



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 565

February 1995

Source: ETSI TC-SMG

Reference: DE/SMG-030481P

ICS: 33.060.30

Key words: European digital cellular telecommunications system, Global System for Mobile communications (GSM)

**European digital cellular telecommunications system (Phase 2);
Line identification supplementary services - Stage 3
(GSM 04.81)**

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1995. All rights reserved.

Contents

Foreword	5
0 General.....	7
0.1 Scope.....	7
0.2 Normative references	7
0.3 Definitions and abbreviations.....	8
1 Calling Line Identification Presentation (CLIP).....	9
1.1 Normal operation	9
1.2 Interrogation.....	9
1.3 Activation, deactivation, registration and erasure	10
2 Calling Line Identification Restriction (CLIR).....	10
2.1 Normal Operation	10
2.2 Requesting presentation of CLI	10
2.3 Requesting restriction of CLI presentation.....	10
2.4 Interrogation.....	11
2.5 Activation, deactivation, registration and erasure	11
3 Connected Line Identification Presentation (COLP).....	12
3.1 Normal operation	12
3.2 Interrogation.....	13
3.3 Activation, deactivation, registration and erasure	13
4 Connected Line Identification Restriction (COLR)	14
4.1 Normal operation	14
4.2 Interrogation.....	14
4.3 Activation, deactivation, registration and erasure	14
History.....	15

Blank page

Foreword

This European Telecommunication Standard (ETS) has been produced by the Special Mobile Group (SMG) Technical Committee (TC) of the European Telecommunications Standards Institute (ETSI).

This ETS specifies the procedures used at the radio interface for normal operation, registration, erasure, activation, deactivation, invocation and interrogation of line identification supplementary services within the European digital cellular telecommunications system (Phase 2).

This ETS corresponds to GSM technical specification GSM 04.81 version 4.4.1.

The specification from which this ETS has been derived was originally based on CEPT documentation, hence the presentation of this ETS may not be entirely in accordance with the ETSI/PNE rules.

Reference is made within this ETS to GSM Technical Specifications (GSM-TS) (NOTE).

Reference is also made within this ETS to GSM 02.8x and 03.8x series. The specifications in the series can be identified, with their full title, within the normative reference Clause of this ETS by the last two digits of their GSM reference number e.g. GSM 03.8x series, refers to GSM 03.81, GSM 03.82, etc.

NOTE: TC-SMG has produced documents which give the technical specifications for the implementation of the European digital cellular telecommunications system. Historically, these documents have been identified as GSM Technical Specifications (GSM-TS). These TSs may have subsequently become I-ETSS (Phase 1), or ETSSs (Phase 2), whilst others may become ETSI Technical Reports (ETRs). GSM-TSs are, for editorial reasons, still referred to in current GSM ETSSs.

Blank page

0 General

0.1 Scope

This technical specification specifies the procedures used at the radio interface for normal operation, registration, erasure, activation, deactivation, invocation and interrogation of line identification supplementary services. 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.

In technical specification GSM 04.10 the general aspects of the specification of supplementary services at the layer 3 radio interface are given.

Technical specification GSM 04.80 specifies the formats and coding for the supplementary services.

Definitions and descriptions of supplementary services are given in technical specifications GSM 02.04 and GSM 02.8x and 02.9x-series. Technical specification GSM 02.81 is related specially to line identification supplementary services.

Technical realization of supplementary services is described in technical specifications GSM 03.11 and GSM 03.8x and 03.9x-series. Technical specification GSM 03.81 is related specially to line identification supplementary services.

The procedures for Call Control, Mobility Management and Radio Resource management at the layer 3 radio interface are defined in technical specifications GSM 04.07 and GSM 04.08.

The following supplementary services belong to the line identification supplementary services and are described in this technical specification:

- Calling line identification presentation (CLIP) (section 1);
- Calling line identification restriction (CLIR) (section 2);
- Connected line identification presentation (COLP) (section 3);
- Connected line identification restriction (COLR) (section 4).

0.2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

- | | |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [1] | GSM 01.04 (ETR 100): "European digital cellular telecommunications system (Phase 2); "Abbreviations and acronyms". |
| [2] | GSM 02.04 (ETS 300 503): "European digital cellular telecommunications system (Phase 2); General on supplementary services". |
| [3] | GSM 02.81 (ETS 300 514): "European digital cellular telecommunications system (Phase 2); Line identification supplementary services - Stage 1". |
| [4] | GSM 02.82 (ETS 300 515): "European digital cellular telecommunications system (Phase 2); Call Forwarding (CF) supplementary services - Stage 1". |
| [5] | GSM 02.83 (ETS 300 516): "European digital cellular telecommunications system (Phase 2); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 1". |
| [6] | GSM 02.84 (ETS 300 517): "European digital cellular telecommunications system (Phase 2); Multi Party (MPTY) supplementary services - Stage 1". |

- [7] GSM 02.85 (ETS 300 518): "European digital cellular telecommunications system (Phase 2); Closed User Group (CUG) supplementary services - Stage 1".
- [8] GSM 02.86 (ETS 300 519): "European digital cellular telecommunications system (Phase 2); Advice of charge (AoC) supplementary services - Stage 1".
- [9] GSM 02.88 (ETS 300 520): "European digital cellular telecommunications system (Phase 2); Call Barring (CB) supplementary services - Stage 1".
- [10] GSM 02.90 (ETS 300 521): "European digital cellular telecommunications system (Phase 2); Unstructured supplementary services operation - Stage 1".
- [11] GSM 03.11 (ETS 300 529): "European digital cellular telecommunications system (Phase 2); Technical realization of supplementary services".
- [12] GSM 03.81 (ETS 300 542): "European digital cellular telecommunications system (Phase 2); Line identification supplementary services - Stage 2".
- [13] GSM 03.82 (ETS 300 543): "European digital cellular telecommunications system (Phase 2); Call Forwarding (CF) supplementary services - Stage 2".
- [14] GSM 03.83 (ETS 300 544): "European digital cellular telecommunications system (Phase 2); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 2".
- [15] GSM 03.84 (ETS 300 545): "European digital cellular telecommunications system (Phase 2); Multi Party (MPTY) supplementary services - Stage 2".
- [16] GSM 03.85 (ETS 300 546): "European digital cellular telecommunications system (Phase 2); Closed User Group (CUG) supplementary services - Stage 2".
- [17] GSM 03.86 (ETS 300 547): "European digital cellular telecommunications system (Phase 2); Advice of Charge (AoC) supplementary services - Stage 2".
- [18] GSM 03.88 (ETS 300 548): "European digital cellular telecommunications system (Phase 2); Call Barring (CB) supplementary services - Stage 2".
- [19] GSM 03.90 (ETS 300 549): "European digital cellular telecommunications system (Phase 2); Unstructured supplementary services operation - Stage 2".
- [20] GSM 04.07 (ETS 300 556): "European digital cellular telecommunications system (Phase 2); Mobile radio interface signalling layer 3 General aspects".
- [21] GSM 04.08 (ETS 300 557): "European digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3 specification".
- [22] GSM 04.10 (ETS 300 558): "European digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3 Supplementary services specification General aspects".
- [23] GSM 04.80 (ETS 300 564): "European digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3 supplementary services specification Formats and coding".

0.3 Definitions and abbreviations

Abbreviations used in the specification are listed in GSM 01.04.

1 Calling Line Identification Presentation (CLIP)

1.1 Normal operation

The calling line identity consists of a calling party BCD number and optionally, a calling party subaddress.

The calling party BCD number information element is made up of a number of information units as indicated in TS GSM 04.08.

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

- screening indicator;
- presentation indicator.

Indicator values are given in TS GSM 04.08.

The calling party subaddress information element is made up of a number of information units as indicated in TS GSM 04.08.

A called mobile subscriber subscribing to calling line identification presentation service receives the call with the information indicated above, see figure 1.1.

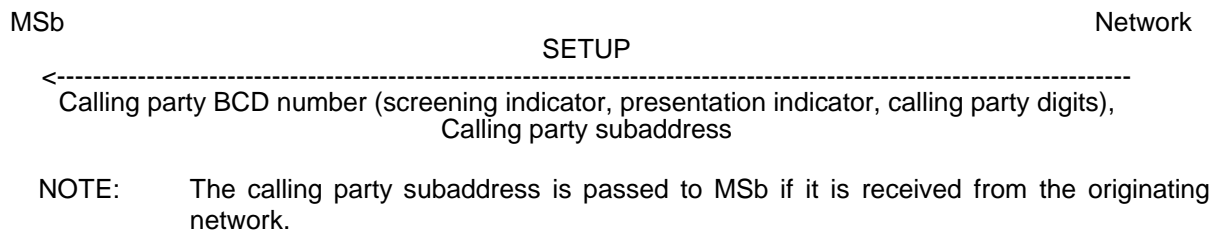


Figure 1.1: Notification by the network to the called mobile subscriber

When the calling line identity is not available, the presentation indicator which is given to the called mobile subscriber takes the value of "number not available".

1.2 Interrogation

Status Check

The mobile subscriber can request the status of the supplementary service and be informed if the service is provided to him.

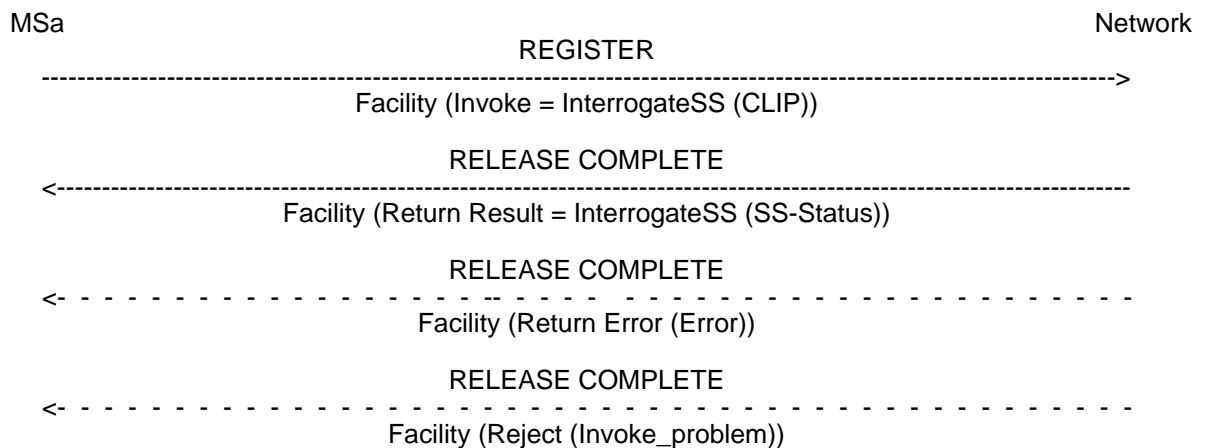


Figure 1.2: Interrogation of calling line identification presentation

1.3 Activation, deactivation, registration and erasure

Activation, deactivation, registration and erasure of the supplementary service calling line identification presentation are not applicable.

2 Calling Line Identification Restriction (CLIR)

2.1 Normal Operation

When calling line identification restriction is applicable, the originating network provides the destination network with a notification that the calling party's ISDN number, with possible additional address information, is not allowed to be presented to the called party.

If the called mobile user subscribes to calling line identification presentation and the calling party has calling line identification restriction applied, the called mobile party shall receive the presentation indicator showing "presentation restricted" in the calling party BCD field of the SETUP message, see figure 1.1. In this case, the calling party's number (digits) will not be sent towards the called subscriber.

2.2 Requesting presentation of CLI

When the CLIR presentation mode is temporary (presentation restricted), it is possible for the subscriber to present his CLI on a per call basis. The MS shall send a CLIR suppression information element to the network.

If the subscriber tries to override CLIR (i.e. requests that the CLI is displayed), when he has subscribed to permanent mode a NotifySS shall be sent to the MS in order to inform that the override has not been performed and the call set-up shall continue.

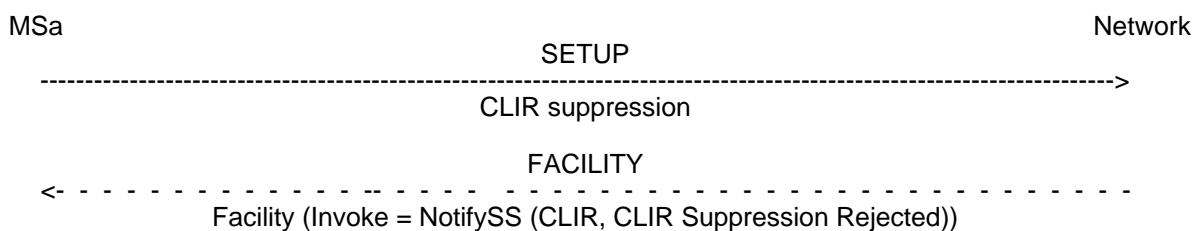


Figure 2.1: Requesting presentation of CLI

2.3 Requesting restriction of CLI presentation

When the CLIR presentation mode is temporary (presentation allowed), it is possible for the subscriber to restrict the CLI on a per call basis. The MS shall send a CLIR invocation information element to the network.

If the subscriber has not subscribed to CLIR and tries to invoke CLIR (i.e. requests that the CLI is not displayed), the SETUP shall be rejected. The MS and the network shall act in accordance with TS GSM 04.08 network initiated call clearing procedure, see figure 2.2.

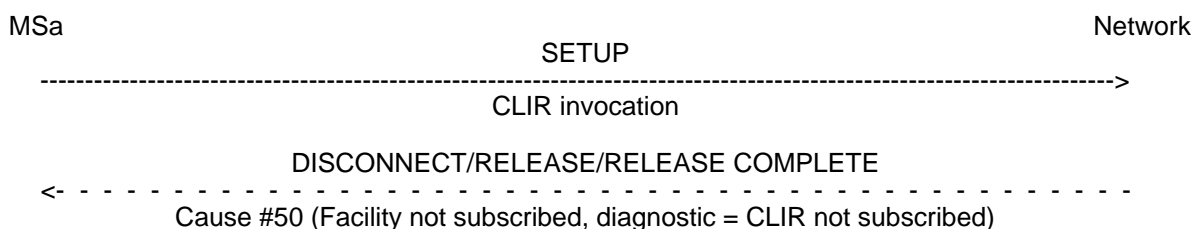


Figure 2.2: Requesting restriction of CLI presentation

2.4 Interrogation

Data request

The mobile subscriber can request the data of the supplementary service.

If the service is not provisioned the network shall sent a return result including the SS-Status parameter.

If the service is provisioned the network shall sent a return result including the SS-Status and the CLI Restriction Option parameters.

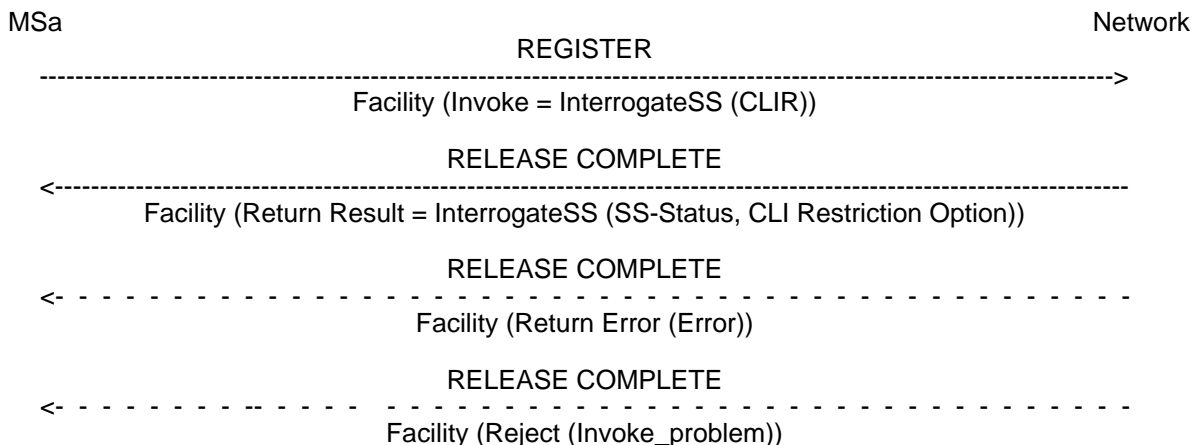


Figure 2.3: Interrogation of calling line identification restriction

2.5 Activation, deactivation, registration and erasure

Activation, deactivation, registration and erasure of the supplementary service calling line identification restriction are not applicable.

3 Connected Line Identification Presentation (COLP)

3.1 Normal operation

The connected line identity consists of a connected number and optionally, a connected subaddress.

The connected number is made up of a number of information units as indicated in TS GSM 04.08.

In addition to or instead of the connected number digits, the subscriber may be given the following information:

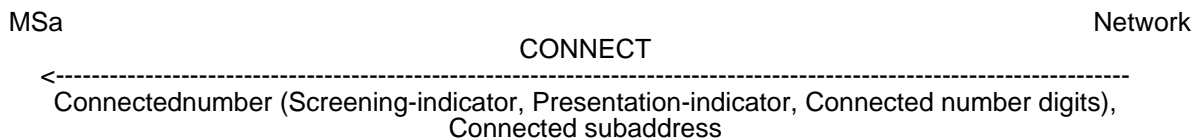
- screening indicator;
- presentation indicator.

Indicator values are given in TS GSM 04.08.

In the call set-up phase the calling mobile subscriber receives the information at the end of the call set-up.

The connected subaddress information element is made up of a number of information units as indicated in TS GSM 04.08.

A calling mobile subscriber subscribing to connected line identification presentation receives a message with the information indicated above, see figure 3.1.



NOTE: The connected subaddress is passed to MSa if it is received from the terminating network.

Figure 3.1: Notification by the network to the calling mobile subscriber

When the connected line identity is not available (due to interworking or presentation restrictions), appropriate indication information is given to the calling mobile subscriber.

3.2 Interrogation

Status Check

The mobile subscriber can request the status of the supplementary service and be informed if the service is provided to him.

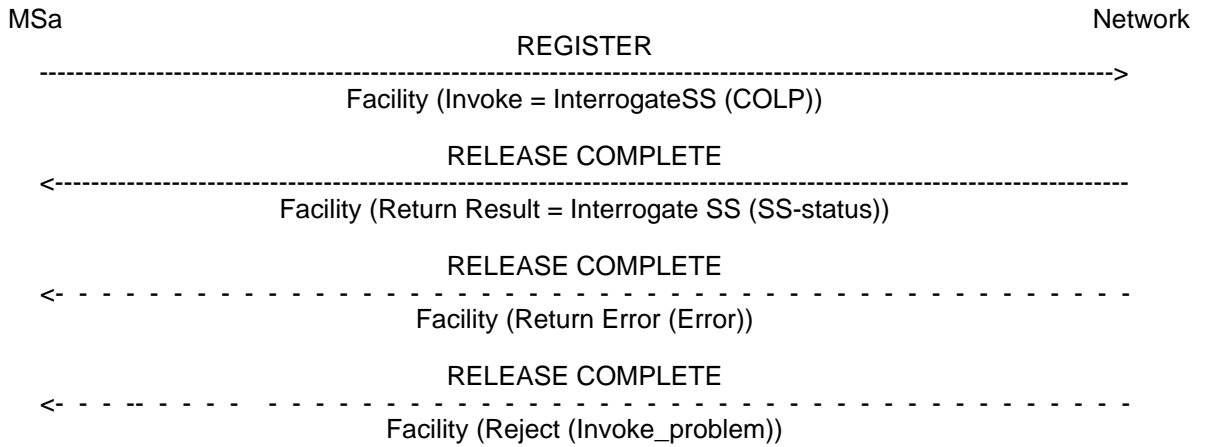


Figure 3.2: Interrogation of connected line identification presentation

3.3 Activation, deactivation, registration and erasure

Activation, deactivation, registration and erasure of the supplementary service connected line identification presentation is not applicable.

4 Connected Line Identification Restriction (COLR)

4.1 Normal operation

When connected line identification restriction is applicable the destination network provides the originating network with a notification that the connected party's ISDN number, with possible additional address information, is not allowed to be presented to the calling party.

If the calling mobile user subscribes to connected line identification presentation and the connected party has connected line identification restriction applied, the calling mobile party shall receive the presentation indicator showing "presentation restricted", see figure 3.1. In this case, the connected number will not be sent towards the calling subscriber.

4.2 Interrogation

Status Check

The mobile subscriber can request the status of the supplementary service and be informed if the service is provided to him.

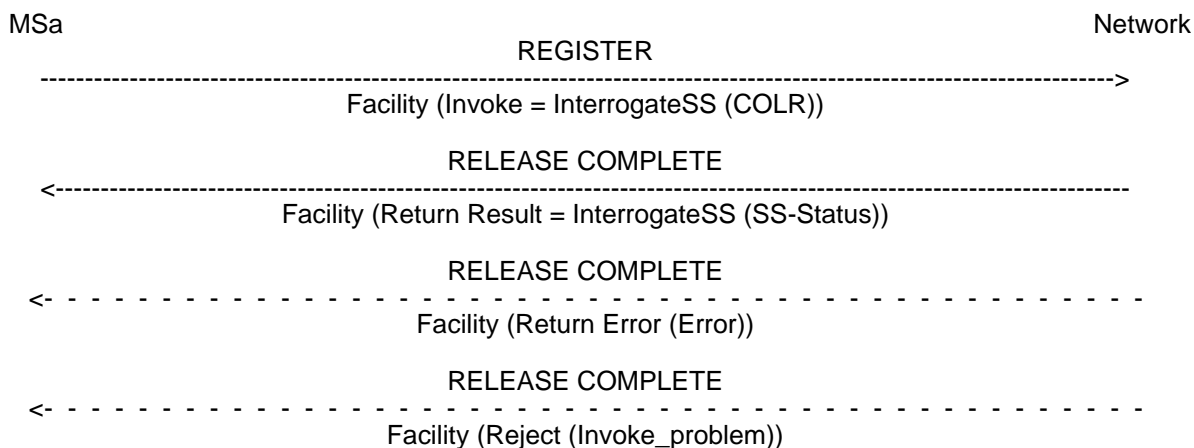


Figure 4.1: Interrogation of connected line identification restriction

4.3 Activation, deactivation, registration and erasure

Activation, deactivation, registration and erasure of the supplementary service connected line identification restriction are not applicable.

History

Document history	
February 1995	First Edition
November 1995	Converted into Adobe Acrobat Portable Document Format (PDF)