3GPP TSG CN Plenary Meeting #17 **NP-020452**
4th – 6th September 2002 Biarritz, FRANCE.

Source: TSG CN WG4

Title: Camel4

Agenda item: 8.3

Document for: APPROVAL

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
23.018	111		N4-020965	Rel5	Setting of Leg1_Status variable	F	5.3.0
29.002	480		N4-021047	Rel5	Removal of ChargingNotification feature	C	5.2.0
23.008	057		N4-021048	Rel5	Wrong Camel capability handling for the O-CSI, T-CSI, VT-CSI and D-CSI	F	5.1.0

3GPP TSG CN WG4 Meeting #15 ***N4-021048***
Helsinki, Finland, 29th July – 2nd August 2002

3GPP TSG CN WG2 Meeting #25 ***N2-020673***
Helsinki, Finland, 29th July – 2nd August 2002

CR-Form-v7

CHANGE REQUEST

⌘ **23.008** **CR** **057** ⌘ **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:	⌘	Wrong Camel capability handling for the O-CSI, T-CSI, VT-CSI and D-CSI
Source:	⌘	CN4
Work item code:	⌘	CAMEL phase 4
Date:	⌘	16/07/2002
Category:	⌘	**F**
Release:	⌘	REL-5

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

Use one of the following releases:

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

Reason for change:	⌘	The Camel capability handling of the O-CSI, T-CSI, VT-CSI, D-CSI can be set to Camel phase 4.
Summary of change:	⌘	The Camel handling of a subscriber with O-CSI, T-CSI, VT-CSI has been upgrated in Camel phase 4 to consider CPH operations. Moreover the handling of a D-CSI at DP3 may occur after the handling of an O-CSI at DP2. In case the O-CSI is phase 4 it is preferable to have a phase 4 D-CSI and doing so to remain in a phase 4 logic.
Consequences if not approved:	⌘	Camel phase 4 will not be considered for O-CSI, T-CSI, VT-CSI and D-CS

Clauses affected:	⌘	2.14.1.1/2.14.1.2/2.14.1.11/2.14.3.1/2.14.3.2/2.14.3.7			
Other specs affected:	⌘	**Y** / **N**	Other core specifications	⌘	Rel-5 23.078-CR422
		X /	Other core specifications		
		/ **X**	Test specifications		
		/ **X**	O&M Specifications		
Other comments:	⌘				

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

****** First modified section *****

2.14 Data related to CAMEL

2.14.1 Subscriber Data stored in HLR

2.14.1.1 Originating CAMEL Subscription Information (O-CSI)

This data defines the contents of the Originating CAMEL subscription information used to interwork with the gsmSCF for MO and MF call. It consists of:

- A TDP list. The TDP list is a list of TDP descriptions. Each TDP description contains the following elements:

  1. DP Value. The DP value identifies the DP in the MO State Model where service triggering may take place. For O-CSI, the allowed DP value are *DP Collected_info, DP Route_Select_Failure.*

  2. A gsmSCF address. It is the gsmSCF address (E164 number) where the CAMEL service is treated for the subscriber. A gsmSCF address is associated to each serviceKey.

  3. A serviceKey. The serviceKey identifies to the gsmSCF the service logic. A serviceKey is associated to each TDP.

  4. A default Call Handling. The default call handling indicates whether the call shall be released or continued as requested in case of error in the gsmSSF to gsmSCF dialogue. A default Call Handling is associated to each serviceKey.

  5. DP criteria. The DP criteria indicates on which criteria the gsmSSF shall access the gsmSCF. DP criteria is associated to each TDP.

TDP	Triggering Criteria (*)	ServiceKey	gsmSCF address	Default Call Handling
DP Collected_ Info	No Criterion Number criteria Basic service code criteria Call type criteria	One ServiceKey	One E164 gsmSCF address	One Default call handling
DP Route_Select_ Failure	No criterion Cause value criteria	One ServiceKey	One E164 gsmSCF address	One Default call handling

(*) One or more TDP criteria shall be applicable. All applicable triggering criteria must be satisfied before the dialogue is established with the gsmSCF.

- CAMEL capability handling. It gives the CAMEL phase associated to the O-CSI (CAMEL phase1, phase2, ~~or~~ phase3, or phase4).

- The CSI state. The CSI state indicates whether the O-CSI is active or not.

- The notification flag, the notification flag indicates whether changes of the O-CSI shall trigger Notification on Change of Subscriber Data.

2.14.1.2 Terminating CAMEL Subscription Information (T-CSI) and VMSC Terminating CAMEL Subscription Information (VT-CSI));

This data defines the contents of the terminating CAMEL subscription information used to interwork with the gsmSCF for MT call. It consists of:

- A TDP list. The TDP list is a list of TDP descriptions. Each TDP description contains the following elements:

1. DP Value. The DP value identifies the DP in the MT State Model where service triggering may take place. For T-CSI, the allowed DP value are DP Terminating_Attempt_Authorised, DP T_Busy, DP T_No_Answer.

2. A gsmSCF address. It is the gsmSCF address (E.164 number) where the CAMEL service is treated for the subscriber. A gsmSCF address is associated to each serviceKey.

3. A serviceKey. The serviceKey identifies to the gsmSCF the service logic. A serviceKey is associated to each TDP.

4. A default Call Handling. The default call handling indicates whether the call shall be released or continued as requested in case of error in the gsmSSF to gsmSCF dialogue. A default Call Handling is associated to each serviceKey.

5. DP criteria. The DP criteria indicates on which criteria the gsmSSF shall access the gsmSCF. DP criteria is associated to each TDP.

TDP	Triggering Criteria (*)	ServiceKey	gsmSCF address	Default Call Handling
DP Terminating_ Attempt_Authorised	No Criterion Basic service criteria	One serviceKey	One E164 gsmSCF address	One Default call handling
DP T_Busy	No criterion Cause value criteria	One serviceKey	One E164 gsmSCF address	One Default call handling
DP T_No_Answer	No criterion Cause value criteria	One service Key	One E164 gsmSCF address	One Default call handling

(*) One or more TDP criteria shall be applicable. All applicable triggering criteria must be satisfied before the dialogue is established with the gsmSCF.

- CAMEL capability handling. It gives the CAMEL phase associated to the T-CSI/VT-CSI (CAMEL phase1, ~~or~~ phase2, ~~or~~ phase3, or phase4).

- The CSI state indicates whether the T-CSI/VT-CSI is active or not.

- Notification flag. The notification flag indicates whether the change of the T-CSI/VT-CSI shall trigger Notification on Change of Subscriber data.

****** End of First modified section *****

****** Second modified section *****

2.14.1.11 Dialled service CAMEL Subscription Information (D-CSI)

This data defines the contents of the dialled service CAMEL subscription information used to interwork with the gsmSCF for MO and MF call. It is applicable at TDP Analysed Info. It consists of:

- DP Criteria list. This consists of 1 to 10 entries. Each entry shall contain the following items:

  1. DP Criterion. It indicates when the gsmSSF shall request gsmSCF for instructions. It is a destination number.

  2. A gsmSCF address. It is the gsmSCF address (E164 number) where this Subscribed Dialled CAMEL service is treated for the subscriber. A gsmSCF address is associated to each DP Criterion.

  3. A serviceKey. The serviceKey identifies to the gsmSCF the service logic. A serviceKey is associated to each DP Criterion.

4. A default Call Handling. It indicates whether the call shall be released or continued as requested in case of error in the gsmSSF to gsmSCF dialogue. A default Call Handling is associated to each DP Criterion.

- CAMEL capability handling. It indicates the CAMEL phase associated to the D-CSI (CAMEL phase3, or Camel phase4 shall be indicated).
- CSI state: indicates whether the D-CSI is active or not.
- Notification Flag. It indicates whether the change of the D-CSI shall trigger the Notification on Change of Subscriber Data.

****** End of Second modified section *****

******Third modified section *****

2.14.3 Subscriber data stored in VLR

2.14.3.1 Originating CAMEL Subscription Information (O-CSI)

The Originating CAMEL Subscription Information (O-CSI) are stored in the VLR.

This data defines the contents of the originating CAMEL subscription information used to interwork with the gsmSCF for MO and CF calls. It consists of:

- A TDP list: The TDP list is a list of TDP descriptions. Each TDP description contains the following elements:

1. DP Value. The DP value identifies the DP in the MO State Model where service triggering may take place. For O-CSI, the allowed DP value are *DP Collected_info, DP Route_Select_Failure.*
2. A gsmSCF address. It is the gsmSCF address (E164 number) where the CAMEL service is treated for the subscriber. A gsmSCF address is associated to each serviceKey.
3. A serviceKey. The serviceKey identifies to the gsmSCF the service logic.. A serviceKey is associated to each TDP.
4. A default Call Handling. The default call handling indicates whether the call shall be released or continued as requested in case of error in the gsmSSF to gsmSCF dialogue. A default Call Handling is associated to each serviceKey.
5. DP criteria: The DP criteria indicates on which criteria the gsmSSF shall access the gsmSCF. DP criteria is associated to each TDP.

- CAMEL capability handling. It gives the CAMEL phase associated to the O-CSI (CAMEL phase1, ~~or~~ phase2, ~~or~~ phase3, or phase4).

2.14.3.2 VMSC Terminating CAMEL Subscription Information (VT-CSI)

This data defines the contents of the visited terminating CAMEL subscription information used by the VMSC to interwork with the gsmSCF for an MT call. It consists of:

- A TDP list. The TDP list is a list of TDP descriptions. Each TDP description contains the following elements:

1. DP Value. The DP value identifies the DP in the MT State Model where service triggering may take place. For VT-CSI, the allowed DP value are *DP Terminating Attempt Authorised, DP T_Busy, DP T_No_Answer.*

2. A gsmSCF address. It is the gsmSCF address (E164 number) where the CAMEL service is treated for the subscriber. A gsmSCF address is associated to each serviceKey.

3. A serviceKey. The serviceKey identifies to the gsmSCF the service logic. A serviceKey is associated to each TDP.

4. A default Call Handling. The default call handling indicates whether the call shall be released or continued as requested in case of error in the gsmSSF to gsmSCF dialogue. A default Call Handling is associated to each serviceKey.

5. DP criteria: The DP criteria indicates on which criteria the gsmSSF shall access the gsmSCF.

- CAMEL capability handling. It gives the CAMEL phase associated to the VT-CSI. It is set to CAMEL phase3 or phase4.

******End of third modified section *****

******Fourth modified section *****

2.14.3.7 Dialled service CAMEL Subscription Information (D-CSI)

This data defines the contents of the dialled service CAMEL subscription information used to interwork with the gsmSCF for MO and MF call. It is applicable at TDP Analysed Info. It consists of:

- DP Criteria list, this consists of 1 to 10 entries containing : DP Criterion: It indicates when the gsmSSF shall request gsmSCF for instructions.

  1. A gsmSCF address. It is the gsmSCF address (E164 number) where this Subscribed Dialled CAMEL service is treated for the subscriber. A gsmSCF address is associated to each DP Criterion.

  2. A serviceKey. The serviceKey identifies to the gsmSCF the service logic. A serviceKey is associated to each DP Criterion.

  3. A default Call Handling. It indicates whether the call shall be released or continued as requested in case of error in the gsmSSF to gsmSCF dialogue. A default Call Handling is associated to each DP Criterion.

- CAMEL capability handling. It indicates the CAMEL phase associated to the D-CSI (CAMEL phase3 or CAMEL phase4 shall be indicated).

******End of Fourth modified section *****

3GPP TSG CN WG4 Meeting #15 ***N4-020965***
Helsinki, Finland, 29th July – 2nd August 2002

3GPP TSG CN WG2 Meeting #25 ***N2-020696***
Helsinki, Finland, 29th July – 2nd August 2002

CR-Form-v7

CHANGE REQUEST

⌘ **23.018** **CR** **111** ⌘ **rev** **-** ⌘ Current version: **5.3.0** ⌘

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

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

Title:	⌘	Setting of Leg1_Status variable
Source:	⌘	CN4
Work item code:	⌘	CAMEL4
Date:	⌘	18th July 2002
Category:	⌘	**F**
Release:	⌘	REL-5

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

Use one of the following releases:

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

Reason for change:	⌘	When a call is answered, if a CAMEL Phase 4 control relationship exists, the handling of the call splits into two separate processes, each controlling one leg. At this point, both legs are active so Leg1_Status should be set to Active.
Summary of change:	⌘	Corrections to the following procedures so "Leg1_Status := Active" • MT_GMSC (sheet 9) • MT_CF_MSC (sheet 6) • ICH_MSC (sheet 4) • ICH_MSC (sheet 9)
Consequences if not approved:	⌘	Leg1_Status will be set to Set-up, so the process for Leg1 will remain in state Wait_For_Answer even though an answer has already been received.

Clauses affected:	⌘	7.2.1 and 7.3.1
Other specs affected:	⌘	Y / N ☐ **N** Other core specifications ☐ **N** Test specifications ☐ **N** O&M Specifications
	⌘	
Other comments:	⌘	MT_GMSC (sheet 4), MT_CF_MSC (sheet 2), ICH_MSC (sheet 3) and ICH_MSC (sheet 8) are included for information (to show connectors).

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

7.2.1 Functional requirements of GMSC

…

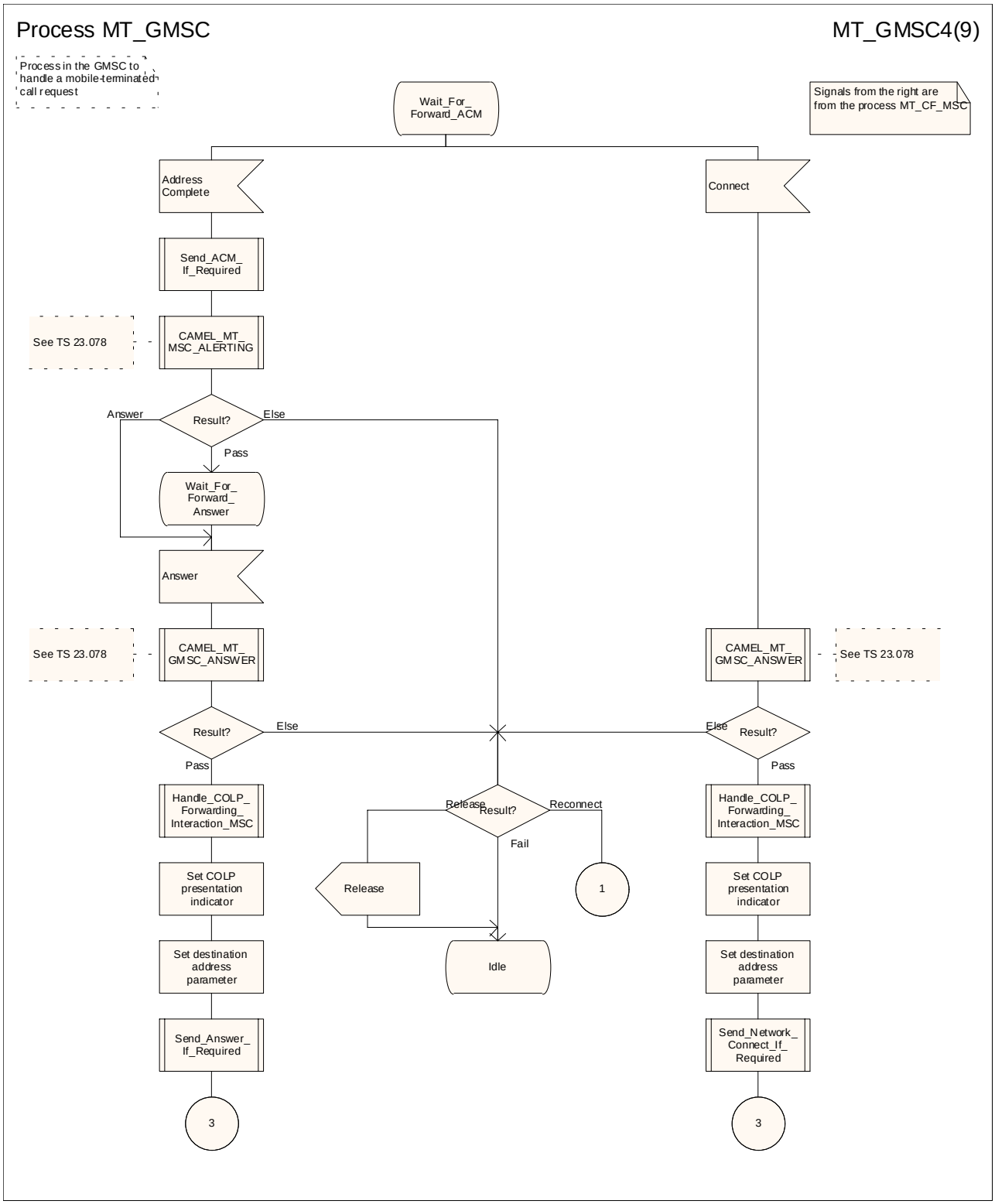
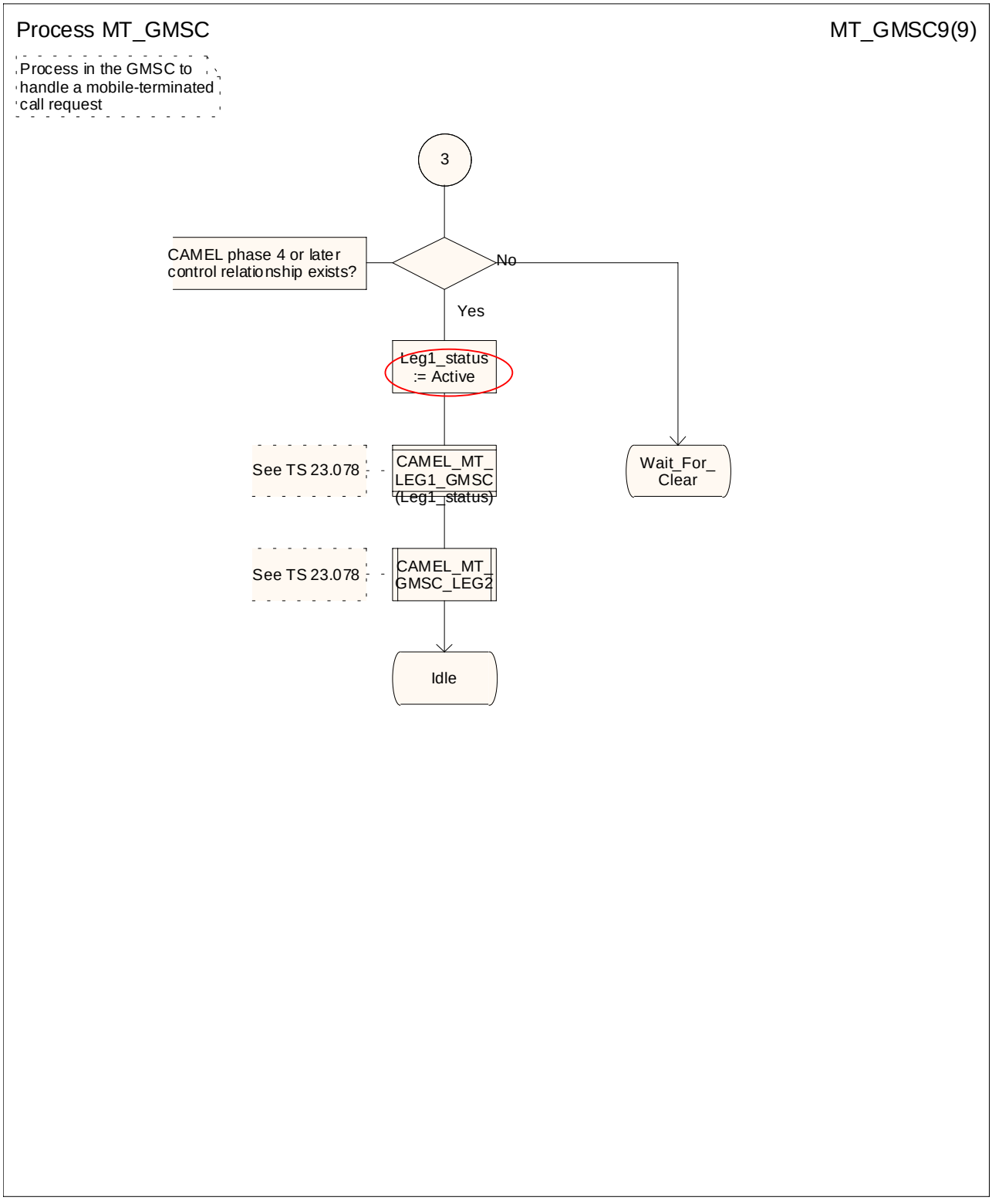


Figure 36d: Process MT_GMSC (sheet 4)

…


Process MT_GMSC
MT_GMSC9(9)
Process in the GMSC to handle a mobile-terminated call request
3
CAMEL phase 4 or later control relationship exists?
No
Yes
Leg1_status := Active
See TS 23.078
CAMEL_MT_ LEG1_GMSC (Leg1_status)
Wait_For_ Clear
See TS 23.078
CAMEL_MT_ GMSC_LEG2
Idle

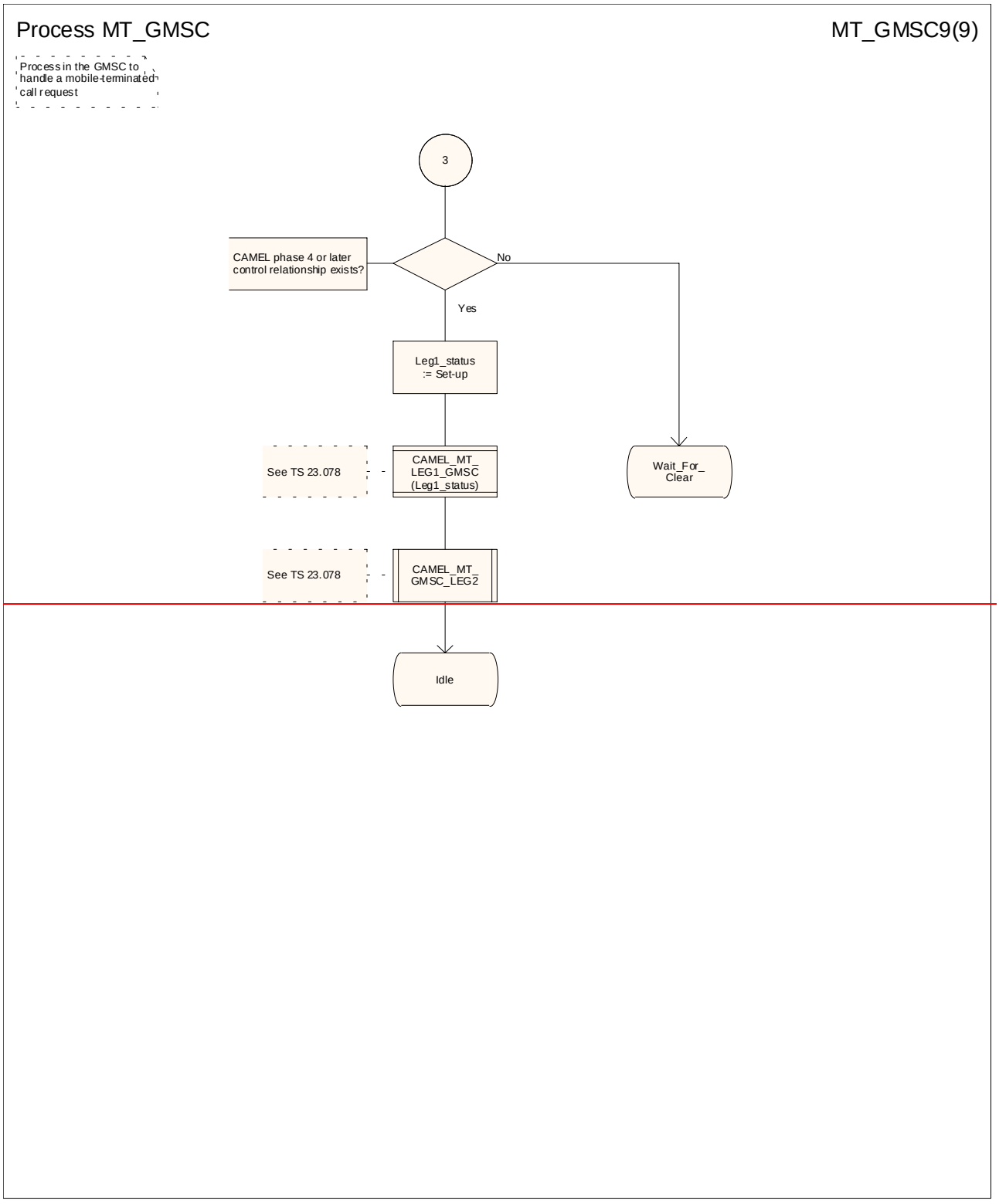


Figure 36i: Process MT_GMSC (sheet 9)

…

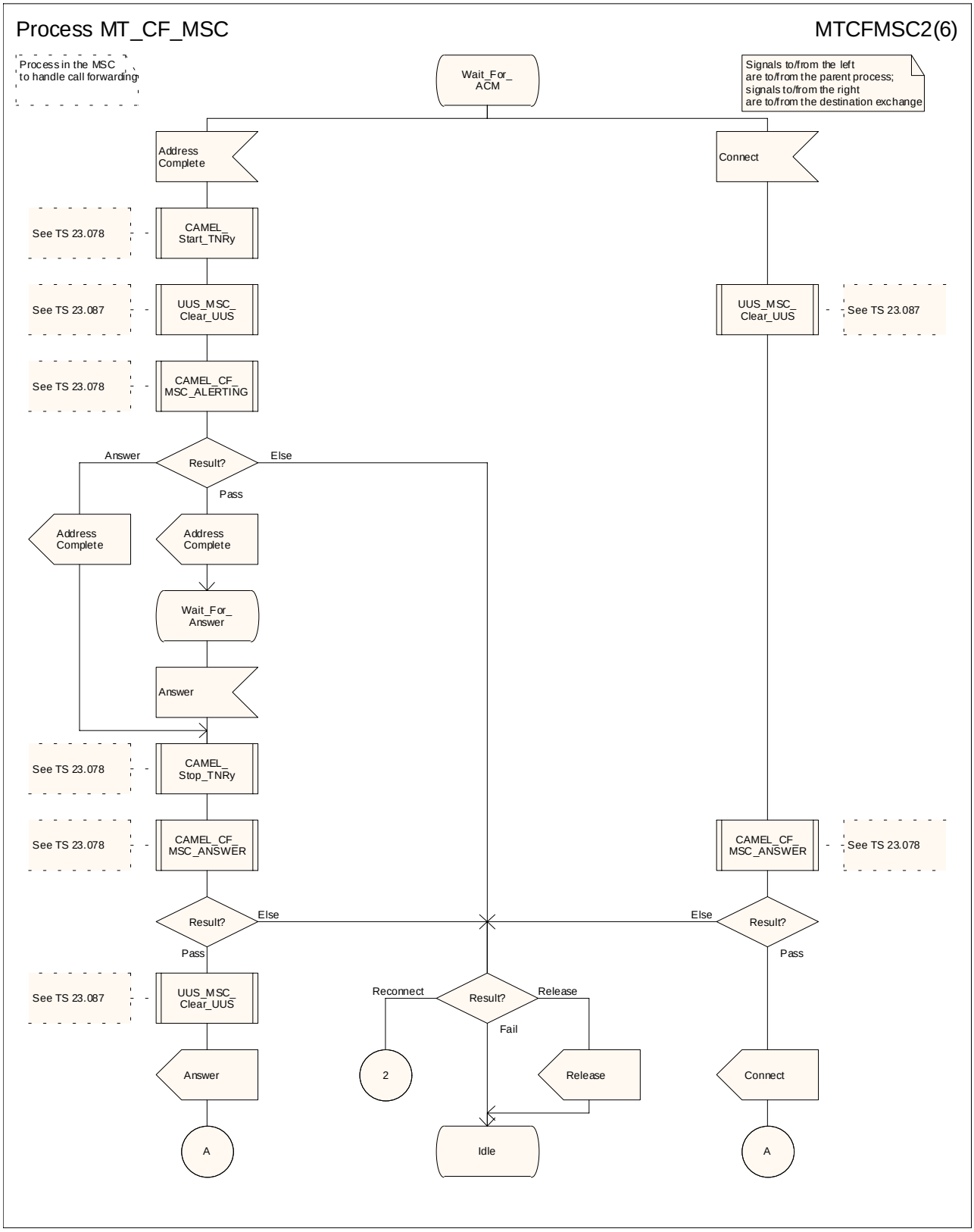
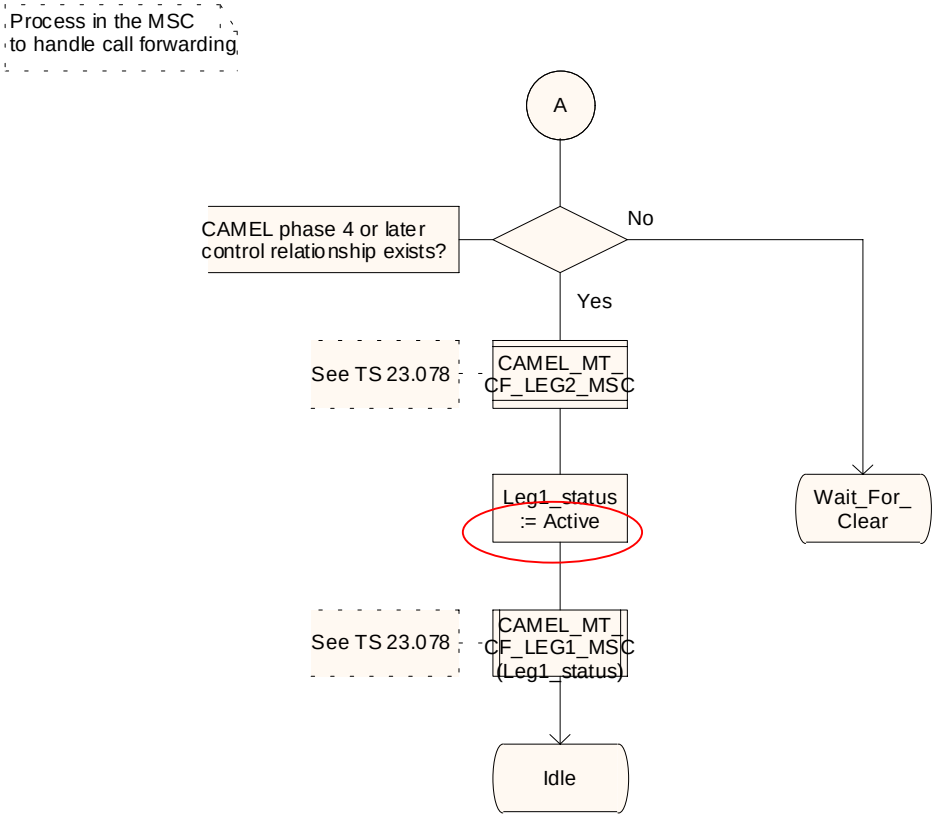


Figure 43b: Process MT_CF_MSC (sheet 2)

…

Process MT_CF_MSC MTCFMSC6(6)



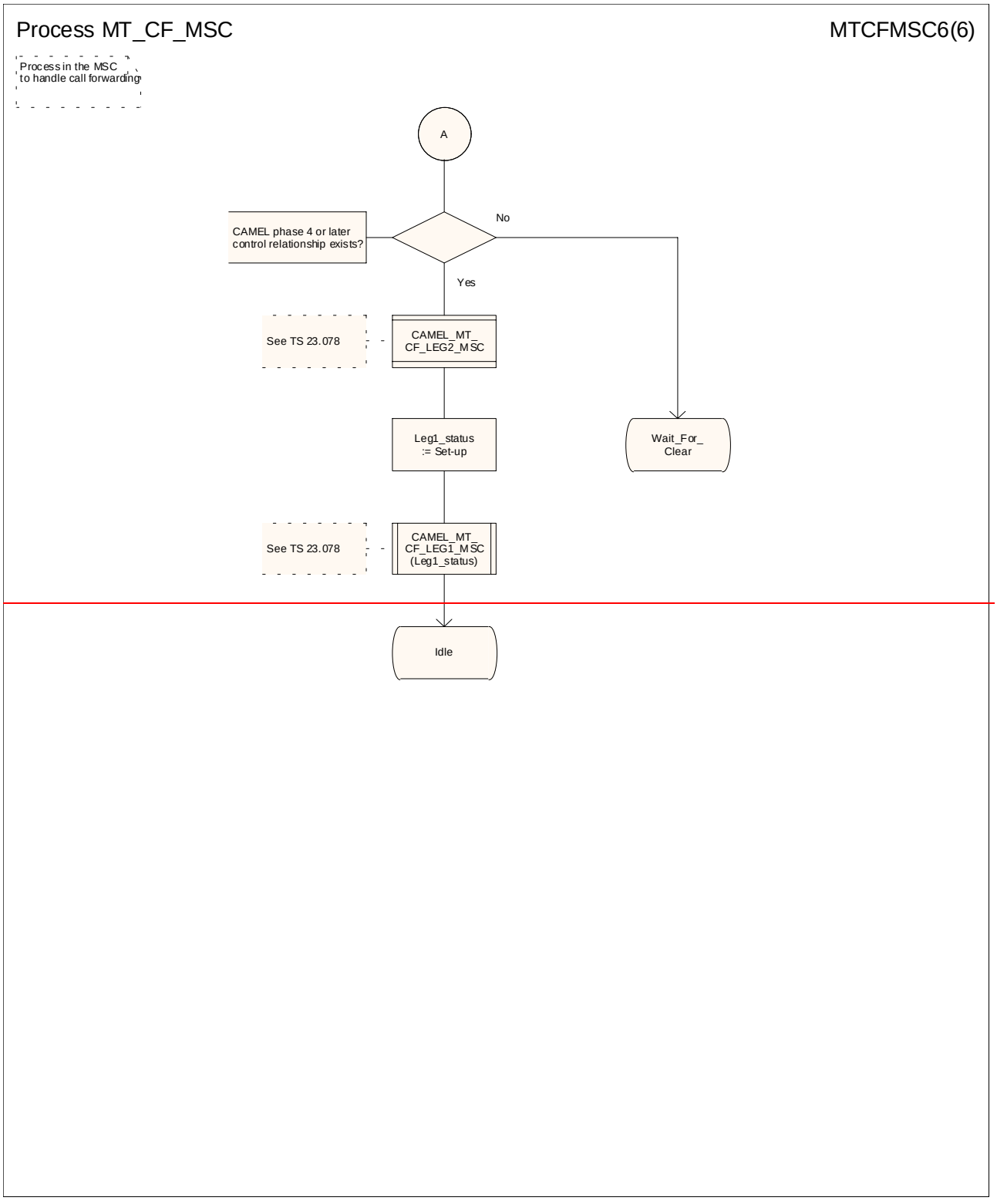


Figure 43f: Process MT_CF_MSC (sheet 6)

…

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

7.3.1 Functional requirements of serving MSC

…

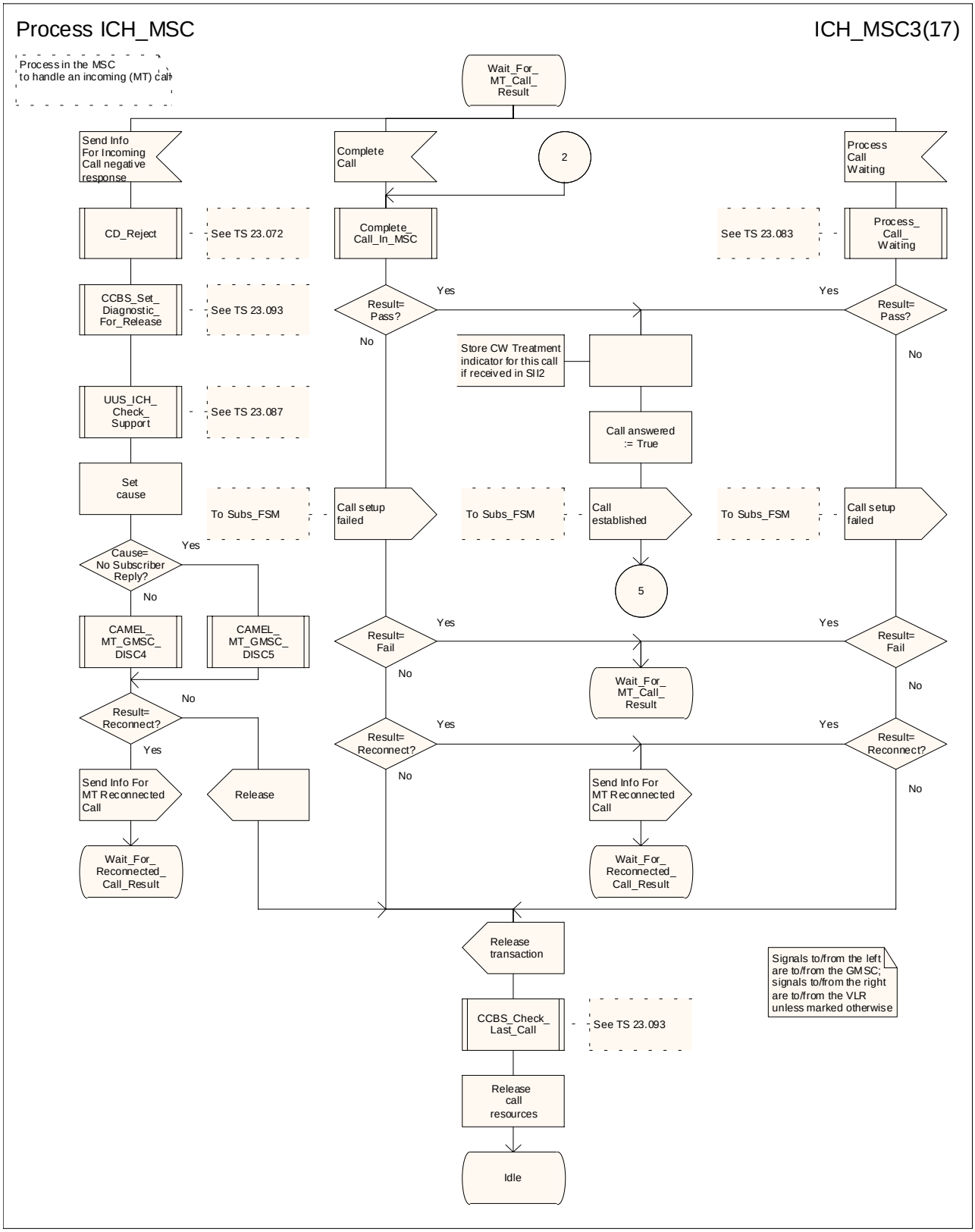
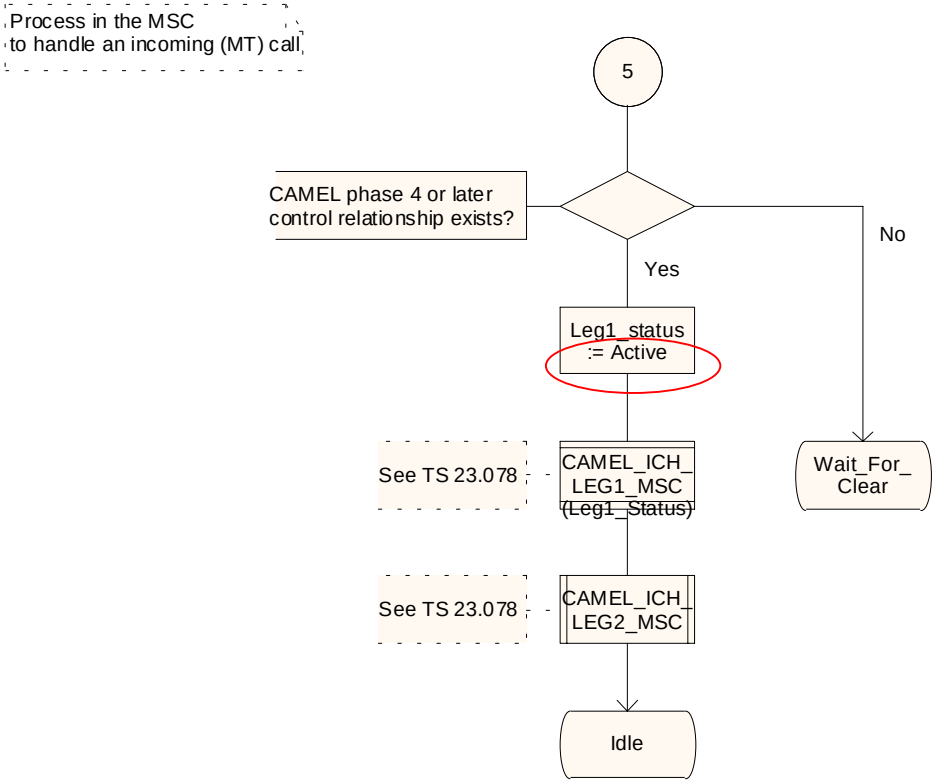


Figure 67c: Process ICH_MSC (sheet 3)

Process ICH_MSC ICH_MSC4(17)



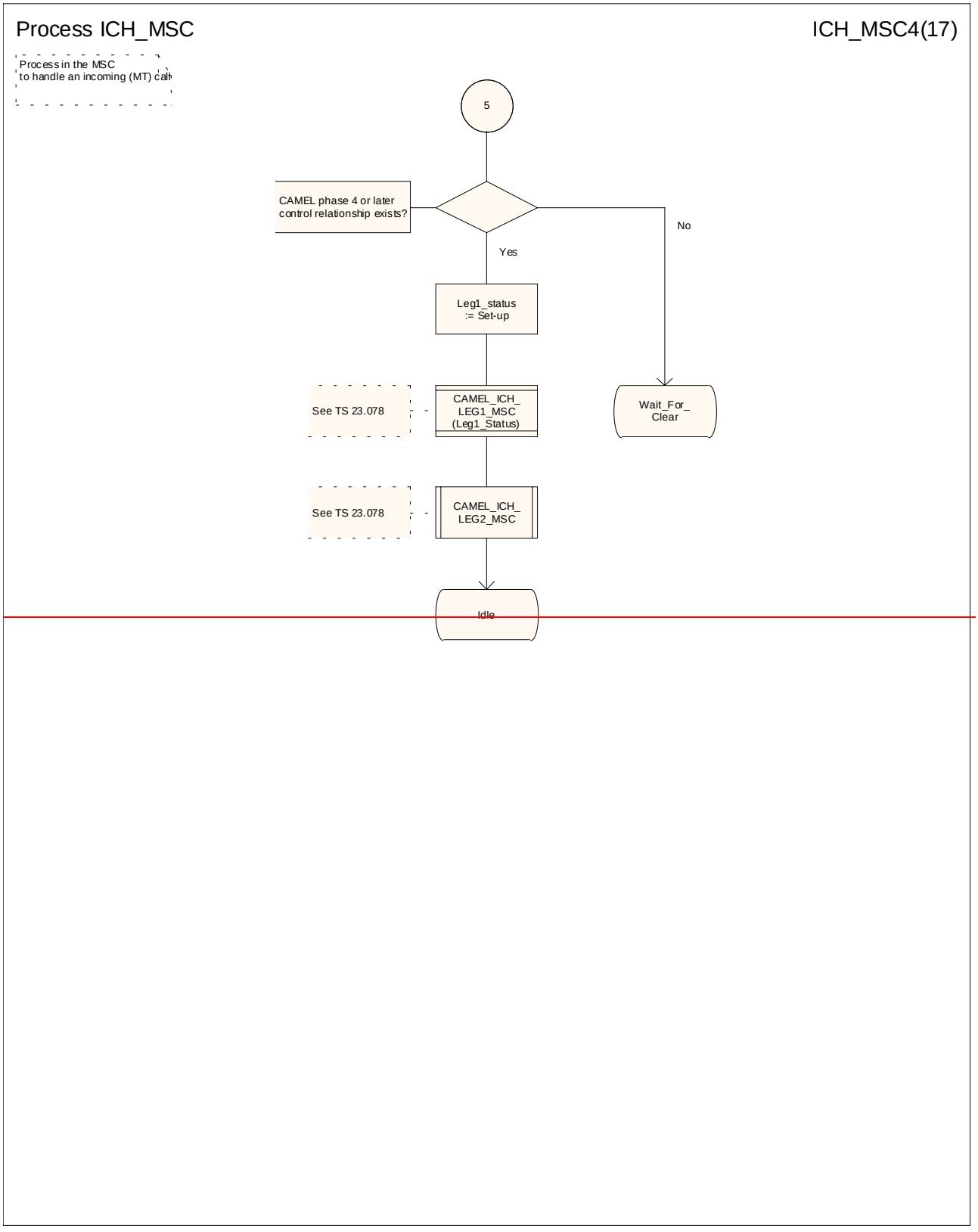


Figure 67d: Process ICH_MSC (sheet 4)

…

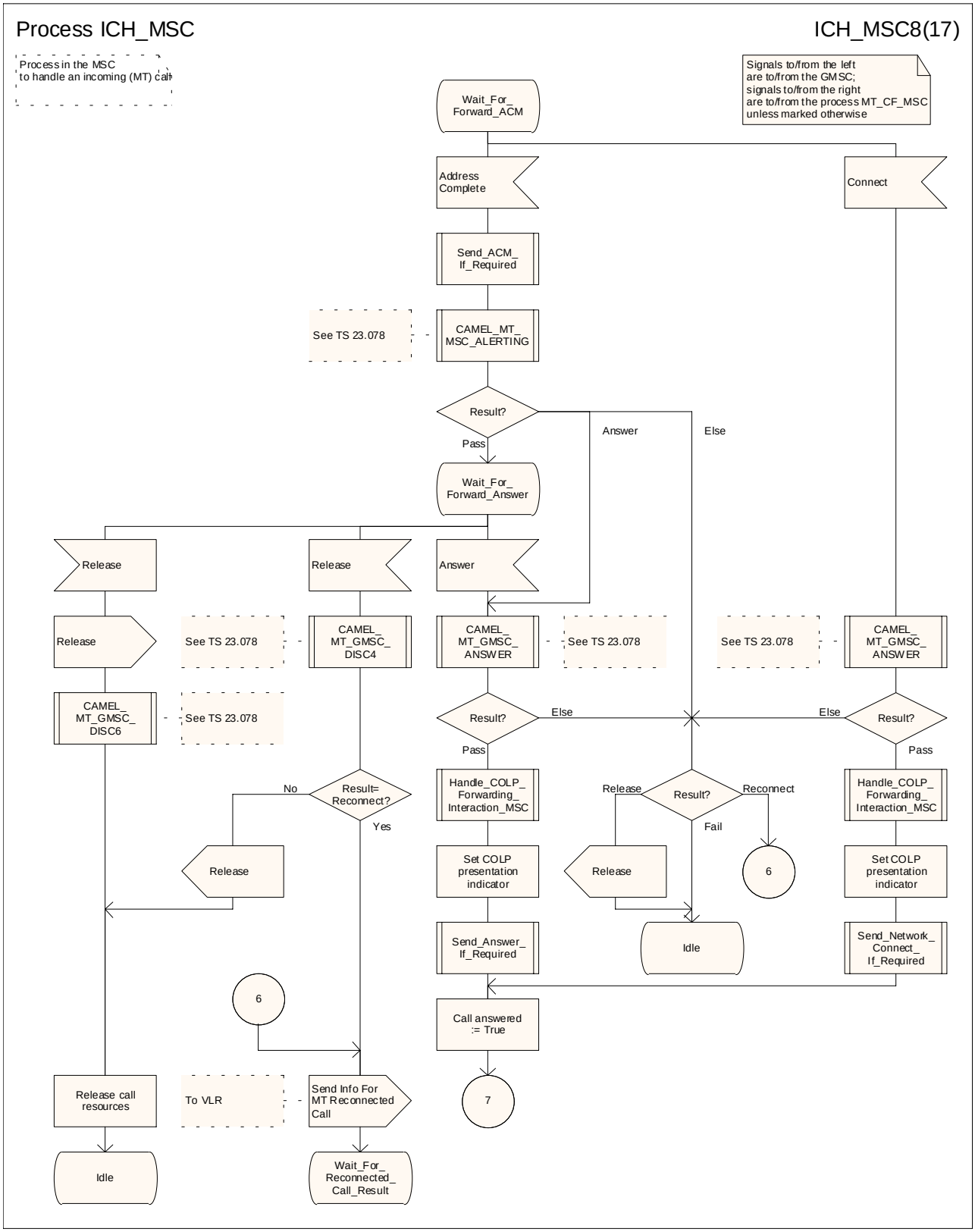
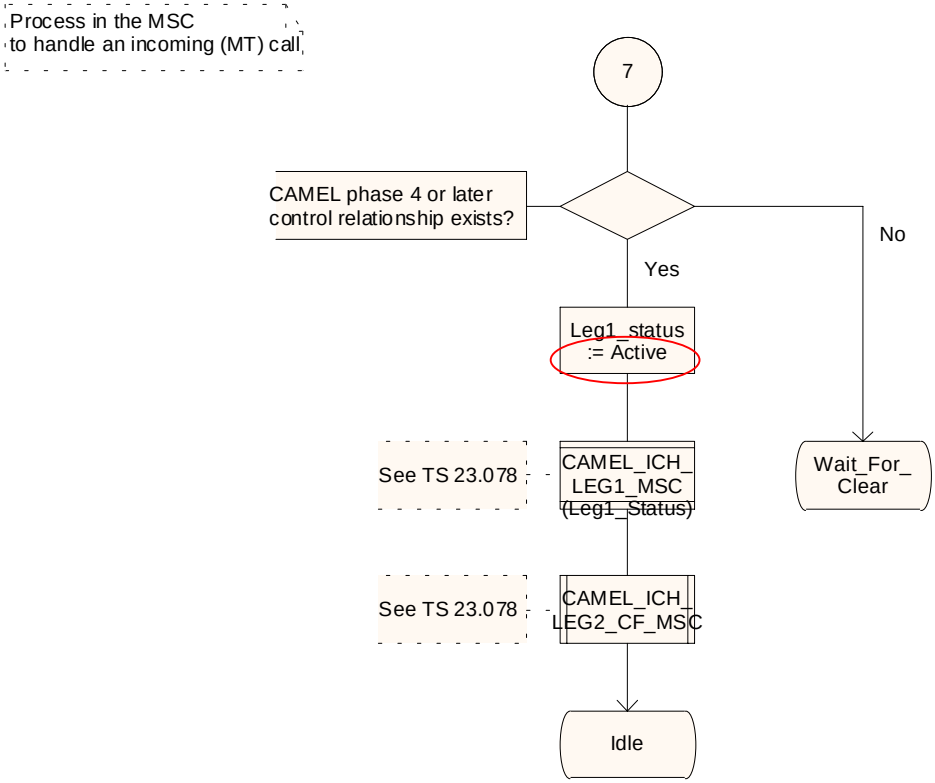


Figure 67h: Process ICH_MSC (sheet 8)

Process ICH_MSC ICH_MSC9(17)



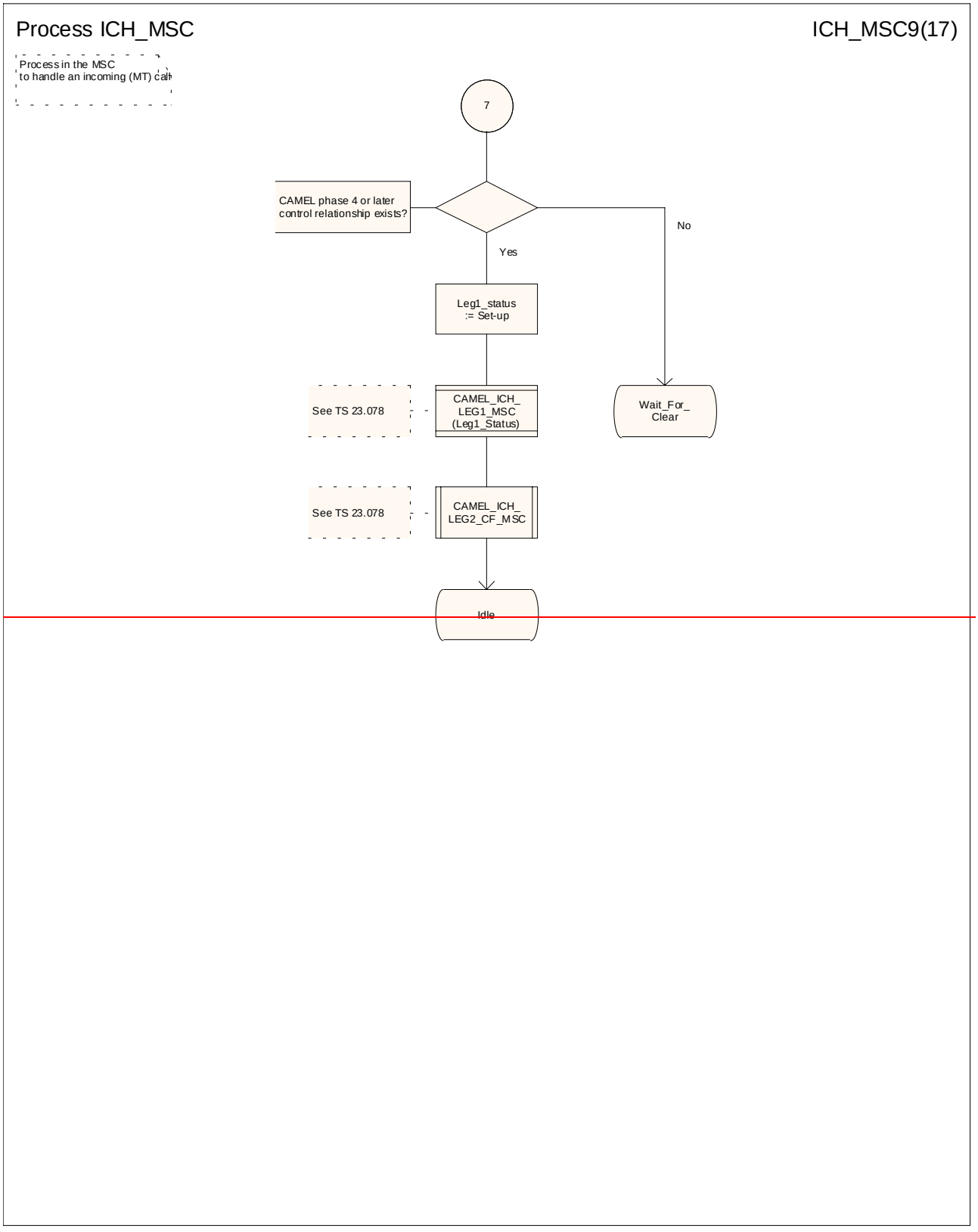


Figure 67i: Process ICH_MSC (sheet 9)

…

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

3GPP TSG CN WG4 Meeting #15 ***N4-021047***
Helsinki, Finland, 29th July – 2nd August 2002

3GPP TSG CN WG2 Meeting #25 ***N2-020664***
Helsinki, Finland, 29th July – 2nd August 2002

CR-Form-v7

CHANGE REQUEST

⌘ **29.002** **CR** **480** ⌘ **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:	⌘	Removal of ChargingNotification feature
Source:	⌘	CN4
Work item code:	⌘	CAMEL phase 4
Date:	⌘	27/06/2002
Category:	⌘	**C**
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:	⌘	Stage 1 has removed the " Charging Notification procedure". This needs to be reflected in the CAMEL stage 2 and stage 3 as well.
Summary of change:	⌘	Removal of ChargingNotification feature
Consequences if not approved:	⌘	Inconsistent set of CAMEL Phase 4 specifications.

Clauses affected:	⌘	17.7.1			
		Y	**N**		
Other specs affected:	⌘	**X**		Other core specifications	⌘ Rel-5 23.078-CR417, Rel-5 29.078-CR259
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

— Modified section —

17.7.1 Mobile Service data types

```
MAP-MS-DataTypes {
   ccitt identified-organization (4) etsi (0) mobileDomain (0)
   gsm-Network (1) modules (3) map-MS-DataTypes (11) version8 (8)}

DEFINITIONS

IMPLICIT TAGS

::=

BEGIN

...

SupportedCamel4Subsets ::= BIT STRING {
cs-CallHandling                         (0),
~~chargingNotification                  (1),~~
cAMELControlOver-MT-SMS                 (1~~2~~),
gprs-MobilityManagement                 (2~~3~~),
gprs-AnyTimeInterrogation               (3~~4~~)
} (SIZE (4~~5~~..16))
-- A node supporting Camel phase 4 shall mark in the BIT STRING all Camel4 subsets
-- it supports.
-- Other values than listed above shall be discarded.

CR Editor's Note: There are several pieces of text in 29.002 with blue colour. Please can this blue
colour be removed. I.e. the text should become black again.

...


END
```