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Technical Specification

3rd Generation Partnership Project;

Technical Specification Group Core Network and Terminals;

Name identification supplementary services;  
Stage 3

(Release 16)



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# Foreword

This Technical Specification has been produced by the 3GPP.

This TS 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 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 Technical Specification (TS ) specifies the procedures used at the radio interface for normal operation, registration, erasure, activation, deactivation, invocation and interrogation of name 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 3GPP TS 24.010 the general aspects of the specification of supplementary services at the layer 3 radio interface are given. 3GPP TS 24.080 specifies the formats and coding for the supplementary services.

Definitions and descriptions of supplementary services are given in 3GPP TS 22.004 and 3GPP TS 22.08x and 3GPP TS 22.09x‑series. 3GPP TS 22.096 is related specially to name identification supplementary services.

Technical realization of supplementary services is described in 3GPP TS 23.011 and 3GPP TS 23.08x and 3GPP TS 23.09x‑series. Technical specification 3GPP TS 23.096 is related specially to name identification supplementary services.

The procedures for Call Control, Mobility Management and Radio Resource management at the layer 3 radio interface are defined in 3GPP TS 24.007 and 3GPP TS 24.008.

The following supplementary services belong to the name identification supplementary services and are described in this TS:

- Calling name presentation (CNAP);

# 2 Normative 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: "Digital cellular telecommunications system (Phase 2+); General on supplementary services".

[3] 3GPP TS 22.096: "Digital cellular telecommunications system (Phase 2+); Name identification supplementary services ‑ Stage 1".

[4] 3GPP TS 23.011: "Digital cellular telecommunications system (Phase 2+); Technical realization of supplementary services".

[5] 3GPP TS 23.096: "Digital cellular telecommunications system(Phase 2+); Name identification supplementary services ‑ Stage 2".

[6] 3GPP TS 24.007: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface signalling layer 3; General aspects".

[7] 3GPP TS 24.008: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 specification".

[8] 3GPP TS 24.010: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3; Supplementary services specification; General aspects".

[9] 3GPP TS 24.080: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3 supplementary services specification; Formats and coding".

# 3 Abbreviations

Abbreviations used in the TS are listed in 3GPP TR 21.905.

# 4 Calling Name Presentation (CNAP)

## 4.1 Normal operation

The calling name identity is made up of calling party's name - up to 80 characters.

The MS shall be given one of the following in the name indicator:

- calling name identity;

- presentation indicator of presentation restricted;

- presentation indicator of name unavailable; or

- calling name identity and presentation restricted (for the case where the CNAP override category is provisioned).

If the network has received a non-zero SS screening indicator from the MS, then calling name information indicated above shall be sent to the MS as defined in figure 1. If the network did not receive a non-zero SS screening indicator form the MS, then calling name information shall not be sent to the MS.

MS Network

SETUP

<-------------------------------------------------------------------------------------------------------

Facility (Invoke = NotifySS (CNAP, nameIndicator ))

or

MS Network

SETUP

<-------------------------------------------------------------------------------------------------------

:

:

FACILITY

<-------------------------------------------------------------------------------------------------------

Facility (Invoke = NotifySS (CNAP, nameIndicator))

Figure 1: Notification by the network to the called mobile 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/her.

MS Network

REGISTER

------------------------------------------------------------------------------------------------------->

Facility (Invoke = InterrogateSS (CNAP))

RELEASE COMPLETE

<-------------------------------------------------------------------------------------------------------

Facility (Return Result = InterrogateSS (SS-Status))

RELEASE COMPLETE

<- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Facility (Return Error (Error))

RELEASE COMPLETE

<- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Facility (Reject (Invoke\_problem))

Figure 2: Interrogation of calling name identification presentation

## 4.3 Activation, deactivation, registration and erasure

Activation, deactivation, registration and erasure of the supplementary service Calling Name presentation (CNAP) are not applicable.

Annex A (informative):  
Change history

| TSG CN# | Spec | CR | <Phase> | New Version | Subject/Comment |
| --- | --- | --- | --- | --- | --- |
| Apr 1999 | GSM 04.96 |  |  |  | Transferred to 3GPP CN1 |
| CN#03 | 24.096 |  | R99 | 3.0.0 | Approved at CN#03 |
| CN#11 | 24.096 |  | Rel-4 | 4.0.0 | Approved at CN#11 |
| CN#16 | 24.096 |  | Rel-4 | 4.0.1 | References updated |
| CN#16 | 24.096 |  | Rel-5 | 5.0.0 | Rel-5 created after CN#16 |
| CN#26 | 24.096 |  | Rel-6 | 6.0.0 | Rel-6 created after CN#26 |
| CT#36 | 24.096 |  | Rel-7 | 7.0.0 | Upgraded unchanged from Rel-6 |
| CT#42 | 24.096 |  | Rel-8 | 8.0.0 | Upgraded unchanged from Rel-7 |
| 2009-12 | 24.096 | - | Rel-9 | 9.0.0 | Update to Rel-9 version (MCC) |
| 2011-03 | 24.096 | - | Rel-10 | 10.0.0 | Update to Rel-10 version (MCC) |
| 2012-09 | 24.096 | - | Rel-11 | 11.0.0 | Update to Rel-11 version (MCC) |
| 2014-09 | 24.096 | - | Rel-12 | 12.0.0 | Update to Rel-12 version (MCC) |
| 2015-12 | 24.096 | - | Rel-13 | 13.0.0 | Update to Rel-13 version (MCC) |
| 2017-03 | 24.096 | - | Rel-14 | 14.0.0 | Update to Rel-14 version (MCC) |
| 2018-06 | 24.096 | - | Rel-15 | 15.0.0 | Update to Rel-15 version (MCC) |
| 2020-07 | 24.096 | - | Rel-16 | 16.0.0 | Update to Rel-16 version (MCC) |