

# ETSI EN 301 003-3 V1.2.1 (2000-10)

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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;  
Peak cell rate modification by the connection owner;  
Part 3: Test Suite Structure and Test Purposes (TSS&TP)  
specification for the user**

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**Reference**

REN/SPAN-05242-3

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**Keywords**

ATM, B-ISDN, DSS2, TSS&amp;TP

**ETSI**

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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 301 003-1 .....	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.....	8
5.1.4 Test of call states .....	8
5.2 TPs for the Peak cell rate modification, user .....	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 Modification procedures at the requesting entity. ....	8
5.2.1.1.1 Valid behaviour (01).....	8
5.2.1.1.2 Timers (02).....	9
5.2.1.1.3 Handling of error conditions (03).....	9
5.2.1.2 Modification procedures at the responding entity .....	12
5.2.1.2.1 Valid behaviour (04).....	12
5.2.1.2.2 Timers (05).....	12
5.2.1.2.3 Handling of error conditions (06).....	12
6 Compliance.....	17
7 Requirements for a comprehensive testing service .....	17
Bibliography .....	18
History .....	19

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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 3 of a multi-part standard covering the Digital Subscriber Signalling System No. 2 (DSS2) protocol specification for the B-ISDN Peak cell rate modification by the connection owner, as identified:

- Part 1: "Protocol specification [ITU-T Recommendation Q.2963.1 [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 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".

<b>National transposition dates</b>	
Date of adoption of this EN:	29 September 2000
Date of latest announcement of this EN (doa):	31 December 2000
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

This third part of EN 301 003 specifies the user 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 Peak cell rate modification by the connection owner of the Digital Subscriber Signalling System No. 2 (DSS2) protocol for the pan-European Broadband Integrated Services Digital Network (B-ISDN), EN 301 003-1 [3].

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 ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [2] ETSI EN 300 443-1 (V1.3): "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]".
- [3] ETSI EN 301 003-1 (V1.1): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; Peak cell rate modification by the connection owner; Part 1: Protocol specification [ITU-T Recommendation Q.2963.1 (1996), modified]".
- [4] ETSI EN 301 003-2 (V1.1): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; Peak cell rate modification by the connection owner; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [5] ITU-T Recommendation I.413 (1993): "B-ISDN user-network interface".
- [6] ISO/IEC 9646-1: "Information Technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [7] ISO/IEC 9646-2: "Information Technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".
- [8] ITU-T Recommendation Q.2963.1: "Digital Subscriber Signalling System No. 2 - Connection modification: peak cell rate modification by the connection owner".

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in EN 301 003-1 [3] and EN 300 443-1 [2] and the following apply:

#### 3.1.1 Definitions related to conformance testing

**abstract test case:** refer to ISO/IEC 9646-1 [6]

**Abstract Test Method (ATM):** refer to ISO/IEC 9646-1 [6]

**Abstract Test Suite (ATS):** refer to ISO/IEC 9646-1 [6]

**Implementation Under Test (IUT):** refer to ISO/IEC 9646-1 [6]

**lower tester:** refer to ISO/IEC 9646-1 [6]

**Protocol Implementation Conformance Statement (PICS):** refer to ISO/IEC 9646-1 [6]

**PICS proforma:** refer to ISO/IEC 9646-1 [6]

**Protocol Implementation eXtra Information for Testing (PIXIT):** refer to ISO/IEC 9646-1 [6]

**PIXIT proforma:** refer to ISO/IEC 9646-1 [6]

**Test Purpose (TP):** refer to ISO/IEC 9646-1 [6]

#### 3.1.2 Definitions related to EN 301 003-1

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

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

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

### 3.2 Abbreviations

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

ATM	Abstract Test Method
ATS	Abstract Test Suite
CR	Call Reference
IE_AI	Information element action indicator
IE_flag	Information element instruction indicator flag
IUT	Implementation Under Test
PCR	Peak Cell Rate
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
TP	Test Purpose
TSS	Test Suite Structure
U0	Null link state
U1	Call Initiated link state
U10	Active link state
U12	Disconnect Indication call state
U13	Modify Requested call state

U3	Outgoing Call Proceeding link state
U4	Call Delivered link state
U6	Call Present link state
U7	Call Received link state
U8	Connect Request link state
U9	Incoming Call Proceeding link state

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## 4 Test Suite Structure (TSS)

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

Modification procedures at the requesting entity.	
Valid behaviour .....	(01)
Handling of error conditions .....	(02)
Timers .....	(03)
Modification procedures at the responding entity.	
Valid behaviour .....	(04)
Handling of error conditions .....	(05)
Timers .....	(06)

**Figure 1: Test suite structure**

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## 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**

Identifier:	<suite_id>_<group>_<nnn>		
<suite_id>	=	layer + type of IUT:	"MODU" for MODification, IUT = User
<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 301 003-1 [3].

### 5.1.3 Test strategy

As the base standard EN 301 003-1 [3] 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 301 003-2 [4].

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 [1]).

### 5.1.4 Test of call states

Many TPs include a reference to the IUT's final call state after the realization of the TP. In these cases the TP includes the requirement to ensure that the IUT has entered this particular final call state. Ensuring that the IUT is in a particular call state shall be realized by following the procedures described in clause 5.6.11 of EN 300 443-1 [2]. According to these procedures, the IUT on receipt of a STATUS ENQUIRY message, shall respond with a STATUS message indicating, in the fifth octet of the Call state information element, the current call state of the IUT. This exchange of messages is not mentioned explicitly in each TP but is considered to be implicit in the reference to the final call state. This way of phrasing the TPs has been used to avoid over-complicating the text and structure of the TPs and to improve the readability.

## 5.2 TPs for the Peak cell rate modification, user

All PICS items referred to in this clause are as specified in EN 301 003-2 [4] unless indicated otherwise by another numbered reference.

Unless specified:

- the messages indicated are valid and contain at least the mandatory information elements and possibly optional information elements;
- the information elements indicated are valid and contain at least the mandatory parameters and possibly optional parameters.

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

NOTE: Unless otherwise specified, the connection defined by the requested ATM traffic descriptor is available for use.

#### 5.2.1.1 Modification procedures at the requesting entity.

Test purposes for EN 301 003-1 [3] clause 9.1.

**Selection:** The IUT support the requirements for the modification requesting entity. PICS: R 2.1

##### 5.2.1.1.1 Valid behaviour (01)

###### **MODU\_01\_01**

Ensure that the IUT in U10, in order to initiate a PCR modification request,

- sends a MODIFY REQUEST message and enters U13.

###### **MODU\_01\_02**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message including a Broadband report type information element indicating "modification confirmation",

- sends a CONNECTION AVAILABLE message and enters U10.

###### **MODU\_01\_03**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message without Broadband report type information element,

- sends no message and enters U10.



**MODU\_01\_04**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message,  
- sends no message and enters U10.

**MODU\_01\_05**

Ensure that the IUT in U13, on receipt of a STATUS message (call state: 10, cause value: 97 or 101, diagnostic ""identifying of the MODIFY REQUEST message),  
- sends no message and enters U10.

**MODU\_01\_06**

Ensure that the IUT in U13, on receipt of a STATUS message (call state: 10, cause value: 97 or 101, without diagnostic ""identifying of the MODIFY REQUEST message),  
- sends a STATUS ENQUIRY message and remains in U13.

**MODU\_01\_07**

Ensure that the IUT in U13, (having sent a STATUS ENQUIRY message), on receipt of a STATUS message (call state: 14),  
- sends no message and remains in U13.

**MODU\_01\_08**

Ensure that the IUT in U13, (having sent a STATUS ENQUIRY message), on receipt of a STATUS message (call state: 10),  
- sends no message and enters U10.

**MODU\_01\_09**

Ensure that the IUT in U13, on receipt of a RELEASE message,  
- enters U12.

**MODU\_01\_10**

Ensure that the IUT in U13, to indicate the receipt of a clearing indication,  
- sends a RELEASE message and enters U11.

**5.2.1.1.2 Timers (02)****MODU\_02\_01**

Ensure that the IUT in U13, on expiry of timer T360,  
- sends a RELEASE message (cause value: 102) and enters U11.

**5.2.1.1.3 Handling of error conditions (03)****MODU\_03\_01**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with a protocol discriminator other than '09'0,  
- sends no message and remains in U13.

**MODU\_03\_02**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with an unused Call Reference (CR),  
- sends a RELEASE COMPLETE message (CR of the MODIFY ACKNOWLEDGE message, cause value: 81) and remains in U13.

**MODU\_03\_03**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with a non mandatory IE content error (Broadband report type; IE\_flag = 0),  
- sends a STATUS message (cause value: 100, call state: 10) and enters U10.

**MODU\_03\_04**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with a non mandatory IE content error (Broadband report type, IE\_flag = 1, IE\_AI = clear call),  
- sends a RELEASE message (cause value: 100) and enters U11.

**MODU\_03\_05**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with a non mandatory IE content error (Broadband report type, IE\_flag = 1, IE\_AI = discard message and report status),

- sends a STATUS message (cause value: 100, call state: 13) and remains in U13.

**MODU\_03\_06**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with an unrecognized IE (IE\_flag = 0),

- sends a STATUS message (cause value: 99, call state: 10) and enters in U10.

**MODU\_03\_07**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with an unrecognized IE (IE\_flag = 1, IE\_AI = clear call),

- sends a RELEASE message (cause value: 99 ) and enters U11.

**MODU\_03\_08**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard message and report status),

- sends a STATUS message (cause value: 99, call state: 13) and remains in U13.

**MODU\_03\_09**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard message and ignore),

- sends no message and remains in U13.

**MODU\_03\_10**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard IE, proceed and report),

- sends a STATUS message (cause:99, call state: 10), and enters U10.

**MODU\_03\_11**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard IE, and proceed),

- sends no message and enters U10.

**MODU\_03\_12**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a protocol discriminator other than '09'0,

- sends no message and remains in U13.

**MODU\_03\_13**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with an unused CR,

- sends a RELEASE COMPLETE message (CR of the MODIFY REJECT message, cause value: 81) and remains in U13.

**MODU\_03\_14**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a mandatory IE content error (Cause IE, IE\_flag = 0),

- sends a STATUS message (cause value: 100, call state: 13) and remains in U13.

**MODU\_03\_15**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a mandatory IE missing (Cause IE ),

- sends a STATUS message (cause value: 96, call state: 13) and remains in U13.

**MODU\_03\_16**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a mandatory IE content error (Cause IE; IE\_flag = 1, IE\_AI = clear call),

- sends a RELEASE message (cause value: 100) and enters U11.

**MODU\_03\_17**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a mandatory IE content error (Cause IE; IE\_flag = 1, IE\_AI = discard message and report status),

- sends a STATUS message (cause value: 100, call state: 13) and remains in U13.

**MODU\_03\_18**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with an unrecognized IE (IE\_flag = 0),

- sends a STATUS message (cause value: 99, call state: 10) and enters U10.

**MODU\_03\_19**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with an unrecognized IE (IE\_flag = 1, IE\_AI = clear call),

- sends a RELEASE message (cause value: 99) and enters U11.

**MODU\_03\_20**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard message and report status),

- sends a STATUS message (cause value: 99, call state: 13) and remains in U13.

**MODU\_03\_21**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard message and ignore),

- sends no message and remains in U13.

**MODU\_03\_22**

Ensure that the IUT in U10 on receipt of a MODIFY ACKNOWLEDGE message (MSG\_flag= 0),

- sends a STATUS message (cause value = 101, call state value = 10) and remains in U10.

**MODU\_03\_23**

Ensure that the IUT in U10, on receipt of a MODIFY ACKNOWLEDGE message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_03\_24**

Ensure that the IUT in U10, for an outgoing call, on receipt of a MODIFY ACKNOWLEDGE message (MSG\_flag = 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U10.

**MODU\_03\_25**

Ensure that the IUT in U10 on receipt of a MODIFY REJECT message (MSG\_flag= 0),

- sends a STATUS message (cause value = 101, call state value = 10) and remains in U10.

**MODU\_03\_26**

Ensure that the IUT in U10, on receipt of a MODIFY REJECT message (MSG\_flag= 1; MSG\_AI = clear call),

- sends a RELEASE message (cause:97 or 101) and enters U12.

**MODU\_03\_27**

Ensure that the IUT in U10, on receipt of a MODIFY REJECT message (MSG\_flag= 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U10.

**MODU\_03\_28**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with a non mandatory IE content error (Broadband report type, IE\_flag = 1, IE\_AI = discard message and ignore),

- sends no message and remains in U13.

**MODU\_03\_29**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with a non mandatory IE content error (Broadband report type, IE\_flag = 1, IE\_AI = discard IE, proceed and report),

- sends a STATUS message (cause value: 100, call state: 10) and enters U10.

**MODU\_03\_30**

Ensure that the IUT in U13, on receipt of a MODIFY ACKNOWLEDGE message with a non mandatory IE content error (Broadband report type, IE\_flag = 1, IE\_AI = discard IE and proceed),

- sends no message and enters N10."

**MODU\_03\_31**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a mandatory IE content error (Cause IE, IE\_flag = 1, IE\_AI = discard message and ignore),

- sends no message and remains in U13.

**MODU\_03\_32**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a mandatory IE content error (Cause IE, IE\_flag = 1, IE\_AI = discard IE, proceed and report),

- sends a STATUS message (cause value: 100, call state: 10) and enters N10.

**MODU\_03\_33**

Ensure that the IUT in U13, on receipt of a MODIFY REJECT message with a mandatory IE content error (Cause IE, IE\_flag = 1, IE\_AI = discard IE and proceed),

- sends no message and enters U10."

### 5.2.1.2 Modification procedures at the responding entity

Test purposes for EN 301 003-1 [3] clause 9.2.

**Selection:** The IUT support the requirements for the modification requesting entity. PICS: R 2.2.

#### 5.2.1.2.1 Valid behaviour (04)

**MODU\_04\_01**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with an incompatible combination of parameters in the ATM traffic descriptor information element,

- sends a MODIFY REJECT message (cause value: 73) and re-enters U10.

**MODU\_04\_02**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with compatible parameters in the ATM traffic descriptor information element,

- sends a MODIFY ACKNOWLEDGE message and re-enters U10.

**MODU\_04\_03**

Ensure that the IUT in U10, having sent a MODIFY ACKNOWLEDGE message including a Broadband report type information element requesting confirmation, on receipt of a CONNECTION AVAILABLE message,

- sends no message and remains in U10.

**MODU\_04\_04**

Ensure that the IUT in U14, on receipt of a RELEASE message,

- enters U12.

**MODU\_04\_05**

Ensure that the IUT in U14, to indicate the receipt of a clearing indication,

- sends a RELEASE message and enters U11.

#### 5.2.1.2.2 Timers (05)

**MODU\_05\_01**

Ensure that the IUT in U10, having sent a MODIFY ACKNOWLEDGE message including a Broadband report type information element requesting confirmation, on expiry of timer T361,

- sends no message and remains in U10.

#### 5.2.1.2.3 Handling of error conditions (06)

**MODU\_06\_01**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with a protocol discriminator other than '09'O,

- sends no message and remains in U10.

**MODU\_06\_02**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with an unused CR,

- sends a RELEASE COMPLETE message (CR of the MODIFY REQUEST message, cause value: 81) and remains in U10.

**MODU\_06\_03**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with a mandatory IE missing (ATM traffic descriptor IE),

- sends a STATUS message (cause value: 96, call state: 10) and remains in U10.

**MODU\_06\_04**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with a mandatory IE content error (ATM traffic descriptor IE; IE\_flag = 0),

- sends a STATUS message (cause value: 100, call state: 10) and remains in U10.

**MODU\_06\_05**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with a mandatory IE content error (ATM traffic descriptor IE; IE\_flag = 1, IE\_AI = clear call),

- sends a RELEASE message (cause value: 100) and enters U11.

**MODU\_06\_06**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with a mandatory IE content error (ATM traffic descriptor IE; IE\_flag = 1, IE\_AI = discard message and report status),

- sends a STATUS message (cause value: 100, call state: 10) and remains in U10.

**MODU\_06\_07**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with a mandatory IE content error (ATM traffic descriptor IE; IE\_flag = 1, IE\_AI = discard message and ignore),

- sends no message and remains in U10.

**MODU\_06\_08**

Ensure that the IUT in U10, on receipt of a MODIFY REQUEST message with a mandatory IE content error (ATM traffic descriptor IE; IE\_flag = 1, IE\_AI = discard IE and proceed ),

- sends a MODIFY REJECT message (cause value = 100) and remains in U10.

**MODU\_06\_09**

Ensure that the IUT in U0, on receipt of a MODIFY REQUEST message (MSG\_flag = 0),

- sends a RELEASE COMPLETE message (cause: 81) and remains in U0.

**MODU\_06\_10**

Ensure that the IUT in U1, on receipt of a MODIFY REQUEST message(MSG\_flag = 0),

- sends a STATUS message (cause value = 101, call state value = 1) and remains in U1.

**MODU\_06\_11**

Ensure that the IUT in U3, on receipt of a MODIFY REQUEST message (MSG\_flag = 0),

- sends a STATUS message (cause value = 101, call state value = 3) and remains in U3.

**MODU\_06\_12**

Ensure that the IUT in U4, on receipt of a MODIFY REQUEST message (MSG\_flag = 0),

- sends a STATUS message (cause value = 101, call state value = 4) and remains in U4.

**MODU\_06\_13**

Ensure that the IUT in U6, on receipt of a MODIFY REQUEST message, (MSG\_flag = 0),

- sends a STATUS message (cause value = 101) and remains in U6.

**MODU\_06\_14**

Ensure that the IUT in U7, on receipt of a MODIFY REQUEST message (MSG\_flag = 0),

- sends a STATUS message (cause value = 101, call state value = 7) and remains in U7.

**MODU\_06\_15**

Ensure that the IUT in U8, on receipt of a MODIFY REQUEST message (MSG\_flag = 0),

- sends a STATUS message (cause value =101, call state value = 8) and remains in U8.

**MODU\_06\_16**

Ensure that the IUT in U9, on receipt of a MODIFY REQUEST message (MSG\_flag = 0),

- sends a STATUS message (cause value = 101, call state value = 9) and remains in U9.

**MODU\_06\_17**

Ensure that the IUT in U11, on receipt of a MODIFY REQUEST message (MSG\_flag = 0),

- sends a STATUS message (cause value = 101, call state value = 11) and remains in U11.

**MODU\_06\_18**

Ensure that the IUT in U0, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE COMPLETE message (cause: 81) and remains in U0.

**MODU\_06\_19**

Ensure that the IUT in U1, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_06\_20**

Ensure that the IUT in U3, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_06\_21**

Ensure that the IUT in U4, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_06\_22**

Ensure that the IUT in U6, on receipt of a MODIFY REQUEST message, (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_06\_23**

Ensure that the IUT in U7, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_06\_24**

Ensure that the IUT in U8, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_06\_25**

Ensure that the IUT in U9, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends a RELEASE message (cause value = 101) and enters U11.

**MODU\_06\_26**

Ensure that the IUT in U11, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = clear call),

- sends no message and remains in U11.

**MODU\_06\_27**

Ensure that the IUT in U0, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = discard message and ignore),

- sends a RELEASE COMPLETE message (cause value = 81) and remains in U0.

**MODU\_06\_28**

Ensure that the IUT in U0, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = discard message and report status),

- sends a RELEASE COMPLETE message (cause value = 81) and remains in U0.

**MODU\_06\_29**

Ensure that the IUT in U1, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U1.

**MODU\_06\_30**

Ensure that the IUT in U1, on receipt of a MODIFY REQUEST message (MSG\_flag = 1; MSG\_AI = discard message and report status),

- sends a STATUS message (cause value = 101, call state value = 1) and remains in U1.

**MODU\_06\_31**

Ensure that the IUT in U3, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U3.

**MODU\_06\_32**

Ensure that the IUT in U3, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and report status),

- sends a STATUS message (cause value = 101, call state value = 3) and remains in U3.

**MODU\_06\_33**

Ensure that the IUT in U4, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U4.

**MODU\_06\_34**

Ensure that the IUT in U4, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and report status),

- sends a STATUS message (cause value = 101, call state value = 4) and remains in U4.

**MODU\_06\_35**

Ensure that the IUT in U6, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U6.

**MODU\_06\_36**

Ensure that the IUT in U6, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and report status),

- sends a STATUS message (cause value = 101, call state value = 6) and remains in U6.

**MODU\_06\_37**

Ensure that the IUT in U7, on receipt of a MODIFY REQUEST message(MSG\_flag = 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U7.

**MODU\_06\_38**

Ensure that the IUT in U7, on receipt of a MODIFY REQUEST message(MSG\_flag = 1; MSG\_AI = discard message and report status),

- sends a STATUS message (cause value = 101, call state value = 7) and remains in U7.

**MODU\_06\_39**

Ensure that the IUT in U7, on receipt of a MODIFY REQUEST message(MSG\_flag = 1; MSG\_AI = reserved),

- sends a STATUS message (cause value = 101, call state value = 7) and remains in U7.

**MODU\_06\_40**

Ensure that the IUT in U9, on receipt of a MODIFY REQUEST message(MSG\_flag = 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U9.

**MODU\_06\_41**

Ensure that the IUT in U9, on receipt of a MODIFY REQUEST message(MSG\_flag = 1; MSG\_AI = discard message and report status),

- sends a STATUS message (cause value = 101, call state value = 9) and remains in U9.

**MODU\_06\_42**

Ensure that the IUT in U9, on receipt of a MODIFY REQUEST message(MSG\_flag = 1; MSG\_AI = reserved),

- sends a STATUS message (cause value = 101, call state value = 9) and remains in U9.

**MODU\_06\_43**

Ensure that the IUT in U11, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and ignore),

- sends no message and remains in U11.

**MODU\_06\_44**

Ensure that the IUT in U11, on receipt of a MODIFY REQUEST message(MSG\_flag= 1; MSG\_AI = discard message and report status),

- sends a STATUS message (cause value = 101, call state value = 11) and remains in U11.

**MODU\_06\_45**

Ensure that the IUT in U10, on receipt of a CONNECTION AVAILABLE message with a protocol discriminator other than '09'0,

- sends no message and remains in U10.

**MODU\_06\_46**

Ensure that the IUT in U10, on receipt of a CONNECTION AVAILABLE message with a unused CR,

- sends a RELEASE COMPLETE message (CR of the CONNECTION AVAILABLE message, cause value: 81) and remains in U10.

**MODU\_06\_47**

Ensure that the IUT in U10, on receipt of a CONNECTION AVAILABLE message with an unrecognized IE (IE\_flag = 1, IE\_AI = clear call),

- sends a RELEASE message (cause value: 99) and enters U11.

**MODU\_06\_48**

Ensure that the IUT in U10, on receipt of a CONNECTION AVAILABLE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard message and report status),

- sends a STATUS message (cause value: 99, call state: 10) and remains in U10.

**MODU\_06\_49**

Ensure that the IUT in U10, on receipt of a CONNECTION AVAILABLE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard message and ignore),

- sends no message and remains in U10.

**MODU\_06\_50**

Ensure that the IUT in U10, on receipt of a CONNECTION AVAILABLE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard IE, proceed and report),

- sends a STATUS message (cause: 99, call state: 10), and remains in U10.

**MODU\_06\_51**

Ensure that the IUT in U10, on receipt of a CONNECTION AVAILABLE message with an unrecognized IE (IE\_flag = 1, IE\_AI = discard IE, and proceed ),

- sends no message and remains in U10.



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## 6 Compliance

An ATS which complies with this TSS&TP specification shall:

- a) consist of a set of test cases corresponding to the set or to a subset of the TPs specified in clause 5;
- b) use a TSS which is an appropriate subset of the whole of the TSS specified in clause 4;
- c) use the same naming conventions for the test groups and test cases;
- d) maintain the relationship specified in clause 5 between the test groups and TPs and the entries in the PICS proforma to be used for test case deselection;
- e) comply with ISO/IEC 9646-2 [7].

In the case of a) or b), a subset shall be used only where a particular Abstract Test Method (ATM) makes some TPs untestable. All testable TPs from clause 5 shall be included in a compliant ATS.

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## 7 Requirements for a comprehensive testing service

As a minimum the Remote test method, as specified in ISO/IEC 9646-2 [7], shall be used by any organization claiming to provide a comprehensive testing service for network equipment claiming conformance to EN 301 003-1 [3].

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## Bibliography

The following material, though not specifically referenced in the body of the present document (or not publicly available), gives supporting information.

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

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## History

<b>Document history</b>		
V1.1.3	November 1999	Publication
V1.2.1	May 2000	One-step Approval Procedure OAP 20000929; 2000-05-31 to 2000-09-29
V1.2.1	October 2000	Publication