

3GPP TSG CN Plenary Meeting #18
4th – 6th December 2002 New Orleans, USA.

NP-020575

Source: TSG CN WG4
Title: Corrections for Camel Phase 3
Agenda item: 7.1
Document for: APPROVAL

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
29.002	484	1	N4-021288	R99	Correction to segmentation of O-CSI and T-CSI	F	3.14.0
29.002	498		N4-021289	Rel-4	Correction to segmentation of O-CSI and T-CSI	A	4.9.0
29.002	499		N4-021290	Rel-5	Correction to segmentation of O-CSI and T-CSI	A	5.3.0
23.079	022	1	N4-021291	R99	Correction to figure 7a (handling of RCH in GMSC)	F	3.7.0
23.079	023		N4-021292	Rel-4	Correction to figure 7a (handling of RCH in GMSC)	A	4.1.0
23.079	024		N4-021293	Rel-5	Correction to figure 7a (handling of RCH in GMSC)	A	5.1.0
29.002	506		N4-021416	R99	ODB correction	F	3.14.0
29.002	507		N4-021417	Rel-4	ODB correction	A	4.9.0
29.002	508		N4-021418	Rel-5	ODB correction	A	5.3.0

CHANGE REQUEST

⌘ **23.079 CR 022** ⌘ rev **1** ⌘ Current version: **3.7.0** ⌘

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

Title:	⌘ Correction to figure 7a (handling of RCH in GMSC)		
Source:	⌘ CN4		
Work item code:	⌘ CAMEL3	Date:	⌘ 25/09/2002
Category:	⌘ F	Release:	⌘ R99
	<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)		<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:	⌘ When the GMSC receives MAP Resume Call Handling (RCH), it shall check whether the RCH argument contains O-CSI or D-CSI. If the O-CSI or D-CSI or both are included, but the GMSC does not support CAMEL, then RCH shall be rejected. The call forwarding is then resumed by the VMSC, i.e. ORLCF can not be invoked. Figure 7a, Procedure OR_Handle_RCH, specifies the checking for the presence of O-CSI in RCH ("O-CSI included?"). However, the check shall be "O-CSI or D-CSI included?". In addition, the GMSC shall check whether the requested CAMEL Phases, as indicated in O-CSI and D-CSI, are supported by the GMSC. If the requested CAMEL Phases are not supported by the GMSC, then the GMSC shall not allow the ORLCF. Thirdly, the "yes" exit of the top-most check box in this figure is missing. These errors shall be corrected in said figure. This is an Essential correction.
Summary of change:	⌘ Correction to figure 7a, as described in "reason for change".
Consequences if not approved:	⌘ - Incorrect behaviour of the GMSC in the case of handling RCH. The call forwarding may fail, due to fact that the GMSC didn't check for the presence

of D-CSI in RCH.
- The requested CAMEL services may not be invoked.

Clauses affected: ⌘ 9.4

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

Other comments: ⌘

9.4 Functional behaviour of GMSC

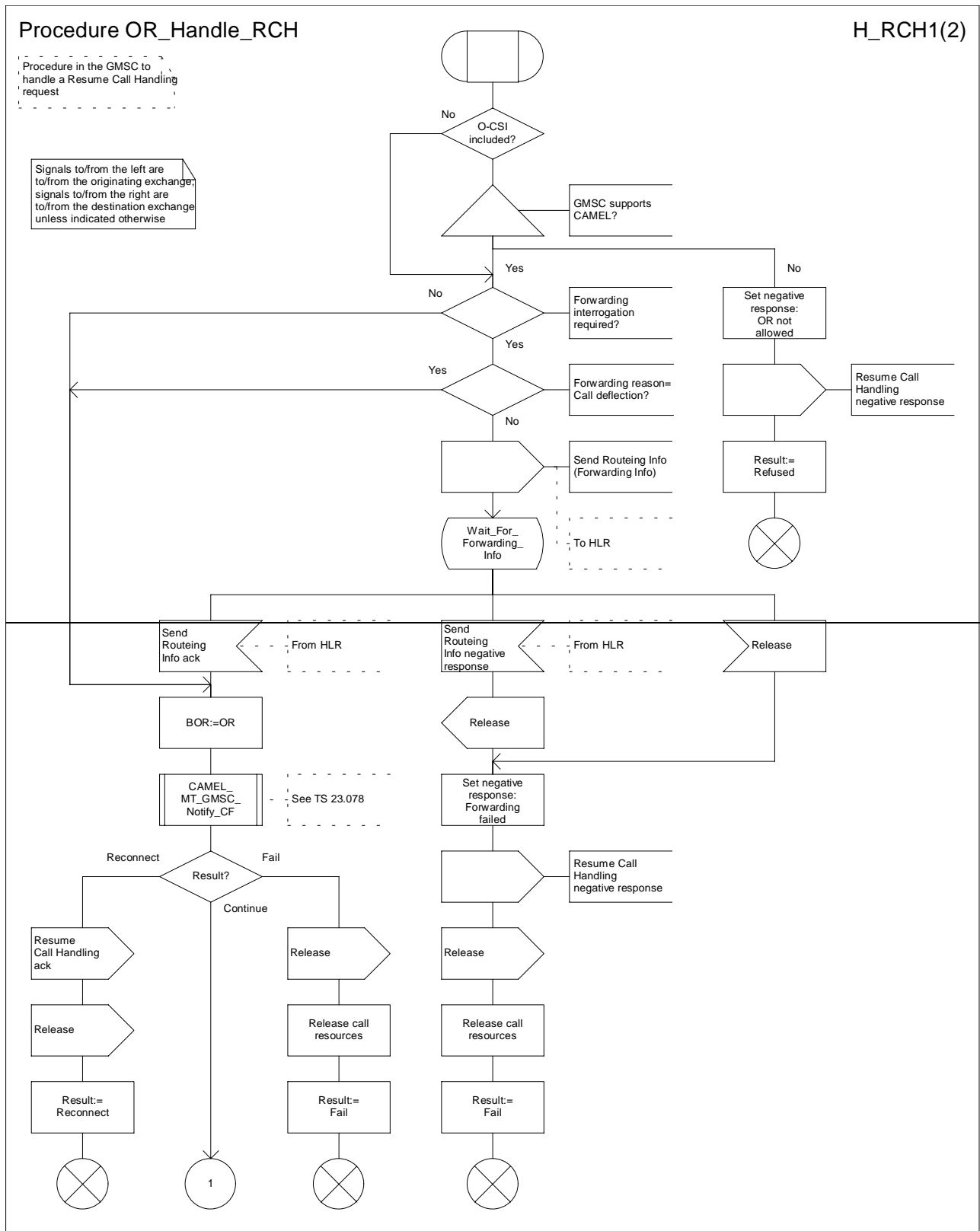


Figure 7a: Procedure OR_Handle_RCH (sheet 1)

Procedure OR_Handle_RCH

H_RCH1(2)

Procedure in the GMSC to handle a Resume Call Handling request

Signals to/from the left are to/from the originating exchange, signals to/from the right are to/from the destination exchange unless indicated otherwise

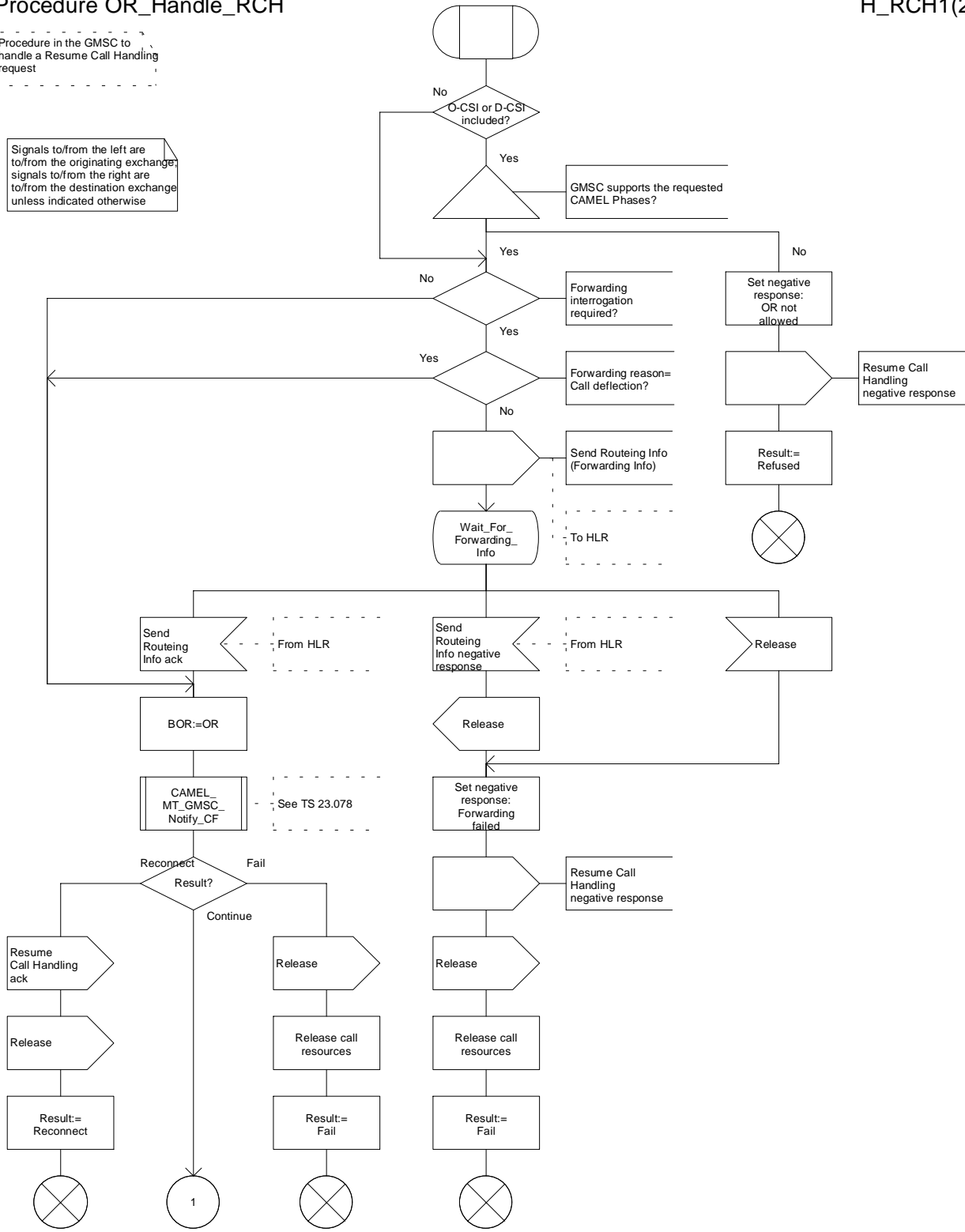


Figure 7a: Procedure OR_Handle_RCH (sheet 1)

Procedure OR_Handle_RCH

H_RCH2(2)

Procedure in the GMSC to handle a Resume Call Handling request

Signals to/from the left are to/from the originating exchange; signals to/from the right are to/from the destination exchange unless indicated otherwise

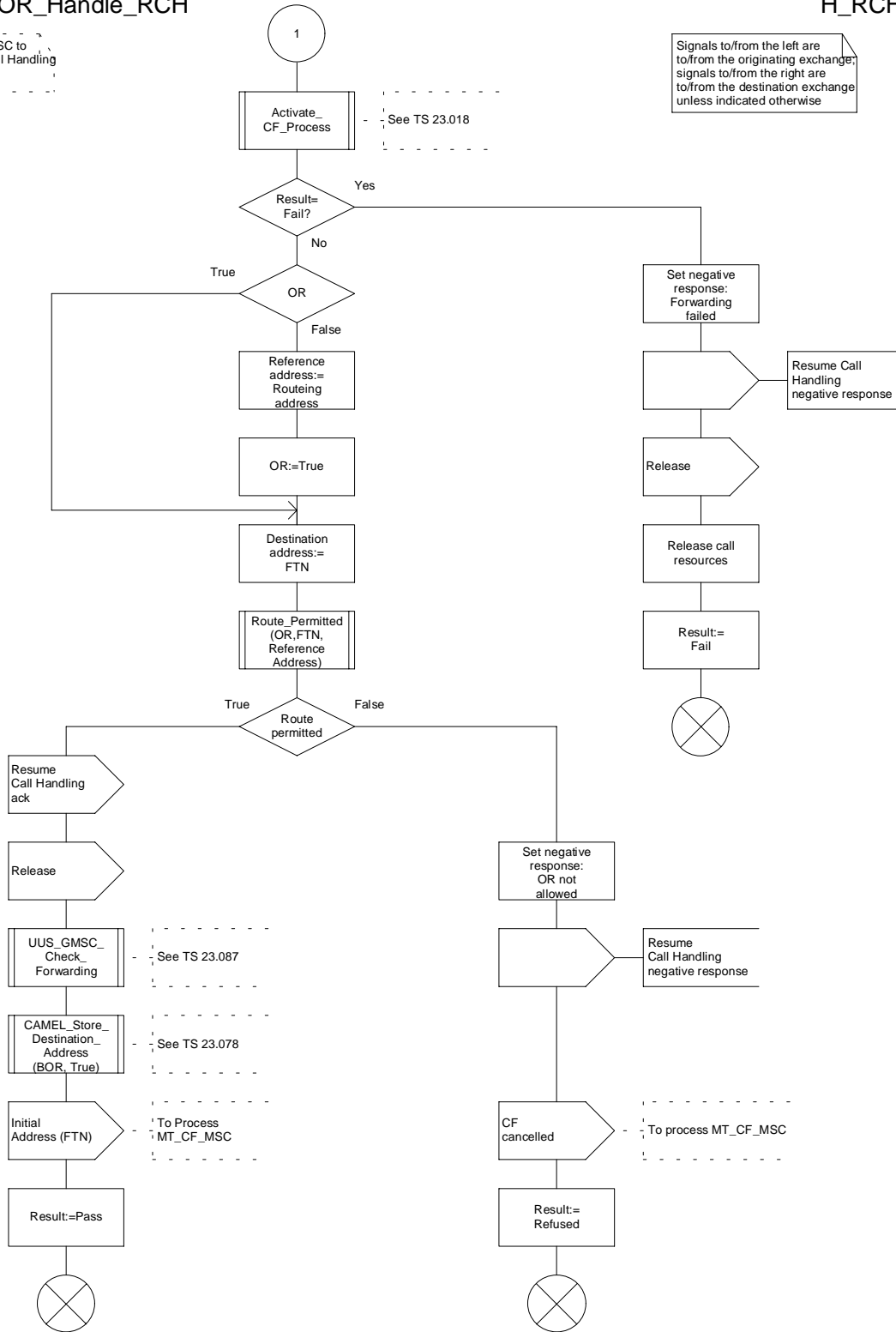


Figure 7b: Procedure OR_Handle_RCH (sheet 2)

*** End of Document ***

CHANGE REQUEST

⌘ **23.079 CR 023** ⌘ rev ⌘ Current version: **4.1.0** ⌘

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

Title:	⌘ Correction to figure 7a (handling of RCH in GMSC)		
Source:	⌘ CN4		
Work item code:	⌘ CAMEL3	Date:	⌘ 25/09/2002
Category:	⌘ A	Release:	⌘ Rel-4
<i>Use one of the following categories:</i>		<i>Use one of the following releases:</i>	
F (correction)		2 (GSM Phase 2)	
A (corresponds to a correction in an earlier release)		R96 (Release 1996)	
B (addition of feature),		R97 (Release 1997)	
C (functional modification of feature)		R98 (Release 1998)	
D (editorial modification)		R99 (Release 1999)	
		Rel-4 (Release 4)	
		Rel-5 (Release 5)	
		Rel-6 (Release 6)	

Reason for change:	⌘ When the GMSC receives MAP Resume Call Handling (RCH), it shall check whether the RCH argument contains O-CSI or D-CSI. If the O-CSI or D-CSI or both are included, but the GMSC does not support CAMEL, then RCH shall be rejected. The call forwarding is then resumed by the VMSC, i.e. ORLCF can not be invoked. Figure 7a, Procedure OR_Handle_RCH, specifies the checking for the presence of O-CSI in RCH ("O-CSI included?"). However, the check shall be "O-CSI or D-CSI included?". In addition, the GMSC shall check whether the requested CAMEL Phases, as indicated in O-CSI and D-CSI, are supported by the GMSC. If the requested CAMEL Phases are not supported by the GMSC, then the GMSC shall not allow the ORLCF. Thirdly, the "yes" exit of the top-most check box in this figure is missing. These errors shall be corrected in said figure.
Summary of change:	⌘ Correction to figure 7a, as described in "reason for change".
Consequences if not approved:	⌘ - Incorrect behaviour of the GMSC in the case of handling RCH. The call forwarding may fail, due to fact that the GMSC didn't check for the presence of D-CSI in RCH. - The requested CAMEL services may not be invoked.

Clauses affected:	⌘	9.4											
Other specs affected:	⌘	<table border="1"><tr><th>Y</th><th>N</th></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr></table>	Y	N		X		X		X	Other core specifications	⌘	
		Y	N										
			X										
	X												
	X												
	Test specifications												
	O&M Specifications												
Other comments:	⌘												

9.4 Functional behaviour of GMSC

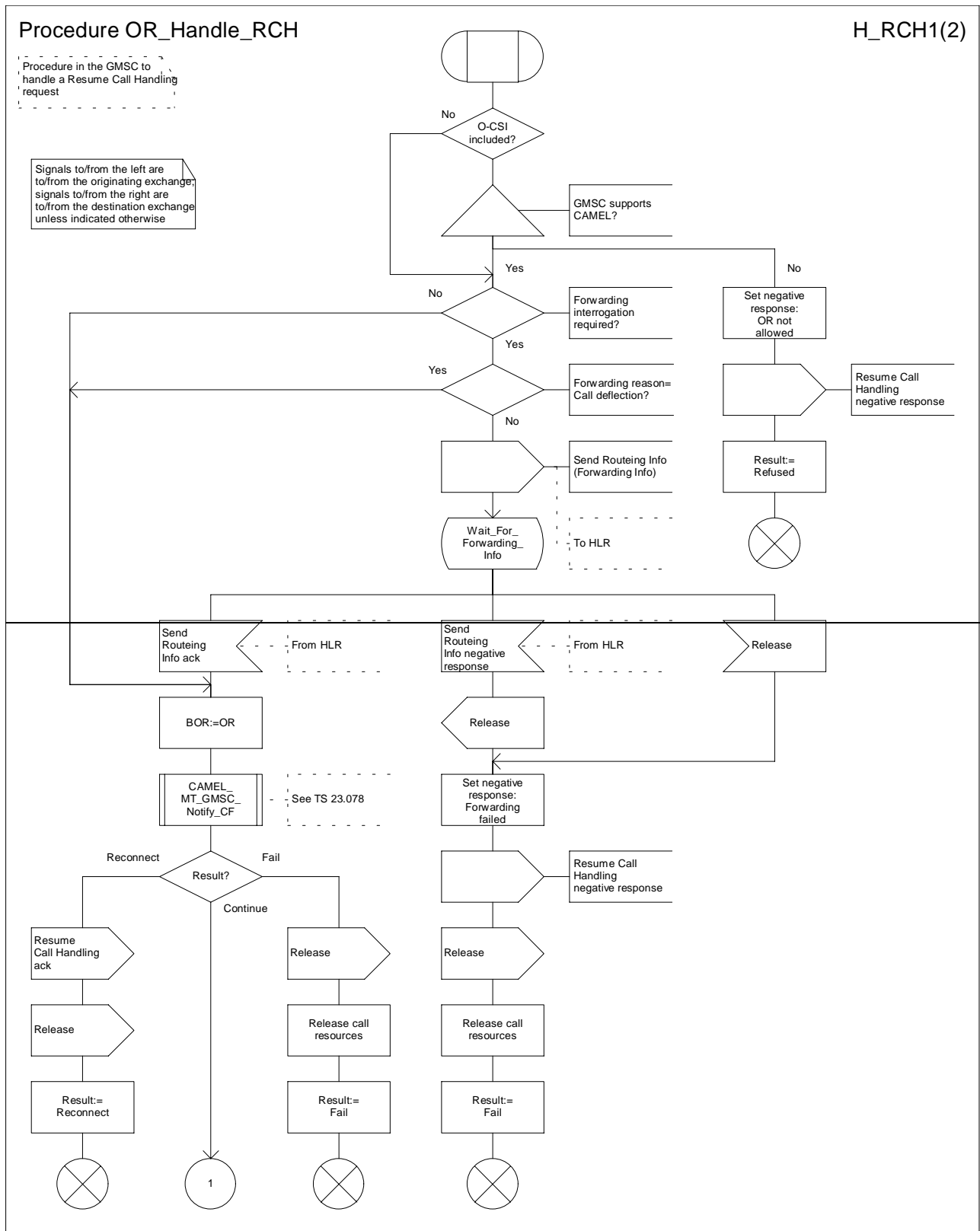


Figure 7a: Procedure OR_Handle_RCH (sheet 1)

Procedure OR_Handle_RCH

H_RCH1(2)

Procedure in the GMSC to handle a Resume Call Handling request

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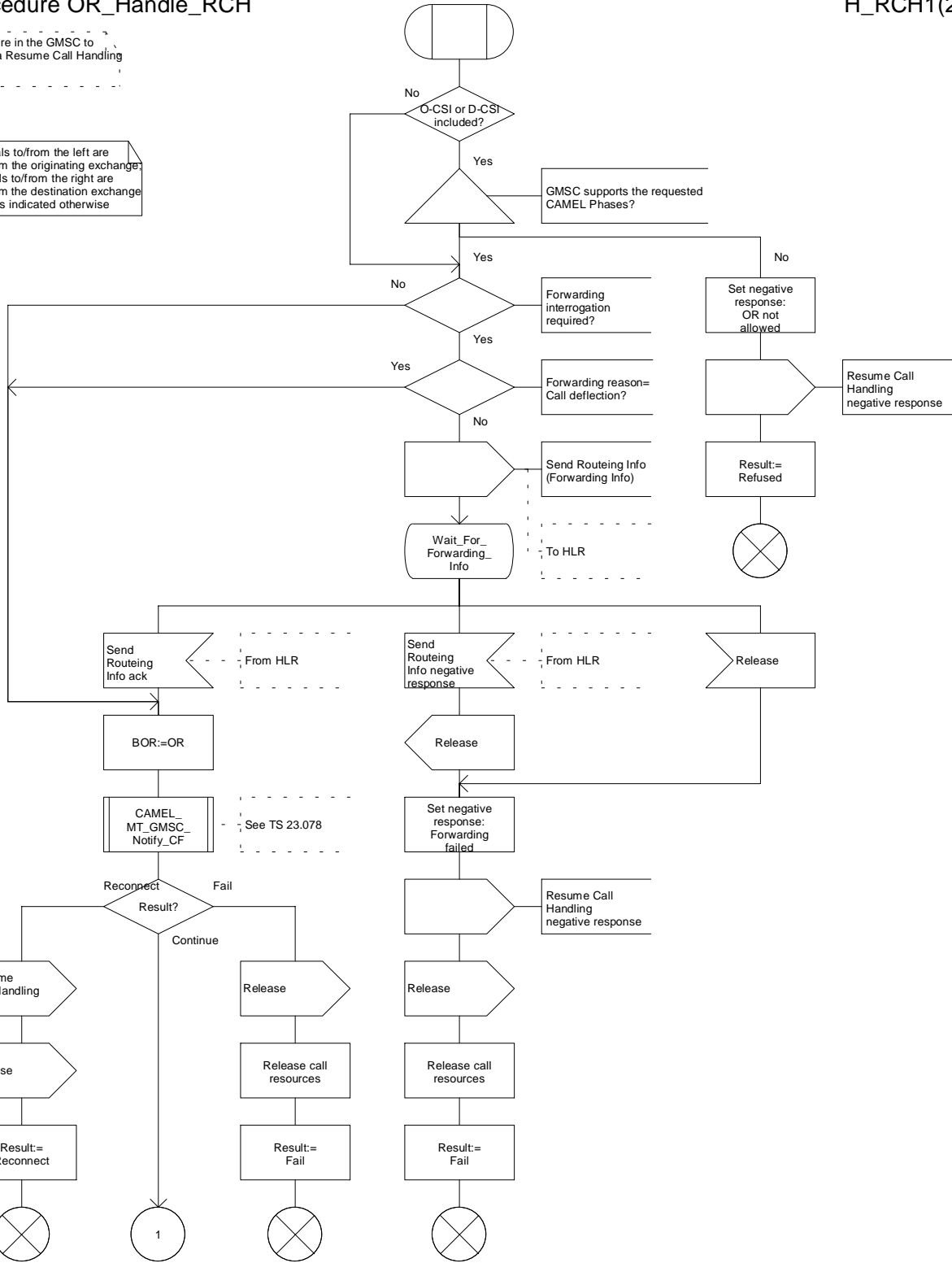


Figure 7a: Procedure OR Handle RCH (sheet 1)

Procedure OR_Handle_RCH

H_RCH2(2)

Procedure in the GMSC to handle a Resume Call Handling request

Signals to/from the left are to/from the originating exchange; signals to/from the right are to/from the destination exchange unless indicated otherwise

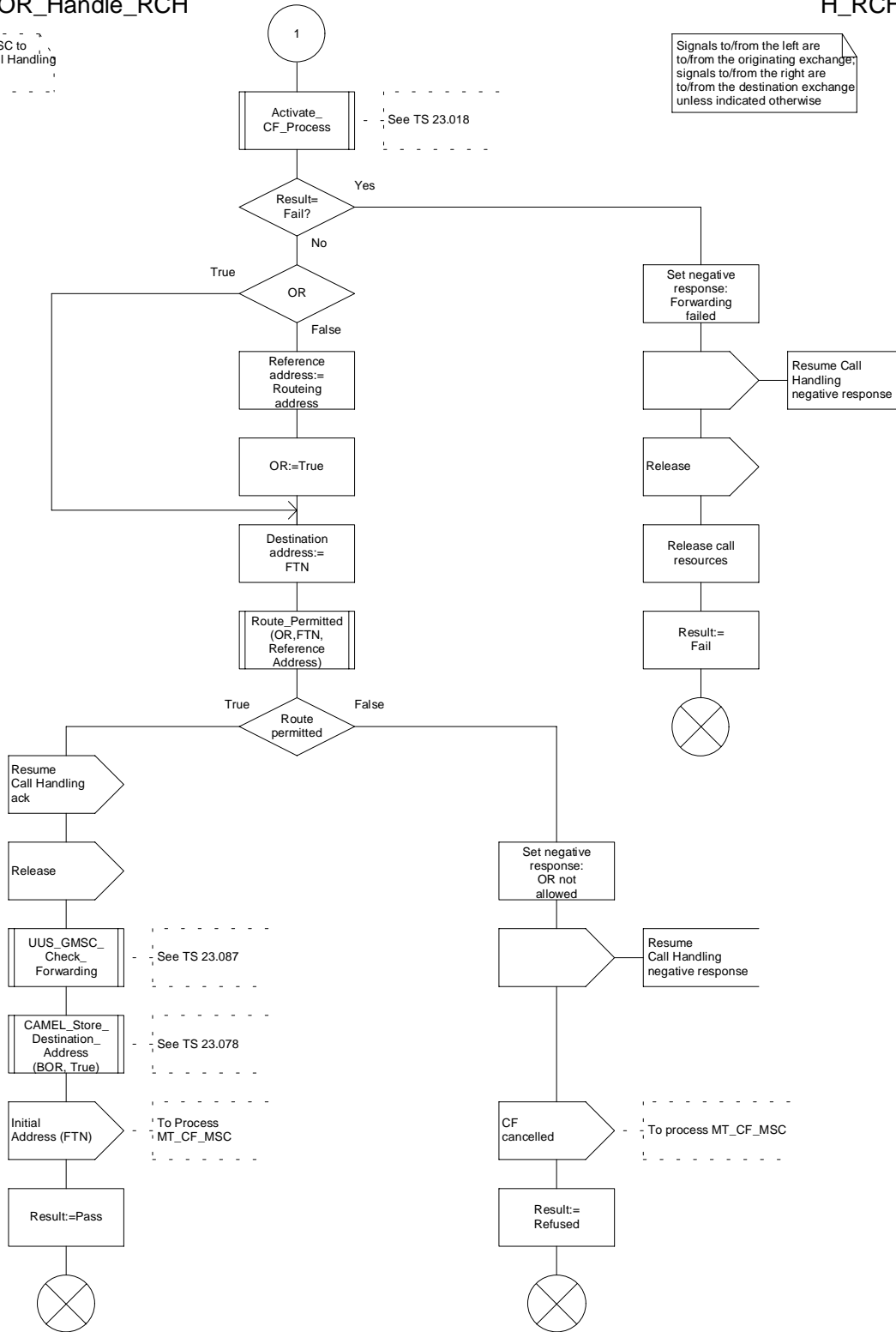


Figure 7b: Procedure OR_Handle_RCH (sheet 2)

*** End of Document ***

CHANGE REQUEST

⌘ **23.079 CR 024** ⌘ rev ⌘ Current version: **5.1.0** ⌘

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

Title:	⌘ Correction to figure 7a (handling of RCH in GMSC)		
Source:	⌘ CN4		
Work item code:	⌘ CAMEL3	Date:	⌘ 25/09/2002
Category:	⌘ A	Release:	⌘ Rel-5
<i>Use one of the following categories:</i>		<i>Use one of the following releases:</i>	
F (correction)		2 (GSM Phase 2)	
A (corresponds to a correction in an earlier release)		R96 (Release 1996)	
B (addition of feature),		R97 (Release 1997)	
C (functional modification of feature)		R98 (Release 1998)	
D (editorial modification)		R99 (Release 1999)	
		Rel-4 (Release 4)	
		Rel-5 (Release 5)	
		Rel-6 (Release 6)	

Reason for change:	⌘ When the GMSC receives MAP Resume Call Handling (RCH), it shall check whether the RCH argument contains O-CSI or D-CSI. If the O-CSI or D-CSI or both are included, but the GMSC does not support CAMEL, then RCH shall be rejected. The call forwarding is then resumed by the VMSC, i.e. ORLCF can not be invoked. Figure 7a, Procedure OR_Handle_RCH, specifies the checking for the presence of O-CSI in RCH ("O-CSI included?"). However, the check shall be "O-CSI or D-CSI included?". In addition, the GMSC shall check whether the requested CAMEL Phases, as indicated in O-CSI and D-CSI, are supported by the GMSC. If the requested CAMEL Phases are not supported by the GMSC, then the GMSC shall not allow the ORLCF. Thirdly, the "yes" exit of the top-most check box in this figure is missing. These errors shall be corrected in said figure.
Summary of change:	⌘ Correction to figure 7a, as described in "reason for change".
Consequences if not approved:	⌘ - Incorrect behaviour of the GMSC in the case of handling RCH. The call forwarding may fail, due to fact that the GMSC didn't check for the presence of D-CSI in RCH. - The requested CAMEL services may not be invoked.

Clauses affected:	⌘	9.4											
Other specs affected:	⌘	<table border="1"><tr><th>Y</th><th>N</th></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr></table>	Y	N		X		X		X	Other core specifications	⌘	
		Y	N										
			X										
	X												
	X												
	Test specifications												
	O&M Specifications												
Other comments:	⌘												

9.4 Functional behaviour of GMSC

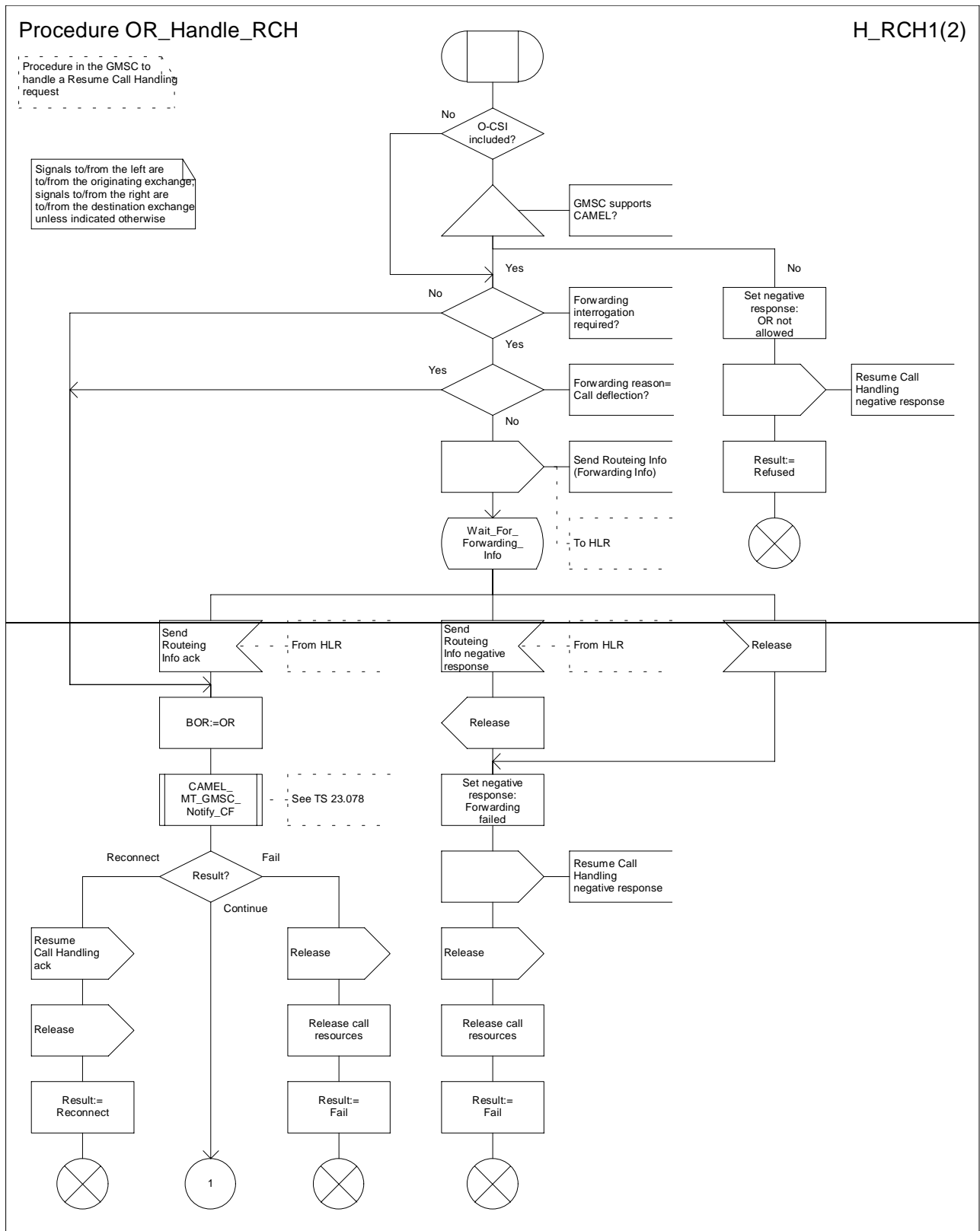


Figure 7a: Procedure OR_Handle_RCH (sheet 1)

Procedure OR_Handle_RCH

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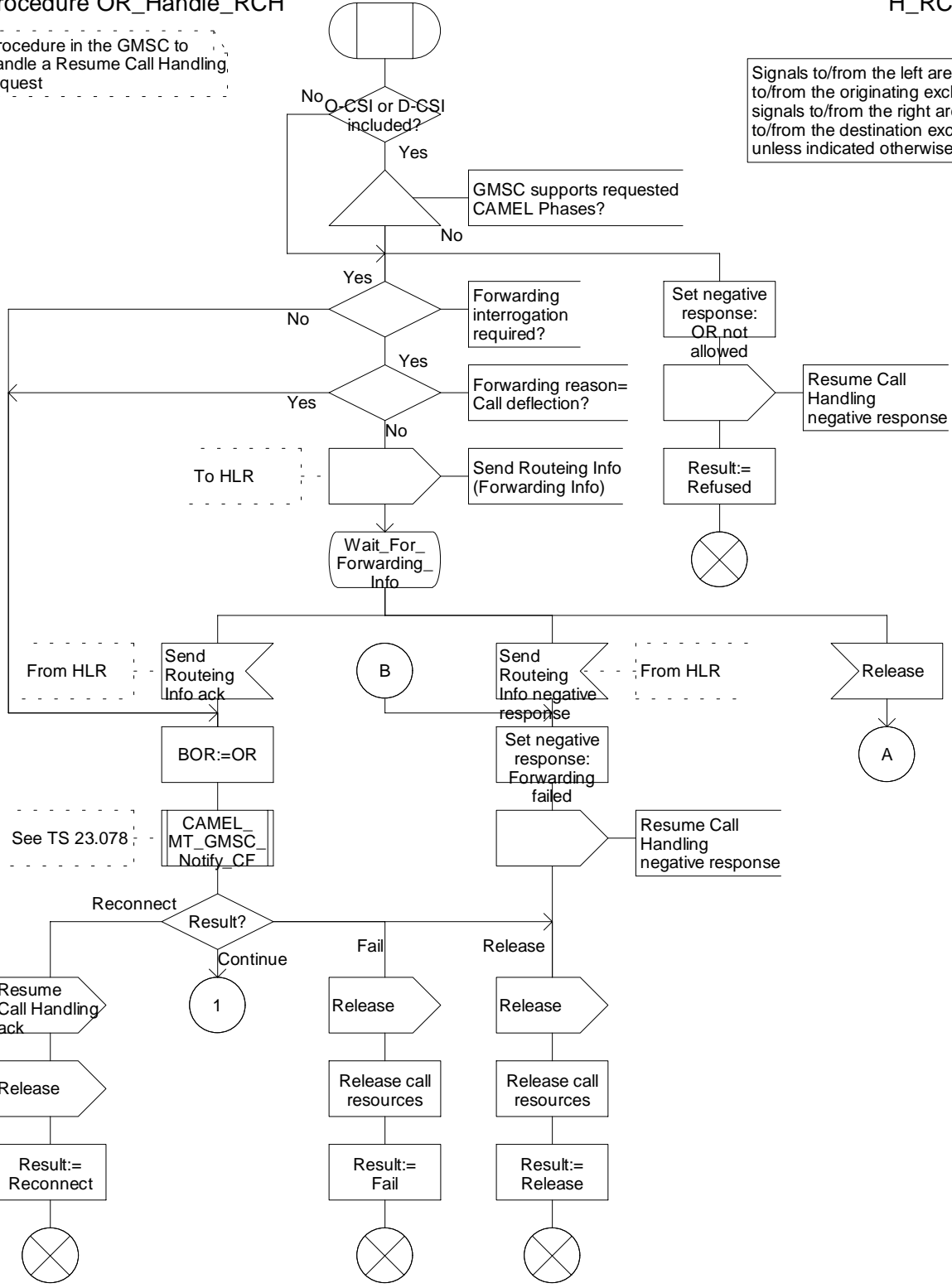


Figure 7a: Procedure OR Handle RCH (sheet 1)

Procedure OR_Handle_RCH

H_RCH2(2)

Procedure in the GMSC to handle a Resume Call Handling request

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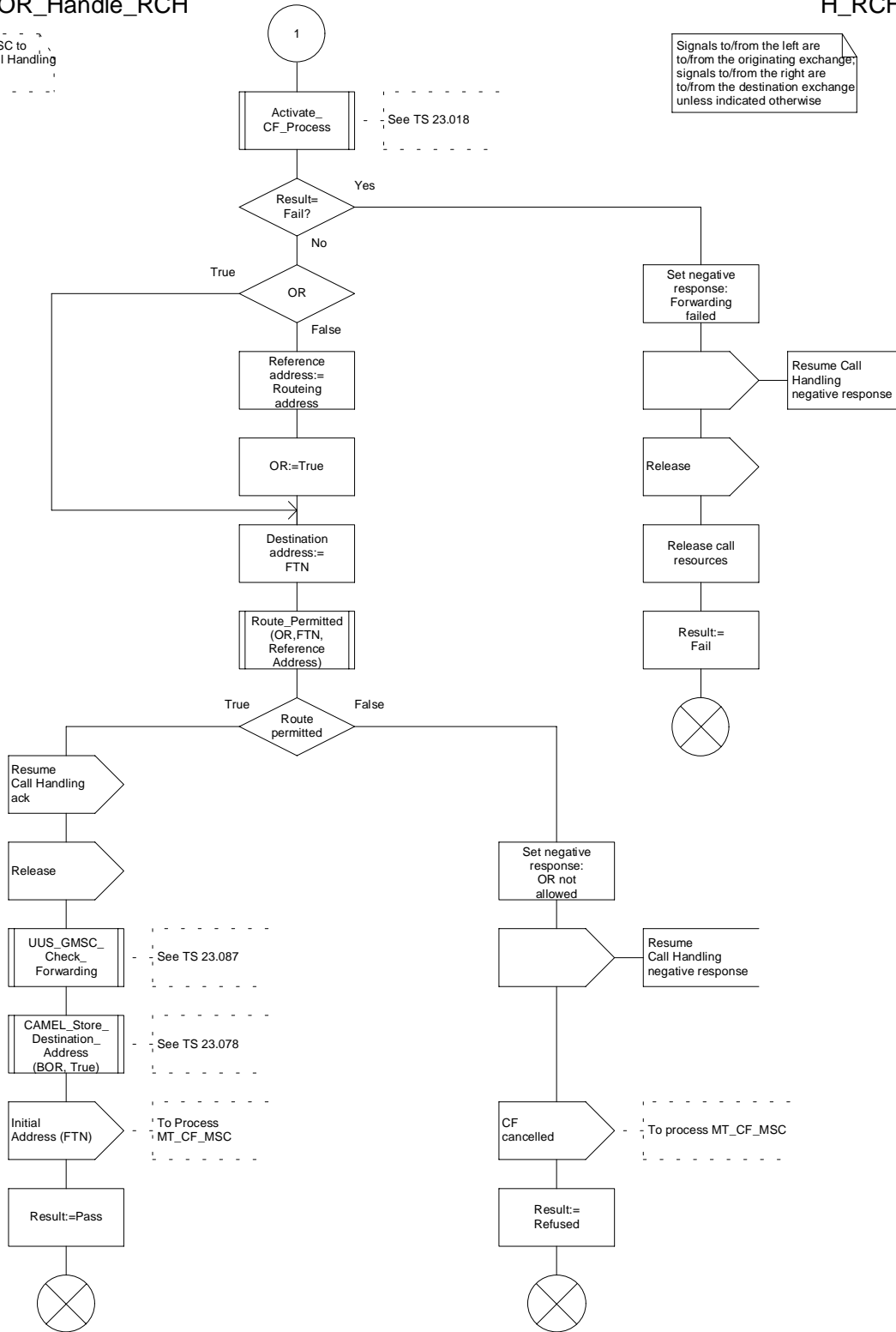


Figure 7b: Procedure OR_Handle_RCH (sheet 2)

*** End of Document ***

3GPP TSG-CN WG4 Meeting #16
Miami, USA, 23rd - 27th September 2002

Tdoc N4-021288
(revision of N4-021249)

3GPP TSG-CN WG2 Meeting #26
Miami, USA, 23rd - 27th September 2002

Tdoc N2-020919
(revision of N2-020848)

CHANGE REQUEST

⌘ **29.002 CR 494** ⌘ rev **1** ⌘ Current version: **3.14.0** ⌘

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

Title:	⌘ Correction to segmentation of O-CSI and T-CSI		
Source:	⌘ CN4		
Work item code:	⌘ CAMEL3	Date:	⌘ 26/09/2002
Category:	⌘ F	Release:	⌘ R99
<i>Use one of the following categories:</i>		<i>Use one of the following releases:</i>	
F (correction)		2 (GSM Phase 2)	
A (corresponds to a correction in an earlier release)		R96 (Release 1996)	
B (addition of feature),		R97 (Release 1997)	
C (functional modification of feature)		R98 (Release 1998)	
D (editorial modification)		R99 (Release 1999)	
		Rel-4 (Release 4)	
		Rel-5 (Release 5)	
		Rel-6 (Release 6)	

Reason for change: ⌘ For GPRS-CSI, SMS-CSI and D-CSI, rules are specified w.r.t. the segmentation of these elements over the various MAP messages. It is specified, amongst others, that the TDP list and the CAMEL Capability Handling shall be present in the first segment. Refer to the "*** **For Information** ***" page of the present CR.

This restriction is not present for O-CSI and T-CSI. This has lead to ambiguity for HLR designers and MSC designers. HLR designers may be forced to apply different segmentation mechanisms for O-CSI and T-CSI than for D-CSI, SMS-CSI and GPRS-CSI.

Furthermore, the parameters O-BcsmCameITDPDataList and T-BcsmCameITDPDataList are syntactically mandatory, so segmentation of O-CSI would lead to the reception of multiple instances of O-BcsmCameITDPDataList or T-BcsmCameITDPDataList. These may lead to further ambiguity.

To resolve this dilemma, the present CR proposes that O-CSI and T-CSI shall not be segmented by the sending entity.

Calculation has shown that:

- a fully populated O-CSI fits in a single SCCP segment, allowing reasonable amount of data available for the extensionContainer;
- a fully populated T-CSI fits in a single SCCP segment, allowing reasonable amount of data available for the extensionContainer.

This is an essential correction.

Summary of change: ⌘ Specify in section 17.7.1 that O-CSI and T-CSI shall not be segmented.

Consequences if not approved: ⌘

- ambiguity for MSC designers;
- ambiguity for HLR designers;
- inconsistent behaviour of the MSC/GMSC in the handling of O-CSI and T-CSI in MAP

Clauses affected: ⌘ 17.7.1

Y	N
	X
	X
	X

Other specs affected: ⌘

- Other core specifications ⌘
- Test specifications
- O&M Specifications

Other comments: ⌘

***** For Information**

```
GPRS-CSI ::= SEQUENCE {
  gprs-CamelTDPDataList          [0] GPRS-CamelTDPDataList          OPTIONAL,
  camelCapabilityHandling        [1] CamelCapaibilityHandling    OPTIONAL,
  extensionContainer             [2] ExtensionContainer          OPTIONAL,
  notificationToCSE              [3] NULL                       OPTIONAL,
  csi-Active                     [4] NULL                       OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when GPRS-CSI is sent to SGSN.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- GPRS-CamelTDPData and camelCapabilityHandling shall be present in
-- the GPRS-CSI sequence.
-- If GPRS-CSI is segmented, gprs-CamelTDPDataList and camelCapabilityHandling shall be
-- present in the first segment
```

```
SMS-CSI ::= SEQUENCE {
  sms-CAMEL-TDP-DataList        [0] SMS-CAMEL-TDP-DataList      OPTIONAL,
  camelCapabilityHandling        [1] CamelCapabilityHandling      OPTIONAL,
  extensionContainer             [2] ExtensionContainer          OPTIONAL,
  notificationToCSE              [3] NULL                       OPTIONAL,
  csi-Active                     [4] NULL                       OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when SMS-CSI is sent to VLR/SGSN.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- SMS-CAMEL-TDP-Data and camelCapabilityHandling shall be present in
-- the SMS-CSI sequence.
-- If SMS-CSI is segmented, sms-CAMEL-TDP-DataList and camelCapabilityHandling shall be
-- present in the first segment
```

```
D-CSI ::= SEQUENCE {
  dp-AnalysedInfoCriteriaList   [0] DP-AnalysedInfoCriteriaList  OPTIONAL,
  camelCapabilityHandling        [1] CamelCapabilityHandling      OPTIONAL,
  extensionContainer             [2] ExtensionContainer          OPTIONAL,
  notificationToCSE              [3] NULL                       OPTIONAL,
  csi-Active                     [4] NULL                       OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when D-CSI is sent to VLR/GMSC.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- DP-AnalysedInfoCriteria and camelCapabilityHandling shall be present in
-- the D-CSI sequence.
-- If D-CSI is segmented, dp-AnalysedInfoCriteriaList and camelCapabilityHandling shall be
-- present in the first segment
```

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

17.7 MAP constants and data types

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) version6 (6)}
```

DEFINITIONS

IMPLICIT TAGS

::=

BEGIN

< unmodified ASN.1 >

```
O-CSI ::= SEQUENCE {
  o-BcsmCamelTDPDataList          O-BcsmCamelTDPDataList,
  extensionContainer              ExtensionContainer          OPTIONAL,
  . . . ,
  camelCapabilityHandling         [0] CamelCapabilityHandling  OPTIONAL,
  notificationToCSE               [1] NULL                  OPTIONAL,
  csiActive                       [2] NULL                  OPTIONAL}
-- notificationToCSE and csiActive shall not be present when O-CSI is sent to VLR/GMSC.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- O-CSI shall not be segmented.
-- If O-CSI is segmented, then O-BcsmCamelTDPDataList and camelCapabilityHandling
-- shall be present in the first segment.
```

< unmodified ASN.1 >

```
T-CSI ::= SEQUENCE {
  t-BcsmCamelTDPDataList          T-BcsmCamelTDPDataList,
  extensionContainer              ExtensionContainer          OPTIONAL,
  . . . ,
  camelCapabilityHandling         [0] CamelCapabilityHandling  OPTIONAL,
  notificationToCSE               [1] NULL                  OPTIONAL,
  csi-Active                      [2] NULL                  OPTIONAL}
-- notificationToCSE and csi-Active shall not be present when VT-CSI/T-CSI is sent
-- to VLR/GMSC.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- T-CSI shall not be segmented.
-- If T-CSI is segmented, then T-BcsmCamelTDPDataList and camelCapabilityHandling
-- shall be present in the first segment.
```

< unmodified ASN.1 >

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

CHANGE REQUEST

⌘ **29.002 CR 506** ⌘ rev **-** ⌘ Current version: **3.14.0** ⌘

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:	⌘	ODB correction	
Source:	⌘	CN4	
Work item code:	⌘	CAMEL3	Date: ⌘ 31/10/2002
Category:	⌘	F	Release: ⌘ R99
		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:	⌘	CR 371r1 on 'Inclusion of complete ODB data in ATSI and NSDC' approved by CN#15 (N4-020209) was incomplete. A code point for barring of Registration of any international call forwarded-to number has been forgotten in the ASN.1 data type ODB-GeneralData. This is an essential correction.
Summary of change:	⌘	Add the missing code point
Consequences if not approved:	⌘	Inconsistency in specifications. ATSI and NSDC for ODB barring of registration of international Call Forwarding To numbers is not possible.

Clauses affected:	⌘	17.7.1								
Other specs affected:	⌘	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N		X		X		X
Y	N									
	X									
	X									
	X									
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.

17.7.1 Mobile Service data types

.....

```
ODB-GeneralData ::= BIT STRING {
    allOG-CallsBarred (0),
    internationalOGCallsBarred (1),
    internationalOGCallsNotToHPLMN-CountryBarred (2),
    interzonalOGCallsBarred (6),
    interzonalOGCallsNotToHPLMN-CountryBarred (7),
    interzonalOGCallsAndInternationalOGCallsNotToHPLMN-CountryBarred (8),
    premiumRateInformationOGCallsBarred (3),
    premiumRateEntertainmentOGCallsBarred (4),
    ss-AccessBarred (5),
    allECT-Barred (9),
    chargeableECT-Barred (10),
    internationalECT-Barred (11),
    interzonalECT-Barred (12),
    doublyChargeableECT-Barred (13),
    multipleECT-Barred (14),
    roamingOutsidePLMNOG-CallsBarred (18),
    allIC-CallsBarred (19),
    roamingOutsidePLMNIC-CallsBarred (20),
    roamingOutsidePLMNICountryIC-CallsBarred (21),
    roamingOutsidePLMN-Barred (22),
    roamingOutsidePLMN-CountryBarred (23),
    registrationAllCF-Barred (24),
    registrationCFNotToHPLMN-Barred (25),
    registrationInterzonalCF-Barred (26),
    registrationInterzonalCFNotToHPLMN-Barred (27),
    registrationInternationalCF-Barred (28)} (SIZE (15..32))
-- exception handling: reception of unknown bit assignments in the
-- ODB-GeneralData type shall be treated like unsupported ODB-GeneralData
-- When the ODB-GeneralData type is removed from the HLR for a given subscriber,
-- in NoteSubscriberDataModified operation sent toward the gsmSCF
-- all bits shall be set to "0".
```

CHANGE REQUEST

⌘ **29.002 CR 507** ⌘ rev **-** ⌘ Current version: **4.9.0** ⌘

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:	⌘	ODB correction	
Source:	⌘	CN4	
Work item code:	⌘	CAMEL3	Date: ⌘ 31/10/2002
Category:	⌘	A	Release: ⌘ Rel-4
		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:	⌘	CR 371r1 on 'Inclusion of complete ODB data in ATSI and NSDC' approved by CN#15 (N4-020209) was incomplete. A code point for barring of Registration of any international call forwarded-to number has been forgotten in the ASN.1 data type ODB-GeneralData.
Summary of change:	⌘	Add the missing code point
Consequences if not approved:	⌘	Inconsistency in specifications. ATSI and NSDC for ODB barring of registration of international Call Forwarding To numbers is not possible.

Clauses affected:	⌘	17.7.1										
Other specs affected:	⌘	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td style="text-align: center;">X</td> <td></td> </tr> </table>	Y	N	X		X		X		Other core specifications	⌘
		Y	N									
		X										
		X										
X												
		Test specifications										
		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.

17.7.1 Mobile Service data types

.....

```
ODB-GeneralData ::= BIT STRING {
    allOG-CallsBarred (0),
    internationalOGCallsBarred (1),
    internationalOGCallsNotToHPLMN-CountryBarred (2),
    interzonalOGCallsBarred (6),
    interzonalOGCallsNotToHPLMN-CountryBarred (7),
    interzonalOGCallsAndInternationalOGCallsNotToHPLMN-CountryBarred (8),
    premiumRateInformationOGCallsBarred (3),
    premiumRateEntertainmentOGCallsBarred (4),
    ss-AccessBarred (5),
    allECT-Barred (9),
    chargeableECT-Barred (10),
    internationalECT-Barred (11),
    interzonalECT-Barred (12),
    doublyChargeableECT-Barred (13),
    multipleECT-Barred (14),
    roamingOutsidePLMNOG-CallsBarred (18),
    allIC-CallsBarred (19),
    roamingOutsidePLMNIC-CallsBarred (20),
    roamingOutsidePLMNICountryIC-CallsBarred (21),
    roamingOutsidePLMN-Barred (22),
    roamingOutsidePLMN-CountryBarred (23),
    registrationAllCF-Barred (24),
    registrationCFNotToHPLMN-Barred (25),
    registrationInterzonalCF-Barred (26),
    registrationInterzonalCFNotToHPLMN-Barred (27),
    registrationInternationalCF-Barred (28)} (SIZE (15..32))
-- exception handling: reception of unknown bit assignments in the
-- ODB-GeneralData type shall be treated like unsupported ODB-GeneralData
-- When the ODB-GeneralData type is removed from the HLR for a given subscriber,
-- in NoteSubscriberDataModified operation sent toward the gsmSCF
-- all bits shall be set to "0".
```

CHANGE REQUEST

⌘ **29.002 CR 508** ⌘ 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:	⌘ ODB correction				
Source:	⌘ CN4				
Work item code:	⌘ CAMEL3	Date:	⌘ 31/10/2002		
Category:	⌘ A	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:	⌘ CR 371r1 on 'Inclusion of complete ODB data in ATSI and NSDC' approved by CN#15 (N4-020209) was incomplete. A code point for barring of Registration of any international call forwarded-to number has been forgotten in the ASN.1 data type ODB-GeneralData.
Summary of change:	⌘ Add the missing code point
Consequences if not approved:	⌘ Inconsistency in specifications. ATSI and NSDC for ODB barring of registration of international Call Forwarding To numbers is not possible.

Clauses affected:	⌘ 17.7.1								
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications ⌘ <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> Test specifications <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> O&M Specifications	Y	N	⌘	X	⌘	X	⌘	X
Y	N								
⌘	X								
⌘	X								
⌘	X								
Other comments:	⌘								

How to create CRs using this form:

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- 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/](http://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.

17.7.1 Mobile Service data types

.....

```
ODB-GeneralData ::= BIT STRING {
    allOG-CallsBarred (0),
    internationalOGCallsBarred (1),
    internationalOGCallsNotToHPLMN-CountryBarred (2),
    interzonalOGCallsBarred (6),
    interzonalOGCallsNotToHPLMN-CountryBarred (7),
    interzonalOGCallsAndInternationalOGCallsNotToHPLMN-CountryBarred (8),
    premiumRateInformationOGCallsBarred (3),
    premiumRateEntertainmentOGCallsBarred (4),
    ss-AccessBarred (5),
    allECT-Barred (9),
    chargeableECT-Barred (10),
    internationalECT-Barred (11),
    interzonalECT-Barred (12),
    doublyChargeableECT-Barred (13),
    multipleECT-Barred (14),
    roamingOutsidePLMNOG-CallsBarred (18),
    allIC-CallsBarred (19),
    roamingOutsidePLMNIC-CallsBarred (20),
    roamingOutsidePLMNICountryIC-CallsBarred (21),
    roamingOutsidePLMN-Barred (22),
    roamingOutsidePLMN-CountryBarred (23),
    registrationAllCF-Barred (24),
    registrationCFNotToHPLMN-Barred (25),
    registrationInterzonalCF-Barred (26),
    registrationInterzonalCFNotToHPLMN-Barred (27),
    registrationInternationalCF-Barred (28)} (SIZE (15..32))
-- exception handling: reception of unknown bit assignments in the
-- ODB-GeneralData type shall be treated like unsupported ODB-GeneralData
-- When the ODB-GeneralData type is removed from the HLR for a given subscriber,
-- in NoteSubscriberDataModified operation sent toward the gsmSCF
-- all bits shall be set to "0".
```

CHANGE REQUEST

⌘ **29.002 CR 498** ⌘ rev ⌘ Current version: **4.9.0** ⌘

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

Title:	⌘ Correction to segmentation of O-CSI and T-CSI		
Source:	⌘ CN4		
Work item code:	⌘ CAMEL3	Date:	⌘ 26/09/2002
Category:	⌘ A	Release:	⌘ Rel-4
<i>Use one of the following categories:</i>		<i>Use one of the following releases:</i>	
F (correction)		2 (GSM Phase 2)	
A (corresponds to a correction in an earlier release)		R96 (Release 1996)	
B (addition of feature),		R97 (Release 1997)	
C (functional modification of feature)		R98 (Release 1998)	
D (editorial modification)		R99 (Release 1999)	
		Rel-4 (Release 4)	
		Rel-5 (Release 5)	
		Rel-6 (Release 6)	

Reason for change: ⌘ For GPRS-CSI, SMS-CSI and D-CSI, rules are specified w.r.t. the segmentation of these elements over the various MAP messages. It is specified, amongst others, that the TDP list and the CAMEL Capability Handling shall be present in the first segment. Refer to the "*** **For Information** ***" page of the present CR.

This restriction is not present for O-CSI and T-CSI. This has lead to ambiguity for HLR designers and MSC designers. HLR designers may be forced to apply different segmentation mechanisms for O-CSI and T-CSI than for D-CSI, SMS-CSI and GPRS-CSI.

Furthermore, the parameters O-BcsmCameITDPDataList and T-BcsmCameITDPDataList are syntactically mandatory, so segmentation of O-CSI would lead to the reception of multiple instances of O-BcsmCameITDPDataList or T-BcsmCameITDPDataList. These may lead to further ambiguity.

To resolve this dilemma, the present CR proposes that O-CSI and T-CSI shall not be segmented by the sending entity.

Calculation has shown that:

- a fully populated O-CSI fits in a single SCCP segment, allowing reasonable amount of data available for the extensionContainer;
- a fully populated T-CSI fits in a single SCCP segment, allowing reasonable amount of data available for the extensionContainer.

Summary of change: ⌘ Specify in section 17.7.1 that O-CSI and T-CSI shall not be segmented.

Consequences if not approved: ⌘ - ambiguity for MSC designers;
 - ambiguity for HLR designers;
 - inconsistent behaviour of the MSC/GMSC in the handling of O-CSI and T-CSI in MAP

Clauses affected: ⌘ 17.7.1

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

Other comments: ⌘

***** For Information**

```
GPRS-CSI ::= SEQUENCE {
  gprs-CamelTDPDataList          [0] GPRS-CamelTDPDataList      OPTIONAL,
  camelCapabilityHandling        [1] CamelCapaibilityHandling  OPTIONAL,
  extensionContainer             [2] ExtensionContainer        OPTIONAL,
  notificationToCSE              [3] NULL                     OPTIONAL,
  csi-Active                     [4] NULL                     OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when GPRS-CSI is sent to SGSN.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- GPRS-CamelTDPData and camelCapabilityHandling shall be present in
-- the GPRS-CSI sequence.
-- If GPRS-CSI is segmented, gprs-CamelTDPDataList and camelCapabilityHandling shall be
-- present in the first segment
```

```
SMS-CSI ::= SEQUENCE {
  sms-CAMEL-TDP-DataList        [0] SMS-CAMEL-TDP-DataList    OPTIONAL,
  camelCapabilityHandling        [1] CamelCapabilityHandling    OPTIONAL,
  extensionContainer             [2] ExtensionContainer        OPTIONAL,
  notificationToCSE              [3] NULL                     OPTIONAL,
  csi-Active                     [4] NULL                     OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when SMS-CSI is sent to VLR/SGSN.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- SMS-CAMEL-TDP-Data and camelCapabilityHandling shall be present in
-- the SMS-CSI sequence.
-- If SMS-CSI is segmented, sms-CAMEL-TDP-DataList and camelCapabilityHandling shall be
-- present in the first segment
```

```
D-CSI ::= SEQUENCE {
  dp-AnalysedInfoCriteriaList   [0] DP-AnalysedInfoCriteriaList  OPTIONAL,
  camelCapabilityHandling        [1] CamelCapabilityHandling    OPTIONAL,
  extensionContainer             [2] ExtensionContainer        OPTIONAL,
  notificationToCSE              [3] NULL                     OPTIONAL,
  csi-Active                     [4] NULL                     OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when D-CSI is sent to VLR/GMSC.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- DP-AnalysedInfoCriteria and camelCapabilityHandling shall be present in
-- the D-CSI sequence.
-- If D-CSI is segmented, dp-AnalysedInfoCriteriaList and camelCapabilityHandling shall be
-- present in the first segment
```


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

17.7 MAP constants and data types

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) version6 (6)}
```

DEFINITIONS

IMPLICIT TAGS

::=

BEGIN

< unmodified ASN.1 >

```
O-CSI ::= SEQUENCE {  
  o-BcsmCamelTDPDataList          O-BcsmCamelTDPDataList,  
  extensionContainer              ExtensionContainer          OPTIONAL,  
  . . . ,  
  camelCapabilityHandling         [0] CamelCapabilityHandling    OPTIONAL,  
  notificationToCSE               [1] NULL                     OPTIONAL,  
  csiActive                       [2] NULL                     OPTIONAL}  
-- notificationToCSE and csiActive shall not be present when O-CSI is sent to VLR/GMSC.  
-- They may only be included in ATSI/ATM ack/NSDC message.  
-- O-CSI shall not be segmented.  
If O-CSI is segmented, then O-BcsmCamelTDPDataList and camelCapabilityHandling  
shall be present in the first segment.
```

< unmodified ASN.1 >

```
T-CSI ::= SEQUENCE {  
  t-BcsmCamelTDPDataList          T-BcsmCamelTDPDataList,  
  extensionContainer              ExtensionContainer          OPTIONAL,  
  . . . ,  
  camelCapabilityHandling         [0] CamelCapabilityHandling    OPTIONAL,  
  notificationToCSE               [1] NULL                     OPTIONAL,  
  csi-Active                      [2] NULL                     OPTIONAL}  
-- notificationToCSE and csi-Active shall not be present when VT-CSI/T-CSI is sent  
-- to VLR/GMSC.  
-- They may only be included in ATSI/ATM ack/NSDC message.  
-- T-CSI shall not be segmented.  
If T-CSI is segmented, then T-BcsmCamelTDPDataList and camelCapabilityHandling  
shall be present in the first segment.
```

< unmodified ASN.1 >

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

CHANGE REQUEST

⌘ **29.002** CR **499** ⌘ rev ⌘ Current version: **5.3.0** ⌘

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

Title:	⌘ Correction to segmentation of O-CSI and T-CSI		
Source:	⌘ Ericsson		
Work item code:	⌘ CAMEL3	Date:	⌘ 26/09/2002
Category:	⌘ A	Release:	⌘ Rel-5
<i>Use one of the following categories:</i>		<i>Use one of the following releases:</i>	
F (correction)		2 (GSM Phase 2)	
A (corresponds to a correction in an earlier release)		R96 (Release 1996)	
B (addition of feature),		R97 (Release 1997)	
C (functional modification of feature)		R98 (Release 1998)	
D (editorial modification)		R99 (Release 1999)	
		Rel-4 (Release 4)	
		Rel-5 (Release 5)	
		Rel-6 (Release 6)	

Reason for change: ⌘ For GPRS-CSI, SMS-CSI and D-CSI, rules are specified w.r.t. the segmentation of these elements over the various MAP messages. It is specified, amongst others, that the TDP list and the CAMEL Capability Handling shall be present in the first segment. Refer to the "*** **For Information** ***" page of the present CR.

This restriction is not present for O-CSI and T-CSI. This has lead to ambiguity for HLR designers and MSC designers. HLR designers may be forced to apply different segmentation mechanisms for O-CSI and T-CSI than for D-CSI, SMS-CSI and GPRS-CSI.

Furthermore, the parameters O-BcsmCameITDPDataList and T-BcsmCameITDPDataList are syntactically mandatory, so segmentation of O-CSI would lead to the reception of multiple instances of O-BcsmCameITDPDataList or T-BcsmCameITDPDataList. These may lead to further ambiguity.

To resolve this dilemma, the present CR proposes that O-CSI and T-CSI shall not be segmented by the sending entity.

Calculation has shown that:

- a fully populated O-CSI fits in a single SCCP segment, allowing reasonable amount of data available for the extensionContainer;
- a fully populated T-CSI fits in a single SCCP segment, allowing reasonable amount of data available for the extensionContainer.

Summary of change: ⌘ Specify in section 17.7.1 that O-CSI and T-CSI shall not be segmented.

Consequences if not approved: ⌘ - ambiguity for MSC designers;
 - ambiguity for HLR designers;
 - inconsistent behaviour of the MSC/GMSC in the handling of O-CSI and T-CSI in MAP

Clauses affected: ⌘ 17.7.1

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

Other comments: ⌘

***** For Information**

```
GPRS-CSI ::= SEQUENCE {
  gprs-CamelTDPDataList          [0] GPRS-CamelTDPDataList          OPTIONAL,
  camelCapabilityHandling        [1] CamelCapaibilityHandling    OPTIONAL,
  extensionContainer             [2] ExtensionContainer          OPTIONAL,
  notificationToCSE             [3] NULL                        OPTIONAL,
  csi-Active                    [4] NULL                        OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when GPRS-CSI is sent to SGSN.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- GPRS-CamelTDPData and camelCapabilityHandling shall be present in
-- the GPRS-CSI sequence.
-- If GPRS-CSI is segmented, gprs-CamelTDPDataList and camelCapabilityHandling shall be
-- present in the first segment
```

```
SMS-CSI ::= SEQUENCE {
  sms-CAMEL-TDP-DataList        [0] SMS-CAMEL-TDP-DataList      OPTIONAL,
  camelCapabilityHandling        [1] CamelCapabilityHandling      OPTIONAL,
  extensionContainer             [2] ExtensionContainer          OPTIONAL,
  notificationToCSE             [3] NULL                        OPTIONAL,
  csi-Active                    [4] NULL                        OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when SMS-CSI is sent to VLR/SGSN.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- SMS-CAMEL-TDP-Data and camelCapabilityHandling shall be present in
-- the SMS-CSI sequence.
-- If SMS-CSI is segmented, sms-CAMEL-TDP-DataList and camelCapabilityHandling shall be
-- present in the first segment
```

```
D-CSI ::= SEQUENCE {
  dp-AnalysedInfoCriteriaList   [0] DP-AnalysedInfoCriteriaList  OPTIONAL,
  camelCapabilityHandling        [1] CamelCapabilityHandling      OPTIONAL,
  extensionContainer             [2] ExtensionContainer          OPTIONAL,
  notificationToCSE             [3] NULL                        OPTIONAL,
  csi-Active                    [4] NULL                        OPTIONAL,
  ...}
-- notificationToCSE and csi-Active shall not be present when D-CSI is sent to VLR/GMSC.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- DP-AnalysedInfoCriteria and camelCapabilityHandling shall be present in
-- the D-CSI sequence.
-- If D-CSI is segmented, dp-AnalysedInfoCriteriaList and camelCapabilityHandling shall be
-- present in the first segment
```

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

17.7 MAP constants and data types

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) version6 (6)}
```

DEFINITIONS

IMPLICIT TAGS

::=

BEGIN

< unmodified ASN.1 >

```
O-CSI ::= SEQUENCE {
  o-BcsmCamelTDPDataList          O-BcsmCamelTDPDataList,
  extensionContainer              ExtensionContainer          OPTIONAL,
  . . . ,
  camelCapabilityHandling         [0] CamelCapabilityHandling  OPTIONAL,
  notificationToCSE               [1] NULL                  OPTIONAL,
  csiActive                       [2] NULL                  OPTIONAL}
-- notificationToCSE and csiActive shall not be present when O-CSI is sent to VLR/GMSC.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- O-CSI shall not be segmented.
-- If O-CSI is segmented, then O-BcsmCamelTDPDataList and camelCapabilityHandling
-- shall be present in the first segment.
```

< unmodified ASN.1 >

```
T-CSI ::= SEQUENCE {
  t-BcsmCamelTDPDataList          T-BcsmCamelTDPDataList,
  extensionContainer              ExtensionContainer          OPTIONAL,
  . . . ,
  camelCapabilityHandling         [0] CamelCapabilityHandling  OPTIONAL,
  notificationToCSE               [1] NULL                  OPTIONAL,
  csi-Active                      [2] NULL                  OPTIONAL}
-- notificationToCSE and csi-Active shall not be present when VT-CSI/T-CSI is sent
-- to VLR/GMSC.
-- They may only be included in ATSI/ATM ack/NSDC message.
-- T-CSI shall not be segmented.
-- If T-CSI is segmented, then T-BcsmCamelTDPDataList and camelCapabilityHandling
-- shall be present in the first segment.
```

< unmodified ASN.1 >

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