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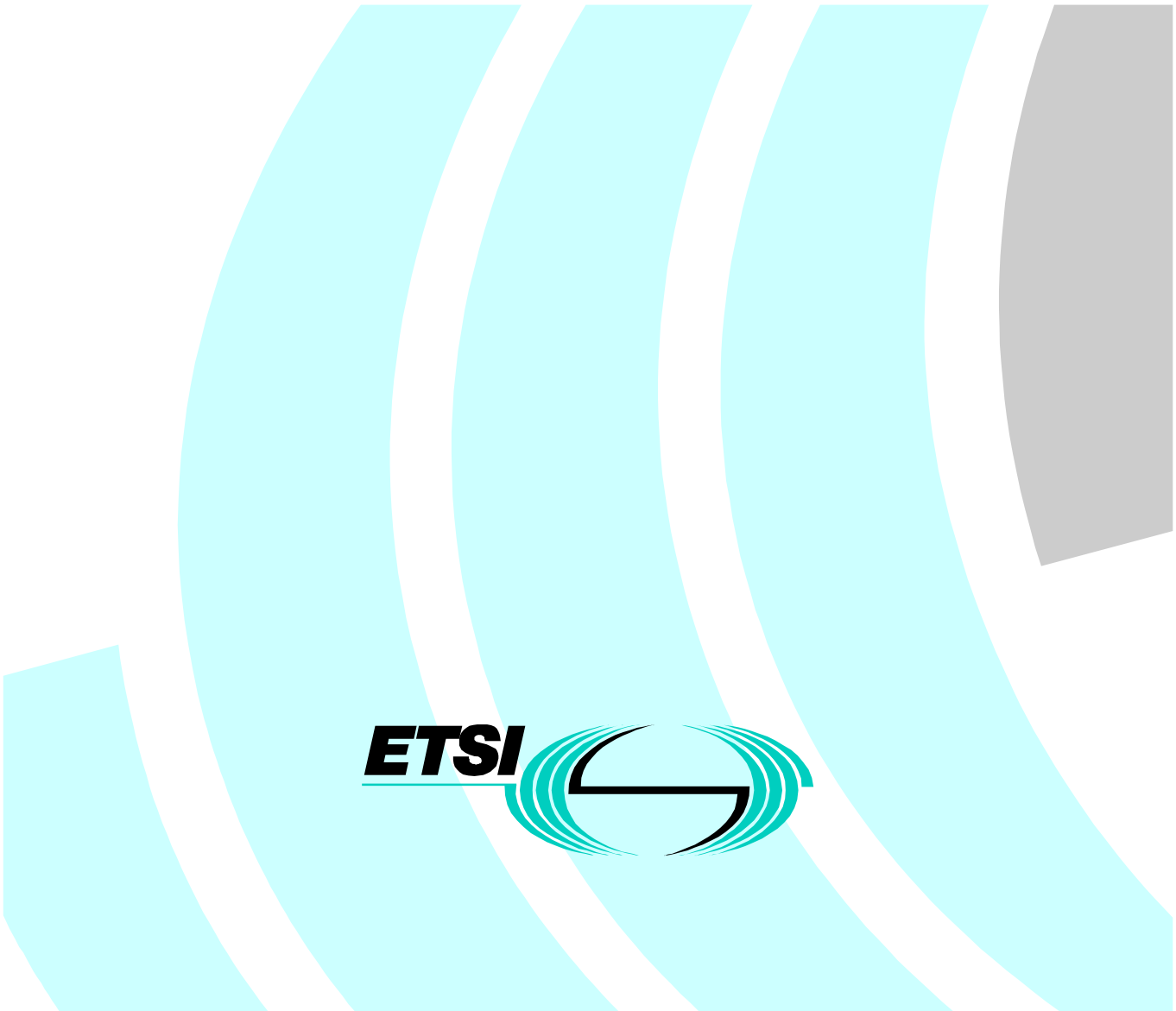
European Standard (Telecommunications series)

V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 8: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the data link layer



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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN), and is now submitted for the ETSI standards One-step Approval Procedure.

The present document is part 8 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 specifications for the physical layer".

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

1 Scope

This eighth part of EN 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 Data Link Layer (DLL) of the V5.1 interface.

The objective of the present document is to provide an ATS containing conformance tests which give a high probability of inter-operability of an Access Network (AN) and a Local Exchange (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 300 324-7 [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.

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] ETS 300 324-1 (1994) including amendment A1: "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): "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 300 324-7 (1999): "V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 7: Test Suite Structure and Test Purposes (TSS&TP) specification for the data link layer".

[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".

[9] ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[10] ETR 141: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; The Tree and Tabular Combined Notation (TTCN) style guide".

3 Definitions and abbreviations

3.1 Definitions

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

abstract test case: refer to ISO/IEC 9646-1 [5]

NOTE: In the present document, the commonly used term TC is applied in the same way as ATC.

abstract test suite: refer to ISO/IEC 9646-1 [5]

data link layer: refer to ISO 7498 [4]

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

implementation under test: refer to ISO/IEC 9646-1 [5]

lower tester: refer to ISO/IEC 9646-1 [5]

network layer: refer to ISO 7498 [4]

notional UT: upper layers of the SUT are used to realize the functions of the upper tester, without any additional mechanism being installed

physical layer: 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: 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]

system under test: refer to ISO/IEC 9646-1 [5]

test purpose: refer to ISO/IEC 9646-1 [5]

3.2 Abbreviations

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

AN	Access Network
ASP	Abstract Service Primitive
ATM	Abstract Test Method
ATS	Abstract Test Suite
BI	Invalid Behaviour
BO	Inopportune Behaviour
BV	Valid Behaviour
CA	Capability test
DLL	Data Link Layer
ID	Identifier
IE	Information Element
IEI	Information Element Identifier
ISDN	Integrated Services Digital Network
IT	basic Interconnection Test
IUT	Implementation Under Test
LAPV5	Link Access Protocol for V5 interface
LAPV5-DL	LAPV5 Data Link sub layer
LAPV5-EF	LAPV5 Envelope Function sub layer
LE	Local Exchange
LT1	Lower Tester 1
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
PSAP	PHL Service Access Point
PSTN	Public Switched Telephone Network
RX	Receiver condition
SAP	Service Access Point
SAPI	Service Access Point Identifier
SUT	System Under Test
TC	Test Case
TEI	Terminal Endpoint Identifier
TI	Timer
TP	Test Purpose
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
TX	Transmitter condition
UT	Upper Tester
V5DLaddr	V5 Data Link address
V5DLL	V5 Data Link Layer

4 Abstract test method

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

4.1 ATM

Principally, the remote test method is used for V5 DLL conformance testing. Certain DLL TPs need also part of the NWK functions (e.g. I frame transmission). Therefore, the embedded variant of the remote test method is applied.

4.2 DLL protocol testing

The V5.1 implementations do not offer a direct access to the upper service boundary. The remote test method was chosen because any co-ordination procedures can only be expressed in an informal way.

LT1: A Lower Tester (LT1) is located in a remote V5.1 test system. It controls and observes the behaviours of the IUT.

PCO: The PCO for DLL testing is located on the PSAP. All test events at the PCO are specified in terms of PH-Data ASPs and DLL PDUs. A single PCO is defined for DLL testing in order to exchange messages of the LAPV5-EF sub layer as well as of the LAPV5-DL sub layer.

Notional UT: The notional UT includes the NWK and system management functions.

V5-DLL: V5-DLL includes LAPV5-EF, mapping function and LAPV5-DL.

AN test: To test the LAPV5-EF protocol, an ISDN terminal shall be connected to the relevant user port.

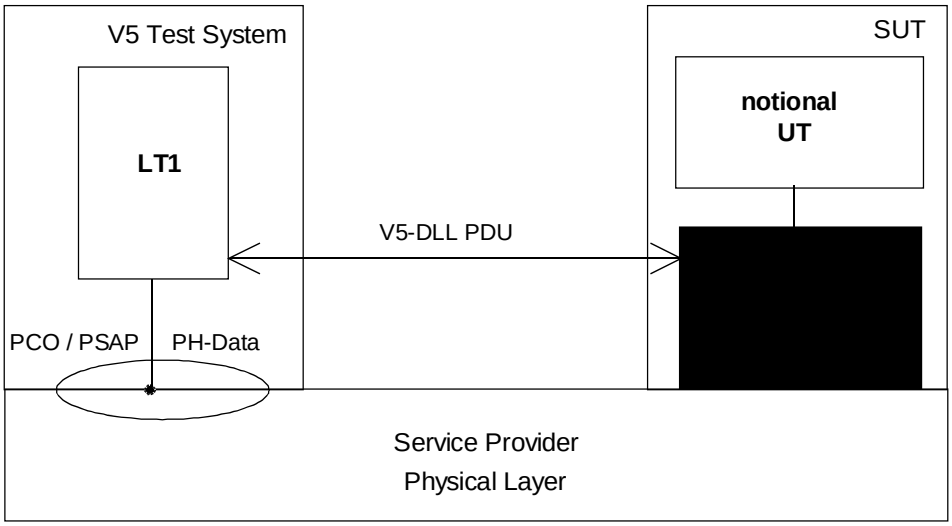

Figure 1: Remote test method applied to the V5.1 DLL testing

4.3 Execution of test cases

4.3.1 AN-LE testing

Regarding the DLL protocol of V5.1, the V5.1 interface is almost symmetrical, except that the Frame Relay function is only implemented in the AN. There are two protocol subjects which have to be adapted for LE testing, the message sequence of a generic call to the ISDN entity and the handling of the CR bit.

The generic call to the ISDN entity is stopped after having received from the IUT an UA response frame as a response to a previously sent SABME command frame. Until the ISDN link initialization, the V5.1 protocol is symmetrical as only a point-to-point connection over a single data link is established (fixed TEI).

The problem of the CR bit handling is solved in the ATS. The CR bit is defined as a test suite parameter which allows to invert the CR bit for LE testing. Table 1 documents this approach.

Table 1: AN-LE parameters

	AN	LE
TSPX_AN	TRUE	FALSE
CR_0	'0'B	'1'B
CR_1	'1'B	'0'B

4.3.2 Handling of error indications

During the execution of the DLL ATS, many MDL-ERROR-IND will be sent to the system management due to the invalid and inopportune test cases. It is up to the IUT supplier to take the necessary precautions to avoid any impact on the test result.

Some tests use NWK procedures to test DLL functions, it is not always possible to handle the NWK properly. The effects of such faulty NWK messages and procedures are out of the scope of the present document. It is up to the IUT supplier to take the necessary precautions to avoid any impact on the test result.

4.3.3 Test case execution sequence

There is no restriction concerning the execution sequence of the DLL test cases, but to facilitate the analysis of the test results the following test sequence should be applied:

Protocol groups: LAPV5-EF ⇒ LAPV5-DL.
Test groups: IT ⇒ CA ⇒ TI ⇒ BV ⇒ BO ⇒ BI.

5 Untestable test purposes

This clause contains a list of TPs which are not covered by the ATS due to the chosen ATM or other restrictions.

The following TPs are not implemented because they can be only tested under load conditions. It is assumed that a possible target conformance test system will not have the capacity to generate load.

Table 2: Unimplemented TPs

Test Purpose ID	Reference to ETS 300 324-7 [3]
TP23S5003	Refer to subclause 5.3.3.2.1
TP23S7014	Refer to subclause 5.3.3.3.1

6 Abstract test suite conventions

The ATS conventions are intended to give a better understanding of the ATS but they describe also the conventions made for the development of the ATS, thus for any later maintenance purposes or further development of the ATS the conventions described in this clause should be applied.

The ATS conventions contain two clauses, the naming conventions and the implementation conventions. The naming conventions describe the structure of the naming of all ATS elements. The implementation conventions describe the functional structure of the ATS.

NOTE: To define the ATS, the guidelines given in ETS 300 406 [9] and ETR 141 [10] were considered.

6.1 Naming conventions

6.1.1 Declaration part

The ID names of the following definitions are written in lowercase:

- structured type definitions;
- ASP type definitions;
- PDU type definitions.

The ID names of the following definitions are written in uppercase:

- Test Suite Parameter Declarations;
- Test Case Selection Expression Definitions;
- Test Suite Constant Declarations;
- Test Case Variable Declarations.

ID names of PDU and structured types commence with a protocol identifier to define which protocol they are belonging to. The following identifiers are used:

- data link layer: dl e.g. dl_rej_cmd;
- envelop function: ef e.g. ef_info_long;
- network layer: nwk e.g. nwk_info.

ID names of PDU and structured types which contain invalid data commence with "bi" followed by a protocol identifier.

EXAMPLE 1: bi_dl_address_field_err.

Complete names as defined in the specifications are used for ID names of declarations.

EXAMPLE 2: dl_address_field.

Test suite parameter ID names commence with TSP.

- PICS are identified by adding the letter "C": TSPC_;
- PIXIT are identified by adding the letter "X": TSPX_.

If the test suite parameter is representing a system parameter or value, only the parameter name is used.

EXAMPLE 3: CR_1.

Test Suite Operations commence with TSO.

EXAMPLE 4: TSO_FCS.

Test suite constant ID names commence with TSC.

EXAMPLE 5: TSC_EF_ADDRESS_CTRL.

If the constant is representing a system parameter or value, only the parameter name is used.

EXAMPLE 6: N200, P_1, etc.

ID names of Timers commence with T. The same names as in the specification are used:

EXAMPLE 7: T01.

6.1.2 Constraint part

Constraint names commence with uppercase. The remaining part of the ID name is written in lowercase.

ID names of elements concerning the same subject have equivalent names in the declaration and the constraint part:

Declaration part: dl_rej_cmd;
Constraint part: Dl_rej_cmd.

If formal parameter lists are used, the variable names are written in lowercase. The variable name is the same as the name of the element it is representing.

6.1.3 Dynamic part

6.1.3.1 Test cases

The identifier of the TCs is built in the same way as for the TPs described in ETS 300 324-7 [3], subclause 5.1.1, with the exception that "TP" is replaced by "TC":

TP identifier: TP23S7009;
TC identifier: TC23S7009.

6.1.3.2 Test steps

In test cases, test steps as well as local trees are used. To allow an easy distinguishing of them the following naming is applied:

local tree: LTS_[local_tree_name];

test step: STEP_[test step_name].

6.1.3.3 General aspects

All verdict assignments are labelled. To allow an exact identification in which table the verdict was assigned, the following name convention is applied:

B	test Body
CS	status verification test steps (check status)
D	Default
E	Error handling test steps
PO	POstamble
PR	PReamble
S	test Step

Combinations of labels are also possible.

EXAMPLE: DPR --> label which is used in a default for preambles.

6.1.4 ATS abbreviations

These abbreviations are used to shorten identifier names:

addr	address
act	activate
acc	access
ack	acknowledgement
cfe	control function element
cfi	control function identifier
com	common
ctrl	control
dl	data link
err	error
fcs	frame check sequence
func	function
ind	indication
mod	modified
req	request
rsp	response
vid	variant & interface ID

6.2 Implementation conventions

6.2.1 Declaration part

The comment line of single element TTCN tables (e.g. test suite constants) is used to give a reference where the format and content of the element is described in the relevant protocol specifications. Any particularity of the element format or content is described in the comment line.

The comment line in the header of multi element TTCN tables (e.g. ASPs) is used to reference to the protocol specification. The detailed comments are used to describe any particularity of the table.

In the ASP and PDU declarations, the comments column is used to identify if an element is mandatory or optional:

m: mandatory

o: optional

In the ASP and PDU declarations, the comments column is further used to give information about the element value, in particular if the element contains a fixed spare value.

In tables where structure types are used the information element and the relevant structured type have always the same name, that allows to have the same structure as in the protocol standards is used to document the relation between information elements in a table and their specific description in an other clause of the protocol standard.

6.2.2 Constraint part

The DLL ASPs and PDUs are defined in a way that all relevant element are parametrized. That improves the transparency of the constraints in the dynamic part, as all values which are relevant for the test are always present.

Generally the base constraint is the constraint of an ASP or a PDU which is most often used. The more particular modified constraints derive from these base constrains, that allows to identify easily the particularity of a modified constraint compared to the base constraint. The base constrain contains the basic formal parameter list of the base constraint and all derived modified constraints.

Modified constraints have the same parameter list as the base constraint. Unused elements of the parameter list are set to a default value "ANY" in the dynamic part. The number of base constraints is reduced to a minimum.

The NWK PDUs are specific. The parametrizing is reduced to a minimum. The name of the PDUs describes always their function.

The following NWK PDUs are used in a particular way:

EF_info_max_EF_length: The NWK PDU is used as I frame content to test that the IUT accepts the maximum length of EF frames.

EF_info_max_EF_length_plus: The NWK PDU is used as I frame contents to test that the IUT reacts correct on receipt of a frame whose length exceeds the maximum EF frame length.

NWK_com_ctrl_ack: Besides its use as common control ack message this NWK PDU is also used as I frame content to test information transfer procedures where no NWK response is required. The advantage of the common control ack message is that the NWK entity discards the message without any error indications if the message is not expected.

NWK_com_ctrl_vid: Besides its use as common control (variant & interface ID) message this NWK PDU is also used to test I frame procedures where the first I frame has to be sent from the IUT. The advantage of sending a common control (variant & interface ID) message is that the IUT sends a common control ack message but the variant & interface ID is ignored from the relevant NWK entity.

NWK_info: The NWK PDU is used as I frame content in tests where the IUT shall discard the I frame and thus not analyse the NWK data.

NWK_info_any: The NWK PDU is used to receive any kind of NWK data.

NWK_info_N201: The NWK PDU is used as I frame content to test that the DL control entity accepts frames whose length is up to N201 octets.

NWK_info_N201_plus: The NWK PDU is used as I frame contents to test that the DL control entity reacts correct on receipt of a frame whose length exceeds N201 octets.

Modified constraints have the same parameter list as the base constraint. Unused elements of the parameter list may have any value in the dynamic part, the unused parameters have no impact on the constraint. The number of base constraints is reduced to a minimum.

The comment line of a constraint contains always the reference to the used specifications. The detailed comments sector is used to describe the use of the constraint, particularities of the constraint and the use of the parameters of the formal parameter list.

6.2.3 Dynamic part

Some test cases need a particular initialization of the IUT environment conditions to run the actual test, e.g. I frame handling with embedded NWK data. Such message sequence can be quite complicated and long. In cases where a Local Test Step (LTS) facilitates the test case structure, the preamble and the condition setting are described in a LTS called **LTS_pre_step**. All LTS_pre_steps are described in the detailed comment part of the TTCN table.

Some test cases need after the actual test a particular re-initialization of the IUT, e.g. after having used NWK data in I frames, the NWK entity has to be re-initialized. Such message sequence can be quite complicated and long. In cases where a LTS facilitates the test case structure, the postamble and the re-initialization are described in a LTS called **LTS_post_step**. All LTS_post_steps are described in the detailed comment part of the TTCN table.

All events which are defined as a conformance requirements by the TP, cause a preliminary verdict PASS if the requirement is met.

All invalid events are handled in the default tree. FAIL verdicts are only assigned in the default tree. The default tree contains the error handling procedure for each specific event which is handled in the default tree.

The preamble, the test body and the postamble have different defaults, what allows a specific verdict handling, e.g. only INCONC verdicts are assigned in the preamble.

Test steps do not contain a default. That allows to apply them with no restrictions regarding the error handling.

All verdict assignments are labelled. According to ISO/IEC 9646-3 [7], clause E.2, labels should be written to the conformance log. This allows to identify were the test failed. To allow an exact identification in which table the verdict was assigned, the naming convention as described in subclause 6.1.3.3 is applied.

The labels of the same type are numbered sequentially if they are in the same TC, test step or default.

TPs which only reference to an other TP, e.g. BV TPs which were already defined as CA TPs, are only implemented ones, thus the numbering of the test cases is not always continues.

DLL Implementation:

1) The ATS rebuilds the LAPV5 functions. Therefore, the state variables V(S), V(R) and V(A) are implemented and used according to their functions described in ETS 300 324-1 [1].

2) The CR bit of the link address field is implemented as a PIXIT, to allow to use the test suite for AN testing as well as for LE testing.

3) Implicit send events are implemented according to ISO/IEC 9646-3 [7], subclause 14.9.6.

6.2.4 Documentation

The comment line of the test case or test step header contains a reference to the relevant protocol specification.

The comment column of the dynamic behaviour part is used to number the test events which are relevant for the particular test or test operation.

Based on the numbering in the comment column all for the test case relevant events are described in the detailed comments part of each TTCN table.

Test procedures which cover a conformance requirement and lead to a preliminary or final verdict assignment are described as follows in the detailed comments part:

Expected event: a specific receive event is expected.

Expected behaviour: no event or a timer expiry is expected.

Expected status: the IUT is expected to be in a particular status.

Annex A (normative): Abstract Test Suite (ATS) for DLL testing

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3.

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table of contents. The ATS itself contains a test suite overview part which provides additional information and references.

A.1 The TTCN Graphical form (TTCN.GR)

The TTCN.GR representation of this ATS is contained in an Adobe Portable Document Format™ file (V51l206.PDF contained in archive en_3003240801v020101o0.ZIP) which accompanies the present document.

A.2 The TTCN Machine Processable form (TTCN.MP)

The TTCN.MP representation corresponding to this ATS is contained in a text file (V51l206.MP contained in archive en_3003240801v020101o0.ZIP) which accompanies the present document.

Annex B (normative): Partial PIXIT proforma

B.1 Introduction

The PIXIT proforma are based on ISO/IEC 9646-5, any additional information needed can be found in the present document.

B.2 PIXIT proforma

B.2.1 Identification summary

PIXIT Number:

.....

Test Laboratory Name:

.....

Date of Issue:

.....

Issued to:

.....

B.2.2 Abstract test suite summary

Protocol Specification: ETS 300 324-1

Protocol to be tested: V5.1, Data Link Layer (DLL)

ATS Specification: ETS 300 324-7

Abstract Test Method: Remote test method, embedded variant

B.2.3 Test laboratory

Test Laboratory Identification:

.....

Test Laboratory Manager:

.....

Means of Testing:

.....

SAP Address:

.....

B.2.4 Client

Client Identification:

.....

Client Test manager:

.....

Test Facilities required:

.....

B.2.5 SUT

Name:

.....

Version:

.....

SCS Number:

.....

Machine configuration:

.....

Operating System Identification:

.....

IUT Identification:

.....

PICS Reference for IUT:

.....

Limitations of the SUT:

.....

Environmental Conditions:

.....

B.2.6 Protocol layer information

B.2.6.1 Protocol identification

Name: V5.1, Data Link Layer

Version: .....

PICS References: ETS 300 324-2

B.2.6.2 IUT information

Table B.1: Addresses

Address name	Parameter type	Reference to ETS 300 324-1	Value
TSPX_EF_ADDR_ISDN	OCTETSTRING [2]	EF-address of the provisioned ISDN user port (subclause 9.2.1)	
TSPX_EF_ADDR_ NOT_IMPLEMENTED	OCTETSTRING [2]	EF-address which is not implemented in the IUT (subclauses 9.2.5 and 9.1.9)	

Table B.2: Parameter values

Parameter name	Parameter type	Reference to ETS 300 324-1	Parameter value
CR_0	BITSTRING [1]	Depending whether ATS is used for AN or LE testing, the value is: AN: '0'B LE:'1'B	
CR_1	BITSTRING [1]	Depending whether ATS is used for AN or LE testing, the value is: AN: '0'B LE:'1'B	
TSPX_NWK_ INTERFACE_ID	OCTETSTRING [3]	figure 40, table 57	
TSPX_NWK_VARIANT	OCTETSTRING [3]	figure 39, table 55	

Table B.3: Timer values

Timer name type	Reference to ETS 300 324-1	Timer range	Timer value
TSPX_TC2_max	table C.1	> 120 [s]	
TSPX_T200_max	subclause 10.4.9	> 1 000 [ms]	
TSPX_T_AC_short	Watch dog timer if immediate ACtion is expected from the IUT.	1 - 2 [s]	
TSPX_T_START_UP	How long shall be waited for the variant and interface ID procedure and the PSTN restart procedure during the start-up procedure.	20 - 60 [s]	

Table B.4: Procedural information

Procedural name	Explanation	Valid ?
TSPX_AN	The IUT to be tested is an Access Network (AN)	
TSPX_LE	The IUT to be tested is a Local Exchange (LE)	
TSPX_DL_PSTN_ CTRL_IMPLEMENT	The implementation of the DLL for the PSTN entity and the Control protocol entity is identical	
TSPX_T200_EXPIRY_I_R E_SENT	On the expiry of T200 the IUT will repeat the last sent I-frame (not send a RR cmd). yes:=TRUE, no:=FALSE	

Table B.5: Implicit send events for an AN IUT

PIXIT name	Message to be sent	Question	Description
TSPX_IMPLICIT_EVENT	I_cmd (ctrl_port_ctrl (unblock request, FE202, ISDN-BA port))	How can the sending of an I frame containing an ISDN-BA PORT CONTROL message (cfe: FE202) from the IUT to the LE be invoked?	

Table B.6: Implicit send events for a LE IUT

PIXIT name	Message to be sent	Question	Description
TSPX_IMPLICIT_EVENT	I_cmd (ctrl_port_ctrl (unblock request, FE201, ISDN-BA port))	How can the sending of an I frame containing an ISDN-BA PORT CONTROL message (cfe: FE201) from the IUT to the AN be invoked?	

Table B.7: PICS information

PIXIT name	PICS item	Valid ?
TSPC_ISDNBA	ETS 300 324-2, M1	
TSPC_PSTN	ETS 300 324-2, M2	
NOTE: All parameters are of type BOOLEAN.		

History

Document history		
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