Source:	CN2
Title:	**CRs on R99 Work Item CAMEL3, CR Pack 1**
Agenda item:	**7.1**
Document for:	**APPROVAL**

Introduction:

This document contains 3 CRs on R99 WI CAMEL3 (against TS 23.078) and corresponding mirror CRs for Rel-4/Rel-5. 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	539	1	N2-030106	R99	Inconsistency in Call Information Report in Re-Connect Case	F	3.15.0
23.078	540	1	N2-030107	Rel-4	Inconsistency in Call Information Report in Re-Connect Case	A	4.7.0
23.078	541	1	N2-030108	Rel-5	Inconsistency in Call Information Report in Re-Connect Case	A	5.2.0
23.078	521	1	N2-030115	R99	Correction to SRI Information Flow	F	3.15.0
23.078	543		N2-030116	Rel-4	Correction to SRI Information Flow	A	4.7.0
23.078	544		N2-030117	Rel-5	Correction to SRI Information Flow	A	5.2.0
23.078	532	1	N2-030121	R99	Introduction of ResetTimer input in state WFI-DS	F	3.15.0
23.078	545		N2-030122	Rel-4	Introduction of ResetTimer input in state WFI-DS	A	4.7.0
23.078	546		N2-030123	Rel-5	Introduction of ResetTimer input in state WFI-DS	A	5.2.0

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CHANGE REQUEST

⌘   **23.078** CR **539**   ⌘**rev** **1** ⌘   Current version: **3.15.0** ⌘

*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 **X**

Title:	⌘	Inconsistency in Call Information Report in Re-Connect Case

Source:	⌘	Alcatel

Work item code:⌘	CAMEL3		**Date:** ⌘	10/02/2003

Category:	⌘	**F (essential correction)**	**Release:** ⌘	Rel-99

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

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

Reason for change:	⌘	29.078 V3.14.0 (2002-12) specifies in "11.9 CallInformationReport procedure" that "The report is sent at the end of a call party connection which is indicated by one of the events specified below.". The fact that the report is send at the end of the connection / in faliure cases is re-confirmed also in the "11.9.2.1 Normal procedure" for the Invoking entity (gsmSSF):

" If the gsmSSF FSM executes a state transition caused by one of the following events:
- release for the indicated or default leg;
- abandon for the indicated or default leg;
- Called party busy or Not Reachable for the indicated or default leg;
- gsmSSF no answer timer expiration for the indicated or default leg;
- route select failure for the indicated or default leg;
- release of call initiated by the gsmSCF (ReleaseCall),
and "CallInformationRequest" is pending for the indicated or default legs then one "CallInformationReport" operation is sent to the gsmSCF containing all information requested for that leg.".

    In contrary "Figure 4.64f: Process gsmSSF (sheet 6)" implies to have an Call Information Report for leg 1 if CAP_Connect is received in the state "Waiting for Instruction" and "Int_Connect" is issued. However in that case leg1 continues to exsist and no Call Information Report shall apply for leg1.
This is also independent on wether or not the Destination Number was modified. Also the decission box "DP was due to Call Forwarding" would not be necessary.

Summary of change:	⌘	Process gsmSSF, sheet 6: The decision boxes "DP was due to Call Forwarding" and "destination number changed" will be removed. The box "Handle_CIR_leg (leg 1)" will be removed. This is necessary because a CIR for leg 1 is only sent if leg 1 is released. This is not the case if the outgoing leg is re-connected. Delete in the above mentioned SDL the Call Information Report sending for leg1.

Consequences if not approved:	⌘	23.078 and 29.078 are inconsistent and different handling of the Call Information Report will exist in various handlings in the gsmSSFs and gsmSCFs and the services will not work.

Clauses affected:	⌘	4.5.6.4 Process gsmSSF and procedures			

		Y	**N**		
Other specs affected:	⌘	**X**		Other core specifications	⌘	TS 23.278 CR039
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	

— Modified section —
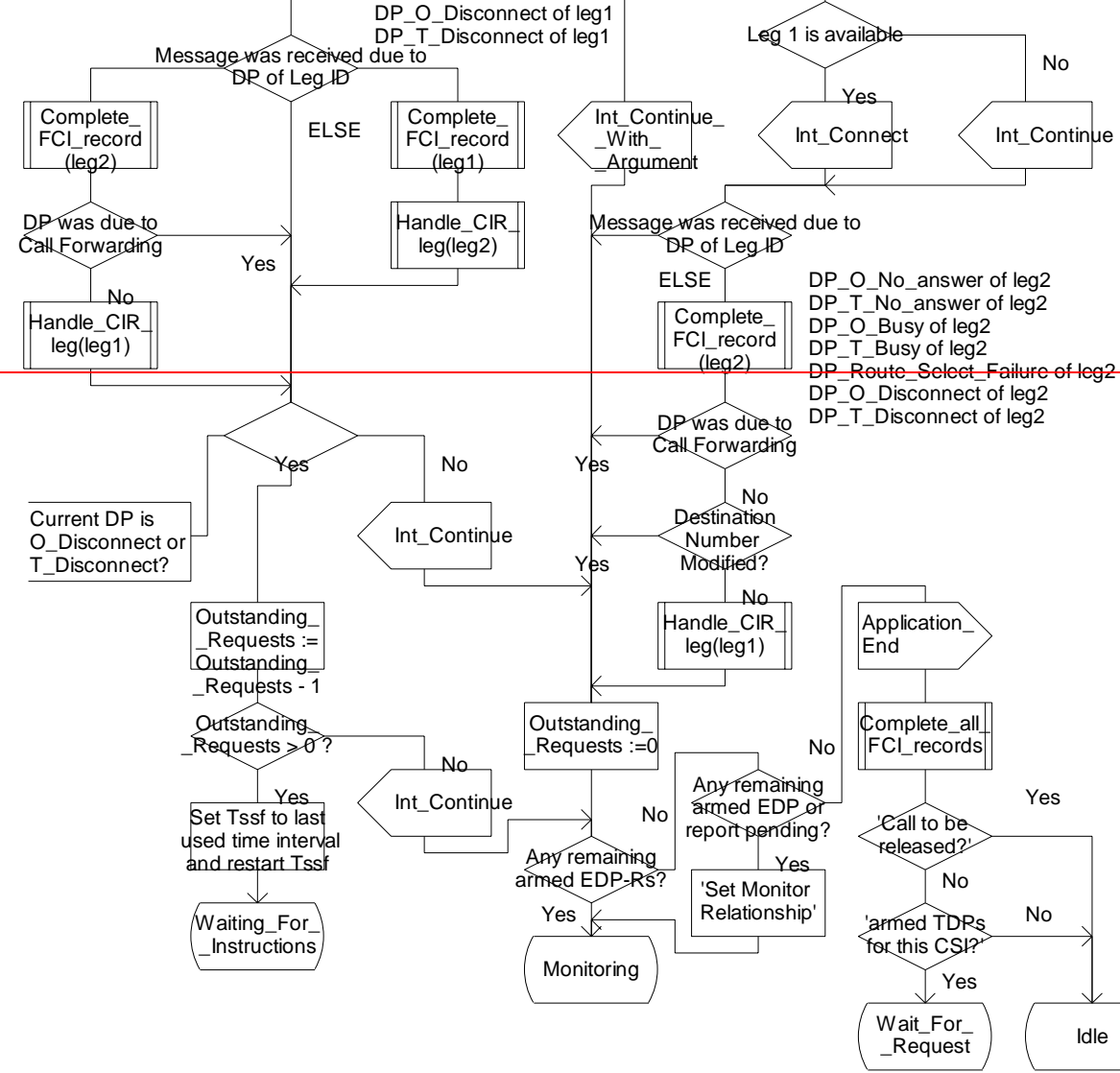
4.5.6.4 Process gsmSSF and procedures

...

Process gsmSSF 6(33)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the gsmSCF. */

Waiting_for_ _Instructions

CAP_Continue

CAP_Continue_ WithArgument

CAP_Connect

DP_O_No_answer of leg2
DP_T_No_answer of leg2
DP_O_Busy of leg2
DP_T_Busy of leg2
DP_Route_Select_Failure of leg2
DP_O_Disconnect of leg2
DP_T_Disconnect of leg2

Stop Tssf

Stop Tssf

Stop Tssf

DP_O_Disconnect of leg1
DP_T_Disconnect of leg1

Leg 1 is available

No

Message was received due to DP of Leg ID

Yes

Int_Connect

Int_Continue

Complete_ FCI_record (leg2)

ELSE

Complete_ FCI_record (leg1)

Int_Continue_ _With_ _Argument

DP was due to Call Forwarding

Yes

Handle_CIR_ leg(leg2)

Message was received due to DP of Leg ID

No

ELSE

Handle_CIR_ leg(leg1)

Complete_ FCI_record (leg2)

DP_O_No_answer of leg2
DP_T_No_answer of leg2
DP_O_Busy of leg2
DP_T_Busy of leg2
DP_Route_Select_Failure of leg2
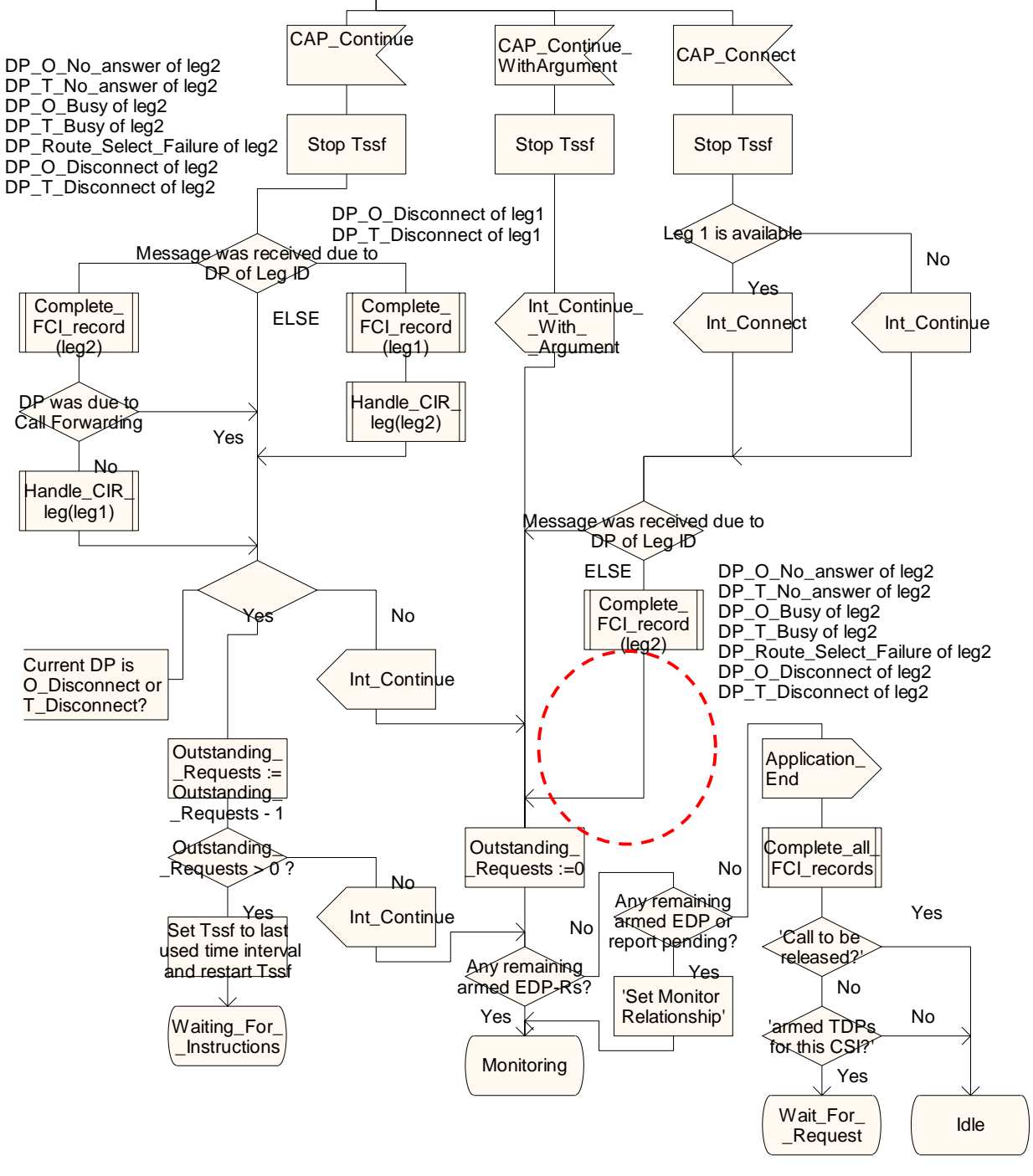DP_O_Disconnect of leg2
DP_T_Disconnect of leg2

DP was due to Call Forwarding

Yes

Yes

No

Destination Number Modified?

No

Int_Continue

Current DP is O_Disconnect or T_Disconnect?

No

Yes

Handle_CIR_ leg(leg1)

Application_ End

Outstanding_ _Requests := Outstanding_ _Requests - 1

Outstanding_ _Requests :=0

Complete_all_ FCI_records

Outstanding_ _Requests > 0 ?

No

Int_Continue

Any remaining armed EDP or report pending?

No

'Call to be released?'

Yes

Yes

Set Tssf to last used time interval and restart Tssf

Any remaining armed EDP-Rs?

Yes

'Set Monitor Relationship'

No

'armed TDPs for this CSI?'

No

Waiting_For_ _Instructions

Yes

Monitoring

Yes

Wait_For_ _Request

Idle

Figure 4.64f: Process gsmSSF (sheet 6)

— END —

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CHANGE REQUEST

⌘   **23.078** CR **540**   ⌘**rev** **1** ⌘   Current version: **4.7.0** ⌘

*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 **X**

Title: ⌘	Inconsistency in Call Information Report in Re-Connect Case	
Source: ⌘	Alcatel	
Work item code:⌘	CAMEL3	**Date:** ⌘ 10/02/2003
Category: ⌘ **A**		**Release:** ⌘ Rel-4

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

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

Reason for change: ⌘	29.078 V4.7.0 (2002-12) specifies in "11.9 CallInformationReport procedure" that "The report is sent at the end of a call party connection which is indicated by one of the events specified below.". The fact that the report is send at the end of the connection / in faliure cases is re-confirmed also in the "11.9.2.1 Normal procedure" for the Invoking entity (gsmSSF): " If the gsmSSF FSM executes a state transition caused by one of the following events: - release for the indicated or default leg; - abandon for the indicated or default leg; - Called party busy or Not Reachable for the indicated or default leg; - gsmSSF no answer timer expiration for the indicated or default leg; - route select failure for the indicated or default leg; - release of call initiated by the gsmSCF (ReleaseCall), and "CallInformationRequest" is pending for the indicated or default legs then one "CallInformationReport" operation is sent to the gsmSCF containing all information requested for that leg.". In contrary "Figure 4.64f: Process gsmSSF (sheet 6)" implies to have an Call Information Report for leg 1 if CAP_Connect is received in the state "Waiting for Instruction" and "Int_Connect" is issued. However in that case leg1 continues to exsist and no Call Information Report shall apply for leg1. This is also independent on wether or not the Destination Number was modified. Also the decission box "DP was due to Call Forwarding" would not be necessary.
Summary of change:⌘	Process gsmSSF, sheet 6: The decision boxes "DP was due to Call Forwarding" and "destination number changed" will be removed. The box "Handle_CIR_leg (leg 1)" will be removed. This is necessary because a CIR for leg 1 is only sent if leg 1 is released. This is not the case if the outgoing leg is re-connected. Delete in the above mentioned SDL the Call Information Report sending for leg1.

Consequences if not approved:	⌘	23.078 and 29.078 are inconsistent and different handling of the Call Information Report will exist in various handlings in the gsmSSFs and gsmSCFs and the services will not work.

Clauses affected:	⌘	4.5.6.4 Process gsmSSF and procedures		

		Y	**N**			
Other specs affected:	⌘	X		Other core specifications	⌘	TS 23.278 CR039
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	

— Modified section —

4.5.6.4 Process gsmSSF and procedures

...

Process gsmSSF 6(33)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

Waiting_for_ _Instructions

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the gsmSCF. */

CAP_Continue

CAP_Continue_ WithArgument

CAP_Connect

DP_O_No_answer of leg2
DP_T_No_answer of leg2
DP_O_Busy of leg2
DP_T_Busy of leg2
DP_Route_Select_Failure of leg2
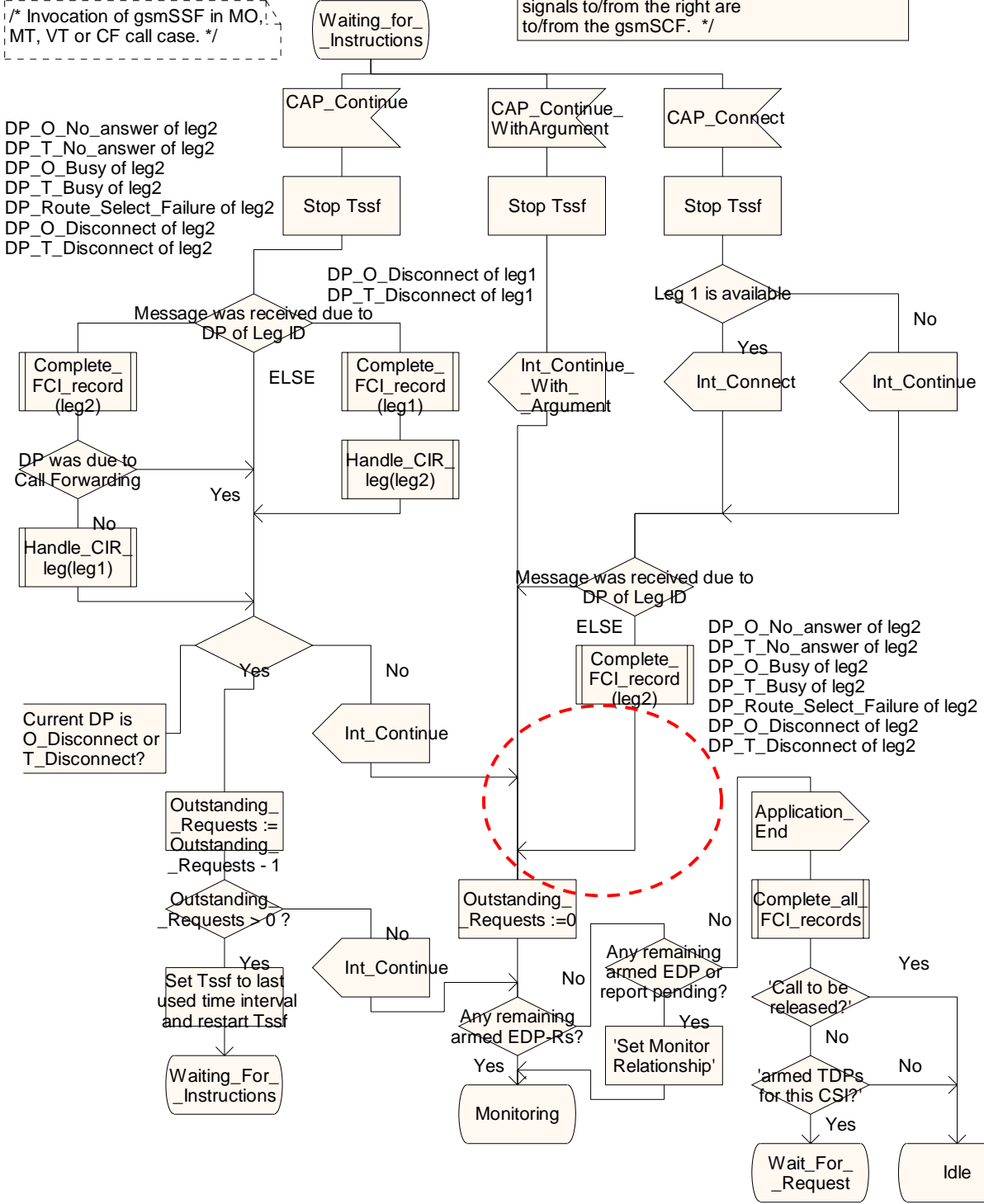DP_O_Disconnect of leg2
DP_T_Disconnect of leg2

Stop Tssf

Stop Tssf

Stop Tssf

DP_O_Disconnect of leg1
DP_T_Disconnect of leg1

Leg 1 is available

No

Message was received due to DP of Leg ID

Yes

Int_Connect

Int_Continue

Complete_ FCI_record (leg2)

ELSE

Complete_ FCI_record (leg1)

Int_Continue_ _With_ _Argument

Message was received due to DP of Leg ID

DP was due to Call Forwarding

Handle_CIR_ leg(leg2)

Yes

ELSE

DP_O_No_answer of leg2
DP_T_No_answer of leg2
DP_O_Busy of leg2
DP_T_Busy of leg2
DP_Route_Select_Failure of leg2
DP_O_Disconnect of leg2
DP_T_Disconnect of leg2

No

Handle_CIR_ leg(leg1)

Complete_ FCI_record (leg2)

DP was due to Call Forwarding

Yes

No

Yes

No

Current DP is O_Disconnect or T_Disconnect?

Int_Continue

Destination Number Modified?

Yes

Handle_CIR_ leg(leg1)

No

Application_ End

Outstanding_ _Requests := Outstanding_ _Requests - 1

Complete_all_ FCI_records

Outstanding_ _Requests > 0 ?

Int_Continue

Outstanding_ _Requests :=0

No

Any remaining armed EDP or report pending?

No

'Call to be released?'

Yes

Yes

Set Tssf to last used time interval and restart Tssf

No

Any remaining armed EDP-Rs?

Yes

'Set Monitor Relationship'

No

'armed TDPs for this CSI?'

No

Waiting_For_ _Instructions

Yes

Monitoring

Yes

Wait_For_ _Request

Idle

Process gsmSSF 6(33)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

Waiting_for_
_Instructions

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the gsmSCF. */

CAP_Continue

CAP_Continue_
WithArgument

CAP_Connect

DP_O_No_answer of leg2
DP_T_No_answer of leg2
DP_O_Busy of leg2
DP_T_Busy of leg2
DP_Route_Select_Failure of leg2
DP_O_Disconnect of leg2
DP_T_Disconnect of leg2

Stop Tssf

Stop Tssf

Stop Tssf

DP_O_Disconnect of leg1
DP_T_Disconnect of leg1

Leg 1 is available

No

Message was received due to
DP of Leg ID

Yes

Int_Connect

Int_Continue

Complete_
FCI_record
(leg2)

ELSE

Complete_
FCI_record
(leg1)

Int_Continue_
With
_Argument

DP was due to
Call Forwarding

Yes

Handle_CIR_
leg(leg2)

No

Handle_CIR_
leg(leg1)

Message was received due to
DP of Leg ID

ELSE

Complete_
FCI_record
(leg2)

DP_O_No_answer of leg2
DP_T_No_answer of leg2
DP_O_Busy of leg2
DP_T_Busy of leg2
DP_Route_Select_Failure of leg2
DP_O_Disconnect of leg2
DP_T_Disconnect of leg2

Yes

No

Current DP is
O_Disconnect or
T_Disconnect?

Int_Continue

Application_
End

Complete_all_
FCI_records

Outstanding_
Requests :=
Outstanding_
Requests - 1

Outstanding_
Requests :=0

Yes

'Call to be
released?'

Outstanding_
Requests > 0 ?

No

Any remaining
armed EDP or
report pending?

No

No

'armed TDPs
for this CSI?'

Yes

Set Tssf to last
used time interval
and restart Tssf

Int_Continue

No

Any remaining
armed EDP-Rs?

Yes

'Set Monitor
Relationship'

Yes

Wait_For_
_Request

Idle

Waiting_For_
_Instructions

Yes

Monitoring

Figure 4.64f: Process gsmSSF (sheet 6)

— END —

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CHANGE REQUEST

⌘ **23.078** CR **541** ⌘**rev** **1** ⌘ 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 **X**

Title: ⌘	Inconsistency in Call Information Report in Re-Connect Case
Source: ⌘	Alcatel

Work item code: ⌘	CAMEL3	**Date:** ⌘	10/02/2003

Category: ⌘	**A**	**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 <u>TR 21.900</u>.

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: ⌘	29.078 V5.2.0 (2002-12) specifies in "11.6 CallInformationReport procedure" that "The report shall be sent at the end of a call party connection which is indicated by one of the events specified below.". The fact that the report is send at the end of the connection / in faliure cases is re-confirmed also in the "11.6.2.1 Normal procedure" for the Invoking entity (gsmSSF): " If the gsmSSF FSM executes a state transition caused by one of the following events: - release for the indicated or default leg; - abandon for the indicated or default leg; - Called party Busy or Not Reachable for the indicated or default leg; - gsmSSF No_Answer timer expiration for the indicated or default leg; - route select failure for the indicated or default leg; - release of call initiated by the gsmSCF (ReleaseCall), and "CallInformationRequest" is pending for the indicated or default legs then one "CallInformationReport" operation is sent to the gsmSCF containing all information requested for that leg.". In contrary "Figure 4.95-14: Process CS_gsmSSF (sheet 14)" implies to have an Call Information Report for leg 1 if Int_Connect is received in the state "Waiting for Instruction" and "Int_Connect" is issued. However in that case leg1 continues to exsist and no Call Information Report shall apply for leg1. This is also independent on wether or not the Destination Number was modified. Also the decission box "DP was due to Call Forwarding" would not be necessary.
Summary of change: ⌘	Process CS_gsmSSF, sheet 14: The decision boxes "DP was due to Call Forwarding" and "destination number changed" will be removed. The box "Handle_CIR_leg (leg 1)" will be removed. This is necessary because a CIR for leg 1 is only sent if leg 1 is released. This is not the case if the outgoing leg is re-connected. Delete in the above mentioned SDL the Call Information Report sending for leg1.

Consequences if not approved:	⌘	23.078 and 29.078 are inconsistent and different handling of the Call Information Report will exist in various handlings in the gsmSSFs and gsmSCFs and the services will not work.

Clauses affected:	⌘	4.5.7.4 Process gsmSSF and procedures		

		Y	**N**			
Other specs affected:	⌘	**X**		Other core specifications	⌘	TS 23.278 CR039
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	

<div align="center">

— Modified section —

</div>

4.5.7.4 Process CS_gsmSSF and procedures

...

Process CS_gsmSSF 14(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. */

Waiting_for_ _Instructions

Int_Connect (LegID)

Int_ConnectTo Resource

Stop Tssf

Stop Tssf

Int_Connect

Connect_To_ Resource

ELSE

Message was received due to DP of Leg ID in DP_List (Connect in WFI)

result — fail

pass

Complete_ FCI_record (LegID)

AC (srfID) pending?

Set Tssf to last used time interval and restart Tssf

No — Yes

Return appropriate error to the CSA_gsmSCF

Start Tcp (srfID)

Waiting_For_ Instructions

Outstanding_ _Requests := Outstanding_ _Requests - 1

Tw(srfID)>0

No — Yes

Outstanding _Requests > 0 ?

No

Start Tw(srfID)

Yes

4
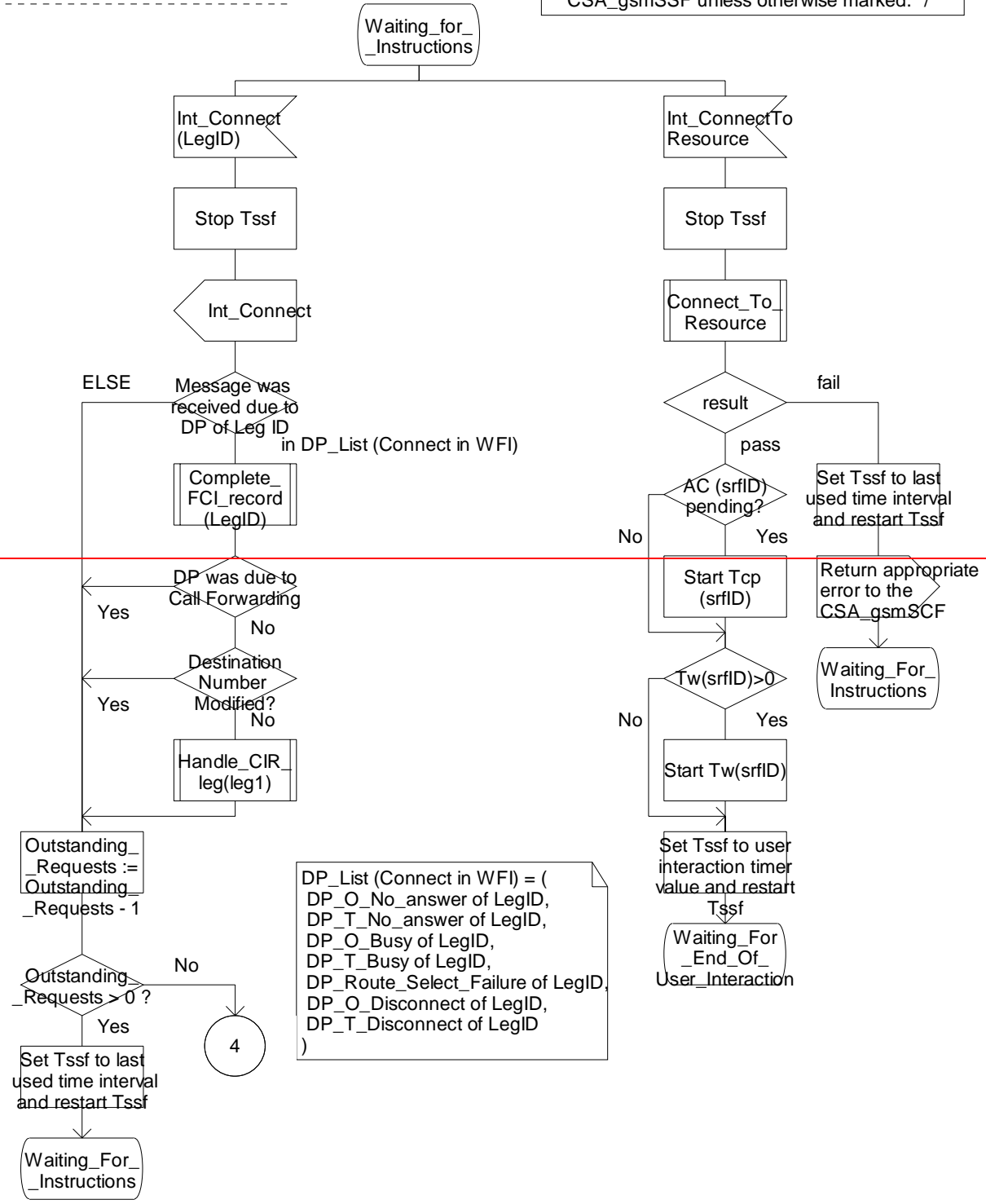
DP_List (Connect in WFI) = (DP_O_No_answer of LegID, DP_T_No_answer of LegID, DP_O_Busy of LegID, DP_T_Busy of LegID, DP_Route_Select_Failure of LegID, DP_O_Disconnect of LegID, DP_T_Disconnect of LegID)

Set Tssf to user interaction timer value and restart Tssf

Waiting_For _End_Of_ User_Interaction

Set Tssf to last used time interval and restart Tssf

Waiting_For_ _Instructions

Figure 4.95-14: Process CS_gsmSSF (sheet 14)

— **END** —

CHANGE REQUEST

⌘	**23.078** CR	**521**	⌘ **rev**	**1**	⌘	Current version:	**3.15.0**	⌘

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

Title: ⌘	Correction to SRI ack Information Flow	
Source: ⌘	Ericsson	
Work item code: ⌘	CAMEL3	***Date:*** ⌘ 11/02/2003
Category: ⌘	F (essential correction)	***Release:*** ⌘ R99

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 HLR sends SRI Ack to the GMSC, it may include T-CSI criteria in this Information Flow (IF). However, the T-CSI criteria are currently missing from the description of SRI Ack in the IF table in section 4.6.9.1.
	This error shall be corrected in TS 23.078.
	The DP criteria of T-CSI that the HLR may send to the GMSC may include only criteria associated with DP T_Busy or DP T_No_Answer.
Summary of change: ⌘	In the Information Flow table of SRI Ack, add the DP Criteria to the T-CSI Information Element description.
Consequences if not approved: ⌘	Interworking problems may occur; an HLR may not send the trigger criteria for T-CSI to the GMSC. This problem may hamper the deployment of CAMEL services that rely on the trigger criteria for T-CSI.

Clauses affected: ⌘	4.6.9.1

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

Other comments: ⌘	The table in section 4.6.9.1 refers to section 4.3.3 for a description of T-CSI. However, that shall be section 4.3.4. That error is corrected in the present CR.

4.6.9.1   Send Routeing Info ack

4.6.9.1.1   Description

This IF is specified in 3GPP TS 23.018 [3] and is used by the HLR to transfer the requested routeing information to the GMSC.

4.6.9.1.2   Information Elements

Send Routeing Info ack contains the following CAMEL specific IE:

Information element name	Required	Description
Location Information	C	This IE indicates the location of the served subscriber.
O-CSI	C	This IE identifies the subscriber as having originating CAMEL services. Shall be sent if O-CSI is active, and CFU or CFNRc has been invoked, or if both O-CSI and T-CSI are active.
D-CSI	C	This IE identifies the subscriber as having originating CAMEL dialled services. Shall be sent if D-CSI is active, and CFU or CFNRc has been invoked, or if both D-CSI and T-CSI are active.
Subscriber State	C	This IE indicates the status of the MS. The possible values of the IE are: - CAMELBusy: The VLR has indicated that the MS is engaged on a transaction for a mobile originating or terminated circuit-switched call. - NetworkDeterminedNotReachable: The VLR has indicated that the network can determine from its internal data that the MS is not reachable. - AssumedIdle: The VLR has indicated that the state of the MS is neither "CAMELBusy" nor "NetworkDeterminedNotReachable". - NotProvidedFromVLR: The VLR did not provide any information on subscriber state even though it was requested.
T-CSI	C	This IE identifies the subscriber as having terminating CAMEL services. Shall be sent if T-CSI is active and no Suppress T-CSI indicator is present in the SRI.
Basic Service Code	C	This IE indicates the type of basic service i.e. teleservice or bearer service.
CUG Subscription Flag	C	This IE indicates if the called party has a CUG subscription. It shall only be sent if the T-CSI is active and included in the Send Routing Information ack.
C	Conditional (The IE shall be sent, if available).	

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

Information element name	Required	Description
Service area ID	C1	See 3GPP TS 23.018 [3].
Cell ID	C1	See 3GPP TS 23.018 [3].
Current Location Retrieved	-	Not applicable
Location area ID	C1	See 3GPP TS 23.003 [37].
Selected LSA Identity	C	This IE indicates the LSA identity associated with the current position of the MS. Shall be present if the LSA ID in the subscriber data matches the LSA ID of the current cell. In the case of multiple matches the LSA ID with the highest priority shall be sent. See 3GPP TS 23.073 [23].
C	Conditional (The IE shall be sent, if available and SoLSA is supported).	
C1	Conditional (The IE shall be sent, if available. One and only one of the three conditional IEs shall be sent).	
-	Not applicable.	

O-CSI is defined in clause 4.3.1.

D-CSI is defined in clause 4.3.2.

T-CSI contains the following information:

Information element name	Required	Description
gsmSCF Address	M	This IE is described in clause 4.3.34.3.4.
Service Key	M	This IE is described in clause 4.3.34.3.4.
Default Call Handling	M	This IE is described in clause 4.3.34.3.4.
TDP List	M	This IE is described in clause 4.3.34.3.4.
DP Criteria	C1	This IE is described in clause 4.3.34.3.4.
CAMEL Capability Handling	C	This IE is described in clause 4.3.34.3.4. If this IE is absent, this indicates that CAMEL phase 1 is asked.
M Mandatory.		
C Conditional.		
C1 Conditional (The HLR shall send only the criteria associated with DP T_Busy or DP T_No_Answer, if available).		

End of Document

CHANGE REQUEST

	23.078 CR	543	⌘ rev		⌘	Current version:	4.7.0	⌘

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

Title: ⌘	Correction to SRI ack Information Flow	
Source: ⌘	Ericsson	
Work item code: ⌘	CAMEL3	***Date:*** ⌘ 11/02/2003
Category: ⌘	A	***Release:*** ⌘ Rel-4

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 HLR sends SRI Ack to the GMSC, it may include T-CSI criteria in this Information Flow (IF). However, the T-CSI criteria are currently missing from the description of SRI Res in the IF table in section 4.6.9.1. This error shall be corrected in TS 23.078. The DP criteria of T-CSI that the HLR may send to the GMSC may include only criteria associated with DP T_Busy or DP T_No_Answer.
Summary of change: ⌘	In the Information Flow table of SRI Ack, add the DP Criteria to the T-CSI Information Element description.
Consequences if not approved: ⌘	Interworking problems may occur; an HLR may not send the trigger criteria for T-CSI to the GMSC. This problem may hamper the deployment of CAMEL services that rely on the trigger criteria for T-CSI.

Clauses affected: ⌘	4.6.9.1

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

Other comments: ⌘	The table in section 4.6.9.1 refers to section 4.3.3 for a description of T-CSI. However, that shall be section 4.3.4. That error is corrected in the present CR.

4.6.9.1   Send Routeing Info ack

4.6.9.1.1   Description

This IF is specified in 3GPP TS 23.018 [3] and is used by the HLR to transfer the requested routeing information to the GMSC.

4.6.9.1.2   Information Elements

Send Routeing Info ack contains the following CAMEL specific IE:

Information element name	Required	Description
Location Information	C	This IE indicates the location of the served subscriber.
O-CSI	C	This IE identifies the subscriber as having originating CAMEL services. Shall be sent if O-CSI is active, and CFU or CFNRc has been invoked, or if both O-CSI and T-CSI are active.
D-CSI	C	This IE identifies the subscriber as having originating CAMEL dialled services. Shall be sent if D-CSI is active, and CFU or CFNRc has been invoked, or if both D-CSI and T-CSI are active.
Subscriber State	C	This IE indicates the status of the MS. The possible values of the IE are: - CAMELBusy: The VLR has indicated that the MS is engaged on a transaction for a mobile originating or terminated circuit-switched call. - NetworkDeterminedNotReachable: The VLR has indicated that the network can determine from its internal data that the MS is not reachable. - AssumedIdle: The VLR has indicated that the state of the MS is neither "CAMELBusy" nor "NetworkDeterminedNotReachable". - NotProvidedFromVLR: The VLR did not provide any information on subscriber state even though it was requested.
T-CSI	C	This IE identifies the subscriber as having terminating CAMEL services. Shall be sent if T-CSI is active and no Suppress T-CSI indicator is present in the SRI.
Basic Service Code	C	This IE indicates the type of basic service i.e. teleservice or bearer service.
CUG Subscription Flag	C	This IE indicates if the called party has a CUG subscription. It shall only be sent if the T-CSI is active and included in the Send Routing Information ack.
C	Conditional (The IE shall be sent, if available).	

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

Information element name	Required	Description
Service area ID	C1	See 3GPP TS 23.018 [3].
Cell ID	C1	See 3GPP TS 23.018 [3].
Current Location Retrieved	-	Not applicable
Location area ID	C1	See 3GPP TS 23.003 [37].
Selected LSA Identity	C	This IE indicates the LSA identity associated with the current position of the MS. Shall be present if the LSA ID in the subscriber data matches the LSA ID of the current cell. In the case of multiple matches the LSA ID with the highest priority shall be sent. See 3GPP TS 23.073 [23].
C	Conditional (The IE shall be sent, if available and SoLSA is supported).	
C1	Conditional (The IE shall be sent, if available. One and only one of the three conditional IEs shall be sent).	
-	Not applicable.	

O-CSI is defined in clause 4.3.1.

D-CSI is defined in clause 4.3.2.

T-CSI contains the following information:

Information element name	Required	Description
gsmSCF Address	M	This IE is described in clause ~~4.3.3~~4.3.4.
Service Key	M	This IE is described in clause ~~4.3.3~~4.3.4.
Default Call Handling	M	This IE is described in clause ~~4.3.3~~4.3.4.
TDP List	M	This IE is described in clause ~~4.3.3~~4.3.4.
DP Criteria	C1	This IE is described in clause ~~4.3.3~~4.3.4.
CAMEL Capability Handling	C	This IE is described in clause ~~4.3.3~~4.3.4. If this IE is absent, this indicates that CAMEL phase 1 is asked.
M Mandatory. C Conditional. C1 Conditional (The HLR shall send only the criteria associated with DP T_Busy or DP T_No_Answer, if available).		

*** End of Document ***

CHANGE REQUEST

⌘   **23.078 CR   544   ⌘rev   ⌘** Current version: **5.2.0** **⌘**

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

Title: ⌘	Correction to SRI ack Information Flow	
Source: ⌘	Ericsson	
Work item code:⌘	CAMEL3	**Date:** ⌘ 11/02/2003
Category: ⌘	A	**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 HLR sends SRI Ack to the GMSC, it may include T-CSI criteria in this Information Flow (IF). However, the T-CSI criteria are currently missing from the description of SRI Res in the IF table in section 4.6.9.1. This error shall be corrected in TS 23.078. The DP criteria of T-CSI that the HLR may send to the GMSC may include only criteria associated with DP T_Busy or DP T_No_Answer.
Summary of change:⌘	In the Information Flow table of SRI Ack, add the DP Criteria to the T-CSI Information Element description.
Consequences if not approved: ⌘	Interworking problems may occur; an HLR may not send the trigger criteria for T-CSI to the GMSC. This problem may hamper the deployment of CAMEL services that rely on the trigger criteria for T-CSI.

Clauses affected: ⌘	4.6.9.1	

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

Other comments: ⌘	

<div style="border: 1px solid black; text-align: center;">

*** *First Modified Section* ***

</div>

4.6.9.1　　Send Routeing Info ack

4.6.9.1.1　　Description

This IF is specified in 3GPP TS 23.018 [**Error! Reference source not found.**~~Error! Reference source not found.~~]; it is used by the HLR to transfer the requested routeing information to the GMSC.

4.6.9.1.2　　Information Elements

Send Routeing Info ack contains the following CAMEL specific information elements:

Information element name	Status	Description
Location Information	C	This IE indicates the location of the served subscriber.
O-CSI	S	O-CSI is defined in subclause **Error! Reference source not found.**~~Error! Reference source not found.~~. This IE identifies the subscriber as having originating CAMEL services. It shall be present if O-CSI is active, and CFU or CFNRc has been invoked, or if both O-CSI and T-CSI are active.
D-CSI	S	D-CSI is defined in subclause **Error! Reference source not found.**~~Error! Reference source not found.~~. This IE identifies the subscriber as having originating CAMEL dialled services. It shall be present if D-CSI is active, and CFU or CFNRc has been invoked, or if both D-CSI and T-CSI are active.
Subscriber State	C	This IE indicates the state of the MS. The possible values of the IE are: - CAMEL Busy: The VLR has indicated that the MS is engaged in a transaction for a mobile originating or terminated circuit-switched call. - Network Determined Not Reachable: The HLR or VLR has indicated that the network can determine from its internal data that the MS is not reachable. - Assumed Idle: The VLR has indicated that the state of the MS is neither "CAMEL Busy" nor "Network Determined Not Reachable". - Not Provided From VLR: The VLR did not provide any information on subscriber state even though it was requested.
T-CSI	S	This IE is described in a table below. This IE identifies the subscriber as having terminating CAMEL services. It shall be present if T-CSI is active and no Suppress T-CSI indicator is present in the Send Routeing Info IF.
Basic Service Code	C	This IE indicates the type of basic service i.e., teleservice or bearer service.
CUG Subscription Flag	S	This IE indicates if the called party has a CUG subscription. It shall be present only if the T-CSI is active and included in the Send Routing Information ack IF.
Supported CAMEL Phases In VMSC	S	This IE indicates the supported CAMEL phases of the VLR. It shall be present if known by the HLR, otherwise it shall be absent.
Offered CAMEL4 CSIs In VMSC	S	This IE indicates the CAMEL phase 4 CSIs offered in the VMSC. It shall be present if known by the HLR, otherwise it shall be absent.
VMSC Address	M	This IE indicates the E.164 address of the VMSC in whose area the B subscriber is currently registered.

Location Information is defined in 3GPP TS 23.018 [**Error! Reference source not found.**~~Error! Reference source not found.~~]. The following differences apply:

Information element name	Status	Description
Service area ID	C,E	See 3GPP TS 23.018 [**Error! Reference source not found.**~~Error! Reference source not found.~~].
Cell ID	C,E	See 3GPP TS 23.018 [**Error! Reference source not found.**~~Error! Reference source not found.~~].
VLR Number	C	See 3GPP TS 23.018 [**Error! Reference source not found.**~~Error! Reference source not found.~~]. The HLR shall include the internally stored VLR Number.
Current Location Retrieved	-	Not applicable
Location area ID	C,E	See 3GPP TS 23.003 [**Error! Reference source not found.**~~Error! Reference source not found.~~].
Selected LSA Identity	S	This IE indicates the LSA identity associated with the current position of the MS. Shall be present if the LSA ID in the subscriber data matches the LSA ID

Information element name	Status	Description
		of the current cell. If there are multiple matches the LSA ID with the highest priority shall be sent. See 3GPP TS 23.073 [**Error! Reference source not found.**~~Error! Reference source not found.~~].

T-CSI contains the following information elements:

Information element name	Status	Description
gsmSCF Address	M	This IE is described in subclause **Error! Reference source not found.**~~Error! Reference source not found.~~.
Service Key	M	This IE is described in subclause **Error! Reference source not found.**~~Error! Reference source not found.~~.
Default Call Handling	M	This IE is described in subclause **Error! Reference source not found.**~~Error! Reference source not found.~~.
TDP List	M	This IE is described in subclause **Error! Reference source not found.**~~Error! Reference source not found.~~.
DP Criteria	S	This IE is described in subclause 4.3.5. The HLR shall send only the criteria associated with DP T_Busy or DP T_No_Answer, if available.
CAMEL Capability Handling	C	This IE is described in subclause **Error! Reference source not found.**~~Error! Reference source not found.~~. If this IE is absent then this indicates that CAMEL phase 1 support is requested.

Offered CAMEL4 CSIs In VMSC 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 known by the HLR, otherwise it shall be absent.
D-CSI	S	This IE indicates the offer of CAMEL phase 4 D-CSI. It shall be present if known by the HLR, otherwise it shall be absent.
VT-CSI	S	This IE indicates the offer of CAMEL phase 4 VT-CSI. It shall be present if known by the HLR, otherwise it shall be absent.
MT-SMS-CSI	S	This IE indicates the offer of CAMEL phase 4 MT-SMS-CSI. It shall be present if known by the HLR, otherwise it shall be absent.

*** End of Document ***

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CHANGE REQUEST

| ⌘ | **23.078** CR **532** | ⌘**rev** | **1** | ⌘ | Current version: | **3.15.0** | ⌘ |

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 **X**

Title:	⌘	Introduction of ResetTimer input in state WFI-DS
Source:	⌘	Nokia
Work item code: ⌘	CAMEL3	**Date:** ⌘　11/02/2003
Category:	⌘	**F (essential correction)**　　　**Release:** ⌘　R99

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

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

Reason for change:	⌘	Input ResetTimer is missing in CS_gsmSSF 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:	⌘	

	Y	N		
Other specs affected: ⌘	X		Other core specifications ⌘	N2-030060 23.278-CR028
		X	Test specifications	
		X	O&M Specifications	

Other comments:	⌘	

-- First Modified Section --

4.5.7.4   Process CS_gsmSSF and procedures
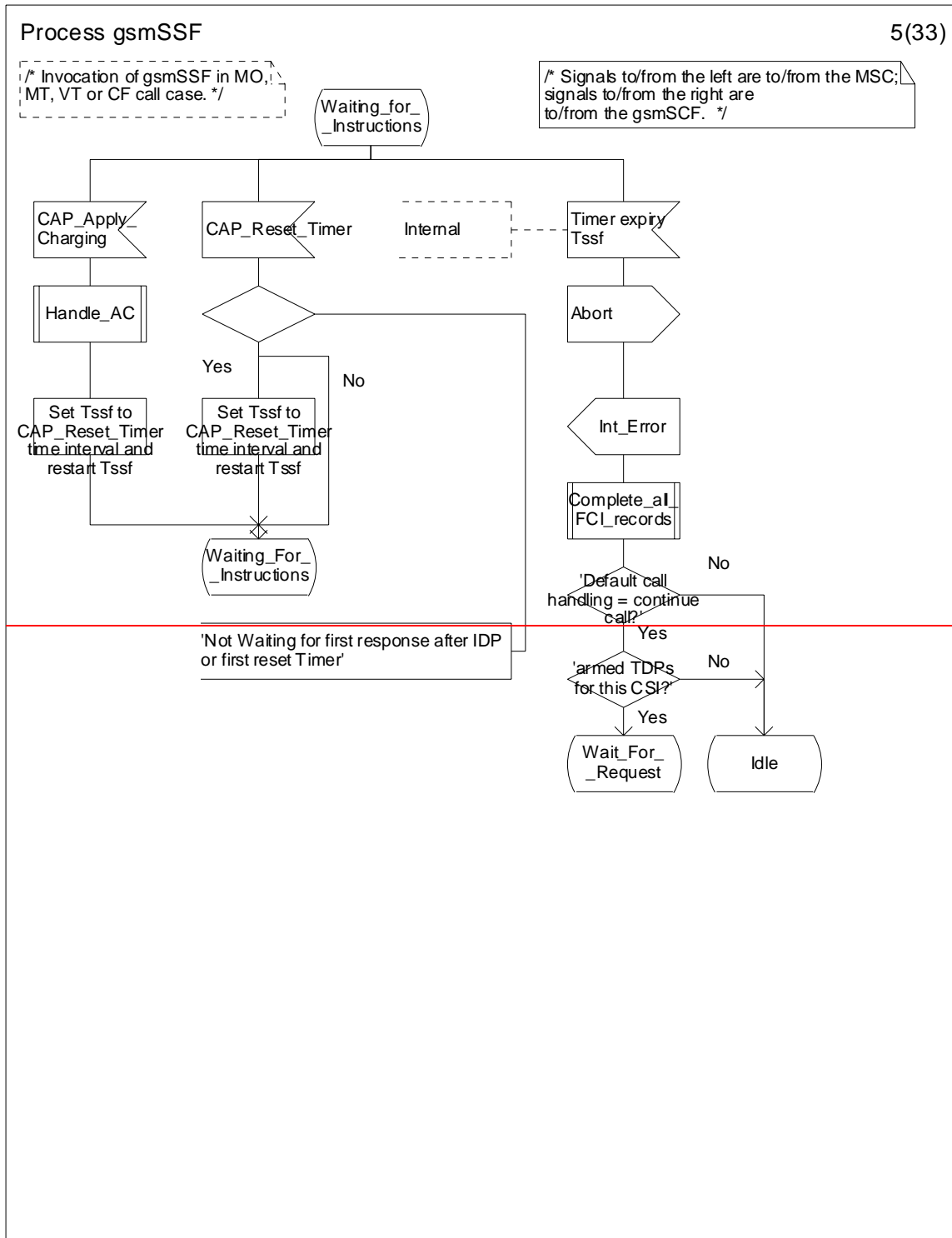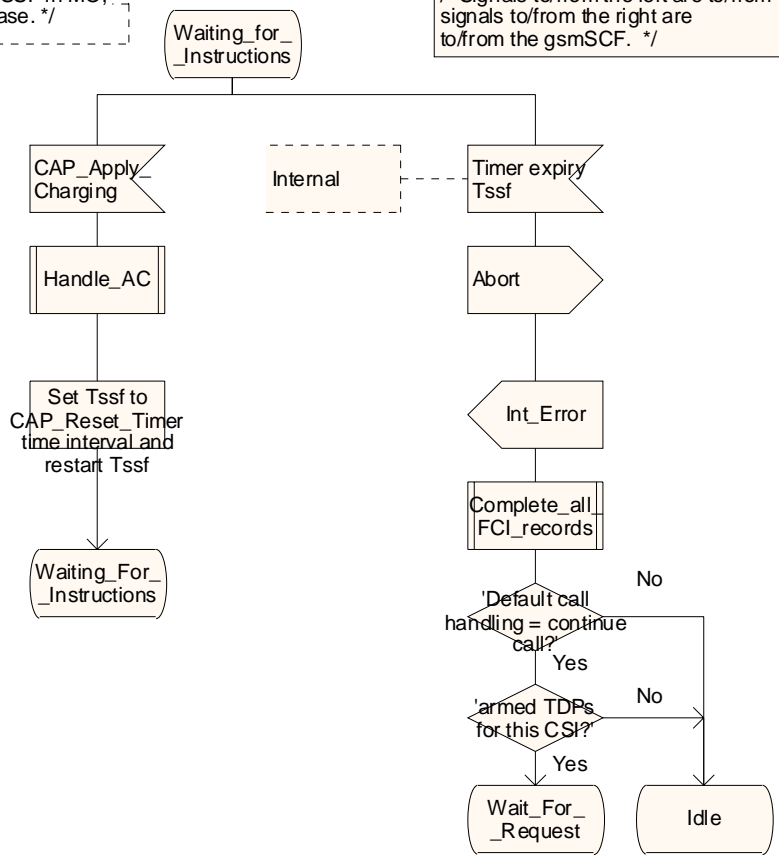

Figure 4.64e: Process gsmSSF (sheet 5) - old

Process gsmSSF   5(34)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

Waiting_for_ _Instructions

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the gsmSCF. */

CAP_Apply_ Charging

Internal

Timer expiry Tssf

Handle_AC

Abort

Set Tssf to CAP_Reset_Timer time interval and restart Tssf

Int_Error

Complete_all_ FCI_records

Waiting_For_ _Instructions

'Default call handling = continue call?'

No

Yes

'armed TDPs for this CSI?'

No

Yes

Wait_For_ _Request

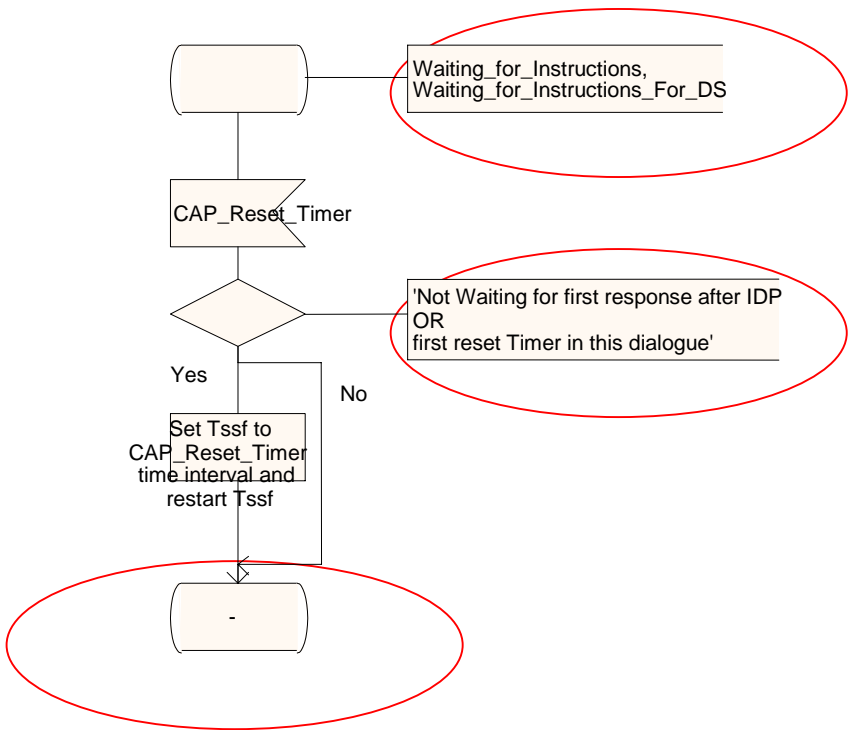Idle

Process gsmSSF   6(34)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

/* Signals to/from the left are to/from the MSC, signals to/from the right are to/from the gsmSCF. */

Waiting_for_Instructions,
Waiting_for_Instructions_For_DS

CAP_Reset_Timer

'Not Waiting for first response after IDP
OR
first reset Timer in this dialogue'

Yes   No

Set Tssf to
CAP_Reset_Timer
time interval and
restart Tssf

-

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CHANGE REQUEST

⌘	**23.078** CR **545**	⌘rev	**-**	⌘	Current version:	**4.7.0**	⌘

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 **X**

Title:	⌘	Introduction of ResetTimer input in state WFI-DS

Source:	⌘	Nokia

Work item code:	⌘	CAMEL3		**Date:** ⌘	11/02/2003

Category:	⌘	**A**		**Release:** ⌘	Rel-4

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

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

Reason for change:	⌘	Input ResetTimer is missing in CS_gsmSSF 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:	⌘	

	Y	N			
Other specs affected: ⌘	X		Other core specifications	⌘	N2-030060 23.278-CR028
		X	Test specifications		
		X	O&M Specifications		

Other comments:	⌘	

-- First Modified Section --

4.5.7.4   Process CS_gsmSSF and procedures

Process gsmSSF   5(33)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

Waiting_for_ _Instructions

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the gsmSCF. */

CAP_Apply_ Charging

CAP_Reset_Timer

Internal

Timer expiry Tssf

Handle_AC

Abort

Yes   No

Set Tssf to CAP_Reset_Timer time interval and restart Tssf

Set Tssf to CAP_Reset_Timer time interval and restart Tssf

Int_Error

Waiting_For_ _Instructions

Complete_all_ FCI_records

No

'Default call handling = continue call?'

'Not Waiting for first response after IDP or first reset Timer'

Yes

'armed TDPs for this CSI?'   No

Yes

Wait_For_ _Request

Idle
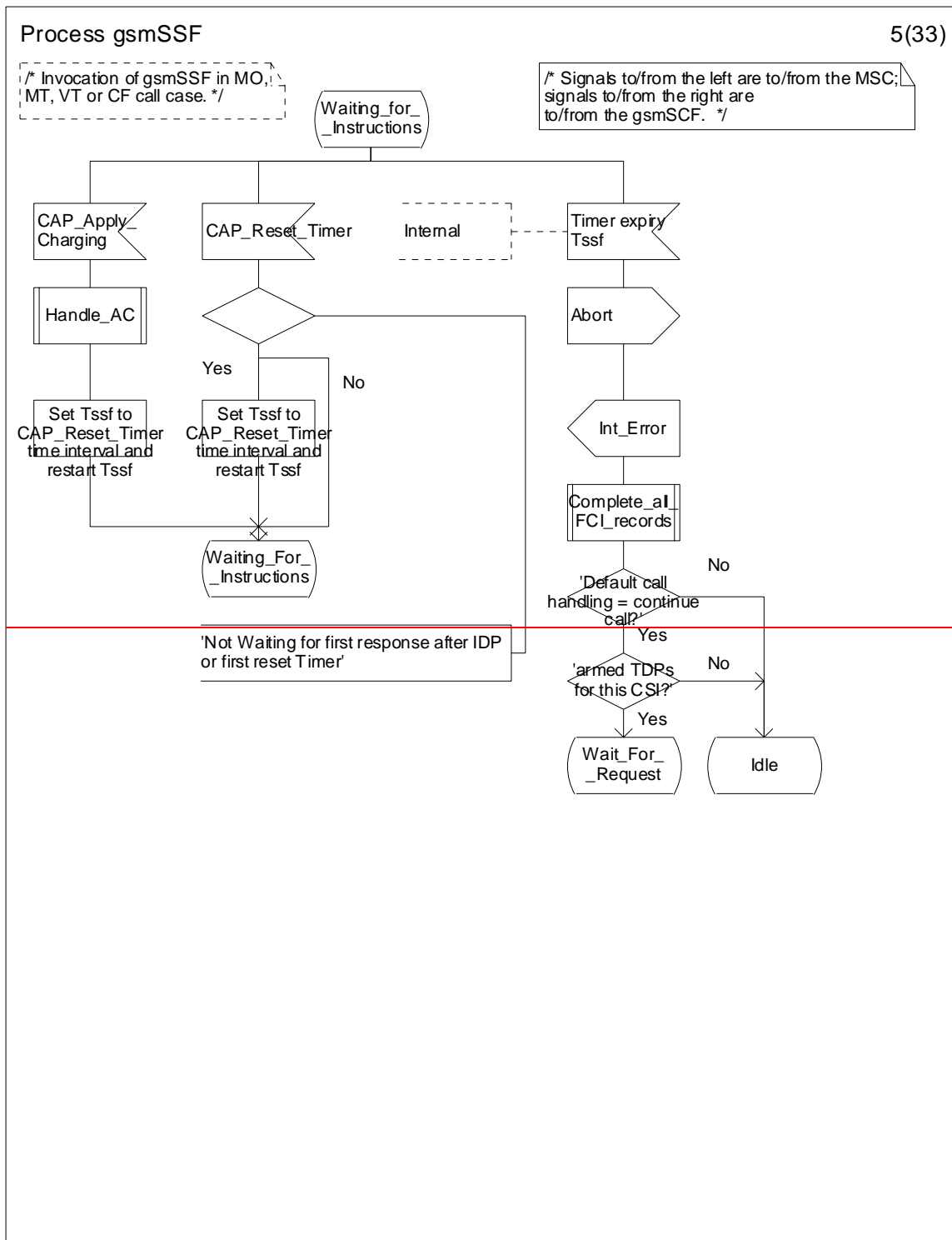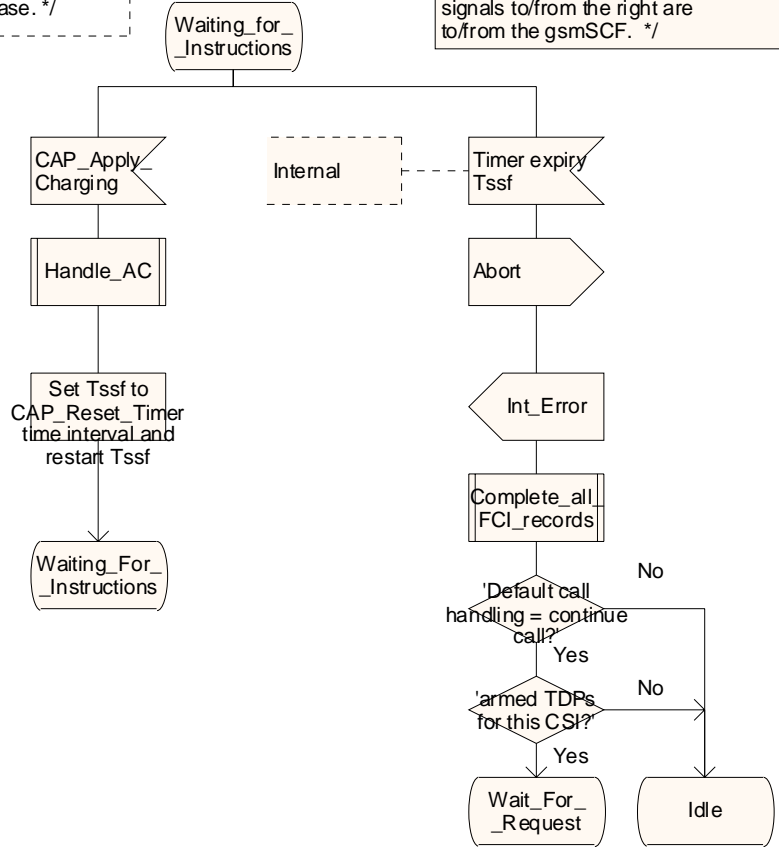
Figure 4.64e: Process gsmSSF (sheet 5) - old

Process gsmSSF   5(34)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

Waiting_for_ _Instructions

/* Signals to/from the left are to/from the MSC; signals to/from the right are to/from the gsmSCF. */

CAP_Apply_ Charging

Internal

Timer expiry Tssf

Handle_AC

Abort

Set Tssf to CAP_Reset_Timer time interval and restart Tssf

Int_Error

Complete_all_ FCI_records

Waiting_For_ _Instructions

'Default call handling = continue call?'   No

Yes

'armed TDPs for this CSI?'   No

Yes

Wait_For_ _Request

Idle

Process gsmSSF 6(34)

/* Invocation of gsmSSF in MO, MT, VT or CF call case. */

/* Signals to/from the left are to/from the MSC, signals to/from the right are to/from the gsmSCF. */
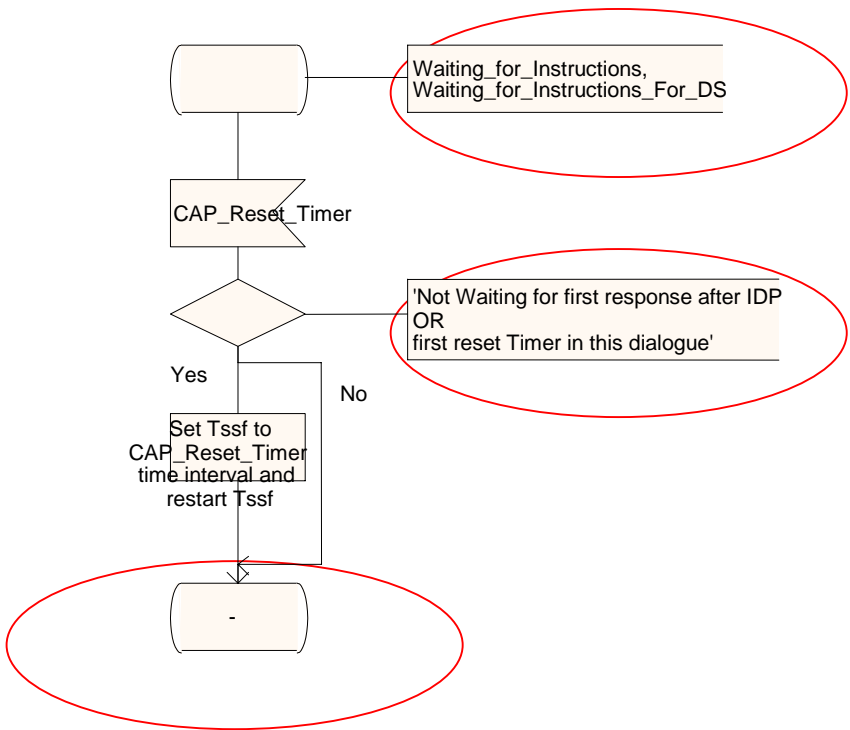
Waiting_for_Instructions, Waiting_for_Instructions_For_DS

CAP_Reset_Timer

'Not Waiting for first response after IDP OR first reset Timer in this dialogue'

Yes

No

Set Tssf to CAP_Reset_Timer time interval and restart Tssf

-

CR-Form-v7

CHANGE REQUEST

| ⌘ | **23.078** CR **546** | ⌘**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 **X**

Title: ⌘	Introduction of ResetTimer input in state WFI-DS	
Source: ⌘	Nokia	
Work item code:⌘	CAMEL3	***Date:*** ⌘ 11/02/2003
Category: ⌘	**A**	***Release:*** ⌘ Rel-5

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

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

Reason for change: ⌘	Input ResetTimer is missing in CS_gsmSSF 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: ⌘	

	Y	N		
Other specs affected: ⌘	X		Other core specifications ⌘	N2-030060 23.278-CR028
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

-- First Modified Section --

4.5.7.4   Process CS_gsmSSF and procedures

Process CS_gsmSSF   20(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. */

Waiting_for_
_Instructions

Int_Reset_Timer

No

Yes

Set Tssf to
Int_Reset_Timer
time interval and
restart Tssf

Waiting_For_
_Instructions

'Not Waiting for first
response after IDP
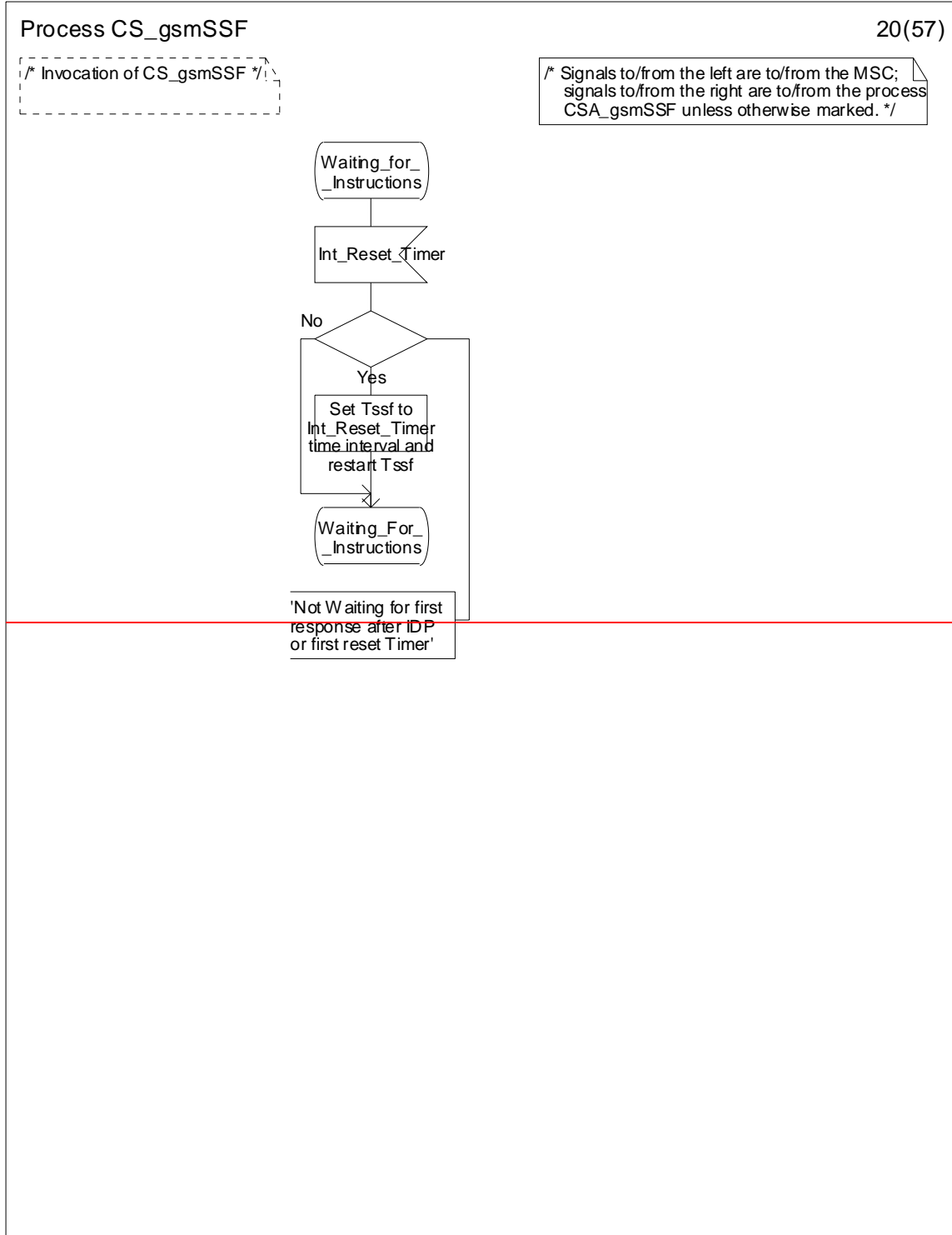or first reset Timer'

Figure 4.95-20: Process CS_gsmSSF (sheet 20)

Process CS_gsmSSF　　　　　　　　　　　　　　　　　　　　　　　　　20(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. */

Waiting_for_Instructions,
Waiting_for_Instructions_For_DS

Int_Reset_Timer

'Not Waiting for first
response after IDP
OR
First reset timer in
this dialogue'?

No

Yes

Set Tssf to
Int_Reset_Timer
time interval and
restart Tssf

-