

Source: TSG_N WG4
Title: CRs to 3G Work Item “**Call Forwarding Enhancements**”
Agenda item: 6.12.4
Document for: APPROVAL

Introduction:

This document contains “4” CRs on **Work Item “Call Forwarding Enhancements”**, that have been agreed by **TSG_N WG4**, and are forwarded to **TSG_N Plenary** meeting #8 for approval.

TDoc	SPEC	CR	REV	PHAS	VERS	SUBJECT	CAT	NEW_VERS
N4-000040	23.079	014		R99	3.2.0	Indication in PRN of support of Long FTNs	F	3.3.0
N4-000041	23.082	006		R99	3.2.0	Indication in PRN of support of Long FTNs	F	3.3.0
N4-000348	23.082	007	1	R99	3.2.0	Interworking cases for Long Forwarded-to Numbers	C	3.3.0
N4-000089	29.002	118	1	R99	3.4.0	Indication in PRN of support of Long FTNs	F	3.5.0

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

23.079 CR 014

Current Version: **3.4.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **CN#08**
list expected approval meeting # here ↑

for approval
for information

strategic
non-strategic (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

Proposed change affects: (U)SIM ME UTRAN / Radio Core Network
(at least one should be marked with an X)

Source: Vodafone Airtouch **Date:** 21/03/00

Subject: Indication in PRN of support of Long FTNs

Work item: Call Forwarding Enhancements

Category: (only one category shall be marked with an X)	F Correction	<input checked="" type="checkbox"/>	Release:	Phase 2	<input type="checkbox"/>
	A Corresponds to a correction in an earlier release	<input type="checkbox"/>		Release 96	<input type="checkbox"/>
	B Addition of feature	<input type="checkbox"/>		Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input type="checkbox"/>		Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>		Release 99	<input checked="" type="checkbox"/>
			Release 00	<input type="checkbox"/>	

Reason for change: For an MT call the GMSC indicates to the HLR whether it supports Long FTNs in the SRI message. This information should be passed to the VMSC in the PRN message. If the subscriber has a long FTN registered and the GMSC does not support Long FTNs then ORLCF should not be invoked.

Clauses affected: Figure 12

Other specs affected:	Other 3G core specifications	<input checked="" type="checkbox"/>	→ List of CRs:	23.082-002 (N4-000041) 29.002-118 (N4-000042)
	Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
	MS test specifications	<input type="checkbox"/>	→ List of CRs:	
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	

Other comments: The latest version of TS 23.079 (post TSG-N#7) was unavailable at the time of drafting this CR.



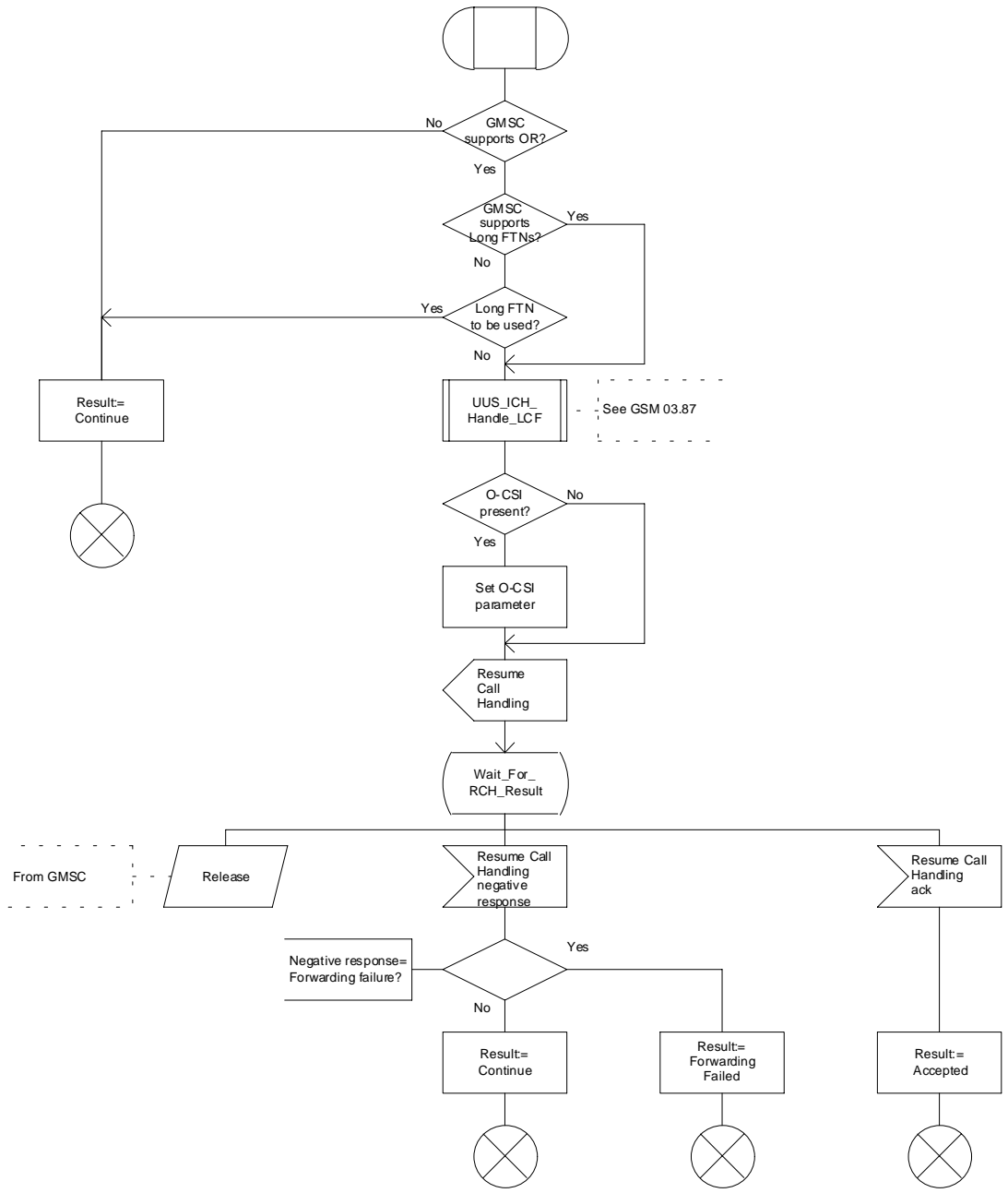
<----- Double-click here for help and instructions on how to create a CR.

Procedure Handle_ORLCF_VMSC

ORLCF_M1(1)

Procedure in the terminating VMSC to handle OR for late call forwarding

Signals to/from the left are to/from the GMSC



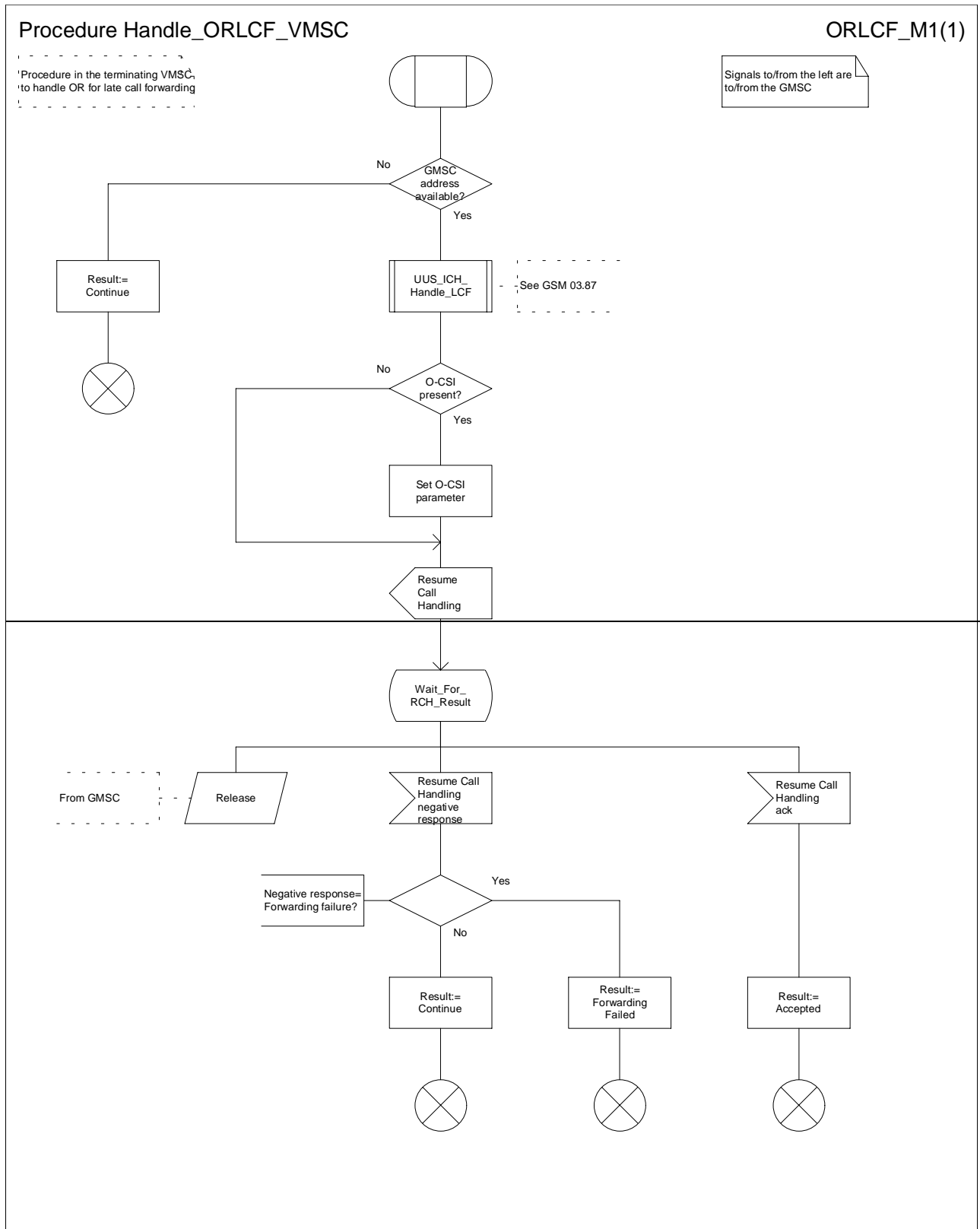


Figure 12: Procedure Handle_ORLCF_VMSC

CHANGE REQUEST

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23.082 CR 006

Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **CN#08**
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Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

Proposed change affects: (U)SIM ME UTRAN / Radio Core Network
(at least one should be marked with an X)

Source: N4 **Date:** 21/03/00

Subject: Indication in PRN of support of Long FTNs

Work item: Call Forwarding Enhancements

Category: F Correction **Release:** Phase 2
 (only one category shall be marked with an X) A Corresponds to a correction in an earlier release Release 96
 B Addition of feature Release 97
 C Functional modification of feature Release 98
 D Editorial modification Release 99
 Release 00

Reason for change: For an MT call the GMSC indicates to the HLR whether it supports Long FTNs in the SRI message. This information should be passed to the VMSC in the PRN message. If the subscriber has a long FTN registered and the GMSC does not support Long FTNs then ORLCF should not be invoked

Clauses affected: 2.9.2.3 (new); 2.10.3; 2.10.4; 4.10.

Other specs affected: Other 3G core specifications → List of CRs: 23.079-014 (Tdoc N4-000040)
 29.002-118 (Tdoc N4-000042)
 Other GSM core specifications → List of CRs:
 MS test specifications → List of CRs:
 BSS test specifications → List of CRs:
 O&M specifications → List of CRs:

Other comments: The latest version of TS 23.082 (post TSG-N#7) was unavailable at the time of drafting this CR.



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

2.9.2 Messages on the D interface (VLR-HLR)

2.9.2.3 Provide Roaming Number

This message is specified in 3G TS 23.018.

Provide Roaming Number contains the following IE specific to Long Forwarded-to Numbers:

<u>Information element name</u>	<u>Required</u>	<u>Description</u>
<u>Long FTN supported</u>	<u>C</u>	<u>Shall be present if the GMSC and the HLR both support Long Forwarded-to Numbers; otherwise shall be absent.</u>

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

2.10.3 GMSC does not support Long Forwarded-to Numbers

The handling for CFB is the same as that for CFU, see section 1.10.3.

The MSC/VLR can determine from the PRN whether the GMSC supports Long Forwarded-to Numbers. If the GMSC does not support Long Forwarded-to Numbers and a long forwarded-to number is registered for CFB, then on invocation of CFB, ORLCF shall not be invoked.

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

2.10.4 MSC/VLR does not support Long Forwarded-to Numbers

The VLR shall indicate whether it supports Long Forwarded-to Numbers in the Update Location message to the HLR. If the VLR does not support Long Forwarded-to Numbers and a long forwarded-to number is registered for CFB, as a network option the HLR may:

- Send an Insert Subscriber Data message containing the Forwarded-to number parameter to the VLR with an alternative forwarded-to number (containing a maximum of 15 digits)
- If the registration state for CFB is "Registered" and the forwarded-to number contains more than 15 digits, the HLR shall send the VLR the following service state information:

(Provisioned, Not Registered, Not Active, Not Induced)

For an MT call, if the following conditions are met then the HLR shall include the Forwarding interrogation required parameter in the first Send Routing Info ack:

- The GMSC supports Optimal Routeing and Long Forwarded-to Numbers
- The MSC/VLR does not support Long Forwarded-to Numbers
- CFB is active and operative
- A long forwarded-to number is registered for CFB

According to the rules of Optimal Routeing, when the GMSC receives a Resume Call Handling message from the MSC/VLR, it shall send a second Send Routing Info message to the HLR allowing the HLR to insert the correct long forwarded-to number.

*****Last Modified Section*****

4.10 Support of Long Forwarded-to Numbers

The handling for early CFNRc is the same as that for CFU, see section 1.10.

The handling for late CFNRc is the same as that for CFB, see section 2.10.

CHANGE REQUEST

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29.002 CR 118r1

Current Version: **3.4.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **CN#08**
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Proposed change affects: (U)SIM ME UTRAN / Radio Core Network
(at least one should be marked with an X)

Source: N4 **Date:** 21/03/00

Subject: Indication in PRN of support of Long FTNs

Work item: Call Forwarding Enhancements

Category: (only one category shall be marked with an X)	F Correction	<input checked="" type="checkbox"/>	Release:	Phase 2	<input type="checkbox"/>
	A Corresponds to a correction in an earlier release	<input type="checkbox"/>		Release 96	<input type="checkbox"/>
	B Addition of feature	<input type="checkbox"/>		Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input type="checkbox"/>		Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>		Release 99	<input checked="" type="checkbox"/>
			Release 00	<input type="checkbox"/>	

Reason for change: For an MT call the GMSC indicates to the HLR whether it supports Long FTNs in the SRI message. This information should be passed to the VMSC in the PRN message. If the subscriber has a long FTN registered and the GMSC does not support Long FTNs then ORLCF should not be invoked.

In addition, the longFTN-Supported parameter is added to RegisterSS-Arg (this is already described in section 11.1, due to CR 29.002-066r5 but was missed in the ASN.1 definitions).

Clauses affected: 10.2.2; 10.2.3; 17.7.3; 17.7.4.

Other specs affected:	Other 3G core specifications	<input checked="" type="checkbox"/>	→ List of CRs:	23.079-014 (Tdoc N4-000040) 23.082-002 (Tdoc N4-000041)
	Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
	MS test specifications	<input type="checkbox"/>	→ List of CRs:	
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	

Other comments: The latest version of TS 29.002 (post TSG-N#7) was unavailable at the time of drafting this CR.



help.doc

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

10.2 MAP_PROVIDE_ROAMING_NUMBER service

...

10.2.2 Service primitives

Table 10.2/1: MAP_PROVIDE_ROAMING_NUMBER parameters

Parameter name	Request	Indication	Response	Confirm
Invoke Id	M	M(=)	M(=)	M(=)
IMSI	M	M(=)		
MSC Number	M	M(=)		
MSISDN	U	C(=)		
LMSI	C	C(=)		
GSM Bearer Capability	C	C(=)		
Network Signal Info	C	C(=)		
Suppression Of Announcement	C	C(=)		
Call Reference Number	C	C(=)		
GMSC Address	C	C(=)		
OR Interrogation	C	C(=)		
OR Not Supported in GMSC	C	C(=)		
Alerting Pattern	C	C(=)		
CCBS Call	C	C(=)		
Supported CAMEL Phases in GMSC	C	C(=)		
Additional Signal Info	C	C(=)		
Pre-paging supported	C	C(=)		
Long FTN supported	C	C(=)		
Roaming Number			C	C(=)
User error			C	C(=)
Provider error				O

CR Editor's note: The entries in this table should be put one entry to each table row.

10.2.3 Parameter use

...

Pre-paging supported

See 3G TS 23.018 for the use of this parameter and the conditions for its presence.

Long FTN supported

See 3G TS 23.082 for the use of this parameter and the conditions for its presence.

Roaming Number

See GSM 03.18 [97] for the use of this parameter and the conditions for its presence.

...

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

17.7.3 Call handling data types

...

ProvideRoamingNumberArg ::= SEQUENCE {		
imsi	[0] IMSI,	
msc-Number	[1] ISDN-AddressString,	
msisdn	[2] ISDN-AddressString	OPTIONAL,
lmsi	[4] LMSI	OPTIONAL,
gsm-BearerCapability	[5] ExternalSignalInfo	OPTIONAL,
networkSignalInfo	[6] ExternalSignalInfo	OPTIONAL,
suppressionOfAnnouncement	[7] SuppressionOfAnnouncement	OPTIONAL,
gsmc-Address	[8] ISDN-AddressString	OPTIONAL,
callReferenceNumber	[9] CallReferenceNumber	OPTIONAL,
or-Interrogation	[10] NULL	OPTIONAL,
extensionContainer	[11] ExtensionContainer	OPTIONAL,
...		
alertingPattern	[12] AlertingPattern	OPTIONAL,
ccbs-Call	[13] NULL	OPTIONAL,
supportedCamelPhasesInGMSC	[15] SupportedCamelPhases	OPTIONAL,
additionalSignalInfo	[14] Ext-ExternalSignalInfo	OPTIONAL,
orNotSupportedInGMSC	[16] NULL	OPTIONAL,
pre-pagingSupported	[17] NULL	OPTIONAL,
longFTN-Supported	[18] NULL	OPTIONAL}

...

******Last Modified Section ******

17.7.4 Supplementary service data types

...

RegisterSS-Arg ::= SEQUENCE{		
ss-Code	SS-Code,	
basicService	BasicServiceCode	OPTIONAL,
forwardedToNumber	[4] AddressString	OPTIONAL,
forwardedToSubaddress	[6] ISDN-SubaddressString	OPTIONAL,
noReplyConditionTime	[5] NoReplyConditionTime	OPTIONAL,
...		
defaultPriority	[7] EMLPP-Priority	OPTIONAL,
longFTN-Supported	[8] NULL	OPTIONAL}

...