



**SLOVENSKI STANDARD**  
**SIST EN 301 067-5 V1.2.1:2003**  
**01-november-2003**

ü]fc\_cdUgcj bc`X][ ]HJbc`ca fYÿ^Y`n`]bhY[ f]fUbj]a ]`g]cf]hj Ua ]`f6 !=G8 BŁ!`Dfchc\_c`  
 X][ ]HJbY`bUfc b]ý\_Y`g][ bU]nUWY`Y`ýH`&fB GG&Ł`É`Df]\_`1 bY`UFU`Hf]gH\_Y!  
 Dc[ U`Ub^Y`a YX`Zhc`\_]WU]b`j ndcghUj `U`b^U`nj YnY`!) "XY. `GdYVWZ`UWY`U`n[ fUXVY  
 dfYg\_i ýYj U`bY[ U`b]nU]b`bUa Ybcj `dfYg\_i ýUb^U`fHGG/ HDDŁ`nU`ca fYÿ^Y

Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; Negotiation during call/connection establishment phase; Part 5: Test Suite Structure and Test Purposes (TSS&TP) specification for the network

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# ETSI EN 301 067-5 V1.2.1 (2000-09)

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*European Standard (Telecommunications series)*

**Broadband Integrated Services Digital Network (B-ISDN);  
Digital Subscriber Signalling System No. two (DSS2) protocol;  
Connection characteristics;  
Negotiation during call/connection establishment phase;  
Part 5: Test Suite Structure and Test Purposes (TSS&TP)  
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**Reference**

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# Contents

Intellectual Property Rights .....	4
Foreword.....	4
1 Scope .....	5
2 References .....	5
3 Definitions and abbreviations.....	6
3.1 Definitions .....	6
3.1.1 Definitions related to conformance testing .....	6
3.1.2 Definitions related to EN 300 443-1 .....	6
3.2 Abbreviations .....	6
4 Test Suite Structure (TSS).....	7
5 Test Purposes (TP) .....	7
5.1 Introduction .....	7
5.1.1 TP naming convention .....	7
5.1.2 Source of TP definition.....	7
5.1.3 Test strategy.....	7
5.1.4 Test of call states .....	8
5.2 TPs for the traffic parameters negotiation, network .....	8
5.2.1 Signalling procedures at the coincident $S_B/T_B$ and at the $T_B$ reference points .....	8
5.2.1.1 Negotiating the traffic parameters at the origination interface .....	8
5.2.1.1.1 Traffic parameter negotiation procedures (01) .....	8
5.2.1.1.2 Negotiation acceptance (02) .....	11
5.2.1.2 Negotiating the traffic parameters at the destination interface.....	11
5.2.1.2.1 Negotiation request (03).....	11
5.2.1.2.2 Negotiation confirmation (04).....	12
6 Compliance.....	14
7 Requirements for a comprehensive testing service .....	14
History .....	15

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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 standard covering the Digital Subscriber Signalling System No. 2 (DSS2) protocol specification for the B-ISDN connection negotiation during call/connection establishment phase, as identified below:

- Part 1: "Protocol specification [ITU-T Recommendation Q.2962 [8] (1996), modified]";
- 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 Implementations 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:	22 September 2000
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Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 June 2001
Date of withdrawal of any conflicting National Standard (dow):	30 June 2001

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## 1 Scope

The present document specifies the network Test Suite Structure and Test Purposes (TSS&TP) for the  $T_B$  reference point or coincident  $S_B$  and  $T_B$  reference point (as defined in ITU-T Recommendation I.413 [5]) of implementations conforming to the standards for the signalling user-network layer 3 specification for connection negotiation during call/connection establishment phase of the Digital Subscriber Signalling System No. two (DSS2) protocol for the pan-European Broadband Integrated Services Digital Network (B-ISDN), EN 301 067-1 [1].

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.

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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.

- [1] ETSI EN 301 067-1 (V1.1): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; Negotiation during call/connection establishment phase; Part 1: Protocol specification [ITU-T Recommendation Q.2962 (1996), modified]".
- [2] ETSI EN 301 067-2 (V1.1): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; Negotiation during call/connection establishment phase; 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] ITU-T Recommendation I.413 (1993): "B-ISDN user-network interface".
- [6] ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [7] ETSI EN 300 443-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; B-ISDN user-network interface layer 3 specification for basic call/bearer control; Part 1: Protocol specification [ITU-T Recommendation Q.2931 (1995), modified]".
- [8] ITU-T Recommendation Q.2962: "Digital Subscriber Signalling System No. 2 - Connection characteristics negotiation during call/connection establishment phase".

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in EN 301 067-1 [1] and EN 300 443-1 [7] and the following apply:

#### 3.1.1 Definitions related to conformance testing

**abstract test case:** refer to ISO/IEC 9646-1 [3]

**Abstract Test Method (ATM):** refer to ISO/IEC 9646-1 [3]

**Abstract Test Suite (ATS):** refer to ISO/IEC 9646-1 [3]

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

**lower tester:** 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]

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

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#### 3.1.2 Definitions related to EN 300 443-1

**network:** DSS2 protocol entity at the Network side of the user-network interface where a  $T_B$  reference point or coincident  $S_B$  and  $T_B$  reference point applies

**network ( $S_B/T_B$ ):** DSS2 protocol entity at the Network side of the user-network interface where a coincident  $S_B$  and  $T_B$  reference point applies

**network ( $T_B$ ):** DSS2 protocol entity at the Network side of the user-network interface where a  $T_B$  reference point applies (user is the private ISDN)

### 3.2 Abbreviations

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

ATM	Abstract Test Method
ATS	Abstract Test Suite
B-ISDN	Broadband Integrated Services Digital Network
DSS2	Digital Subscriber Signalling System No. two
IUT	Implementation Under Test
N0	Null link state
N1	Call Initiated link state
N10	Active link state
N3	Outgoing Call Proceeding link state
N4	Call Delivered link state
N6	Call Present link state
N7	Call Received link state
N9	Incoming Call Proceeding link state
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
TP	Test Purpose



## 4 Test Suite Structure (TSS)

Signalling procedures at the coincident  $S_B/T_B$  and at the  $T_B$  reference points

Negotiating the traffic parameters at the origination interface	
Traffic parameter negotiation procedures .....	(01)
Negotiation acceptance .....	(02)
Negotiating the traffic parameters at the destination interface	
Negotiation request .....	(03)
Negotiation confirmation .....	(04)

Figure 1: Test suite structure

## 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 01, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite (see table 1).

Table 1: TP identifier naming convention scheme  
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Identifier:	<suite_id>_<group>_<nn>		
<suite_id>	=	service + type of IUT:	"NEGN" for connection <b>NEG</b> otiation, IUT = <b>Netw</b> ork
<group>	=	group number:	two-character field representing the group reference according to TSS
<nn>	=	sequential number:	(01-99)

#### 5.1.2 Source of TP definition

The TPs are based on EN 301 067-1 [1].

#### 5.1.3 Test strategy

As the base standard EN 301 067-1 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification EN 301 067-2 [2].

The TPs are only based on conformance requirements related to the externally observable behaviour of the IUT, and are limited to conceivable situations to which a real implementation is likely to be faced (ETS 300 406 [6]).