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Connected Line Identification Presentation (COLP)
supplementary service
Service description

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New presentation - see History box

Contents

Foreword

This European Telecommunication Standard (ETS) has been produced by the Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI), and was adopted having passed through the ETSI standards approval procedure.

In accordance with CCITT Recommendation I.130 [1], the following three level structure is used to describe the supplementary telecommunications services as provided by European public telecommunications operators under the pan-European Integrated Services Digital Network (ISDN):

- Stage 1: is an overall service description, from the user's standpoint;

- Stage 2: identifies the functional capabilities and information flows needed to support the service described in stage 1; and

- Stage 3: defines the signalling system protocols and switching functions needed to implement the service described in stage 1.

This ETS details the stage 1 aspects (overall service description) for the Connected Line Identification Presentation (COLP) supplementary service. The stage 2 and stage 3 aspects are detailed in ETS 300 096 (1992) and ETS 300 097 (1992), respectively.

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1 Scope

This standard defines the stage one of the Connected Line Identification Presentation (COLP) supplementary service for the pan-European Integrated Services Digital Network (ISDN) as provided by European public telecommunications operators. Stage one is an overall service description from the user's point of view (see CCITT Recommendation I.130 [1]), but does not deal with the details of the human interface itself.

This standard defines the interworking requirements of private ISDNs with the public ISDN.

In addition this standard specifies the base functionality where the service is provided to the user via a private ISDN.

This standard does not specify the additional requirements where the service is provided to the user via a telecommunications network that is not an ISDN but does include interworking requirements of other networks with the public ISDN.

Interactions with supplementary services not listed in Clause 8 are outside the scope of this standard.

Charging principles are outside the scope of this standard.

The COLP supplementary service provides the calling party with the possibility to receive identification of the connected party.

The COLP supplementary service is applicable to all telecommunications services.

This standard is applicable to the stage two and stage three standards for the ISDN COLP supplementary service. The terms "stage two" and "stage three" are also defined in CCITT Recommendation I.130 [1]. Where the text indicates the status of a requirement, (i.e. as strict command or prohibition, as authorisation leaving freedom, or as a capability or possibility), this shall be reflected in the text of the relevant stage two and stage three standards.

Furthermore, conformance to this standard is met by conforming to the stage three standards with the field of application appropriate to the equipment being implemented. Therefore no method of testing is provided for this standard.

2 Normative references

This standard incorporates by dated or 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 standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1]　　　　　　CCITT Recommendation I.130 (1988): "Method for the characterisation of telecommunication services supported by an ISDN and network capabilities of an ISDN".

[2]　　　　　　CCITT Recommendation I.112 (1988): "Vocabulary of terms for ISDNs".

[3]　　　　　　CCITT Recommendation E.164 (1988): "Numbering plan for the ISDN era".

[4]　　　　　　CCITT Recommendation I.210 (1988): "Principles of telecommunication services supported by an ISDN and the means to describe them".

[5]　　　　　　ETS 300 062 (1991): "Integrated Services Digital Network (ISDN); Direct Dialling In (DDI) supplementary service; Service description".

[6]　　　　　　ETS 300 050 (1991): "Integrated Services Digital Network (ISDN); Multiple Subscriber Number (MSN) supplementary service; Service description".

[7]   CCITT Recommendation Q.9 (1988): "Vocabulary of switching and signalling terms".

[8]   ETS 300 095 (1992): "Integrated Services Digital Network (ISDN); Connected Line Identification Restriction (COLP) supplementary service; Service description".

3   Definitions

For the purposes of this standard, the following definitions apply:

Integrated Services Digital Network (ISDN): see CCITT Recommendation I.112 [2], § 2.3, definition 308.

Service; telecommunications service: see CCITT Recommendation I.112 [2], § 2.2, definition 201.

Supplementary service: see CCITT Recommendation I.210 [4], § 2.4.

ISDN number: a number conforming to the numbering plan and structure specified in CCITT Recommendation E.164 [3].

Subaddress: see CCITT Recommendation E.164 [3], § 11.2.

National (ISDN) number: see CCITT Recommendation E.164 [3], § 3.2.

International (ISDN) number: see CCITT Recommendation E.164 [3], § 3.2.

Partial number: a part of an ISDN number which is significant for distinguishing between addressable entities beyond the network boundary. The partial number digits and the partial number length shall be governed by the requirements of the direct dialling in supplementary service and multiple subscriber number supplementary service (see ETS 300 062 [5] and ETS 300 050 [6]).

Default number: an ISDN number registered within the public ISDN following prior agreement between the connected party and the public ISDN.

Screening: a process whereby the network checks that a user provided information is acceptable to the network.

Special arrangement: an agreement between a customer and a public network operator whereby customer supplied connected party ISDN numbers are not screened by the public ISDN.

Basic access: see CCITT Recommendation Q.9 [7], § 1, definition 1551.

Primary rate access: see CCITT Recommendation Q.9 [7], § 1, definition 1552.

4   Symbols and abbreviations

COLP   Connected Line Identification Presentation

COLR   Connected Line Identification Restriction

ISDN   Integrated Services Digital Network

5   Description

The COLP supplementary service shall apply to the basic access and to the primary rate access.

The COLP supplementary service provides the calling party with the possibility to receive identification of the connected party. This supplementary service is not a dialling check.

In addition to the ISDN number, the connected line identity may include a subaddress generated by the connected user and transparently transported by the network. The network cannot be responsible for the content of this subaddress.

The network shall deliver the connected line identity to the calling party on call acceptance regardless of the terminal capability to handle the information.

> NOTE: In some situations, e.g. when a default number is used, the information may not precisely identify the connected party.

6   Procedures

6.1   Provision and withdrawal

The COLP supplementary service may be provided after prior arrangement with the service provider or be generally available.

The COLP supplementary service shall be withdrawn at the customer's request or for administrative reasons.

A special arrangement may exist whereby connected party provided ISDN numbers are not screened by the public ISDN.

6.2   Normal procedures

6.2.1   Activation, deactivation and registration

The COLP supplementary service shall be activated and deactivated by the service provider. This supplementary service requires no registration.

6.2.2   Erasure

Not applicable.

6.2.3   Invocation and operation

The network shall automatically invoke the COLP supplementary service on each outgoing call made by the calling user.

The connected line identity supplied to the calling party is made up of a number of information units:

-    the national (ISDN) number;

-    the country code and possible other indications only for international calls;

-    optionally subaddress information, if provided by the connected party.

The public ISDN shall treat such numbers in the same manner, including those provided under the special arrangement. This means that the public ISDN shall add a country code to a national number when a call crosses an international boundary.

6.2.3.1   Connected user side

The connected user can insert the connected line identity on call acceptance.

The connected ISDN number as presented to the calling user can be generated:

-        in the case of a terminal equipment directly connected to the public ISDN, normally by the public ISDN;

-        in the case of a private ISDN connected to the public ISDN, normally by the private ISDN.

This information can be provided in the form of either a partial number or an ISDN number. Where a special arrangement exists this number shall be provided by the user as an E.164 national or international number.

The public ISDN shall screen the provided number. In the case of a special arrangement (e.g. private network situation), no screening shall take place in the public ISDN and the public ISDN shall mark that number as "user provided, not screened".

For successful screening, the number shall be marked as "user provided, verified and passed". Where the screening performing by the public ISDN is successful, the public ISDN shall complete this number to form a national ISDN number.

If the user does not provide any number or the screening performed by the public ISDN is not successful, the public ISDN shall enter a default number marked as "network provided".

>   NOTE: Provision of a partial number or an ISDN number will make sense only when the direct dialling in supplementary service or the multiple subscriber number supplementary service applies at the interface of the connected party. Where a special arrangement exists for not screening a connected party number provided by a private ISDN, the provision of a national ISDN number or and international ISDN number is independent of the direct dialling in supplementary service or the multiple subscriber number supplementary service at that interface.

6.2.3.2   Calling user side

When the COLP supplementary service is invoked, the user shall receive the connected line identity indicated above at call connect time.

6.2.4   Interrogation

Not applicable.

6.3   Exceptional procedures

6.3.1   Activation, deactivation and registration

Not applicable.

6.3.2   Erasure

Not applicable.

6.3.3 Invocation and operation

If the presentation of the ISDN number of the called user is restricted due to the COLR supplementary service (see ETS 300 095 [8]), then the calling ISDN user shall receive an indication that the connected line identity is not available due to restriction.

In some interworking situations in which the connection is not completely supported by sufficient signalling capability the calling ISDN user shall receive an indication that the connected line identity is not available.

For an international call in which the destination network does not provide the connected line identity, or a connected line identity is unavailable for some other reason, then the calling ISDN user shall receive an indication that the connected line identity is not available.

6.3.4 Interrogation

Not applicable.

7 Intercommunication considerations

> NOTE: In interworking situations when information is passed to other networks which do not support the requirements of this standard, information (e.g. the "user provided, not screened" number) could be discarded.

7.1 Interworking with non-ISDNs

According to national network specific rules the COLP supplementary service need not be applicable if at least one of the two parties is not an ISDN subscriber.

7.2 Interworking with private ISDNs

For a call which enters the private ISDN, the private ISDN shall perform its own screening function on the connected user provided information, after which the resulting number shall be given to the public ISDN in the form of an E.164 national or international ISDN number. This number shall be screened by the public ISDN unless a special arrangement has been made (see subclause 6.2.3.1).

If the private ISDN does not provide any number, or if the screening performed by the public ISDN is unsuccessful, the public ISDN shall enter a default number and shall mark this number as "network provided".

Where the connected user is attached to a public ISDN and the calling user is attached to a private ISDN, the public ISDN shall forward the appropriate connected party ISDN number to the private ISDN.

8 Interactions with other supplementary services

8.1 Advice of charge

8.1.1 Charging information at call set-up time

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.1.2 Charging information during the call

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.1.3 Charging information at the end of the call

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.2   Call waiting

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.3   Call hold

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.4   Call transfer

8.4.1   Explicit call transfer

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.4.2   Single step call transfer

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.5   Number identification services

8.5.1   Calling line identification presentation

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.5.2   Calling line identification restriction

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.5.3   Connected line identification presentation

Not applicable.

8.5.4   Connected line identification restriction

The COLR supplementary service shall normally take precedence over the COLP supplementary service. The COLP supplementary service can take precedence over the COLR supplementary service when the calling user has an override category. This is a national matter, the operation of which is outside the scope of this standard.

8.6   Closed user group

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.7   Completion of calls to busy subscriber

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.8   Conference services

8.8.1   Conference call, add-on

Conference controller: no impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

Conferees: conferees shall not receive the COLP supplementary service information of parties being added to the conference.

8.8.2 Meet me conference

No impact, i.e. neither supplementary services shall affect the operation of the other supplementary service.

8.9 Direct dialling in

No impact, i.e. neither supplementary services shall affect the operation of the other supplementary service.

> NOTE: At the connected party's user-network interface, the network may be supplied with a connected party number as a result of the direct dialling in supplementary service applying either:
>
> - at that interface, in which case a partial or full connected party number may be supplied and may be subject to screening by the ISDN; or
>
> - at that interface or at another interface to which the same private ISDN is attached, in which case a full (international or national) ISDN number may be supplied, subject to the existence of a special arrangement for not screening.

8.10 Diversion services

8.10.1 Call forwarding unconditional

If the served (forwarding) user selects the option that the calling user is not notified of call forwarding, then the calling user shall receive no forwarding notification. In addition, the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

If the served (forwarding) user selects the option that the calling user is notified, but without the forwarded-to number, then the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

8.10.2 Call forwarding busy

If the served (forwarding) user selects the option that the calling user is not notified of call forwarding, then the calling user shall receive no forwarding notification. In addition, the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

If the served (forwarding) user selects the option that the calling user is notified, but without the forwarded-to number, then the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

8.10.3 Call forwarding no reply

If the served (forwarding) user selects the option that the calling user is not notified of call forwarding, then the calling user shall receive no forwarding notification. In addition, the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

If the served (forwarding) user selects the option that the calling user is notified, but without the forwarded-to number, then the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

8.10.4 Call deflection

If the served (deflecting) user selects the option that the calling user is not notified of call deflection, then the calling user shall receive no deflecting notification. In addition, the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

If the served (deflecting) user selects the option that the calling user is notified, but without the deflected-to number, then the calling user shall not receive the connected user's identity when the call is answered, unless the calling user has override capability.

8.11 Freephone

Callers to freephone numbers shall not be given the connected line identity. They shall be given a number consisting of the service access code and the freephone number.

8.12 Malicious call identification

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.13 Multiple subscriber number

If the multiple subscriber number supplementary service is applicable to the public network access interface of the connected party, then this party can provide the appropriate connected party multiple subscriber number digits or full ISDN number on call answer. If no special arrangement has been made with the connected subscriber, then the network shall check the user provided connected party number information for validity on the corresponding access. If the check fails or if no connected number information is provided by the user, then the network shall apply the default number of the connected party's access.

If the multiple subscriber number supplementary service is applicable to the public network access interface of the calling party, then neither supplementary service shall affect the operation of the other supplementary service.

8.14 Subaddressing

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.15 Terminal portability

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.16 Three party

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

8.17 User-user signalling

No impact, i.e. neither supplementary service shall affect the operation of the other supplementary service.

Annex A (informative): Terminal interchangeability between public and private ISDNs

In private ISDNs, Private Numbering Plans are likely to be used, either as an alternative to , or as an addition to, the ISDN numbering plan according to CCITT Recommendation E.164 [3]. In order to connect terminals to private ISDNs, terminals need to support such number plans. To ensure terminal interchangeability, terminals need to support both kinds of numbering schemes.

Relevant material has been published by the European Computer Manufacturers' Association (ECMA), including a standard ECMA-155: "Addressing in private telecommunications networks".

Annex B (informative): Bibliography

ECMA-155   "Addressing in private telecommunications networks".

History

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