



EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 185-3

October 1996

Source: ETSI TC-SPS

Reference: DE/SPS-05061-J1-3

ICS: 33.080

Key words: ISDN, DSS1, supplementary service, CONF, testing, TSS&TP, user

**Integrated Services Digital Network (ISDN);
Conference call, add-on (CONF) supplementary service;
Digital Subscriber Signalling System No. one (DSS1) protocol;
Part 3: Test Suite Structure and Test Purposes (TSS&TP)
specification for the user**

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

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 1996. All rights reserved.

Contents

Foreword	5
1 Scope	7
2 Normative references	7
3 Definitions	8
3.1 Definitions related to conformance testing	8
3.2 Definitions related to ETS 300 185-1	8
4 Abbreviations	9
5 Test Suite Structure (TSS)	9
6 Test Purposes (TP)	10
6.1 Introduction	10
6.1.1 TP naming convention	10
6.1.2 Source of TP definition	10
6.1.3 TP structure	10
6.1.4 Test strategy	11
6.2 User TPs for CONF	12
6.2.1 Served user (S/T or T)	12
6.2.1.1 Begin	12
6.2.1.1.1 Begin from U00	12
6.2.1.1.2 Begin from U10	13
6.2.1.2 Adding	14
6.2.1.3 Isolate	17
6.2.1.4 Reattach	18
6.2.1.5 Split	18
6.2.1.6 Disconnection	19
6.2.1.6.1 Disconnection of remote user	19
6.2.1.6.2 Disconnection by remote user	19
6.2.1.7 Terminate	19
6.2.2 Private ISDN (T)	20
7 Compliance	21
8 Requirements for a comprehensive testing service	21
History	22

Blank page

Foreword

This European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS is part 3 of a multi-part standard covering the Digital Subscriber Signalling System No. one (DSS1) protocol specification for the Integrated Services Digital Network (ISDN) Conference call, add-on (CONF) 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: "TSS&TP specification for the network";

Part 6: "ATS and partial PIXIT proforma specification for the network".

Transposition dates	
Date of adoption of this ETS:	4 October 1996
Date of latest announcement of this ETS (doa):	31 January 1997
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 July 1997
Date of withdrawal of any conflicting National Standard (dow):	31 July 1997

Blank page

1 Scope

This third part of ETS 300 185 specifies the Test Suite Structure and Test Purposes (TSS&TP) for the User 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 Conference call, add-on (CONF) supplementary service for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, ETS 300 185-1 [1].

A further part of this ETS specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on this ETS. Other parts specify the TSS&TP and the ATS and partial PIXIT proforma for the Network side of the T reference point or coincident S and T reference point of implementations conforming to ETS 300 185-1 [1].

2 Normative references

This ETS incorporates by dated and 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 300 185-1 (1993): "Integrated Services Digital Network (ISDN); Conference call, add-on (CONF) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [2] ETS 300 185-2 (1995): "Integrated Services Digital Network (ISDN); Conference call, add-on (CONF) 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] ETS 300 196-1 (1993): "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-T Recommendation I.411 (1993): "ISDN user-network interfaces - Reference configurations".
- [8] ETS 300 102-1: "Integrated Services Digital Network (ISDN); User-network interface layer 3; Specifications for basic call control".
- [9] ITU-T Recommendation I.112 (1993): "Vocabulary and terms for ISDNs".
- [10] CCITT Recommendation E.164 (1991): "Numbering plan for the ISDN era".
- [11] ITU-T Recommendation I.210 (1993): "Principles of the telecommunication services supported by an ISDN and the means to describe them".

3 Definitions

For the purposes of this ETS, 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 ETS 300 185-1

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

call reference: See ETS 300 102-1 [8], subclause 4.3.

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

Idle auxiliary state: See ETS 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 ETS 300 196-1 [6], subclause 11.2.2.1.

remote user: A user which is involved in an instance of the CONF supplementary service but who has no control over it.

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

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

served user: The user who invokes the CONF supplementary service.

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

supplementary service: See ITU-T Recommendation I.210 [11], subclause 2.4.

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

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

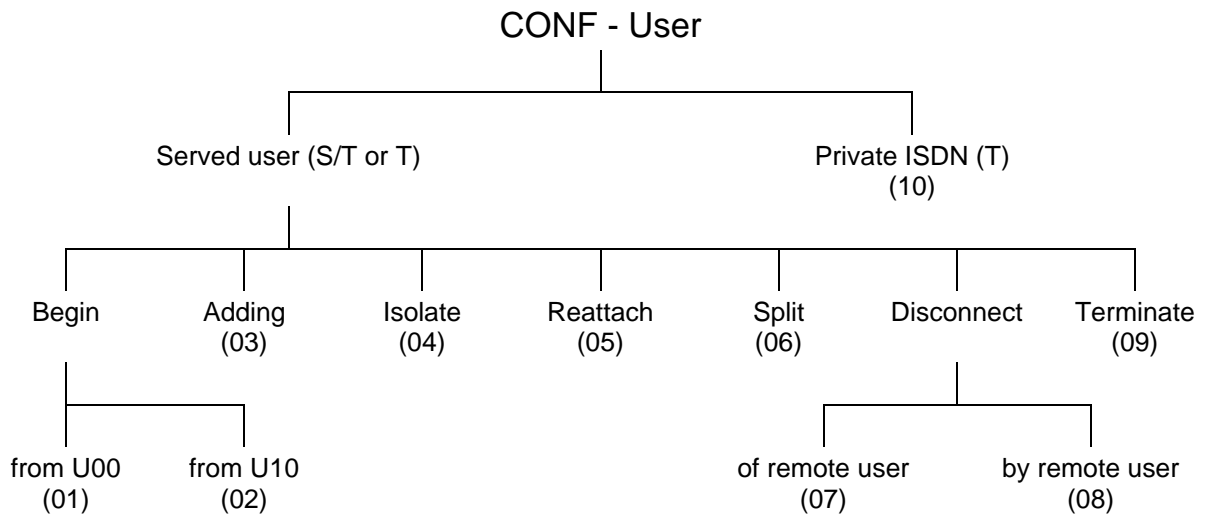
user (T): The DSS1 protocol entity at the User side of the user-network interface where a T reference point applies (User is the Private ISDN).

4 Abbreviations

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

ATM	Abstract Test Method
ATS	Abstract Test Suite
CCRef	Call Reference for call related to the conference
CONF	Conference call, add-on
DSS1	Digital Subscriber Signalling System No. one
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
SCRef	Call Reference for a private call not related to the conference
TP	Test Purpose
TSS	Test Suite Structure
U00	Idle call state
U01	Call Initiated call state
U03	Outgoing Call Proceeding call state
U10	Active call state
U12	Disconnect Indication call state
U19	Release Request call state

5 Test Suite Structure (TSS)



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

Figure 1: Test suite structure

6 Test Purposes (TP)

6.1 Introduction

For each test requirement a TP is defined.

6.1.1 TP naming convention

TPs are numbered, starting at 001, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite and whether it applies to the network or the user (see table 1).

Table 1: TP identifier naming convention scheme

Identifier:	<ss>_<iut><group>_<nnn>		
<ss>	=	supplementary service: e.g. "CONF"	
<iut>	=	type of IUT:	U User N Network
<group>	=	group	2 digit field representing group reference according to TSS
<nnn>	=	sequential number	(001-999)

6.1.2 Source of TP definition

The TPs are based on ETS 300 185-1 [1], clauses 9, 10 and 14.

6.1.3 TP structure

Each TP has been written in a manner which is consistent with all other TPs. The intention of this is to make the TPs more readable and checkable. A particular structure has been used and this is illustrated in table 2. This table should be read in conjunction with any TP, i.e. use a TP as an example to fully understand the table.

Table 2: Structure of a single TP

TP part	Text	Example
Header	<Identifier> <i>tab</i> <paragraph number in base ETS> <i>tab</i> <type of test> <i>tab</i> <condition> <i>CR.</i>	see table 1 subclause 0.0.0 valid, invalid, inopportune mandatory, optional, conditional
Stimulus	Ensure that the IUT in the <basic call state> <trigger> <i>see below for message structure</i> <i>or</i> <goal>	U10, U10, etc. receiving a XXXX message to request a ...
Reaction	<action> <conditions> <i>if the action is sending</i> <i>see below for message structure</i> <next action>, <i>etc.</i> and remains in the same call state <i>or</i> and enters call state <state>	sends, saves, does, etc. using en-bloc sending, ...
Message structure	<message type> message containing a a) <info element> information element with b) a <field name> encoded as <i>or</i> including <coding of the field> and <i>back to a or b,</i>	SETUP, FACILITY, CONNECT, ... Bearer capability, Facility, ...
NOTE:	Text in italics will not appear in TPs and text between <> is filled in for each TP and may differ from one TP to the next.	

6.1.4 Test strategy

As the base standard ETS 300 185-1 [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 ETS 300 185-2 [2]. The criteria applied included the following:

- only the requirements from the point of view of the T or coincident S and T reference point are considered;
- whether or not a test case can be built from the TP is not considered.

6.2 User TPs for CONF

All PICS items referred to in this subclause are as specified in ETS 300 185-2 [2] unless indicated otherwise by another numbered reference.

6.2.1 Served user (S/T or T)

Selection: IUT supports served user requirements. PICS: R 4.1.

6.2.1.1 Begin

6.2.1.1.1 Begin from U00

CONF_U01_001 **subclause 9.2.1.1.** **valid** **optional**

Ensure that the IUT in the call state U00, to request a conference, sends, using implicitly en-bloc sending, a SETUP message containing a Facility information element with a BeginCONF invoke component and a compatible (for CONF purposes) Bearer capability information element, no Called party number and no Called party subaddress information element included and enters call state U01.

Selection: The BeginCONF component does not contain the ConfSize parameter.

CONF_U01_002 **subclause 9.2.1.1.** **valid** **optional**

Ensure that the IUT in the call state U00, to request a conference, sends, using implicitly en-bloc sending, a SETUP message containing a Facility information element with a BeginCONF invoke component, including a ConfSize parameter indicating the maximum number of remote users and a compatible (for CONF purposes) Bearer capability information element, no Called party number and no Called party subaddress information element included and enters call state U01.

Selection: The BeginCONF component contains the ConfSize parameter.

CONF_U01_003 **subclause 9.2.1.1** **valid** **mandatory**

Ensure that the IUT in the call state U03 receiving a CONNECT message with a correctly encoded BeginCONF return result component, saves the Conferenceld parameter, does not respond to the network and enters call state U10.

CONF_U01_004 **subclause 9.2.1.1** **invalid** **mandatory**

Ensure that the IUT in the call state U03 receiving a CONNECT message with an incorrectly encoded BeginCONF return result component including an invalid invokeID, sends a FACILITY or a DISCONNECT message containing a Facility information element with a reject component encoded as return result problem.

CONF_U01_005 **subclause 9.2.1.2** **valid** **mandatory**

Ensure that the IUT in the call state U01 receiving a RELEASE message with a correctly encoded BeginCONF return error component, sends a RELEASE COMPLETE message and enters call state U00.

CONF_U01_006 **subclause 9.2.1.2** **valid** **mandatory**

Ensure that the IUT in the call state U03 receiving a DISCONNECT message with a correctly encoded BeginCONF return error component, enters state U12.

CONF_U01_007 **subclause 9.2.1.2** **invalid** **mandatory**

Ensure that the IUT in the call state U01 receiving a RELEASE message with an incorrectly encoded BeginCONF return error component including an invalid invokeID, sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem followed by a RELEASE COMPLETE message and enters call state U00

or
sends a RELEASE COMPLETE message containing a Facility information element with a reject component encoded as return error problem and enters call state U00.

CONF_U01_008 **subclause 9.2.1.2** **invalid** **mandatory**
Ensure that the IUT in the call state U03 receiving a DISCONNECT message with an incorrectly encoded BeginCONF return error component including an invalid invokeID,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and enters call state U12
or
 sends a RELEASE message containing a Facility information element with a reject component encoded as return error problem and enters call state U19.

6.2.1.1.2 Begin from U10

Selection: IUT supports beginning the conference from the Active call state U10. PICS: MC 1.2.

CONF_U02_001 **subclause 9.2.2.1** **valid** **optional**
Ensure that the IUT in the call state U10, to request a conference,
 sends a FACILITY message indicating the call reference of the existing call containing a Facility information element with a BeginCONF invoke component and remains in the same call state.
Selection: The BeginCONF component does not contain the ConfSize parameter.

CONF_U02_002 **subclause 9.2.2.1** **valid** **optional**
Ensure that the IUT in the call state U10 (Call Held), to request a conference,
 sends a FACILITY message indicating the call reference of the existing call containing a Facility information element with a BeginCONF invoke component and remains in the same call state.
Selection: The BeginCONF component does not contain the ConfSize parameter.
Selection: CONF invocation from the Call Held auxiliary state is supported. PICS: MC 3.1.

CONF_U02_003 **subclause 9.2.2.1** **valid** **optional**
Ensure that the IUT in the call state U10, to request a conference,
 sends a FACILITY message indicating the call reference of the existing call containing a Facility information element with a BeginCONF invoke component with a ConfSize parameter indicating the maximum number of remote users and remains in the same call state.
Selection: The BeginCONF component does contain the ConfSize parameter.

CONF_U02_004 **subclause 9.2.2.1** **valid** **optional**
Ensure that the IUT in the call state U10 (Call Held), to request a conference,
 sends a FACILITY message indicating the call reference of the existing call containing a Facility information element with a BeginCONF invoke component with a ConfSize parameter indicating the maximum number of remote users and remains in the same call state.
Selection: The BeginCONF component does contain the ConfSize parameter.
Selection: CONF invocation from the Call Held auxiliary state is supported. PICS: MC 3.1.

CONF_U02_005 **subclause 9.2.2.1** **valid** **mandatory**
Ensure that the IUT in the call state U10, receiving a FACILITY message with a correctly encoded BeginCONF return result component,
 does not respond to the network and remains in the same call state.

CONF_U02_006 **subclause 9.2.2.1** **valid** **optional**
Ensure that the IUT in the call state U10 (Call Held), receiving a FACILITY message with a correctly encoded BeginCONF return result component,
 does not respond to the network and remains in the same call state.
Selection: CONF invocation from the Call Held auxiliary state is supported. PICS: MC 3.1.

CONF_U02_007 **subclause 9.2.2.2** **valid** **mandatory**
Ensure that the IUT in the call state U10, receiving a FACILITY message with a correctly encoded BeginCONF return error component,
 does not respond to the network and remains in the same call state.

CONF_U02_008 **subclause 9.2.2.2** **valid** **optional**
Ensure that the IUT in the call state U10 (Call Held), receiving a FACILITY message with a correctly encoded BeginCONF return error component,
 does not respond to the network and remains in the same call state.
Selection: CONF invocation from the Call Held auxiliary state is supported. PICS: MC 3.1.

CONF_U02_009 **subclause 9.2.2.1** **invalid** **mandatory**
 Ensure that the IUT in the call state U10, receiving a FACILITY message with an incorrectly encoded BeginCONF return result component including an invalid invokeID,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem remains in the same call state.

CONF_U02_010 **subclause 9.2.2.1** **invalid** **optional**
 Ensure that the IUT in the call state U10 (Call Held), receiving a FACILITY message with an incorrectly encoded BeginCONF return result component including an invalid invokeID,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem and remains in the same call state.
Selection: CONF invocation from the Call Held auxiliary state is supported. PICS: MC 3.1.

CONF_U02_011 **subclause 9.2.2.2** **invalid** **mandatory**
 Ensure that the IUT in the call state U10, receiving a FACILITY message with an incorrectly encoded BeginCONF return error component including an invalid invokeID,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.

CONF_U02_012 **subclause 9.2.2.2** **invalid** **optional**
 Ensure that the IUT in the call state U10 (Call Held), receiving a FACILITY message with an incorrectly encoded BeginCONF return error component including an invalid invokeID,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.
Selection: CONF invocation from the Call Held auxiliary state is supported. PICS: MC 3.1.

6.2.1.2 Adding

CONF_U03_001 **subclause 9.2.3.1** **valid** **optional**
 Ensure that the IUT in the SCRef call state U10 and in the CCRRef call state U10, to add the remote user to the conference,
 sends a FACILITY message indicating the call reference of the call to be added (SCRef) containing a Facility information element with an AddCONF invoke component including the correct Conferenceld parameter and remains in the same call states.
Selection: The IUT is able to handle two (non-held) calls.

CONF_U03_002 **subclause 9.2.3.1** **valid** **optional**
 Ensure that the IUT in the SCRef call state U10(Call Held) and in the CCRRef call state U10 (Idle), to add the remote user to the conference,
 sends a FACILITY message indicating the call reference of the call to be added (SCRef) containing a Facility information element with an AddCONF invoke component including the correct Conferenceld parameter and remains in the same call states.
Selection: Adding of a party from the Call Held auxiliary state is supported. PICS: MC 3.2.

CONF_U03_003 **subclause 9.2.3.1** **valid** **optional**
 Ensure that the IUT in the SCRef call state U10(Call Held) and in the CCRRef call state U10 (Call Held), to add the remote user to the conference,
 sends a FACILITY message indicating the call reference of the call to be added (SCRef) containing a Facility information element with an AddCONF invoke component including the correct Conferenceld parameter and remains in the same call states.
Selection: Adding of a party from the Call Held auxiliary state with the Conference call in the Call Held auxiliary state is supported. PICS: MC 3.2 AND MC 3.3.

CONF_U03_004 **subclause 9.2.3.1** **valid** **optional**
 Ensure that the IUT in the SCRef call state U10(Idle) and in the CCRRef call state U10 (Call Held), to add the remote user to the conference,
 sends a FACILITY message indicating the call reference of the call to be added containing a Facility information element with an AddCONF invoke component including the correct Conferenceld parameter and remains in the same call states.
Selection: Adding of a party with the Conference call in the Call Held auxiliary state is supported. PICS: MC 3.3.

CONF_U03_005 **subclause 9.2.3.1** **valid** **optional**
Ensure that the IUT in the SCRef call state U10 and in the CCRef call state U10, receiving a correctly encoded AddCONF return result component with a PartyId in a DISCONNECT message,
enters SCRef in call state U12 and retains the CCRef in the same call state.
Selection: The IUT is able to handle two (non-held) calls.

CONF_U03_006 **subclause 9.2.3.1** **valid** **optional**
Ensure that the IUT in the SCRef call state U10, (Idle) and in the CCRef call state U10, (Call Held) receiving a correctly encoded AddCONF return result component with a PartyId in a DISCONNECT message,
enters SCRef in call state U12 and retains the CCRef in the same call state.
Selection: Adding of a party with the Conference call in the Call Held auxiliary state is supported.
PICS: MC 3.3.

CONF_U03_007 **subclause 9.2.3.1** **valid** **optional**
Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRef call state U10, (Idle) receiving a correctly encoded AddCONF return result component with a PartyId in a DISCONNECT message,
enters SCRef in call state U12 and retains the CCRef in the same call state.
Selection: Adding of a party from the Call Held auxiliary state is supported. PICS: MC 3.2.

CONF_U03_008 **subclause 9.2.3.1** **valid** **optional**
Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRef call state U10, (Call Held) receiving a correctly encoded AddCONF return result component with a PartyId in a DISCONNECT message,
enters SCRef in call state U12 and retains the CCRef in the same call state.
Selection: Adding of a party from the Call Held auxiliary state with the Conference call in the Call Held auxiliary state is supported. PICS: MC 3.2 AND MC 3.3.

CONF_U03_009 **subclause 9.2.3.1** **invalid** **optional**
Ensure that the IUT in the SCRef call state U10 and in the CCRef call state U10, receiving an incorrectly encoded AddCONF return result component including an invalid invokeID in a DISCONNECT message,
sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U12 and retains the CCRef in the same call state
or
sends a RELEASE message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U19 and retains the CCRef in the same call state.
Selection: The IUT is able to handle two (non-held) calls.

CONF_U03_010 **subclause 9.2.3.1** **invalid** **optional**
Ensure that the IUT in the SCRef call state U10, (Idle) and in the CCRef call state U10, (Call Held) receiving an incorrectly encoded AddCONF return result component including an invalid invokeID in a DISCONNECT message,
sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U12 and retains the CCRef in the same call state
or
sends a RELEASE message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U19 and retains the CCRef in the same call state.
Selection: Adding of a party with the Conference call in the Call Held auxiliary state is supported.
PICS: MC 3.3.

CONF_U03_011 **subclause 9.2.3.1** **invalid** **optional**

Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRef call state U10, (Idle) receiving an incorrectly encoded AddCONF return result component including an invalid invokeID in a DISCONNECT message,

sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U12 and retains the CCRef in the same call state

or

sends a RELEASE message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U19 and retains the CCRef in the same call state.

Selection: Adding of a party from the Call Held auxiliary state is supported. PICS: MC 3.2.

CONF_U03_012 **subclause 9.2.3.1** **invalid** **optional**

Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRef call state U10, (Call Held) receiving an incorrectly encoded AddCONF return result component including an invalid invokeID in a DISCONNECT message,

sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U12 and retains the CCRef in the same call state

or

sends a RELEASE message containing a Facility information element with a reject component encoded as return result problem, enters SCRef in call state U19 and retains the CCRef in the same call state.

Selection: Adding of a party from the Call Held auxiliary state with the Conference call in the Call Held auxiliary state is supported. PICS: MC 3.2 AND MC 3.3.

CONF_U03_013 **subclause 9.2.3.2** **valid** **optional**

Ensure that the IUT in the SCRef call state U10 and in the CCRef call state U10, receiving a correctly encoded AddCONF return error component in a FACILITY message,

does not respond to the network and remains in the same call states

Selection: The IUT is able to handle two (non-held) calls.

CONF_U03_014 **subclause 9.2.3.2** **valid** **optional**

Ensure that the IUT in the SCRef call state U10, (Idle) and in the CCRef call state U10, (Call Held) receiving a correctly encoded AddCONF return error component in a FACILITY message,

does not respond to the network and remains in the same call states

Selection: Adding of a party with the Conference call in the Call Held auxiliary state is supported. PICS: MC 3.3.

CONF_U03_015 **subclause 9.2.3.2** **valid** **optional**

Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRef call state U10, (Idle) receiving a correctly encoded AddCONF return error component in a FACILITY message,

does not respond to the network and remains in the same call states

Selection: Adding of a party from the Call Held auxiliary state is supported. PICS: MC 3.2.

CONF_U03_016 **subclause 9.2.3.2** **valid** **optional**

Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRef call state U10, (Call Held) receiving a correctly encoded AddCONF return error component in a FACILITY message,

does not respond to the network and remains in the same call states

Selection: Adding of a party from the Call Held auxiliary state with the Conference call in the Call Held auxiliary state is supported. PICS: MC 3.2 AND MC 3.3.

CONF_U03_017 **subclause 9.2.3.2** **invalid** **optional**

Ensure that the IUT in the SCRef call state U10 and in the CCRef call state U10, receiving an incorrectly encoded AddCONF return error component including an invalid invokeID in a FACILITY message,

sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.

Selection: The IUT is able to handle two (non-held) calls.

CONF_U03_018 **subclause 9.2.3.2** **invalid** **optional**
Ensure that the IUT in the SCRef call state U10, (Idle) and in the CCRRef call state U10, (Call Held) receiving an incorrectly encoded AddCONF return error component including an invalid invokeID in a FACILITY message,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.
Selection: Adding of a party with the Conference call in the Call Held auxiliary state is supported.
 PICS: MC 3.3.

CONF_U03_019 **subclause 9.2.3.2** **invalid** **optional**
Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRRef call state U10, (Idle) receiving an incorrectly encoded AddCONF return error component including an invalid invokeID in a FACILITY message,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.
Selection: Adding of a party from the Call Held auxiliary state is supported. PICS: MC 3.2.

CONF_U03_020 **subclause 9.2.3.2** **invalid** **optional**
Ensure that the IUT in the SCRef call state U10, (Call Held) and in the CCRRef call state U10, (Call Held) receiving an incorrectly encoded AddCONF return error component including an invalid invokeID in a FACILITY message,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.
Selection: Adding of a party from the Call Held auxiliary state with the Conference call in the Call Held auxiliary state is supported. PICS: MC 3.2 AND MC 3.3.

6.2.1.3 **Isolate**

CONF_U04_001 **subclause 9.2.4.1** **valid** **mandatory**
Ensure that the IUT in the call state U10, to isolate a remote user from the conference,
 sends a FACILITY message including a Facility information element which contains an IsolateCONF invoke component with the correct PartyId parameter identifying the remote user and remains in the same call state.

CONF_U04_002 **subclause 9.2.4.1** **valid** **mandatory**
Ensure that the IUT in the call state U10, receiving a correctly encoded IsolateCONF return result component in a FACILITY message,
 saves the PartyId parameter, does not respond to the network and remains in the same call state.

CONF_U04_003 **subclause 9.2.4.1** **invalid** **mandatory**
Ensure that the IUT in the call state U10, receiving an incorrectly encoded IsolateCONF return result component including an invalid invokeID in a FACILITY message,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem and remains in the same call state.

CONF_U04_004 **subclause 9.2.4.2** **valid** **mandatory**
Ensure that the IUT in the call state U10, receiving a correctly encoded IsolateCONF return error component in a FACILITY message,
 does not respond to the network and remains in the same call state.

CONF_U04_005 **subclause 9.2.4.2** **invalid** **mandatory**
Ensure that the IUT in the call state U10, receiving an incorrectly encoded IsolateCONF return error component including an invalid invokeID in a FACILITY message,
 sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.

6.2.1.4 Reattach

CONF_U05_001 **subclause 9.2.5.1** **valid** **mandatory**

Ensure that the IUT in the call state U10, to reattach an isolated remote user, sends a FACILITY message including a Facility information element containing a ReattachCONF invoke component with the correct PartyId parameter identifying the isolated remote user and remains in the same call state.

CONF_U05_002 **subclause 9.2.5.1** **valid** **mandatory**

Ensure that the IUT in the call state U10, receiving FACILITY message with a correctly encoded ReattachCONF return result component, does not respond to the network and remains in the same call state.

CONF_U05_003 **subclause 9.2.5.1** **invalid** **mandatory**

Ensure that the IUT in the call state U10, receiving FACILITY message with an incorrectly encoded ReattachCONF return result component including an invalid invokeID, sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem and remains in the same call state.

CONF_U05_004 **subclause 9.2.5.2** **valid** **mandatory**

Ensure that the IUT in the call state U10, receiving FACILITY message with a correctly encoded ReattachCONF return error component, does not respond to the network and remains in the same call state.

CONF_U05_005 **subclause 9.2.5.2** **invalid** **mandatory**

Ensure that the IUT in the call state U10, receiving FACILITY message with an incorrectly encoded ReattachCONF return error component including an invalid invokeID, sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.

6.2.1.5 Split

CONF_U06_001 **subclause 9.2.6.1** **valid** **optional**

Ensure that the IUT while the bridge call is in the state U10, to split a remote user, sends on a second call reference a SETUP message containing a Facility information element with a SplitCONF invoke component with a Conferenceld parameter and a PartyId parameter identifying the remote user to be split, a compatible (for CONF purposes) Bearer capability information element, no Called party number and no Called party subaddress information elements, retains the CCRref in the same call state and enters the split call in call state U01.
Selection: The IUT is able to handle two (non-held) calls.

CONF_U06_002 **subclause 9.2.6.1** **valid** **optional**

Ensure that the IUT while the bridge call is in the state U10, (Call Held) to split a remote user, sends on a second call reference a SETUP message containing a Facility information element with a SplitCONF invoke component with a Conferenceld parameter and a PartyId parameter identifying the remote user to be split, a compatible (for CONF purposes) Bearer capability information element, no Called party number and no Called party subaddress information elements, retains the CCRref in the same call state and enters the split call in call state U01.
Selection: The IUT conforms to ETS 300 196-1 for HOLD and RETRIEVE.

CONF_U06_003 **subclause 9.2.6.1** **valid** **mandatory**

Ensure that the IUT in the call state U03 after a splitting demand, receiving a correctly encoded SplitCONF return result component in a CONNECT message, discards the split PartyId, does not respond to the network, retains the CCRref in the same call state and enters the split call in call state U10.

CONF_U06_004 **subclause 9.2.6.1** **invalid** **mandatory**

Ensure that the IUT in the call state U03 after a splitting demand, receiving an incorrectly encoded SplitCONF return result component in a CONNECT message including an invalid invokeID, sends a FACILITY or a DISCONNECT message containing a Facility information element with a reject component encoded as return result problem and retains the CCRref in the same call state.

CONF_U06_005 **subclause 9.2.6.1** **valid** **mandatory**
Ensure that the IUT in the call state U03 after a splitting demand, receiving a correctly encoded SplitCONF return error component in a DISCONNECT message,
retains the CCRref in the same call state and enters the split call in call state U12.

CONF_U06_006 **subclause 9.2.6.1** **invalid** **mandatory**
Ensure that the IUT in the call state U03 after a splitting demand, receiving an incorrectly encoded SplitCONF return error component in a DISCONNECT message including an invalid invokeID,
retains the CCRref in the same state and sends a Facility information element with a reject component encoded as return error problem in a FACILITY message and enters the split call in call state U12 or in a RELEASE message and enters the split call in call state U19.

6.2.1.6 Disconnection

6.2.1.6.1 Disconnection of remote user

CONF_U07_001 **subclause 9.2.7.1** **valid** **mandatory**
Ensure that the IUT in the call state U10, to disconnect a remote user of the conference,
sends a FACILITY message including a Facility information element containing a DropCONF invoke component with the PartyId parameter identifying the remote user and remains in the same call state.

CONF_U07_002 **subclause 9.2.7.1** **valid** **mandatory**
Ensure that the IUT in the call state U10, receiving a correctly encoded DropCONF return result component in FACILITY message,
releases the PartyId dropped, does not respond to the network and remains in the same call state.

CONF_U07_003 **subclause 9.2.7.1** **invalid** **mandatory**
Ensure that the IUT in the call state U10, receiving an incorrectly encoded DropCONF return result component in FACILITY message including an invalid invokeID,
sends a FACILITY message containing a Facility information element with a reject component encoded as return result problem and remains in the same call state.

CONF_U07_004 **subclause 9.2.7.2** **valid** **mandatory**
Ensure that the IUT in the call state U10, receiving a correctly encoded DropCONF return error component in FACILITY message,
remains in the same call state.

CONF_U07_005 **subclause 9.2.7.2** **invalid** **mandatory**
Ensure that the IUT in the call state U10, receiving an incorrectly encoded DropCONF return error component in FACILITY message including an invalid invokeID,
sends a FACILITY message containing a Facility information element with a reject component encoded as return error problem and remains in the same call state.

6.2.1.6.2 Disconnection by remote user

CONF_U08_001 **subclause 9.2.8.1** **valid** **mandatory**
Ensure that the IUT in the call state U10, receiving a correctly encoded PartyDISC invoke component in a FACILITY message,
releases the PartyId indicated and remains in the same call state.

6.2.1.7 Terminate

CONF_U09_001 **subclause 9.2.9.1** **valid** **mandatory**
Ensure that the IUT in the call state U10, to terminate the conference,
sends a DISCONNECT message and enters call state U11.

CONF_U09_002 **subclause 9.2.9.1** **valid** **mandatory**
Ensure that the IUT in the call state U11 receiving a RELEASE message,
sends a RELEASE COMPLETE message, clears the Conferenceld and all the PartyId parameters associated and enters call state U00.

CONF_U09_003 **subclause 9.2.9.2** **valid** **mandatory**

Ensure that the IUT in the call state U19 receiving a RELEASE COMPLETE message, clears the Conferenceld and all the Partyld parameters associated and enters call state U00.

6.2.2 **Private ISDN (T)**

Selection: Private ISDN provides conference service and sends notifications to remote users in public network. PICS: MC 2.1.

CONF_U10_001 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, to indicate the adding of a new user to the conference or the establishment of the conference with the call associated with the user, sends a NOTIFY message, for the remote user who is now part of the conference, with Notification indicator information element indicating that this remote user is now part of the conference ("Conference established") and remains in the same call state.

CONF_U10_002 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, to indicate the adding of a new user to the conference, sends a NOTIFY message, for the remote user who was already part of the conference, with Notification indicator information element indicating that another remote user has been added to the conference ("Other party added") and remains in the same call state.

NOTE 1: The focus of the test purpose is the single interface with one remote user who resides in the public network. It should be noted that the private network would normally send notifications to all remote users.

CONF_U10_003 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, after the isolation of a remote user, sends a NOTIFY message for the isolated remote user with Notification indicator information element indicating that this remote user has been isolated ("Isolated") and remains in the same call state.

CONF_U10_004 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, after the isolation of a remote user, sends a NOTIFY message for the (non-isolated) remote user with a Notification indicator information element indicating that a remote user has been isolated ("Other party isolated") and remains in the same call state.

NOTE 2: The focus of the test purpose is the single interface with one remote user who resides in the public network. It should be noted that the private network would normally send notifications to all remote users.

CONF_U10_005 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, after the reattachment of a remote user, sends a NOTIFY message for the previously isolated remote user with Notification indicator information element indicating that this remote user has been reattached ("Reattached") and remains in the same call state.

CONF_U10_006 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, if a previously isolated remote user has been successfully reattached, sends a NOTIFY message for the remote user (not involved in the isolation/reattachment) with a Notification indicator information element indicating that a remote user has been reattached ("Other party reattached") and remains in the same call state.

NOTE 3: The focus of the test purpose is the single interface with one remote user who resides in the public network. It should be noted that the private network would normally send notifications to all remote users.

CONF_U10_007 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, after the splitting of a remote user, sends a NOTIFY message for the split remote user with Notification indicator information element indicating "Conference disconnected" and remains in the same call state.

CONF_U10_008 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, if a remote user has been successfully split, sends a NOTIFY message for the (non-split) remote user with a Notification indicator information element indicating that a remote user has been split ("Other party split") and remains in the same call state.

NOTE 4: The focus of the test purpose is the single interface with one remote user who resides in the public network. It should be noted that the private network would normally send notifications to all remote users.

CONF_U10_009 **clause 10, 3rd paragraph** **valid** **mandatory**

Ensure that the IUT in the call state U10, if a remote user has been disconnected from the conference, sends a NOTIFY message for the (non-disconnected) remote user with a Notification indicator information element indicating that a remote user has been disconnected ("Other party disconnected") and remains in the same call state.

NOTE 5: The focus of the test purpose is the single interface with one remote user who resides in the public network. It should be noted that the private network would normally send notifications to all remote users.

7 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 6;
- b) use a TSS which is an appropriate subset of the whole of the TSS specified in clause 5;
- c) use the same naming conventions for the test groups and test cases;
- d) maintain the relationship specified in clause 6 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 [4].

In the case of a) or b) above, a subset shall be used only where a particular Abstract Test Method (ATM) makes some TPs untestable. All testable TPs from clause 6 shall be included in a compliant ATS.

8 Requirements for a comprehensive testing service

As a minimum the Remote test method, as specified in ISO/IEC 9646-2 [4], shall be used by any organization claiming to provide a comprehensive testing service for user equipment claiming conformance to ETS 300 185-1 [1].

History

Document history			
October 1995	Public Enquiry	PE 94:	1995-10-23 to 1996-02-16
August 1996	Vote	V 108:	1996-08-05 to 1996-09-27
October 1996	First Edition		