

Source: CN2
Title: CRs on Rel-5 Work Item IMS-CAMEL, CR Pack 1
Agenda item: 8.3
Document for: APPROVAL

Introduction:

This document contains 6 CRs on Rel-5 WI IMS-CAMEL. 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
29.278	004		N2-030037	Rel-5	ASN.1 syntax basic corrections for IMS CAMEL	F	5.1.0
23.278	027	1	N2-030150	Rel-5	Implementing of Connect to Resource handling in CAMEL for IMS	F	5.1.0
23.278	028	1	N2-030124	Rel5	Introduction of ResetTimer input in state WFI-DS (IMS)	F	5.1.0
23.278	029		N2-030079	Rel-5	Correction of imcnSSF procedure names	F	5.1.0
23.278	030		N2-030080	Rel-5	Incorrect procedure names used for CAMEL_MT_CTR and CAMEL_MO_CTR	F	5.1.0
23.278	031		N2-030081	Rel-5	Incorrect procedures called in CAMEL_IMCN_MT_ANSWER	F	5.1.0

CHANGE REQUEST

⌘ **29.278 CR 004** ⌘ rev ⌘ Current version: **5.1.0** ⌘

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

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

Title:	⌘ ASN.1 syntax basic corrections for IMS CAMEL		
Source:	⌘ Alcatel		
Work item code:	⌘ IMS-CAMEL	Date:	⌘ 13/01//2003
Category:	⌘ F	Release:	⌘ Rel-5
	<i>Use one of the following categories:</i> 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 .		<i>Use one of the following releases:</i> 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:	⌘ Syntactic and basic corrections of the 29.278 ASN.1 modules. Detailed corrections on 29.278 modules and notes: - Correct syntax for a SEQUENCE OF type and correct syntax for a constrained type. - Correct spelling including lower-case / upper-case is mandatory for ASN.1 specifications; e.g. use "OF" instead of "of". - use of parameterized types must have parameters; e.g. "MediaTypeInfoList {imsBound}" needs to have "{imsBound}". - IMPORT of used items is necessary. The missing import of 'ValueFromObject' causes very strange ASN.1 compiler error messages. The IMPORT of "ims-CAPSpecificBoundSet" is missing.		
Summary of change:	⌘ Correction of all above indicated errors.		
Consequences if not approved:	⌘ The ASN.1 is wrong. Syntax errors and spelling errors in the ASN.1 which the implementers must fix manually.		

Clauses affected:	⌘ 5.1, 6.1.1, 6.1.2.1						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">Y</td> <td style="text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> Test specifications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	⌘			
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> O&M Specifications	<input checked="" type="checkbox"/>	<input type="checkbox"/>	⌘			
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Other comments:	⌘ Please note that 29.278 v5.1.0 is using the ASN.1 of 29.078 v3.14.0 as well.						

— First modified section —

5.1 Data types

```
CAP-IMS-datatypes {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0) umts-network(1)
modules(3) cap-IMS-datatypes(62) version1(0)}
-- This module contains the data type definitions used for CAMEL/IMS interworking.
```

```
DEFINITIONS IMPLICIT TAGS ::= BEGIN
```

```
...
```

```
MediaTypeInfoList {IMS-PARAMETERS-BOUND : imsBound} ::= SEQUENCE SIZE (1..5) OF MediaTypeInfo
{imsBound} (SIZE(1..5))
```

```
...
```

```
END
```

— Next modified section —

6.1.1 Operations and arguments

```
CAP-IMSSF-gsmSCF-ops-args {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-network(1) modules(3) cap-IMSSF-gsmSCF-ops-args(111) version1(0)}
```

```
DEFINITIONS IMPLICIT TAGS ::= BEGIN
```

```
...
```

```
InitialDPArgExtension {IMS-PARAMETERS-BOUND : imsBound} ::= SEQUENCE {
  gsmcAddress [0] ISDN-AddressString OPTIONAL,
  mediaTypeInfoList [1] MediaTypeInfoList {imsBound} OPTIONAL,
  sipCallId [2] SIPCallId {imsBound} OPTIONAL,
  calledPartyURL [3] CldClgPartyURL {imsBound} OPTIONAL,
  callingPartyURL [4] CldClgPartyURL {imsBound} OPTIONAL,
  originalCalledPartyURL [5] CldClgPartyURL {imsBound} OPTIONAL,
  redirectingPartyURL [6] CldClgPartyURL {imsBound} OPTIONAL,
  ...
}
```

```
...
```

```
END
```

— Next modified section —

6.1.2.1 IM-SSF/gsmSCF ASN.1 module

```
CAP-IMSSF-gsmSCF-pkgs-contracts-acs {itu-t(0) identified-organization(4) etsi(0) mobileDomain(0)
umts-network(1) modules(3) cap-IMSSF-gsmSCF-pkgs-contracts-acs(112) version1(0)}
```

```
DEFINITIONS ::= BEGIN
```

```
-- This module specifies the Operation Packages, Contracts, Application Contexts
-- and Abstract Syntaxes used for the IM-SSF - gsmSCF interface used for the control of
-- IP Multimedia call sessions.
```

```
-- Table 2.1.1 lists the specifications that contain the modules used by CAP.
```

```
IMPORTS
```

```
PARAMETERS-BOUND,
cAPSpecificBoundSet
FROM CAP-classes classes
```

```
IMS-PARAMETERS-BOUND,
ims-CAPSpecificBoundSet
FROM CAP-IMS-classes IMSclasses
```

```
...
```

```
END
```

— End of CR —

CR-Form-v7

CHANGE REQUEST

23.278 CR 029 # rev - # Current version: 5.1.0

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

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

Title:	# Correction of imcnSSF procedure names		
Source:	# Lucent Technologies		
Work item code:	# IMS-CAMEL	Date:	# 21/01/2003
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:	# Initially the thought was that new imcnSSF procedures would be needed to be defined for CAMEL/IMS interworking. But because the procedures used for handling of gsmSSF in the CS CN can also be used for imcnSSF, the same procedures defined for the Circuit Switched were used for the IMS. The current SDL process for imcnSSF already uses the procedures defined in 23.078. However, the list in subclass 4.6.1.5 was not changed.
Summary of change:	# Change the imcnSSF procedure names listed in 4.6.1.5 to the correct procedures names. Also indicate a reference to 3GPP TS 23.078 Rel-99 for the definitions of these procedures.
Consequences if not approved:	# Name of procedures listed in subclass 4.6.1.5 is not consistent with the names used in the actual SDL procedures.

Clauses affected:	# 4.6.1.5						
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> </table>	Y	N	#	X	Other core specifications	#
Y	N						
#	X						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table>	#	X	Test specifications	#		
#	X						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="text-align: center;">#</td> <td style="text-align: center;">X</td> </tr> </table>	#	X	O&M Specifications	#		
#	X						
Other comments:	#						

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

4.6.1.5 Handling of call in the imcnSSF

Handling of mobile calls in the imcnSSF may involve the following process and procedures:

- [Process imcnSSF](#);

Note that the following procedures are specified in 3GPP TS 23.078 Rel-99 [4]. For these procedures, the imcnSSF shall take the role of the gsmSSF.

- [Procedure imenCheck_Criteria](#);
- [Procedure imenConnect_To_Resource](#);
- [Procedure imenHandle_AC](#);
- [Procedure imenHandle_ACR](#);
- [Procedure imenHandle_CIR](#);
- [Procedure imenHandle_CIR_leg](#);
- [Procedure imenComplete_FCI_record](#);
- [Procedure imenComplete_all_FCI_records](#);
- [Procedure imenHandle_O_AcceptCallAnswer](#);
- [Procedure ~~imen~~Handle_T_AcceptCallAnswer](#).

The detailed error handling for the process imcnSSF and the associated procedures is specified in 3GPP TS 29.278 [Error! Reference source not found.].

3GPP TSG-CN WG2 Meeting #28
 Dublin, Ireland, 10th - 14th February 2003.

Tdoc #N2-030080

CR-Form-v7
CHANGE REQUEST
⌘ 23.278 CR 030 ⌘ rev - ⌘ Current version: 5.1.0 ⌘

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

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

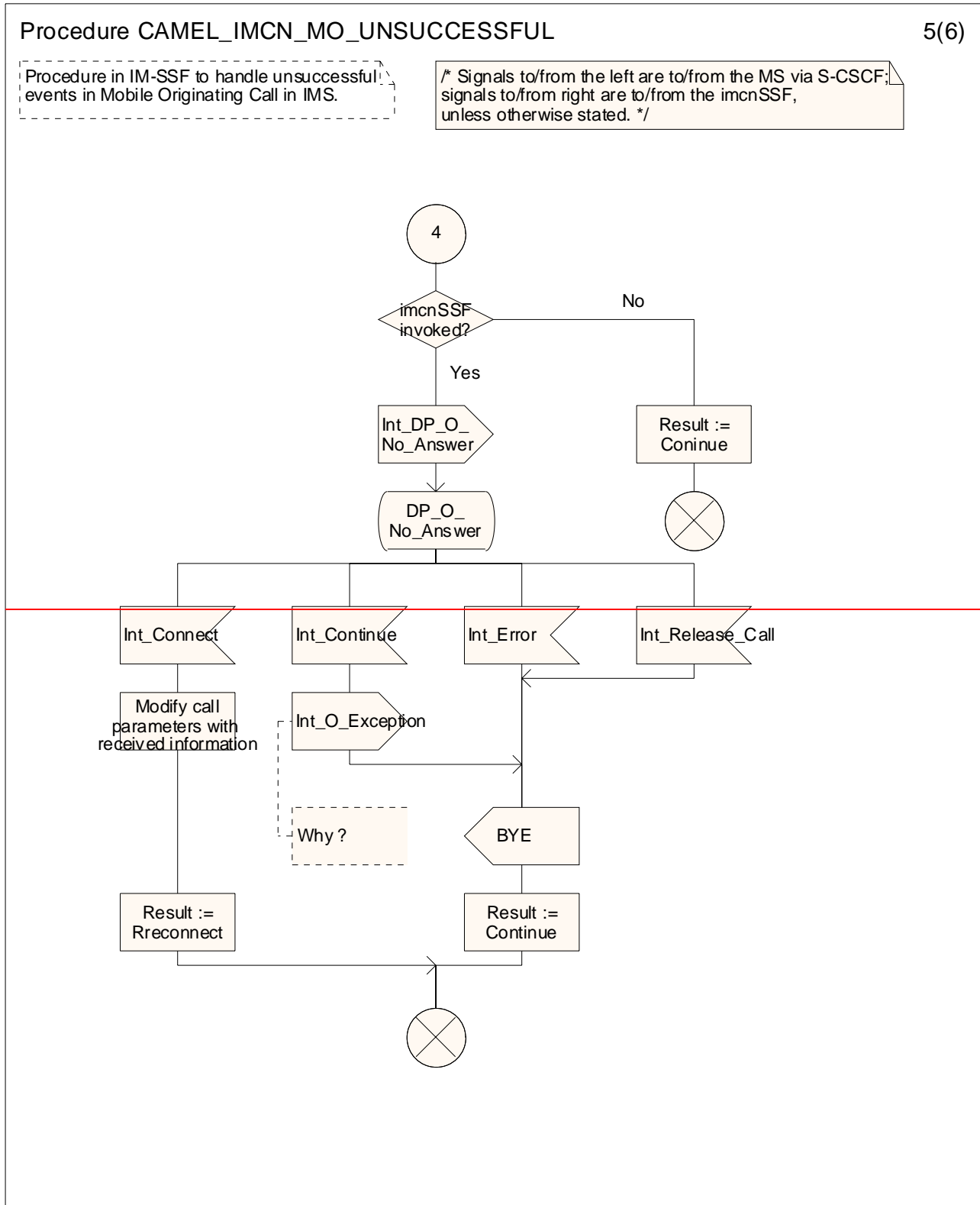
Title:	⌘ Incorrect procedure names used for CAMEL_MT_CTR and CAMEL_MO_CTR
Source:	⌘ Lucent Technologies
Work item code:	⌘ IMS-CAMEL Date: ⌘ 21/01/2003
Category:	⌘ F Release: ⌘ Rel-5 Use <u>one</u> of the following categories: Use <u>one</u> of the following releases: F (correction) 2 (GSM Phase 2) A (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 Rel-4 (Release 4) be found in 3GPP TR 21.900 . Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ The procedure names for handling of ConnectToResource operations are CAMEL_MT_CTR and CAMEL_MO_CTR. However, these procedures were incorrectly referenced in some of the SDLs as "CAMEL_IMCN_MT_CTR" and "CAMEL_IMCN_MO_CTR" respectively.
Summary of change:	⌘ <ol style="list-style-type: none"> 1) In Procedure CAMEL_IMCN_MO_UNSUCCESSFUL, sheet 6, change CAMEL_IMCN_MO_CTR -> CAMEL_OCH_CTR 2) In Procedure CAMEL_IMCN_MT_UNSUCCESSFUL, sheet 5, change CAMEL_IMCN_MT_CTR -> CAMEL_MT_CTR 3) Additionally, the spelling in the task "Result := Rreconnect" in CAMEL_IMCN_MO_UNSUCCESSFUL, sheet 5, needs to be corrected.
Consequences if not approved:	⌘ SDL Procedures references non-existing procedures.

Clauses affected:	⌘ 4.6.1.3 (Figures 4.18-5 & 4.18-6) and 4.6.1.4 (Figure 4.28-2)					
Other specs affected:	<table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘ Other core specifications ⌘ ⌘ Test specifications ⌘ ⌘ O&M Specifications ⌘
Y	N					
<input type="checkbox"/>	<input checked="" type="checkbox"/>					
Other comments:	⌘					

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

4.6.1.3 Handling of Mobile Originated Calls in the IM-SSF



Procedure CAMEL_IMCN_MO_UNSUCCESSFUL

5(6)

Procedure in IM-SSF to handle unsuccessful events in Mobile Originating Call in IMS.

/* Signals to/from the left are to/from the MS via S-CSCF; signals to/from right are to/from the imcnSSF, unless otherwise stated. */

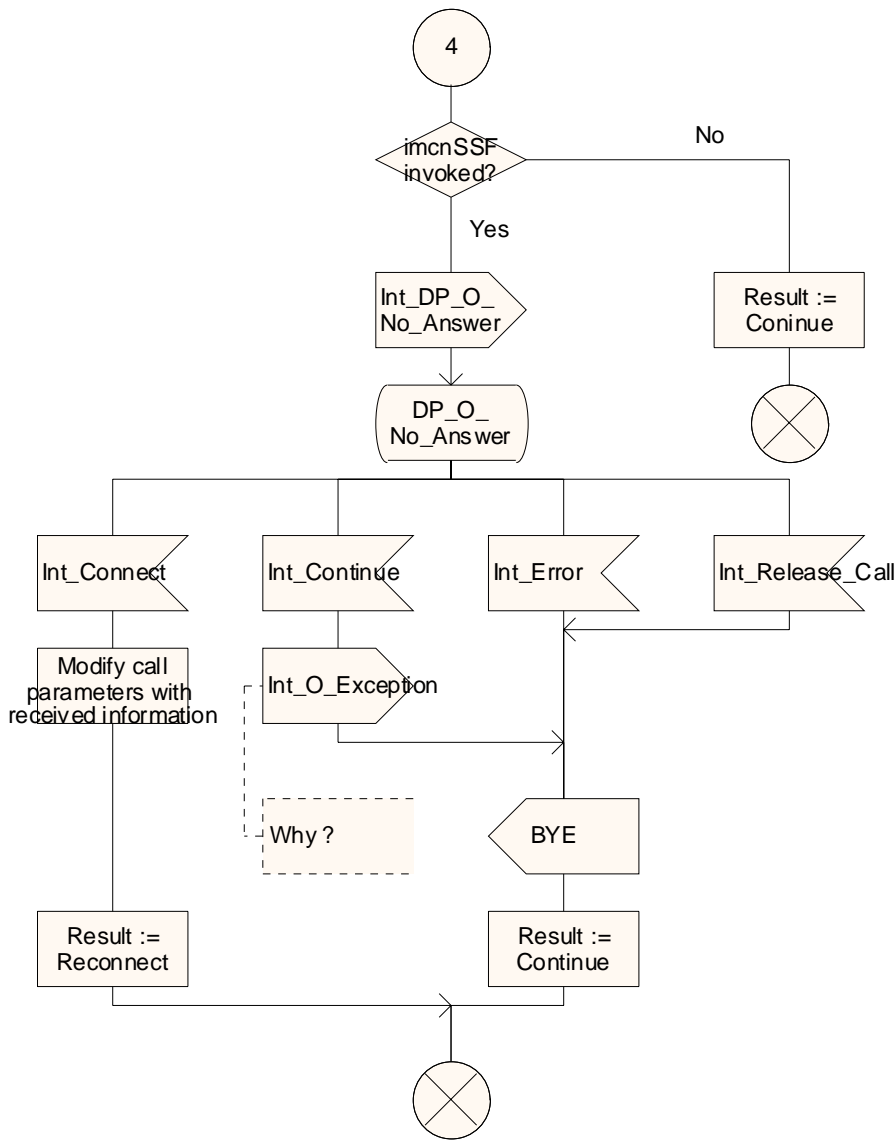


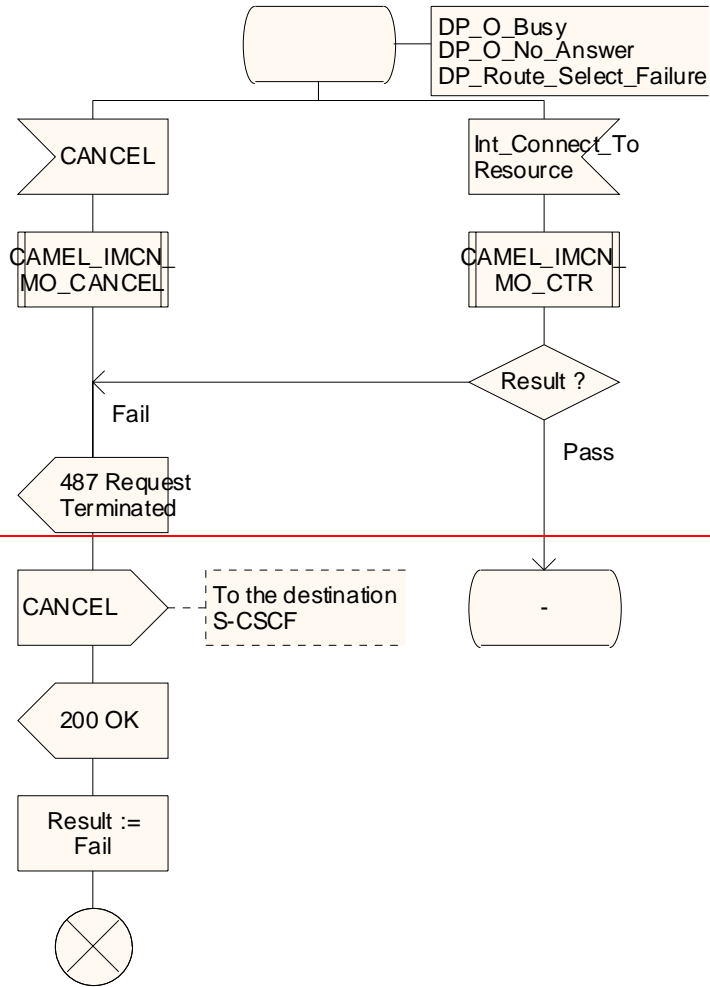
Figure 4.18-5: Procedure CAMEL_IMCN_MO_UNSUCCESSFUL (sheet 5)

Procedure CAMEL_IMCN_MO_UNSUCCESSFUL

6(6)

Procedure in IM-SSF to handle unsuccessful events in Mobile Originating Call in IMS.

/* Signals to/from the left are to/from the MS via S-CSCF; signals to/from right are to/from the imcnSSF, unless otherwise stated. */



Procedure CAMEL_IMCN_MO_UNSUCCESSFUL

6(6)

Procedure in IM-SSF to handle unsuccessful events in Mobile Originating Call in IMS.

/* Signals to/from the left are to/from the MS via S-CSCF; signals to/from right are to/from the imcnSSF, unless otherwise stated. */

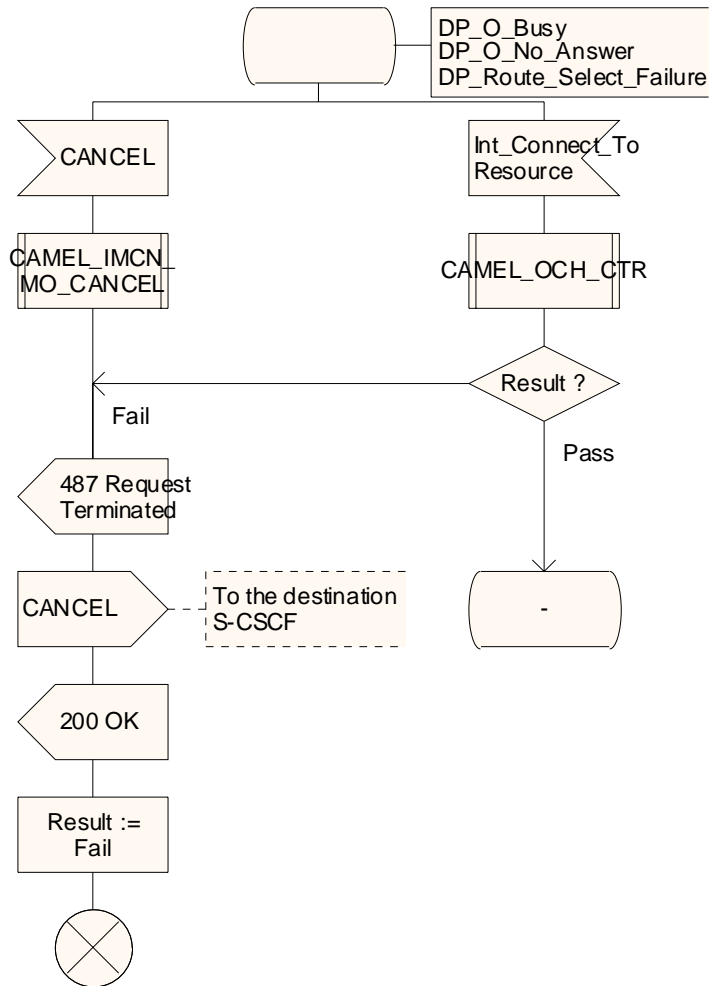


Figure 4.18-6: Procedure CAMEL_IMCN_MO_UNSUCCESSFUL (sheet 6)

***** Next Modification section *****

4.6.1.4 Handling of Mobile Terminated IP Multimedia sessions in the IM-SSF

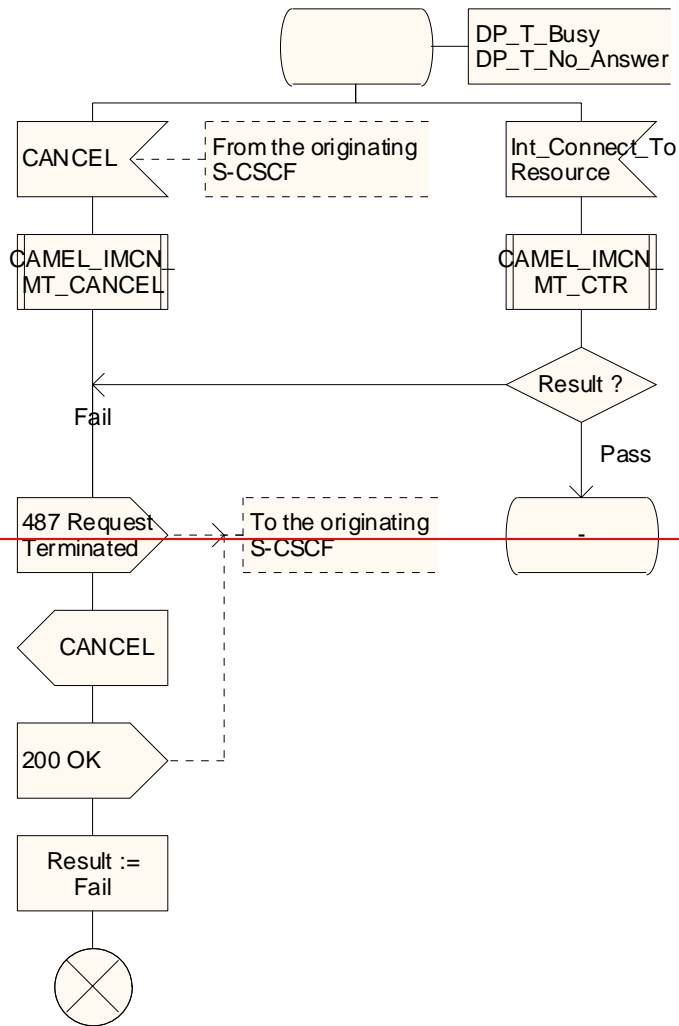
...

Procedure CAMEL_IMCN_MT_UNSUCCESSFUL

5(5)

Procedure in IM-SSF to handle unsuccessful events in Mobile Terminating Call in IMS.

/* Signals to/from the left are to/from the MS via S-CSCF; signals to/from right are to/from the imcnSSF, unless otherwise stated. */



Procedure CAMEL_IMCN_MT_UNSUCCESSFUL

5(5)

Procedure in IM-SSF to handle unsuccessful events in Mobile Terminating Call in IMS.

/* Signals to/from the left are to/from the MS via S-CSCF; signals to/from right are to/from the imcnSSF, unless otherwise stated. */

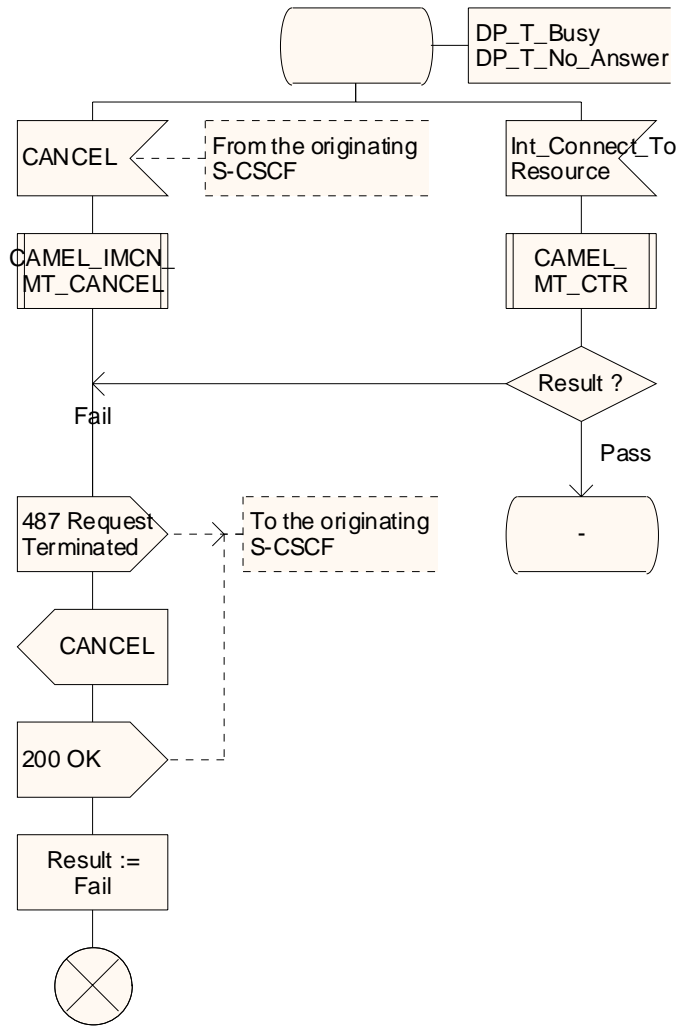


Figure 4.28-5: Procedure CAMEL_IMCN_MT_UNSUCCESSFUL (sheet 5)

*** End of Modification ***

CHANGE REQUEST

23.278 CR 031 # rev **-** # Current version: **5.1.0**

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

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

Title:	# Incorrect procedures called in CAMEL_IMCN_MT_ANSWER		
Source:	# Lucent Technologies		
Work item code:	# IMS-CAMEL	Date:	# 21/01/2003
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:	# The procedures CAMEL_IMCN_MO_DISK1 and CAMEL_IMCN_MO_DISK2 are currently called from the procedure CAMEL_IMCN_MT_ANSWER. Not only these procedure names are non-existing, but they also imply procedures for a mobile originating scenario. The incorrect procedure names must be changed to use "CAMEL_IMCN_MT_DISC1" and "CAMEL_IMCN_MT_DISC2" instead.		
Summary of change:	# In Procedure CAMEL_IMCN_MT_ANSWER, change "CAMEL_IMCN_MO_DISK1" to "CAMEL_IMCN_MT_DISC1" and "CAMEL_IMCN_MO_DISK2" to "CAMEL_IMCN_MT_DISC2".		
Consequences if not approved:	# SDL Procedures references non-existing procedures.		

Clauses affected:	# 4.6.1.4 (Figure 4.27-2)						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	#
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
		Test specifications	#				
		O&M Specifications	#				
Other comments:	#						

*** *First Modification* ***

4.6.1.4 Handling of Mobile Terminated IP Multimedia sessions in the IM-SSF

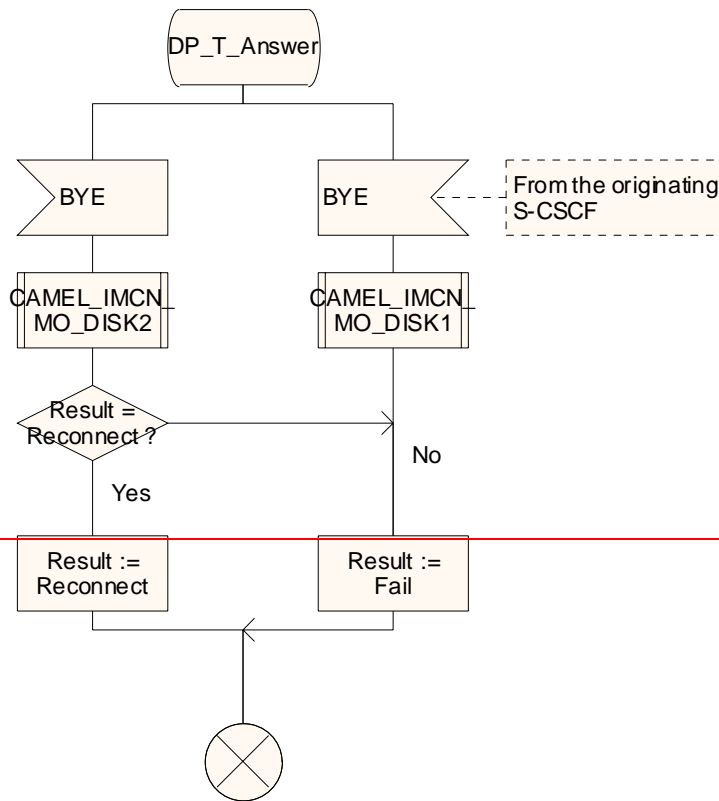
...

Procedure CAMEL_IMCN_MT_ANSWER

2(2)

/* Procedure in the IM-SSF to perform CAMEL handling for a terminating call upon 200 OK message */

/* Signals to/from the left are to/from the MS via S-CSCF; signals to/from right are to/from the imcnSSF, unless otherwise stated. */



Procedure CAMEL_IMCN_MT_ANSWER

2(2)

/* Procedure in the IM-SSF to perform CAMEL handling for a terminating call upon 200 OK message */

/* Signals to/from the left are to/from the MS via S-CSCF; signals to/from right are to/from the imcnSSF, unless otherwise stated. */

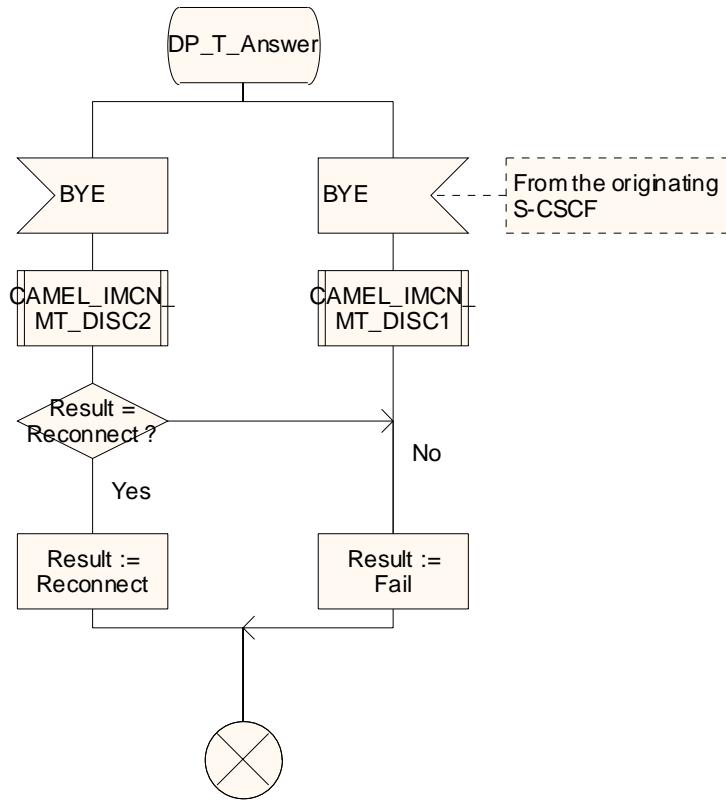


Figure 4.27-2: Procedure CAMEL_IMCN_MT_ANSWER (sheet 2)

*** End of Modification ***

CHANGE REQUEST

⌘ **23.278 CR 028** ⌘ rev **1** ⌘ Current version: **5.1.0** ⌘

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

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

Title:	⌘ Introduction of ResetTimer input in state WFI-DS (IMS)		
Source:	⌘ Nokia		
Work item code:	⌘ IMS-CAMEL	Date:	⌘ 22/01/2003
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:	⌘ Input ResetTimer is missing in imcnSSF state WFI-DS (Dialled services)		
Summary of change:	⌘ The input is intruduced.		
Consequences if not approved:	⌘ Interworking problems occur between vendors when the SCP sends the operation, and recipient does not accept the operation. In addition, the SCP logic gets more complicated due to this obvious mistake in the spec (SCP may have to suspend the sending of ResetTimer just inb one special case).		

Clauses affected:	⌘										
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;">X</td> <td style="text-align: center;"></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	⌘	N2-030059 23.078-CR532
Y	N										
X											
	X										
	X										
Other comments:	⌘										

-- First Modified Section --

4.6.1.5.1 Process imcnSSF

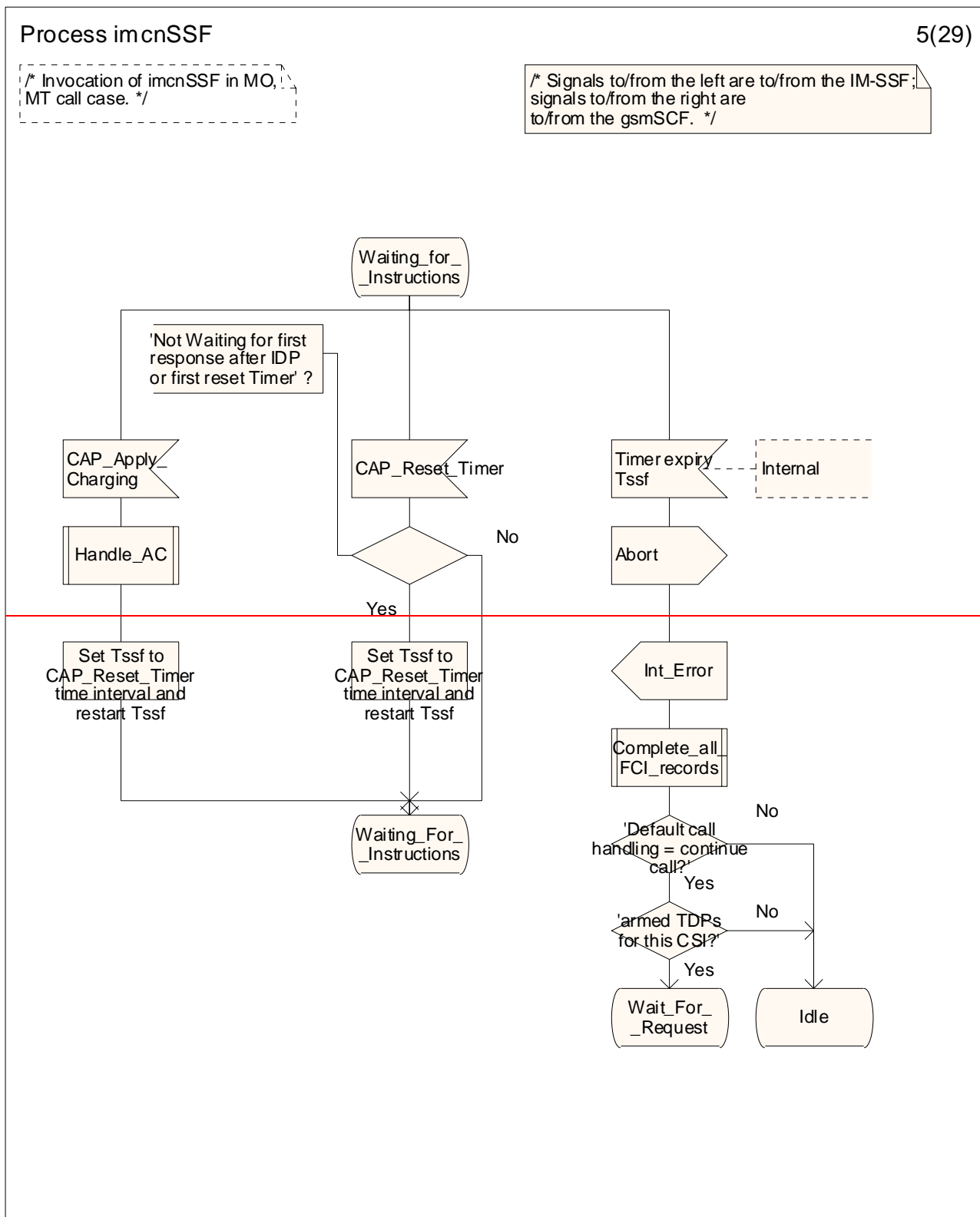


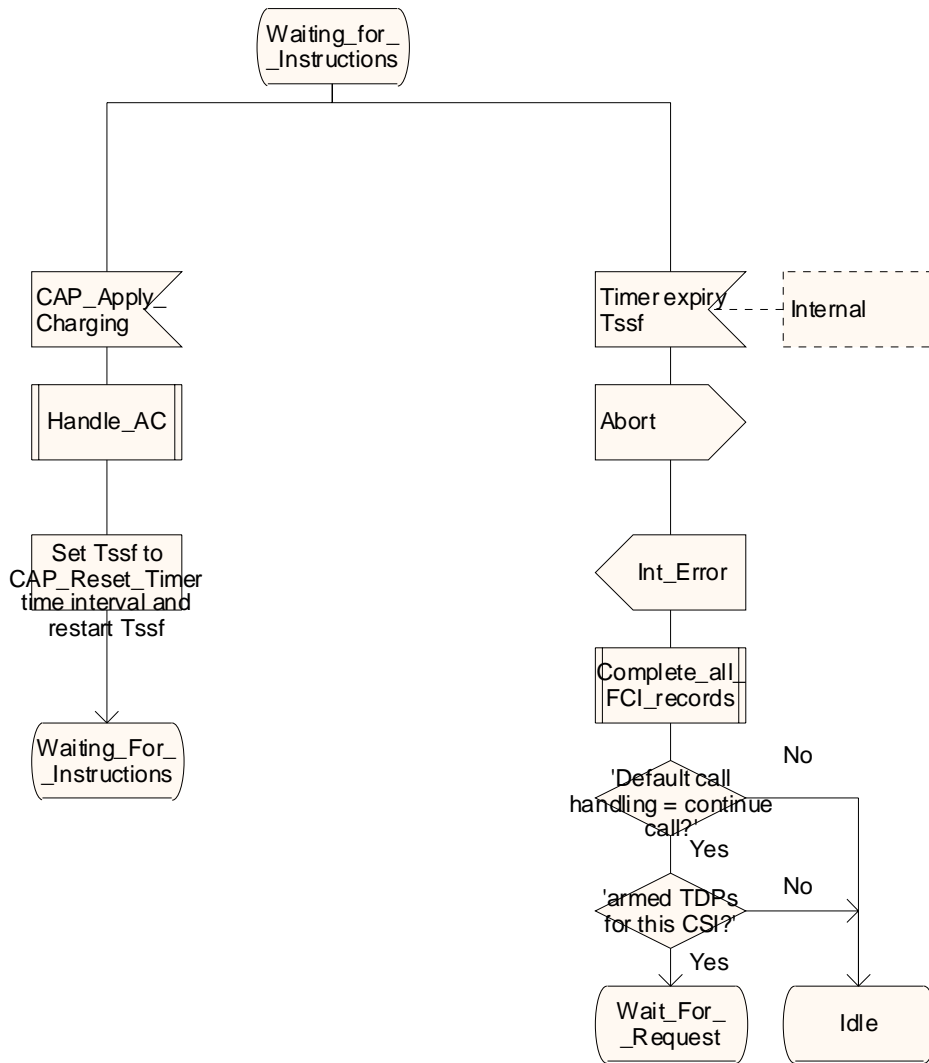
Figure 4.34-5: Process imcnSSF (sheet 5)

Process imcnSSF

5(30)

/* Invocation of imcnSSF in MO, MT call case. */

/* Signals to/from the left are to/from the IM-SSF; signals to/from the right are to/from the gsmSCF. */

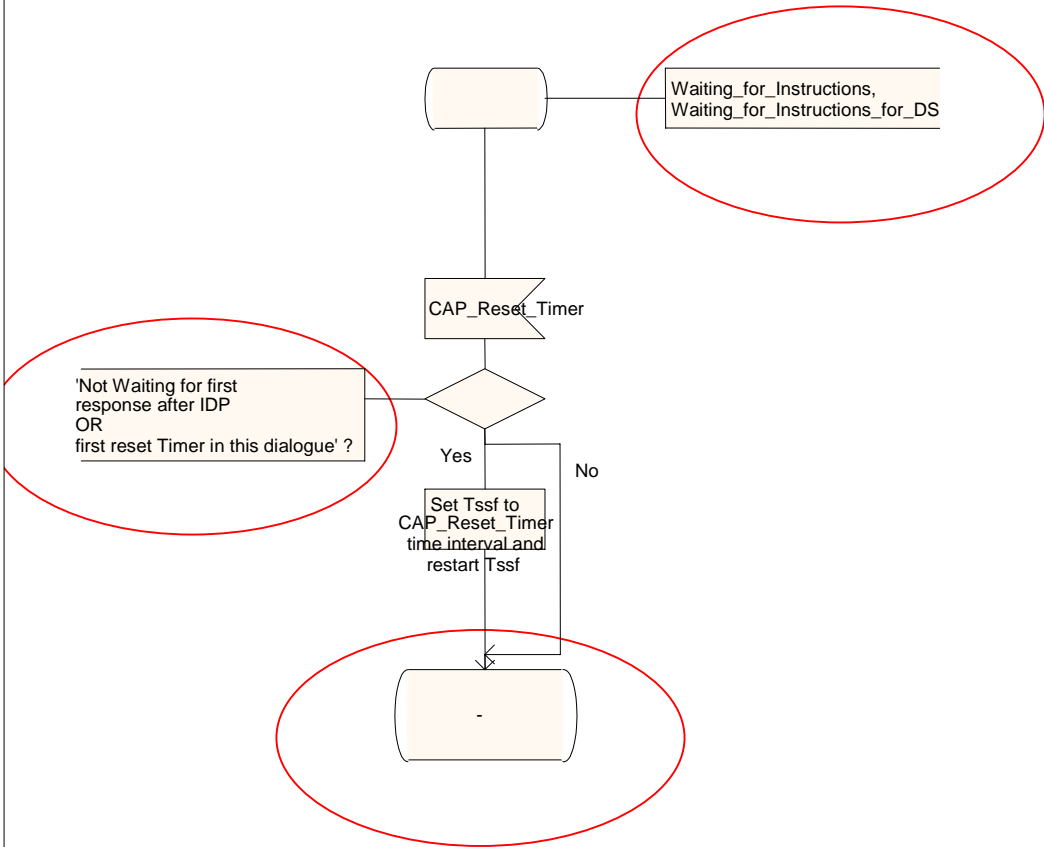


Process imcnSSF

6(30)

/* Invocation of imcnSSF in MO, MT call case. */

/* Signals to/from the left are to/from the IM-SSF; signals to/from the right are to/from the gsmSCF. */



CHANGE REQUEST

⌘ **23.278 CR 027** ⌘ rev **1** ⌘ Current version: **5.1.0** ⌘

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

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

Title:	⌘ Implementing of Connect to Resource handling in CAMEL for IMS		
Source:	⌘ Alcatel		
Work item code:	⌘ IMS-CAMEL	Date:	⌘ 13/02/2003
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:	⌘ The handling of the Connect to Resource information flow in 23.278 is not in alignment with 23.078 CAMEL Phase 3. Therefore service incompatibility exists between 23.078 and 23.278. This shall be avoided in CAMEL for IMS.
Summary of change:	⌘ Align the 23.278 SDL handling of Connect to Resource to CAMEL Phase 3 23.078 behaviour. The special handling of the IMS MRCF shall be taken into account. Mainly the following has been changed for the Procedures CAMEL_OCH_CTR and CAMEL_MT_CTR: - Receive Disconnect Forward Connection IF in various states - Receive Prompt and Collect User Information IF several times. - Receive calling user disconnect and ack also during the states "Wait_for_PlayAnnc_or_Prompt_and_Collect_request" and "Wait_for_200_OK". - Delete the duplicate state transition for DP_T_Abandon_DFC in Procedure CAMEL_MT_CTR (sheet 4).
Consequences if not approved:	⌘ Service incompatibility between CAMEL for IMS and CAMEL Phase 3.

Clauses affected:	⌘ 5.1.3, 5.1.4										
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;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications Test specifications O&M Specifications	⌘
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
Other comments:	⌘ This CR completes 23.278 CR 022 in TDoc N2-020987 in several aspects.										

— First modified section —

4.6.1.3 Handling of Mobile Originated Calls in the IM-SSF

⋮

4.6.1.3.6 Handling of procedure CAMEL_OCH_CTR, sheet 1

The IM-SSF behaves as a B2BUA (Back-2-Back User Agent) when a SIP INVITE is received for an outgoing call and SIP INVITE is sent to the MRFC (via S-CSCF) as a result of a CAP ConnectToResource request received from the SCF.

A SIP response 100 Trying is sent after each INVITE but is not shown in the SDLs.

The IM-SSF shall handle the 200 OK response from the MRFC as specified in 3GPP TS 23.218 [5].

4.6.1.3.7 Handling of procedure CAMEL_OCH_CTR, sheet 5

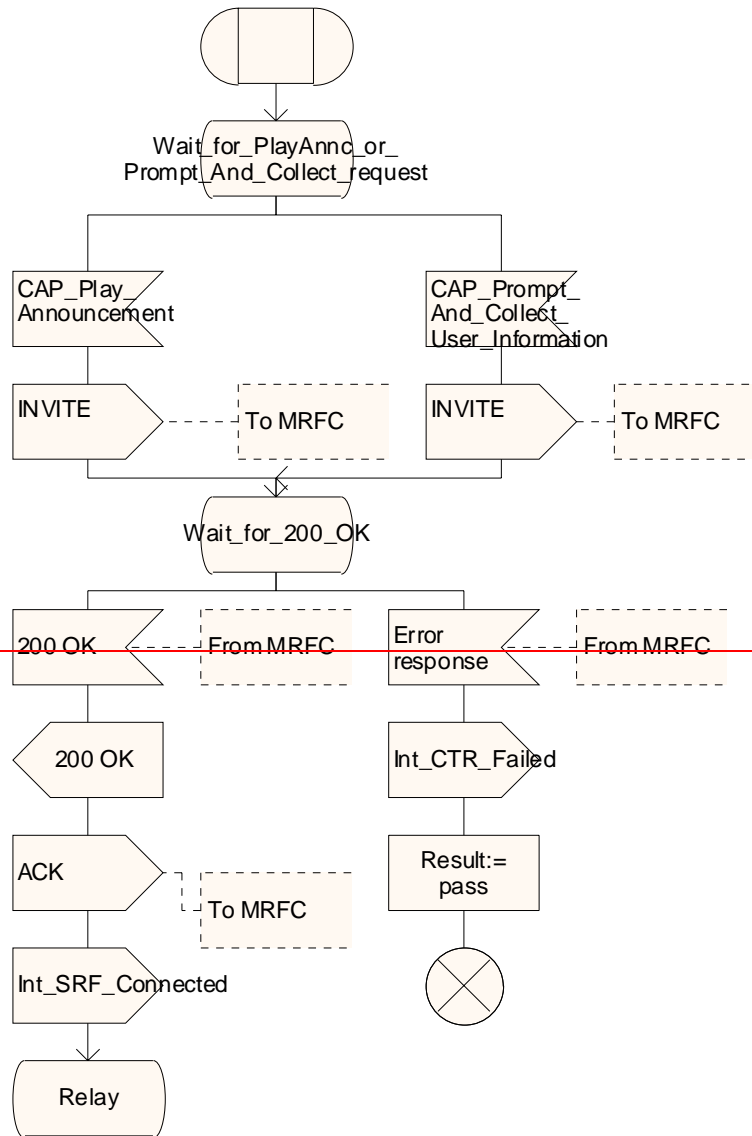
The specifics on transporting information between the MRFC and the Application Server such as the IM-SSF, has not been standardised in 3GPP Rel-5 specifications for IMS. i.e. the SIP method to return the Prompt_and_Collect result from the MRFC to the IM-SSF, ~~and~~ the SIP method for sending notification of play announcement completion to the IM-SSF when a request for a Specialised Resource Report was received, [the SIP method to request the MRFC to play announcement and the SIP method to request the MRFC to prompt and collect user information](#), are not standardised.

Procedure CAMEL_OCH_CTR

1(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MS. Signals to/from the right are to/from the imcnSSF unless otherwise stated.



Procedure CAMEL_OCH_CTR

1(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MS. Signals to/from the right are to/from the imcnSSF unless otherwise stated.

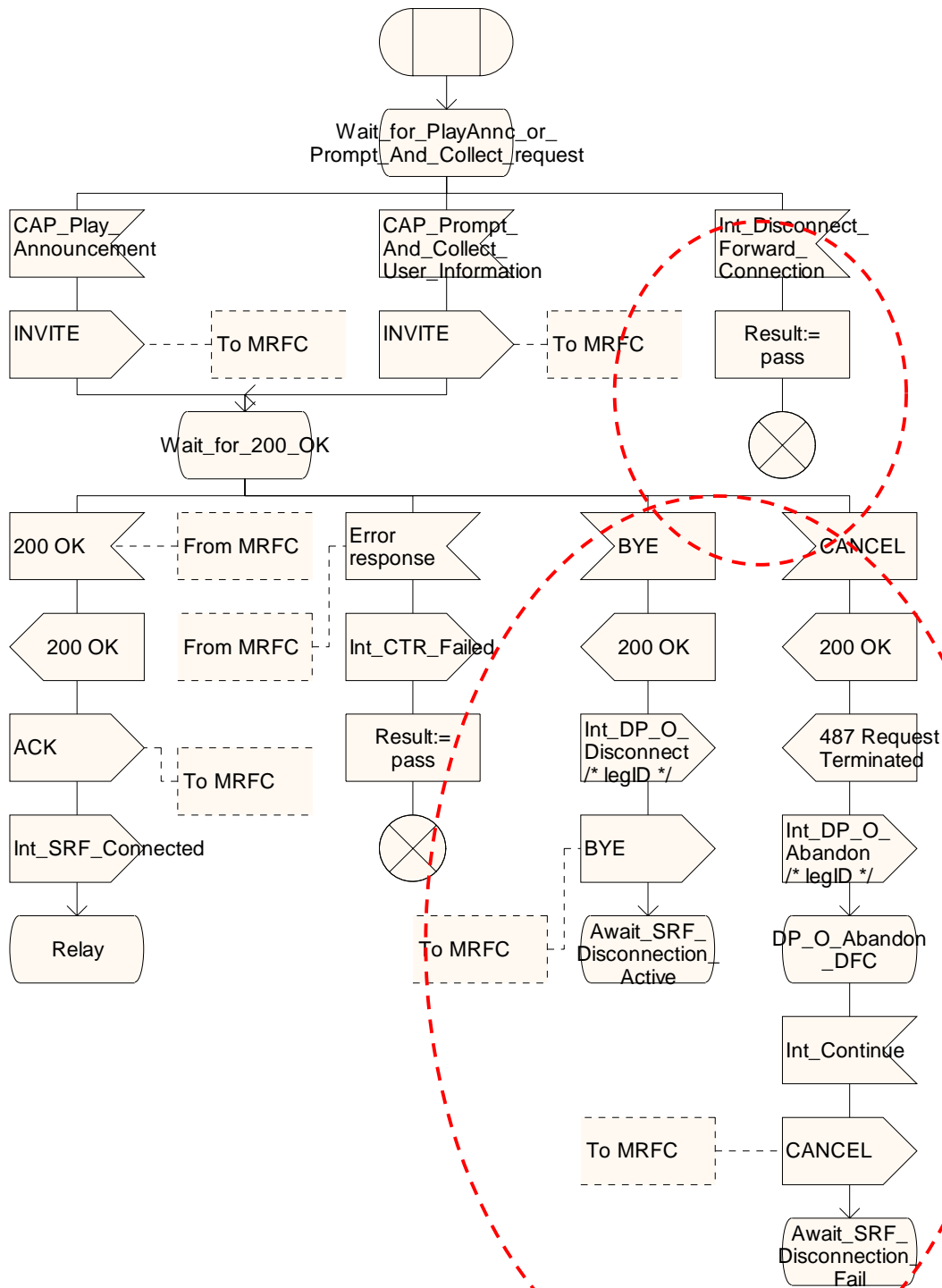


Figure 4.21-1: Procedure CAMEL_OCH_CTR (sheet 1)

Procedure CAMEL_OCH_CTR

2(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MS. Signals to/from the right are to/from the imcnSSF unless otherwise stated.

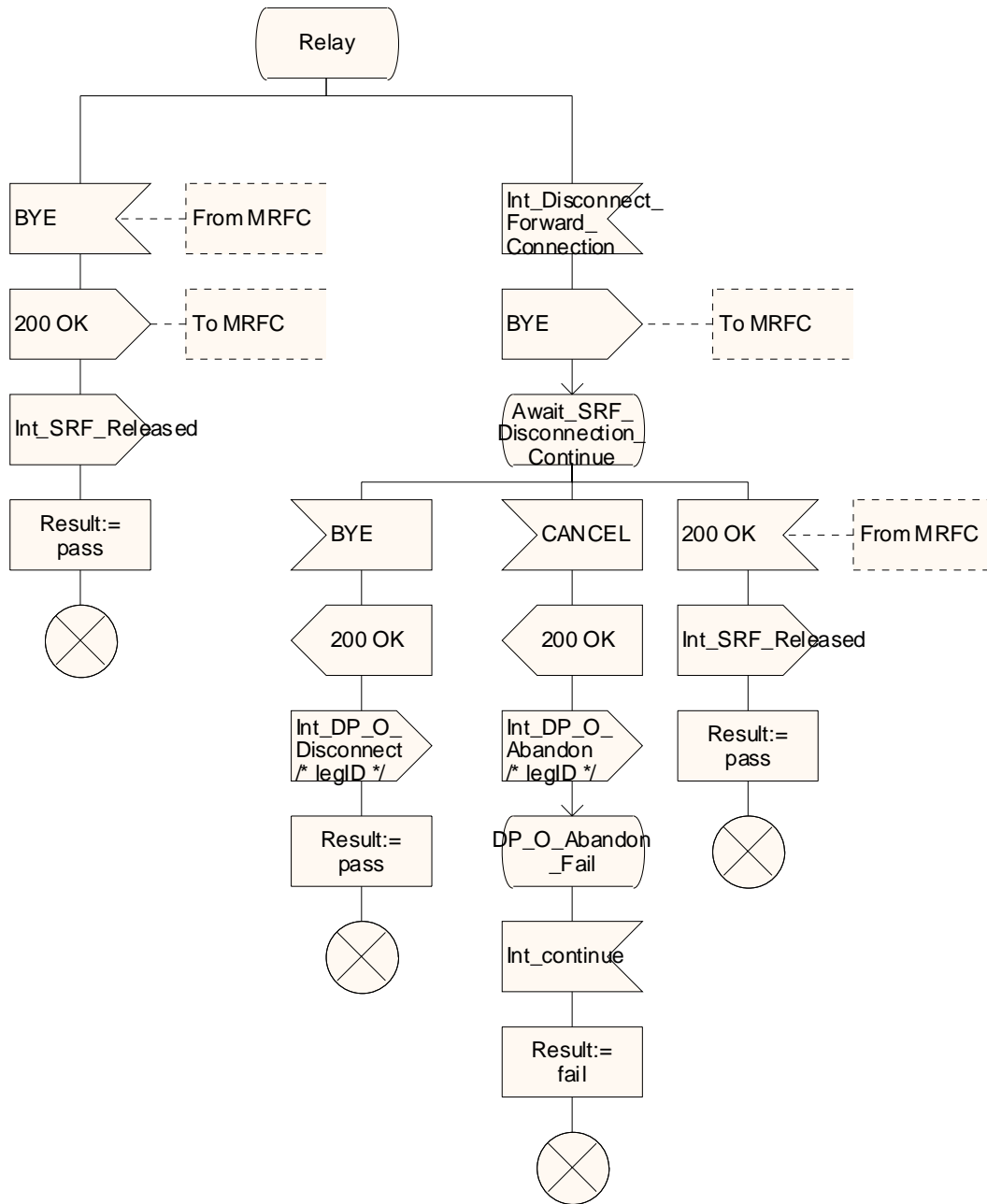


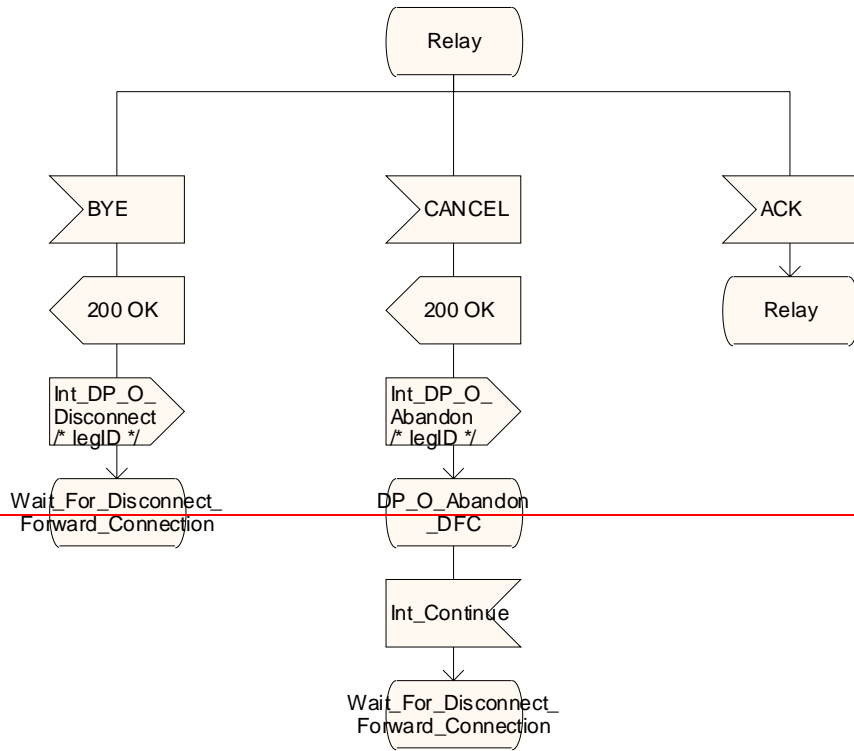
Figure 4.21-2: Procedure CAMEL_OCH_CTR (sheet 2)

Procedure CAMEL_OCH_CTR

3(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MS. Signals to/from the right are to/from the imcSSF unless otherwise stated.



Procedure CAMEL_OCH_CTR

3(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MS. Signals to/from the right are to/from the imcrSSF unless otherwise stated.

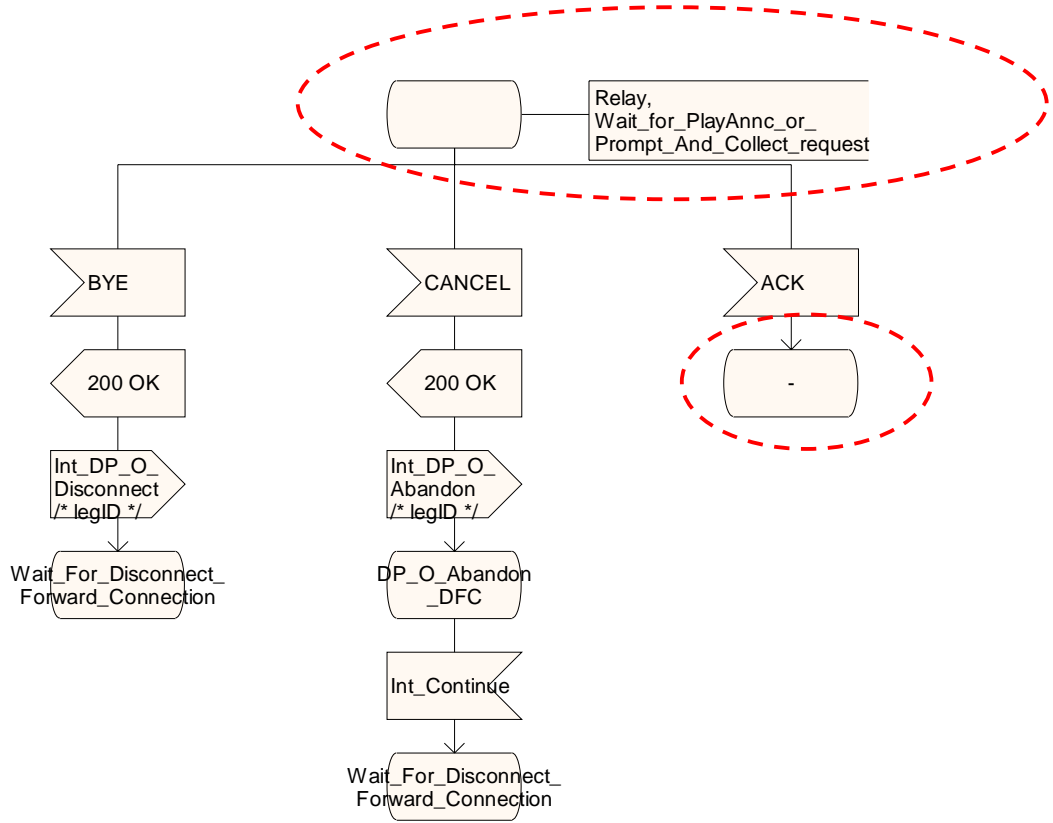


Figure 4.21-3: Procedure CAMEL_OCH_CTR (sheet 3)

Procedure CAMEL_OCH_CTR

4(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MS. Signals to/from the right are to/from the imcnSSF unless otherwise stated.

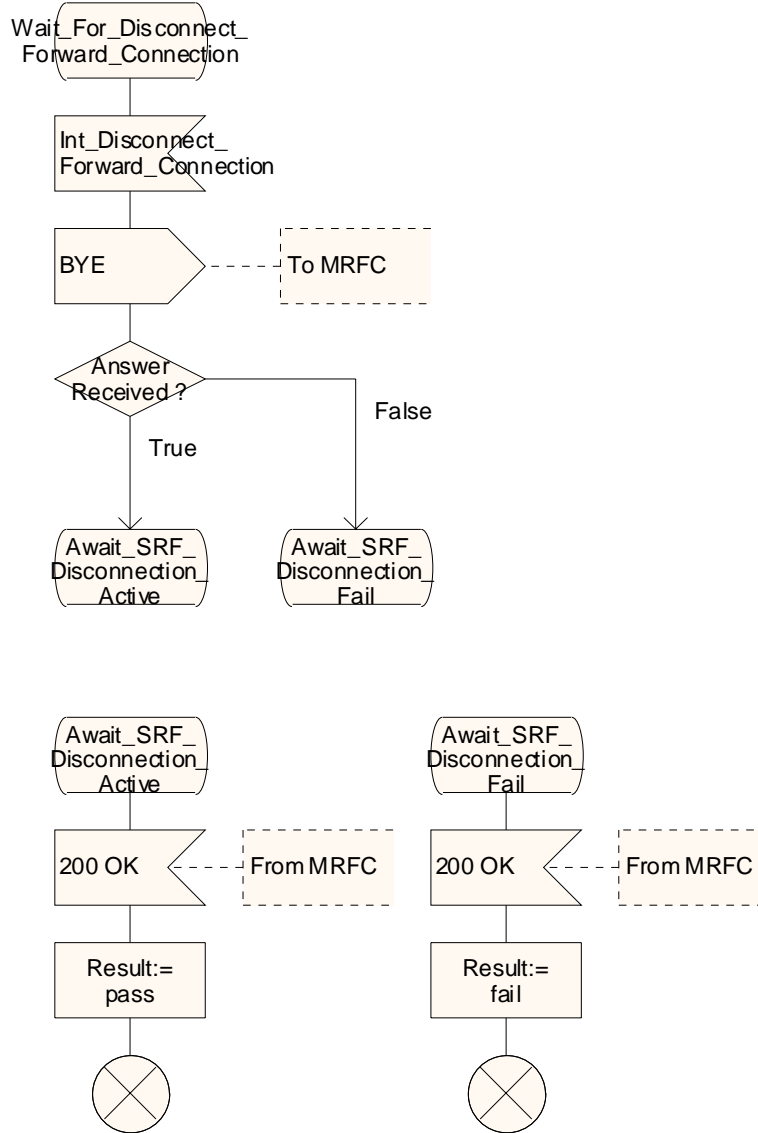


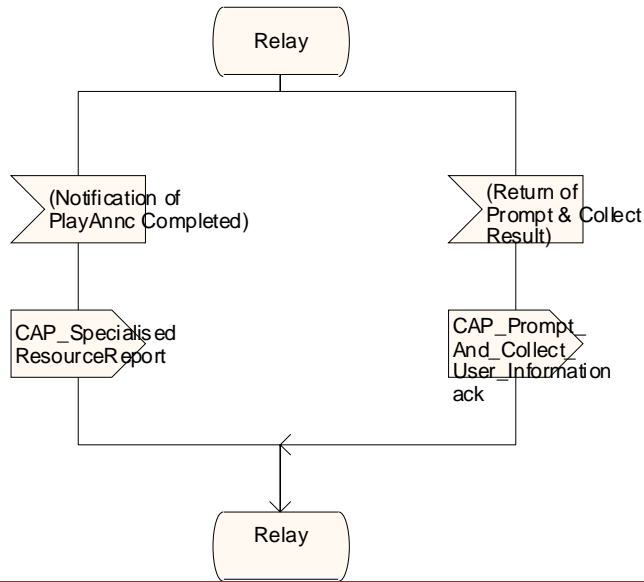
Figure 4.21-4: Procedure CAMEL_OCH_CTR (sheet 4)

Procedure CAMEL_OCH_CTR

5(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MRFC. Signals to/from the right are to/from the imSSF.



Procedure CAMEL_OCH_CTR

5(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MRFC. Signals to/from the right are to/from the imcnSSF.

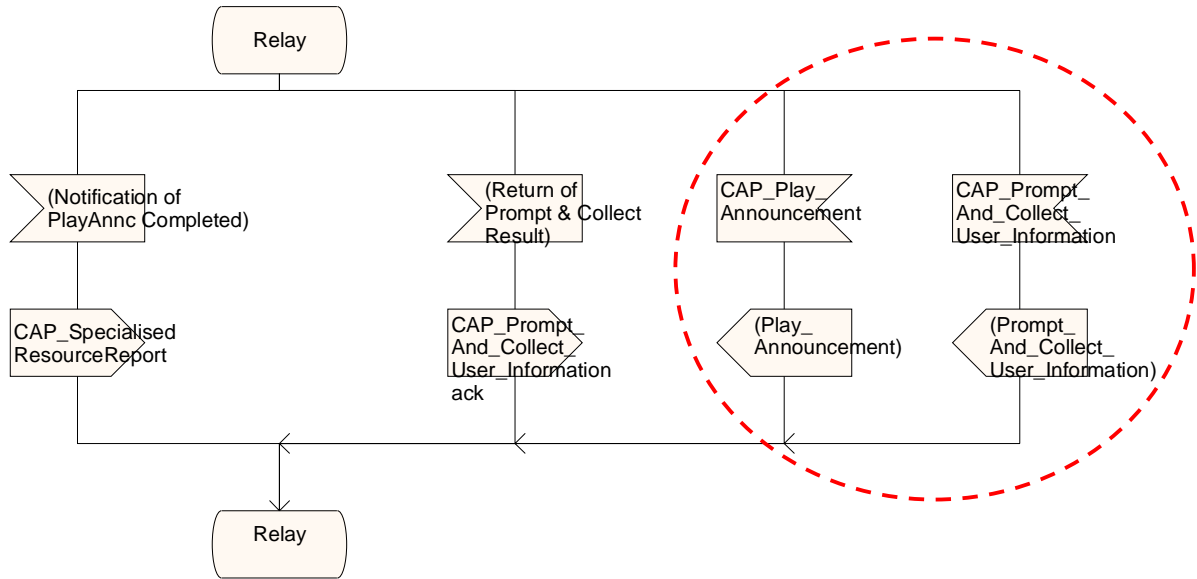


Figure 4.21-5: Procedure CAMEL_OCH_CTR (sheet 5)

— Next modified section —

4.6.1.4 Handling of Mobile Terminated IP Multimedia sessions in the IM-SSF

⋮

4.6.1.4.5 Handling of procedure CAMEL_MT_CTR, sheet 1

The IM-SSF behaves as a B2BUA (Back-2-Back User Agent) when a SIP INVITE is received for an terminating call and SIP INVITE is sent to the MRFC (via S-CSCF) as a result of a CAP ConnectToResource request received from the SCF.

A SIP response 100 Trying is sent after each INVITE but is not shown in the SDLs.

The IM-SSF shall handle the 200 OK response from the MRFC as specified in 3GPP TS 23.218 [5].

4.6.1.4.6 Handling of procedure CAMEL_MT_CTR, sheet 5

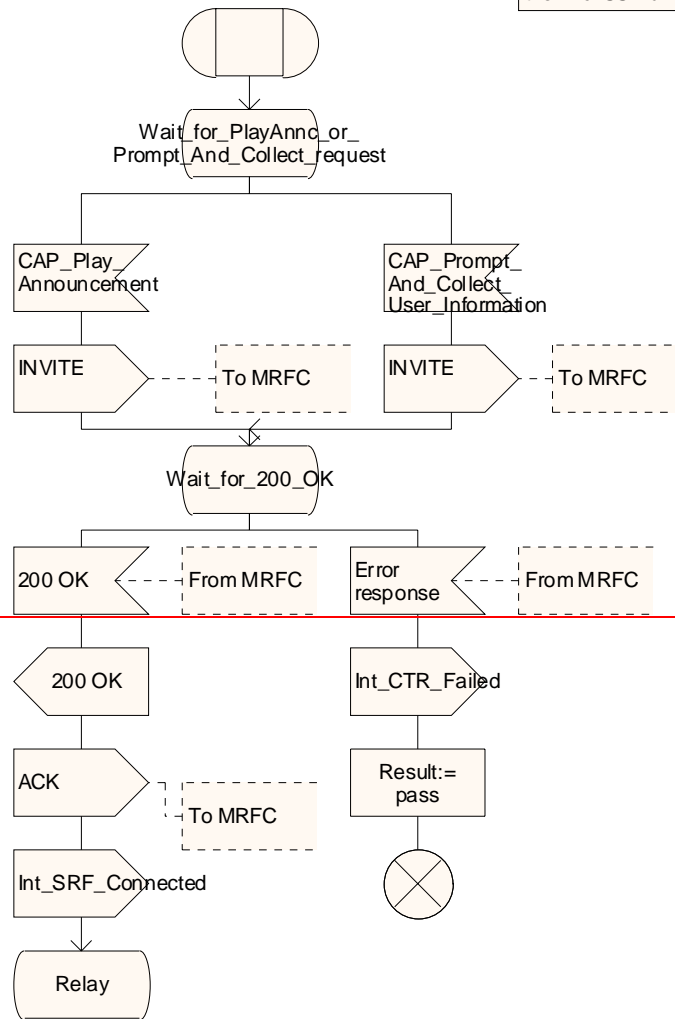
The specifics on transporting information between the MRFC and the Application Server such as the IM-SSF, has not been standardised in 3GPP Rel-5 specifications for IMS. i.e. the SIP method to return Prompt_And_Collect result from the MRFC to the IM-SSF, ~~and~~ the SIP method for sending notification of play announcement completion to the IM-SSF when a request for a Specialised Resource Report was received, [the SIP method to request the MRFC to play announcement and the SIP method to request the MRFC to prompt and collect user information](#), are not standardised.

Procedure CAMEL_MT_CTR

1(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the originating party. Signals to/from the right are to/from the imSSF unless otherwise stated.



Procedure CAMEL_MT_CTR

1(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the originating party.
Signals to/from the right are to/from the imcnSSF unless otherwise stated.

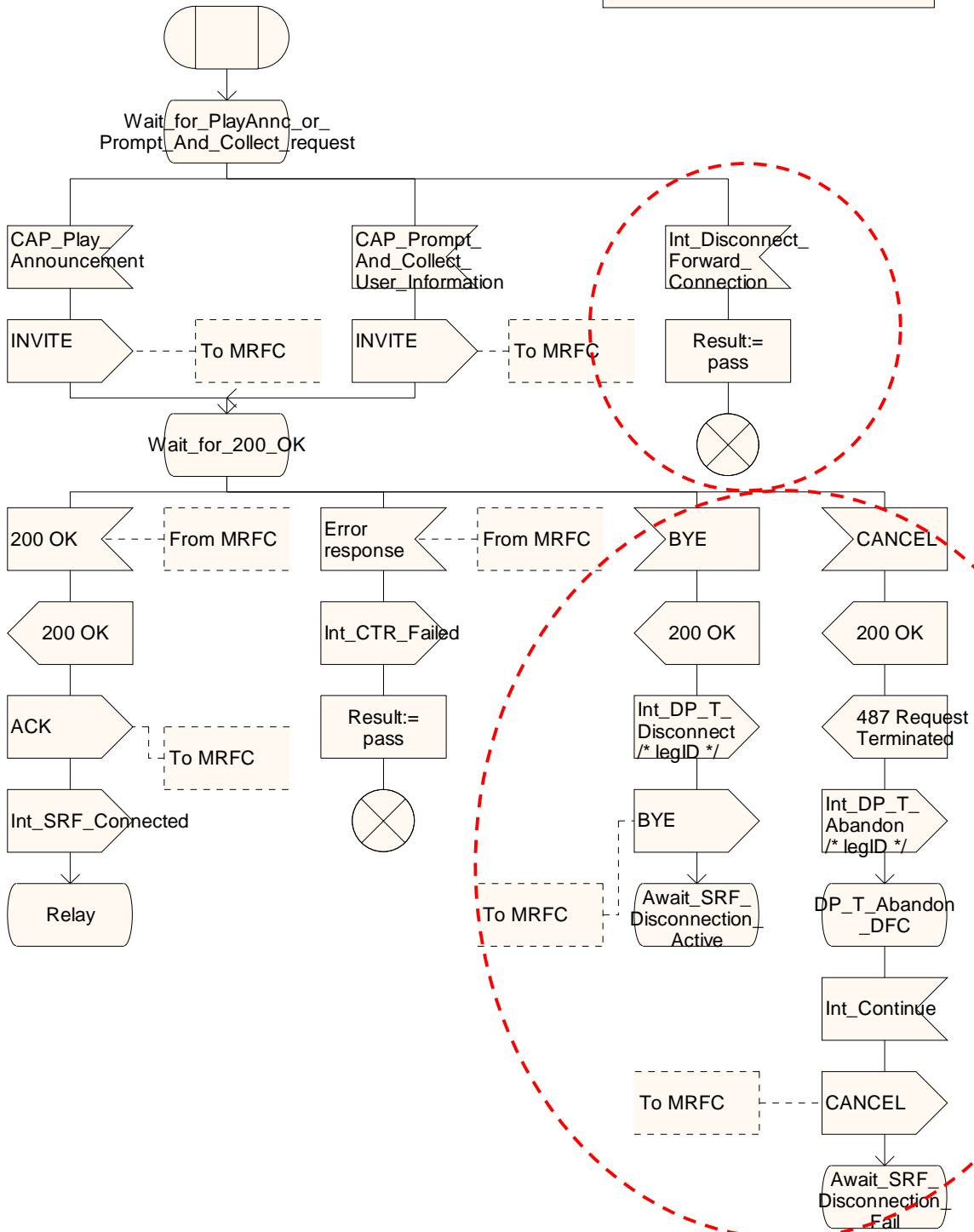


Figure 4.33-1: Procedure CAMEL_MT_CTR (sheet 1)

Procedure CAMEL_MT_CTR

2(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the originating party.
Signals to/from the right are to/from the imcSSF unless otherwise stated.

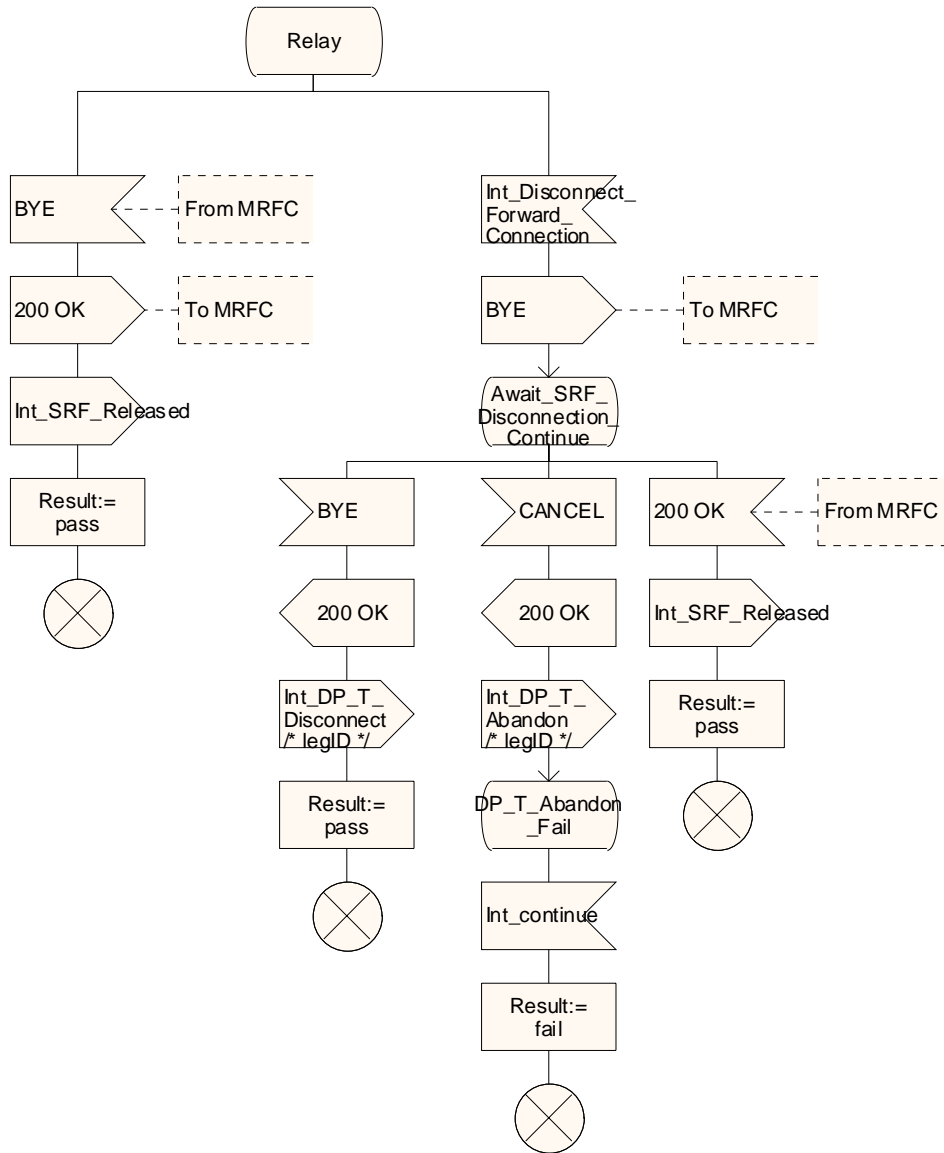


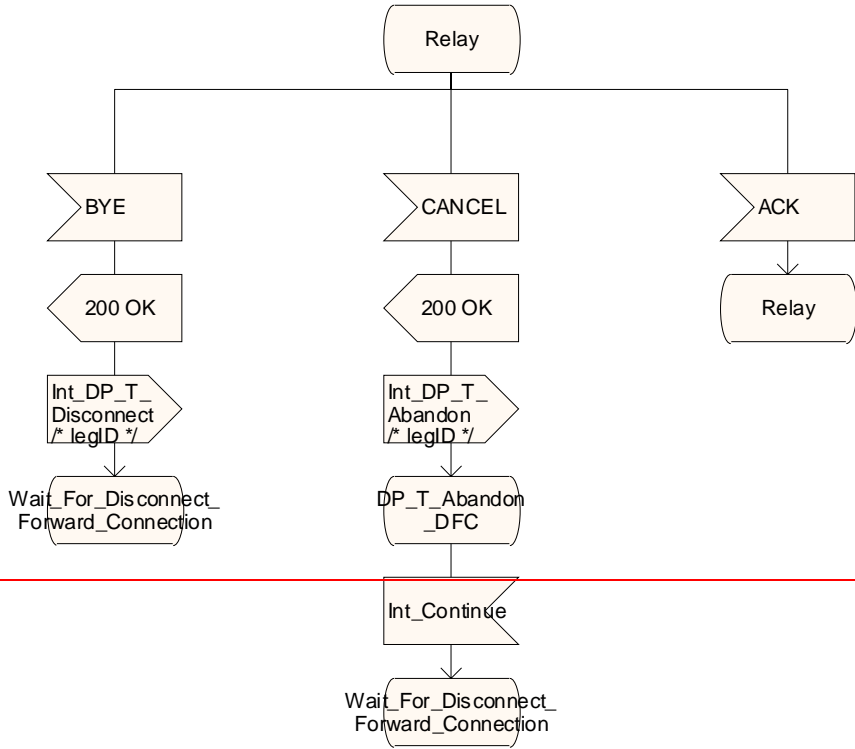
Figure 4.33-2: Procedure CAMEL_MT_CTR (sheet 2)

Procedure CAMEL_MT_CTR

3(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the originating party.
Signals to/from the right are to/from the imcSSF unless otherwise stated.



Procedure CAMEL_MT_CTR

3(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the originating party. Signals to/from the right are to/from the imcnSSF unless otherwise stated.

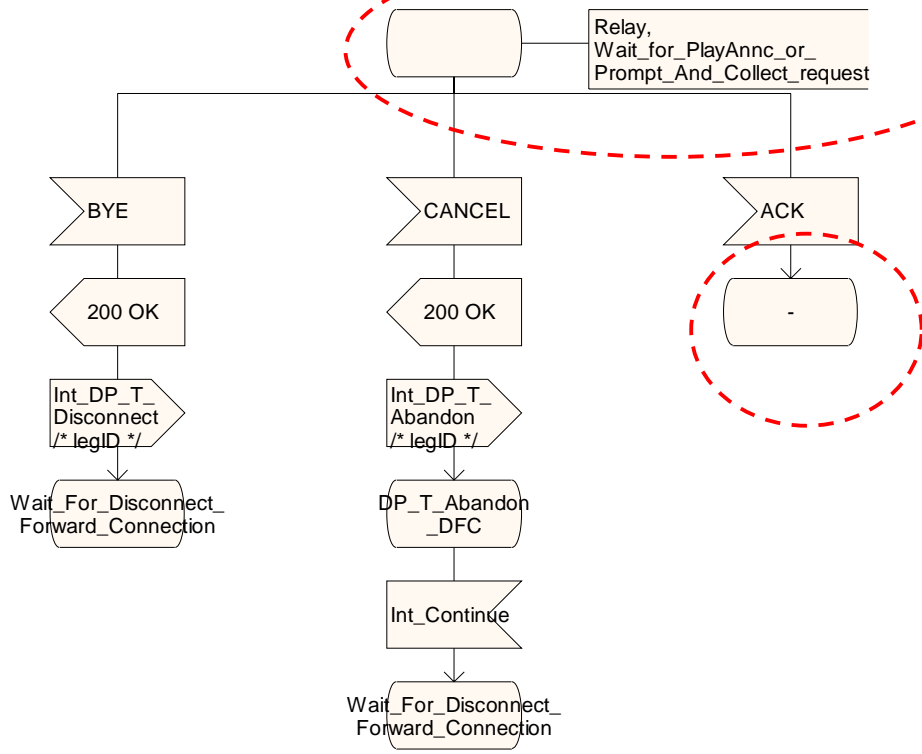


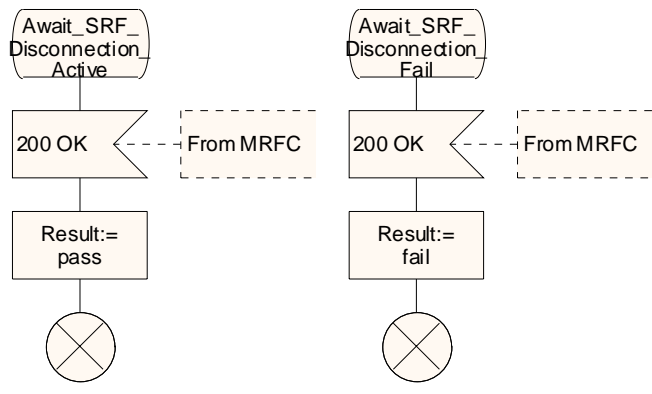
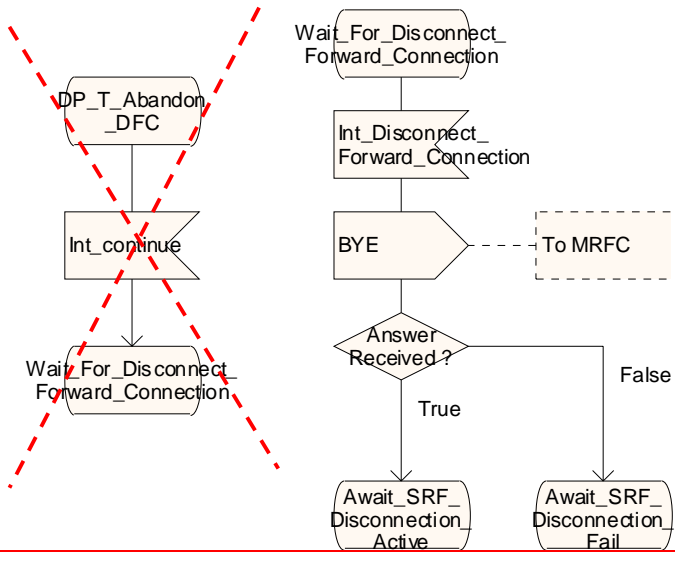
Figure 4.33-3: Procedure CAMEL_MT_CTR (sheet 3)

Procedure CAMEL_MT_CTR

4(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the originating party.
Signals to/from the right are to/from the imcSSF unless otherwise stated.



Procedure CAMEL_MT_CTR

4(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the originating party. Signals to/from the right are to/from the imcnSSF unless otherwise stated.

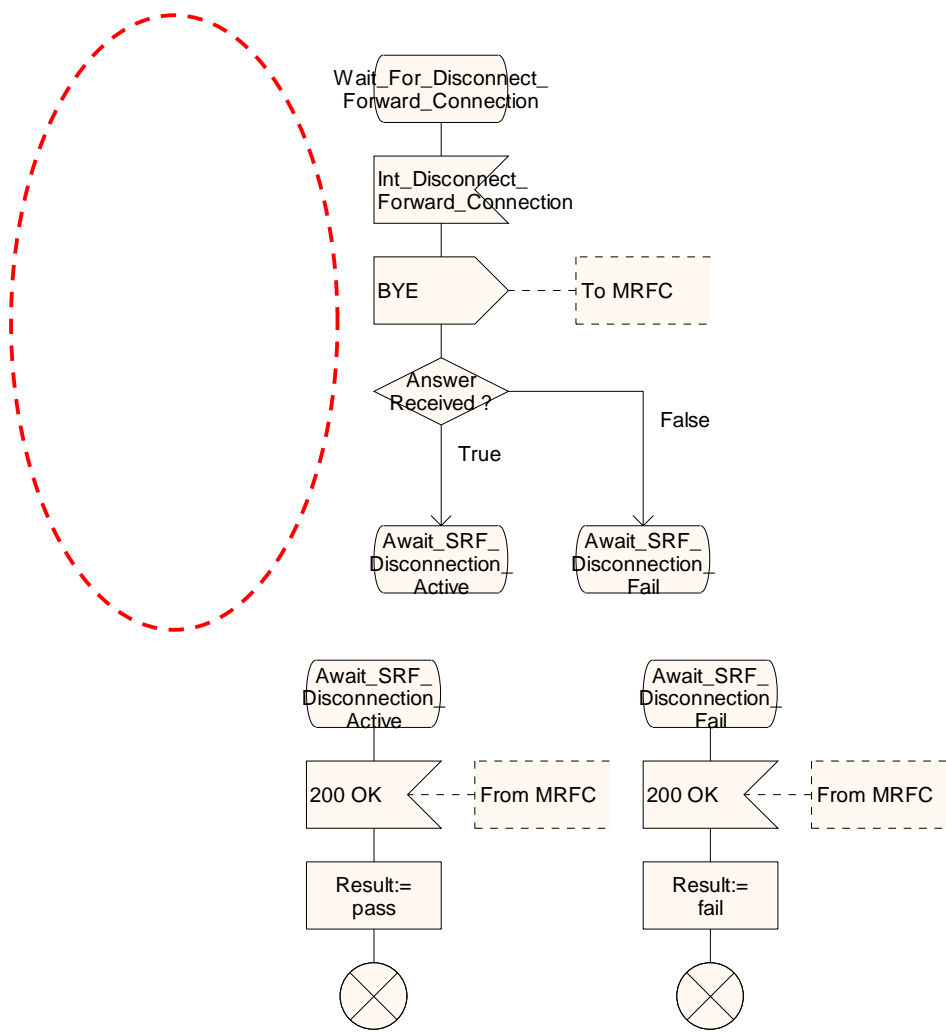


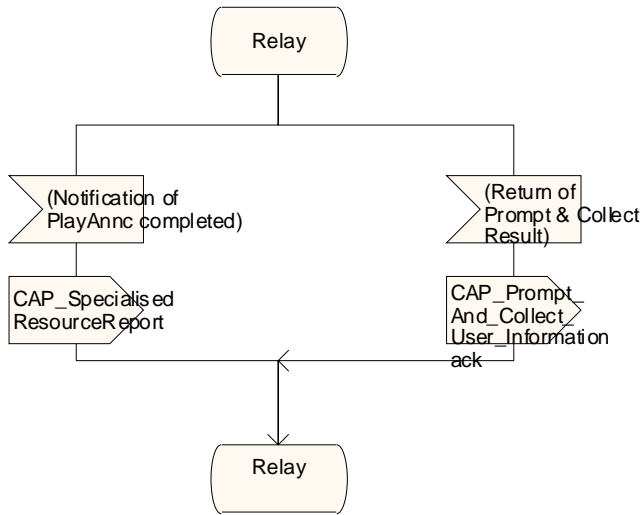
Figure 4.33-4: Procedure CAMEL_MT_CTR (sheet 4)

Procedure CAMEL_MT_CTR

5(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MRFC. Signals to/from the right are to/from the imcnSSF.



Procedure CAMEL_MT_CTR

5(5)

Procedure in the IM-SSF to handle a Connect To Resource operation.

Signals to/from the left are to/from the MRFC. Signals to/from the right are to/from the imcnSSF.

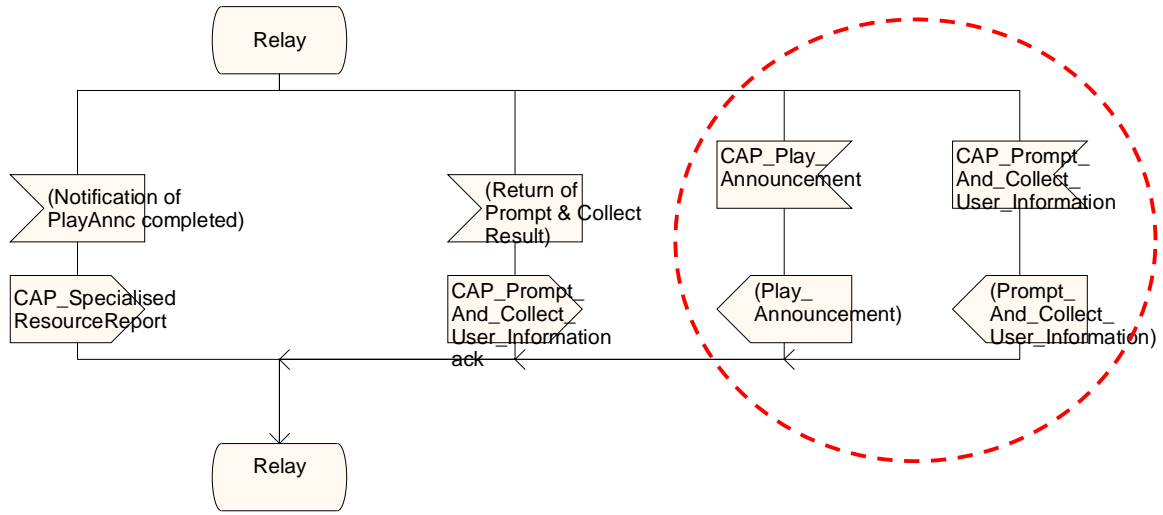


Figure 4.33-5: Procedure CAMEL_MT_CTR (sheet 5)

— END —