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European Standard (Telecommunications series)

**Integrated Services Digital Network (ISDN);
Calling Line Identification Restriction (CLIR)
supplementary service;
Service description**



Reference

REN/SPAN-020100

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN), and is now submitted for the ETSI standards One-step 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.

The present document details the stage 1 aspects (overall service description) for the Calling Line Identification Restriction (CLIR) supplementary service. The stage 2 and stage 3 aspects are detailed in ETS 300 091 and ETS 300 093, respectively.

This second version includes changes for dealing with support of the new CLI APRI value "presentation restricted by network".

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

1 Scope

The present document defines the stage one of the Calling Line Identification Restriction (CLIR) 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.

The present document defines the interworking requirements of private ISDNs with the public ISDN.

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

The present document 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 the present document.

Charging principles are outside the scope of the present document.

The CLIR supplementary service enables the calling party to prevent presentation of its ISDN number to the called party.

The CLIR supplementary service is applicable to all telecommunications services.

The present document is applicable to the stage two and stage three standards for the ISDN CLIR 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 authorization leaving freedom, as a capability or possibility), this shall be reflected in the text of the relevant stage two and stage three standards.

Furthermore, conformance to the present document 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 the present document.

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.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] CCITT Recommendation I.130 (1988): "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [2] ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".
- [3] ITU-T Recommendation E.164 (1997): "The international public telecommunication numbering plan".
- [4] ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means to describe them".

- [5] ETSI EN 300 089 "Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP); Service description".
- [6] CCITT Recommendation Q.9 (1988): "Vocabulary of switching and signalling terms".
- [7] ETSI EN 301 798: "Service and Protocols for Advanced Networks (SPAN); Anonymous Call Rejection (ACR) Supplementary Service; Service description".

3 Definitions

For the purposes of the present document, the following terms and definitions apply.

Integrated Services Digital Network (ISDN): see ITU-T Recommendation I.112 [2], subclause 2.3, definition 308.

service; telecommunications service: see ITU-T Recommendation I.112 [2], subclause 2.2, definition 201.

supplementary service: see ITU-T Recommendation I.210 [4], subclause 2.4.

ISDN number: number conforming to the numbering plan and structure specified in ITU-T Recommendation E.164 [3].

subaddress: see ITU-T Recommendation E.164 [3], subclause 11.2.

temporary mode: in this mode, the CLIR supplementary service is invoked on a per call basis.

permanent mode: in this mode, the CLIR supplementary service is invoked automatically by the network on all calls originated by the calling user.

override category: this allows a special category of users (e.g. police) to override the CLIR supplementary service in order to receive the calling line identity. This is a national matter, the operation of which is beyond the scope of the present document.

basic access: see CCITT Recommendation Q.9 [6], clause 1, definition 1551.

primary rate access: see CCITT Recommendation Q.9 [6], clause 1, definition 1552.

4 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ACR	Anonymous Call Rejection
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
ISDN	Integrated Services Digital Network

5 Description

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

The CLIR supplementary service is a supplementary service offered to the calling party to prevent presentation of the calling party's ISDN number, and subaddress information (if any), to the called party. In the case where the called party has an override category, see subclause 6.2.3.

6 Procedures

6.1 Provision and withdrawal

The CLIR supplementary service, temporary mode, may be provided on a subscription basis or may be generally available.

The CLIR supplementary service, permanent mode, shall be provided on a subscription basis.

As a network option, the CLIR supplementary service can be offered with several subscription options. A network providing the CLIR supplementary service shall support temporary mode at a minimum. Subscription options are summarized in table 1.

Table 1

Subscription option	Values
Mode	- permanent mode (active for all calls) - temporary mode (specified by the user per call)
Temporary mode default	- presentation restricted - presentation not restricted

These subscription options apply both to number information sent by the calling party with a call and to number(s) provisioned within the public ISDN as default number information.

6.2 Normal procedures

6.2.1 Activation, deactivation and registration

The CLIR supplementary service shall be activated on provision and deactivated on withdrawal. This supplementary service requires no registration.

6.2.2 Erasure

Not applicable.

6.2.3 Invocation and operation

6.2.3.1 Calling user side

If the calling party has subscribed to the CLIR supplementary service in the permanent mode, then the network shall automatically invoke the CLIR supplementary service for each outgoing call.

If the calling party has subscribed to the CLIR supplementary service in the temporary mode with default value "presentation restricted", then the network shall automatically invoke the CLIR supplementary service for each outgoing call unless the default value is overridden by subscriber request at the time of call request.

If the calling party has subscribed to the CLIR supplementary service in the temporary mode with default value "presentation not restricted", then the network shall only invoke the CLIR supplementary service if requested by the subscriber at the time of call request.

The invocation of the CLIR supplementary service to restrict the CLI also applies to network provided numbers, i.e. in such cases the network provided number shall be marked "presentation restricted".

If the CLIR supplementary service is not invoked and the public ISDN enters a network provided number, this number shall be marked "presentation allowed".

For calls from special resources (e.g. emergency services) where the public ISDN enters a number not presentable to the called user, this number shall be marked "presentation restricted by network". The ability to set this "presentation restricted by network" indication is a national matter.

NOTE: These calls will not be rejected by the ACR supplementary service [7].

6.2.3.2 Called user side

If the called party subscribes to the CLIP supplementary service (see EN 300 089 [5]) and the CLIR supplementary service has been invoked then the called party shall receive an indication that the calling party number is not available due to restriction.

NOTE 1: If an ISDN supports the override category, then depending on national regulations, some networks may define categories of subscribers that have the ability to override the presentation restriction (including the case where the number is marked as "presentation restricted by network") and have the calling party's ISDN number, and subaddress information (if any) presented (e.g. the police). The ability to have such an override category is a national matter.

NOTE 2: In the case of the override category applying to a called user on a call which originates in one ISDN and terminates in another ISDN and if the CLIR supplementary service is invoked, the rules and regulations of the destination network apply. For example, the override category may not be applicable in the originating network but may be applicable in the destination network. In this situation a call with the CLIR supplementary service invoked can still be overridden in the destination network.

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

Not applicable.

6.3.4 Interrogation

Not applicable.

7 Intercommunication considerations

For calls between public ISDNs, when the CLIR supplementary service is invoked, the originating network shall provide the destination network with a notification that the ISDN number of the calling party, and the subaddress information (if any), is not allowed to be presented to the called party.

NOTE: When the CLIR supplementary service is invoked, or when the network provided number associated with the calling party's access is marked "presentation restricted by network" some network providers may not send the calling line identity to other network providers.

7.1 Interworking with non-ISDNs

On calls to or via non-ISDNs, it cannot be assured that a CLIR indication or a "presentation restricted by network" indication can be carried to the destination network. As a network option the originating network can restrict any information identifying the calling party from being forwarded to the destination network when the CLIR supplementary service has been invoked or when the network provided number associated with the calling party's access is marked "presentation restricted by network". If a destination network receives a calling party number without any indication of presentation allowed or restricted, the destination network shall act according to its rules and regulations.

7.2 Interworking with private ISDNs

On calls from the public ISDN to the private ISDN, the public ISDN can restrict any information identifying the calling party from being sent to the private ISDN when the CLIR supplementary service has been invoked or when the network provided number associated with the calling party's access is marked "presentation restricted by network".

On calls to the public ISDN, the private ISDN can indicate that the CLIR supplementary service has been invoked.

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

A calling user's restriction requirement from the original call shall be used in order to restrict the presentation of that user's address to the other user in a transferred call.

8.4.2 Single step transfer

A calling user's restriction requirement from the original call shall be used in order to restrict the presentation of that user's address to the other user in a transferred call.

8.5 Number identification services

8.5.1 Calling line identification presentation

The CLIR supplementary service shall normally take precedence over the CLIP supplementary service.

The CLIP supplementary service can take precedence over the CLIR supplementary service when the called user has an override category. This is a national matter, the operation of which is outside the scope of the standard.

8.5.2 Calling line identification restriction

Not applicable.

8.5.3 Connected line identification presentation

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

8.5.4 Connected line identification restriction

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

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

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

8.8.2 Meet me conference

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

8.9 Direct dialling in

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

8.10 Diversion services

8.10.1 Call forwarding unconditional

When the CLIR supplementary service has been invoked, the calling party's ISDN number shall not be presented to the forwarded-to user unless the forwarded-to user has an override category.

8.10.2 Call forwarding busy

When the CLIR supplementary service has been invoked, the calling party's ISDN number shall not be presented to the forwarded-to user unless the forwarded-to user has an override category.

8.10.3 Call forwarding no reply

When the CLIR supplementary service has been invoked, the calling party's ISDN number shall not be presented to the forwarded-to user unless the forwarded-to user has an override category.

8.10.4 Call deflection

When the CLIR supplementary service has been invoked, the calling party's ISDN number shall not be presented to the deflected-to user unless the deflected-to user has an override category.

8.11 Freephone

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

8.12 Malicious call identification

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

NOTE: When the malicious call identification supplementary service is invoked, the number of an incoming call is registered in the network regardless of whether the calling user has activated the CLIR supplementary service or not.

8.13 Multiple subscriber number

No impact, i.e. 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.

History

Document history		
Edition 1	January 1992	Publication as ETS 300 090
V1.2.1	August 2000	One-step Approval Procedure OAP 20001201: 2000-08-02 to 2000-12-01