



# SLOVENSKI STANDARD

## SIST EN 300 141-5 V1.2.4:2005

01-april-2005

8 [[ ]HJbc`ca fYy`Y`n`]bH[ f]fUb]a ]glcf]Hj Ua ]fG8 BŁ!`8 cdc`b] bUglcf]Hj .`nUXfjUb`Y`  
\_]WUfkC @Ł!`Dfcl`c`X[[ ]HJbY`bUfc b]y`Y`g[[ bU]nUW`Y`yH`r`%fB GG`Ł!) "XY.  
N[ fUXVUdfYg\_i yUbY[ Ub]nU]b`bUa Yb]dfYg\_i yUb`UfHGG/ HDŁ!`GdYVZ\_ UW`U`nU  
ca fYy`Y`

Integrated Services Digital Network (ISDN); Call Hold (HOLD) supplementary service;  
Digital Subscriber Signalling System No. one (DSS1) protocol; Part 5: Test Suite  
Structure and Test Purposes (TSS&TP) specification for the network

[SIST EN 300 141-5 V1.2.4:2005](https://standards.iteh.ai/catalog/standards/sist/1897ddc9-882f-4759-8771-56364c31edd5/sist-en-300-141-5-v1-2-4-2005)

<https://standards.iteh.ai/catalog/standards/sist/1897ddc9-882f-4759-8771-56364c31edd5/sist-en-300-141-5-v1-2-4-2005>

Ta slovenski standard je istoveten z: EN 300 141-5 Version 1.2.4

### ICS:

33.080	Digitalno omrežje z integriranimi storitvami (ISDN)	Integrated Services Digital Network (ISDN)
--------	---	--

SIST EN 300 141-5 V1.2.4:2005 en

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 300 141-5 V1.2.4:2005

<https://standards.iteh.ai/catalog/standards/sist/1897ddc9-882f-4759-8771-56364c31edd5/sist-en-300-141-5-v1-2-4-2005>

# EN 300 141-5 V1.2.4 (1998-06)

---

*European Standard (Telecommunications series)*

**Integrated Services Digital Network (ISDN);  
Call Hold (HOLD) supplementary service;  
Digital Subscriber Signalling System No. one (DSS1) protocol;  
Part 5: Test Suite Structure and Test Purposes (TSS&TP)  
specification for the network**

---

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN 300 141-5 V1.2.4:2005](https://standards.iteh.ai/catalog/standards/sist/1897ddc9-882f-4759-8771-56364c31edd5/sist-en-300-141-5-v1-2-4-2005)

<https://standards.iteh.ai/catalog/standards/sist/1897ddc9-882f-4759-8771-56364c31edd5/sist-en-300-141-5-v1-2-4-2005>



---

**Reference**

REN/SPS-05145-S-5 (1b190iqo.PDF)

---

**Keywords**

ISDN, DSS1, supplementary service, HOLD, testing, TSS&TP, network

**ETSI**

---

**Postal address**

F-06921, Sophia Antipolis Cedex - FRANCE

---

**Office address**

650 Route des Lucioles - Sophia Antipolis  
Valbonne - FRANCE

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

Siret N° 348 623 562 00017 / NAF 742 C 382 f 4759-8771-

Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

---

**Internet**

secretariat@etsi.fr

<http://www.etsi.fr>

<http://www.etsi.org>

---

**Copyright Notification**

No part may be reproduced except as authorized by written permission.  
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1998.  
All rights reserved.

# Contents

Intellectual Property Rights.....	4
Foreword .....	4
1 Scope.....	5
2 Normative references .....	5
3 Definitions.....	6
3.1 Definitions related to conformance testing .....	6
3.2 Definitions related to EN 300 141-1 .....	6
4 Abbreviations .....	7
5 Test Suite Structure (TSS) .....	7
6 Test Purposes (TP).....	8
6.1 Introduction.....	8
6.1.1 TP naming convention.....	8
6.1.2 Source of TP definition .....	8
6.1.3 TP structure.....	8
6.1.4 Test strategy .....	9
6.2 Network TPs for HOLD.....	9
6.2.1 Network (S/T) .....	9
6.2.1.1 Served User .....	9
6.2.1.1.1 Holding.....	9
6.2.1.1.2 Retrieving.....	11
6.2.2 Remote user.....	12
6.2.2.1 Holding.....	12
6.2.2.2 Retrieving .....	13
6.2.3 Network (T).....	13
7 Compliance .....	14
8 Requirements for a comprehensive testing service.....	14
<b>Annex A (informative): Changes with respect to the previous ETS 300 141-5 .....</b>	<b>15</b>
History .....	16

## Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available **free of charge** from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://www.etsi.fr/ipr> or <http://www.etsi.org/ipr>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

## Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Signalling Protocols and Switching (SPS).

The present document is part 5 of a multi-part standard covering the Digital Subscriber Signalling System No. one (DSS1) protocol specification for the Integrated Services Digital Network (ISDN) Call Hold (HOLD) supplementary service, as described 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".

The present version updates the references to the basic call specifications.

<b>National transposition dates</b>	
Date of adoption of this EN:	19 June 1998
Date of latest announcement of this EN (doa):	30 September 1998
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 1999
Date of withdrawal of any conflicting National Standard (dow):	31 March 1999

# 1 Scope

This fifth part of EN 300 141 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 [7]) of implementations conforming to the stage three standard for the Call Hold (HOLD) supplementary service for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 300 141-1 [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. 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 300 141-1 [1].

# 2 Normative references

References may be made to:

- a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or
- b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or
- c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or
- d) publications without mention of a specific version, in which case 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.

- iTeh STANDARD PREVIEW**  
(standards.iteh.ai)
- <https://standards.iteh.ai/catalog/standards/sist/1897ddc9-882f-4759-8771-56304c37ca19/sist-EN-300-141-5-V1-2-4-2005>
- SIST EN 300 141-5 V1.2.4:2005**
- [1] EN 300 141-1 (V1.2): "Integrated Services Digital Network (ISDN); Call Hold (HOLD) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
  - [2] EN 300 141-2 (V1.2): "Integrated Services Digital Network (ISDN); Call Hold (HOLD) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
  - [3] ISO/IEC 9646-1: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 1: General Concepts".
  - [4] ISO/IEC 9646-2: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 2: Abstract Test Suite specification".
  - [5] ISO/IEC 9646-3: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 3: The Tree and Tabular Combined Notation".
  - [6] 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".
  - [7] ITU-Recommendation I.411 (1993): "ISDN user-network interfaces - Reference configurations".
  - [8] 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]".
  - [9] ITU-Recommendation I.112: "Vocabulary and terms for ISDNs".
  - [10] CCITT Recommendation E.164: "Numbering plan for the ISDN era".

- [11] ITU-T Recommendation I.210: "Principles of the telecommunication services supported by an ISDN and the means to describe them".

## 3 Definitions

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

### 3.1 Definitions related to conformance testing

**abstract test case:** 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].

**implicit send event:** Refer to ISO/IEC 9646-3 [5].

**lower tester:** Refer to ISO/IEC 9646-1 [3].

**point of control and observation:** 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].

### 3.2 Definitions related to EN 300 141-1

**Call Held auxiliary state:** See EN 300 196-1 [6], subclause 7.1.2.

**call reference:** See EN 300 403-1 [8], subclause 4.3.

**component:** See EN 300 196-1 [6], subclause 11.2.2.1.

**Idle auxiliary state:** See EN 300 196-1 [6], subclause 7.1.2.

**Integrated Services Digital Network (ISDN):** See ITU-T Recommendation I.112 [9], definition 308.

**ISDN number:** A number conforming to the numbering and structure specified in CCITT Recommendation E.164 [10].

**invoke component:** See EN 300 196-1 [6], subclause 11.2.2.1.

**network:** The DSS1 protocol entity at the Network side of the user-network interface where a T reference point or coincident S and T reference point applies.

**network (S/T):** The DSS1 protocol entity at the Network side of the user-network interface where a coincident S and T reference point applies.

**network (T):** The DSS1 protocol entity at the Network side of the user-network interface where a T reference point applies (Network connected to Private ISDN).

**return error component:** See EN 300 196-1 [6], subclause 11.2.2.1.

**return result component:** See EN 300 196-1 [6], subclause 11.2.2.1.



**served user:** The served user is the user who invokes the HOLD supplementary service.

**service; telecommunication service:** See ITU-T Recommendation I.112 [9], definition 201.

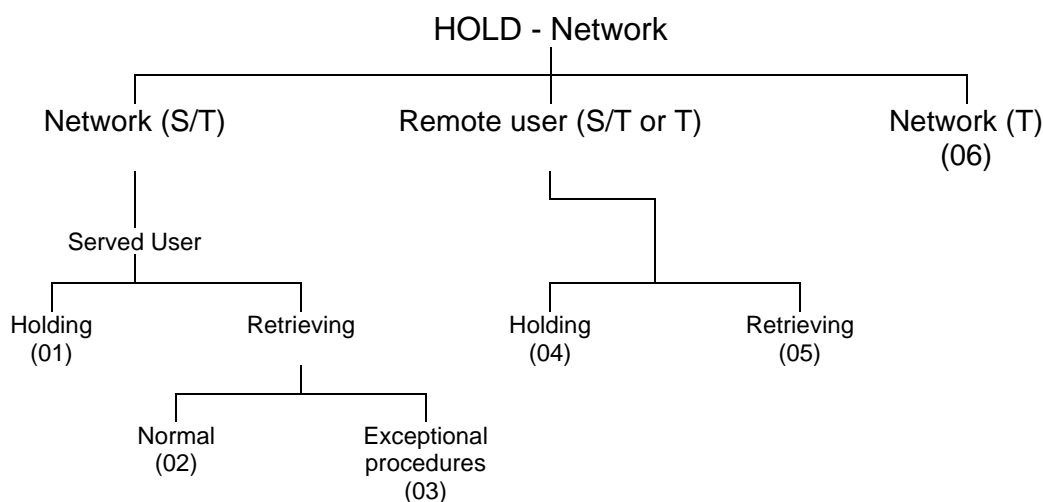
**supplementary service:** See CCITT Recommendation I.210 [11], subclause 2.4.

## 4 Abbreviations

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

ATM	Abstract Test Method
ATS	Abstract Test Suite
DSS1	Digital Subscriber Signalling System No. one
HOLD	Call Hold
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
N00	Null call state
N02	Overlap Sending call state
N03	Outgoing Call Proceeding call state
N04	Call Delivered call state
N06	Call Present call state
N07	Call Received call state
N08	Connect Request call state
N09	Incoming Call Proceeding call state
N10	Active call state
N12	Disconnect Indication call state
N19	Release Request call state
N25	Overlap Receiving call state
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
TP	Test Purpose
TSS	Test Suite Structure

## 5 Test Suite Structure (TSS)



NOTE: Numbers in brackets represent group numbers and are used in TP identifiers.

**Figure 1: Test suite structure**