

**3GPP TSG\_CN#7**  
**ETSI SMG3 Plenary Meeting #7,**  
**Madrid, Spain**  
**13<sup>th</sup> – 15<sup>th</sup> March 2000**

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**NP-000025**

**Agenda item:** 5.4.3  
**Source:** TSG\_N SS ad hoc  
**Title:** CRs to 3G Work Item CAMEL phase 3

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**Introduction:**

This document contains “2” CRs on **CAMEL phase 3**, that have been agreed by **TSG\_N SS ad hoc**, and are forwarded to **TSG\_N Plenary meeting #7** for approval.

Tdoc	Spec	CR	Rev	Cat	Rel	Old ver	New ver	Subject
NS-000049	23.082	003	3	C	R99	3.1.0	3.2.0	Introduction of 'Notification to CSE flag' to CF
NS-000050	23.088	001	3	C	R99	3.1.0	3.2.0	Introduction of 'Notification to CSE flag' to CB

## CHANGE REQUEST

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

**23.082 CR 003r3**

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#7**  
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:**  
(at least one should be marked with an X)

(U)SIM  ME  UTRAN / Radio  Core Network

**Source:** SS ad hoc

**Date:** 11 Feb. 2000

**Subject:** CR 23.082-003r3 on introduction of 'Notification to CSE flag' to the call forwarding supplementary service.

**Work item:** CAMEL Phase3

**Category:**

(only one category shall be marked with an X)

F Correction   
A Corresponds to a correction in an earlier release   
B Addition of feature   
C Functional modification of feature   
D Editorial modification

**Release:** Phase 2   
Release 96   
Release 97   
Release 98   
Release 99   
Release 00

**Reason for change:**

Note: This change request will be submitted to the next SS ad-hoc.

In CAMEL phase3, it is required that the change of the call forwarding supplementary service data, which is stored in the HLR, is notified to the gsmSCF(s). And the notification is controlled by gsmSCF, that is, gsmSCF can activate and deactivate the notification to the CSE by using MAP\_Any\_Time\_Modification operation, which is newly introduced operation. For the reason described above, the 'notification to CSE flag' was needed to the call forwarding supplementary service.

**Clauses affected:** 0.6 (new)

**Other specs affected:**

Other 3G core specifications  → List of CRs: 23.078, 23.008, 23.088, 29.002  
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:**

In the N2A, it was agreed to consider following things as working assumptions. (N2-99H23)

- The 'notification to CSE flag' is not sent to the VLR, considering the impact on the existing process.
- As to the gsmSCF which is notified the change of the CF data, HLR has the pre-defined gsmSCF(s) list per supplementary service.



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## 0 Scope

The present document gives the stage 2 description of the call forwarding supplementary services.

The group of supplementary services call offering supplementary services is divided into 4 different supplementary services:

- Call forwarding unconditional (CFU) (clause 1);
- Call forwarding on mobile subscriber busy (CFB) (clause 2);
- Call forwarding on no reply (CFNRy) (clause 3);
- Call forwarding on mobile subscriber not reachable (CFNRc) (clause 4).

### 0.1 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] GSM 01.04: "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".
- [2] GSM 02.04: "Digital cellular telecommunications system (Phase 2+); General on supplementary services".
- [3] GSM 02.82: "Digital cellular telecommunications system (Phase 2+); Call Forwarding (CF) Supplementary Services - Stage 1".
- [3] GSM 03.11: "Digital cellular telecommunications system (Phase 2+); Technical realization of supplementary services".
- [4] GSM 03.15: "Digital cellular telecommunications system (Phase 2+); Technical realization of operator determined barring".
- [5] [3G TS 23.078: "Customised Applications for Mobile network Enhanced Logic \(CAMEL\) Phase 3 - Stage 2"](#).

### 0.2 Abbreviations

Abbreviations used in the present document are listed in GSM 01.04.

### 0.3 The forwarded-to number

As indicated in GSM 02.82 the forwarded-to numbers are stored in the international format. The transfer from the HLR to other network entities and storage in the VLR shall also be in the international format.

## 0.4 Cross phase compatibility

For the following supplementary services, a number of changes exist between the present document and the Phase 1 specification:

- Call forwarding unconditional;
- Call forwarding on mobile subscriber busy;
- Call forwarding on no reply;
- Call forwarding on mobile subscriber not reachable.

The main body of the present document assumes that all network entities comply with this version of the service. In each case an additional subclause (subclause x.6) defines the additional requirements for when one or more network entities or the MS complies with the Phase 1 specifications for the supplementary service procedures.

## 0.6 Data stored in the HLR for all call forwarding services

The following data are stored in the HLR in common for all call forwarding services:

- The “notification to CSE flag”. This flag applies for all call forwarding services. When the data for any Call Forwarding are changed, the HLR checks this flag. If the flag is set, the change is reported to the gsmSCF(s) defined by the gsmSCF address list. See 3G TS 23.078 [5];
- The “gsmSCF address list”, which is a list of gsmSCF addresses to which Notification on Change of Subscriber Data is to be sent. This list applies to all call forwarding services. See 3G TS 23.078 [5];

## CHANGE REQUEST

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**23.088 CR 001r3**

Current Version: **3.0.0**

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

↑ CR number as allocated by MCC support team

For submission to: **CN#7**  
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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:**  
(at least one should be marked with an X)

(U)SIM  ME  UTRAN / Radio  Core Network

**Source:** SS ad hoc

**Date:** 18 Feb. 2000

**Subject:** CR 23.088-001r3 on introduction of 'Notification to CSE flag' to the call barring supplementary service.

**Work item:** CAMEL Phase3

**Category:**

(only one category shall be marked with an X)

F Correction   
A Corresponds to a correction in an earlier release   
B Addition of feature   
C Functional modification of feature   
D Editorial modification

**Release:** Phase 2   
Release 96   
Release 97   
Release 98   
Release 99   
Release 00

**Reason for change:**

Note: This change request will be submitted to the next SS ad-hoc.

In CAMEL phase3, it is required that the change of the call barring supplementary service data, which is stored in the HLR, is notified to the gsmSCF(s). And the notification is controlled by gsmSCF, that is, gsmSCF can activate and deactivate the notification to the CSE by using MAP\_Any\_Time\_Modification operation, which is newly introduced operation. For the reason described above, the 'notification to CSE flag' was needed to the call barring supplementary service.

**Clauses affected:** 0.4 (new)

**Other specs affected:**

Other 3G core specifications  → List of CRs: 23.078, 23.008, 23.082, 29.002  
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:**

In the N2A, it was agreed to consider following things as working assumptions. (N2-99H23)

- The 'notification to CSE flag' is not sent to the VLR, considering the impact on the existing process.
- As to the gsmSCF which is notified the change of the CB data, HLR has the pre-defined gsmSCF(s) list per supplementary service.



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## 0 Scope

The present document gives the stage 2 description of the call barring services.

The possibility for a mobile subscriber to have certain categories of calls barred originated from or terminated at his access:

Barring of outgoing calls	(clause 1):	
- Barring of all outgoing calls	(BAOC)	(Barring program 1);
- Barring of outgoing international calls	(BOIC)	(Barring program 2);
- Barring of outgoing international calls EXCEPT those directed to the home PLMN country	(BOIC-exHC)	(Barring program 3).
Barring of incoming calls	(clause 2):	
- Barring of all incoming calls	(BAIC)	(Barring program 1);
- Barring of incoming calls when roaming outside the home PLMN country	(BIC-Roam)	(Barring program 2).

NOTE: The call barring program "incoming calls when roaming outside the home PLMN country" (clause 2) is only relevant if as a general rule the called mobile subscriber pays the charges for the forwarded part of the call from his home PLMN country to any other country.

### 0.1 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] GSM 01.04: "Digital cellular telecommunications system (Phase 2+); Abbreviations and acronyms".
- [2] GSM 02.82: "Digital cellular telecommunications system (Phase 2+); Call Forwarding (CF) Supplementary Services - Stage 1".
- [3] GSM 03.11: "Digital cellular telecommunications system (Phase 2+); Technical realization of supplementary services".
- [4] [3G TS 23.078: "Customised Applications for Mobile network Enhanced Logic \(CAMEL\) Phase 3 - Stage 2"](#).

### 0.2 Abbreviations

Abbreviations used in the present document are listed in GSM 01.04.

## 0.3 Cross-Phase compatibility

For the following supplementary services, a number of changes exist between the present document and the Phase 1 specification:

- Barring of outgoing calls;
- Barring of incoming calls.

The main body of the present document assumes that all network entities comply with this version of the service. In each case an additional subclause (subclauses 1.6 and 2.6) defines the additional requirements for when one or more network entities or the MS complies with the Phase 1 specifications for the supplementary service procedures.

## 0.4 Data stored in the HLR for all call barring services

The following data are stored in the HLR in common for all call barring services:

- The “notification to CSE flag”. This flag applies for all call barring services. When the data for any Call Barring are changed, the HLR checks this flag. If the flag is set, the change is reported to the gsmSCF(s) defined by the gsmSCF address list. See 3G TS 23.078 [4];
- The “gsmSCF address list”, which is a list of gsmSCF addresses to which Notification on Change of Subscriber Data is to be sent. This list applies to all call barring services. See 3G TS 23.078 [4];