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Part 1: Protocol specification**

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## Foreword

This European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS is part 1 of a multi-part standard covering the Digital Subscriber Signalling System No. two (DSS2) protocol interactions of supplementary services within the Broadband Integrated Services Digital Network (B-ISDN), as described below:

- Part 1:** "Protocol specification";
- Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification";
- Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for the user";
- Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the user";
- Part 5: "TSS&TP specification for the network";
- Part 6: "ATS and partial PIXIT proforma specification for the network".

<b>Transposition dates</b>	
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## 1 Scope

This first part of ETS 300 669 specifies the stage three of the supplementary service interactions for the pan-European Broadband Integrated Services Digital Network (B-ISDN) as provided by European public telecommunications operators at the  $T_B$  reference point or coincident  $S_B$  and  $T_B$  reference point (as defined in ITU-T Recommendation I.413 [4]) by means of the Digital Subscriber Signalling System No. two (DSS2) protocol. Stage three identifies the protocol and procedures and switching functions needed to support a telecommunication service (see ITU-T Recommendation I.130 [2]).

This ETS specifies the interactions between the Calling Line Identification Presentation (CLIP), Calling Line Identification Restriction (CLIR), Connected Line Identification Presentation (COLP), Connected Line Identification Restriction (COLR), Direct Dialling In (DDI), Multiple Subscriber Number (MSN), Subaddressing (SUB) and User-to-User Signalling (UUS) supplementary services.

In addition this ETS specifies the protocol requirements at the  $T_B$  reference point where the service is provided to the user via a private B-ISDN.

This ETS does not specify the additional protocol requirements where the service is provided to the user via a telecommunications network that is not a B-ISDN.

The protocol for individual supplementary services is specified in other ETSs:

DDI:	ETS 300 661-1 [5];
MSN:	ETS 300 662-1 [6];
CLIP:	ETS 300 663-1 [7];
CLIR:	ETS 300 664-1 [8];
COLP:	ETS 300 665-1 [9];
COLR:	ETS 300 666-1 [10];
SUB:	ETS 300 667-1 [11];
UUS:	ETS 300 668-1 [12].

When two or more supplementary services are implemented, the protocol interactions are defined in this ETS.

These interactions are applicable to the telecommunication services as specified for the individual supplementary services.

Further parts of this ETS specify the method of testing required to identify conformance to this ETS.

This ETS is applicable to equipment, supporting supplementary services, to be attached at either side of a  $T_B$  reference point or coincident  $S_B$  and  $T_B$  reference point when used as an access to the public B-ISDN.

## 2 Normative references

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

- [1] ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".
- [2] ITU-T Recommendation I.130 (1988): "Method for the characterisation of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [3] ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means used to describe them".
- [4] ITU-T Recommendation I.413 (1993): "B-ISDN user-network interfaces".

- [5] ETS 300 661-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Direct Dialling In (DDI) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 1 (1995), modified]".
- [6] ETS 300 662-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Multiple Subscriber Number (MSN) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 2 (1995), modified]".
- [7] ETS 300 663-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Calling Line Identification Presentation (CLIP) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 3 (1995), modified]".
- [8] ETS 300 664-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Calling Line Identification Restriction (CLIR) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 4 (1995), modified]".
- [9] ETS 300 665-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connected Line Identification Presentation (COLP) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 5 (1995), modified]".
- [10] ETS 300 666-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connected Line Identification Restriction (COLR) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 6 (1995), modified]".
- [11] ETS 300 667-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Subaddressing (SUB) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2951, clause 8 (1995), modified]".
- [12] ETS 300 668-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; User-to-User Signalling (UUS) supplementary service; Part 1: Protocol specification [ITU-T Recommendation Q.2957, clause 1 (1995), modified]".

### 3 Definitions and abbreviations

#### 3.1 Definitions

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

**No Impact (NI):** The interaction between the two identified supplementary services contains no requirements for the protocol over and above the requirements of the standard for each individual supplementary service.

NOTE: Other aspects of interactions that do not affect the DSS1 protocol are covered in the service description for the relevant supplementary services.

**Not Applicable (NA):** The interaction between the two identified supplementary services is outside the scope of this ETS, e.g. the interaction is between the supplementary service and itself, and is therefore covered in the standard for the individual supplementary service.

**service; telecommunication service:** See ITU-T Recommendation I.112 [1], definition 201.

**supplementary service:** See ITU-T Recommendation I.210 [3], subclause 2.4.



### 3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

B-ISDN	Broadband Integrated Services Digital Network
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
COLP	Connected Line Identification Presentation
COLR	Connected Line Identification Restriction
DDI	Direct Dialling In
DSS2	Digital Subscriber Signalling System No. two
MSN	Multiple Subscriber Number
NA	Not Applicable
NI	No Interaction
SUB	Subaddressing
UUS	User-to-User Signalling

### 4 Description of the supplementary service interactions

Figure 1 gives an overview of the interactions between pairs of supplementary services. Only if the interaction is other than "Not Applicable (NA)" or "No Impact (NI)", a reference is given to a subclause in this ETS which details this particular interaction.

CLIP	NA							
CLIR	NA	NA						
COLP	NI	NI	NA					
COLR	NI	NI	NA	NA				
DDI	NI	NI	NI	NI	NA			
MSN	NA	NI	NI	NI	NA	NA		
SUB	NI	NI	NI	NI	NI	NI	NA	
UUS1	NI	NI	NI	NI	NI	NI	NI	NA
	CLIP	CLIR	COLP	COLR	DDI	MSN	SUB	UUS1

**Figure 1: Overview of supplementary service interactions**

## History

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September 1996	First Edition		