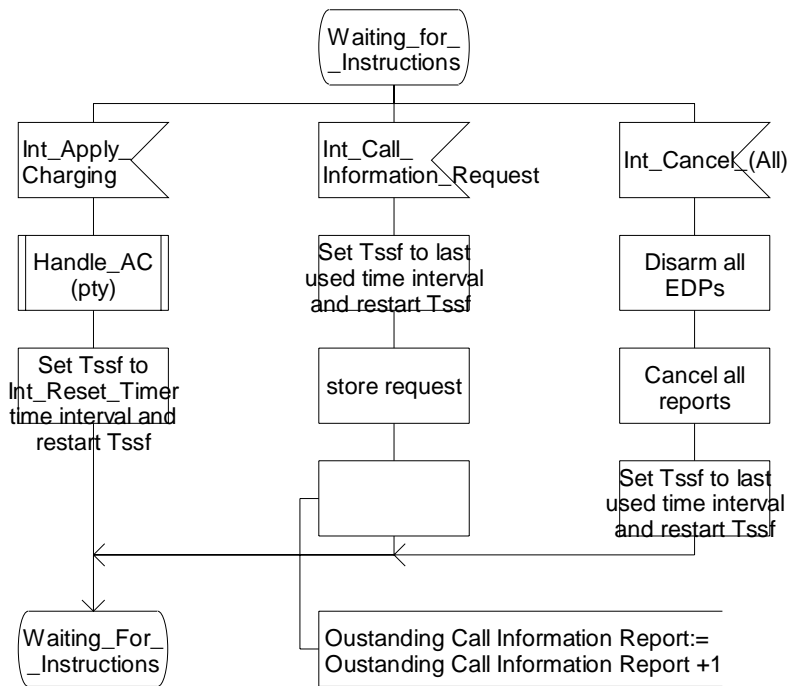


Figure 4.95-13: Process CS_gsmSSF (sheet 13)

...

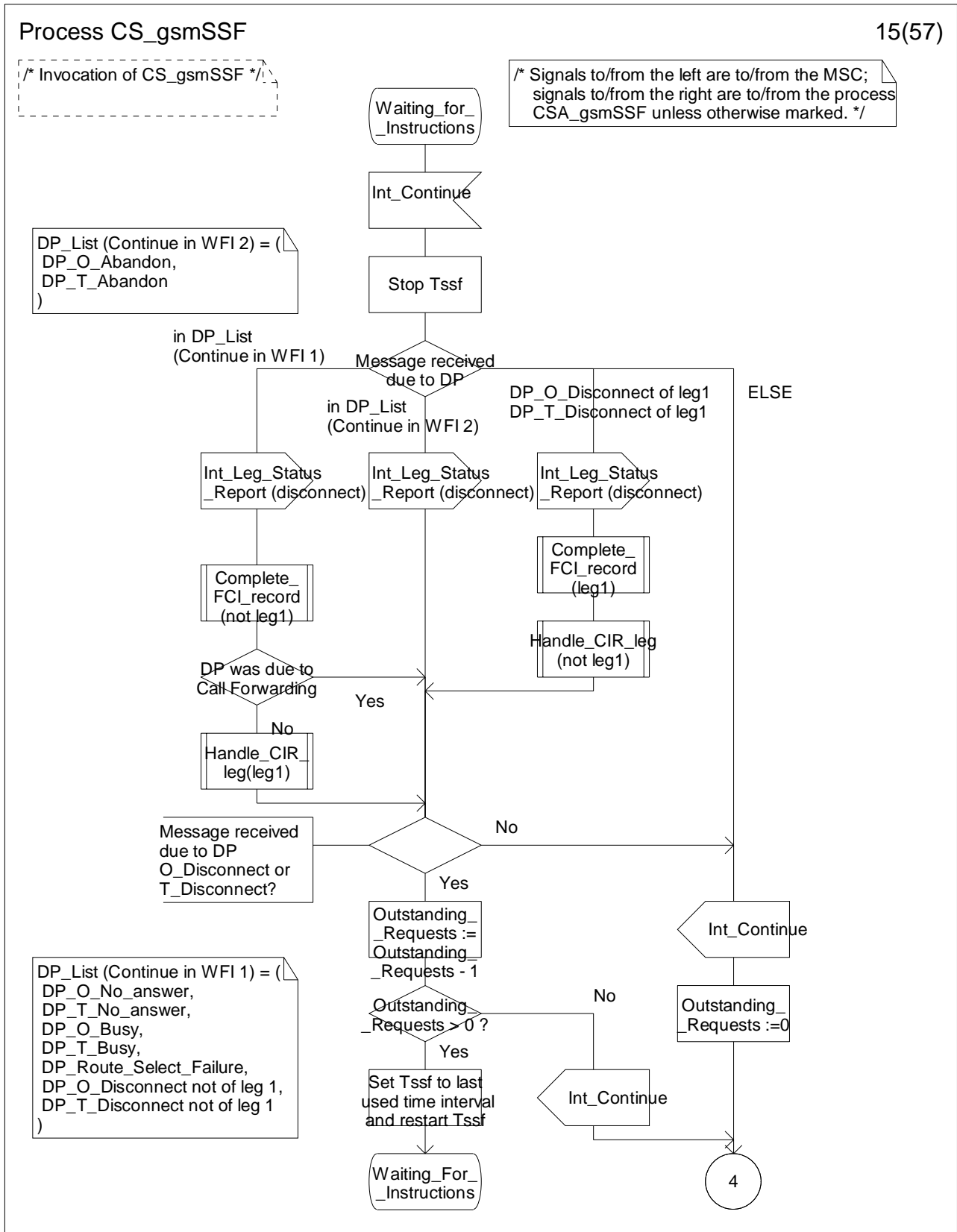


Figure 4.95-15: Process CS_gsmSSF (sheet 15)

...

Process CS_gsmSSF

17(57)

/* Invocation of CS_gsmSSF */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the process CSA_gsmSSF unless otherwise marked. */

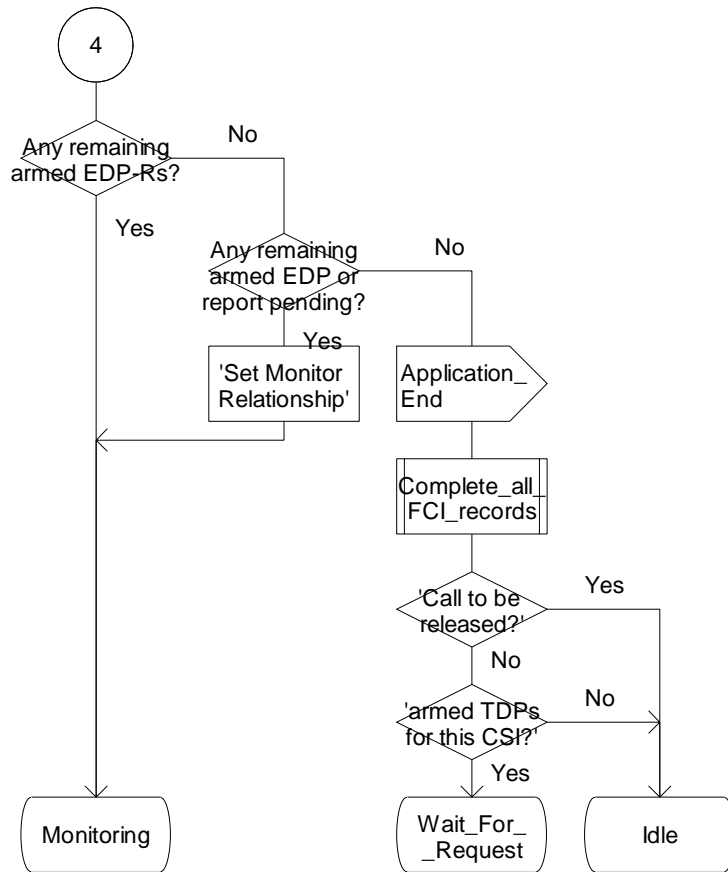


Figure 4.95-17: Process CS_gsmSSF (sheet 17)

...

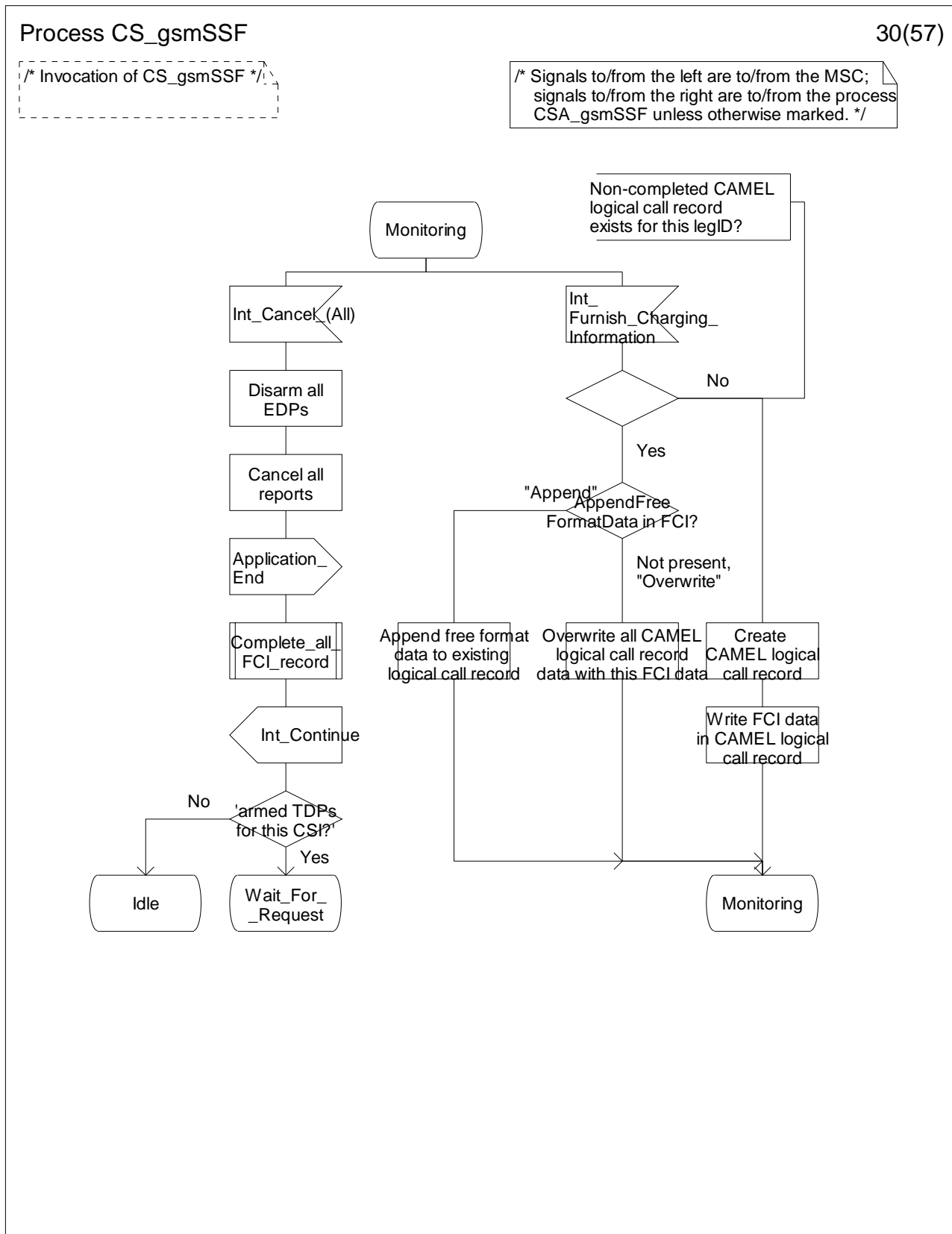


Figure 4.95-30: Process CS_gsmSSF (sheet 30)

...

***** Next Modified Section *****

4.5.7.6 Process CSA_gsmSSF and procedures

...

Process CSA_gsmSSF

1(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

/* TASK definition:
The Application_Begin signal opens a new relationship with the gsmSCF.
The Application_End or Abort signal terminates the relationship with the gsmSCF.
*/

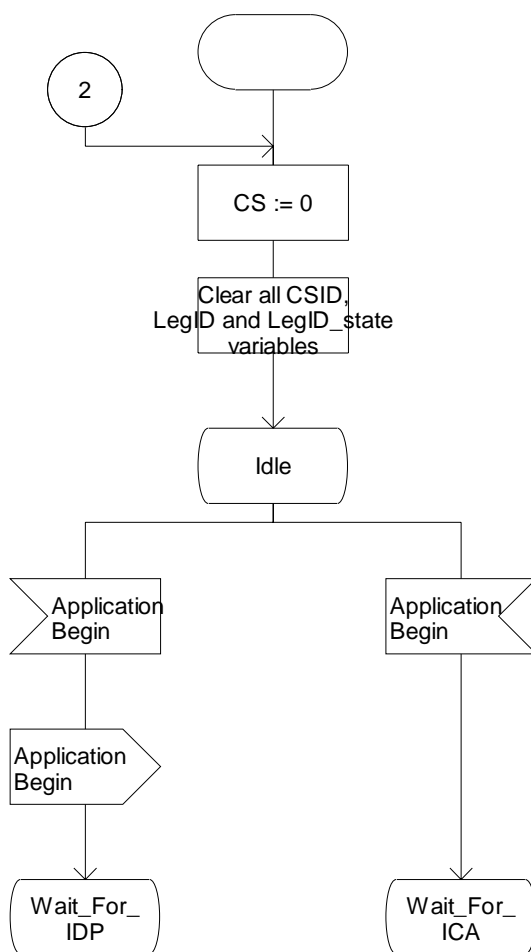


Figure 4.112-1: Process CSA_gsmSSF (sheet 1)

...

Process CSA_gsmSSF

4(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

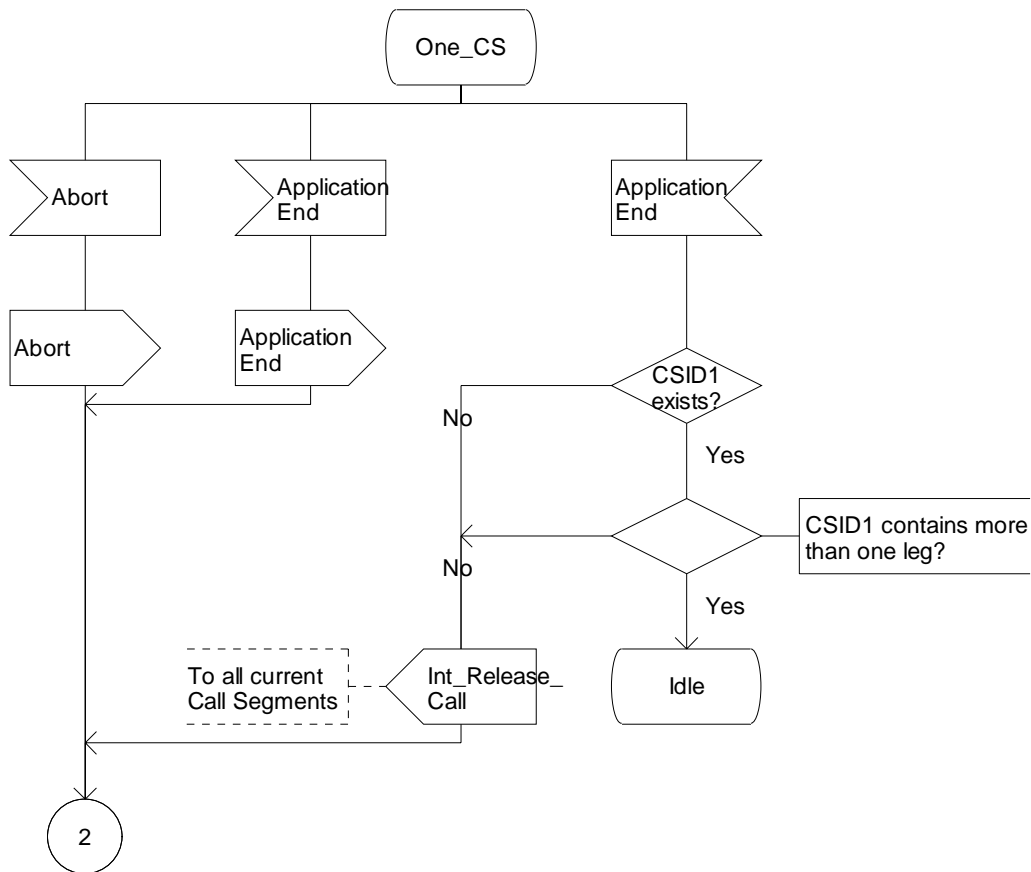


Figure 4.112-4: Process CSA_gsmSSF (sheet 4)

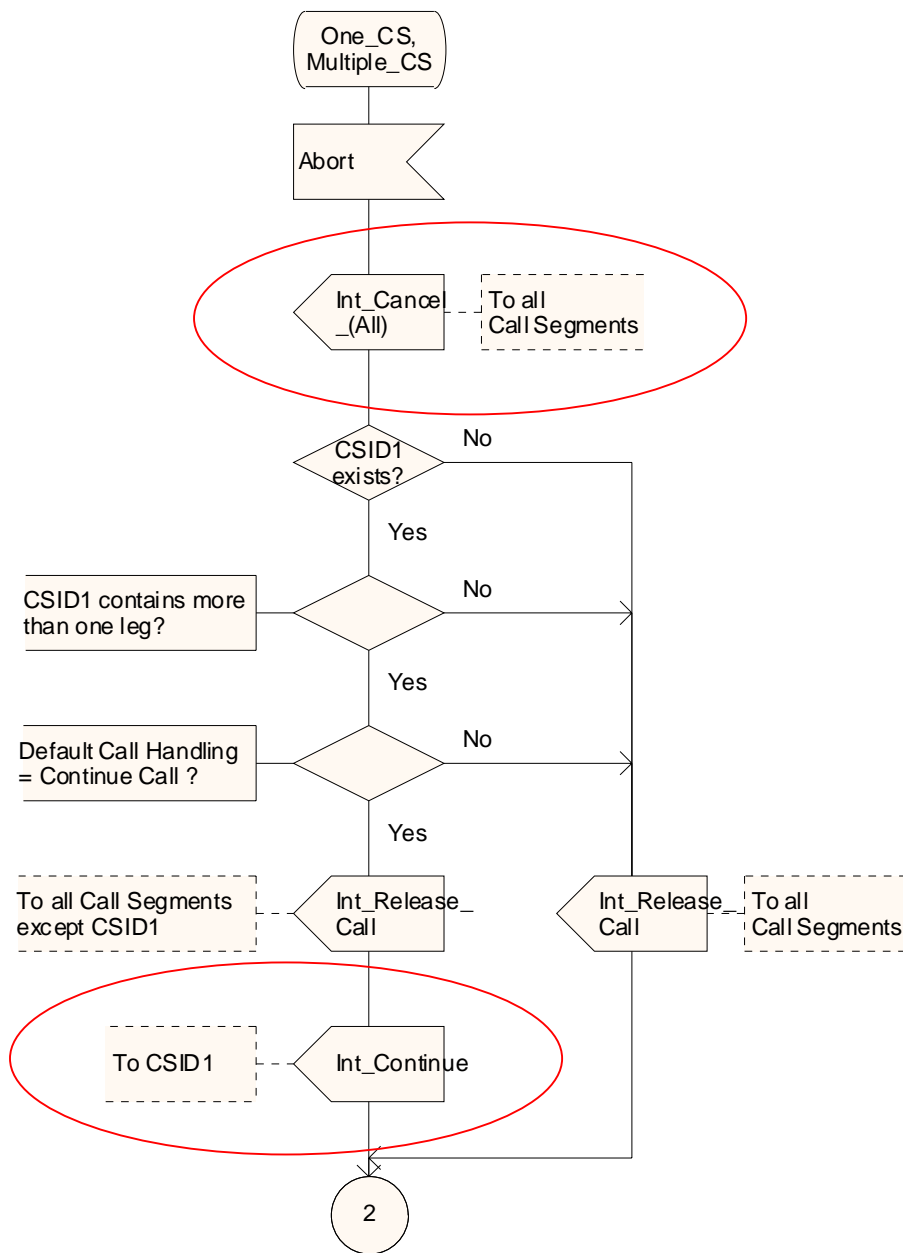
...

Process CSA_gsmSSF

13(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */



Process CSA_gsmSSF

13(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

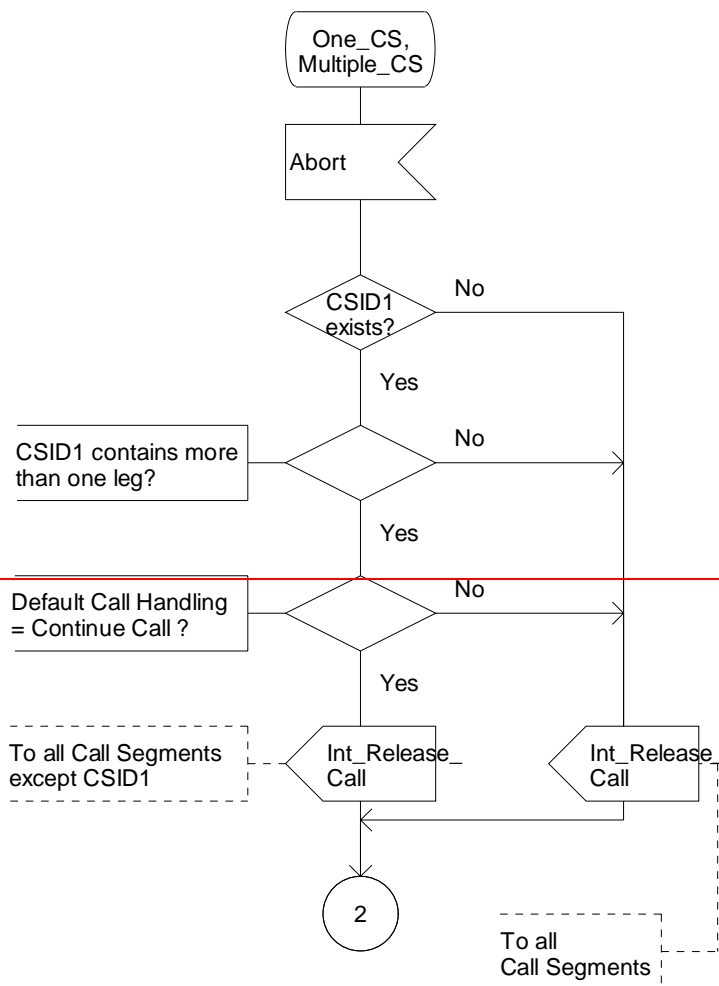


Figure 4.112-13: Process CSA_gsmSSF (sheet 13)

...

Process CSA_gsmSSF

19(21)

/* A process in the gsmSSF to co-ordinate the Call Segments for a call. */

/* Signals to/from the left are to/from one or more instances of the process CS_gsmSSF; signals to/from the right are to/from the gsmSCF. */

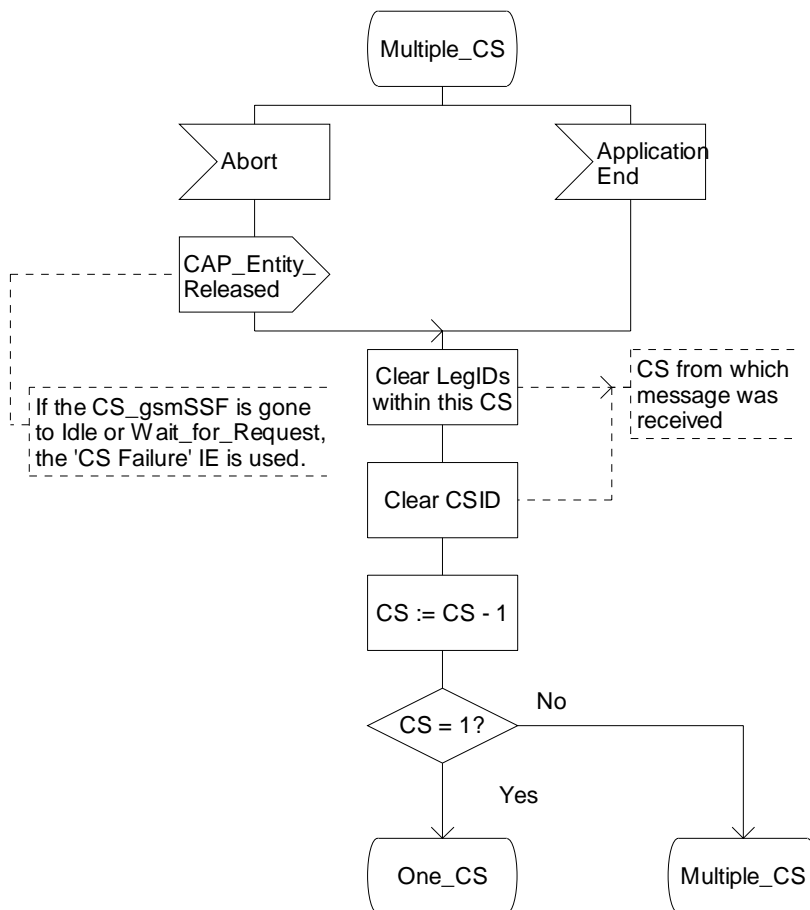


Figure 4.112-19: Process CSA_gsmSSF (sheet 19)

**** End of Document ****

CHANGE REQUEST

⌘ **23.078 CR 516** ⌘ rev **2** ⌘ Current version: **5.2.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction to CAMEL interaction with Line Identification		
Source:	⌘ Ericsson		
Work item code:	⌘ CAMEL4	Date:	⌘ 14/02/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
			Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ Section 4.7.1 in TS 23.078 restricts the interaction with CLIP to the Connect IF. However, interaction with CLIP is possible also through the Continue With Argument IF. Refer to the highlighted text in the “For Information” section of the present CR.
	The rules for the inclusion of the Calling Party Restriction Indicator in the Connect and the Continue With Argument IFs are defined in the respective IF tables and should not be replicated in section 4.7.1.
	Hence, the present CR proposes a simplification of the wording in section 4.7.1.
	The word “parameter” in section 4.7.1 is superfluous and shall be removed.
Summary of change:	⌘ (1) Rephrase section 4.7.1: remove the reference to “MO call” and the reference to “Connect IF”. (2) Remove the word “parameter” (2x).
Consequences if not approved:	⌘ Designers may implement the CAMEL interaction with CLIP incorrectly. For example, a gsmSSF may reject Continue With Argument with CLIP information.

Clauses affected:	⌘ 4.7.1										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table>	Y	N		X		X		X	Other core specifications	⌘
Y	N										
	X										
	X										
	X										
		Test specifications									
		O&M Specifications									

Other comments: ☒ The Connect and the Continue With Argument IFs are copied for information.

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

4.6.2.6 Connect

4.6.2.6.1 Description

This IF is used to request the gsmSSF to perform the call processing actions to route a call to a specific destination. To do so, the gsmSSF may use destination information from the calling party and existing call set-up information depending on the information provided by the gsmSCF.

4.6.2.6.2 Information Elements

Information element name	MO	MF	MT	VT	NC	NP	Description
Alerting Pattern	-	-	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).
Destination Routing Address	M	M	M	M	M	M	This IE contains the called party number towards which the call is to be routed. The NatureOfAddress indicator may contain a national-specific value. For some national-specific <i>NatureOfAddress indicator</i> values the length of the digit part of the destination address may be zero. The gsmSCF may use national-specific <i>NatureOfAddress indicator</i> values of the gsmSSF country.
Generic Number	O	O	O	O	O	O	This IE contains the generic number. Its 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.
O-CSI Applicable	-	-	O	O	-	-	This IE indicates that the O-CSI, if present shall be applied on the outgoing leg.
Original Called Party ID	O	O	O	O	O	O	This IE carries the dialled digits if the call has met call forwarding on route to the gsmSSF or is forwarded by the gsmSCF.
Leg To Be Connected	O	O	O	O	O	O	This IE indicates the existing leg to which the Connect IF applies.
Redirecting Party ID	O	O	O	O	O	O	This IE indicates the directory number the call was redirected from.
Redirection Information	O	O	O	O	O	O	This IE contains forwarding related information, such as redirecting counter.
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	O	O	See 3GPP TS 23.085 [Error! Reference source not found.] for details of this IE.
Outgoing Access Indicator	O	O	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	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.

Carrier contains the following information elements:

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

Service Interaction Indicators Two contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Forward Service Interaction Indicator	O	O	O	O	O	O	This IE is described in a table below.
Backward Service Interaction Indicator	O	O	O	O	-	-	This IE is described in a table below.
HOLD Treatment Indicator	O	-	-	O	-	-	This IE allows the gsmSCF to disallow the invocation of HOLD by the CAMEL subscriber.
CW Treatment Indicator	O	-	-	O	-	-	This IE allows the gsmSCF to disallow the invocation of CW for a call to the CAMEL subscriber whilst this call is ongoing.
ECT Treatment Indicator	O	-	-	O	-	-	This IE allows the gsmSCF to disallow the call leg to become part of an ECT call initiated by the CAMEL subscriber.
Connected number treatment indicator	O	O	O	O	-	-	This IE indicates the treatment of the connected number at the originating side.
Non-CUG Call	O	O	O	O	O	O	This IE indicates that no parameters for CUG should be used for the call (i.e. the call should be a non-CUG call). Shall be absent if one or more of CUG Interlock Code and Outgoing Access Indicator is present in the IF.

Forward Service Interaction Indicator contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Conference Treatment Indicator	O	O	O	O	O	-	This IE allows the gsmSCF to disallow the call leg to become part of a MPTY call initiated by the CAMEL subscriber.
Call Diversion Treatment Indicator	O	O	O	O	O	-	This IE allows the gsmSCF to disallow the Call Forwarding or Call Deflection supplementary services for this call.
Calling Party Restriction Indicator	O	-	-	-	O	-	This IE allows the gsmSCF to mark the CLI as Restricted for the call. NP only applicable within an MO or NC case.

Backward Service Interaction Indicator contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Conference Treatment Indicator	○	○	○	○	-	○	This IE allows the gsmSCF to disallow the call leg to become part of a MPTY call initiated by the calling subscriber.
Call Completion Treatment Indicator	○	○	○	○	-	○	This IE allows the gsmSCF to disallow a CCBS request to be made for the call. See also 3GPP TS 23.093 [Error! Reference source not found.] for description.

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

4.6.2.9 Continue With Argument

4.6.2.9.1 Description

This IF requests the gsmSSF to continue the call processing with modified information at the DP at which it previously suspended call processing to await gsmSCF instructions or to continue call processing after a Call Party Handling IF was received. The gsmSSF completes DP processing if necessary, and continues basic call processing (i.e., proceeds to the next point in call in the BCSM) with the modified call setup information as received from the gsmSCF.

The gsmSCF can send modified call information at DP Collected_Info and at DP Analysed_Info, as listed in the MO and MF columns in subclause 4.6.2.9.2.

The gsmSCF can send modified call information at DP Termination_Attempt_Authorised, as listed in the MT and VT columns in subclause 4.6.2.9.2.

The gsmSCF can send modified call information immediately after sending an Initiate Call Attempt IF, as listed in the NC and NP columns in subclause 4.6.2.9.2.

In all other cases, Continue With Argument shall contain only either the Leg ID or Call Segment ID IE.

4.6.2.9.2 Information Elements

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

Carrier contains the following information elements:

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

Service Interaction Indicators Two contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Forward Service Interaction Indicator	O	O	O	O	O	O	This IE is described in a table below.
Backward Service Interaction Indicator	O	O	O	O	-	-	This IE is described in a table below.
HOLD Treatment Indicator	O	-	-	O	-	-	This IE allows the gsmSCF to disallow the invocation of HOLD by the CAMEL subscriber.
CW Treatment Indicator	O	-	-	O	-	-	This IE allows the gsmSCF to disallow the invocation of CW for a call to the CAMEL subscriber whilst this call is ongoing.
ECT Treatment Indicator	O	-	-	O	-	-	This IE allows the gsmSCF to disallow the call leg to become part of an ECT call initiated by the CAMEL subscriber.
Connected Number Treatment Indicator	O	O	O	O	-	-	This IE indicates the treatment of the connected number at the originating side.

Information element name	MO	MF	MT	VT	NC	NP	Description
Non-CUG Call	○	○	-	-	-	○	This IE indicates that no parameters for CUG should be used for the call (i.e. the call should be a non-CUG call). This IE shall be absent if one or more of CUG Interlock Code and Outgoing Access Indicator are present in the IF.

Forward Service Interaction Indicator contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Conference Treatment Indicator	○	○	○	○	○	○	This IE indicates whether the call leg can become part of a MPTY call initiated by the called subscriber.
Call Diversion Treatment Indicator	○	○	○	○	○	○	This IE indicates whether the call can be forwarded using the Call Forwarding or Call Deflection supplementary services.
Calling Party Restriction Indicator	○	-	-	-	-	○	This IE indicates whether the CLI shall be marked as Restricted by CAMEL action for the call. For an NP case, this IE can only be included if the original call was an MO call.

Backward Service Interaction Indicator contains the following information elements:

Information element name	MO	MF	MT	VT	NC	NP	Description
Conference Treatment Indicator	○	○	○	○	-	-	This IE indicates if the call leg can become part of a MPTY call initiated by the calling subscriber.
Call Completion Treatment Indicator	○	○	○	○	-	-	This IE indicates whether a CCBS request can be made for the call. See also 3GPP TS 23.093 [Error! Reference source not found.] for description.

***** First Modified Section *****

4.7 Interaction with supplementary services

4.7.1 Line identification

For an ~~MO~~-call subject to CAMEL ~~interactions~~[control](#), the gsmSCF shall have the option to ~~include~~[send](#) the Calling Party Restriction Indicator ~~parameter in the Connect information flow~~ to the gsmSSF. This [information element](#) will be sent to the MSC and shall indicate whether the CLI Presentation Indicator present in the Calling Party Number ~~Parameter~~ shall be set by CAMEL action to Restricted.

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

CHANGE REQUEST

⌘ **23.078 CR 518** ⌘ rev **3** ⌘ Current version: **5.2.0** ⌘

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction to the ATI Information Flow table structure		
Source:	⌘ Ericsson		
Work item code:	⌘ CAMEL4	Date:	⌘ 14/02/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<i>F</i> (correction)		2 (GSM Phase 2)
	<i>A</i> (corresponds to a correction in an earlier release)	R96	(Release 1996)
	<i>B</i> (addition of feature),	R97	(Release 1997)
	<i>C</i> (functional modification of feature)	R98	(Release 1998)
	<i>D</i> (editorial modification)	R99	(Release 1999)
		Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	⌘ The structure of the ATI Request Information Flow (IF) table in section 11.3.3 is not aligned with the structure of the ATI Argument in TS 29.002. This is confusing for designers, who need to implement the MAP ATI Operation, but at the same time have to implement the semantic rules defined in TS 23.078. Hence, the present CR proposes that the structure of the ATI Request Information Flow table in TS 23.078 be aligned with the structure of the ATI Argument in TS 29.002.
Summary of change:	⌘ Align the structure of the ATI Request Information Flow table in section 11.3.3 with the structure of the ATI Argument in TS 29.002.
Consequences if not approved:	⌘ Ambiguity for designers; it is unclear, when reading the ATI IF table in TS 23.078, what the structure of ATI request argument in TS 29.002 is.

Clauses affected:	⌘ 11.3.3										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table>	Y	N		X		X		X	Other core specifications	⌘
Y	N										
	X										
	X										
	X										
		Test specifications									
		O&M Specifications									
Other comments:	⌘ Tdoc N2-030140 (=N4-030208), submitted to CN4#18, proposes that the parameter "requestedDomain" in "RequestedInfo" shall have an ASN.1 syntactical DEFAULT value, set to "cs-Domain". Rationale of that proposal is that a Rel-4 (or earlier) gsmSCF may send MAP ATI to a Rel-5 (or later) HLR. The Rel-4 (or earlier) gsmSCF will not include the requestedDomain in RequestedInfo. The Rel-5 (or later) HLR will then use the										

ASN.1 DEFAULT value for the requestedDomain.

The present CR relies on the existence of this ASN.1 DEFAULT. Hence, TS 23.078 does not have to specify exception behaviour for the case that requestedDomain is not received in MAP ATI request.

The extract from TS 29.002 in the “For Information” section of the present CR, does not yet reflect this proposed DEFAULT definition.

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

< extract from TS 29.002 V5.4.0 >

```
AnyTimeInterrogationArg ::= SEQUENCE {
  subscriberIdentity          [0] SubscriberIdentity,
  requestedInfo               [1] RequestedInfo,
  gsmSCF-Address              [3] ISDN-AddressString,
  extensionContainer          [2] ExtensionContainer          OPTIONAL,
  ...}
```

```
SubscriberIdentity ::= CHOICE {
  imsi                       [0] IMSI,
  msisdn                      [1] ISDN-AddressString
}
```

```
RequestedInfo ::= SEQUENCE {
  locationInformation          [0] NULL                      OPTIONAL,
  subscriberState              [1] NULL                      OPTIONAL,
  extensionContainer           [2] ExtensionContainer         OPTIONAL,
  ...,
  currentLocation              [3] NULL                      OPTIONAL,
  requestedDomain              [4] DomainType                OPTIONAL,
  imei                         [6] NULL                      OPTIONAL,
  ms-classmark                 [5] NULL                      OPTIONAL}
-- currentLocation shall be absent if locationInformation is absent
```

```
DomainType ::= ENUMERATED {
  cs-Domain                    (0),
  ps-Domain                    (1),
  ...}
-- exception handling:
-- reception of values > 1 shall be mapped to 'cs-Domain'
```

***** First Modified Section *****

11.3.3 gsmSCF to HLR information flows

11.3.3.1 Any Time Interrogation Request

11.3.3.1.1 Description

This IF is used to request information (any one or more of subscriber state, subscriber location, IMEI (with software version) and MS classmark information for the requested domain) from the HLR at any time.

11.3.3.1.2 Information Elements

Information element name	Status	Description
Subscriber Identity	M	This IE identifies the subscriber for which the information is requested. The identity shall be either: - IMSI ; or - MSISDN .
Requested Info	M	This IE indicates the type of subscriber information being requested. This IE is described in a table below.
gsmSCF Address	M	This IE indicates the address of the interrogating gsmSCF.
Requested Info	M	This IE indicates the type of subscriber information being requested: — Location Information; — Subscriber State; — Current Location; — IMEI (with software version); — MS classmark information for the requested domain. Current Location shall not be present if Location Information is not present in Requested Info.
Subscriber Identity	M	This IE identifies the subscriber for which the information is requested. The identity shall be either: — IMSI; or — MSISDN.
Requested Domain	M	This IE indicates for which domain the subscriber info is requested: — circuit switched domain; — packet switched domain.

[Requested Info](#) contains the following information elements:

Information element name	Status	Description
Location Information	O	This IE indicates that the Location Information is requested.
Subscriber State	O	This IE indicates that the Subscriber State is requested.
Current Location	O.S	This IE indicates that the Current Location is requested. This IE shall not be present if Location Information is not present in Requested Info.
Requested Domain	M	This IE indicates for which domain the subscriber info is requested. It shall be one of the following: - circuit switched domain ; - packet switched domain .
IMEI (with software version)	O	This IE indicates that the IMEI (with software version) is requested.
MS classmark information for the requested domain	O	This IE indicates that the MS classmark information for the indicated domain is requested.

[Requested Info](#) shall contain one or more of the following information elements:

- [Location Information](#);
- [Subscriber State](#);
- [IMEI \(with software version\)](#);
- [MS classmark information for the requested domain](#).

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