



**SLOVENSKI STANDARD**  
**SIST EN 301 483-1 V1.2.2:2005**

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**Zasebno omrežje z integriranimi storitvami (PISN) – Signalizacijski protokol med centralami – Dopolnilna storitev: obvestilo o ceni (AoC) [ISO/IEC 15049 (1995), spremenjen] – 1. del: Zgradba preskušalnega niza in namen preskušanja (TSS&TP) – Specifikacija**

Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Advice of Charge (AoC) supplementary services [ISO/IEC 15049 (1997), modified]; Part 1: Test Suite Structure and Test Purposes (TSS&TP) specification

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# ETSI EN 301 483-1 V1.2.2 (2000-09)

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*European Standard (Telecommunications series)*

**Private Integrated Services Network (PISN);  
Inter-exchange signalling protocol;  
Advice of Charge (AoC) supplementary services  
for the VPN "b" service entry point;  
[ISO/IEC 15049 (1997), modified];  
Part 1: Test Suite Structure and  
Test Purposes (TSS&TP) specification**

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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 1 of a multi-part EN covering the Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Advice of Charge (AoC) supplementary services [ISO/IEC 15049 (1997), modified]; as identified below:

**Part 1: "Test Suite Structure and Test Purposes (TSS&TP) specification";**

Part 2: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma".

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### National transposition dates

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# 1 Scope

The present document specifies the Test Suite Structure and Test Purposes (TSS&TP) for the Advice of charge supplementary services of the Interexchange signalling protocol for Private Integrated Services Networks (PISN).

The objective of this TSS and TPs specification is to provide conformance tests which give a greater probability of inter-operability. The TSS and TPs specification covers the procedures described in EN 301 264 [1].

The ISO standard for the methodology of conformance testing (ISO/IEC 9646-1 [2], ISO/IEC 9646-2 [3] and ISO/IEC 9646-3 [4]) is used as basis for the test methodology.

The Test Suite Structure and Test Purposes specified in the present document are only intended for VPN scenarios at the "b" service entry point.

The VPN "b" service entry point is defined in EN 301 060-1 [5] and ETR 172 [6].

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# 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.

- iTech STANDARD PREVIEW  
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- [1] ETSI EN 301 264 (1998): "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Advice of Charge (AoC) supplementary services [ISO/IEC 15050 (1997), modified]".  
<https://standards.iteh.ai/catalog/standards/sist/943da478-7a88-4407-8e06-1ef826734/technology/401483-2005>
- [2] ISO/IEC 9646-1: "Information technology; Open Systems Interconnection; Conformance testing methodology and framework; Part 1: General concepts".
- [3] ISO/IEC 9646-2: "Information technology; Open Systems Interconnection; Conformance testing methodology and framework; Part 2: Abstract test suite specification".
- [4] ISO/IEC 9646-3: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".
- [5] ETSI EN 301 060-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Basic call control; Enhancement at the "b" service entry point for Virtual Private Network (VPN) applications; Part 1: Protocol specification".
- [6] ETSI ETR 172: "Business TeleCommunications (BTC); Virtual Private Networking (VPN); Services and networking aspects; Standardization requirements and work items".
- [7] ETSI ETS 300 239: "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Generic functional protocol for the support of supplementary services [ISO/IEC 11582 (1995), modified]".
- [8] ITU-T Recommendation I.112: "Vocabulary of terms for ISDNs".
- [9] ETSI EN 300 172: "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Circuit-mode basic services [ISO/IEC 11572 (1996) modified]".
- [10] ITU-T Recommendation I.210: "Principles of the telecommunication services supported by an ISDN and the means to describe them".
- [11] ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

## 3 Definitions and abbreviations

### 3.1 Definitions

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

**Abstract Test Suite (ATS):** refer to ISO/IEC 9646-1 [2].

**Implementation Under Test (IUT):** refer to ISO/IEC 9646-1 [2].

**Protocol Implementation Conformance Statement (PICS):** refer to ISO/IEC 9646-1 [2].

**PICS proforma:** refer to ISO/IEC 9646-1 [2].

**Test Purpose (TP):** refer to ISO/IEC 9646-1 [2].

**call independent signalling connection:** see ETS 300 239 [7], definition 4.7.

**call related:** see ETS 300 239 [7], definition 4.9.

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

**invoke APDU:** see ETS 300 239 [7], subclause 11.3.3.4.

**originating PINX:** see EN 300 172 [9], subclause 4.5.

**outgoing Gateway PINX:** see EN 300 172 [9], subclause 4.6.

**reject APDU:** see ETS 300 239 [7], subclause 11.3.3.4.

**return error APDU:** see ETS 300 239 [7], subclause 11.3.3.4.

**return result APDU:** see ETS 300 239 [7], subclause 11.3.3.4.

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

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

**terminating PINX:** see EN 300 172 [9], subclause 4.5.

**Virtual Private Network (VPN):** refer to EN 301 060-1 [5].

### 3.2 Abbreviations

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

APDU	Application Protocol Data Unit
ATS	Abstract Test Suite
IE	Information Element
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
PICS	Protocol Implementation Conformance Statement
PINX	Private Integrated Services Network eXchange
PISN	Private Integrated Services Network
PSS1	Private Integrated Signalling System Number 1
sc	call independent signalling connection
SS	Supplementary services
TP	Test Purpose
TSS	Test Suite Structure
VPN	Virtual Private Network



## 4 Test Suite Structure (TSS)

SS-AOC signalling procedures at the VPN "b" service entry point	Group
<b>Actions at the Originating PINX</b>	
Normal procedures	Orig01
Exceptional procedures	Orig02
<b>Actions at the Outgoing Gateway PINX</b>	
Normal procedures	Ogw01
Exceptional procedures	Ogw02
Additional procedures for Call Transfer	Ogw03
Additional procedures for Call Diversion	Ogw04
<b>Actions at the Terminating PINX</b>	Term01
<b>Interaction with Call Transfer</b>	Int01
<b>Interaction with Call Diversion</b>	Int02

## 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).

**Table 1: TP identifier naming convention scheme**

Identifier: <ss>_<group>_<nnn>			
<ss>	=	supplementary service:	"AOC"
<group>	=	group	up to 8 digit field representing group reference according to TSS
<nnn>	=	sequential number	(001-999)

#### 5.1.2 Source of TP definition

The TPs are based on EN 301 264 [1].