



**SLOVENSKI STANDARD**  
**SIST ETS 300 080 E1:2003**  
**01-december-2003**

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**Digitalno omrežje z integriranimi storitvami (ISDN) – Protokoli za nižje ravni sistema ISDN za telematske terminale**

Integrated Services Digital Network (ISDN); ISDN lower layer protocols for telematic terminals

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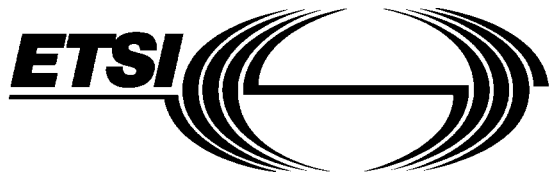
33.080	Digitalno omrežje z integriranimi storitvami (ISDN)	Integrated Services Digital Network (ISDN)
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## Foreword

This European Telecommunication Standard (ETS) has been produced by the Terminal Equipment (TE) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS specifies a common set of protocols up to layer 4 of the Open Systems Interconnection (OSI) model to be used by telematic terminals attached to the pan-European Integrated Services Digital Network (ISDN). It bears a close relationship to CCITT Recommendation T.90 [8] and the Functional Standard T/1112 (ENV 41 112) [20]. Full details of these and other normative references are given in Clause 2 of this ETS.

A number of the references given in Clause 2 also involves work currently being carried out within ETSI. All of the ETSI drafts listed should be available from your ETSI agreed National Standards Organisation (NSO).

Reference to this ETS will be made by specifying attachment approval requirements and type approval test suites in the terminal NETs.

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## 1 Scope

This ETS specifies the usage of all protocols and supplementary services up to and including layer 4 for telematic terminals in the ISDN. The scope of this ETS is limited to demand circuit-switched calls using the 64 kbit/s unrestricted digital information bearer capability and the DTE/DTE case of the Network Layer peer entities in B-channel connection. This ETS is based on other ETSs, International Standards or CCITT Recommendations and, where necessary, it adds new or other requirements as application rules.

The telematic services considered are:

- a) teletex;
- b) facsimile group 4; and
- c) ISDN syntax-based Videotex.

The ETS is applicable to terminals using either basic access or primary rate access to the ISDN. Basic access and primary rate access refer to different ETSs for layer 1.

NOTE: In the context of this ETS, and in the case of Videotex, a terminal is either a real terminal equipment, a Videotex service centre, a Videotex access point or a Videotex host.

Conformance testing to verify to which extent a terminal conforms with this ETS is to be specified in a separate ETS which will cover both the Protocol Implementation Conformance Statement (PICS) proformas and the Abstract Test Suites (ATS).

Interworking capabilities and limitations with implementations following similar Standards such as Functional Standards are described in informative annexes.

## 2 Normative references

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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] CCITT Recommendation F.184 (1988): "Operational provision for the international public facsimile service between subscriber stations with group 4 facsimile machines (telex 4)".
- [2] CCITT Recommendation F.200 (1988): "Teletex service".
- [3] CCITT Recommendation F.220 (1988): "Service requirements unique to the processable mode number 1 (PM1) used within the teletex service".
- [4] CCITT Recommendation F.230 (1988): "Service requirements unique to the mixed mode (MM) used within the teletex service".
- [5] CCITT Recommendation I.333 (1988): "Terminal selection in ISDN".
- [6] CCITT Recommendation Q.931 (1988): "ISDN user-network interface layer 3 specification for basic call control".
- [7] CCITT Recommendation T.70 (1988): "Network-independent basic transport service for the telematic services".

- [8] CCITT Recommendation T.90 (1988): "Characteristics and protocols for terminals for telematic services in ISDN".
- [9] CCITT Recommendation T.101 (1988): "International interworking for videotex services".
- [10] CCITT Recommendation X.25 (1988): "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 circuits".
- [11] CCITT Recommendation X.75 (1984): "Packet-switched signalling system between public networks providing data transmission services".
- [12] CCITT Recommendation X.224 (1988): "Transport protocol specification for Open Systems Interconnection for CCITT Applications".
- [13] ETS 300 102-1 (1990): "Integrated Services Digital Network (ISDN); User-network interface layer 3, Specification for basic call control".
- [14] ETS 300 102-2 (1991): "Integrated Services Digital Network (ISDN); User-network interface layer 3 Specification for basic call control Specification Description Language (SDL) diagrams".
- [15] ETS 300 011 (1992): "Integrated Services Digital Network (ISDN); Primary rate user-network interface, Layer 1 specification and test principles".
- [16] ETS 300 012 (1992): "Integrated Services Digital Network (ISDN); Basic user-network interface, Layer 1 specification and test principles".
- [17] ETS 300 125 (1991): "Integrated Services Digital Network (ISDN); User-network interface data link layer specifications Application of CCITT Recommendations Q.920/I.440 and Q.921/I.441".
- [18] prETS 300 196: "Integrated Services Digital Network (ISDN); Generic Functional protocol for the support of supplementary services Digital Subscriber Signalling No one (DSS1) protocol".
- [19] prETS 300 195: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling No. one (DSS1); Supplementary services interactions protocol".
- [20] FS T/1112: " Provision of the OSI Connection-mode Transport Service and the OSI Connection-mode Network Service by using an ISDN circuit-mode 64 kbit/s unrestricted Bearer Service: Demand Case (ENV 41 112)".
- [21] ISO 7776 (1986): "Information processing systems - Data communications - Description of the X.25 LAPB-compatible DTE data link procedures".
- [22] ISO/IEC 7776: "Addendum 1 Information processing systems - Data communication - High level data link control procedures - Description of the X.25 LAPB-compatible DTE data link procedure - Addendum 1: PICS proforma".
- [23] ISO/IEC 8073 (1988): "Information processing systems - Open Systems Interconnection - Connection oriented transport protocol specification".
- [24] ISO/IEC 8073 Addendum x: "Information processing systems; Open Systems Interconnection; Connection oriented transport protocol specification Addendum x: PICS".

- [25] ISO/IEC 8208 (1990): "Information technology - Data communications - X.25 Packet Level Protocol for Data Terminal Equipment".
- [26] ISO/IEC 8208 Addendum 3: "Information processing systems; Data communication; X.25 Packet Level Protocol for Data Terminal Equipment Addendum 3: Conformance requirements".
- [27] ISO/IEC 8878 (1987): "Information processing systems - Data communications - Use of X.25 to provide OSI connection-mode network service".
- [28] ISO/IEC DIS 9574 (1989): "Information technology - Telecommunications and information exchange between systems - Provision of the OSI connection-mode network service by packet mode terminal equipment connected to an Integrated Services Digital Network (ISDN)".
- [29] ISO/IEC DIS 9574 PDAD 1: "Information technology - Telecommunications and information exchange between systems - Provision of the OSI connection-mode network service by packet mode terminal equipment connected to an Integrated Services Digital Network (ISDN) ADDENDUM 1: Operation over an ISDN circuit-switched channel connecting directly to the remote terminal".
- [30] ISO/IEC 10025: "Transport conformance testing (temporary title)".

In the Standards and Recommendations listed above, further normative references are given which are not listed here.

### 3 Abbreviations

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The following abbreviations shall apply:

CC	Call Connect
CLIP	Calling Line Identification Presentation
CR	Connection Request
DCE	Data Circuit-terminology Equipment
DDI	Direct Dialling-In
DISC	Disconnect
DM	Disconnected Mode
DTE	Data Terminology Equipment
FRMR	Frame Reject
HLC	Higher Layer Compatibility
ISDN	Integrated Services Digital Network
LAPB	Link Access Procedure - Balanced
LAPD	Link Access Procedure on the D-channel
LI	Length indicator