



SLOVENSKI STANDARD SIST ETS 300 048 E2:2003

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Digitalno omrežje z integriranimi storitvami (ISDN) – Paketne nosilne storitve (PMBS) – Nosilne storitve navideznega klica (VC) in stalnega navideznega voda (PVC) v sistemu ISDN prek B-kanala uporabniškega dostopa, osnovne in primarne

Integrated Services Digital Network (ISDN); ISDN Packet Mode Bearer Services (PMBS); ISDN Virtual Call (VC) and Permanent Virtual Circuit (PVC) bearer services provided by the B-channel of the user access - basic and primary rate

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bearer services provided by the B-channel of the user access -
basic and primary rate**

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Annexes A and B are normative, annex C is informative.

Transposition dates	
Date of adoption:	19 December 1997
Date of latest announcement of this ETS (doa):	31 March 1998
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	30 September 1998
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Introduction

In accordance with CCITT Recommendation I.130 [13], the following three level structure is used to describe the supplementary telecommunication 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 stand-point;
- 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 describes the stage one requirements of the ISDN Packet Mode Bearer Services (PMBS) provided on the B-channel of the user access. Services using the D-channel are covered in ETS 300 049 [4].

The requirements described in this ETS are applicable only to those services within Europe and are based upon ITU-T Recommendation I.232 [17]. This service description corresponds to case B (B-channel) of ETS 300 007 [1] (the European equivalent to ITU-T Recommendation X.31 [11]).

The requirements for stage three of these services are contained in ETS 300 007 [1].

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1 Scope

This European Telecommunication Standard (ETS) defines the stage one of the Packet Mode Bearer Service (PMBS) provided by the B-channel of the user access 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 [13]), but does not deal with the details of the human interface itself.

This ETS makes use of ETS 300 007 [1], which is a stage three ETS, in order to provide a description of the procedures. This mechanism would not normally be used in a stage one standard.

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

This ETS does not define details of the interworking requirements of private ISDNs with the public ISDN.

This ETS 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.

Charging principles are outside the scope of this ETS.

The ISDN Virtual Call (VC) and Permanent Virtual Circuit (PVC) bearer service category provides the unrestricted transfer (without alteration) of user information in a packetized manner over a virtual circuit between reference points via the basic and primary rate access. Each of the reference points can be either an S or coincident S and T reference point.

NOTE: Network operators can also provide information transfer with the same attributes where the reference point is T.

The ISDN VC and PVC bearer service category is described in ITU-T Recommendation I.232 [17].

This ETS is applicable to the stage three standards for the ISDN PMBS. The term "stage three" is also defined in CCITT Recommendation I.130 [13]. 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 three standards.

Furthermore, conformance to this ETS 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 ETS.

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] ETS 300 007 (1991): "Integrated Services Digital Network (ISDN); Support of packet-mode terminal equipment by an ISDN".
- [2] ETS 300 011 (1992): "Integrated Services Digital Network (ISDN): Primary rate user-network interface - Layer 1 specification and test principles".
- [3] ETS 300 012 (1992): "Integrated Services Digital Network (ISDN): Basic user-network interface; Layer 1 specification and test principles".
- [4] ETS 300 049 (1992): "Integrated Services Digital Network (ISDN); ISDN Packet Mode Bearer Service (PMBS); ISDN Virtual Call (VC) and Permanent Virtual Circuit (PVC) bearer services provided by the D-channel of the user access - basic and primary rate".

- [5] ETS 300 099 (1992): "Integrated Services Digital Network (ISDN); Specification of the Packet Handler access point Interface (PHI)".
- [6] ETS 300 402-2 (1995): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) User-network interface data link layer; Part 2: General application protocol specification [ITU-T Recommendation Q.921 (1993), modified]".
- [7] ETS 300 403-1 (1995): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1); User-network interface layer 3 specification for basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".
- [8] ITU-T Recommendation X.1 (1993): "International user classes of service in public data networks and Integrated Service Digital Networks (ISDNs)".
- [9] ITU-T Recommendation X.2 (1993): "International data transmission services and optional user facilities in public data networks and ISDNs".
- [10] ITU-T Recommendation X.25 (1993): "Interface between Data Terminal Equipment (DTE) and data circuit-terminating equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit".
- [11] ITU-T Recommendation X.31 (1993): "Support of packet mode terminal equipment by an ISDN".
- [12] ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".
- [13] CCITT Recommendation I.130 (1988): "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [14] CCITT Recommendation E.164 (1991): "Numbering plan for the ISDN era".
- [15] CCITT Recommendation E.165 (1988): "Timetable for co-ordinated implementation of the full capability of the numbering plan for the ISDN era (E.164)".
- [16] ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means used to describe them".
- [17] CCITT Recommendation I.232 (1988): "Packet mode bearer services categories"

3 Definitions and abbreviations

3.1 Definitions

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

Integrated Services Digital Network (ISDN): See ITU-T Recommendation I.112 [12], subclause 2.3, definition 308.

service; telecommunication service: See ITU-T Recommendation I.112 [12], subclause 2.2, definition 201.

Supplementary Service: See ITU-T Recommendation I.210 [16], subclause 2.4.

Virtual Call, VC: See ITU-T Recommendation X.25 [10], clause 3. Instead of "virtual call" also the term "X.25" call is used in this ETS.

Permanent Virtual Circuit (PVC): see ITU-T Recommendation X.25 [10], clause 3.

customized service profile: A set of individual service data allocated per ISDN-number for a period of time to a subscriber registered at the Packet Handler (PH). This data includes:

- **an access profile:** ETS 300 007 [1]-related data (e.g. notification class, access method);
- **an X.25 service profile:** ITU-T Recommendation X.25 [10], layer 2 and 3 related data.

standard service profile: A set of service data predefined at the PH for subscribers not requiring a fully individual service profile. The standard service profile comprises just the ITU-T Recommendation X.25 [10]-related data. The other part of the service data (the access profile) can still be allocated individually at subscription time.

See annex A for the standard service profile applicable for users subscribing to B-channel access.

default service profile: A set of service data which applies for subscribers not registered at the PH. This default service profile may be network specific, and includes both, the ETS 300 007 [1]-related data (access profile) and ITU-T Recommendation X.25 [10]-related data (X.25 service profile).

See annex C for the proposed default service profile.

Packet Handler (PH): See ETS 300 007 [1].

PMBS-B: Basic ISDN PMBS provided by the B-channel.

semi-permanent B-channel: A B-channel established by OAM-procedures at subscription, independent of ITU-T Recommendation X.25 [10] calls; not to be released after last virtual call.

switched long-duration B-channel: A B-channel established by ETS 300 403-1 [7] signalling procedures, independent of ITU-T Recommendation X.25 [10] calls; not to be released after the last virtual call.

switched B-channel: A B-channel established on-demand by ETS 300 403-1 [7] signalling procedures, dependent of ITU-T Recommendation X.25 [10] virtual calls; normally to be released after the last virtual call.

ISDN number: A number conforming to the numbering plan and structure specified in CCITT Recommendation E.164 [14].

party number: As ISDN number.

party subaddress: See CCITT Recommendation E.164 [14], subclause 11.2.

3.2 Abbreviations

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

CUG	Closed User Group
DDI	Direct Dialling In
DTE	Data Terminal Equipment
ISDN	Integrated Services Digital Network
LAPB	Link Access Procedure Balanced
MSN	Multiple Subscriber Number
OSI	Open Systems Interconnection
PH	Packet Handler
PMBS	Packet Mode Bearer Services
PSPDN	Packet Switched Public Data Network
PTN	Private Telecommunication Network
PVC	Permanent Virtual Circuit
TA	Terminal Adaptor
TE	Terminal Equipment
VC	Virtual Call