3GPP TS 24.072 V11.0.0 (2012-09)

Technical Specification

3rd Generation Partnership Project; Technical Specification Group Core Network and Terminals; Call Deflection (CD) supplementary service; Stage 3 (Release 11)

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Contents

Foreword

This Technical Specification has been produced by the 3GPP.

This TS describes procedures on the radio interface for the call deflection supplementary service within the 3GPP system.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version 3.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 Indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the specification;

1 Scope

This Global System for Mobile communications Technical Specification specifies the procedures used at the radio interface (reference point Um as defined in 3GPP TS 24.002) for normal operation of Call Deflection (CD) supplementary service. Provision and withdrawal of supplementary services is an administrative matter between the mobile subscriber and the service provider and cause no signalling on the radio interface.

2 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. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TS 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 22.072: "Call Deflection (CD) supplementary service Stage 1".

[3] 3GPP TS 24.002: "GSM Public Land Mobile Network (PLMN) access reference configuration".

[4] 3GPP TS 24.008: "Mobile radio interface Layer 3 specification; Core network protocols; Stage 3".

[5] 3GPP TS 24.080: "Mobile radio interface layer 3 supplementary services specification; Formats and coding".

3 Definitions and abbreviations

3.1 Abbreviations

Abbreviations used in this specification are listed in 3GPP TS 21.905.

4 Call Deflection (CD)

4.1 Normal operation

4.1.1 Served mobile subscriber side

The served mobile subscriber may invoke the call deflection supplementary service if an incoming call is offered. According to 3GPP TS 22.072 this may happen as an automatic response from the mobile station if the call is offered or as the result of a subscriber action.

The mobile station shall invoke the call deflection supplementary service by initiating call clearing with a DISCONNECT message including the call deflection request (refer to figure 4.1). The call deflection request shall contain the DeflectedToNumber which may be accompanied by a DeflectedToSubAddress.

The MS may invoke the call deflection supplementary service at every time after call confirmation until the call is accepted (refer to 3GPP TS 24.008). If the network accepts the call deflection request, it shall continue call clearing. The result indication shall be returned to the mobile station in the RELEASE message.

If the network cannot accept the call deflection request, it shall continue call clearing. The corresponding error indication shall be returned to the mobile station in the RELEASE message. Error values are specified in 3GPP TS 24.080.

During the call deflection request the MS shall run a timer TCD. This timer is started when the call deflection request is sent and stopped when a response is received from the network. If this timer expires the MS shall assume that the call deflection request has failed, locally release the invokeID, inform the user of the failure and continue call clearing as defined in 3GPP TS 24.008.

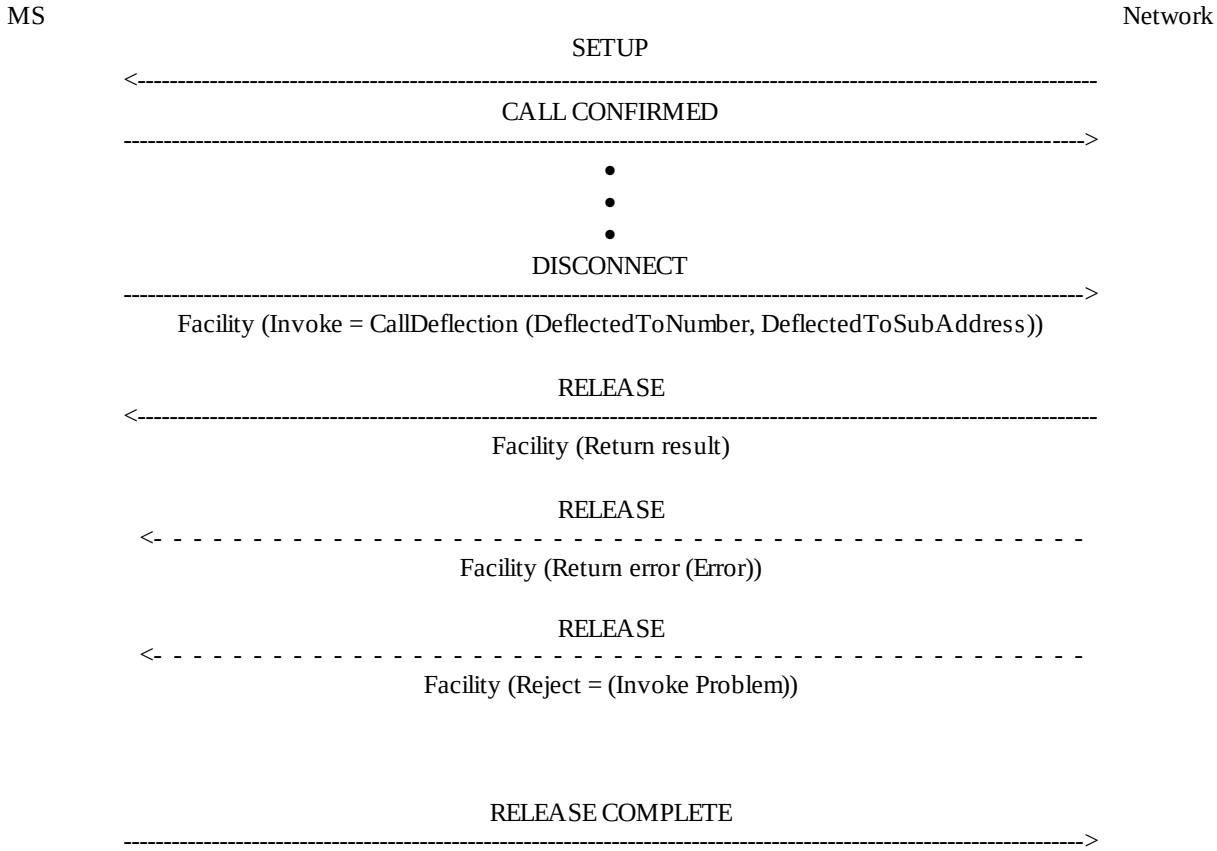

Figure 4.1: Call deflection invocation for an incoming call

4.1.2 Deflected-to mobile subscriber side

As for the call forwarding supplementary services the deflected-to mobile subscriber will receive a NotifySS operation containing the SS Notification indicating that the incoming call is a forwarded call. When available, the SS Code of the Call Deflection supplementary service is included, see figure 4.2.

When multiple diversions occurs the value of the SS Code shall relate to the last invoked diversion service.

In addition the deflected-to subscriber will receive the redirecting party BCD number and optionally, a redirecting party subaddress.

The redirecting party BCD number information element is made up of a number of information units as defined in 3GPP TS 24.008.

In addition to or instead of the redirecting party's digits, the subscriber may be given the following information:

- screening indicator;
- presentation indicator.

Indicator values are given in 3GPP TS 24.008.

The redirecting party subaddress information element is made up of a number of information units as defined in 3GPP TS 24.008.

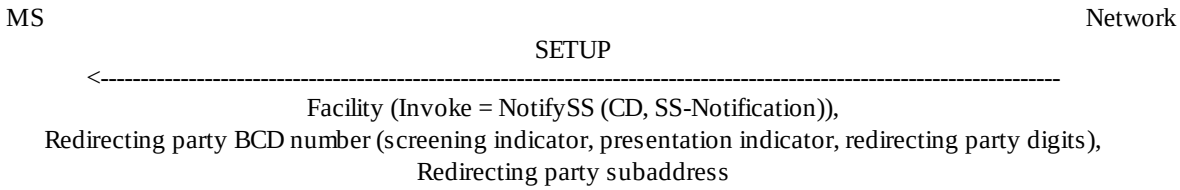

Figure 4.2: Notification to the forwarded to mobile subscriber that the incoming call is a forwarded call

4.1.3 Calling mobile subscriber side

As a subscription option, the served mobile subscriber can request that the calling mobile subscriber receives a NotifySS operation containing the SS Notification indicating that the call has been deflected. When available, the SS Code of the call deflection supplementary service is included, see figure 4.3.

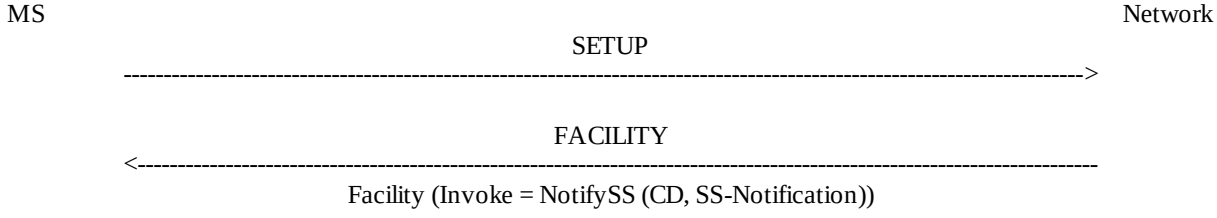

Figure 4.3: Notification to the calling mobile subscriber that the call is forwarded

Annex A (informative): Change history

Change history						
TSG CN#	Spec	Version	CR	<Phase>	New Version	Subject/Comment
Apr 1999	GSM 04.72	7.0.0				Transferred to 3GPP CN1
CN#03	24.072			R99	3.0.0	Approved at CN#03
CN#11	24.072	3.0.0		Rel-4	4.0.0	Release 4 after CN#11
CN#15	24.072	4.0.0		Rel-4	4.0.1	References updated
CN#16	24.072	4.0.1		Rel-5	5.0.0	Release 5 after CN#16
CN#26	24.072	5.0.0		Rel-6	6.0.0	Release 6 after CN#26
CT#36	24.072	6.0.0		Rel-7	7.0.0	Upgraded unchanged from Rel-6
CT#42	24.072	7.0.0		Rel-8	8.0.0	Upgraded unchanged from Rel-7
2009-12	24.072	8.0.0	-	Rel-9	9.0.0	Update to Rel-9 version (MCC)
2011-03	24.072	9.0.0	-	Rel-10	10.0.0	Update to Rel-10 version (MCC)
2012-09	24.072	10.0.0	-	Rel-11	11.0.0	Update to Rel-11 version (MCC)