

3GPP TSG CN Plenary Meeting #23
10th – 12th March 2004 Phoenix, USA.

NP-040049

Source: TSG CN WG4
Title: Corrections on Camel 4
Agenda item: 8.3
Document for: APPROVAL

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
23.018	136	1	N4-040269	Rel-5	Default Basic Service for gsmSCF-initiated calls	F	5.8.0
23.018	137		N4-040187	Rel-6	Default Basic Service for gsmSCF-initiated calls	A	6.1.0

CHANGE REQUEST

⌘ **23.018 CR 137** ⌘ rev - ⌘ Current version: **6.1.0** ⌘

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

Title:	⌘ Default Basic Service for gsmSCF-initiated calls		
Source:	⌘ CN4		
Work item code:	⌘ CAMEL4	Date:	⌘ 2004-02-20
Category:	⌘ A (agreed by consensus) Use <u>one</u> of the following categories: <i>F</i> (correction) <i>A</i> (corresponds to a correction in an earlier release) <i>B</i> (addition of feature), <i>C</i> (functional modification of feature) <i>D</i> (editorial modification)	Release:	⌘ Rel-6 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:	⌘ Refer to section 7.2.2.3 (Procedure Subscription_Check_HLR). If the HLR can't derive compatibility information from MAP Send Routing Information (SRI), then the HLR applies a default value for the Basic Service. With the introduction of gsmSCF-initiated calls, the MAP SRI may also be sent by the gsmSCF. When the gsmSCF sends MAP SRI to HLR, and the HLR can't derive compatibility information from MAP SRI, then the HLR shall apply Basic Service TS11. 3GPP TS 22.078 specifies that Call Party Handling procedures shall apply to TS11 only. The gsmSCF-initiated call is part of Call Party Handling.
Summary of change:	⌘ Amend the description of the default Basic Service in the HLR, for MAP SRI.
Consequences if not approved:	⌘ When an operator has a default basic service value provisioned in HLR which is different from TS11, then gsmSCF-initiated calls for which the HLR can not derive compatibility information, as specified in 3GPP TS 29.007, may fail. The HLR would in that case apply a Basic Service for the gsmSCF-initiated call other than TS11, whereas for gsmSCF-initiated calls, only TS11 is allowed.

Clauses affected:	⌘ 7.2.2.3										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table>	Y	N		X		X		X	Other core specifications Test specifications O&M Specifications	⌘
Y	N										
	X										
	X										
	X										
Other comments:	⌘										

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

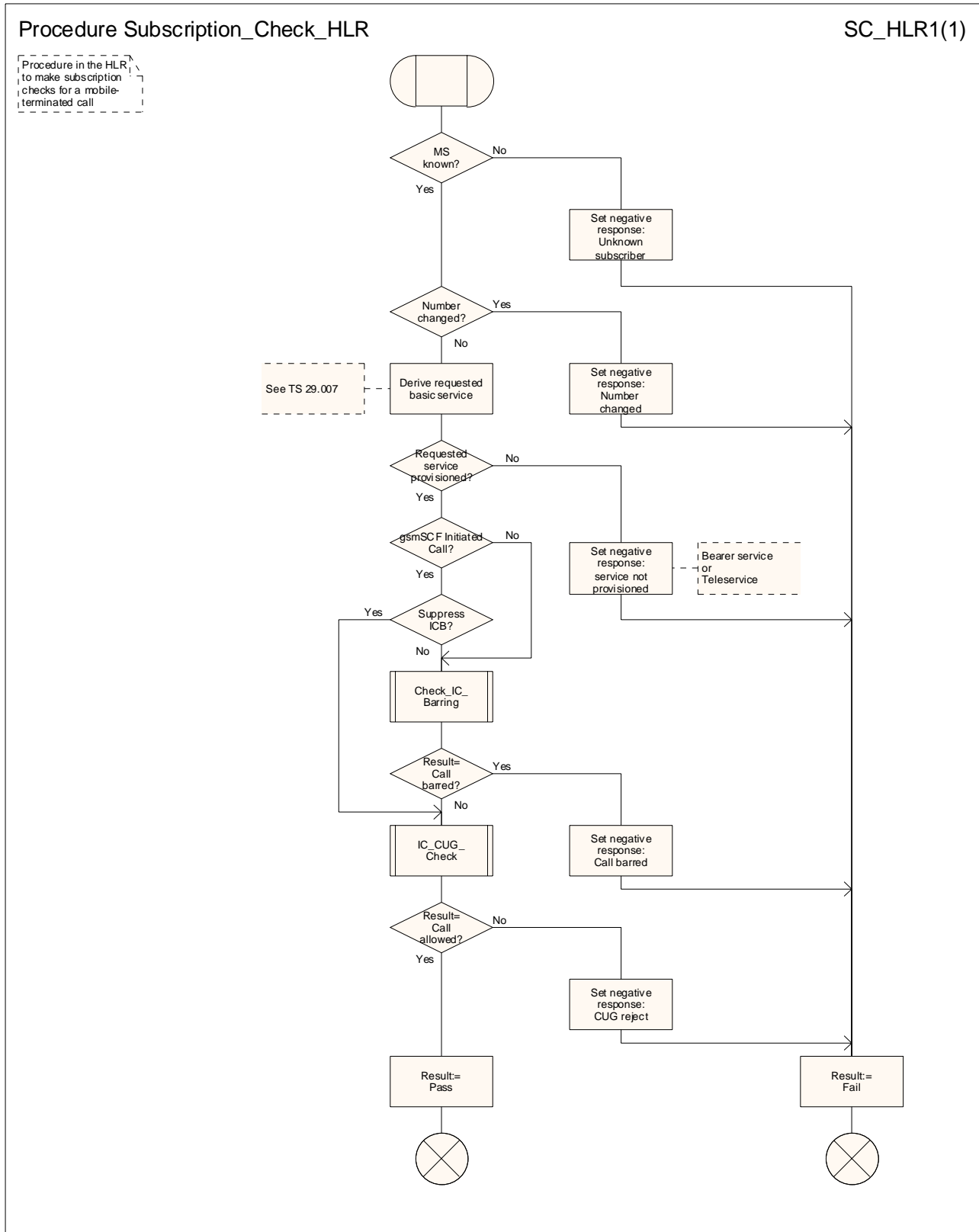


Figure 46: Procedure Subscription_Check_HLR

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

7.2 Retrieval of routing information for MT call

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7.2.1 Functional requirements of GMSC

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7.2.2 Functional requirements of HLR

7.2.2.1 Process SRI_HLR

Sheet 1: the procedures Check_Parameters, Subscription_Check_HLR, SCUDIF_Subscription_Check_HLR, Handle_OR_HLR_CF and CAMEL_HLR_INIT can set the negative response parameter which is used by the process SRI_HLR to construct the Send Routing Info negative response message. This negative response parameter is global data, accessible by the process SRI_HLR.

Sheet 1: the procedure Handle_OR_HLR_CF is specific to Support of Optimal Routing; it is specified in 3GPP TS 23.079 [13]. If the HLR does not support Optimal Routing, processing continues from the "No" exit of the test "Result=Forward?".

Sheet 1: the procedure SCUDIF_Subscription_Check_HLR is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. This procedure gets the result from the Subscription_Check_HLR procedure, and modifies it if needed. If the HLR does not support SCUDIF, the test "Result = Fail ?" applies to the result of the Subscription_Check_HLR procedure.

Sheet 1: the procedure CAMEL_HLR_INIT is specific to CAMEL; it is specified in 3GPP TS 23.078 [12]. If the HLR does not support CAMEL, processing continues from the "No" exit of the test "Result=Fail?".

Sheet 2: the procedure First_Forwarding_HLR can set the negative response parameter which is used by the process SRI_HLR to construct the Send Routing Info negative response message. This negative response parameter is global data, accessible by the process SRI_HLR.

Sheet 2: the procedure CAMEL_CSI_Check_HLR is specific to CAMEL; it is specified in 3GPP TS 23.078 [12]. If the HLR does not support CAMEL, processing continues from the "No" exit of the test "Result=CSI active?".

Sheet 2: the procedure SCUDIF_CAMEL_CSI_Check_HLR is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. This procedure gets the result from the CAMEL_CSI_Check_HLR procedure, and modifies it if needed. If the HLR does not support SCUDIF, the test "Result = CSI Active ?" applies to the result of the CAMEL_CSI_Check_HLR procedure. If the HLR does not support CAMEL, processing continues from the "No" exit of the test "Result=CSI active?".

Sheet 2: the procedure CCBS_Handling_HLR is specific to CCBS; it is specified in 3GPP TS 23.093 [23]. If the HLR does not support CCBS, processing continues from the "Yes" exit of the test "Result = OK?".

Sheet 3: the procedure OR_HLR_Interrogate_VLR is specific to Optimal Routing. It is specified in 3GPP TS 23.079 [13]. If the HLR does not support Optimal Routing, processing continues from the "No" exit of the test "Result=Forward?".

Sheet 3: the procedure SCUDIF_Set_Correct_PLMN_BC is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. If the HLR does not support SCUDIF, processing continues from the "Set_PLMN_BC" exit of the test "Result ?".

Sheet 3: if the HLR does not support Network Indication of Alerting, the test "Alerting pattern required" and the task "Set Alerting Pattern" are omitted.

Sheet 3: the procedure CLI_HLR_Set_CLI is specific to Enhanced CLI Handling. It is specified in 3GPP TS 23.081 [14].

Sheet 5: the procedure SCUDIF_Check_Second_Service_after_PRN is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. If the HLR does not support SCUDIF, processing continues from the "yes" exit of the test "Result = Continue?".

Sheet 5: the procedure PRN_Error_HLR can set the negative response parameter which is used by the process SRI_HLR to construct the Send Routeing Info negative response message. This negative response parameter is global data, accessible by the process SRI_HLR.

Sheet 5: the procedure Forward_CUG_Check is specific to CUG. If the HLR does not support CUG, processing continues from the "Yes" exit of the test "Result=Call allowed?".

Sheet 6: the test "Forwarding enquiry" is specific to Support of Optimal Routeing. If the HLR does not support Optimal Routeing, processing continues from the "No" exit of the test.

Sheet 6: the procedure CAMEL_CSI_Check_HLR is specific to CAMEL; it is specified in 3GPP TS 23.078 [12]. If the HLR does not support CAMEL, processing continues from the "No" exit of the test "Result=CSI active?".

Sheet 6: the procedure SCUDIF_CAMEL_CSI_Check_HLR is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. This procedure gets the result from the CAMEL_CSI_Check_HLR procedure, and modifies it if needed. If the HLR does not support SCUDIF, the test "Result = CSI Active?" applies to the result of the CAMEL_CSI_Check_HLR procedure. If the HLR does not support CAMEL, processing continues from the "No" exit of the test "Result=CSI active?".

Sheet 6: the procedure SCUDIF_Check_Second_Service_before_Negative_Response can set the negative response parameter which is used by the process SRI_HLR to construct the Send Routeing Info negative response message. This negative response parameter is global data, accessible by the process SRI_HLR.

Sheet 6: the procedure SCUDIF_Check_Second_Service_before_Negative_Response is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. If the HLR does not support SCUDIF, processing continues from the "Fail" exit of the test "Result?".

Sheet 7: the procedures CAMEL_T_CSI_CHECK_HLR and CAMEL_O_CSI_CHECK_HLR are specific to CAMEL; they are specified in 3GPP TS 23.078 [12].

Sheet 7: the procedure CAMEL_D_CSI_CHECK_HLR is specific to CAMEL phase 3 or later; it is specified in 3GPP TS 23.078 [12].

Sheet 7: the procedure SCUDIF_Set_Second_Service_when_Forwarded is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. If the HLR does not support SCUDIF, processing continues from the "Yes" exit of the test "Result = Continue?".

Sheet 7: the procedure SCUDIF_Check_Second_Service_when_Forwarded is specific to SCUDIF; it is specified in 3GPP TS 23.172 [38]. If the HLR does not support SCUDIF, processing continues from the "Yes" exit of the test "Result = Continue?".

7.2.2.2 Procedure Check_Parameters

If any parameters required by the rules in clause 8 are missing from the message, the procedure sets the negative response to "Data missing". If any parameter has a value which is not in the set of values expected for the parameter, the procedure sets the negative response to "Unexpected data value".

7.2.2.3 Procedure Subscription_Check_HLR

The HLR derives the possible PLMN bearer capability to populate the parameter in the Provide Roaming Number request according to the rules defined in 3GPP TS 29.007 [30].

If the HLR is able to determine the PLMN bearer capability or equivalent ISDN compatibility information to be sent to the VLR in the Provide Roaming Number request, it applies the corresponding PLMN bearer service or teleservice for handling the call. If the HLR is not able to determine any compatibility information to be sent to the VLR in the Provide Roaming Number request, it applies a default basic service according to the requirements of the operator.

[If the HLR receives Send Routeing Information from the gsmSCF and the HLR is not able to determine any compatibility information to be sent to the VLR in the Provide Roaming Number request, then the HLR shall apply basic service TS11.](#)

NOTE The information element "gsmSCF Initiated Call" in Send Routeing Information serves as an indication to the HLR that this Send Routeing Information is sent by the gsmSCF. Refer to 3GPP TS 23.078 [12].

It is an implementation option to carry out the check for operator determined barring of incoming calls before the check on provisioning of the requested basic service.

The test "gsmSCF Initiated Call?" is specific to CAMEL phase 4 or later. If the HLR does not support CAMEL phase 4 or later, processing continues from the "No" exit.

The negative response "Call barred" indicates whether the reason is operator determined barring or supplementary service barring, according to the result returned by the procedure Check_IC_Barring.

The negative response "CUG reject" indicates whether the reason is:

- Incoming calls barred within CUG;
- Requested basic service violates CUG constraints;
- Subscriber not member of CUG;

according to the cause returned by the procedure IC_CUG_Check.

7.2.2.4 Procedure First_Forwarding_HLR

The MS is not reachable if any of the following conditions is satisfied:

- The HLR has no location information for the subscriber.
- The subscriber record is marked as MS purged.
- The subscriber record is marked as MSC area restricted.
- The subscriber record is marked as Roaming Restricted due to Unsupported Feature.
- The subscriber is marked as deregistered because of subscription restrictions on roaming.

7.2.2.5 Procedure PRN_Error_HLR

The procedure CCBS_Report_PRN_Failure is specific to CCBS; it is specified in 3GPP TS 23.093 [23]. The procedure does not return a value; the following tests are on the value of the Provide Roaming Number negative response.

The procedure Super_Charged_SRI_Error_HLR is specific to Super-Charger; it is specified in 3GPP TS 23.116 [24]. If the HLR does not support Super-Charger, processing continues from the "No" exit of the test "Result=Purged?".

If the HLR does not support Optimal Routeing, processing starts with the test "Negative response=Facility not supported?".

7.2.2.6 Procedure Forward_CUG_Check

7.2.2.7 Void

7.2.2.8 Procedure Check_IC_Barring

7.2.2.9 Procedure IC_CUG_Check

7.2.2.10 Procedure Handle_CFU

The test "Normal call" refers to the value of the indicator returned by the process MAF007.

The procedure CAMEL_CHECK_SII2_CDTI is specific to CAMEL Phase 3 or later; it is specified in 3GPP TS 23.078 [12]. If the GMSC does not support CAMEL Phase 3 or later, processing continues from the "Yes" exit of the test "Result = Pass?".

7.2.2.11 Procedure Handle_CFNRc

The test "Mobile subscriber not reachable" refers to the value of the indicator returned by the process MAF010.

The procedure CAMEL_CHECK_SII2_CDTI is specific to CAMEL Phase 3 or later; it is specified in 3GPP TS 23.078 [12]. If the GMSC does not support CAMEL Phase 3 or later, processing continues from the "Yes" exit of the test "Result = Pass?".

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

CHANGE REQUEST

⌘ **23.018 CR 136** ⌘ rev **1** ⌘ Current version: **5.8.0** ⌘

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

Title:	⌘ Default Basic Service for gsmSCF-initiated calls		
Source:	⌘ CN4		
Work item code:	⌘ CAMEL4	Date:	⌘ 2004-02-18
Category:	⌘ F (agreed by consensus)	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)	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:	⌘ Refer to section 7.2.2.3 (Procedure Subscription_Check_HLR). If the HLR can't derive compatibility information from MAP Send Routeing Information (SRI), then the HLR applies a default value for the Basic Service. With the introduction of gsmSCF-initiated calls, the MAP SRI may also be sent by the gsmSCF. When the gsmSCF sends MAP SRI to HLR, and the HLR can't derive compatibility information from MAP SRI, then the HLR shall apply Basic Service TS11. 3GPP TS 22.078 specifies that Call Party Handling procedures shall apply to TS11 only. The gsmSCF-initiated call is part of Call Party Handling.
Summary of change:	⌘ Amend the description of the default Basic Service in the HLR, for MAP SRI.
Consequences if not approved:	⌘ When an operator has a default basic service value provisioned in HLR which is different from TS11, then gsmSCF-initiated calls for which the HLR can not derive compatibility information, as specified in 3GPP TS 29.007, may fail. The HLR would in that case apply a Basic Service for the gsmSCF-initiated call other than TS11, whereas for gsmSCF-initiated calls, only TS11 is allowed.

Clauses affected:	⌘ 7.2.2.3						
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	Y	N					
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	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test specifications	⌘		
<input type="checkbox"/>	<input checked="" type="checkbox"/>						

O&M Specifications

Other comments: ☞

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

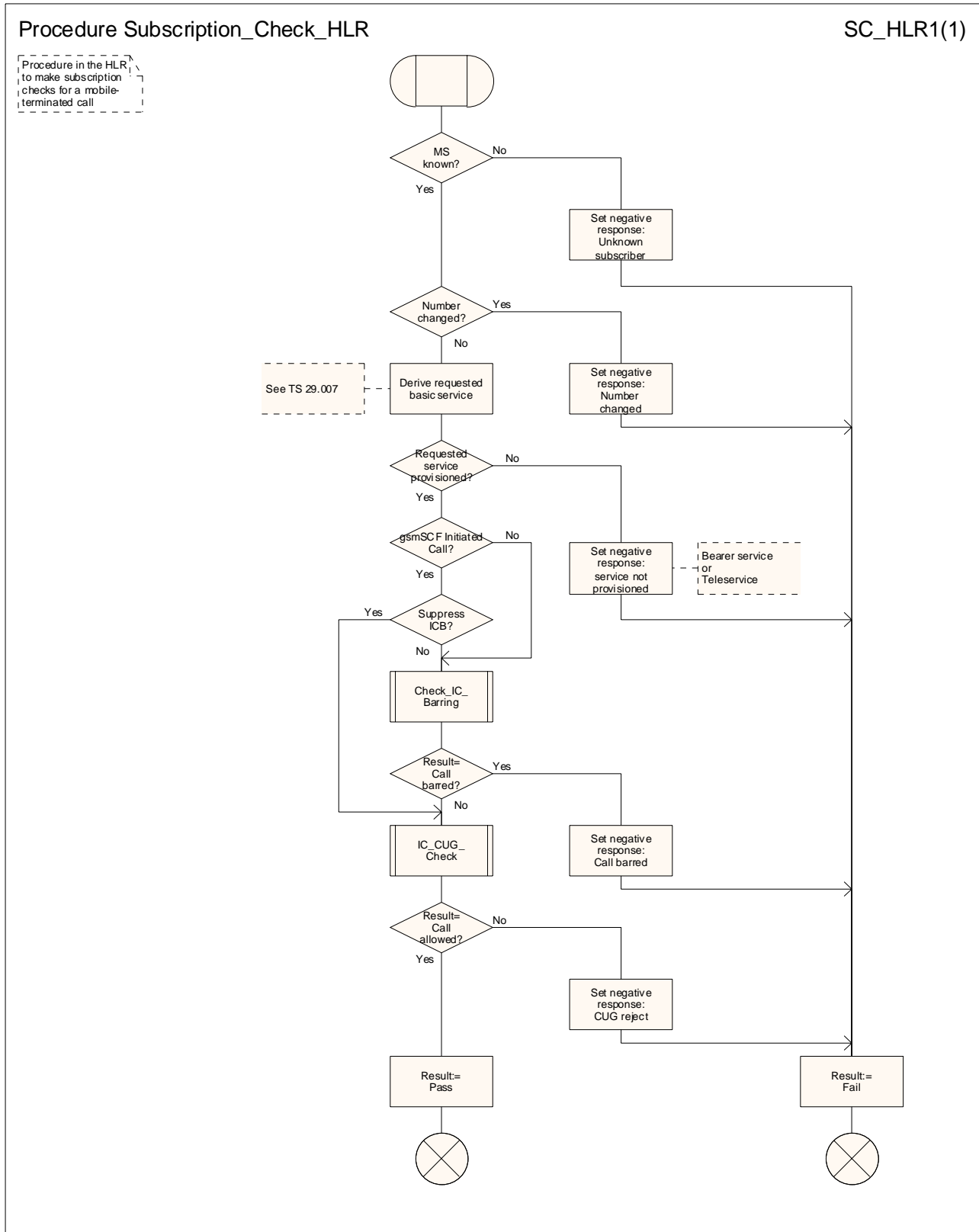


Figure 46: Procedure Subscription_Check_HLR

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

7.2 Retrieval of routeing information for MT call

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7.2.1 Functional requirements of GMSC

...

7.2.2 Functional requirements of HLR

7.2.2.1 Process SRI_HLR

Sheet 1: the procedures Check_Parameters, Subscription_Check_HLR, SCUDIF_Subscription_Check_HLR, Handle_OR_HLR_CF and CAMEL_HLR_INIT can set the negative response parameter which is used by the process SRI_HLR to construct the Send Routeing Info negative response message. This negative response parameter is global data, accessible by the process SRI_HLR.

Sheet 1: the procedure Handle_OR_HLR_CF is specific to Support of Optimal Routeing; it is specified in 3GPP TS 23.079 [13]. If the HLR does not support Optimal Routeing, processing continues from the "No" exit of the test "Result=Forward?".

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Sheet 5: the procedure PRN_Error_HLR can set the negative response parameter which is used by the process SRI_HLR to construct the Send Routeing Info negative response message. This negative response parameter is global data, accessible by the process SRI_HLR.

Sheet 5: the procedure Forward_CUG_Check is specific to CUG. If the HLR does not support CUG, processing continues from the "Yes" exit of the test "Result=Call allowed?".

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If any parameters required by the rules in clause 8 are missing from the message, the procedure sets the negative response to "Data missing". If any parameter has a value which is not in the set of values expected for the parameter, the procedure sets the negative response to "Unexpected data value".

7.2.2.3 Procedure Subscription_Check_HLR

The HLR derives the possible PLMN bearer capability to populate the parameter in the Provide Roaming Number request according to the rules defined in 3GPP TS 29.007 [30].

If the HLR is able to determine the PLMN bearer capability or equivalent ISDN compatibility information to be sent to the VLR in the Provide Roaming Number request, it applies the corresponding PLMN bearer service or teleservice for handling the call. If the HLR is not able to determine any compatibility information to be sent to the VLR in the Provide Roaming Number request, it applies a default basic service according to the requirements of the operator.

[If the HLR receives Send Routeing Information from the gsmSCF and the HLR is not able to determine any compatibility information to be sent to the VLR in the Provide Roaming Number request, then the HLR shall apply basic service TS11.](#)

NOTE The information element "gsmSCF Initiated Call" in Send Routeing Information serves as an indication to the HLR that this Send Routeing Information is sent by the gsmSCF. Refer to 3GPP TS 23.078 [12].

It is an implementation option to carry out the check for operator determined barring of incoming calls before the check on provisioning of the requested basic service.

The test "gsmSCF Initiated Call?" is specific to CAMEL phase 4 or later. If the HLR does not support CAMEL phase 4 or later, processing continues from the "No" exit.

The negative response "Call barred" indicates whether the reason is operator determined barring or supplementary service barring, according to the result returned by the procedure Check_IC_Barring.

The negative response "CUG reject" indicates whether the reason is:

- Incoming calls barred within CUG;
- Requested basic service violates CUG constraints;
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7.2.2.4 Procedure First_Forwarding_HLR

The MS is not reachable if any of the following conditions is satisfied:

- The HLR has no location information for the subscriber.
- The subscriber record is marked as MS purged.
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- The subscriber record is marked as Roaming Restricted due to Unsupported Feature.
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7.2.2.5 Procedure PRN_Error_HLR

The procedure CCBS_Report_PRN_Failure is specific to CCBS; it is specified in 3GPP TS 23.093 [23]. The procedure does not return a value; the following tests are on the value of the Provide Roaming Number negative response.

The procedure Super_Charged_SRI_Error_HLR is specific to Super-Charger; it is specified in 3GPP TS 23.116 [24]. If the HLR does not support Super-Charger, processing continues from the "No" exit of the test "Result=Purged?".

If the HLR does not support Optimal Routeing, processing starts with the test "Negative response=Facility not supported?".

7.2.2.6 Procedure Forward_CUG_Check

7.2.2.7 Void

7.2.2.8 Procedure Check_IC_Barring

7.2.2.9 Procedure IC_CUG_Check

7.2.2.10 Procedure Handle_CFU

The test "Normal call" refers to the value of the indicator returned by the process MAF007.

The procedure CAMEL_CHECK_SII2_CDTI is specific to CAMEL Phase 3 or later; it is specified in 3GPP TS 23.078 [12]. If the GMSC does not support CAMEL Phase 3 or later, processing continues from the "Yes" exit of the test "Result = Pass?".

7.2.2.11 Procedure Handle_CFNRc

The test "Mobile subscriber not reachable" refers to the value of the indicator returned by the process MAF010.

The procedure CAMEL_CHECK_SII2_CDTI is specific to CAMEL Phase 3 or later; it is specified in 3GPP TS 23.078 [12]. If the GMSC does not support CAMEL Phase 3 or later, processing continues from the "Yes" exit of the test "Result = Pass?".

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