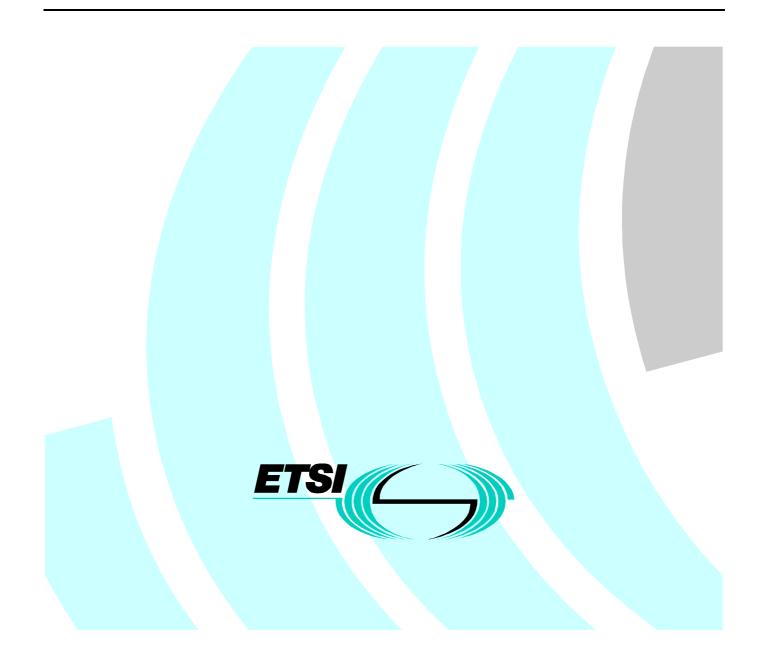# EN 300 745-3 V1.2.4 (1998-09)

European Standard (Telecommunications series)

**Integrated Services Digital Network (ISDN);
Message Waiting Indication (MWI) supplementary service;
Digital Subscriber Signalling System No. one (DSS1) protocol;
Part 3: Test Suite Structure and Test Purposes (TSS&TP)
specification for the user**

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Contents

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Foreword

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

The present document 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) Message Waiting Indication (MWI) 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".

National transposition dates	
Date of adoption of this EN:	18 September 1998
Date of latest announcement of this EN (doa):	31 December 1998
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 June 1999
Date of withdrawal of any conflicting National Standard (dow):	30 June 1999

1   Scope

This third part of EN 300 745 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 Message Waiting Indication (MWI) supplementary service for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 300 745-1 [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 Network side of the T reference point or coincident S and T reference point of implementations conforming to EN 300 745-1 [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.

  [1]   EN 300 745-1 (V1.2): "Integrated Services Digital Network (ISDN); Message Waiting Indication (MWI) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

  [2]   EN 300 745-2 (V1.2): "Integrated Services Digital Network (ISDN); Message Waiting Indication (MWI) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

  [3]   ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

  [4]   ISO/IEC 9646-2 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification".

  [5]   ISO/IEC 9646-3 (1992): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".

  [6]   EN 300 196-1 (V1.2): "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]   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-T Recommendation I.112 (1993): "Vocabulary of 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 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].

active test: A test case where the Implementation Under Test (IUT) is required to send a particular message, but not in reaction to a received message. This would usually involve the use of PIXIT information to see how this message can be generated and quite often is specified in an ATS using an implicit send event.

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].

passive test: A test case where the IUT is required to respond to a protocol event (e.g. received message) with another protocol event (e.g. send message) which normally does not require any special operator intervention as associated with the implicit send event.

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 300 745-1

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

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

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.

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.

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

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

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

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

receiving user: The user that receives the message waiting indication.

controlling user: The user that activates and deactivates the message waiting indication.

4   Abbreviations

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

ATM	Abstract Test Method
ATS	Abstract Test Suite
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
MWI	Message Waiting Indication
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
TP	Test Purpose
TSS	Test Suite Structure
U00	Null call state
U01	Call Initiated call state
U19	Release Request call state
U31	Bearer Independent Transport call state

5   Test Suite Structure (TSS)

S/T   **Group**

·   Controlling User
    ·   activation   U01
    ·   deactivation   U02
·   Receiving User
    ·   invocation   U03

T (private ISDN)

·   Controlling User
    ·   activation   U04
    ·   deactivation   U05
·   Receiving User
    ·   activation   U06
    ·   deactivation   U07

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:	"MWI"	
<iut>	=	type of IUT:	U N	User 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 EN 300 745-1 [1].

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 for MWI

TP part	Text	Example
Header	**<Identifier>** *tab* **<paragraph number in base ETS>** *tab* **<condition>** *CR.*	see table 1 **subclause 0.0.0** **mandatory, optional (see note 1)**
Stimulus	Ensure that the IUT in the <basic call state> or <MWI state> <trigger> *see below for message structure* *or* <goal>	U10 etc. receiving a XXXX message to request a ...
Reaction	<action> <conditions> *if the action is sending* *see below for message structure* <next action>, *etc.* and remains in the same state *or* and enters 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 *or* including <coding of the field> and *back to a or b,*	SETUP, FACILITY, CONNECT, ... Bearer capability, Facility, ...
NOTE 1:	Mandatory TP are always applicable. Optional TPs are applicable according to the configuration options of the IUT. If the configuration option is covered by a PICS item, a selection criteria is indicated, else the selection of the corresponding test cases will depend on test suite parameters (PIXIT) in the ATS.	
NOTE 2:	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 EN 300 745-1 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification EN 300 745-2 [2]. The criteria applied include 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 MWI

All PICS items referred to in this subclause are as specified in EN 300 745-2 [2] 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.

- The FACILITY messages are transmitted using the point-to-point connectionless bearer independent transport mechanism (dummy call reference, DL-DATA-REQUEST) as specified in EN 300 196-1 [6], subclause 8.3.2.2. Where the broadcast connectionless bearer independent transport mechanism applies (dummy call reference, DL-UNIT DATA-REQUEST), the indication of the corresponding subclause of EN 300 196-1 [6] is given (i.e. subclause 8.3.2.4).

6.2.1   S/T

Selection: IUT supports the S and T reference point procedures. PICS: R 3.1.

6.2.1.1   Controlling user

Selection: IUT supports the controlling user procedures. PICS: R 4.1.

6.2.1.1.1   Activation

MWI_U01_001 subclause 9.1.1   mandatory
Ensure that the IUT in the MWI Idle state, to activate the MWI supplementary service,
    transmits a FACILITY message, including a Facility information element with a MWIActivate invoke component
    and enters the MWI Activation Requested state.

MWI_U01_002 subclause 9.1.1   mandatory
Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return result component,
    transmits no message and enters the MWI Idle state.

MWI_U01_003 subclause 9.1.2   mandatory
Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "notSubscribed",
    transmits no message and enters the MWI Idle state.

MWI_U01_004 subclause 9.1.2   mandatory
Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "invalidReceivingUserNr",
    transmits no message and enters the MWI Idle state.

MWI_U01_005 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "supplementaryServiceInteractionNotAllowed",

transmits no message and enters the MWI Idle state.

MWI_U01_006 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "resourceUnavailable",

transmits no message and enters the MWI Idle state.

MWI_U01_007 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "invalidServedUserNr",

transmits no message and enters the MWI Idle state.

MWI_U01_008 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "receivingUserNotSubscribed",

transmits no message and enters the MWI Idle state.

MWI_U01_009 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "controllingUserNotRegistered",

transmits no message and enters the MWI Idle state.

MWI_U01_010 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "indicationNotDelivered",

transmits no message and enters the MWI Idle state.

MWI_U01_011 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "maxNumOfControllingUsersReached",

transmits no message and enters the MWI Idle state.

MWI_U01_012 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIActivate return error component containing the error value "maxNumOfActiveInstancesReached",

transmits no message and enters the MWI Idle state.

MWI_U01_013 subclause 9.1.2 mandatory

Ensure that the IUT in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a reject component containing the invoke identifier,

transmits no message and remains in the MWI Activation Requested state.

6.2.1.1.2 Deactivation

MWI_U02_001 subclause 9.2.1 mandatory

Ensure that the IUT in the MWI Idle state, to deactivate the MWI supplementary service,

transmits a FACILITY message, including a Facility information element with a MWIDeactivate invoke component and enters the MWI Deactivation Requested state.

MWI_U02_002 subclause 9.2.1 mandatory

Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return result component,

transmits no message and enters the MWI Idle state.

MWI_U02_003 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "notSubscribed",
transmits no message and enters the MWI Idle state.

MWI_U02_004 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "invalidReceivingUserNr",
transmits no message and enters the MWI Idle state.

MWI_U02_005 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "supplementaryServiceInteractionNotAllowed",
transmits no message and enters the MWI Idle state.

MWI_U02_006 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "resourceUnavailable",
transmits no message and enters the MWI Idle state.

MWI_U02_007 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "invalidServedUserNr",
transmits no message and enters the MWI Idle state.

MWI_U02_008 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "receivingUserNotSubscribed",
transmits no message and enters the MWI Idle state.

MWI_U02_009 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "controllingUserNotRegistered",
transmits no message and enters the MWI Idle state.

MWI_U02_010 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate return error component containing the error value "indicationNotDelivered",
transmits no message and enters the MWI Idle state.

MWI_U02_011 subclause 9.2.2 mandatory
Ensure that the IUT in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a reject component containing the invoke identifier,
transmits no message and remains in the MWI Deactivation Requested state.

6.2.1.2　Receiving user

Selection: IUT supports the receiving user procedures. PICS: R 4.2.

6.2.1.2.1　Invocation

MWI_U03_001 subclause 9.5 mandatory
Ensure that the IUT in the Null call state U00, on receipt of a FACILITY message, including a Facility information element with a MWIIndicate invoke component (invocation in the immediate mode, activation),
transmits no message and remains in the Null call state U00.

MWI_U03_002 subclause 9.5mandatory

Ensure that the IUT in the Call initiated call state U01, on receipt of a FACILITY message, including a Facility information element with a MWIIndicate invoke component (invocation in the deferred mode, activation),

transmits no message and remains in the Call initiated call state U01.

MWI_U03_003 subclause 9.5mandatory

Ensure that the IUT in the Call initiated call state U00, on receipt of a FACILITY message, including a Facility information element with a MWIIndicate invoke component containing a "numberOfMessages" parameter with the value 0 (invocation in the immediate mode, deactiv0ation),

transmits no message and remains in the Call initiated call state U00.

6.2.2   T reference point (private ISDN)

Selection: IUT supports the T reference point procedures. PICS: R 3.2.

6.2.2.1   Controlling user

Selection: IUT supports the controlling user procedures. PICS: R 4.1.

6.2.2.1.1   Activation

MWI_U04_001 subclause 10.1.1 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, to activate the MWI supplementary service,

transmits a REGISTER message, including a Facility information element with a MWIActivate invoke component and enters the Bearer Independent Transport call state U31 and the MWI Activation Requested state.

MWI_U04_002 subclause 10.1.1 mandatory

Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message including a Facility information element with a MWIActivate return result component,

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_003 subclause 10.1.2 mandatory

Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "invalidReceivingUserNr",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_004 subclause 10.1.2 mandatory

Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "supplementaryServiceInteractionNotAllowed",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_005 subclause 10.1.2 mandatory

Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "resourceUnavailable",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_006 subclause 10.1.2 mandatory

Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "invalidServedUserNr",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_007 subclause 10.1.2 mandatory

Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "receivingUserNotSubscribed",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_008 subclause 10.1.2 mandatory
Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "controllingUserNotRegistered",
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_009 subclause 10.1.2 mandatory
Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "notSubscribed",
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_010 subclause 10.1.2 mandatory
Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "indicationNotDelivered",
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_011 subclause 10.1.2 mandatory
Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "maxNumOfControllingUsersReached",
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_012 subclause 10.1.2 mandatory
Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIActivate return error component containing the error value "maxNumOfActiveInstancesReached",
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U04_013 subclause 10.1.2 mandatory
Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Activation Requested state, on receipt of a FACILITY message, including a Facility information element with a reject component containing the invoke identifier,
>   transmits no message and remains in the call state U31 and in the MWI Activation Requested state.

6.2.2.1.2   Deactivation

MWI_U05_001 subclause 10.2.1 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, to deactivate the MWI supplementary service,
>   transmits a REGISTER message, including a Facility information element with a MWIDeactivate invoke
>   component and enters the Bearer Independent Transport call state U31 and the MWI Deactivation Requested
>   state.

MWI_U05_002 subclause 10.2.1 mandatory
Ensure that the IUT in the Bearer Independent Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message including a Facility information element with a MWIDeactivate return result component,
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_003 subclause 10.2.2 mandatory
Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "invalidReceivingUserNr",
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_004 subclause 10.2.2 mandatory
Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "supplementaryServiceInteractionNotAllowed",
>   transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_005 subclause 10.2.2 mandatory

Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "resourceUnavailable",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_006 subclause 10.2.2 mandatory

Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "invalidServedUserNr",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_007 subclause 10.2.2 mandatory

Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "receivingUserNotSubscribed",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_008 subclause 10.2.2 mandatory

Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "controllingUserNotRegistered",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_009 subclause 10.2.2 mandatory

Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "notSubscribed",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_010 subclause 10.2.2 mandatory

Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a RELEASE message, including a Facility information element with a MWIDeactivate return error component containing the error value "indicationNotDelivered",

transmits a RELEASE COMPLETE message and enters the Null call state U00 and the MWI Idle state.

MWI_U05_011 subclause 10.2.2 mandatory

Ensure that the IUT in the Bearer Independant Transport call state U31 and in the MWI Deactivation Requested state, on receipt of a FACILITY message, including a Facility information element with a reject component containing the invoke identifier,

transmits no message and remains in the call state U31 and in the MWI Deactivation Requested state.

6.2.2.2   Receiving user

Selection: IUT supports the receiving user procedures. PICS: R 4.2.

6.2.2.2.1   Activation

MWI_U06_001 subclause 10.3.1 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component without optional parameters,

transmits a RELEASE message including a Facility information element with a MWIActivate return result component and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_002 subclause 10.3.1 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component with all the optional parameters,

transmits a RELEASE message including a Facility information element with a MWIActivate return result component and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_003 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component, and the MWI supplementary service is not available for the indicated service,

> transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "notAvailable" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_004 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component containing an invalid ISDN number to identify the receiving user,

> transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "invalidReceivingUserNr" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_005 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component, and the provision of the MWI supplementary service is precluded by the supplementary services interactions procedures,

> transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "supplementaryServiceInteractionNotAllowed" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_006 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component, and the resources to perform the MWI supplementary service are not available,

> transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "resourceUnavailable" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_007 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component containing an invalid ISDN number to identify the controlling user,

> transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "invalidServedUserNr" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_008 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component and the MWI supplementary service has not been subscribed to by the receiving user,

> transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "receivingUserNotSubscribed" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_009 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component and the controlling user is not allowed to activate the MWI supplementary service for the receiving user,

> transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "controllingUserNotRegistered" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U06_010 subclause 10.3.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIActivate invoke component and the controlling user's network has not received a response from the receiving user's network,

transmits a RELEASE message including a Facility information element with a MWIActivate return error component containing the error value "indicationNotDelivered" and enters the Release Request call state U19 and the MWI Idle state.

6.2.2.2.2 Deactivation

MWI_U07_001 subclause 10.4.1 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component without optional parameters,
transmits a RELEASE message including a Facility information element with a MWIDeactivate return result component and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_002 subclause 10.4.1 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component with all the optional parameters,
transmits a RELEASE message including a Facility information element with a MWIDeactivate return result component and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_003 subclause 10.4.2 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component containing an invalid ISDN number to identify the receiving user,
transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "invalidReceivingUserNr" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_004 subclause 10.4.2 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component, and the provision of the MWI supplementary service is precluded by the supplementary services interactions procedures,
transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "supplementaryServiceInteractionNotAllowed" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_005 subclause 10.4.2 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component, and the resources to perform the MWI supplementary service are not available,
transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "resourceUnavailable" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_006 subclause 10.4.2 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component containing an invalid ISDN number to identify the controlling user,
transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "invalidServedUserNr" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_007 subclause 10.4.2 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component and the MWI supplementary service has not been subscribed to by the receiving user,
transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "receivingUserNotSubscribed" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_008 subclause 10.4.2 mandatory
Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component and the controlling user is not allowed to deactivate the MWI supplementary service for the receiving user,

transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "controllingUserNotRegistered" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_009 subclause 10.4.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component and the controlling user is not allowed to deactivate the MWI supplementary service for the receiving user,

transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "controllingUserNotRegistered" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_010 subclause 10.4.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component, and the MWI supplementary service has not been subscribed,

transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "notSubscribed" and enters the Release Request call state U19 and the MWI Idle state.

MWI_U07_011 subclause 10.4.2 mandatory

Ensure that the IUT in the Null call state U00 and in the MWI Idle state, on receipt of a REGISTER message, including a Facility information element with a MWIDeactivate invoke component and the controlling user's network has not received a response from the receiving user's network,

transmits a RELEASE message including a Facility information element with a MWIDeactivate return error component containing the error value "indicationNotDelivered" and enters the Release Request call state U19 and the MWI Idle state.

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 EN 300 745-1 [1].

History

Document history				
V1.2.2	February 1998	Public Enquiry	PE 9824:	1998-02-13 to 1998-06-12
V1.2.3	July 1998	Vote	V 9837:	1998-07-14 to 1998-09-11
V1.2.4	September 1998	Publication		