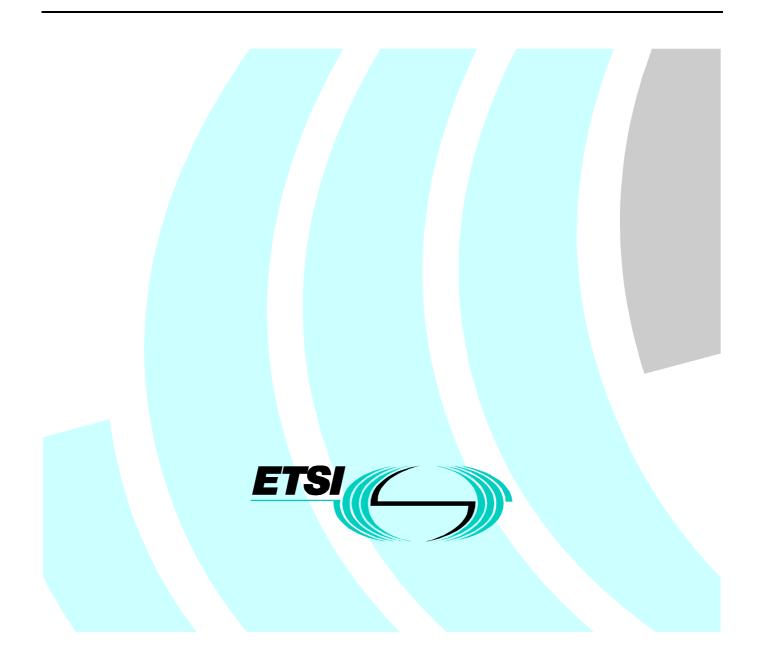# EN 300 359-3 V1.2.4 (1998-06)

European Standard (Telecommunications series)

Integrated Services Digital Network (ISDN);
Completion of Calls to Busy Subscriber (CCBS)
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

ETSI

Postal address
F-06921 Sophia Antipolis Cedex - FRANCE

Office address
650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00   Fax: +33 4 93 65 47 16
Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Internet
secretariat@etsi.fr
http://www.etsi.fr
http://www.etsi.org

ETSI

Contents

Intellectual Property Rights

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

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

Foreword

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

The present document is part 3 of a multi-part standard covering the Digital Subscriber Signalling System No. one (DSS1) protocol specification for the Integrated Services Digital Network (ISDN) Completion of Calls to Busy Subscriber (CCBS) supplementary service, as described below:

   Part 1:   "Protocol specification";

   Part 2:   "Protocol Implementation Conformance Statement (PICS) proforma specification";

   Part 3:   "Test Suite Structure and Test Purposes (TSS&TP) specification for the user";

   Part 4:   "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the user";

   Part 5:   "Test Suite Structure and Test Purposes (TSS&TP) specification for the network";

   Part 6:   "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network".

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

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

1   Scope

This third part of EN 300 359 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 of the Completion of Calls to Busy Subscriber (CCBS) supplementary service for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 300 359 [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 300 359-1 [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 300 359-1 (V1.2): "Integrated Services Digital Network (ISDN); Completion of Calls to Busy Subscriber (CCBS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

   [2]   EN 300 359-2 (V1.2): "Integrated Services Digital Network (ISDN); Completion of Calls to Busy Subscriber (CCBS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

   [3]   ISO/IEC 9646-1: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 1: General Concepts".

   [4]   ISO/IEC 9646-2: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 2: Abstract Test Suite specification".

   [5]   ISO/IEC 9646-3: "Information Technology - OSI Conformance Testing Methodology and Framework; Part 3: The Tree and Tabular Combined Notation".

   [6]   EN 300 196-1: "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

   [7]   ITU-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: "Vocabulary and terms for ISDNs".

   [10]   CCITT Recommendation E.164: "Numbering plan for the ISDN era".

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

[12] EN 300 196-2: "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

3 Definitions

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

3.1 Definitions related to conformance testing

abstract test case: Refer to ISO/IEC 9646-1 [3].

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

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

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

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

point of control and observation: Refer to ISO/IEC 9646-1 [3].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [3].

PICS proforma: Refer to ISO/IEC 9646-1 [3].

Protocol Implementation eXtra Information for Testing (PIXIT): Refer to ISO/IEC 9646-1 [3].

PIXIT proforma: Refer to ISO/IEC 9646-1 [3].

system under test: Refer to ISO/IEC 9646-1 [3].

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

3.2 Definitions related to EN 300 359-1

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

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

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

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

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

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

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

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

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

served user: The served user is the user who invokes the CCBS 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 the present document, the following abbreviations apply:

ATM	Abstract Test Method
ATS	Abstract Test Suite
CCBS	Completion of Calls to Busy Subscriber
CR	Call Reference
CR1	normal (bearer related) CR
CR2	CR used for bearer independent transport mechanism
DSS1	Digital Subscriber Signalling System No. one
GFP	Generic Functional Protocol
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
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
U03	Outgoing Call Proceeding call state
U04	Call Delivered call state
U06	Call Present call state
U07	Call Received call state
U08	Connect Request call state
U09	Incoming Call Proceeding call state
U10	Active call state
U12	Disconnect Indication call state
U25	Overlap Receiving call state
U31	Bearer Independent Transport call state
UI	Unnumbered Information

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. "CCBS"
<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 EN 300 359-1 [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

TP part	Text	Example
Header	<Identifier> *tab* <paragraph number in base ETS> *tab* <type of test> *tab* <condition> *CR.*	see table 1 subclause 0.0.0 valid, invalid, inopportune mandatory, optional, conditional
Stimulus	Ensure that the IUT in the <basic call state> and <supplementary service state> <trigger> *see below for message structure* *or* <goal>	 U10, U12, etc. CCBS Idle state receiving a XXXX message to request a ....
Reaction	<action> <conditions> *if the action is sending* *see below for message structure* <next action>, *etc.* and enters <supplementary service state> *and/or* and remains in the same call state(s) *or* 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 *or* including <coding of the field> and *back to a or b,*	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 EN 300 359-1 [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 300 359-2 [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 CCBS

6.2.1 User (S/T)

Selection: IUT supports coincident S and T reference point procedures. PICS: R 3.2.

NOTE: Unless stated otherwise, all FACILITY messages in TPs in this subclause use the dummy call reference as specified in subclause 8.3.2.2 of EN 300 196-1 [6] (bearer independent connectionless transport mechanism). Where an Unnumbered Information (UI) frame is specified for a FACILITY message, the message is sent or received using broadcast procedures; otherwise point-to-point procedures are used.

6.2.1.1 User A

6.2.1.1.1 Activation

CCBS_U01_001   **subclause 9.1.1**   **valid**   **mandatory**
Ensure that the IUT in call state U12 and CCBS Idle state, having been informed that the network is performing the Call Information Retention procedure, to activate the CCBS supplementary service,
      sends a FACILITY message containing a Facility information element with a CCBSRequest invoke component including the callLinkageID parameter and enters the CCBS Requested state before expiry of timer T-RETENTION.

CCBS_U01_002   **subclause 9.1.1**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return result component including a recallMode parameter indicating "specificRecall",

     sends no message but retains the CCBSReference and enters CCBS Activated state.

CCBS_U01_003   **subclause 9.1.1**   valid   optional

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return result component including a recallMode parameter indicating "globalRecall",

     sends no message, retains the cCBSReference parameter and enters CCBS Activated state,
     or
     sends no message, releases the cCBSReference parameter and remains in the CCBS Requested state.

CCBS_U01_004   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "invalidCallLinkageID",

     sends no message, releases the callLinkageID parameter and enters CCBS Idle state.

CCBS_U01_005   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "notSubscribed",

     sends no message and enters the CCBS Idle state.

CCBS_U01_006   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "callFailureReasonNotBusy",

     sends no message and enters the CCBS Idle state.

CCBS_U01_007   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "outgoingCCBSQueueFull",

     sends no message and enters the CCBS Idle state.

CCBS_U01_008   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "cCBSIsAlreadyActivated",

     sends no message and enters the CCBS Idle state.

CCBS_U01_009   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "supplementaryServiceInteractionNotAllowed",

     sends no message and enters the CCBS Idle state.

CCBS_U01_010   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "longTermDenial",

     sends no message and enters the CCBS Idle state.

CCBS_U01_011   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest return error component indicating "shortTermDenial",

     sends no message and enters the CCBS Idle state.

CCBS_U01_012   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest reject component,

     sends no message and enters the CCBS Idle state.

CCBS_U01_013   **subclause 9.1.2**   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Requested state, on expiry of timer T-ACTIVATE,

     enters the CCBS Idle state.

6.2.1.1.2   Deactivation

CCBS_U02_001   subclause 9.2.1   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Activated state, to deactivate a CCBS request,
>   sends a FACILITY message containing a Facility information element with a CCBSDeactivate invoke
>   component including the cCBSReference parameter and enters the CCBS Deactivation Requested state.

CCBS_U02_002   subclause 9.2.1   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Activated state, to deactivate a number of CCBS requests,
>   sends one or more FACILITY messages containing one or more Facility information elements with one or more
>   CCBSDeactivate invoke components including the relevant cCBSReference parameters and enters the CCBS
>   Deactivation Requested state.

CCBS_U02_003   subclause 9.2.1   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Deactivation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSDeactivate return result component,
>   sends no message, releases the cCBSReference parameter and enters the CCBS Idle state.

CCBS_U02_004   subclause 9.2.2   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Deactivation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSDeactivate return error component indicating
"invalidCCBSReference",
>   sends no message, releases its knowledge of the CCBS request identified by the cCBSReference parameter and
>   enters CCBS Idle state.

CCBS_U02_005   subclause 9.2.2   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Deactivation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSDeactivate reject component,
>   sends no message, retains knowledge of the CCBS request identified by the cCBSReference parameter and enters
>   the CCBS Idle state.

CCBS_U02_006   subclause 9.2.2   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Deactivation Requested state, on expiry of timer T-DEACTIVATE,
>   sends no message, releases its knowledge of the CCBS request identified by the cCBSReference parameter and
>   enters CCBS Idle state.

6.2.1.1.3   Interrogation

CCBS_U03_001   subclause 9.3.1.1   valid   optional
Ensure that the IUT in call state U00 and CCBS Activated state, to perform an interrogation of all CCBS requests,
>   sends a FACILITY message containing a Facility information element with a CCBSInterrogate invoke
>   component without a cCBSReference parameter and including a partyNumberOfA parameter and enters the
>   CCBS Interrogation Requested state,
>   or
>   sends a FACILITY message containing a Facility information element with a CCBSInterrogate invoke
>   component without a cCBSReference parameter and without a partyNumberOfA parameter and enters the CCBS
>   Interrogation Requested state.

CCBS_U03_002   subclause 9.3.1.1   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSInterrogate return result component including the recallMode
parameter and a list in chronological order of the CCBS requests if any,
>   sends no message, discards details of those requests that are not compatible with its service compatibility
>   information and exits the CCBS Interrogation Requested state.

CCBS_U03_003   subclause 9.3.1.2   valid   mandatory
Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSInterrogate return error component indicating "notSubscribed",
>   sends no message and removes knowledge of all CCBS requests and exits the CCBS Interrogation Requested
>   state.

CCBS_U03_004   **subclause 9.3.1.2**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSInterrogate reject component,

     sends no message and exits the CCBS Interrogation Requested state.

CCBS_U03_005   **subclause 9.3.2.1**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Activated state, to perform an interrogation of a specific active CCBS
request,

     sends a FACILITY message containing a Facility information element with a CCBSInterrogate invoke
     component including a cCBSReference parameter and enters the CCBS Interrogation Requested state.

CCBS_U03_006   **subclause 9.3.2.1**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSInterrogate return result component including the recallMode
parameter and details of the specific active CCBS request,

     sends no message and exits the CCBS Interrogation Requested state.

CCBS_U03_007   **subclause 9.3.2.2**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSInterrogate return error component indicating "notSubscribed",

     sends no message and removes knowledge of all CCBS requests identified by the cCBSReference parameter and
     exits the CCBS Interrogation Requested state.

CCBS_U03_008   **subclause 9.3.2.2**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSInterrogate return error component indicating
"invalidCCBSReference",

     sends no message and removes knowledge of the CCBS request identified by the cCBSReference parameter and
     exits the CCBS Interrogation Requested state.

CCBS_U03_009   **subclause 9.3.2.2**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on receipt of a FACILITY message
containing a Facility information element with a CCBSInterrogate reject component,

     sends no message and retains knowledge of the CCBS request identified by the cCBSReference parameter and
     exits the CCBS Interrogation Requested state.

CCBS_U03_010   **subclause 9.3.1.1 and [6] 10.2.4.2**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, on expiry of timer T-INTERROGATE,

     sends no message and exits the CCBS Interrogation Requested state.

6.2.1.1.4   Invocation and operation

CCBS_U04_001   **subclauses 9.4.1.1 and 9.7.1**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Activated state, where the IUT has subscribed to the Recall mode
option with a value set to "Specific recall", on receipt of a FACILITY message containing a Facility information
element with a CCBSRemoteUserFree invoke component including a recallMode parameter indicating "specificRecall",
a valid cCBSReference parameter retained by the IUT, the addressOfB parameter and q931InfoElement parameter,

     sends no message, retains the cCBSReference parameter and enters the CCBS Free state or may proceed to
     establish a call.

CCBS_U04_002   **subclauses 9.4.1.2 and 9.7.1**   **valid**   **mandatory**

Ensure that the IUT in call state U00 and CCBS Activated state, where the IUT has subscribed to the Recall mode
option with a value set to "Specific recall", on receipt of a FACILITY message containing a Facility information
element with a CCBSRemoteUserFree invoke component including a recallMode parameter indicating "specificRecall",
a cCBSReference parameter not retained by the IUT, the addressOfB parameter and q931InfoElement parameter,

     ignores the component and remains in the same state or initiates the deactivation procedure.

CCBS_U04_003   subclauses 9.4.1.1 and 9.7.1   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Activated state, where the IUT has subscribed to the Recall mode option with a value set to "Global recall", on receipt of a FACILITY message containing a Facility information element with a CCBSRemoteUserFree invoke component including a recallMode parameter indicating "globalRecall", a cCBSReference parameter, an addressOfB parameter and a q931InfoElement parameter containing one or more Bearer capability information elements and one or more High layer compatibility information elements which are compatible with the IUT according to annex B, subclauses B.3.2 and B.3.3 in EN 300 403-1 [8],

> sends no message, retains the cCBSReference parameter and enters the CCBS Free state or may proceed to establish a call.

CCBS_U04_004   subclauses 9.4.1.2 and 9.7.1   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Activated state, where the IUT has subscribed to the Recall mode option with a value set to "Global recall", on receipt of a FACILITY message containing a Facility information element with a CCBSRemoteUserFree invoke component including a recallMode parameter indicating "globalRecall", a cCBSReference parameter, an addressOfB parameter and a q931InfoElement parameter containing one or more Bearer capability information elements and one or more High layer compatibility information elements which are incompatible with the IUT according to annex B, subclauses B.3.2 and B.3.3 in EN 300 403-1 [8],

> ignores the component and remains in the same state or initiates the deactivation procedure.

CCBS_U04_005   subclause 9.4.2.1   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Free state, having received a CCBSRemoteUserFree invoke component indicating "specificRecall", to establish the CCBS call,

> sends a SETUP message containing the Bearer capability information element(s) of the original call and a Facility information element with a CCBSCall invoke component including the cCBSReference parameter value of the CCBSRemoteUserFree invoke component (received prior to entering the CCBS Free state), retains the cCBSReference, enters the CCBS Call Init state and call state U01.

CCBS_U04_006   subclause 9.4.2.1   valid   mandatory

Ensure that the IUT in call state U00 and CCBS Free state, having received a CCBSRemoteUserFree invoke component indicating "globalRecall", to establish the CCBS call,

> sends a SETUP message containing the Bearer capability information element(s) of the original call and a Facility information element with a CCBSCall invoke component including the cCBSReference parameter value of the CCBSRemoteUserFree invoke component (received prior to entering the CCBS Free state) and enters the CCBS Call Init state or CCBS Idle state and call state U01.

CCBS_U04_007   subclause 9.4.2.1   valid   optional

Ensure that the IUT in call state U00 and CCBS Free state, on receipt of a FACILITY message (UI frame) containing a Facility information element with a CCBSStopAlerting invoke component including a valid cCBSReference parameter value and the RecallMode parameter in the previously sent CCBSRemoteUserFree invoke component was set to globalRecall,

> sends no messages.

Selection: IUT accepts broadcast FACILITY message. PICS: [12] MCu 2.6.

CCBS_U04_008   subclause 9.4.2.2   valid   mandatory

Ensure that the IUT in call state U01 and CCBS Call Initiated state, on receipt of a RELEASE COMPLETE message containing a Facility information element with a CCBSCall return error component indicating "invalidCCBSReference",

> sends no message, removes knowledge of the CCBSReference value and enters the CCBS Idle state and the Null call state (U00).

CCBS_U04_009   subclause 9.4.2.2   valid   mandatory

Ensure that the IUT in call state U01 and CCBS Call Initiated state, on receipt of a RELEASE COMPLETE message containing a Facility information element with a CCBSCall return error component indicating "alreadyAccepted",

> sends no message and enters the CCBS Idle state and the Null call state (U00).

CCBS_U04_010   subclause 9.4.2.2   valid   mandatory

Ensure that the IUT in call state U01 and CCBS Call Initiated state, on receipt of a RELEASE COMPLETE message containing a Facility information element with a CCBSCall return error component indicating "notReadyForCall",

> sends no message and enters the CCBS Idle state and the Null call state (U00).

CCBS_U04_011   **subclause 9.4.2.2**   **valid**   **mandatory**
Ensure that the IUT in call state U01 and CCBS Call Initiated state, on receipt of a FACILITY message containing a
Facility information element with a CCBSCall reject component,
        sends no message, retains knowledge of the cCBSReference parameter value and remains in the same states.

CCBS_U04_012   **subclause 9.4.4.1**   **inopportune**   **mandatory**
Ensure that the IUT in call state U00 and CCBS Activated state, on receipt of a FACILITY message containing a
Facility information element with a CCBSErase invoke component,
        sends no messages, removes knowledge of CCBS Reference and enters the CCBS Idle state.

CCBS_U04_013   **subclause 9.4.5.1**   **valid**   **mandatory**
Ensure that the IUT in call state U10 and CCBS Activated state, on receipt of a FACILITY message containing a
Facility information element with a compatible CCBSBFree invoke component,
        sends no messages.

CCBS_U04_014   **subclause 9.4.5.1**   **valid**   **mandatory**
Ensure that the IUT in call state U10 and CCBS Activated state, on receipt of a FACILITY message containing a
Facility information element with an incompatible CCBSBFree invoke component,
        sends no messages.

CCBS_U04_015   **subclause 9.4.6.1**   **inopportune**   **mandatory**
Ensure that the IUT in call state U00 and CCBS Activated state, on receipt of a FACILITY message containing a
Facility information element with an incompatible CCBSStatusRequest invoke component,
        sends no messages.

CCBS_U04_016   **subclauses 9.4.6.1 and 9.7**   **valid**   **mandatory**
Ensure that the IUT in call state U00 and CCBS Activated state, on receipt of a FACILITY message containing a
Facility information element with a compatible CCBSStatusRequest invoke component including the RecallMode,
CCBSReference, q931InfoElement,
        responds with a FACILITY message containing a Facility information element with a CCBSStatusRequest return
        result component including an indication of the user status (Free).

CCBS_U04_017   **subclauses 9.4.6.1 and 9.7**   **valid**   **mandatory**
Ensure that the IUT in call state U10 and CCBS Activated state, on receipt of a FACILITY message containing a
Facility information element with a compatible CCBSStatusRequest invoke component including the RecallMode,
CCBSReference, q931InfoElement,
        responds with a FACILITY message containing a Facility information element with a CCBSStatusRequest return
        result component including an indication of the user status (Busy).

CCBS_U04_018   **subclause 9.4.6.2**   **valid**   **mandatory**
Ensure that the IUT in call state U00 and CCBS Activated state, having sent a FACILITY message containing a Facility
information element with a CCBSStatusRequest return result component, on receipt of a FACILITY message containing
a Facility information element with a CCBSStatusRequest reject component,
        sends no message.

6.2.1.1.5   Retention

CCBS_U05_001   **subclause 9.6.1**   **valid**   **optional**
Ensure that the IUT in call state U01 and Retention Idle state, having sent a SETUP message (using en-bloc sending), on
receipt of a RELEASE COMPLETE message containing a Facility information element with a CallInfoRetain invoke
component including a valid callLinkageID parameter value,
        sends no message, retains the CallLinkageID, enters Retention Active state and call state U00.

    Selection: IUT supports option to retain CallLinkageID on receipt of CallInfoRetain invoke component. PICS: SC 1.

CCBS_U05_002   **subclause 9.6.1**   **valid**   **optional**
Ensure that the IUT in call state U01 and Retention Idle state, having sent a SETUP message (using en-bloc sending), on
receipt of a RELEASE COMPLETE message containing a Facility information element with a CallInfoRetain invoke
component including a valid callLinkageID parameter value,
        sends no message, releases the CallLinkageID, enters Retention Active state and call state U00.

    Selection: IUT does NOT support option to retain CallLinkageID on receipt of CallInfoRetain invoke component.
            PICS: NOT SC 1.

CCBS_U05_003   **subclause 9.6.1**   **valid**   **mandatory**
Ensure that the IUT in call state U00 and Retention Active state, on receipt of a FACILITY message containing a
Facility information element with a EraseCallLinkageID invoke component including a known CallLinkageID,
     sends no message, removes knowledge of the CallLinkageID and enters Retention Idle state.

6.2.1.2   User B

     NOTE: If user B supports the subscription option "status request procedures for existing services" or if it can
            handle calls not using "existing services" then it needs to be conformant with the procedures of
            EN 300 196-1, subclause 10.3. For the relevant TPs, see EN 300 196-3.

6.2.1.3   GFP

CCBS_U07_001   **clause 9 and [6] subclause 8.3.2.2.2**   **invalid**   **mandatory**
Ensure that the IUT in call state U00 and in the CCBS Activated state receiving a FACILITY message containing a
Facility information element with an invalid protocol profile,
     discards the FACILITY message and does not respond.

CCBS_U07_002   **clause 9 and [6] subclause 8.3.2.4.2**   **invalid**   **optional**
Ensure that the IUT in call state U00 and in the CCBS Activated state receiving a FACILITY message (UI frame)
containing a Facility information element with an invalid protocol profile,
     discards the FACILITY message and does not respond.

     Selection: IUT accepts broadcast FACILITY message. PICS: [12] MCu 2.6.

CCBS_U07_003   **clause 9 and [6] subclause 8.3.2.2.2**   **invalid**   **mandatory**
Ensure that the IUT in call state U00 and in the CCBS Activated state receiving FACILITY message without a Facility
information element,
     discards the FACILITY message and does not respond.

CCBS_U07_004   **clause 9 and [6] subclause 8.3.2.4.2**   **invalid**   **optional**
Ensure that the IUT in call state U00 and in the CCBS Activated state receiving FACILITY message (UI frame) without
a Facility information element,
     discards the FACILITY message and does not respond.

     Selection: IUT accepts broadcast FACILITY message. PICS: [12] MCu 2.6.

CCBS_U07_005   **clause 9 & [6] subclauses 8.3.2.2.2 & 8.3.2.4.2**   **invalid**   **mandatory**
Ensure that the IUT in call state U00 and in the CCBS Activated state receiving a message other than FACILITY with a
dummy call reference and this message does not apply to some other application of the dummy call reference,
     discards the FACILITY message and does not respond.

CCBS_U07_006   **clause 9 and [6] subclause 8.4.2**   **invalid**   **mandatory**
Ensure that the IUT in call state U00 and CCBS Interrogation Requested state, having been in the CCBS Activated state,
on receipt of a FACILITY message containing a Facility information element with a CCBSInterrogate return result
component including a callDetails parameter of incorrect type,
     ignores the (optional) callDetails parameter and does not reject the component with problem code of "mistyped
     result".

6.2.2   User (T)

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

     NOTE: The private network procedures use the bearer independent connection-oriented transport mechanism as
            well as the bearer related transport mechanism. Different Call References (CRs) are used to differentiate
            between the two mechanisms. In the following TPs, these are identified by a CR followed by a number:

            CR1   = normal (bearer related) call reference;

            CR2   = call reference used for bearer independent transport mechanism.

The values of CR1 and CR2 may vary from one TP to another, but when both are used in the same TP their values are distinct if they exist at the same interface.

6.2.2.1 Originating side

6.2.2.1.1 General

CCBS_U08_001 **subclauses 10.1.1.1 & 10.1.2.1** **valid** **optional**
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U12 and with CR2 in call state U00, having received a DISCONNECT message with CR1 containing a Facility information element with a CCBS-T-Available invoke component, to set up the signalling connection with the public network and to request the activation of CCBS,
> sends a REGISTER message with CR2 containing a Facility information element with a CCBS-T-Request invoke component including the Bearer capability information element, destinationAddress parameter, retentionSupported parameter set to TRUE, and if available the High layer compatibility and Low layer compatibility information elements, and enters call state U31 for CR2 and continues basic call clearing for CR1.

> **Selection:** The IUT supports the CCBS request retention option. PICS: MC 4.

CCBS_U08_002 **subclauses 10.1.1.1 & 10.1.2.1** **valid** **optional**
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U12 and CR2 in call state U00, having received a DISCONNECT message with CR1 containing a Facility information element with a CCBS-T-Available invoke component, to set up the signalling connection with the public network and to request the activation of CCBS,
> responds with a REGISTER message with CR2 containing a Facility information element with a CCBS-T-Request invoke component including the Bearer capability information element, destinationAddress parameter, retentionSupported parameter set to FALSE, and if available the High layer compatibility and Low layer compatibility information elements, and enters call state U31 for CR2 and continues basic call clearing for CR1.

> **Selection:** The IUT does NOT support the CCBS request retention option. PICS: NOT MC 4.

CCBS_U08_003 **subclauses 10.1.1.1 & 10.1.2.1** **valid** **optional**
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and CR2 in call state U00, having received a RELEASE COMPLETE message with CR1 containing a Facility information element with a CCBS-T-Available invoke component, to set up the signalling connection with the public network and to request the activation of CCBS,
> responds with a REGISTER message with CR2 containing a Facility information element with a CCBS-T-Request invoke component including the Bearer capability information element, destinationAddress parameter, retentionSupported parameter set to FALSE, and if available the High layer compatibility and Low layer compatibility information elements, and enters call state U31 for CR2.

> **Selection:** The IUT does NOT support the CCBS request retention option. PICS: NOT MC 4.

CCBS_U08_004 **subclause 10.1.2.1** **valid** **mandatory**
Ensure that the IUT in the CCBS Requested state, with CR1 in call state U00 and CR2 in call state U31, on receipt of a FACILITY message with CR2 containing a Facility information element with a CCBS-T-Request return result component,
> does not respond and remains in the same call states for CR1 and CR2.

CCBS_U08_005 **subclause 10.1.2.2** **valid** **mandatory**
Ensure that the IUT in the CCBS Requested state, with CR1 in call state U00 and CR2 in call state U31, on receipt of a FACILITY with CR2 message containing a Facility information element with a reject component,
> sends a RELEASE message with CR2 and with cause value #31 "Normal, unspecified", retains CR1 in its state and enters call state U19 for CR2.

CCBS_U08_006 **subclauses 10.1.3.1 & 10.1.6** **valid** **mandatory**
Ensure that the IUT in the CCBS Activated state, with CR1 in call state U00 and CR2 in call state U31, on receipt of a FACILITY message with CR2 containing a Facility information element with a CCBS-T-RemoteUserFree invoke component and it does not need to suspend CCBS,
> responds with a SETUP message with CR1 using the call establishment information used in the original call attempt and includes a Facility information element with a CCBS-T-Call invoke component, retains CR2 in its state and enters call state U01 for CR1.

CCBS_U08_007   subclauses 10.1.4.1 & 10.1.3   valid   mandatory
Ensure that the IUT in the CCBS Activated state, with CR1 in call state U00 and CR2 in call state U31, on receipt of a
FACILITY message with CR2 containing a Facility information element with a CCBS-T-RemoteUserFree invoke
component and it needs to suspend CCBS,
     responds with a FACILITY message with CR2 containing a Facility information element with a
     CCBS-T-Suspend invoke component and remains in the same call states and enters the CCBS Free state.

CCBS_U08_008   subclause 10.1.4.2   valid   mandatory
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and CR2 in call state U31, (after sending a
FACILITY message with CR2 containing a Facility information element with a CCBS-T-Suspend invoke component)
on receipt of a FACILITY message with CR2 containing a Facility information element with a reject component,
     responds with a RELEASE message with CR2 and with cause value #31 "Normal, unspecified", retains CR1 in
     its state and enters call state U19 for CR2.

CCBS_U08_09   subclause 10.1.5.1   valid   mandatory
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and CR2 in call state U31, and after suspending
CCBS, to request resumption of the CCBS request,
     sends a FACILITY message with CR2 containing a Facility information element with a CCBS-T-Resume invoke
     component and remains in the same call states.

CCBS_U08_010   subclause 10.1.5.2   valid   mandatory
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and CR2 in call state U31, (after sending a
FACILITY message with CR2 containing a Facility information element with a CCBS-T-Resume invoke component) on
receipt of a FACILITY message with CR2 containing a Facility information element with a reject component,
     responds with a RELEASE message with CR2 and with cause value #31 "Normal, unspecified", retains CR1 in
     its state and enters call state U19 for CR2.

CCBS_U08_011   subclause 10.1.6.1   valid   mandatory
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U10 and CR2 in call state U31, on receipt of a
RELEASE message with CR2,
     responds with a RELEASE COMPLETE message with CR2, retains CR1 in its state and enters call state U00 for
     CR2.

CCBS_U08_012   subclause 10.1.6.2, 2nd paragraph   valid   optional
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U03 and CR2 in call state U31, on receipt of a
DISCONNECT message with CR1 and with cause value #17 "User busy", containing a Facility information element
with a CCBS-T-Available invoke component,
     sends a RELEASE message and enters call state U19 for CR1 and remains in call state U31 for CR2 and does not
     request activation of CCBS.

     Selection: IUT supports CCBS Request Retention option. PICS: MC 4.

CCBS_U08_013   subclause 10.1.6.2, 3rd paragraph   valid   optional
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U03 and CR2 in call state U31, on receipt of a
DISCONNECT message with CR1 and with cause value #17 "User busy", containing a Facility information element
with a CCBS-T-Available invoke component and a RELEASE message with CR2,
     sends a RELEASE message and enters call state U19 for CR1 and sends a RELEASE COMPLETE message and
     enters call state U00 for CR2 and requests, or is capable of requesting, activation of CCBS.

     Selection: IUT does NOT support CCBS Request Retention option. PICS: NOT MC 4.

CCBS_U08_014   subclause 10.1.6.2, 4th paragraph   valid   mandatory
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U03 and CR2 in call state U31, on receipt of a
DISCONNECT message with CR1, with a cause value indicating call failure at the destination other than busy (NOT
cause value #17 "User busy"), and a RELEASE message with CR2,
     sends a RELEASE message and enters call state U19 for CR1 and enters call state U19 for CR2 and does not
     request activation of CCBS.

CCBS_U08_015   subclause 10.1.6.2, 5th paragraph   valid   mandatory
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U01 and CR2 in call state U31, on receipt of a
RELEASE COMPLETE message with CR1, with a cause value indicating call failure before reaching the destination
(NOT cause value #17 "User busy"),
> enters call state U00 for CR1, sends a RELEASE message with CR2, enters call state U19 for CR2 and does not
> request activation of CCBS.

CCBS_U08_016   subclause 10.1.6.2, 6th paragraph   valid   mandatory
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U01 and CR2 in call state U31, on receipt of a
FACILITY message with CR1 containing a Facility information element encoded as CCBS-T-Call reject component,
> sends a DISCONNECT message with CR1 to clear the call attempt and a RELEASE message with CR2 and
> cause value #31 "Normal unspecified" to clear the signalling connection, enters call state U11 for CR1 and enters
> call state U19 for CR2,
> or
> sends a RELEASE COMPLETE with CR1 to clear the call attempt and a RELEASE message with CR2 and
> cause value #31 "Normal unspecified" to clear the signalling connection, enters call state U00 for CR1 and enters
> call state U19 for CR2.

CCBS_U08_017   subclause 10.1.7.1   valid   mandatory
Ensure that the IUT in the CCBS Activated state, with CR1 in call state U00 and CR2 in call state U31, to deactivate the
CCBS request,
> sends a RELEASE message with CR2 and with cause #31, retains CR1 in its state and enters call state U19 for
> CR2.

6.2.2.1.2   GFP

CCBS_U09_001   subclauses 10.1 & [6] 8.3.2.1.2.2   inopportune   mandatory
Ensure that the IUT in the CCBS Activated state, with CR1 in call state U00 and with CR2 in call state U31, on receipt
of a message other than FACILITY, RELEASE, RELEASE COMPLETE, STATUS or STATUS ENQUIRY with CR2,
> ignores the message and sends a STATUS message with CR2 and with a Cause information element containing
> the cause value #101 "Message not compatible with call state" and a call state information element containing the
> call state value 31.

CCBS_U09_002   subclause 10.1 & [6] 8.3.2.1.2.2   invalid   mandatory
Ensure that the IUT in the CCBS Activated state, with CR1 in call state U00 and with CR2 in call state U31, on receipt
of a FACILITY message with CR2 containing a Facility information element with an invalid protocol profile,
> ignores the message and sends a STATUS message with CR2 and with a Cause information element containing
> the cause value #100 "Invalid information element contents".

6.2.2.2   Destination side

6.2.2.2.1   General

CCBS_U10_001   subclause 10.2.1.1   valid   mandatory
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U06, on receipt of a busy indication and CCBS is
available to the destination,
> sends a DISCONNECT message with CR1 containing a Facility information element with a CCBS-T-Available
> invoke component and enters call state U11 for CR1,
> or
> sends a RELEASE COMPLETE message with CR1 containing a Facility information element with a
> CCBS-T-Available invoke component and enters call state U00 for CR1.

CCBS_U10_002   subclause 10.2.2.1   valid   optional
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and CR2 in call state U00, on receipt of a
REGISTER message with CR2 containing a Facility information element encoded as CCBS-T-Request invoke
component including the parameter retentionSupported set to TRUE,
> responds with a FACILITY message with CR2 containing a Facility information element encoded as
> CCBS-T-Request return result component including retentionSupported set to TRUE, retains CR1 in its state and
> enters call state U31 for CR2.

  Selection: The IUT supports the CCBS request retention option. PICS: MC 4.

CCBS_U10_003   **subclause 10.2.2.1**   **valid**   **optional**
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and CR2 in call state U00, on receipt of a
REGISTER message with CR2 containing a Facility information element encoded as CCBS-T-Request invoke
component including the parameter retentionSupported set to TRUE,
> responds with a FACILITY message with CR2 containing a Facility information element encoded as
> CCBS-T-Request return result component including retentionSupported set to FALSE, retains CR1 in its state
> and enters call state U31 for CR2.

> **Selection:** The IUT does NOT support the CCBS request retention option. PICS: NOT MC 4.

CCBS_U10_004   **subclause 10.2.2.2**   **inopportune**   **mandatory**
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and CR2 in call state U00, on receipt of
REGISTER message with CR2 containing a Facility information element with a CCBS-related invoke component
different from CCBS-T-Request invoke component,
> sends a RELEASE message with cause value #29 "Facility rejected", retains CR1 in its state and enters call state
> U19 for CR2.

CCBS_U10_005   **subclause 10.2.2.2**   **inopportune**   **mandatory**
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and CR2 in call state U00, on receipt of
REGISTER message with CR2 containing a Facility information element with a CCBS-T-Request invoke component
but the supplementary service CCBS is not available to the destination,
> responds with a FACILITY message with CR2 containing a Facility information element with a
> CCBS-T-Request return error component indicating "longTermDenial" and then sends a RELEASE message
> with cause value #31 "Normal unspecified" with CR2 to clear the signalling connection, retains CR1 in its state
> and enters call state U19 for CR2,
> or
> responds with a RELEASE message with CR2 and with cause value #31 "Normal unspecified" containing a
> Facility information element with a CCBS-T-Request return error component indicating "longTermDenial",
> retains CR1 in its state and enters call state U19 for CR2.

CCBS_U10_006   **subclause 10.2.2.2**   **invalid**   **mandatory**
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and CR2 in call state U00, on receipt of
REGISTER message with CR2 containing a Facility information element with a CCBS-T-Request invoke component
but the supplementary service CCBS is not available to the destination at this time,
> responds with a FACILITY message with CR2 containing a Facility information element with a
> CCBS-T-Request return error component indicating "shortTermDenial" and then sends a RELEASE message
> with CR2 and with cause value #31 "Normal unspecified", retains CR1 in its state and enters call state U19 for
> CR2,
> or
> responds with a RELEASE message with CR2 and with cause value #31 "Normal unspecified" containing a
> Facility information element with a CCBS-T-Request return error component indicating "shortTermDenial",
> retains CR1 in its state and enters call state U19 for CR2.

CCBS_U10_007   **subclause 10.2.3.1**   **valid**   **mandatory**
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and CR2 in call state U31 and when ready to
accept a CCBS call,
> sends a FACILITY message with CR2 containing a Facility information element with a
> CCBS-T-RemoteUserFree invoke component and remains in the same call states.

CCBS_U10_008   **subclause 10.2.3.2**   **invalid**   **mandatory**
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and CR2 in call state U31 (after sending a
FACILITY message with CR2 containing a Facility information element with a CCBS-T-RemoteUserFree invoke
component) on receipt of a FACILITY message with CR2 containing a Facility information element with a reject
component,
> sends a RELEASE message with CR2 and with cause value #31 "Normal unspecified", retains CR1 in its state
> and enters call state U19 for CR2.

CCBS_U10_009   **subclause 10.2.4.1**   **valid**   **mandatory**
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and CR2 in call state U31, on receipt of a
FACILITY message with CR2 containing a Facility information element with a CCBS-T-Suspend invoke component,
> sends no messages and awaits resumption of the CCBS request and remains in the same call states.

CCBS_U10_010   **subclause 10.2.5.1**   valid   **mandatory**
Ensure that the IUT with CR1 in call state U00 and CR2 in call state U31, having previously received a
CCBS-T-Suspend invoke component, on receipt of a FACILITY message with CR2 containing a Facility information
element with a CCBS-T-Resume invoke component,
>   sends no messages and resumes monitoring of the destination for being not busy and remains in the same call
>   states.

CCBS_U10_011   **subclause 10.2.6.1, 2nd paragraph**   valid   **mandatory**
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and CR2 in call state U31, on receipt of a
SETUP with CR1 using the call establishment information used in the original call attempt and including a Facility
information element with a CCBS-T-Call invoke component,
>   enters call state U06 for CR1, sends either a SETUP ACKNOWLEDGE, CALL PROCEEDING, ALERTING or
>   CONNECT message with CR1 and retains CR2 in its state.

CCBS_U10_012   **subclause 10.2.6.1, 3rd paragraph**   valid   **mandatory**
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U07 or U08 and CR2 in call state U31, after
sending an ALERTING or CONNECT message with CR1, to clear the signalling connection,
>   sends a RELEASE message with CR2, retains CR1 in its state and enters call state U19 for CR2.

CCBS_U10_013   **subclause 10.2.6.2**   valid   **optional**
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U06 and CR2 in call state U31, on receipt of an
indication that the called user is busy again,
>   sends a DISCONNECT message with CR1 containing a Facility information element with a CCBS-T-Available
>   invoke component, retains CR2 in its call state and enters call state U11 for CR1,
>   or
>   sends a RELEASE COMPLETE message with CR1 containing a Facility information element with a
>   CCBS-T-Available invoke component, retains CR2 in its call state and enters call state U00 for CR1.

   Selection: The IUT supports the CCBS request retention option. PICS: MC 4.

CCBS_U10_014   **subclause 10.2.6.2**   valid   **optional**
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U06 and CR2 in call state U31, on receipt of an
indication that the called user is busy again,
>   sends a DISCONNECT message with CR1 containing a Facility information element with a CCBS-T-Available
>   invoke component to clear the attempted call and a RELEASE message with CR2 and with cause value #31
>   "Normal, unspecified" to clear the signalling connection, enters call state U11 for CR1 and enters call state U19
>   for CR2,
>   or
>   sends a RELEASE COMPLETE message with CR1 containing a Facility information element with a
>   CCBS-T-Available invoke component to clear the attempted call and a RELEASE message with CR2 and with
>   cause value #31 "Normal, unspecified" to clear the signalling connection, enters call state U00 for CR1 and
>   enters call state U19 for CR2.

   Selection: The IUT does NOT support the CCBS request retention option. PICS: NOT MC 4.

CCBS_U10_015   **subclause 10.2.6.2**   valid   **mandatory**
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U06 and CR2 in call state U31, but the call fails
at the destination side due to any reason other than the user at that side is busy,
>   sends a DISCONNECT message with CR1 to clear the attempted call and a RELEASE message with CR2 and
>   with cause value #31 "Normal, unspecified" to clear the signalling connection, enters call state U11 for CR1 and
>   enters call state U19 for CR2,
>   or
>   sends a RELEASE COMPLETE message with CR1 to clear the attempted call and a RELEASE message with
>   CR2 and with cause value #31 "Normal, unspecified" to clear the signalling connection, enters call state U00 for
>   CR1 and enters call state U19 for CR2.

CCBS_U10_016   subclause 10.2.6.2, 5th paragraph   valid   mandatory
Ensure that the IUT in the CCBS Call Init state, with CR1 in call state U06 and CR2 in call state U31, but the call fails before reaching the destination,

> sends a DISCONNECT message with CR1 to clear the attempted call and does not send a RELEASE message to clear the signalling connection to the public network, enters call state U11 for CR1 and remains in call state U31 for CR2,
>
> or
>
> sends a RELEASE COMPLETE message with CR1 to clear the attempted call and does not send a RELEASE message to clear the signalling connection to the public network, enters call state U00 for CR1 and remains in call state U31 for CR2.

CCBS_U10_017   subclause 10.2.7.1   valid   mandatory
Ensure that the IUT in the CCBS Activated state, with CR1 in call state U00 and CR2 in call state U31, to deactivate the CCBS request,

> sends a RELEASE message with CR2 and with cause value #31 "Normal unspecified" to clear the signalling connection, retains CR1 in its state and enters call state U19 for CR2.

6.2.2.2.2   GFP

CCBS_U11_001   subclauses 10.2, [6] 8.3.2.1.1.2   inopportune   mandatory
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and with CR2 in call state U10, on receipt of a REGISTER message with CR2 (a call reference in use) containing a Facility information element with a CCBS-T-Request invoke component,

> ignores the message and sends a STATUS message with CR2 and with a Cause information element containing the cause value #101 "Message not compatible with call state", a call state information element containing the call state (U10) and remains in the same call states.

CCBS_U11_002   subclauses 10.2, [6] 8.3.2.1.1.2   invalid   mandatory
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and with CR2 in call state U00, on receipt of a REGISTER message with CR2 containing a Facility information element with an invalid protocol profile,

> sends a RELEASE COMPLETE message with CR2 and with cause value #100 "Invalid information element contents".

CCBS_U11_003   subclauses 10.2, [6] 8.3.2.1.1.1, [8] 5.8.3.2 d   inopportune   mandatory
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and with CR2 in call state U00, on receipt of a REGISTER message with a call reference flag incorrectly set to "1",

> ignores the message.

CCBS_U11_004   subclauses 10.2, [6] 8.3.2.1.1.1, [8] 5.8.6.1   inopportune   mandatory
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and with CR2 in call state U00, on receipt of a REGISTER message with CR2 which has one mandatory information element missing,

> sends a RELEASE COMPLETE message with CR2 and with cause value #96 "Mandatory information element missing".

CCBS_U11_005   subclauses 10.2, [6] 8.3.2.1.1.1, [8] 5.8.6.2   invalid   mandatory
Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and with CR2 in call state U00, on receipt of a REGISTER message with CR2 and which has one mandatory information element with invalid contents,

> ignores the message and sends a STATUS message with CR2 and with a Cause information element containing the cause value #100 "Invalid information element contents", a call state information element containing the call state and remains in the same call states.

CCBS_U11_006   subclauses 10.2, [6] 8.3.2.1.2.2   inopportune   mandatory
Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and with CR2 in call state U31, on receipt of a message other than FACILITY, RELEASE, RELEASE COMPLETE, STATUS or STATUS ENQUIRY with CR2,

> ignores the message and sends a STATUS message with CR2 and with a Cause information element containing the cause value #101 "Message not compatible with call state" and a call state information element containing the call state value 31.

CCBS_U11_007   **subclauses 10.2, [6] 8.3.2.1.2.2**   **invalid**   **mandatory**

Ensure that the IUT in the CCBS Free state, with CR1 in call state U00 and with CR2 in call state U31, on receipt of a FACILITY message with CR2 containing a Facility information element with an invalid protocol profile,

> ignores the message and sends a STATUS message with CR2 and with a Cause information element containing the cause value #100 "Invalid information element contents".

CCBS_U11_008   **subclauses 10.2, [6] 8.4.2**   **invalid**   **mandatory**

Ensure that the IUT in the CCBS Idle state, with CR1 in call state U00 and with CR2 in call state U00, on receipt of a REGISTER message with CR2 containing a Facility information element with a CCBS-T-Request invoke component including an originatingAddress parameter of incorrect type,

> ignores the (optional) originatingAddress parameter and does not reject the component with problem code of "mistyped argument".

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 300 359-1 [1].

Annex A (informative):
Changes with respect to the previous ETS 300 359-3

The following changes have been done:

- conversion to EN layout;

- substitution of non-specific references to basic standards where the intention is to refer to the latest version.

History

Document history		
Edition 1	October 1996	Publication as ETS 300 359-3
V1.2.3	February 1998	One-step Approval Procedure OAP 9824: 1998-02-13 to 1998-06-12
V1.2.4	June 1998	Publication