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Integrated Services Digital Network (ISDN); Security tools (SET) procedures; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 5: Test Suite Structure and Test Purposes (TSS&TP) specification for the network

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**Integrated Services Digital Network (ISDN);
Security tools (SET) procedures;
Digital Subscriber Signalling System No. one (DSS1) protocol;
Part 5: Test Suite Structure and Test Purposes (TSS&TP)
specification for the network**

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN).

The present document is part 5 of a multi-part EN covering the Integrated Services Digital Network (ISDN); Security tools (SET) procedures; Digital Subscriber Signalling System No. one (DSS1) protocol, as identified 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: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network";**
- Part 6: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network".

National transposition dates

Date of adoption of this EN:	28 April 2000
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1 Scope

The present document specifies the Test Suite Structure and Test Purposes (TSS&TP) for the network side of the T reference point or coincident S and T reference point (as defined in ITU-T Recommendation I.411 [6]) of implementations conforming to the stage three standard for the Security tools (SET) procedures for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 301 002-1 [1].

A further part of the present document specifies the Abstract Test Suite (ATS) and partial PIXIT proforma based on the present document. Other parts specify the TSS&TP and the ATS and partial PIXIT proforma for the User side of the T reference point or coincident S and T reference point of implementations conforming to EN 301 002-1 [1].

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.

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- [1] ETSI EN 301 002-1: "Integrated Services Digital Network (ISDN); Security tools (SET) procedures; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification". [SIST EN 301 002-5 V1.1.4:2005](https://standards.iteh.ai/catalog/standards/sist/e67bfd18-7fe5-43d9-9cad-SIST EN 301 002-5 V1.1.4:2005)
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- [2] ETSI EN 301 002-2: "Integrated Services Digital Network (ISDN); Security tools (SET) procedures; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [3] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [4] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".
- [5] ETSI EN 300 196-1: "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [6] ITU-T Recommendation I.411 (1993): "ISDN user-network interfaces - Reference configurations".
- [7] ETSI EN 300 403-1: "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 Recommendation Q.931 (1993), modified]".
- [8] ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".
- [9] ITU-T Recommendation E.164 (1997): "The international public telecommunication numbering plan".
- [10] ITU-T Recommendation I.210 (1993): "Principles of telecommunication services supported by an ISDN and the means to describe them".
- [11] ETSI ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

- [12] ETSI ETR 232: "Security Techniques Advisory Group (STAG); Glossary of security terminology".
- [13] ETSI EN 301 132: "Integrated Services Digital Network (ISDN); Security tools (SET) for use within telecommunication services".

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 (ATS): refer to ISO/IEC 9646-1 [3].

Implementation Under Test (IUT): refer to ISO/IEC 9646-1 [3].

Protocol Implementation Conformance Statement (PICS): refer to ISO/IEC 9646-1 [3].

PICS proforma: refer to ISO/IEC 9646-1 [3].

Protocol Implementation eXtra Information for Testing (PIXIT): refer to ISO/IEC 9646-1 [3].

PIXIT proforma: refer to ISO/IEC 9646-1 [3].

system under test: refer to ISO/IEC 9646-1 [3].

Test Purpose (TP): refer to ISO/IEC 9646-1 [3].

3.1.2 Definitions related to EN 301 002-1

component: see EN 300 196-1 [5], subclause 11.2.2.1.

Dummy call reference: see EN 300 403-1 [7], subclause 4.3.

Integrated Services Digital Network (ISDN): see ITU-T Recommendation I.112 [8], definition 308.

invoke component: see EN 300 196-1 [5], subclause 11.2.2.1.

ISDN number: number conforming to the numbering and structure specified in ITU-T Recommendation E.164 [9].

Personal Identification Number (PIN): see ETR 232 [12].

return error component: see EN 300 196-1 [5], subclause 11.2.2.1.

return result component: see EN 300 196-1 [5], subclause 11.2.2.1.

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

security tool: see EN 301 132 [13], clause 3.

served user: user to whom a security tool is provided in combination with a telecommunication service.

service; telecommunication service: see ITU-T Recommendation I.112 [8], definition 201.

supplementary service: see ITU-T Recommendation I.210 [10], subclause 2.4.

T: DSS1 protocol entity at the User side of the user-network interface where a T reference point applies (User is a Private ISDN).

Transaction Number (TAN): see EN 301 132 [13], clause 3.

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ATS	Abstract Test Suite
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
SET	Security tools
TAN	Transaction Number
TP	Test Purpose
TSS	Test Suite Structure

4 Test Suite Structure (TSS)

Signalling procedures at the coincident S and T reference point and for interworking with private ISDN	Group
Registration - PIN	N01
Invocation and operation (exceptional procedures)	N02
Notification of possible fraudulent use	
PIN	N03
TAN	N04

Figure 1: Test suite structure

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5 Test Purposes (TP)

5.1 Introduction

For each test requirement a TP is defined.

5.1.1 TP naming convention

Tps are numbered, starting at 001, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite and whether it applies to the network or the user (see table 1).