



**Digital cellular telecommunications system (Phase 2+) (GSM);
Universal Mobile Telecommunications System (UMTS);
Call Deflection (CD) service description;
Stage 1
(3GPP TS 22.072 version 14.0.0 Release 14)**

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Foreword

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1 Scope

Call Deflection (CD) enables the served mobile subscriber to respond to an incoming call offered by the network by requesting redirection of this call to another number specified in the response. The CD supplementary service can only be invoked before the connection is established by the served mobile subscriber, i.e. in response to the offered call, or during the period that the served subscriber is being informed of the call. The served subscriber's ability to originate calls is unaffected by the CD supplementary service.

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 TR 21.905: "Vocabulary for 3GPP Specifications".
- [2] 3GPP TS 22.004: "General on supplementary services".
- [3] 3GPP TS 22.030: "Man-Machine Interface (MMI) of the Mobile Station (MS)".
- [4] 3GPP TS 22.085: "Closed User Group (CUG) Supplementary Services - Stage 1".
- [5] 3GPP TS 22.078: "CAMEL Phase 3; Stage 1".

3 Definitions and Abbreviations

3.1 Definitions

served subscriber: The mobile subscriber to whom the CD supplementary service is provided.

subscriber A: The calling subscriber in a call which is subject to diversion. The subscriber A may be a subscriber of any network.

deflected-to subscriber: A subscriber to whom the call is redirected as a result of the CD supplementary service. The deflected-to subscriber may be a subscriber of any network.

(call) forwarding: A general term applied to any functionality whereby a call is redirected automatically by the network to another user. The forms of forwarding are: unconditional, busy, no reply and not reachable.

diversion: A general term which includes all forms of call forwarding and call deflection whereby calls are redirected by the user instead of being answered.

3.2 Abbreviations

For the purposes of this TS the following abbreviations apply, in addition, abbreviations used in this TS are listed in TR 21.905 [1].

| | |
|----|-----------------|
| CD | Call Deflection |
|----|-----------------|

4 Description

4.1 General Description

The CD Supplementary Service enables the served mobile subscriber to respond to an incoming call offered by the network by requesting redirection of this call to another number specified in the response. The CD supplementary service can only be invoked before the connection is established by the served mobile subscriber, i.e. in response to the offered call during the period that the served subscriber is being informed of the call. The served subscriber's ability to originate calls is unaffected by the CD supplementary service.

A maximum number of diversions is permitted for each call with an upper limit of five diversions. When counting the number of diversions, all types of diversions are included. As a network operator option the maximum number of diversions shall be in the range of one to five diversions per call. If the limit of successive diversions of a call is already reached an unsuccessful call setup indication is sent backward to the network originating the call.

The invocation of Call Deflection can either be an automatic response from the mobile station to the offered call (use pre-programmed information) or may be the result of an action by the served subscriber. The mobile station related procedures to pre-program and display the deflected-to number is out of the scope of this specification.

If the CD service is provisioned and there is no service violation, the request will be accepted, the connection to the served mobile station will be released (with an appropriate notification) and a call towards the deflection-to subscriber will be established.

4.2 Applicability to telecommunication services

The applicability of this supplementary service is defined in TS 22.004 [2].

5 Normal Procedures with successful outcome

5.1 Provision

The supplementary service will be provisioned for all Basic Services subscribed to and to which it is applicable.

The service can be offered with several subscription options. Options apply to all Basic services subscribed to. For each subscription option, only one value can be selected.

| Subscription option: | Value |
|---|---------------|
| Calling subscriber receives notification that her call has been deflected | - Yes - No |
| MSISDN of the served subscriber can be presented to the deflected-to subscriber | - Yes - No |

5.2 Withdrawal

The supplementary service will be withdrawn at the subscriber's request or for service provider reasons.

5.3 Registration

Not applicable.

5.4 Erasure

Not applicable.

5.5 Activation

Within the network the service is activated for the whole subscription period. This supplementary service shall be activated by the service provider as a result of provision.

NOTE: No activation/deactivation procedure is needed at the user-network interface.

5.6 Deactivation

This supplementary service shall be deactivated by the service provider as a result of withdrawal.

5.7 Invocation

The CD supplementary service shall be invoked by the served mobile subscriber by use of a control procedure as described in TS 22.030 [3].

5.8 Interrogation

Not applicable.

5.9 Normal Operation

The network offers incoming calls to the served mobile subscriber according to the normal procedure.

The served subscriber can respond to the incoming call offered normally or by invoking the CD supplementary service with an appropriate message. This appropriate message will contain the call deflection request and the deflected-to number. This deflected-to number may be accompanied by a deflected-to subaddress.

Two different cases of the CD invocation can be distinguished:

- The invocation can be either an automatic response from the mobile station to the offered call (using pre-programmed information at the mobile station) or
- may be the result of an action by the served subscriber.

If the CD supplementary service is invoked and the served mobile subscriber has subscribed to the service, the network performs the call deflection towards the indicated deflected-to number and clears the call to the called (served) mobile subscriber with a positive acknowledgement.

As a subscription option, the served mobile subscriber can request that the subscriber A receives a notification that the call has been deflected.

The deflected-to subscriber shall receive an indication that the CD supplementary service has been invoked on the call, i.e. that call has been deflected. Depending on the value of the served subscribers subscription option, the deflected-to subscriber may also receive the MSISDN of the served subscriber.

When multiple diversions occurs the reason for diversion and the MSISDN given to the deflected-to subscriber should relate to the last diverting subscriber (e.g. the subscriber who has invoked the CD supplementary service).