SLOVENSKI STANDARD

SIST ETS 300 324-6 E1:%-,

01-c_lcVYf-%-,

Vmesniki V pri digitalnih krajevnih centralah (LE) – Vmesnik V5.1 za podporo dostopovnemu omrežju (AN) – 6. del: Abstraktni preskušalni niz (ATS) in delna dodatna informacija za preskušanje izvedbe protokola (PIXIT) – Proforma specifikacija za omrežno plast na strani krajevne centrale (LE)

V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 6: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network layer (LE side)

Ta slovenski standard je istoveten z: **ETS 300 324-6 E1.%-+!%&**

ICS:

33.040.30	Komutacijski in signalizacijski sistem	Switching and signalling systems

SIST ETS 300 324-6 E1:%-, en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

DRAFT

pr ETS 300 324-6

December 1997

Source: SPS

Reference: DE/SPS-03003.3-6

EUROPEAN
TELECOMMUNICATION
STANDARD

ICS: 33.020

Key words: V interface, V5 interface, ATS, ISDN, layer 3, LE, PIXIT, PSTN, testing

Signalling Protocols and Switching (SPS); V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 6: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network layer (LE side)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ETS 300 324-6 E1:2003
https://standards.iteh.ai/catalog/standards/sist/d79a3f90-c92b-4cba-b45c-
1e2a56c9c83e/sist-ets-300-324-6-e1-2003

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE
Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE
X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 4 92 94 42 00 - Fax: +33 4 93 65 47 16

Page 2
Draft prETS 300 324-6: December 1997

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Whilst every care has been taken in the preparation and publication of this document, errors in content, typographical or otherwise, may occur. If you have comments concerning its accuracy, please write to "ETSI Editing and Committee Support Dept." at the address shown on the title page.

Contents

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Page 4
Draft prETS 300 324-6: December 1997

iTeh STANDARD PREVIEW

(standards.iteh.ai)

Foreword

This draft European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure.

This ETS is part 6 of a multi-part standard covering the V5.1 interface as described below:

Part 1: "V5.1 interface specification";

Part 2: "Protocol Implementation Conformance Statement (PICS) proforma";

Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network layer (AN side)";

Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network layer (AN side)";

Part 5: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network layer (LE side)";

Part 6: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network layer (LE side)";

Part 7: "Test Suite Structure and Test Purposes (TSS&TP) specification for the data link layer";

Part 8: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the data link layer";

Part 9: "Test specification for the physical layer".

Proposed transposition dates	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Blank page

iTeh STANDARD PREVIEW

(standards.iteh.ai)

1 Scope

This sixth part of ETS 300 324 contains the Abstract Test Suite (ATS) as well as the Abstract Test Method (ATM) and the partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the Network layer (NWK) of a V5.1 interface and parts of the system management of the Local Exchange (LE) side of a V5.1 interface.

The objective of this ETS is to provide an ATS containing conformance tests which give a high probability of inter-operability of an Access Network (AN) and a LE from different manufacturers over the V5.1 interface.

ISO/IEC 9646-1 [5] and ISO/IEC 9646-2 [6] are used as the basis for the test methodology. The ATS is defined using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [7].

The ATS in annex A describes a set of Test Cases (TCs) which are based on the Test Purposes (TPs) specified in ETS 300 324-5 [3]. The TCs provide the implementation of the TPs and can be converted into an executable test suite by using available TTCN translators and the corresponding tools.

Annex B provides the partial PIXIT proforma.

Annex C lists the bibliography.

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 300 324-1 (1994) including amendment A1 (1996): "Signalling Protocols and Switching (SPS); V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 1: V5.1 interface specification".

[2]   ETS 300 324-2 (1994): "Signalling Protocols and Switching (SPS); V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 2: Protocol Implementation Conformance Statement (PICS) proforma".

[3]   ETS 300 324-5: "Signalling Protocols and Switching (SPS); V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 5: Test Suite Structure and Test Purposes (TSS&TP) specification for the network layer (LE side)".

[4]   ISO 7498: "Information Processing Systems - Open Systems Interconnection - Basic Reference Model".

[5]   ISO/IEC 9646-1: "Information Technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[6]   ISO/IEC 9646-2: "Information Technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification".

[7]   ISO/IEC 9646-3: "Information Technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".

[8]   ISO/IEC 9646-5: "Information Technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply, together with those given in ETS 300 324-1 [1]:

Abstract Test Case (ATC): Refer to ISO/IEC 9646-1 [5].

> NOTE: In this ETS, the commonly used term TC is applied in the same way as ATC.

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [5].

current provisioning variant: ID for the presently active data set.

Data Link Layer (DLL): Refer to ISO 7498 [4].

embedded variant: Refer to ISO/IEC 9646-2 [6].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [5].

incorrect information element: Specified IE carrying IE types not defined in ETS 300 324-1 [1].

invalid PSTN information element: PSTN IE not according to national specific requirements.

invalid protocol data unit: Protocol Data Unit (PDU) which contains an incorrect message format.

invalid PSTN message: PSTN message carrying IEs not according to national specific requirements.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Lower Tester (LT): Refer to ISO/IEC 9646-1 [5].

Network Layer (NWK): Refer to ISO 7498 [4].

new provisioning variant: ID for the data set which was announced to the IUT to become the next active data set through re-provisioning.

Physical Layer (PHL): Refer to ISO 7498 [4].

PICS proforma: Refer to ISO/IEC 9646-1 [5].

PIXIT proforma: Refer to ISO/IEC 9646-1 [5].

Point Of Control And Observation (PCO): Refer to ISO/IEC 9646-1 [5].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [5].

Protocol Implementation eXtra Information For Testing (PIXIT): Refer to ISO/IEC 9646-1 [5].

remote test method: Refer to ISO/IEC 9646-2 [6].

specified information element: IE ID defined in ETS 300 324-1 [1].

System Under Test (SUT): Refer to ISO/IEC 9646-1 [5].

Test Purpose (TP): Refer to ISO/IEC 9646-1 [5].

unknown provisioning variant: ID for a non-available data set.

unspecified information element: IE ID not defined in ETS 300 324-1 [1].

valid information element: PSTN IE according to national specific requirements.

valid PSTN message: PSTN message carrying IEs according to national specific requirements.

3.2 Abbreviations

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

AN	Access Network
ASP	Abstract Service Primitive
ATC	Abstract Test Case
ATM	Abstract Test Method
ATS	Abstract Test Suite
BI	Invalid Behaviour
BO	Inopportune Behaviour
BV	Valid Behaviour
CA	CApability test
CTRL	Control
DLL	Data Link Layer
DSAP	Data link Service Access Point
FE	Function Element
FSM	Finite State Machine
ID	Identifier
IE	Information Element
IEI	Information Element Identifier
ISDN	Integrated Services Digital Network
ISDN-BA	ISDN-Basic Access
IT	basic Interconnection Test
IUT	Implementation Under Test
L3addr	Layer 3 address
LE	Local Exchange
LT1	Lower Tester 1
MPH	Management Physical layer
NWK	Network Layer
PCO	Point of Control and Observation
PDU	Protocol Data Unit
PHL	Physical Layer
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PSTN	Public Switched Telephone Network
SAP	Service Access Point
SUT	System Under Test
TC	Test Case (abstract TC)
TI	Timer Expiry and Counter Mismatch
TP	Test Purpose
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UL	Upper Layer
UT	Upper Tester
V5DLaddr	V5 Data Link address

4 Abstract test method

This clause describes the Abstract Test Method (ATM) and the Point of Control and Observation (PCO) used to test the NWK of the V5.1 protocol for the LE components.

4.1 ATM

Principally, the remote test method is used for V5.1 LE NWK conformance testing. Certain V5.1 LE NWK TPs need also part of the service and national functions. Therefore, the embedded variant of the remote test method is applied.

The national dependent information is defined in the PIXIT.