



**SLOVENSKI STANDARD
SIST EN 301 145-3:2001**

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Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Teleaction service; Part 3: Test Suite Structure and Test Purposes (TSS&TP) specification for the End User Terminal (EUT)

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**Integrated Services Digital Network (ISDN);
Digital Subscriber Signalling System No. one (DSS1) protocol;
Teleaction service;
Part 3: Test Suite Structure and Test Purposes (TSS&TP)
specification for the End User Terminal (EUT)**

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Signalling Protocols and Switching (SPS).

The present document is part 3 of a multi-part standard covering the Digital Subscriber Signalling System No. one (DSS1) protocol specification for the Integrated Services Digital Network (ISDN) Teleaction service, 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 End User Terminal (EUT)";**
- Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the End User Terminal (EUT)";
- Part 5: "Test Suite Structure and Test Purposes (TSS&TP) specification for the Service Provider Terminal (SPT)";
- Part 6: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the Service Provider Terminal (SPT)";
- Part 7: "Test Suite Structure and Test Purposes (TSS&TP) specification for the Teleaction Management Function (TMF)";
- Part 8: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the Teleaction Management Function (TMF)".

National transposition dates

Date of adoption of this EN:	29 October 1999
Date of latest announcement of this EN (doa):	31 January 2000
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 July 2000
Date of withdrawal of any conflicting National Standard (dow):	31 July 2000

1 Scope

The present document specifies the Test Suite Structure and Test Purposes (TSS&TP) for the End User Terminal (EUT) of the T reference point or coincident S and T reference point (as defined in ITU-T Recommendation I.411 [3]) of implementations conforming to the stage three standard for the Teleaction service for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 301 145-1 [6].

Test Purposes described in this specification do not apply to Data Link establishment and Disconnection procedures contained in ETS 300 402-2 [5].

A further part of the present document specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on the present document.

Other parts specify the TSS&TP and the ATS and partial PIXIT proforma for the Service Provider Terminal (SPT) and the Teleaction Management Function (TMF) of the T reference point or coincident S and T reference point of implementations conforming to EN 301 145-1 [6].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] ITU-T Recommendation I.112 (1993): "Vocabulary and terms for ISDNs".
- [2] ITU-T Recommendation I.210 (1993): "Principles of the telecommunication services supported by an ISDN and the means to describe them".
- [3] ITU-T Recommendation I.411 (1993): "ISDN user-network interfaces - reference configurations".
- [4] ETS 300 099: "Integrated Services Digital Network (ISDN); Specification of the Packet Handler access point Interface (PHI)".
- [5] ETS 300 402-2: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Data link layer; Part 2: General protocol specification [IUT-T Recommendation Q.921 (1993) modified]".
- [6] EN 301 145-1 (V1.1): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Teleaction service; Part 1: Protocol specification".
- [7] EN 301 145-2 (V1.1): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Teleaction service; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [8] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [9] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

3.1.1 Definitions related to conformance testing

abstract test suite: refer to ISO/IEC 9646-1 [8]

implementation under test: refer to ISO/IEC 9646-1 [8]

Protocol Implementation Conformance Statement (PICS): refer to ISO/IEC 9646-1 [8]

PICS proforma: refer to ISO/IEC 9646-1 [8]

Protocol Implementation eXtra Information for Testing (PIXIT): refer to ISO/IEC 9646-1 [8]

PIXIT proforma: refer to ISO/IEC 9646-1 [8]

test purpose: refer to ISO/IEC 9646-1 [8]

3.1.2 Definitions related to EN 301 145-1

Bd channel: 64 kbit/s timeslot over which multiple D channel connections are multiplexed using the procedures of ETS 300 099 [4], clause 9

bearer service: see ITU-T Recommendation I.112 [1], definition 202

End User (EU): entity to whom a teleaction application service is provided or who is affected by that application service

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End User Terminal (EUT): device (or location of a device) that, depending on the application (e.g. by monitoring of subdevices):

- on the basis of local conditions or by interrogation, generates information and presents this information for transmission by the network to a service provider (SP);
- receives information from a SP in order to affect local conditions;
- upon polling requests, received from a Teleaction Management Function (TMF), executes the requested local actions (e.g. authorization, functionality checks, etc.) and sends appropriate response to the TMF.

EU access capability: telecommunication means used between an EUT and a TMF (e.g. ISDN bearer service, dedicated connection, etc.)

integrated services digital network: see ITU-T Recommendation I.112 [1], definition 308

network: DSS1 protocol entity at the Network side of the user-network interface where a T reference point or coincident S and T reference point applies

Service Provider (SP): entity which, by using one or more TMFs, provides a teleaction application service to one or more EUTs

NOTE: The SP may be the Basic Network Provider (BNP), the TMFP, or another organization responsible for one or more SPTs.

Service Provider Terminal (SPT): device (or location of such a device) which, depending on the application:

- receives information from one or more EUTs for handling and processing in accordance with the application service offered by the SPT;
- generates control messages and information requests and presents that information for transmission for one or more EUTs;
- monitors EUTs on the network, either by retrieving EUT status information stored in TMFs, and/or by receiving status information automatically from the TMFs (e.g. alarms);
- receives polling requests from TMFs and sends appropriate response to the TMF. Execution of local procedures such as authorization and functionality check are outside the scope of the specification [1];
- transfers to the TMF information to be broadcasted to the EUTs, if the broadcast functionality is supported by the TMF.

SPT access capability: telecommunication means used between a SPT and a TMF (e.g. ISDN Bearer service, dedicated connection, etc.)

service; telecommunication service: see ITU-T Recommendation I.112 [1], subclause 2.2, definition 201

supplementary service: see ITU-T recommendation I.210 [2] subclause 2.4

teleaction application: one specific end-to-end application offered by a service provider using the teleaction service

teleaction service: teleaction service is the transport mechanism used by a teleaction application

teleservice: see ITU-T Recommendation I.112 [1], subclause 2.2, definition 203

Teleaction Management Function (TMF): set of network functions added to either the public ISDN or assigned to a separate public, or private, network entity. The tasks of the TMF are:

- to ensure reliable communication paths between the EUTs and the SPT, i.e. to ensure available and secure access for the EUTs to the network and communication paths for the SPT in the ISDN, respectively;
- authorization of connected EUTs/SPTs;
- EUT/SPT functionality check;
- to address the appropriate EUT/SPT for transfer of information generated by SPT/EUT;
- as a TMFP option, to broadcast appropriate EUTs for transfer of information generated by a SPT.

Teleaction Management Function Provider (TMFP): entity responsible for the installation and maintenance of one or more of the TMFs. A TMFP may be the same as BNP

user: DSS1 Protocol entity at the user side of the user-network interface