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Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Name identification supplementary services

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d'information entre systèmes — Réseau privé à intégration de
services — Spécification, modèle fonctionnel et flux d'informations —
Services supplémentaires d'identification de nom*



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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC1. Draft International Standards adopted by the joint technical committee are circulated to the national bodies for voting. Publication as an International Standard requires approval by at least 75% of the national bodies casting a vote.

International Standard ISO/IEC 13864 was prepared by Joint Committee ISO/IEC JTC1, *Information Technology*, Subcommittee SC6, *Telecommunications and information exchange between systems*.

Annex A forms an integral part of this International Standard.

Introduction

This International Standard is one of a series of ISO International Standards defining services and signalling protocols applicable to Private Integrated Services Networks. The series uses the ISDN concepts as developed by ITU-T and conforms to the framework of standards for Open Systems Interconnection as defined by ISO/IEC.

This particular International Standard specifies the Name Identification Supplementary Services.

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Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Name identification supplementary services

This International Standard specifies the supplementary services Calling Name Identification Presentation (SS-CNIP), Connected Name Identification Presentation (SS-CONP) and Calling/Connected Name Identification Restriction (SS-CNIR), which are applicable to various basic services supported by Private Integrated Services Networks (PISNs). Basic services are specified in ISO/IEC 11574.

Calling Name Identification Presentation (CNIP) is a supplementary service which is offered to the called user and which provides the name of the calling user (calling party name) to the called user.

Connected Name Identification Presentation (CONP) is a supplementary service which is offered to the calling user and which provides to the calling user the following:

- the name of the user who answers the call (connected party name);
- optionally the name of the alerting user (called party name);
- optionally the name of the called user who cannot be reached (busy party name).

Calling/Connected Name Identification Restriction (CNIR) is a supplementary service which is offered to a user to restrict presentation of that user's name to another user.

Service specifications are produced in three stages, according to the method described in CCITT Recommendations I.130.

This International Standard contains the stage 1 and 2 specifications of the Name Identification supplementary services. The stage 1 specifications (clauses 6,7 and 8) specify the supplementary services as seen by users of PISNs. The stage 2 specifications (clauses 9,10 and 11) identify the functional entities involved in the supplementary services and the information flows between them.

2 Conformance

In order to conform to this International Standard, a Stage 3 standard shall specify signalling protocols and equipment behaviour that are capable of being used in a PISN which supports the supplementary services specified in this International Standard. This means that, to claim conformance, a Stage 3 standard is required to be adequate for the support of those aspects of clauses 6, 7 and 8 (stage 1) and clauses 9,10 and 11 (stage 2) which are relevant to the interface or equipment to which the Stage 3 Standard applies.

3 Normative References

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO/IEC 11574:1994, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Circuit-mode 64 kbit/s bearer services — Service description, functional capabilities and information flows.*

ISO/IEC 11579-1:1994, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Part 1: Reference configuration for PISN exchanges (PINX)*.

ISO/IEC 13872:1995, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Call diversion supplementary services*.

ISO 8859-1:1987, *Information processing — 8-bit single-byte coded graphic character sets — Part 1: Latin alphabet No. 1*.

CCITT Rec. I.112, *Vocabulary of terms for ISDN (Blue Book)*.

CCITT Rec. I.130, *Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN (Blue Book)*.

CCITT Rec. I.210, *Principles of telecommunication services supported by an ISDN and the means to describe them (Blue Book)*.

CCITT Rec. Z.100, *Specification and Description Language (Blue Book)*.

CCITT Rec. T.61, *Character repertoire and coded character sets for the international teletex service (Blue Book)*.

4 Definitions

For the purposes of this International Standard, the following definitions apply.

4.1 External Definitions

This International Standard uses the following terms defined in other documents:

- Basic Service (CCITT Rec. I.210)
- Private Integrated Services Network (PISN) (ISO/IEC 11579-1)
- Private Integrated Services Network Exchange (PINX) (ISO/IEC 11579-1)
- Service (CCITT Rec. I.112)
- Signalling (CCITT Rec. I.112)
- Supplementary Service (CCITT Rec. I.210)
- User (ISO/IEC 11574)

This International Standard refers to the following basic call functional entities defined in ISO/IEC 11574:

- Call Control (CC)
- Call Control Agent (CCA)

This International Standard refers to the following basic call information flows defined in ISO/IEC 11574:

- r1
- r2
- r3

This International Standard refers to the following basic call information flows defined in ISO/IEC 11574:

- DISCONNECT request/indication
- REPORT request/indication
- RELEASE request/indication
- SETUP request/indication
- SETUP response/confirmation
- SETUP REJECT request/indication

4.2 Other definitions

- 4.2.1 additional network feature:** A capability, over and above that of a basic service, provided by a PISN user.
- 4.2.2 application identifier:** Manufacturer specific information which can imply the structure of the name information.
- 4.2.3 busy:** An ISDN destination is considered to be busy if either a "network determined user busy" or a "user determined user busy" condition occurs.
- 4.2.4 busy party name:** The name of the called user who cannot be reached because of a busy condition.
- 4.2.5 call, basic call:** An instance of the use of a basic service.
- 4.2.6 calling party name:** The name of the calling user.
- 4.2.7 connected party name:** The name of the user who answers the call.
- 4.2.8 called party name:** The name of the alerting user.
- 4.2.9 name:** A string of maximum 50 characters which is used for the name identification of the PISN user of a call.
- NOTE - The structure and content of a name are defined in annex A.
- 4.2.10 terminal, terminal equipment:** An item of equipment attached to a PISN to provide access for a user to one or more services.

5 List of acronyms

CC	Call Control (functional entity)
CCA	Call Control Agent (functional entity)
CONP	Connected Name Identification Presentation
CNIP	Calling Name Identification Presentation
CNIR	Calling/Connected Name Identification Restriction
FE	Functional Entity
ISDN	Integrated Services Digital Network
PISN	Private Integrated Services Network
PINX	Private Integrated Services Network Exchange
SDL	Specification and Description Language
SS-CONP	Connected Name Identification Presentation supplementary service
SS-CNIP	Calling Name Identification Presentation supplementary service
SS-CNIR	Calling/Connected Name Identification Restriction supplementary service
TE	Terminal Equipment

6 SS-CNIP Stage 1 Description

6.1 Description

6.1.1 General Description

Calling Name Identification Presentation (SS-CNIP) is a supplementary service which is offered to the called user and which provides the name of the calling user (calling party name) to the called user.

The PISN provides the calling party name to the called user if available and allowed (according to the restrictions defined in 6.2.3.1) whenever an incoming call is presented.

The possible provision of the calling party name by the calling user to the PISN is outside the scope of this International Standard.

6.1.2 Qualifications on Applicability to Telecommunication Services

This supplementary service is applicable to all basic services defined in ISO/IEC 11574.

6.2 Procedures

6.2.1 Provision/Withdrawal

This supplementary service shall be generally available.

Some users may have a service profile which permits the override of calling name identification restriction.

6.2.2 Normal Procedures

6.2.2.1 Activation/Deactivation/Registration/Interrogation

SS-CNIP shall be permanently activated. No information needs to be registered with the PISN for this supplementary service and therefore interrogation is not applicable.

6.2.2.2 Invocation and Operation

The PISN shall provide the called user with the calling party name at the same time as indicating an incoming call.

The PISN may truncate the calling party name in accordance with what the user can receive.

The method by which the PISN obtains the name information is implementation dependent and outside the scope of this International Standard. The management of the PISN name directory system is also outside the scope of this International Standard.

In some cases where calling name identification restriction has been invoked, there may be certain categories of called user that have the service profile to override this restriction and have the calling party name presented, e.g. emergency stations, PISN operators. In these circumstances, presentation shall include an indication that restriction has been invoked.

6.2.3 Exceptional Procedures

6.2.3.1 Invocation and Operation

There are two exceptions when the calling party name shall not be presented to the called user:

- when the calling name identification restriction has been invoked (see definition of Calling/Connected Name Identification Restriction), and
- when the calling party name is not available, e.g. due to interworking with another network or when no name is registered against the calling PISN user.

In such cases the called user shall receive an indication of the situation.

6.3 Interactions with other Supplementary Services and ANFs

This clause specifies interactions with other supplementary services and ANFs for which PISN standards were available at the time of publication of this International Standard.

6.3.1 Connected Name Identification Presentation (CONP)

No interactions.

6.3.2 Calling/Connected Name Identification Restriction (CNIR)

The calling party name shall not be presented if calling name identification restriction has been invoked at the calling user, unless the called user has the service profile to override this restriction.

6.3.3 Calling Line Identification Presentation (CLIP)

No interactions.

6.3.4 Connected Line Identification Presentation (COLP)

No interactions.

6.3.5 Calling/Connected Line Identification Restriction (CLIR)

No interactions.

6.3.6 Call Forwarding Unconditional (CFU)

Interaction specified in ISO/IEC 13872 shall apply.

6.3.7 Call Forwarding Busy (CFB)

Interactions specified in ISO/IEC 13872 shall apply.

6.3.8 Call Forwarding No Reply (CFNR)

Interactions specified in ISO/IEC 13872 shall apply.

6.3.9 Call Deflection (CD)

Interactions specified in ISO/IEC 13872 shall apply.

6.3.10 Call Transfer (CT)

No interactions.

NOTE - When Call Transfer has been performed, the names of the connected users are provided to each other, unless restriction applies, as part of the Call Transfer supplementary service.

6.3.11 Completion of Calls to Busy Subscribers (CCBS)

No interactions.

NOTE - Unless restriction applies, SS-CNIP applies to the called user when the call is eventually offered to that user.

6.3.12 Completion of Calls on No Reply (CCNR)

No interactions.

NOTE - Unless restriction applies, SS-CNIP applies to the called user when the call is eventually offered to that user.

6.3.13 Path Replacement (ANF-PR)

No interactions.

6.4 Interworking Considerations

6.4.1 Incoming Calls

On calls incoming from another network, the calling party name shall be obtained from the other network if available. Where no name is provided by the other network, the called PISN user shall be given an indication "name unavailable" or "presentation restricted", as appropriate.

If the number of characters in the calling party name exceeds 50, the PISN shall truncate the excess characters.

6.4.2 Outgoing Calls

On outgoing calls to another network, the PISN shall provide the calling party name to the other network if this network supports an equivalent supplementary service and if the name is available and presentation not restricted.

If the number of characters in a name exceeds the maximum number of characters that can be transmitted to the other network, the trailing characters shall be truncated.

6.5 Overall SDL

Figure 1 contains the dynamic description of SS-CNIP using the SDL defined in CCITT Rec. Z.100. The SDL process represents the behaviour of the network in providing SS-CNIP. The relationship to the basic call process is indicated in the annotations.

Output signals to the right represent primitives to the called PISN user. Input signals from the left represent internal stimuli.

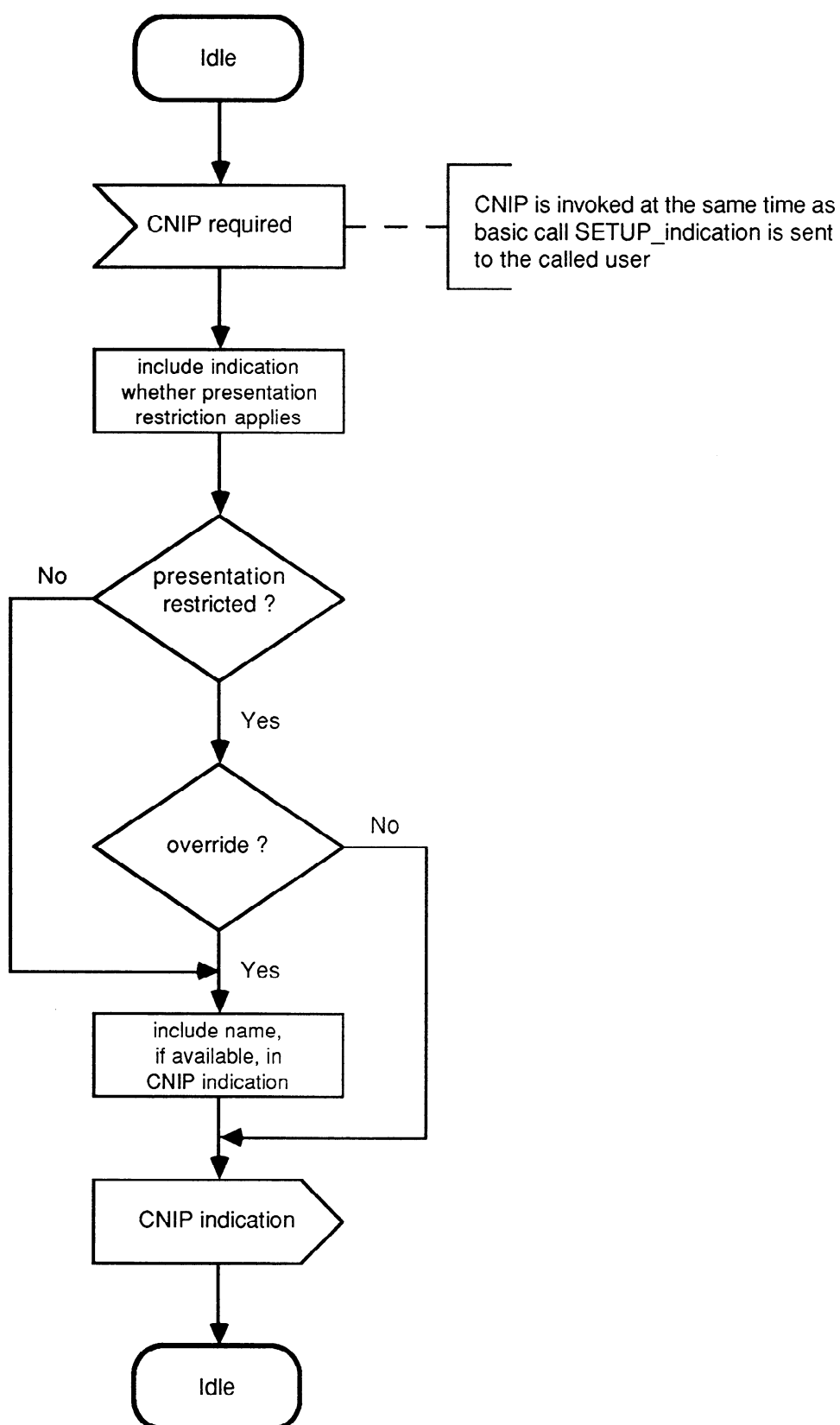


Figure 1 - SS-CNIP Overall SDL