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**ISDN - DSS1 - NETWORK LAYER 3
CALLING NAME IDENTIFICATION PRESENTATION
(CNIP)**

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0. Document history

Every update of this document results in a complete new version with new version number and release date.

Version	Date	Main or important changes since previous version
1.0	25 MAY 2001	First version
1.1	10 JAN 2003	<ul style="list-style-type: none">• § 1. Add sentence related to applicability of this specification• § 2. Small rectification related to reference ITU-T T.50• § 4. Small rectification of the service description• § 5. Some small rectifications

1. Scope

This document specifies the stage three (the protocol procedures and switching functions implemented to support a telecommunications service) of the Calling Name Identification Presentation (CNIP) supplementary service for the Integrated Services Digital Network (ISDN) as provided by Belgacom at the T reference point or coincident S and T reference point (as defined in ITU Recommendation I.411) by means of the Digital Subscriber Signalling System No. one (DSS1).

The specification is valid for both ISDN Basic Access (BA) and ISDN Primary Rate Access (PRA) and it is applicable to the Siemens 'EWSD V16B' - and 'Alcatel S12 Pack 8' - switching systems.

The commercial offer of the 'Calling Name Identification Presentation' ISDN supplementary service may differ from what is technically possible in the used switching systems 'System 12' and 'EWSD'.

Some parts of the technical implementation may also differ between the two switching systems. In the case there are differences, specific switch-dependent comments are added or tables are used explaining the technical implementation for both switching-systems.

2. References

ITU-I.251.9	ITU-recommendation: Number identification supplementary services; Calling Name Identification Presentation
ETS 300 102-1	ETSI-specification: Integrated Services Digital Network (ISDN); User-network interface layer 3 Specifications for basic call control
EN 300 403-1	ETSI-specification: Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification
ITU-T T.50	ITU-recommendation: Terminal equipment and protocols for telematic services; International Reference Alphabet (IRA) (former international alphabet No.5 (or IA5); Information technology - 7-bit coded character set for information interchange
ITU-T I.411	ITU-recommendation: ISDN user-network interfaces - Reference configurations

3. Symbols, definitions and abbreviations

For the purpose of the present document, the following symbols, abbreviations and definitions applies:

3.1. Abbreviations

BA	Basic Access
CLIR	Calling Line Identification Restriction
CNIP	Calling Name Identification Presentation
DSS1	Digital Subscriber Signalling System No. one
ETS	European Telecommunication Standard
EWSD	Belgacom Switching System of Siemens
IA5	International Character set No. 5
IRA	International Reference Alphabet
ISDN	Integrated Services Digital Network
ITU	International Telecommunication Union
MWI	Message Waiting Indication
PRA	Primary Rate Access
S12	Belgacom Switching System of Alcatel

3.2. Definitions

Calling name	Information associated with a specific calling party number. The maximum length is at least 15 characters and may be up to 50 characters. The exact length, format and character set (e.g. T.51, T.52) of the calling name to be delivered is a service provider option. <i>✎ Clarification for Belgacom</i> - max. length = 50 characters - Used character set = T.50 (see ITU-T-50)
Calling name identification user	This is the party who subscribes to the calling name identification presentation service and is the called party and has calling name identification presentation activated.
Name information	The calling name, if available, or an indication of privacy or an indication of unavailability. In addition to the name, the character set used shall be identified to enable the correct presentation of special characters, etc. to the user. <i>✎ Clarification for Belgacom</i> - Used character set = T.50 (see ITU-T-50)
Network	In this description, network refers to all the ISDN telecommunications equipment that has any part in processing a call or a supplementary service for the user referred to. It does not include the ISDN terminal.

4. Service description

The 'Calling Name Identification Presentation' (CNIP) service provides name information to the called party.

This name information will be :

- the calling party name (CNI) if name information for a specific caller is available and presentation is not restricted or;
- an indication of privacy if presentation of name information for a specific caller is restricted due to the CLIR-service at calling user side; or
- the calling party number (CLI) if the network does not have any name information for a specific caller and presentation is not restricted.

The storage and delivery of the 'calling party name' are network functions. The calling party takes no action to activate, initiate, or in any manner provide calling name identification presentation.

The called party, when subscribed to the 'Calling Name Identification Presentation' service, automatically receives the name information in the SETUP-message when the presentation service is active.

Suitable terminal equipment is required to receive and display the name information.

5. User network protocol

The transfer of the "Calling Name Identity" from the network to the ISDN-terminal will be done by means of a DISPLAY-Information Element (I.E.) in the SETUP-message.

The general purpose of the **Display information element** is to supply display information that may be displayed by the user. The information contained in this information element is coded in IA5 characters.

The Display information element is coded as shown in Table 1: Coding Display information element.

8	7	6	5	4	3	2	1	Octet
Display								1
0	0	1	0	1	0	0	0	
Information element identifier								
Length of display contents								2
0	Display information (IA5 characters)							3
0	Display information (IA5 characters)							4
0	Display information (IA5 characters)							5
0	Display information (IA5 characters)							etc.

Table 1: Coding Display information element

Only one DISPLAY-I.E. is allowed per call control message (SETUP-message, ...). If additional DISPLAY-information is available from sources other than name information, then only the 'Calling Name Identity' will be provided.

The maximum size of the 'Calling Name Identity' included in the 'Display' information element will be 50 characters.

The coding of the "Calling Name Identity"-characters (display-information) is in accordance with the international reference alphabet (IRA); formerly international alphabet No. 5 or IA5 (ITU-T T.50). This is a 7-bit coded character set. Only 94-bit combinations are defined (see Table 2: IA5 character set).

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
1	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
2	Space	!	“	#	\$	%	&	'	()	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
6	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	P	q	r	s	t	u	v	w	x	y	z	{		}		

Table 2: IA5 character set

↳ Example of a SETUP-message containing 'Calling Name Identity' information:

