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*European Standard (Telecommunications series)*

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

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Reference

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**ETSI**

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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  
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## Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocol for Advanced Networks (SPAN) and is now submitted for the Public Enquiry phase of the ETSI standards Two-step Approval Procedure.

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

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Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

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# 1 Scope

The present document specifies the Test Suite Structure and Test Purposes (TSS&TP) for the Network side of the T reference point or coincident S and T reference point (as defined in ITU-T Recommendation I.411 [15]) of implementations conforming to the stage three standard for the Supplementary service interactions for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 300 195-1 [4].

A further part of the present document specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on the present document. Other parts specify the TSS&TP and the ATS and partial PIXIT proforma for the User side of the T reference point or coincident S and T reference point of implementations conforming to EN 300 195-1 [4].

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# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- 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 300 403-1: "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]".
- [2] Void.
- [3] Void.
- [4] EN 300 195-1 (V1.4): "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [5] EN 300 195-2 (V1.3): "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [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] EN 300 207-1 (V1.2): "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [8] EN 300 207-5: "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 5: Test Suite Structure and Test Purposes (TSS&TP) specification for the network".
- [9] ISO/IEC 9646-1: "Information technology - OSI Conformance Testing Methodology and Framework; Part 1: General Concepts".
- [10] ISO/IEC 9646-2: "Information technology - OSI Conformance Testing Methodology and Framework; Part 2: Abstract Test Suite specification".

- [11] ISO/IEC 9646-3: "Information technology - OSI Conformance Testing Methodology and Framework; Part 3: The Tree and Tabular Combined Notation".
- [12] CCITT Recommendation E.164 (1988): "Numbering plan for the ISDN era".
- [13] ITU-T Recommendation I.112 (1993): "Vocabulary and terms for ISDNs".
- [14] ITU-T Recommendation I.210 (1993): "Principles of the telecommunication services supported by an ISDN and the means to describe them".
- [15] ITU-T Recommendation I.411 (1993): "ISDN user-network interfaces - Reference configurations".
- [16] ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology."

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## 3 Definitions

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

### 3.1 Definitions related to conformance testing

**abstract test case:** refer to ISO/IEC 9646-1 [9].

**Abstract Test Suite (ATS):** refer to ISO/IEC 9646-1 [9].

**active test:** test case where the 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 [9].

**implicit send event:** refer to ISO/IEC 9646-3 [11].

**lower tester:** refer to ISO/IEC 9646-1 [9].

**passive test:** 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 [9].

**Protocol Implementation Conformance Statement (PICS):** refer to ISO/IEC 9646-1 [9].

**PICS proforma:** refer to ISO/IEC 9646-1 [9].

**Protocol Implementation eXtra Information for Testing (PIXIT):** refer to ISO/IEC 9646-1 [9].

**PIXIT proforma:** refer to ISO/IEC 9646-1 [9].

**system under test:** refer to ISO/IEC 9646-1 [9].

**Test Purpose (TP):** refer to ISO/IEC 9646-1 [9].

### 3.2 Definitions related to EN 300 195-1

**call held auxiliary state:** see EN 300 196-1 [6], subclause 7.1.2.

**call reference:** see EN 300 403-1 [1], 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 [13], definition 308.

**ISDN number:** number conforming to the numbering and structure specified in CCITT Recommendation E.164 [12].

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

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

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

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

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

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

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

**service; telecommunication service:** see ITU-T Recommendation I.112 [13], definition 201.

**supplementary service:** see ITU-T Recommendation I.210 [14], subclause 2.4.

## 4 Abbreviations

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

3PTY	Three-Party
AOC	Advice of Charge
AOC-D	Advice of Charge During the call
AOC-E	Advice of Charge at the End of the call
AOC-S	Advice of Charge at call Set-up time
CCBS	Completion of Calls to Busy Subscriber
CCNR	Completion of Calls on No Reply
CCRef	Call Reference for call related to the conference
CD	Call Deflection
CFB	Call Forwarding Busy
CFNR	Call Forwarding on No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
COLP	Connected Line Identification Presentation
COLR	Connected Line Identification Restriction
CONF	Conference call, add-on
CUG	Closed User Group
CW	Call Waiting
DDI	Direct Dialling In
ECT	Explicit Call Transfer
FPH	Freephone
HOLD	Call Hold
MCID	Malicious Call Identification
MSN	Multiple Subscriber Number
MWI	Message Waiting Indication
N00	Null call state
N01	Call Initiated call state
N02	Overlap Sending call state
N03	Outgoing Call Proceeding call state
N04	Call Delivered call state
N06	Call Present call state

N07	Call Received call state
N09	Incoming Call Proceeding call state
N10	Active call state
N11	Disconnect Request call state
N12	Disconnect Indication call state
N19	Release Request call state
N25	Overlap Receiving call state
N31	Bearer Independent Transport call state
OCB	Outgoing Call Barring
OCB-F	Outgoing Call Barring: Fixed
OCB-UC	Outgoing Call Barring: User Controlled
SCF	Selective Call Forwarding
SCRef	Call Reference for a private call (not related to the conference)
SSI	Supplementary Service Interactions
SUB	Subaddressing
TP	Terminal Portability
TP	Test Purpose
TSS	Test Suite Structure
UUS	User-to-User Signalling
UUS1/2/3	UUS service 1/2/3

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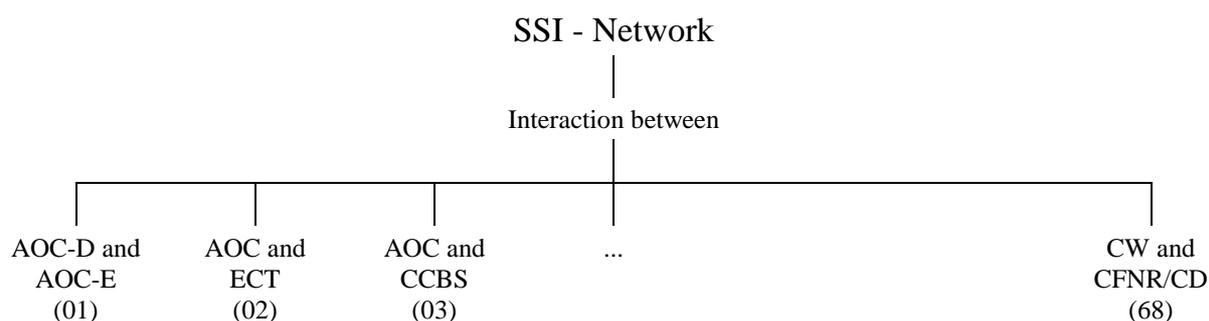
## 5 Test Suite Structure (TSS)

### 5.1 Two-level structure of the test suite

The supplementary service interaction protocol is structured in two levels. The first level corresponds to a specific case of interaction between two supplementary services. The second level corresponds to the way in which a specific case is substructured. This two-level structure is reflected in the present document.

### 5.2 Level 1: interaction case (test purpose group)

The interaction cases correspond to subclauses 5.1 to 5.68 of EN 300 195-1 [4]. They are depicted in figure 1 and in table 1.



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

**Figure 1: Test suite structure - level 1**

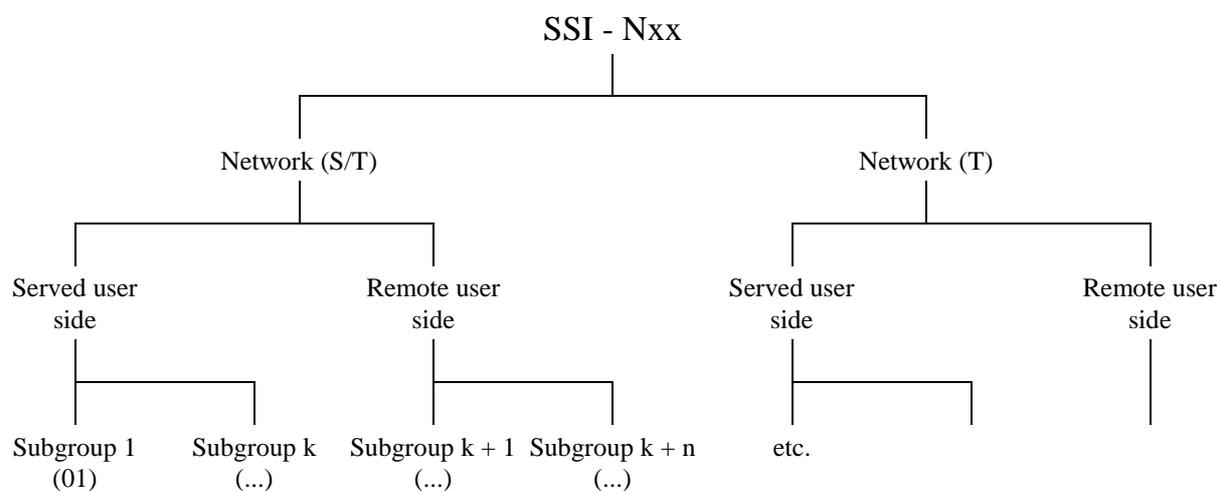
Table 1: Group numbers - level 1

Group	Interaction between
01	the AOC-D and AOC-E supplementary services
02	the AOC and ECT supplementary services
03	the AOC and CCBS supplementary services
04	the AOC and CD supplementary services
05	the AOC and CFB supplementary services
06	the AOC and CFNR supplementary services
07	the AOC and CFU supplementary services
08	the AOC and 3PTY supplementary services
09	the AOC and CONF supplementary services
10	the AOC and TP supplementary services
11	the CONF and HOLD supplementary services
12	the CONF and CUG supplementary service
13	the CONF and CONF supplementary services
14	the CONF and TP supplementary services
15	the CONF and 3PTY supplementary services
16	the CONF and UUS3 supplementary services
17	the CONF and ECT supplementary services
18	the CD and COLP supplementary services
19	the CD and COLR supplementary services
20	the CD and UUS supplementary services
21	the CFB and COLP supplementary services
22	the CFB and COLR supplementary services
23	the CFB and UUS supplementary services
24	the CFNR and COLP supplementary services
25	the CFNR and COLR supplementary services
26	the CFNR and UUS supplementary services
27	the CFU and COLP supplementary services
28	the CFU and COLR supplementary services
29	the CFU and UUS supplementary services
30	the TP and 3PTY supplementary services
31	the HOLD and TP supplementary services
32	the HOLD and 3PTY supplementary services
33	the CUG and 3PTY supplementary services
34	the ECT and MCID supplementary services
35	the ECT and 3PTY supplementary services
36	the ECT and UUS supplementary services
37	the CCBS and UUS supplementary services
38	the CCBS and CLIP supplementary services
39	the CCBS and CLIR supplementary services
40	the CCBS and CUG supplementary services
41	the CCBS and MSN supplementary services
42	the CCBS and SUB supplementary services
43	the FPH and COLP supplementary services
44	the ECT and CUG supplementary services
45	the ECT and TP supplementary services
46	the CONF and MCID supplementary services
47	the CCBS and CW supplementary services
48	the UUS and TP supplementary services
49	the MWI and MSN supplementary services
50	the OCB and CCBS supplementary services
51	the OCB and MSN supplementary services
52	the OCB and CFB supplementary services
53	the OCB and CFNR supplementary services
54	the OCB and CFU supplementary services
55	the OCB and CD supplementary services
56	the OCB-UC and OCB-F supplementary services
57	the CCNR and AOC supplementary services
58	the CCNR and CW supplementary services
59	the CCNR and CLIP supplementary services
60	the CCNR and CLIR supplementary services
61	the CCNR and CUG supplementary services
62	the CCNR and CCBS supplementary services

Group	Interaction between
63	the CCNR and MSN supplementary services
64	the CCNR and SUB supplementary services
65	the CCNR and UUS supplementary services
66	the CCNR and OCB supplementary services
67	the OCB and SCF supplementary services
68	the CW and CFNR/CD supplementary services

### 5.3 Level 2: substructure of an interaction case (test purpose subgroup)

The specific substructure of each interaction case is depicted in the corresponding subclause of clause 6. An example of a possible substructure is given in figure 2 for illustrative purposes. In the root node "SSI -Nxx", the symbol "xx" needs to be replaced by the relevant value of column 1 in table 1.



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

**Figure 2: Example of test suite substructure - level 2**

Within the group of general procedures, a subgroup is reserved for each individual procedure, starting with subgroup 01. Presently, only one general procedure is specified for supplementary service interactions (identification of charge).

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## 6 Test Purposes (TP)

### 6.1 Introduction

For each test requirement a TP is defined.

#### 6.1.1 TP naming convention

TGs are numbered, starting at 001, within each group/subgroup combination. The group/subgroup combinations are organized according to the TSS described in clause 5. Additional references are added to identify the actual test suite and whether it applies to the network or the user (see table 2).

**Table 2: TP identifier naming convention scheme**

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

### 6.1.2 Source of TP definition

The TPs are based on EN 300 195-1 [4], clauses 5 and 6.

### 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 3. This table should be read in conjunction with any TP, i.e. use a TP as an example to fully understand the table.

NOTE: The structuring of TP grouping in two levels (TP group and subgroup) is specific to the present document. Other DSS1 TSS&TP standards use only one level of TP grouping.

**Table 3: Structure of a single TP**

TP part	Text	Example
Header	<Identifier> <i>tab</i> <subclause number in base standard>	see table 1 <b>subclause 0.0.0</b>
Stimulus	Ensure that the IUT in the <basic call state> <trigger> <i>see below for message structure</i> <i>or</i> <goal>	N00, N10, etc. receiving a XXXX message to request a ...
Reaction	<action> <conditions> <i>if the action is sending</i> <i>see below for message structure</i> <next action>, etc. and enters <supplementary service state> <i>and/or</i> and remains in the same state(s) <i>or</i> and enters state <state> with CR<number(s)>	sends, saves, does, etc. using en bloc sending, ...
Message structure	<message type> message containing a <i>a)</i> <info element> information element with <i>b)</i> a <field name> encoded as <i>or</i> including <coding of the field> and <i>back to a or b,</i>	SETUP, FACILITY, CONNECT, ...  Bearer capability, Facility, ...
NOTE:	Text in italics will not appear in TPs and text between <> is filled in for each TP and may differ from one TP to the next.	

### 6.1.4 Test strategy

As the base standard EN 300 195-1 [4] 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 300 195-2 [5].

The TPs are only based on conformance requirements related to the externally observable behaviour of the IUT, and are limited to conceivable situations to which a real implementation is likely to be faced (ETS 300 406 [16]).

All the test purposes are mandatory unless they have a selection criteria. Optional test purposes (with selection criteria), are applicable according to the configuration options of the IUT. The configuration option shall be covered by a PICS item.

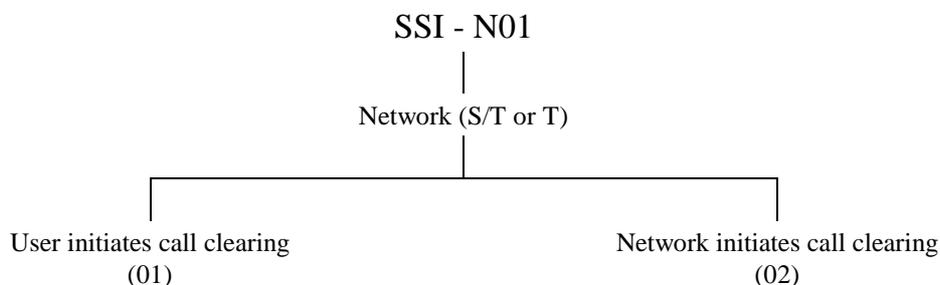
## 6.2 Network TPs for SSI

All PICS items referred to in this subclause are as specified in EN 300 195-2 [5] unless indicated otherwise by another numbered reference.

### 6.2.1 Interaction between AOC-D and AOC-E

**Selection:** IUT supports the interaction between AOC-D and AOC-E.  
PICS: MC 2.13 AND MC 2.14.

#### 6.2.1.1 Test suite substructure



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

**Figure 3: N01 test suite substructure - level 2**

#### 6.2.1.2 User initiates call clearing

##### **SSI\_N01\_01\_001 subclause 5.1**

Ensure that the IUT, in call state N10 and in the simultaneous AOC-D activated and AOC-E activated states, receiving a DISCONNECT message,

- responds with a RELEASE message with a Facility information element including either an AOCECurrency invoke component or an AOCEChargingUnit invoke component and including neither an AOCDCurrency invoke component nor an AOCDChargingUnit invoke component and enters call state N19.

##### **SSI\_N01\_01\_002 subclause 5.1**

Ensure that the IUT, in call state N10 and in the simultaneous AOC-D activated and AOC-E activated states, receiving a RELEASE message,

- responds with a RELEASE COMPLETE message with a Facility information element including either an AOCECurrency invoke component or an AOCEChargingUnit invoke component and including neither an AOCDCurrency invoke component nor an AOCDChargingUnit invoke component and enters call state N00.

#### 6.2.1.3 Network initiates call clearing

##### **SSI\_N01\_02\_001 subclause 5.1**

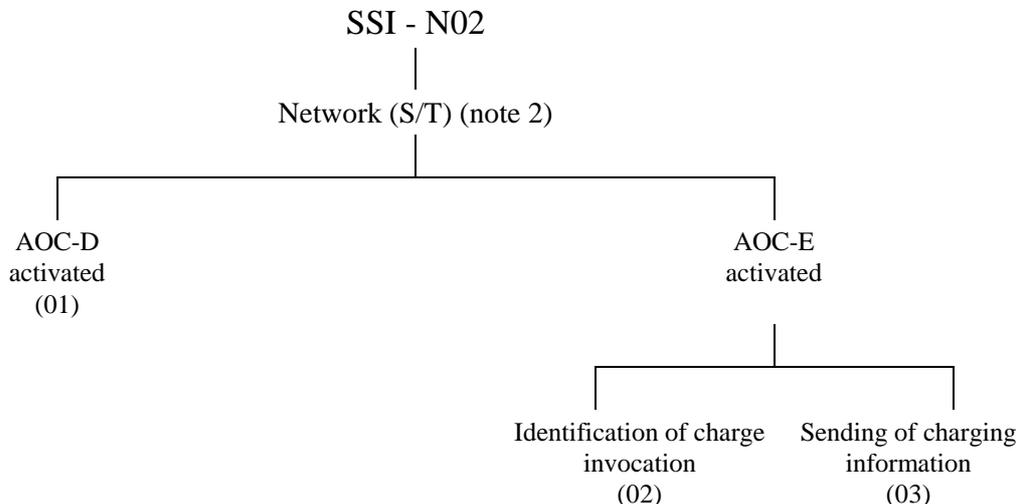
Ensure that the IUT, in call state N10 and in the simultaneous AOC-D activated and AOC-E activated states, in order to initiate call clearing,

- sends a DISCONNECT message with a Facility information element including either an AOCECurrency invoke component or an AOCEChargingUnit invoke component and including neither an AOCDCurrency invoke component nor an AOCDChargingUnit invoke component and enters call state N12.

## 6.2.2 Interaction between AOC and ECT

**Selection:** IUT supports the interaction between AOC and ECT.  
 PICS: MC 2.20 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

### 6.2.2.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: When the served user is a Private ISDN, no call transfer is performed in the public network. The pre-existing two independent calls (or the single call) continue to exist at the T reference point. No case for AOC/ECT interaction arises at the T reference point.

**Figure 4: N02 test suite substructure - level 2**

### 6.2.2.2 AOC-D activated

**Selection:** The served user is charged for a part of the transferred call.

#### SSI\_N02\_01\_001 subclause 5.2.2.1.1

Ensure that the IUT, in the ECT Idle state and with CR1 in state N10 (Held) and CR2 in state N10 (Idle), being in the AOC-D activated state for CR1, receiving a valid FACILITY message with CR1 containing a Facility information element with an EctExecute invoke component,

- responds in the way which is specified for the ECT supplementary service (ECT\_N01\_001) and includes an AOCDCurrency or an AOCDChargingUnit invoke component with the TypeOfChargingInfo parameter indicating "SubTotal" in the DISCONNECT message sent for CR1.

#### SSI\_N02\_01\_002 subclause 5.2.2.1.1

Ensure that the IUT, in the ECT Idle state with CR1 in state N10 (Held) and CR2 in state N10 (Idle), being in the AOC-D activated state for CR1, and CR3 in state N10 (Idle) receiving a valid FACILITY message with CR1 containing a Facility information element with an ExplicitEctExecute invoke component,

- responds in the way which is specified for the ECT supplementary service (ECT\_N02\_006) and includes an AOCDCurrency or an AOCDChargingUnit invoke component with the TypeOfChargingInfo parameter indicating "SubTotal" in the DISCONNECT message sent for CR1.

### 6.2.2.3 AOC-E activated

#### 6.2.2.3.1 Identification of charge invocation

**Selection:** IUT supports the sending of AOC-E type charging information for transferred calls. PICS: SC 6.1.

**SSI\_N02\_02\_001 subclause 5.2.2.1.1**

Ensure that the IUT, in the ECT Idle state and with CR1 in state N10 (Held) and CR2 in state N10 (Idle), being in the AOC-E activated state for CR1, receiving a valid FACILITY message with CR1 containing a Facility information element with an EctExecute invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- responds in the way which is specified for the ECT supplementary service (ECT\_N01\_001).

**SSI\_N02\_02\_002 subclause 5.2.2.1.1**

Ensure that the IUT, in the ECT Idle state with CR1 in state N10 (Held) and CR2 in state N10 (Idle), being in the AOC-E activated state for CR1, and CR3 in state N10 (Idle) receiving a valid FACILITY message with CR1 containing a Facility information element with an ExplicitEctExecute invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- responds in the way which is specified for the ECT supplementary service (ECT\_N02\_006).

**SSI\_N02\_02\_003 subclause 5.2.2.1.2**

Ensure that the IUT, in the ECT Idle state and with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a valid FACILITY message with CR1 containing a Facility information element with an EctExecute invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument but the user is not subscribed to the AOC-E supplementary service,

- responds in the way which is specified for the ECT supplementary service (ECT\_N01\_001) and includes an IdentificationOfCharge return error component in the response, indicating "notSubscribed" to the user.

**SSI\_N02\_02\_004 subclause 5.2.2.1.2**

Ensure that the IUT, in the ECT Idle state and with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a valid FACILITY message with CR1 containing a Facility information element with an EctExecute invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument but the user, who is subscribed to AOC-E on a per call basis but has not activated AOC-E,

- responds in the way which is specified for the ECT supplementary service (ECT\_N01\_001) and includes an IdentificationOfCharge return error component in the response, indicating "notAvailable" to the user.

**6.2.2.3.2 Sending of charging information**

**Selection:** IUT supports the sending of AOC-E type charging information for transferred calls. PICS: SC 6.1.

**SSI\_N02\_03\_001 subclause 5.2.2.1.1**

Ensure that the IUT, in call state N00 after having accepted an explicit call transfer request (IdentificationOfCharge invoke component has been received), when the served user of the ECT operation is subscribed to the MSN supplementary service and AOC-E had been activated, to transfer charging information to the served user when the transferred call is released at the remote sides,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the call reference used in the activation of the ECT supplementary service and a Facility information element with either an AOCECurrency invoke component or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

**SSI\_N02\_03\_002 subclause 5.2.2.1.1**

Ensure that the IUT, in call state N00 after having accepted an explicit call transfer request (IdentificationOfCharge invoke component has been received), when AOC-E had been activated, to transfer charging information to the served user when the transferred call is released at the remote sides,

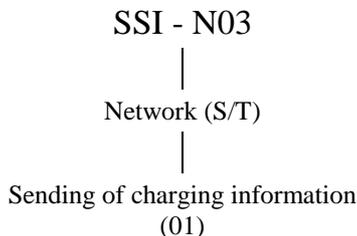
- sends a FACILITY message using the dummy call reference and containing a Facility information element with either an AOCECurrency invoke component or an AOCEChargingUnit invoke component including the ChargingAssociation parameter

and remains in call state N00.

## 6.2.3 Interaction between AOC and CCBS

**Selection:** IUT supports the interaction between AOC and CCBS.  
PICS: MC 2.7 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

### 6.2.3.1 Test suite substructure



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

**Figure 5: N03 test suite substructure - level 2**

### 6.2.3.2 Sending of charging information (S/T reference point)

#### **SSI\_N03\_01\_001 subclause 5.3.2.2.1 normal**

Ensure that the IUT, in call state N10 of a call resulting from a CCBSCall invocation, and in the AOC-D activated state as a result of retaining an AOC-D request from the original call, in which AOC-D had been successfully requested on a per call basis, to transfer charging information to the served user,

- includes a Facility information element including an AOCDCurrencyInfo or an AOCDChargingUnit invoke component in a FACILITY message and remains in call state N10.

#### **SSI\_N03\_01\_002 subclause 5.3.2.2.1 normal**

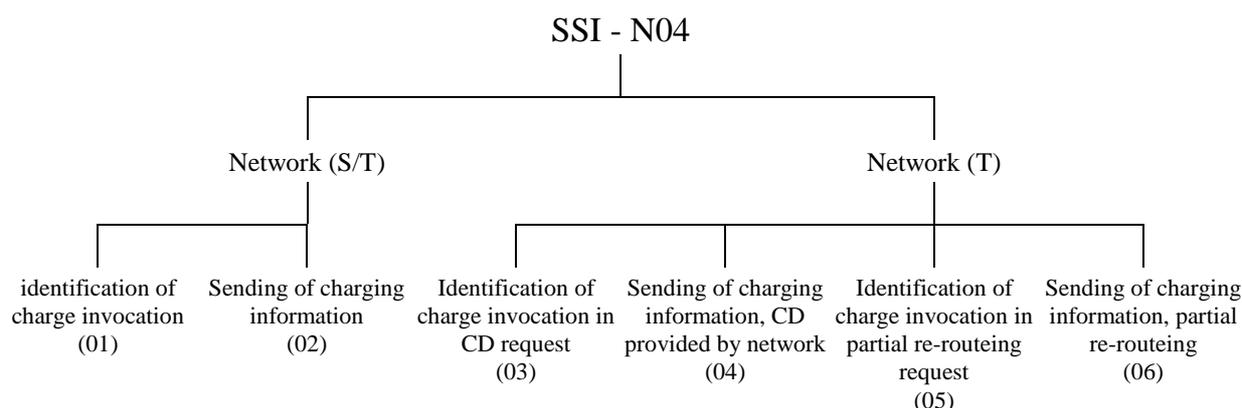
Ensure that the IUT, in call state N10 of a call resulting from a CCBSCall invocation, and in the AOC-D activated state as a result of retaining an AOC-D request from the original call, in which AOC-D had been successfully requested on a per call basis, receiving a DISCONNECT message,

- responds with a RELEASE message with a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component and enters call state N19.

## 6.2.4 Interaction between AOC and CD

**Selection:** IUT supports the interaction between AOC and CD.  
PICS: MC 2.24 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

### 6.2.4.1 Test suite substructure



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

**Figure 6: N04 test suite substructure - level 2**

### 6.2.4.2 Delivery of charging information (S/T reference point)

#### 6.2.4.2.1 Identification of charge invocation

**Selection:** IUT supports the sending of AOC-E type charging information pertaining to a deflected call when that call is released. PICS: SC 7.1.

##### SSI\_N04\_01\_001 subclause 5.4.2.1.1

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07.

##### SSI\_N04\_01\_002 subclause 5.4.2.1.2

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified", a CallDeflection return result component and an IdentificationOfCharge return error component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and an IdentificationOfCharge return error component and remains in call state N07.

#### 6.2.4.2.2 Sending of charging information

**Selection:** IUT supports the sending of AOC-E type charging information pertaining to a deflected call when that call is released. PICS: SC 7.1.

##### SSI\_N04\_02\_001 subclause 5.4.2.1.1

Ensure that the IUT, in call state N00 but having accepted a call deflection request (IdentificationOfCharge invoke component has been received), when the served user of the CD operation is subscribed to the MSN supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the deflected call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the call reference used in the activation of the CD supplementary service and a Facility information element with an AOCECurrency or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

#### **SSI\_N04\_02\_002 subclause 5.4.2.1.1**

Ensure that the IUT, in call state N00 but having accepted a call deflection request (IdentificationOfCharge invoke component has been received), when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the deflected call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element with an AOCECurrency or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

### 6.2.4.3 Delivery of charging information (T reference point)

#### 6.2.4.3.1 Identification of charge invocation in CD request

**Selection:** IUT supports the sending of AOC-E type charging information pertaining to a deflected call when that call is released. PICS: SC 7.1.

#### **SSI\_N04\_03\_001 subclause 5.4.3.1**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07.

#### **SSI\_N04\_03\_002 subclause 5.4.3.1**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified", a CallDeflection return result component and an IdentificationOfCharge return error component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and an IdentificationOfCharge return error component and remains in call state N07.

#### 6.2.4.3.2 Sending of charging information (CD provided by the network)

**Selection:** IUT supports the sending of AOC-E type charging information pertaining to a deflected call when that call is released. PICS: SC 7.1.

#### **SSI\_N04\_04\_001 subclause 5.4.3.1**

Ensure that the IUT, in call state N00 but having accepted a call deflection request (IdentificationOfCharge invoke component has been received), when the served user of the CD operation is subscribed to the DDI supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the deflected call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the call reference used in the activation of the CD supplementary service and a Facility information element with an AOCECurrency or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

#### **SSI\_N04\_04\_002 subclause 5.4.3.1**

Ensure that the IUT, in call state N00 but having accepted a call deflection request (IdentificationOfCharge invoke component has been received), when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the deflected call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element with an AOCEurrency or an AOCEchargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

#### 6.2.4.3.3 Identification of charge invocation in partial re-routing request

**Selection:** IUT supports the sending of AOC-E type charging information pertaining to a deflected call when that call is released. PICS: SC 7.1.

##### SSI\_N04\_05\_001 subclause 5.4.3.2.1

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component including a RerouteingReason parameter indicating "cdImmediate" and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "clear call on invocation of diversion".

##### SSI\_N04\_05\_002 subclause 5.4.3.2.1

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component including a RerouteingReason parameter indicating "cdImmediate" and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtTheEndOfTheCall",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified", a CallRerouteing return result component and a ChargingRequest return result component and enters call state N12.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "clear call on invocation of diversion".

##### SSI\_N04\_05\_003 subclause 5.4.3.2.1

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component including a RerouteingReason parameter indicating "cdAlerting" and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a FACILITY message with a CallRerouteing return result component and remains in call state N07.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "retain call until alerting begins at the diverted-to user".

##### SSI\_N04\_05\_004 subclause 5.4.3.2.1

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component including a RerouteingReason parameter indicating "cdAlerting" and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtTheEndOfTheCall",

- sends a FACILITY message with a CallRerouteing return result component and a ChargingRequest return result component and remains in call state N07.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "retain call until alerting begins at the diverted-to user".

##### SSI\_N04\_05\_005 subclause 5.4.3.2.2

Ensure that the IUT, in the Call Received call state N07 and (diversion) Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component including a RerouteingReason parameter indicating "cdImmediate" and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified", a CallRerouting return result component and an IdentificationOfCharge return error component and enters call state N12.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "clear call on invocation of diversion".

#### SSI\_N04\_05\_006 subclause 5.4.3.2.2

Ensure that the IUT, in the Call Received call state N07 and (diversion) Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cdAlerting" and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a FACILITY message with a CallRerouting return result component and an IdentificationOfCharge return error component and remains in call state N07.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "retain call until alerting begins at the diverted-to user".

#### 6.2.4.3.4 Sending of charging information (partial re-routeing)

**Selection:** IUT supports the sending of AOC-E type charging information pertaining to a deflected call when that call is released. PICS: SC 7.1.

#### SSI\_N04\_06\_001 subclause 5.4.3.2.1

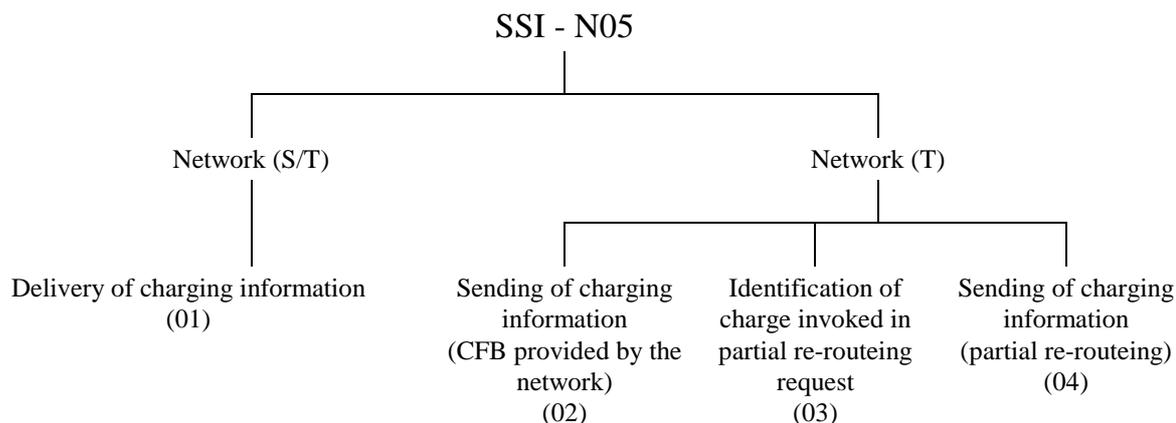
Ensure that the IUT, in call state N00 but having accepted a partial re-routeing request on call deflection (IdentificationOfCharge invoke component has been received), when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the deflected call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element with an AOCECurrency or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

### 6.2.5 Interaction between AOC and CFB

**Selection:** IUT supports the interaction between AOC and CFB.  
PICS: MC 2.21 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

#### 6.2.5.1 Test suite substructure



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

**Figure 7: N05 test suite substructure - level 2**

### 6.2.5.2 Delivery of charging information (S/T reference point)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 8.1.

#### SSI\_N05\_01\_001 subclause 5.5.2.1.1

Ensure that the IUT, in call state N00, having accepted a CFB request and a call is presently forwarded, when the served user of the CFB operation is subscribed to the MSN supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the served user and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### SSI\_N05\_01\_002 subclause 5.5.2.1.1

Ensure that the IUT, in call state N00, having accepted a CFB request and a call is presently forwarded, when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

### 6.2.5.3 Delivery of charging information (T reference point)

#### 6.2.5.3.1 Sending of charging information (CFB provided by the network)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 8.1.

#### SSI\_N05\_02\_001 subclause 5.5.3.1

Ensure that the IUT, in call state N00, having accepted a CFB request for the whole private network and a call is presently forwarded, when the private network is subscribed to the DDI supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the served user and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### SSI\_N05\_02\_002 subclause 5.5.3.1

Ensure that the IUT, in call state N00, having accepted a CFB request for the whole private network and a call is presently forwarded, when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### 6.2.5.3.2 Identification of charge invoked in partial re-routeing request

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 8.1.

#### SSI\_N05\_03\_001 subclause 5.5.3.2

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element including a CallRerouting invoke component with a ReroutingReason parameter indicating "cfb" and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a FACILITY message with a CallRerouting return result component and remains in call state N07.

**SSI\_N05\_03\_002 subclause 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfb" and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtTheEndOfTheCall",

- sends a FACILITY message with a CallRerouting return result component and a ChargingRequest return result component and remains in call state N07.

**SSI\_N05\_03\_003 subclause 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and (diversion) Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfb" and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a FACILITY message with a CallRerouting return result component and an IdentificationOfCharge return error component and remains in call state N07.

**6.2.5.3.3 Sending of charging information (partial re-routing)**

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 8.1.

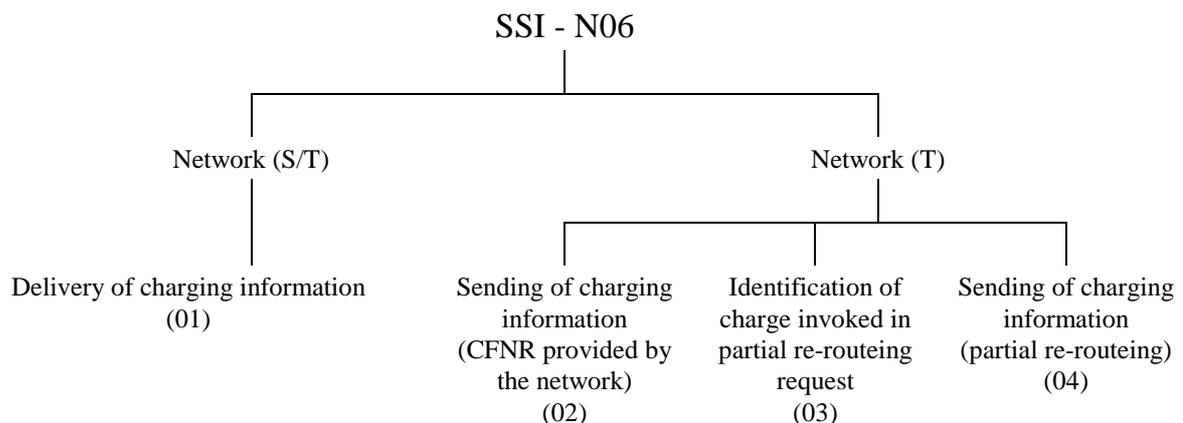
**SSI\_N05\_04\_001 subclause 5.5.3.2**

Ensure that the IUT, in call state N00 but having accepted a partial re-routing request on call forwarding busy (IdentificationOfCharge invoke component has been received), when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element with an AOCECurrency or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

**6.2.6 Interaction between AOC and CFNR**

**Selection:** IUT supports the interaction between AOC and CFNR.  
PICS: MC 2.22 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

**6.2.6.1 Test suite substructure**

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

**Figure 8: N06 test suite substructure - level 2**

### 6.2.6.2 Delivery of charging information (S/T reference point)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 9.1.

#### SSI\_N06\_01\_001 subclauses 5.6, 5.5.2.1.1

Ensure that the IUT, in call state N00, having accepted a CFNR request and a call is presently forwarded, when the served user of the CFNR operation is subscribed to the MSN supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the served user and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### SSI\_N06\_01\_002 subclauses 5.6, 5.5.2.1.1

Ensure that the IUT, in call state N00, having accepted a CFNR request and a call is presently forwarded, when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

### 6.2.6.3 Delivery of charging information (T reference point)

#### 6.2.6.3.1 Sending of charging information (CFNR provided by the network)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 9.1.

#### SSI\_N06\_02\_001 subclauses 5.6, 5.5.3.1

Ensure that the IUT, in call state N00, having accepted a CFNR request for the whole private network and a call is presently forwarded, when the private network is subscribed to the DDI supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the served user and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### SSI\_N06\_02\_002 subclauses 5.6, 5.5.3.1

Ensure that the IUT, in call state N00, having accepted a CFNR request for the whole private network and a call is presently forwarded, when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### 6.2.6.3.2 Identification of charge invoked in partial re-routeing request

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 9.1.

#### SSI\_N06\_03\_001 subclauses 5.6, 5.5.3.2

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfnr" and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "clear call on invocation of diversion".

**SSI\_N06\_03\_002 subclauses 5.6, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfnr" and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtTheEndOfTheCall",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified", a CallRerouting return result component and a ChargingRequest return result component and enters call state N12.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "clear call on invocation of diversion".

**SSI\_N06\_03\_003 subclauses 5.6, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfnr" and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a FACILITY message with a CallRerouting return result component and remains in call state N07.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "retain call until alerting begins at the diverted-to user".

**SSI\_N06\_03\_004 subclauses 5.6, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfnr" and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtTheEndOfTheCall",

- sends a FACILITY message with a CallRerouting return result component and a ChargingRequest return result component and remains in call state N07.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "retain call until alerting begins at the diverted-to user".

**SSI\_N06\_03\_005 subclauses 5.6, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and (diversion) Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfnr" and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified", a CallRerouting return result component and an IdentificationOfCharge return error component and enters call state N12.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "clear call on invocation of diversion".

**SSI\_N06\_03\_006 subclauses 5.6, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and (diversion) Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfnr" and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a FACILITY message with a CallRerouting return result component and an IdentificationOfCharge return error component and remains in call state N07.

**Selection:** Network provided option "served user call retention on invocation of diversion" is "retain call until alerting begins at the diverted-to user".

### 6.2.6.3.3 Sending of charging information (partial re-routeing)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 9.1.

#### SSI\_N06\_04\_001 subclauses 5.6, 5.5.3.2

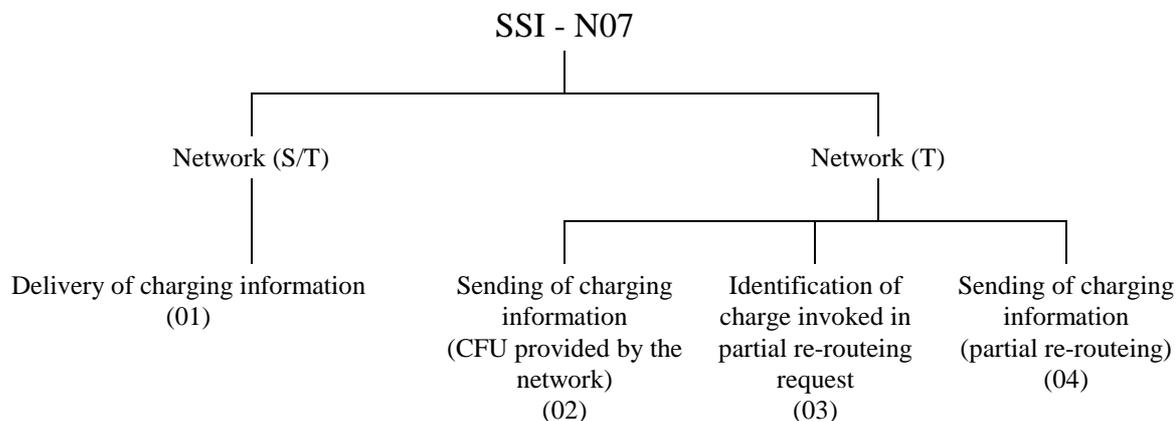
Ensure that the IUT, in call state N00 but having accepted a partial re-routeing request on call forwarding no reply (IdentificationOfCharge invoke component has been received), when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element with an AOCECurrency or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

## 6.2.7 Interaction between AOC and CFU

**Selection:** IUT supports the interaction between AOC and CFU.  
PICS: MC 2.23 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

### 6.2.7.1 Test suite substructure



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

**Figure 9: N07 test suite substructure - level 2**

### 6.2.7.2 Delivery of charging information (S/T reference point)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 10.1.

#### SSI\_N07\_01\_001 subclauses 5.7, 5.5.2.1.1

Ensure that the IUT, in call state N00, having accepted a CFU request and a call is presently forwarded, when the served user of the CFU operation is subscribed to the MSN supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the served user and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### SSI\_N07\_01\_002 subclauses 5.7, 5.5.2.1.1

Ensure that the IUT, in call state N00, having accepted a CFU request and a call is presently forwarded, when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

### 6.2.7.3 Delivery of charging information (T reference point)

#### 6.2.7.3.1 Sending of charging information (CFU provided by the network)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 10.1.

##### **SSI\_N07\_02\_001 subclauses 5.7, 5.5.3.1**

Ensure that the IUT, in call state N00, having accepted a CFU request for the whole private network and a call is presently forwarded, when the private network is subscribed to the DDI supplementary service and the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and containing in the Called party number information element the ISDN number associated with the served user and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

##### **SSI\_N07\_02\_002 subclauses 5.7, 5.5.3.1**

Ensure that the IUT, in call state N00, having accepted a CFU request for the whole private network and a call is presently forwarded, when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the forwarded call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

#### 6.2.7.3.2 Identification of charge invoked in partial re-routing request

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 10.1.

##### **SSI\_N07\_03\_001 subclauses 5.7, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state while the AOC-E supplementary service is activated for all calls, receiving a valid FACILITY message containing a Facility information element including a CallRerouting invoke component with a ReroutingReason parameter indicating "cfu" and an IdentificationOfCharge invoke component with a ChargingAssociation argument,

- sends a FACILITY message with a CallRerouting return result component and remains in call state N07.

##### **SSI\_N07\_03\_002 subclauses 5.7, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and diversion service Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfu" and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtTheEndOfTheCall",

- sends a FACILITY message with a CallRerouting return result component and a ChargingRequest return result component and remains in call state N07.

##### **SSI\_N07\_03\_003 subclauses 5.7, 5.5.3.2**

Ensure that the IUT, in the Call Received call state N07 and (diversion) Idle state, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component including a ReroutingReason parameter indicating "cfu" and an IdentificationOfCharge invoke component with a ChargingAssociation argument, but the AOC-E supplementary service is not activated,

- sends a FACILITY message with a CallRerouting return result component and an IdentificationOfCharge return error component and remains in call state N07.

#### 6.2.7.3.3 Sending of charging information (partial re-routing)

**Selection:** IUT supports the sending of AOC-E charging information to the forwarding user when a forwarded call is released. PICS: SC 10.1.

**SSI\_N07\_04\_001 subclauses 5.7, 5.5.3.2**

Ensure that the IUT, in call state N00 but having accepted a partial re-routing request on call forwarding unconditionally (IdentificationOfCharge invoke component has been received), when the AOC-E supplementary service is activated for all calls, to transfer charging information to the served user when the deflected call is released,

- sends a FACILITY message using the dummy call reference and a Facility information element with an AOCECurrency or an AOCEChargingUnit invoke component including the ChargingAssociation parameter and remains in call state N00.

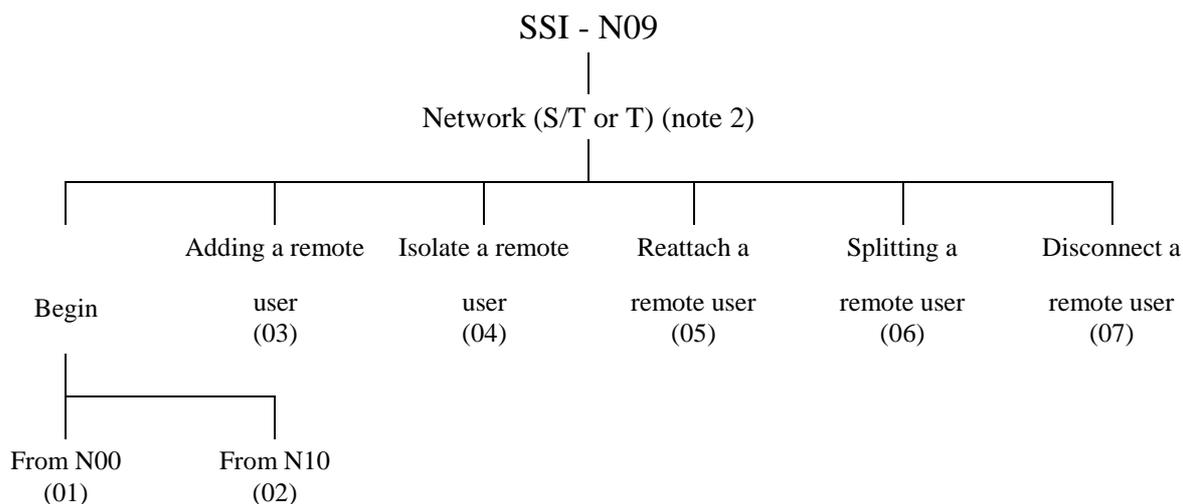
**6.2.8 Interaction between AOC and 3PTY**

This subclause refers to EN 300 195-1 [4], subclause 5.8.

No test purpose related to the specified supplementary service interaction can be defined as there are no requirements defined for the user in EN 300 195-1 [4], subclause 5.8.

**6.2.9 Interaction between AOC and CONF**

**Selection:** IUT supports the interaction between AOC and CONF.  
PICS: MC 2.18 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

**6.2.9.1 Test suite substructure**

NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: When the served user is a Private ISDN, this TSS&TP assumes that the conference connection is performed in the public network. The procedures at the served user are identical for the S/T and T reference points.

**Figure 10: N09 test suite substructure - level 2**

**6.2.9.2 Begin conference from N00**

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_01\_001 subclause 5.9.2.1**

Ensure that the IUT, in call state N00 receiving a SETUP message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingInformationAtCallSetup",

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N01\_001) and includes in a call control or a FACILITY message a Facility information element a ChargingRequest return result component with an AOCSurrencyInfoList or an AOCSspecialArrInfo parameter.

**Selection:** AOC-S supported. PICS: AOC [2] MC 10.

**SSI\_N09\_01\_002 subclause 5.9.2.1**

Ensure that the IUT, in call state N00 receiving a SETUP message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingDuringACall",

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N01\_001) and includes in a call control or a FACILITY message a Facility information element a ChargingRequest return result component indicating "chargingInfoFollows".

**Selection:** AOC-D supported. PICS: AOC [2] MC 11.

**SSI\_N09\_01\_003 subclause 5.9.2.1**

Ensure that the IUT, in call state N00 receiving a SETUP message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtEndOfCall",

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N01\_001) and includes in a call control or a FACILITY message a Facility information element a ChargingRequest return result component indicating "chargingInfoFollows".

**Selection:** AOC-E supported. PICS: AOC [2] MC 12.

### 6.2.9.3 Begin conference from N10

**Selection:** IUT supports beginning of the conference from the Active call state N10.  
PICS: AOC [2] MC 4.2.

**SSI\_N09\_02\_001 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 receiving a FACILITY message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingInformationAtCallSetup",

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N02\_001) and includes in a FACILITY message a Facility information element including a ChargingRequest return result component with an AOCSurrencyInfoList or an AOCSspecialArrInfo parameter.

**Selection:** AOC-S supported. PICS: AOC [2] MC 10.

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_02\_002 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 receiving a FACILITY message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingDuringACall",

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N02\_001) and includes in a FACILITY message a Facility information element with a ChargingRequest return result component.

**Selection:** AOC-D supported. PICS: AOC [2] MC 11.

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_02\_003 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 receiving a FACILITY message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component with a ChargingCase parameter indicating "chargingAtTheEndOfCall",

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N02\_001) and includes in a FACILITY message a Facility information element with a ChargingRequest return result component

**Selection:** AOC-E supported. PICS: AOC [2] MC 12.

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_02\_004 subclause 5.9.2.2**

Ensure that the IUT, in call state N10 receiving a SETUP message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component while the network does not support the AOC supplementary service in conjunction with the CONF supplementary service,

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N01\_001) and includes in a call control or a FACILITY message a Facility information element with a ChargingRequest return error component indicating "notAvailable".

**Selection:** IUT does not support the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: NOT SC 12.1.

**SSI\_N09\_02\_005 subclause 5.9.2.2**

Ensure that the IUT, in call state N10 receiving a SETUP message with a Facility information element including a BeginCONF invoke component and a ChargingRequest invoke component while the network cannot accept the conference request,

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N01\_003, 004, 005, 006) and includes in a call control or a FACILITY message a Facility information element with a ChargingRequest return error component indicating "notAvailable".

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

#### 6.2.9.4 Adding a remote user

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_03\_001 subclause 5.9.2.2**

Ensure that the IUT, in call state N10 (SCRef and CCRef) receiving a FACILITY message for SCRef with a Facility information element including an AddCONF invoke component and a ChargingRequest invoke component,

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N03\_001) and includes in a FACILITY message for SCRef a Facility information element with a ChargingRequest return error component indicating "notAvailable".

#### 6.2.9.5 Isolate a remote user

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_04\_001 subclause 5.9.2.2**

Ensure that the IUT, in call state N10 (CCRef) receiving a FACILITY message with a Facility information element including an IsolateCONF invoke component and a ChargingRequest invoke component,

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N04\_001) and includes in a FACILITY message a Facility information element with a ChargingRequest return error component indicating "notAvailable".

#### 6.2.9.6 Reattach a remote user

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_05\_001 subclause 5.9.2.2**

Ensure that the IUT, in call state N10 (CCRef), when a remote user of the conference has previously been isolated, receiving a FACILITY message with a Facility information element including a ReattachCONF invoke component and a ChargingRequest invoke component,

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N05\_001) and includes in a FACILITY message a Facility information element with a ChargingRequest return error component indicating "notAvailable".

**6.2.9.7 Splitting a remote user**

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

**SSI\_N09\_06\_001 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 (SCRef and CCRef), where the call associated with SCRef is related to a remote user that has been split from the conference, for which the AOC-D supplementary service has been activated, to send cumulative charging information,

- sends a FACILITY message with a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component and remains in the same call states.

**Selection:** AOC-D supported. PICS: AOC [2] MC 11.

**SSI\_N09\_06\_002 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 (SCRef and CCRef), where the call associated with SCRef is related to a remote user that has been split from the conference, for which the AOC-S supplementary service has been activated, receiving a DISCONNECT message,

- sends a RELEASE message with a Facility information element including an AOCSCurrency or an AOCSspecialArr invoke component and enters call state N19 for SCRef and remains in call state N10 for CCRef.

**Selection:** AOC-S in clearing phase supported. PICS: AOC [2] MC 16.

**SSI\_N09\_06\_003 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 (SCRef and CCRef), where the call associated with SCRef is related to a remote user that has been split from the conference, for which the AOC-S supplementary service has been activated, to indicate that the remote user has terminated the call,

- sends a DISCONNECT message with a Facility information element including an AOCSCurrency or an AOCSspecialArr invoke component and enters call state N12 for SCRef and remains in call state N10 for CCRef.

**Selection:** AOC-S in clearing phase supported. PICS: AOC [2] MC 16.

**SSI\_N09\_06\_004 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 (SCRef and CCRef), where the call associated with SCRef is related to a remote user that has been split from the conference, for which the AOC-D supplementary service has been activated, receiving a DISCONNECT message,

- sends a RELEASE message with a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component with the TypeOfChargingInfo parameter indicating "total" and enters call state N19 for SCRef and remains in call state N10 for CCRef.

**Selection:** AOC-D supported. PICS: AOC [2] MC 11.

**SSI\_N09\_06\_005 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 (SCRef and CCRef), where the call associated with SCRef is related to a remote user that has been split from the conference, for which the AOC-D supplementary service has been activated, to indicate that the remote user has terminated the call,

- sends a DISCONNECT message with a Facility information element including an AOCDCurrency or an AOCDChargingUnitinvoke component with the TypeOfChargingInfo parameter indicating "total" and enters call state N12 for SCRef and remains in call state N10 for CCRRef.

**Selection:** AOC-D supported. PICS: AOC [2] MC 11.

#### **SSI\_N09\_06\_006 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 (SCRef and CCRRef), where the call associated with SCRef is related to a remote user that has been split from the conference, for which the AOC-E supplementary service has been activated, receiving a DISCONNECT message,

- sends a RELEASE message with a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and enters call state N19 for SCRef and remains in call state N10 for CCRRef.

**Selection:** AOC-E supported. PICS: AOC [2] MC 12.

#### **SSI\_N09\_06\_007 subclause 5.9.2.1**

Ensure that the IUT, in call state N10 (SCRef and CCRRef), where the call associated with SCRef is related to a remote user that has been split from the conference, for which the AOC-E supplementary service has been activated, to indicate that the remote user has terminated the call,

- sends a DISCONNECT message with a Facility information element including an AOCECurrency or an AOCEChargingUnitinvoke component and enters call state N11 for SCRef and remains in call state N10 for CCRRef.

**Selection:** AOC-E supported. PICS: AOC [2] MC 12.

#### **SSI\_N09\_06\_008 subclause 5.9.2.2**

Ensure that the IUT, in call state N10 (CCRRef), receiving a SETUP message with a Facility information element including an SplitCONF invoke component and a ChargingRequest invoke component,

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N06\_001) and includes in a call control or a FACILITY message a Facility information element with a ChargingRequest return error component indicating "notAvailable".

### 6.2.9.8 Disconnect a remote user

**Selection:** IUT supports the sending of AOC charging information to the served user in conjunction with the CONF supplementary service. PICS: SC 12.1.

#### **SSI\_N09\_07\_001 subclause 5.9.2.2**

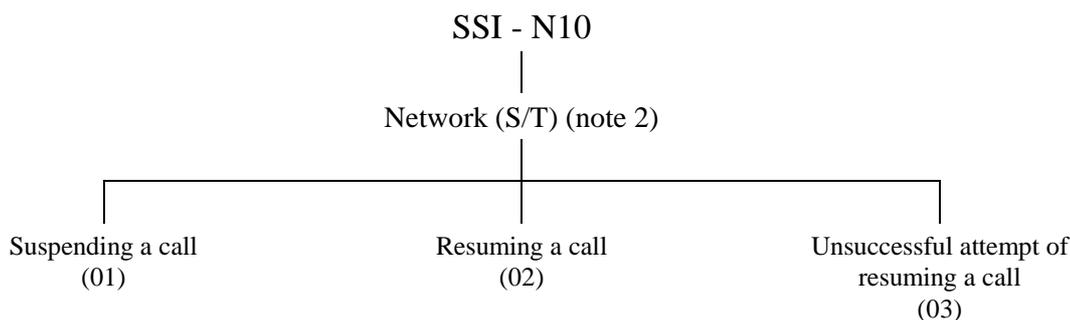
Ensure that the IUT, in call state N10 (CCRRef) receiving a FACILITY message with a Facility information element including a DropCONF invoke component and a ChargingRequest invoke component,

- proceeds in the way which is specified for the CONF supplementary service (CONF\_N07\_001) and includes in a FACILITY message a Facility information element with a ChargingRequest return error component indicating "notAvailable".

### 6.2.10 Interaction between AOC and TP

**Selection:** IUT supports the interaction between AOC and TP.  
PICS: MC 2.5 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

### 6.2.10.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: When the served user is a Private ISDN, only notifications are passed between the user and the network. As notifications are not suitable for support of AOC services, no case for AOC/Terminal Portability interaction arises at the T reference point.

**Figure 11: N10 test suite substructure - level 2**

### 6.2.10.2 Suspending a call

**Selection:** IUT supports sending of AOC-D charging information to the served user in the SUSPEND ACKNOWLEDGE message. PICS: SC 1.1.

#### SSI\_N10\_01\_001 subclause 5.10.2.1.1

Ensure that the IUT in call state N10 and in the AOC-D activated state, receiving a valid SUSPEND message,

- sends a SUSPEND ACKNOWLEDGE message containing a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component with the TypeOfChargingInfo parameter encoded as "subTotal" and enters call state N00.

#### SSI\_N10\_01\_002 subclause 5.10.2.1.1

Ensure that the IUT in call state N10 and in the AOC-D activated state, receiving a valid SUSPEND message while charging information is not available,

- sends a SUSPEND ACKNOWLEDGE message containing a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component indicating "chargeNotAvailable" and enters call state N00.

### 6.2.10.3 Resuming a call

**Selection:** IUT supports sending of AOC-D charging information to the served user in the RESUME ACKNOWLEDGE message. PICS: SC 1.2.

#### SSI\_N10\_02\_001 subclause 5.10.2.2.1

Ensure that the IUT in call state N00, receiving a valid RESUME message while AOC-D is activated for the corresponding suspended call,

- sends a RESUME ACKNOWLEDGE message containing a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component with a TypeOfChargingInfo parameter indicating "subTotal" and enters call state N10.

#### SSI\_N10\_02\_002 subclause 5.10.2.2.1

Ensure that the IUT in call state N00, receiving a valid RESUME message while AOC-D is activated for the corresponding suspended call, while charging information is not available,

- sends a RESUME ACKNOWLEDGE message containing a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component indicating "chargeNotAvailable" and enters call state N10.

### 6.2.10.4 Unsuccessful attempt of resuming a call

**Selection:** IUT supports sending of AOC-D charging information to the served user in the RESUME REJECT message. PICS: SC 1.3.

#### SSI\_N10\_03\_001 subclause 5.10.2.2.1

Ensure that the IUT in call state N00, receiving a valid RESUME message while AOC-D is activated for the corresponding suspended call and the network cannot resume the call because the remote user has disconnected during the call was suspended,

- sends a RESUME REJECT message containing a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component with the TypeOfChargingInfo parameter indicating "total" and remains in call state N00.

#### SSI\_N10\_03\_002 subclause 5.10.2.2.1

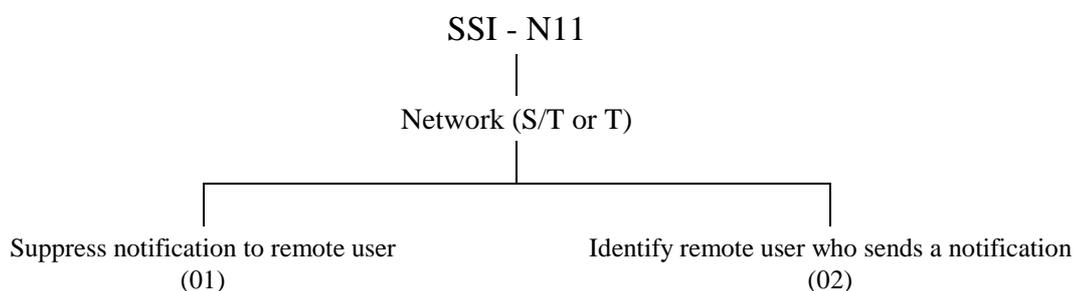
Ensure that the IUT in call state N00, receiving a valid RESUME message while AOC-E is activated for the corresponding suspended call and the network cannot resume the call because the remote user has disconnected during the call was suspended,

- sends a RESUME REJECT message containing a Facility information element including an AOCECurrency or an AOCEChargingUnit invoke component and remains in call state N00.

### 6.2.11 Interaction between CONF and HOLD

**Selection:** IUT supports the interaction between CONF and HOLD.  
PICS: MC 2.18 AND MC 2.25.

#### 6.2.11.1 Test suite substructure



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

**Figure 12: N11 test suite substructure - level 2**

#### 6.2.11.2 Suppress notification to remote user

##### SSI\_N11\_01\_001 subclause 5.11.2.1.1

Ensure that the IUT in call state N10, while this call is associated with a remote user of a conference, when the served user of this conference puts the conference call on hold,

- does not send any notifications and remains in call state N10.

##### SSI\_N11\_01\_002 subclause 5.11.2.1.1

Ensure that the IUT in call state N10, while this call is associated with a remote user of a conference, when the served user of this conference retrieves the previously held conference call,

- does not send any notifications and remains in call state N10.

#### 6.2.11.3 Identify remote user who sends a notification

##### SSI\_N11\_02\_001 subclause 5.11.2.2.1

Ensure that the IUT in call state N10 (CCRef), to indicate that a remote user of this conference puts its call on hold,

- sends a FACILITY message including a Notification indicator indicating "Remote hold" and a Facility information element containing an IdentifyConferee invoke component with the PartyId parameter indicating that remote user and remains in call state N10.

**SSI\_N11\_02\_002 subclause 5.11.2.2.1**

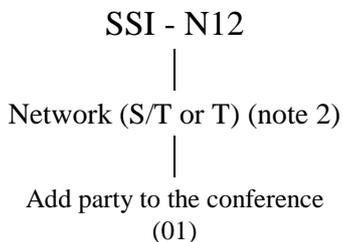
Ensure that the IUT in call state N10 (CCRef), to indicate that a remote user of this conference retrieves its previously held call,

- sends a FACILITY message including a Notification indicator indicating "Remote retrieval" and a Facility information element containing an IdentifyConferee invoke component with the PartyId parameter indicating that remote user and remains in call state N10.

## 6.2.12 Interaction between CONF and CUG supplementary service

**Selection:** IUT supports the interaction between CONF and CUG.  
PICS: MC 2.18 AND MC 2.8.

### 6.2.12.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: When the served user is a Private ISDN, this TSS&TP assumes that the conference connection is performed in the public network. The procedures at the served user are identical for the S/T and T reference points.

**Figure 13: N12 test suite substructure - level 2**

### 6.2.12.2 Add party to the conference

**SSI\_N12\_01\_001 subclause 5.12.2.1.2**

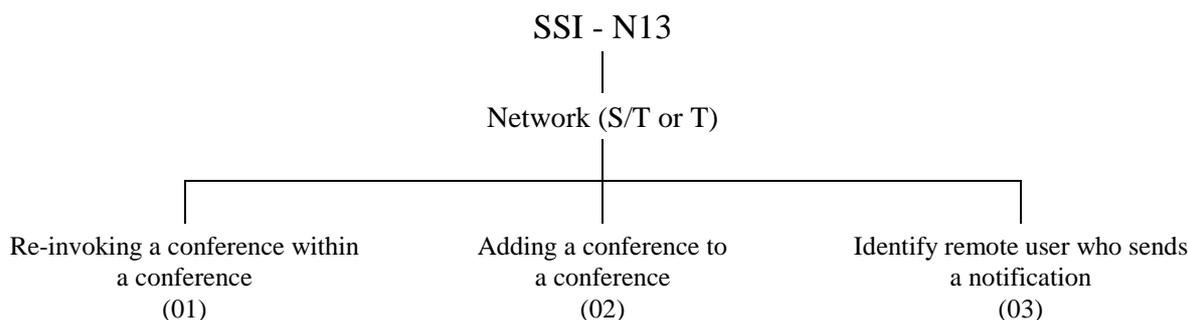
Ensure that the IUT in call state N10 (SCRef and CCRef) receiving a FACILITY message (SCRef) with a Facility information element including an AddCONF invoke component while the call associated with SCRef is not a member of the closed user group of the conference (as defined by the first call of the conference),

- sends a FACILITY message with a Facility information element including an AddCONF return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N10 (CCRef and SCRef).

## 6.2.13 Interaction between CONF and CONF

**Selection:** IUT supports the interaction between CONF and CONF.  
PICS: MC 2.18.

### 6.2.13.1 Test suite substructure



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

**Figure 14: N13 test suite substructure - level 2**

### 6.2.13.2 Re-invoking a conference within a conference

#### SSI\_N13\_01\_001 subclause 5.13.2.1.2

Ensure that the IUT in call state N10 receiving a FACILITY message with a Facility information element including a BeginCONF invoke component while this call is already a conference call,

- sends a FACILITY message with a Facility information element including an BeginCONF return error component indicating "notAvailable" and remains in call state N10.

### 6.2.13.3 Adding a conference to a conference

#### SSI\_N13\_02\_001 subclause 5.13.2.2.2

Ensure that the IUT, in call state N10 (SCRef and CCRef) receiving a FACILITY message (SCRef) with a Facility information element including an AddCONF invoke component while the call associated with SCRef is a conference call,

- sends a FACILITY message (SCRef) with a Facility information element including an AddCONF return error component indicating "notAllowed" and remains in call state N10 (CCRef and SCRef).

### 6.2.13.4 Identify remote user who sends a notification

#### SSI\_N13\_03\_001 subclause 5.13.2.3.1

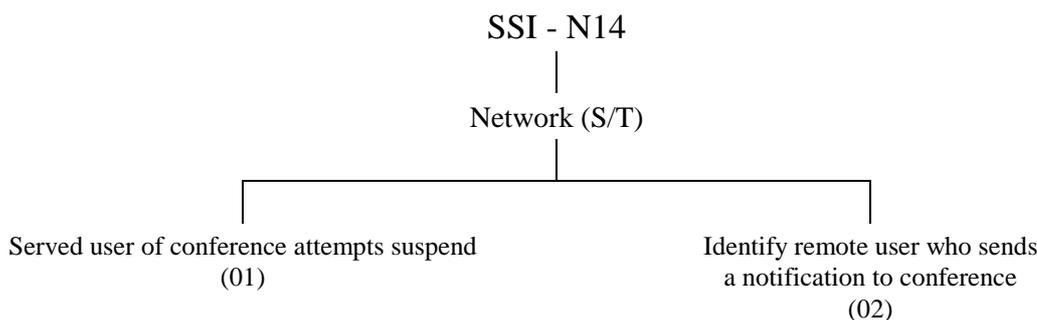
Ensure that the IUT, in call state N10 (CCRef), to indicate that a remote user uses the CONF supplementary service,

- sends a FACILITY message including a Notification indicator and a Facility information element containing an IdentifyConferee invoke component with a PartyId parameter indicating that remote user and remains in call state N10.

## 6.2.14 Interaction between CONF and TP

**Selection:** IUT supports the interaction between CONF and TP.  
**PICS:** MC 2.18 AND MC 2.5.

### 6.2.14.1 Test suite substructure



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

**Figure 15: N14 test suite substructure - level 2**

### 6.2.14.2 Served user of conference attempts suspend

#### **SSI\_N14\_01\_001 subclause 5.14.2.1.2**

Ensure that the IUT, in call state N10 (CCRef), receiving a SUSPEND message,

- sends a SUSPEND REJECT message containing cause value #29, "facility rejected" and remains in the same call state.

#### **SSI\_N14\_01\_002 subclause 5.14.2.1.2**

Ensure that the IUT, in call state N10, receiving a SUSPEND message while another call at the same CEI is a conference call,

- sends a SUSPEND REJECT message containing cause value #29, "facility rejected" and remains in the same call state.

### 6.2.14.3 Identify remote user who sends a notification to conference

#### **SSI\_N14\_02\_001 subclause 5.14.2.2.1**

Ensure that the IUT in call state N10 (CCRef), to indicate that a remote user of this conference suspends its call,

- sends a FACILITY message including a Notification indicator indicating "User suspended" and a Facility information element containing an IdentifyConferee invoke component with the PartyId parameter indicating that remote user and remains in call state N10.

#### **SSI\_N14\_02\_002 subclause 5.11.2.2.1**

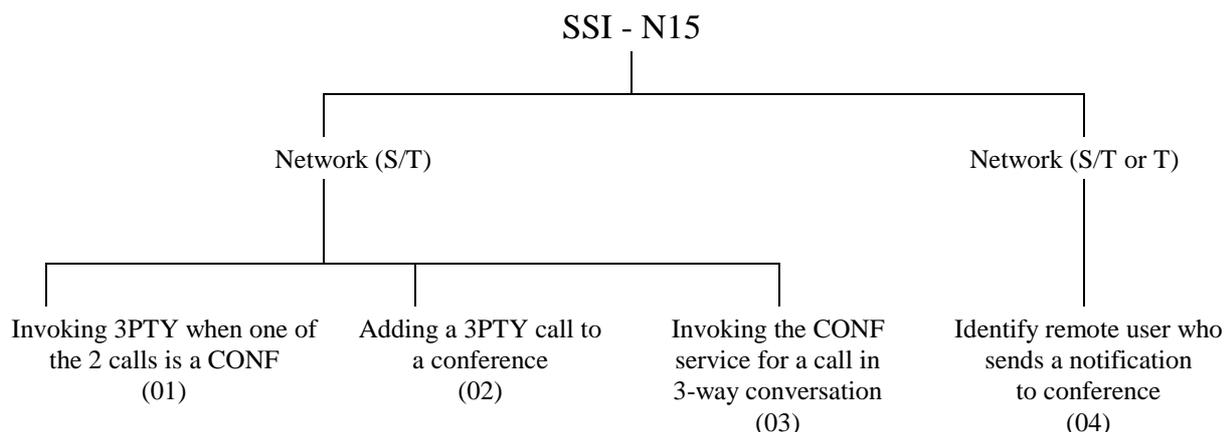
Ensure that the IUT in call state N10 (CCRef), to indicate that a remote user of this conference resumes its previously suspended call,

- sends a FACILITY message including a Notification indicator indicating "User resumed" and a Facility information element containing an IdentifyConferee invoke component with the PartyId parameter indicating that remote user and remains in call state N10.

## 6.2.15 Interaction between CONF and 3PTY

**Selection:** IUT supports the interaction between CONF and 3PTY.  
**PICS:** MC 2.18 AND MC 2.11.

### 6.2.15.1 Test suite substructure



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

**Figure 16: N15 test suite substructure - level 2**

### 6.2.15.2 Invoking 3PTY when one of the two calls is a conference

#### SSI\_N15\_01\_001 subclause 5.15.2.1.2

Ensure that the IUT with CR1 in state N10 (Held) and CR2 in state N10 (Idle), while the call associated with CR1 is a conference call, receiving a FACILITY message for CR1 containing a Facility information element with a Begin3PTY invoke component,

- responds with a FACILITY message for CR1 including a Facility information element containing a Begin3PTY return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

#### SSI\_N15\_01\_002 subclause 5.15.2.1.2

Ensure that the IUT with CR1 in state N10 (Held) and CR2 in state N10 (Idle), while the call associated with CR2 is a conference call, receiving a FACILITY message for CR1 containing a Facility information element with a Begin3PTY invoke component,

- responds with a FACILITY message for CR1 including a Facility information element containing a Begin3PTY return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

### 6.2.15.3 Adding a 3PTY call to a conference

#### SSI\_N15\_02\_001 subclause 5.15.2.2.2

Ensure that the IUT in call state N10 (SCRef and CCRef), while the call associated with SCRef is part of a three-way conversation, receiving a FACILITY message (SCRef) with a Facility information element including an AddCONF invoke component,

- sends a FACILITY message with a Facility information element including an AddCONF return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

### 6.2.15.4 Invoking the CONF service for a call in 3-way conversation

#### SSI\_N15\_03\_001 subclause 5.15.2.3.2

Ensure that the IUT in the 3PTY Active state with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a FACILITY message for CR1 containing a Facility information element with a BeginCONF invoke component,

- responds with a FACILITY message for CR1 including a Facility information element containing a BeginCONF return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

**SSI\_N15\_03\_002 subclause 5.15.2.1.2**

Ensure that the IUT in the 3PTY Active state with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a FACILITY message for CR2 containing a Facility information element with a BeginCONF invoke component,

- responds with a FACILITY message for CR2 including a Facility information element containing a BeginCONF return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

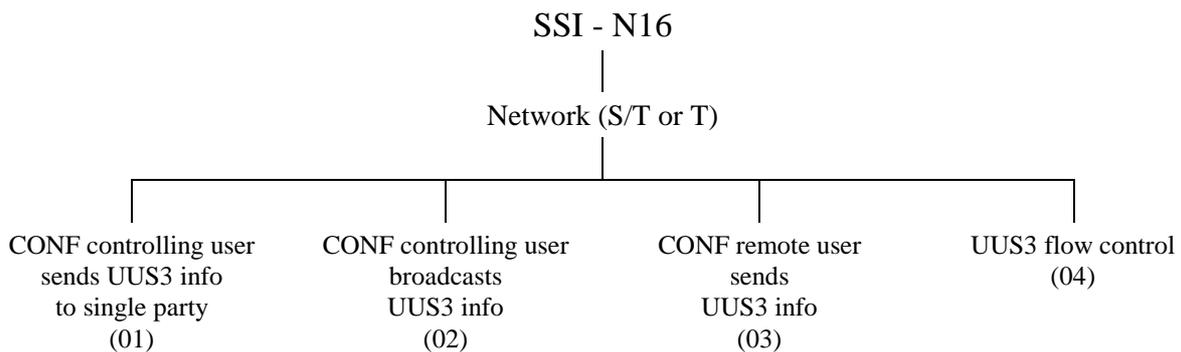
**6.2.15.5 Identify remote user who sends a notification to conference****SSI\_N15\_04\_001 subclause 5.15.2.4.1**

Ensure that the IUT in call state N10 (CCRef), to indicate that a remote user of this conference uses the 3PTY supplementary service,

- sends a FACILITY message including a Notification indicator and a Facility information element containing an IdentifyConferee invoke component with the PartyId parameter indicating that remote user and remains in call state N10.

**6.2.16 Interaction between CONF and UUS service 3**

**Selection:** IUT supports the interaction between CONF and UUS.  
PICS: MC 2.18 AND MC 2.9.

**6.2.16.1 Test suite substructure**

NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: Activation and deactivation of the UUS3 supplementary service concern the individual calls from which the conference is constructed, or which are obtained by splitting a party from the conference. UUS3 activation TPs are fully covered in the corresponding supplementary services standard, i.e. no additional activation TPs are required in the frame of CONF-UUS3 interactions TP.

**Figure 17: N16 test suite substructure - level 2**

**6.2.16.2 CONF controlling user sends UUS3 info to single party****SSI\_N16\_01\_001 subclause 5.16.2.2.1**

Ensure that the IUT, in call state N10, where the call is a conference call, receiving a USER INFORMATION message with a Facility information element including an IdentifyConferee invoke component including a PartyId parameter and UUS3 is activated for the communication to the corresponding remote user,

- accepts the user information (resulting in the sending of a USER INFORMATION message without the Facility information element containing the IdentifyConferee invoke component to the indicated remote user) and remains in the same call state.

### 6.2.16.3 CONF controlling user broadcasts UUS3 info

#### SSI\_N16\_02\_001 subclause 5.16.2.2.1

Ensure that the IUT, in call state N10, where the call is a conference call, receiving a USER INFORMATION message and UUS3 is activated for communication to at least one of the remote parties,

- accepts the user information (resulting in the sending of a USER INFORMATION message to the remote users, for which the UUS3 service is activated) and remains in the same call state.

### 6.2.16.4 CONF remote user sends UUS3 info

#### SSI\_N16\_03\_001 subclause 5.16.2.2.1

Ensure that the IUT, in call state N10, to indicate that a remote user, for which UUS3 is activated, has sent a USER INFORMATION message,

- sends a USER INFORMATION message with a Facility information element including a IdentifyConferee invoke component with a PartyId parameter identifying this remote user and remains in the same call state.

### 6.2.16.5 UUS3 flow control

#### SSI\_N16\_04\_001 subclause 5.16.2.3.1

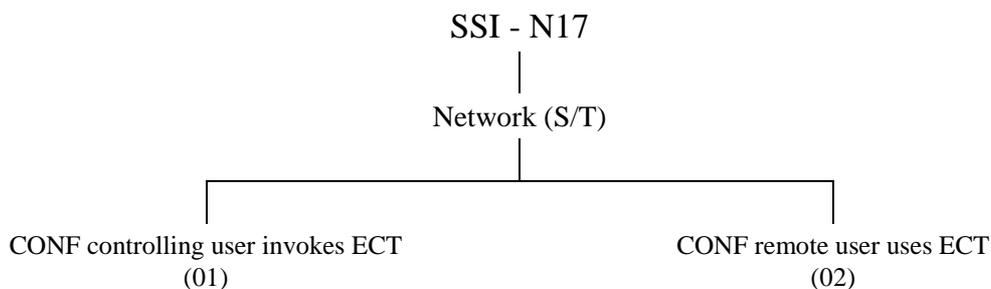
Ensure that the IUT, in call state N10, where the call is a conference call, when the remote users of the conference have sent more than the maximum limit (for one access) of USER INFORMATION messages within a time shorter than the T2-UUS3,

- sends all the USER INFORMATION messages and remains in the same call state.

## 6.2.17 Interaction between CONF and ECT

**Selection:** IUT supports the interaction between CONF and ECT.  
PICS: MC 2.18 AND MC 2.20.

### 6.2.17.1 Test suite substructure



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

**Figure 18: N17 test suite substructure - level 2**

### 6.2.17.2 CONF controlling user invokes ECT

#### SSI\_N17\_01\_001 subclause 5.17.2.1.2

Ensure that the IUT, with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a FACILITY message for CR1 containing a Facility information element with an EctExecute invoke component while the call associated with CR1 is a conference call,

- sends a FACILITY message for CR1 containing a Facility information element including an EctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

**SSI\_N17\_01\_002 subclause 5.17.2.1.2**

Ensure that the IUT, with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a FACILITY message for CR1 containing a Facility information element with an EctExecute invoke component while the call associated with CR2 is a conference call,

- sends a FACILITY message for CR1 containing a Facility information element including an EctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

**SSI\_N17\_01\_003 subclause 5.17.2.1.2**

Ensure that the IUT, with CR1 in state N10 (Held) and CR2 in state N10 (Idle), and CR3 in state N10 (Idle), when a LinkId has been successfully requested, receiving a valid FACILITY message for CR1 containing a Facility information element with an ExplicitEctExecute invoke component while the call associated with CR1 is a conference call,

- sends a FACILITY message for CR1 containing a Facility information element including an EctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

**SSI\_N17\_01\_004 subclause 5.17.2.1.2**

Ensure that the IUT, with CR1 in state N10 (Held) and CR2 in state N10 (Idle), and CR3 in state N10 (Idle), when a LinkId has been successfully requested, receiving a valid FACILITY message for CR1 containing a Facility information element with an ExplicitEctExecute invoke component while the call associated with CR2 is a conference call,

- sends a FACILITY message for CR1 containing a Facility information element including an ExplicitEctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

**6.2.17.3 CONF remote user uses ECT****SSI\_N17\_02\_001 subclause 5.17.2.2.1**

Ensure that the IUT in call state N10 (CCRef), to indicate that a remote user of this conference uses the ECT supplementary service,

- sends a FACILITY message including a Notification indicator and in one or more Facility information elements a RequestSubaddress invoke component and an IdentifyConferee invoke component with the PartyId parameter indicating that remote user and remains in call state N10.

**6.2.18 Interaction between CD and COLP**

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

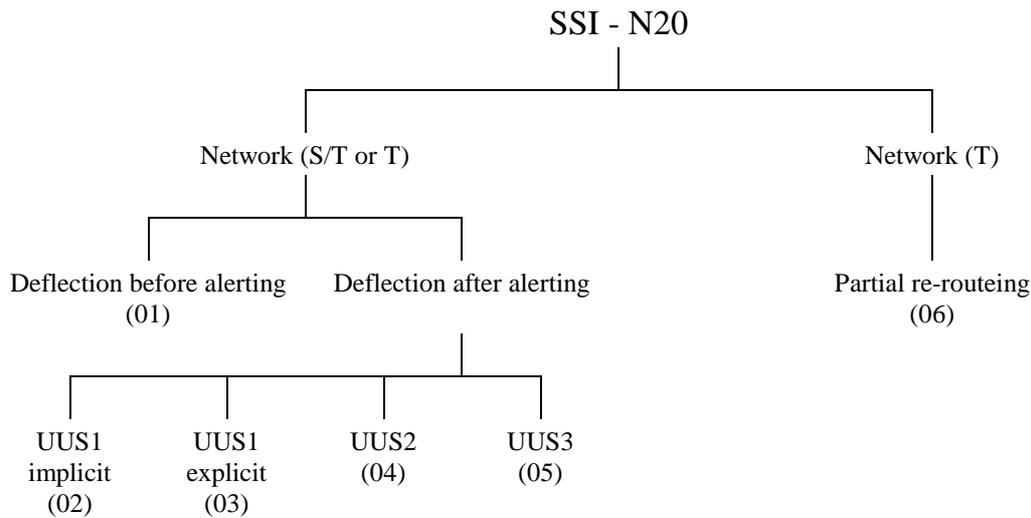
**6.2.19 Interaction between CD and COLR**

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

**6.2.20 Interaction between CD and UUS**

**Selection:** IUT supports the interaction between CD and UUS.  
**PICS:** MC 2.24 AND MC 2.9.

### 6.2.20.1 Test suite substructure



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

**Figure 19: N20 test suite substructure - level 2**

### 6.2.20.2 Deflection before alerting (S/T reference point)

#### SSI\_N20\_01\_001 subclause 5.20.2.1.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and deflects the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the deflected-to user).

**Selection:** Network does not support the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### SSI\_N20\_01\_002 subclause 5.20.2.1.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the deflected-to user).

**Selection:** Network does not support the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### SSI\_N20\_01\_003 subclause 5.20.2.1.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS2 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service2" to the deflected-to user).

**Selection:** Network does not support the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### **SSI\_N20\_01\_004 subclause 5.20.2.1.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS3 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the deflected-to user).

**Selection:** Network does not support the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### **SSI\_N20\_01\_005 subclause 5.20.2.1.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and does not deflect the UUS request (resulting in the sending of a SETUP message without a User-user information element to the deflected-to user).

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### **SSI\_N20\_01\_006 subclause 5.20.2.1.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested explicitly as preferred in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### **SSI\_N20\_01\_007 subclause 5.20.2.1.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS2 was requested as preferred in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

**SSI\_N20\_01\_008 subclause 5.20.2.1.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS3 was requested as preferred in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N09 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

**SSI\_N20\_01\_009 subclause 5.20.2.1.1, 5.20.2.1.2**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested as required in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N09.

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

**SSI\_N20\_01\_010 subclause 5.20.2.1.1, 5.20.2.1.2**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS2 was requested as required in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N09.

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

**SSI\_N20\_01\_011 subclause 5.20.2.1.1, 5.20.2.1.2**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS3 was requested as required in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N09.

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

## 6.2.20.3 Deflection after alerting (S/T reference point)

### 6.2.20.3.1 UUS1 implicit

**SSI\_N20\_02\_001 subclause 5.20.2.2.1.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and deflects the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the deflected-to user).

**Selection:** Network does not support the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### SSI\_N20\_02\_002 subclause 5.20.2.2.1.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a User-user information element to the deflected-to user).

### 6.2.20.3.2 UUS1 explicit

#### SSI\_N20\_03\_001 subclauses 5.20.2.2.2.1, 5.20.2.2.2.2

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly as required in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N07.

#### SSI\_N20\_03\_002 subclauses 5.20.2.2.2.1, 5.20.2.2.2.2

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly as preferred in the incoming call request and the deflecting user has accepted this service request in the ALERTING message, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N07.

**Selection:** Network supports the inhibition of call deflection after alerting on acceptance of a preferred explicit UUS1 service request. PICS: SC 2.2.

#### SSI\_N20\_03\_003 subclause 5.20.2.2.2.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly as preferred in the incoming call request and the deflecting user has accepted this service request in the ALERTING message, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the deflected-to user).

**Selection:** Network does not support the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

**Selection:** Network supports the invocation of call deflection after alerting though a preferred explicit UUS1 service request has been accepted. PICS: SC 2.3.

**SSI\_N20\_03\_004 subclause 5.20.2.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly as preferred in the incoming call request and the deflecting user has accepted this service request in the ALERTING message and has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N07.

**Selection:** Network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

**Selection:** Network supports the invocation of call deflection after alerting though a preferred explicit UUS1 service request has been accepted. PICS: SC 2.3.

**SSI\_N20\_03\_005 subclause 5.20.2.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly as preferred in the incoming call request and the deflecting user has rejected this service request in the ALERTING message, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**SSI\_N20\_03\_006 subclause 5.20.2.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly as preferred in the incoming call request and the deflecting user has not yet responded to this service request in the ALERTING message, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**6.2.20.3.3 UUS2****SSI\_N20\_04\_001 subclauses 5.20.2.3.1, 5.20.2.3.2**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested explicitly as required in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N07.

**SSI\_N20\_04\_002 subclauses 5.20.2.3.1, 5.20.2.3.2**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested explicitly as preferred in the incoming call request and the deflecting user has accepted this service request in the ALERTING message, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N07.

**SSI\_N20\_04\_003 subclause 5.20.2.3.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested explicitly as preferred in the incoming call request and the deflecting user has rejected this service request in the ALERTING message, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a User-user information element to the deflected-to user).

#### **SSI\_N20\_04\_004 subclause 5.20.2.3.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested explicitly as preferred in the incoming call request and the deflecting user has not yet responded to this service request in the ALERTING message, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a User-user information element to the deflected-to user).

### 6.2.20.3.4 UUS3

#### **SSI\_N20\_05\_001 subclause 5.20.2.2.4.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS3 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the deflected-to user).

**Selection:** Network does not support the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### **SSI\_N20\_05\_002 subclauses 5.20.2.2.4.1, 5.20.2.2.4.2**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS3 was requested as required in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a FACILITY message with a CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in call state N07.

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### **SSI\_N20\_05\_003 subclause 5.20.2.2.4.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS3 was requested as preferred in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallDeflection invoke component,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallDeflection return result component and enters call state N12 or sends a FACILITY message with a CallDeflection return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**Selection:** The network supports the restriction of the deflection of User-user information element with User information and/or UUS supplementary service requests to deflecting users who subscribe to the relevant UUS supplementary service. PICS: SC 2.1.

#### 6.2.20.4 Partial re-routing (T reference point)

##### SSI\_N20\_06\_001 subclauses 5.20.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cdImmediate" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and deflects the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

##### SSI\_N20\_06\_002 subclauses 5.20.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cdAlerting" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the deflected-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

##### SSI\_N20\_06\_003 subclauses 5.20.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cdImmediate" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service2" to the deflected-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

##### SSI\_N20\_06\_004 subclauses 5.20.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS3 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cdAlerting" and a UUSRequest invoke component indicating "service3",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and deflects the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the deflected-to user).

**Selection:** Network does not support the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

**SSI\_N20\_06\_005 subclauses 5.20.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cdAlerting" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a User-user information element to the deflected-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

**SSI\_N20\_06\_006 subclauses 5.20.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cdImmediate" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

**SSI\_N20\_06\_007 subclauses 5.20.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cdAlerting" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

**SSI\_N20\_06\_008 subclauses 5.20.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS3 was requested in the incoming call request and the deflecting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cdImmediate" and a UUSRequest invoke component indicating "service3",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and does not deflect the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the deflected-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 2.4.

## 6.2.21 Interaction between CFB and COLP

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

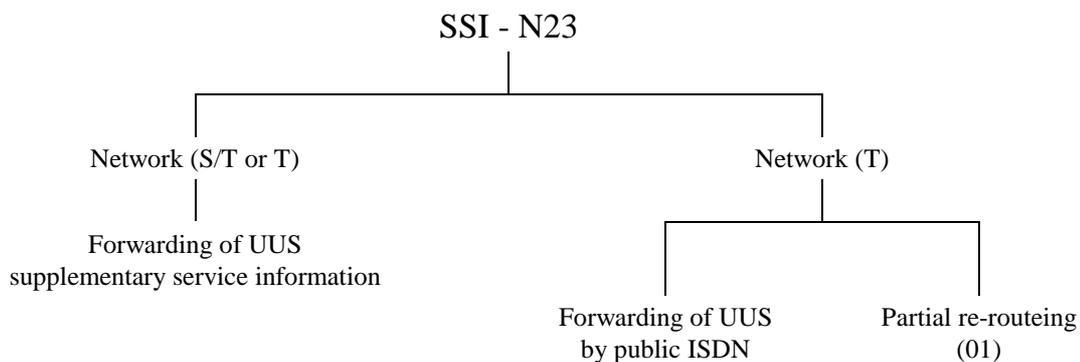
## 6.2.22 Interaction between CFB and COLR

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

## 6.2.23 Interaction between CFB and UUS

**Selection:** IUT supports the interaction between CFB and UUS.  
PICS: MC 2.21 AND MC 2.9.

### 6.2.23.1 Test suite substructure



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

**Figure 20: N23 test suite substructure - level 2**

### 6.2.23.2 Forwarding of UUS supplementary service information (S/T reference point)

This subclause refers to EN 300 195-1 [4], subclause 5.23.2.

No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the network and the served user.

### 6.2.23.3 Forwarding of UUS by public ISDN (T reference point)

This subclause refers to EN 300 195-1 [4], subclause 5.23.3.1.

No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the network and the served user of the CFB service.

### 6.2.23.4 Partial re-routeing (T reference point)

#### SSI\_N23\_01\_001 subclause 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfb" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

#### **SSI\_N23\_01\_002 subclause 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfb" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

#### **SSI\_N23\_01\_003 subclause 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS2 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfb" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service2" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

#### **SSI\_N23\_01\_004 subclause 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS3 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfb" and a UUSRequest invoke component indicating "service3",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

#### **SSI\_N23\_01\_005 subclause 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfb" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a User-user information element to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

#### SSI\_N23\_01\_006 subclause 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfb" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

#### SSI\_N23\_01\_007 subclause 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS2 was requested in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfb" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

#### SSI\_N23\_01\_008 subclause 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS3 was requested in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfb" and a UUSRequest invoke component indicating "service3",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 3.2.

## 6.2.24 Interaction between CFNR and COLP

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

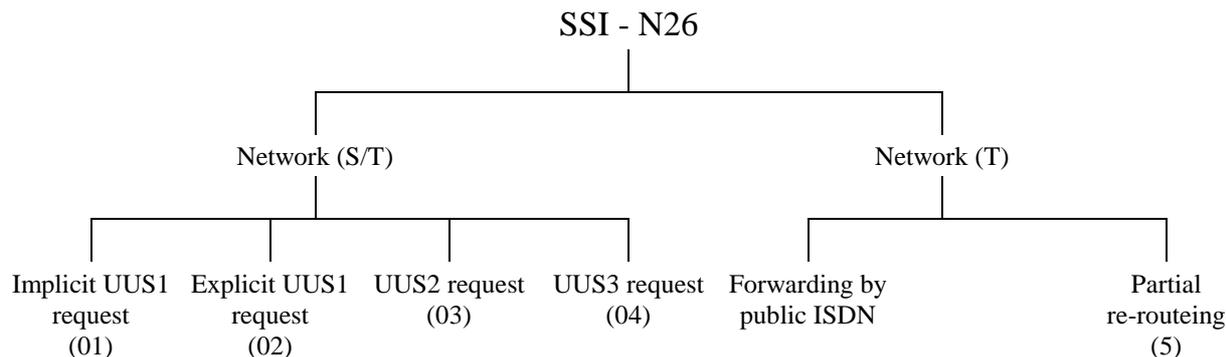
## 6.2.25 Interaction between CFNR and COLR

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

## 6.2.26 Interaction between CFNR and UUS

**Selection:** IUT supports the interaction between CFNR and UUS.  
PICS: MC 2.22 AND MC 2.9.

### 6.2.26.1 Test suite substructure



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

**Figure 21: N26 test suite substructure - level 2**

### 6.2.26.2 Implicit UUS1 request (S/T reference point)

#### SSI\_N26\_01\_001 subclause 5.26.2.1.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested implicitly in the incoming call request, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and diverts the UUS request (resulting in the sending of a SETUP message with a User-user information element to the diverted-to user).

#### SSI\_N26\_01\_002 subclause 5.26.2.1.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested implicitly in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a User-user information element to the diverted-to user).

**Selection:** Support the restriction of the forwarding of User-user information element with User information and/or UUS supplementary service requests to forwarding users who subscribe to the UUS1 supplementary service. PICS: SC 4.1.

### 6.2.26.3 Explicit UUS1 request (S/T reference point)

#### SSI\_N26\_02\_001 subclause 5.26.2.2.1

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested explicitly as required in the incoming call request, after the time period associated with T-CFNR has passed by,

- sends no message and remains in call state N07 and does not divert the call (resulting in the sending of no SETUP message to the user to which calls are normally diverted for this instance of the CFNR service).

**SSI\_N26\_02\_002 subclause 5.26.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested explicitly as preferred in the incoming call request and the diverting user has accepted this service request in the ALERTING message, after the time period associated with T-CFNR has passed by,

- sends no message and remains in call state N07 and does not divert the call (resulting in the sending of no SETUP message to the user to which calls are normally diverted for this instance of the CFNR service).

**Selection:** Network supports the inhibition of call forwarding on no reply on acceptance of a preferred explicit UUS1 service request. PICS: SC 4.2.

**SSI\_N26\_02\_003 subclause 5.26.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested explicitly as preferred in the incoming call request and the diverting user has accepted this service request in the ALERTING message, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the diverted-to user).

**Selection:** Network supports the invocation of call forwarding on no reply though a preferred explicit UUS1 service request has been accepted. PICS: SC 4.3.

**SSI\_N26\_02\_004 subclause 5.26.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested explicitly as preferred in the incoming call request and the diverting user has accepted this service request in the ALERTING message and has not subscribed to this UUS supplementary service, after the time period associated with T-CFNR has passed by,

- sends no message and remains in call state N07 and does not divert the call (resulting in the sending of no SETUP message to the user to which calls are normally diverted for this instance of the CFNR service).

**Selection:** Network supports the invocation of call forwarding on no reply though a preferred explicit UUS1 service request has been accepted. PICS: SC 4.3.

**Selection:** Support the restriction of the forwarding of User-user information element with User information and/or UUS supplementary service requests to forwarding users who subscribe to the UUS1 supplementary service. PICS: SC 4.1.

**SSI\_N26\_02\_005 subclause 5.26.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested explicitly as preferred in the incoming call request and the diverting user has rejected this service request in the ALERTING message, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**SSI\_N26\_02\_006 subclause 5.26.2.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS1 was requested explicitly as preferred in the incoming call request and the diverting user has not yet responded to this service request in the ALERTING message, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

#### 6.2.26.4 UUS2 request (S/T reference point)

**SSI\_N26\_03\_001 subclause 5.26.2.3.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS2 was requested as required in the incoming call request, after the time period associated with T-CFNR has passed by,

- sends no message and remains in call state N07 and does not divert the call (resulting in the sending of no SETUP message to the user to which calls are normally diverted for this instance of the CFNR service).

**SSI\_N26\_03\_002 subclause 5.26.2.3.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS2 was requested as preferred in the incoming call request and the diverting user has accepted this service request in the ALERTING message, after the time period associated with T-CFNR has passed by,

- sends no message and remains in call state N07 and does not divert the call (resulting in the sending of no SETUP message to the user to which calls are normally diverted for this instance of the CFNR service).

**SSI\_N26\_03\_003 subclause 5.26.2.3.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS2 was requested as preferred in the incoming call request and the diverting user has rejected this service request in the ALERTING message, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**SSI\_N26\_03\_004 subclause 5.26.2.3.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS2 was requested as preferred in the incoming call request and the diverting user has not yet responded to this service request in the ALERTING message, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

## 6.2.26.5 UUS3 request (S/T reference point)

**SSI\_N26\_04\_001 subclause 5.26.2.4.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS3 was requested in the incoming call request, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the diverted-to user).

**SSI\_N26\_04\_002 subclause 5.26.2.4.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS3 was requested as required in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, after the time period associated with T-CFNR has passed by,

- sends no message and remains in call state N07 and does not divert the call (resulting in the sending of no SETUP message to the user to which calls are normally diverted for this instance of the CFNR service).

**Selection:** Support the restriction of the forwarding of UUS supplementary service requests to forwarding users who subscribe to the UUS3 supplementary service.

**SSI\_N26\_04\_003 subclause 5.26.2.4.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while CFNR is activated and UUS3 was requested as preferred in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, on the expiry of T-CFNR,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and enters call state N12 or sends no message and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Support the restriction of the forwarding of UUS supplementary service requests to forwarding users who subscribe to the UUS3 supplementary service.

### 6.2.26.6 Forwarding by public ISDN (T reference point)

This subclause refers to EN 300 195-1 [4], subclause 5.26.3.1.

The TPs of subclauses 6.2.26.2, 6.2.26.3, 6.2.26.4 and 6.2.26.5 are applicable without modification.

### 6.2.26.7 Partial re-routeing (T reference point)

#### **SSI\_N26\_05\_001 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfnr" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and diverts the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

#### **SSI\_N26\_05\_002 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfnr" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

#### **SSI\_N26\_05\_003 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfnr" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service2" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

#### **SSI\_N26\_05\_004 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS3 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfnr" and a UUSRequest invoke component indicating "service3",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

**SSI\_N26\_05\_005 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfnr" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a User-user information element to the diverted-to user).

**Selection:** Network supports the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

**SSI\_N26\_05\_006 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfnr" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

**SSI\_N26\_05\_007 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS2 was requested in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfnr" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

**SSI\_N26\_05\_008 subclauses 5.26.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N07 and the diversion service Idle state while UUS3 was requested in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfnr" and a UUSRequest invoke component indicating "service3",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N07 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 4.4.

## 6.2.27 Interaction between CFU and COLP

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

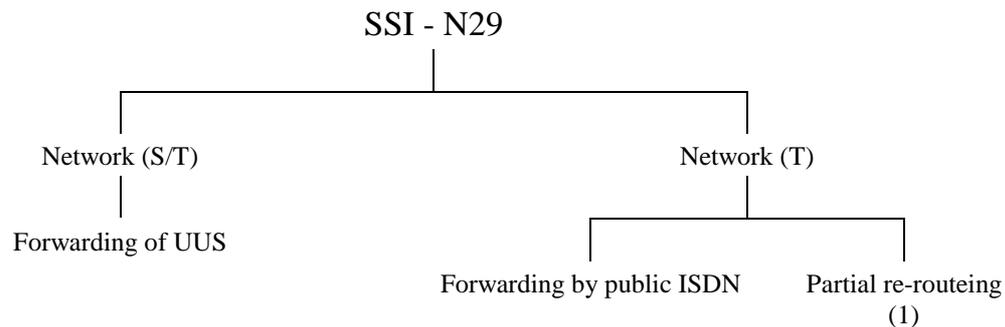
## 6.2.28 Interaction between CFU and COLR

This interaction is covered by clause 9.2.3.1 of the Diversion supplementary services base standard EN 300 207-1 [7]. Reference is made to the corresponding TPs in EN 300 207-5 [8].

## 6.2.29 Interaction between CFU and UUS

**Selection:** IUT supports the interaction between CFU and UUS.  
PICS: MC 2.23 and MC 2.9.

### 6.2.29.1 Test suite substructure



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

**Figure 22: N29 test suite substructure - level 2**

### 6.2.29.2 Forwarding of UUS supplementary service information (S/T reference point)

This subclause refers to EN 300 195-1 [4], subclause 5.29.2. No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the network and the served user of the CFU service.

### 6.2.29.3 Forwarding of UUS by public ISDN (T reference point)

This subclause refers to EN 300 195-1 [4], subclause 5.29.3.1. No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the network and the served user.

#### 6.2.29.4 Partial re-routing (T reference point)

##### SSI\_N29\_01\_001 subclauses 5.29.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfu" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

##### SSI\_N29\_01\_002 subclauses 5.29.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfu" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

##### SSI\_N29\_01\_003 subclauses 5.29.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS2 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfu" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service2" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

##### SSI\_N29\_01\_004 subclauses 5.29.3.2, 5.23.3.2.1

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS3 was requested in the incoming call request, receiving a valid FACILITY message containing a Facility information element with a CallRerouting invoke component containing a ReroutingReason parameter indicating "cfu" and a UUSRequest invoke component indicating "service3",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouting return result component and enters call state N12 or sends a FACILITY message with a CallRerouting return result component and remains in call state N09 and diverts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the diverted-to user).

**Selection:** Network does not support the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

**SSI\_N29\_01\_005 subclauses 5.29.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested implicitly in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfu" and including User-user information in the q931InfoElement parameter,

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a User-user information element to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

**SSI\_N29\_01\_006 subclauses 5.29.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS1 was requested explicitly in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfu" and a UUSRequest invoke component indicating "service1",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

**SSI\_N29\_01\_007 subclauses 5.29.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS2 was requested in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfu" and a UUSRequest invoke component indicating "service2",

- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

**SSI\_N29\_01\_008 subclauses 5.29.3.2, 5.23.3.2.1**

Ensure that the IUT, in call state N09 and the diversion service Idle state while UUS3 was requested in the incoming call request and the diverting user has not subscribed to this UUS supplementary service, receiving a valid FACILITY message containing a Facility information element with a CallRerouteing invoke component containing a RerouteingReason parameter indicating "cfu" and a UUSRequest invoke component indicating "service3",

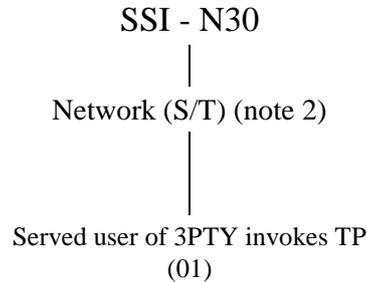
- sends a DISCONNECT message with cause value #31 "Normal, unspecified" and a CallRerouteing return result component and enters call state N12 or sends a FACILITY message with a CallRerouteing return result component and remains in call state N09 and does not divert the UUS request (resulting in the sending of a SETUP message without a UserUserService invoke component to the diverted-to user).

**Selection:** Network supports the restriction of the re-routeing of User-user information element with User information and/or UUS supplementary service requests to users who subscribe to the relevant UUS supplementary service. PICS: SC 5.2.

## 6.2.30 Interaction between TP and 3PTY

**Selection:** IUT supports the interaction between TP and 3PTY.  
PICS: MC 2.5 AND MC 2.11.

### 6.2.30.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: No case for TP/3PTY interaction arises at the T reference point.

**Figure 23: N30 test suite substructure - level 2**

### 6.2.30.2 Served user of 3PTY invokes TP

#### SSI\_N30\_01\_001 subclause 5.30.2.1.2

Ensure that the IUT, in the 3PTY Active state with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a SUSPEND message for CR1,

- sends a SUSPEND REJECT message for CR1 containing cause value #29, "facility rejected" and remains in the same call states and 3PTY state.

#### SSI\_N30\_01\_002 subclause 5.30.2.1.2

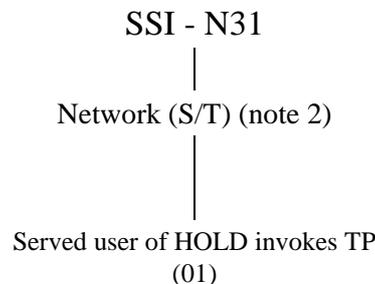
Ensure that the IUT, in the 3PTY Active state with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a SUSPEND message for CR2,

- sends a SUSPEND REJECT message for CR2 containing cause value #29, "facility rejected" and remains in the same call states and 3PTY state.

## 6.2.31 Interaction between HOLD and TP

**Selection:** IUT supports the interaction between HOLD and TP.  
PICS: MC 2.25 AND MC 2.5.

### 6.2.31.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: No case for TP/3PTY interaction arises at the T reference point.

**Figure 24: N31 test suite substructure - level 2**

### 6.2.31.2 Served user of HOLD invokes TP

#### SSI\_N31\_01\_001 subclause 5.31.2.1.2

Ensure that the IUT, in state N10 and Call Held auxiliary state, receiving a SUSPEND message,

- sends a SUSPEND REJECT message containing cause value #29, "facility rejected" and remains in the same call state and auxiliary state.

#### SSI\_N31\_01\_002 subclause 5.31.2.1.2

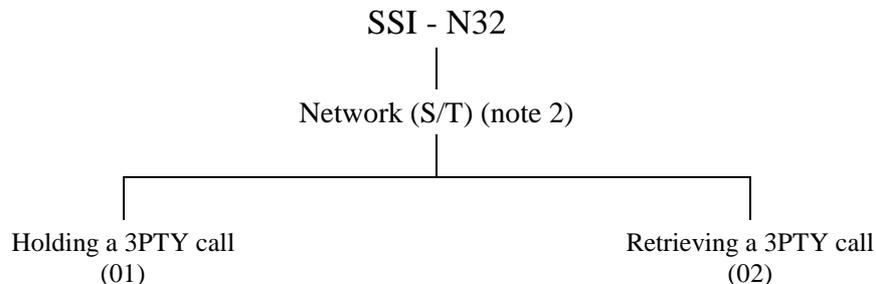
Ensure that the IUT, with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a SUSPEND message for CR2,

- sends a SUSPEND REJECT message for CR2 containing cause value #29, "facility rejected" and remains in the same call states and auxiliary states.

## 6.2.32 Interaction between HOLD and 3PTY

**Selection:** IUT supports the interaction between HOLD and 3PTY.  
**PICS:** MC 2.25 AND MC 2.11.

### 6.2.32.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: No case for HOLD/3PTY interaction arises at the T reference point.

**Figure 25: N32 test suite substructure - level 2**

### 6.2.32.2 Holding a 3PTY call

#### SSI\_N32\_01\_001 subclause 5.32.2.2

Ensure that the IUT, in the 3PTY Active state with CR1 in state N10 (Idle) and CR2 in state N10 (Held), receiving a HOLD message for CR1,

- sends a HOLD ACKNOWLEDGE message for CR1 and enters the Held auxiliary state for CR1, does not send any notification to the remote users and remains in state N10 for CR1 and CR2.

### 6.2.32.3 Retrieving a 3PTY call

#### SSI\_N32\_02\_001 subclause 5.32.2.3

Ensure that the IUT, in the 3PTY Active state with CR1 in state N10 (Held) and CR2 in state N10 (Held), receiving a RETRIEVE message for CR1,

- sends a RETRIEVE ACKNOWLEDGE message for CR1 and enters the Idle auxiliary state for CR1, does not send any notification to the remote users and remains in state N10 for CR1 and CR2.

#### SSI\_N32\_02\_002 subclause 5.32.2.3

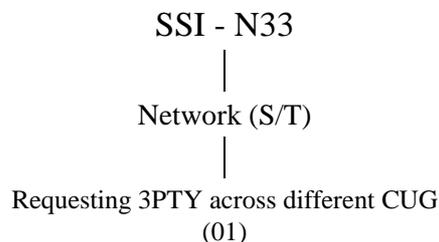
Ensure that the IUT, in the 3PTY Active state with CR1 in state N10 (Idle) and CR2 in state N10 (Held), receiving a RETRIEVE message for CR1,

- sends a RETRIEVE REJECT message for CR1 with cause #29 "Facility rejected" and remains in the same call states and auxiliary states.

## 6.2.33 Interaction between CUG and 3PTY

**Selection:** IUT supports the interaction between CUG and 3PTY.  
PICS: MC 2.8 AND MC 2.11.

### 6.2.33.1 Test suite substructure



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

**Figure 26: N33 test suite substructure - level 2**

### 6.2.33.2 Requesting 3PTY across different CUG

#### SSI\_N33\_01\_001 subclause 5.33.2.1.2

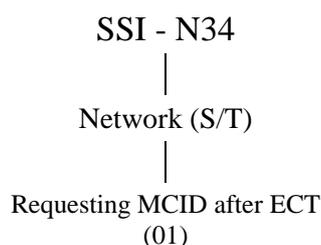
Ensure that the IUT, with CR1 in state N10 (Held) and CR2 in state N10 (Idle), while the two calls were requested using different closed user groups, receiving a FACILITY message for CR1 containing a Facility information element with a Begin3PTY invoke component,

- sends a FACILITY message including a Facility information element containing a Begin3PTY return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

## 6.2.34 Interaction between ECT and MCID

**Selection:** IUT supports the interaction between ECT and MCID.  
PICS: MC 2.20 AND MC 2.17.

### 6.2.34.1 Test suite substructure



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

**Figure 27: N34 test suite substructure - level 2**

### 6.2.34.2 Requesting MCID after ECT

#### SSI\_N34\_01\_001 subclause 5.34.2.2

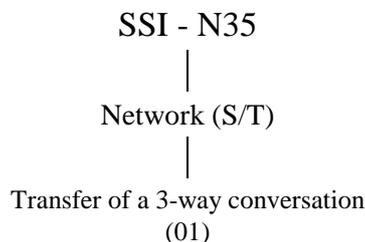
Ensure that the IUT, in Disconnect indication call state N12 (incoming call) after having accepted an ECT request for the call, receiving a FACILITY message containing a Facility information element with a MCIDRequest invoke component,

- sends a FACILITY message including a Facility information element containing a MCIDRequest return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call state.

## 6.2.35 Interaction between ECT and 3PTY

**Selection:** IUT supports the interaction between ECT and 3PTY.  
PICS: MC 2.20 AND MC 2.11.

### 6.2.35.1 Test suite substructure



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

**Figure 28: N35 test suite substructure - level 2**

### 6.2.35.2 Transfer of a 3-way conversation

#### SSI\_N35\_01\_001 subclause 5.35.2.1.2

Ensure that the IUT, in the 3PTY Active state with CR1 in state N10 (Held) and CR2 in state N10 (Idle), receiving a valid FACILITY message for CR1 containing a Facility information element with an EctExecute invoke component,

- sends a FACILITY message for CR1 including a Facility information element containing a EctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

#### SSI\_N35\_01\_002 subclause 5.35.2.1.2

Ensure that the IUT, in the 3PTY Active state (for CR1 and CR2) with CR1 in state N10 (Held), CR2 in state N10 (Idle) and CR3 in state N10 (Held) receiving a valid FACILITY message for CR3 containing a Facility information element with an EctExecute invoke component,

- sends a FACILITY message for CR3 including a Facility information element containing a EctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

#### SSI\_N35\_01\_003 subclause 5.35.2.1.2

Ensure that the IUT, in the 3PTY Active state (for CR1 and CR2) with CR1 in state N10 (Held), CR2 in state N10 (Idle) and CR3 in state N10 (Idle), after a LinkId has successfully been requested using CR3, receiving a valid FACILITY message for CR1 containing a Facility information element with an ExplicitEctExecute invoke component,

- responds with a FACILITY message for CR1 including a Facility information element containing a ExplicitEctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

#### SSI\_N35\_01\_004 subclause 5.35.2.1.2

Ensure that the IUT, in the 3PTY Active state (for CR1 and CR2) with CR1 in state N10 (Held) and CR2 in state N10 (Idle), after a LinkId has successfully been requested using CR2, receiving a valid FACILITY message for CR1 containing a Facility information element with an ExplicitEctExecute invoke component,

- responds with a FACILITY message for CR1 including a Facility information element containing a ExplicitEctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

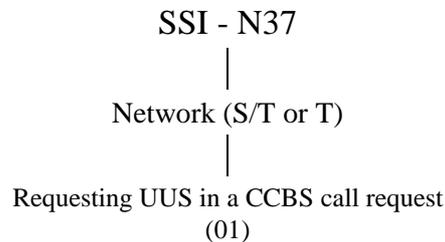
## 6.2.36 Interaction between ECT and UUS

This subclause refers to EN 300 195-1 [4], subclause 5.36. No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the network and the served user.

## 6.2.37 Interaction between CCBS and UUS

**Selection:** IUT supports the interaction between CCBS and UUS.  
PICS: MC 2.7 AND MC 2.9.

### 6.2.37.1 Test suite substructure



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

**Figure 29: N37 test suite substructure - level 2**

### 6.2.37.2 Requesting UUS in a CCBS call request

#### SSI\_N37\_01\_001 subclause 5.37.2.1

Ensure that the IUT, in call state N00 and CCBS Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a User-user information element,

- accepts the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the remote user), continues basic call procedure using the retained call information and enters call state N03.

#### SSI\_N37\_01\_002 subclause 5.37.2.1

Ensure that the IUT, in call state N00 and CCBS Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a UserUserService invoke component indicating "service1",

- accepts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the remote user), continues basic call procedure using the retained call information and enters call state N03.

#### SSI\_N37\_01\_003 subclause 5.37.2.1

Ensure that the IUT, in call state N00 and CCBS Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a UserUserService invoke component indicating "service2",

- accepts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service2" to the remote user), continues basic call procedure using the retained call information and enters call state N03.

#### SSI\_N37\_01\_004 subclause 5.37.2.1

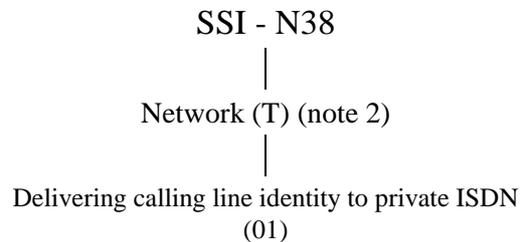
Ensure that the IUT, in call state N00 and CCBS Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a UserUserService invoke component indicating "service3",

- accepts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the remote user), continues basic call procedure using the retained call information and enters call state N03.

## 6.2.38 Interaction between CCBS and CLIP

**Selection:** IUT supports the interaction between CCBS and CLIP.  
PICS: MC 2.7 AND MC 2.1.

### 6.2.38.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: No specific interaction requirements apply at S/T reference point.

**Figure 30: N38 test suite substructure - level 2**

### 6.2.38.2 Delivering calling line identity to private ISDN

**Selection:** The public network supports the `originatingAddress` parameter in the CCBS-T-Request invoke component.

#### SSI\_N38\_01\_001 subclause 5.38.3.2.1

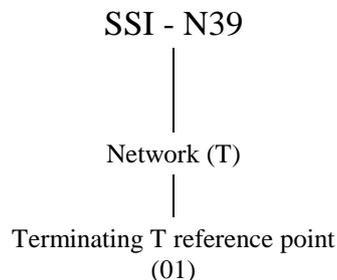
Ensure that the IUT, in call state N09, reached by sending a SETUP message with a Calling party number information element containing the number of the remote originating user and receiving a CALL PROCEEDING message, on receipt of a DISCONNECT message containing a Facility information element with a CCBS-T-Available invoke component, to request the activation of CCBS,

- continues call clearing for that call and sends a REGISTER message with a Facility information element containing the calling party address in the `originatingAddress` parameter of the CCBS-T-Request invoke component and enters call state N31 for this call.

## 6.2.39 Interaction between CCBS and CLIR

**Selection:** IUT supports the interaction between CCBS and CLIR.  
PICS: MC 2.7 AND MC 2.2.

### 6.2.39.1 Test suite substructure



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

**Figure 31: N39 test suite substructure - level 2**

### 6.2.39.2 Terminating T reference point

**Selection:** The public network supports the `originatingAddress` parameter in the `CCBS-T-Request` invoke component.

#### SSI\_N39\_01\_001 subclause 5.39.3.2.1

Ensure that the IUT, in call state N09, reached by sending a `SETUP` message with a Calling party number information element containing the number of the remote originating user which has subscribed to CLIR but has allowed the presentation of its number and receiving a `CALL PROCEEDING` message, on receipt of a `DISCONNECT` message containing a Facility information element with a `CCBS-T-Available` invoke component, to request the activation of CCBS,

- continues call clearing for that call and sends a `REGISTER` message with a Facility information element containing the calling party address in the `originatingAddress` parameter and a `PresentationAllowedIndicator` set to "true" in the `CCBS-T-Request` invoke component and enters call state N31 for this call.

#### SSI\_N39\_01\_002 subclause 5.39.3.2.1

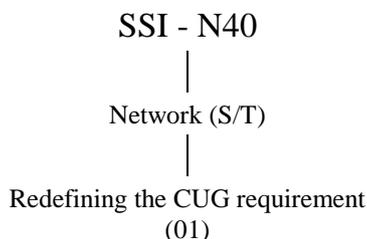
Ensure that the IUT, in call state N09, reached by sending a `SETUP` message without a Calling party number information element, when the remote originating user has subscribed to CLIR and restricted the presentation of its number and receiving a `CALL PROCEEDING` message, on receipt of a `DISCONNECT` message containing a Facility information element with a `CCBS-T-Available` invoke component, to request the activation of CCBS,

- continues call clearing for that call and sends a `REGISTER` message with a Facility information element containing a `CCBS-T-Request` invoke component without the `originatingAddress` and the `PresentationAllowedIndicator` parameter and enters call state N31 for this call.

## 6.2.40 Interaction between CCBS and CUG

**Selection:** IUT supports the interaction between CCBS and CUG.  
PICS: MC 2.7 AND MC 2.8.

### 6.2.40.1 Test suite substructure



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

**Figure 32: N40 test suite substructure - level 2**

### 6.2.40.2 Redefining the CUG requirement (S/T reference point)

#### SSI\_N40\_01\_001 subclause 5.40.2.2

Ensure that the IUT, in call state N00 and CCBS Free state, receiving a `SETUP` message with a Facility information element including a `CCBSCall` invoke component and a `CUGCall` invoke component while the original call contained a `CUGCall` invoke component with identical CUG requirements,

- sends a `CALL PROCEEDING` message and enters call state N03.

#### SSI\_N40\_01\_002 subclause 5.40.2.2

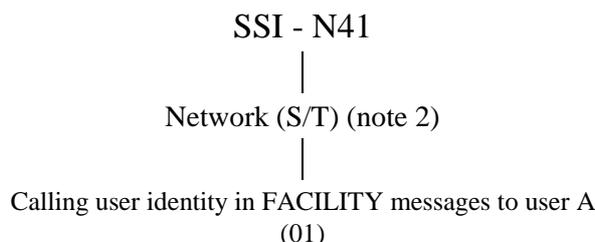
Ensure that the IUT, in call state N00 and CCBS Free state, receiving a `SETUP` message with a Facility information element including a `CCBSCall` invoke component and a `CUGCall` invoke component while the original call contained a `CUGCall` invoke component with different CUG requirements,

- sends a DISCONNECT or a RELEASE COMPLETE message containing a Facility information element with a CUGCall return error component indicating "invalidOrUnregisteredCUGIndex" and a Cause information element indicating cause #29 "facility rejected" and enters call state N12 or remains in call state N00.

## 6.2.41 Interaction between CCBS and MSN

**Selection:** IUT supports the interaction between CCBS and MSN.  
PICS: MC 2.7 AND MC 2.4.

### 6.2.41.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: No case for CCBS/MSN interaction arises at the T reference point.

**Figure 33: N41 test suite substructure - level 2**

### 6.2.41.2 Calling user identity in FACILITY messages to user A

#### SSI\_N41\_01\_001 subclause 5.41.2.1.1

Ensure that the IUT, in call state N00 and CCBS Activated state, while the MSN supplementary service is also provided to the served user, having checked that the user is neither busy nor CCBS busy in order to indicate that it is prepared for the establishment of the requested CCBS call,

- sends a FACILITY message using the dummy call reference containing a Facility information element with a CCBSRemoteUserFree invoke component and a Called party number information element with the retained calling user's identity and remains in call state N00.

#### SSI\_N41\_01\_002 subclause 5.41.2.1.1

Ensure that the IUT, in call state N00 and CCBS Free state, while the MSN supplementary service is also provided to the served user, on receipt of a SETUP message containing a Facility information element with a CCBSCall invoke component,

- sends a CALL PROCEEDING message and enters call state N03 and sends a FACILITY message using the dummy call reference containing a Facility information element with a CCBSERase invoke component and a Called party number information element with the retained calling user's identity.

#### SSI\_N41\_01\_003 subclause 5.41.2.1.1

Ensure that the IUT, in call state N10 and CCBS Activated state, while the MSN supplementary service is also provided to the served user, having determined that the user is either busy or CCBS busy, in order to inform the user that the remote user is not busy,

- sends a FACILITY message using the dummy call reference containing a Facility information element with a CCBSBFree invoke component and a Called party number information element with the retained calling user's identity and remains in call state N10.

#### SSI\_N41\_01\_004 subclause 5.41.2.1.1

Ensure that the IUT, in call state N00 and CCBS Activated state, while the MSN supplementary service is also provided to the served user, to determine if the served user is not busy,

- sends a FACILITY message using the dummy call reference containing a Facility information element with a CCBSStatusRequest invoke component and a Called party number information element with the retained calling user's identity and remains in call state N00.

## 6.2.42 Interaction between CCBS and SUB

This subclause refers to EN 300 195-1 [4], subclause 5.42. No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the remote network and the remote user.

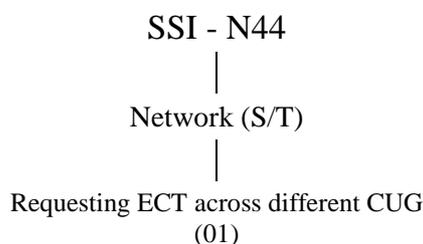
## 6.2.43 Interaction between FPH and COLP

This subclause refers to EN 300 195-1 [4], subclause 5.43. No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the network and the user.

## 6.2.44 Interaction between ECT and CUG

**Selection:** IUT supports the interaction between ECT and CUG.  
**PICS:** MC 2.20 AND MC 2.8.

### 6.2.44.1 Test suite substructure



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

**Figure 34: N44 test suite substructure - level 2**

### 6.2.44.2 Requesting ECT across different CUG

#### **SSI\_N44\_01\_001 subclause 5.44.2.1.2**

Ensure that the IUT, with CR1 in state N10 (Held) and CR2 in state N10 (Idle), while the two calls were requested using different closed user groups, receiving a FACILITY message for CR1 containing a Facility information element with an EctExecute invoke component,

- sends a FACILITY message for CR1 including a Facility information element containing a EctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

#### **SSI\_N44\_01\_002 subclause 5.44.2.1.2**

Ensure that the IUT, with CR1 in state N10 (Held), CR2 in state N10 (Idle) and CR3 in state N10 (Idle), after successfully requesting a LinkId using CR2, receiving a valid FACILITY message for CR1 containing a Facility information element with an ExplicitEctExecute invoke component while CR1 and CR2 are associated with two calls requested using different closed user groups,

- sends a FACILITY message for CR1 including a Facility information element containing a ExplicitEctExecute return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call states.

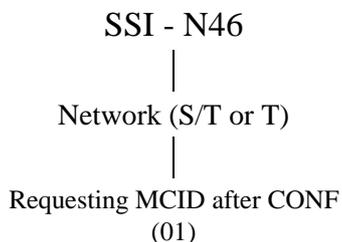
## 6.2.45 Interaction between ECT and TP

This subclause refers to EN 300 195-1 [4], subclause 5.45. No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the network and the user.

## 6.2.46 Interaction between CONF and MCID

**Selection:** IUT supports the interaction between CONF and MCID.  
**PICS:** MC 2.18 AND MC 2.17.

### 6.2.46.1 Test suite substructure



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

**Figure 35: N46 test suite substructure - level 2**

### 6.2.46.2 Requesting MCID after CONF

#### SSI\_N46\_01\_001 subclause 5.46.2.2

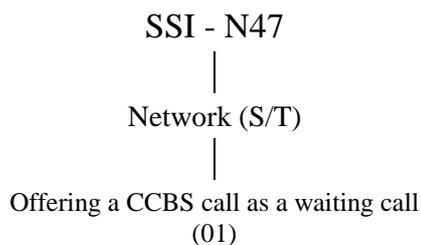
Ensure that the IUT, in Active call state N10 (incoming call), where this call is a conference call, receiving a FACILITY message containing a Facility information element with a MCIDRequest invoke component,

- sends a FACILITY message including a Facility information element containing a MCIDRequest return error component indicating "supplementaryServiceInteractionNotAllowed" and remains in the same call state.

## 6.2.47 Interaction between CCBS and CW

**Selection:** IUT supports the interaction between CCBS and CW.  
**PICS:** MC 2.7 AND MC 2.6.

### 6.2.47.1 Test suite substructure



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

**Figure 36: N47 test suite substructure - level 2**

### 6.2.47.2 Offering a CCBS call as a waiting call

#### SSI\_N47\_01\_001 subclause 5.47.2.1

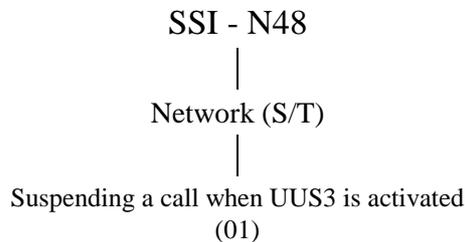
Ensure that the IUT, in call state N00 and CCBS Free state (at user B), to offer the CCBS call to user B when a channels busy condition is encountered but a network determined user busy condition does not result,

- sends a SETUP message with a Channel identification information element indicating "no B-channel available" and enters call state N06.

## 6.2.48 Interaction between UUS and TP

**Selection:** IUT supports the interaction between UUS and TP.  
PICS: MC 2.9 AND MC 2.5.

### 6.2.48.1 Test suite substructure



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

**Figure 37: N48 test suite substructure - level 2**

### 6.2.48.2 Suspending a call when UUS3 is activated

#### SSI\_N48\_01\_001 subclause 5.48.2.1

Ensure that the IUT, in call state N10 and in the UUS active state, receiving a valid SUSPEND message,

- sends a SUSPEND ACKNOWLEDGE message and enters call state N00.

#### SSI\_N48\_01\_002 subclause 5.48.2.2

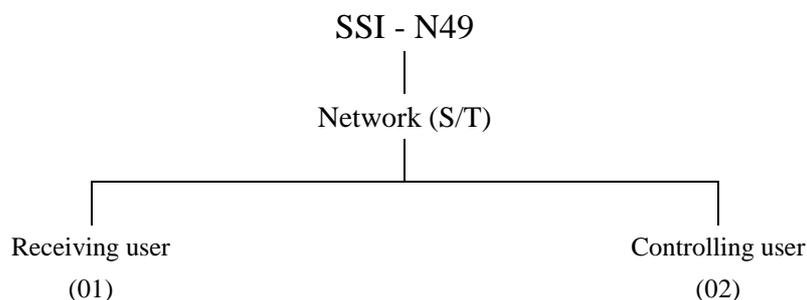
Ensure that the IUT, in call state N10 and in the UUS Requesting Network Request state, receiving a valid SUSPEND message,

- sends a SUSPEND REJECT message with cause value #29 "facility rejected" and remains in the same call state.

## 6.2.49 Interaction between MWI and MSN

**Selection:** IUT supports the interaction between MWI and MSN.  
PICS: MC 2.26 AND MC 2.4.

### 6.2.49.1 Test suite substructure



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

**Figure 38: N49 test suite substructure - level 2**

## 6.2.49.2 Receiving user

### SSI\_N49\_01\_001 subclause 5.49.2.1

Ensure that the IUT in the Null call state N00, while the MSN supplementary service is also provided to the receiving user, to indicate that the IUT has successfully activated an instance of the MWI supplementary service without optional parameters, and for which the immediate mode applies,

- transmits a FACILITY message, including a Facility information element with a MWIIndicate invoke component with the "controllingUserNr" and "basicService" parameters and containing a Called party number information element containing the ISDN number of the receiving user and remains in the Null call state N00.

### SSI\_N49\_01\_002 subclause 5.49.2.1

Ensure that the IUT in the Null call state N00, while the MSN supplementary service is also provided to the receiving user, having successfully activated an instance of the MWI supplementary service for which the deferred mode applies, on receipt of a SETUP message,

- transmits a FACILITY message, including a Facility information element with a MWIIndicate invoke component without any optional parameters and containing a Called party number information element containing the ISDN number of the receiving user and enters in the Call Initiated call state N01.

## 6.2.49.3 Controlling user

### SSI\_N49\_02\_001 subclause 5.49.2.1

Ensure that the IUT in the Null call state and MWI Idle state, while the MSN supplementary service is also provided to the receiving user, on receipt of a FACILITY message, including a Facility information element with a MWIActivate invoke component without optional parameters and indicating the served user's MSN number in the receivingUserNr parameter,

- transmits a FACILITY message, including a MWIActivate return result component.

### SSI\_N49\_02\_002 subclause 5.49.2.1

Ensure that the IUT in the Null call state and MWI Active state, while the MSN supplementary service is also provided to the receiving user, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate invoke component without optional parameters and indicating the served user's MSN number in the receivingUserNr parameter,

- transmits a FACILITY message, including a MWIDeactivate return result component.

### SSI\_N49\_02\_003 subclause 5.49.2.1

Ensure that the IUT in the Null call state N00 and MWI Idle state, while the MSN supplementary service is also provided to the controlling user, on receipt of a FACILITY message, including a Facility information element with a MWIActivate invoke component without optional parameters but indicating the controlling user's MSN number in the controllingUserNr parameter,

- transmits a FACILITY message, including a MWIActivate return result component.

### SSI\_N49\_02\_004 subclause 5.49.2.1

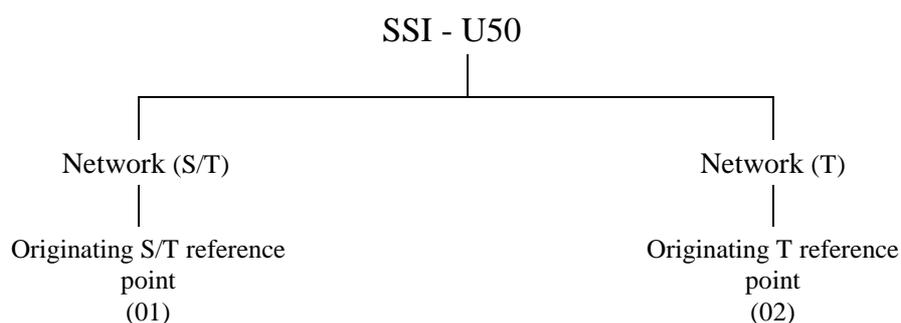
Ensure that the IUT in the Null call state N00 and MWI Idle state, while the MSN supplementary service is also provided to the controlling user, on receipt of a FACILITY message, including a Facility information element with a MWIDeactivate invoke component without optional parameters but indicating the controlling user's MSN number in the controllingUserNr parameter,

- transmits a FACILITY message, including a MWIDeactivate return result component.

## 6.2.50 Interaction between OCB and CCBS

**Selection:** IUT supports the interaction between OCB and CCBS.  
 PICS: MC 2.27 AND MC 2.7.

### 6.2.50.1 Test suite substructure



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

**Figure 39: N50 test suite substructure - level 2**

### 6.2.50.2 Originating S/T and T reference point

#### **SSI\_N50\_01\_001 subclause 5.50.2.1**

Ensure that the IUT in the Null call state N00, CCBS Free state and OCB Idle state, while the OCB-F service has been activated after the CCBS service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-F supplementary service is activated, and the call is not to be barred according to the barring program,

- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

#### **SSI\_N50\_01\_002 subclause 5.50.2.1**

Ensure that the IUT in the Null call state N00, CCBS Free state and OCB Idle state, while the OCB-UC service has been activated after the CCBS service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-UC supplementary service is activated, and the call is not to be barred according to the barring program,

- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

#### **SSI\_N50\_01\_003 subclause 5.50.2.1**

Ensure that the IUT in the Null call state N00, CCBS Free state and OCB Idle state, while the OCB-F service has been activated after the CCBS service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-F supplementary service is activated, and the call is to be barred according to the barring program,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

#### **SSI\_N50\_01\_004 subclause 5.50.2.1**

Ensure that the IUT in the Null call state N00, CCBS Free state and OCB Idle state, while the OCB-UC service has been activated after the CCBS service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-UC supplementary service is activated and the call is to be barred according to the barring program,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

#### **SSI\_N50\_01\_005 subclause 5.50.2.1**

Ensure that the IUT in the Overlap sending call state N02, CCBS Free state and OCB Idle state, while the OCB-F service has been activated after the CCBS service, on receipt of an INFORMATION message, and the call is to be barred according to the barring program and the content of the INFORMATION message,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**SSI\_N50\_01\_006 subclause 5.50.2.1**

Ensure that the IUT in the Overlap sending call state N02, CCBS Free state and OCB Idle state, while the OCB-UC service has been activated after the CCBS service, on receipt of an INFORMATION message, and the call is to be barred according to the barring program and the content of the INFORMATION message,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**6.2.50.3 Originating S/T reference point****SSI\_N50\_02\_001 subclause 5.50.2.1**

Ensure that the IUT in the Disconnect indication call state N12, CCBS Idle state and OCB Idle state, while the OCB-F service has been activated before the CCBS service, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest invoke component including the CallLinkageID,

- sends a FACILITY message containing a Facility information element with a CCBSRequest return result component including the CCBSReference and recallMode and remains in call state N12.

**SSI\_N50\_02\_002 subclause 5.50.2.1**

Ensure that the IUT in the Disconnect indication call state N12, CCBS Idle state and OCB Idle state, while the OCB-UC service has been activated before the CCBS service, on receipt of a FACILITY message containing a Facility information element with a CCBSRequest invoke component including the CallLinkageID,

- sends a FACILITY message containing a Facility information element with a CCBSRequest return result component including the CCBSReference and recallMode and remains in call state N12.

**SSI\_N50\_02\_003 subclause 5.50.2.1**

Ensure that the IUT in the Null call state N00, CCBS Free state and OCB Idle state, while the OCB-UC service has been activated before the CCBS service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB supplementary service is activated, not including a Facility information element with a DisableOcb invoke component but the original call contained a DisableOcb invoke component, and the call is to be barred according to the barring program and the content of the SETUP message,

- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

**Selection:** IUT supports the disabling procedure .

**SSI\_N50\_02\_004 subclause 5.50.2.2**

Ensure that the IUT in the Null call state N00, CCBS Free state and OCB Idle state, while the OCB-UC service has been activated after the CCBS service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB supplementary service is activated, including a Facility information element with a DisableOcb invoke component, and the call is to be barred according to the barring program and the content of the SETUP message,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**Selection:** IUT supports the disabling procedure .

**6.2.50.4 Originating T reference point****SSI\_N50\_03\_001 subclause 5.50.3.1**

Ensure that the IUT in the Null call state N00, CCBS Free state and OCB Idle state, while the OCB-UC service has been activated before the CCBS service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB supplementary service is activated, including a Facility information element with the same DisableOcb invoke component as in the original, and the call is to be barred according to the barring program and the content of the SETUP message,

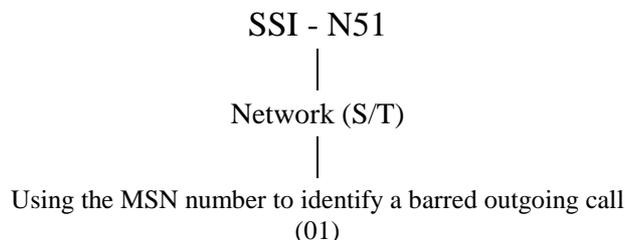
- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

**Selection:** IUT supports the disabling procedure .

## 6.2.51 Interaction between OCB and MSN

**Selection:** IUT supports the interaction between OCB and MSN.  
PICS: MC 2.27 AND MC 2.4.

### 6.2.51.1 Test suite substructure



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

**Figure 40: N51 test suite substructure - level 2**

### 6.2.51.2 Originating S/T reference point

#### SSI\_N51\_01\_001 subclause 5.51.2.1

Ensure that the IUT in the OCB Idle state, on receipt of a FACILITY message containing a Facility information element with an ActivationOcb invoke component with a servedUserNr parameter set to "individualNumbers" including a valid number, with a pin parameter including a PIN registered for the indicated ISDN number, and the value of the subscription option "OCB provision on access/number basis" is "on ISDN number basis" and the MSN supplementary service is provided,

- sends a FACILITY message containing a Facility information element with an ActivationOcb return result component,
- if a multipoint configuration applies, then also sends a FACILITY message ( subclause 8.3.2.4 of [6] ) with an Activation StatusNotificationOcb invoke component, activates the OCB supplementary service and enters the OCB Idle state.

**Selection:** IUT supports the provision of OCB on ISDN number basis. .

#### SSI\_N51\_01\_002 subclause 5.51.2.1

Ensure that the IUT in the OCB Idle state, on receipt of a FACILITY message containing a Facility information element with an interrogationOcb invoke component with a servedUserNr parameter set to "individualNumbers" including a valid number, and the value of the subscription option "OCB provision on access/number basis" is "on ISDN number basis" and the MSN supplementary service is provided,

- sends a FACILITY message containing a Facility information element with an interrogationOcb return result component.

**Selection:** IUT supports the provision of OCB on ISDN number basis.

#### SSI\_N51\_01\_003 subclause 5.51.2.1

Ensure that the IUT in the OCB Idle state, on receipt of a FACILITY message containing a Facility information element with an interrogationOcb invoke component with a servedUserNr parameter set to "individualNumbers" including an invalid number, and the value of the subscription option "OCB provision on access/number basis" is "on ISDN number basis" and the MSN supplementary service is provided,

- sends a FACILITY message containing a Facility information element with an interrogationOcb return error component indicating "invalidServedUserNr".

**Selection:** IUT supports the provision of OCB on ISDN number basis.

**SSI\_N51\_01\_004 subclause 5.51.2.1**

Ensure that the IUT in the OCB Idle state, on receipt of a FACILITY message containing a Facility information element with an interrogationOcb invoke component without servedUserNr parameter, and the value of the subscription option "OCB provision on access/number basis" is "on ISDN number basis" and the MSN supplementary service is provided,

- sends a FACILITY message containing a Facility information element with an interrogationOcb return error component indicating "invalidServedUserNr".

**Selection:** IUT supports the provision of OCB on ISDN number basis.

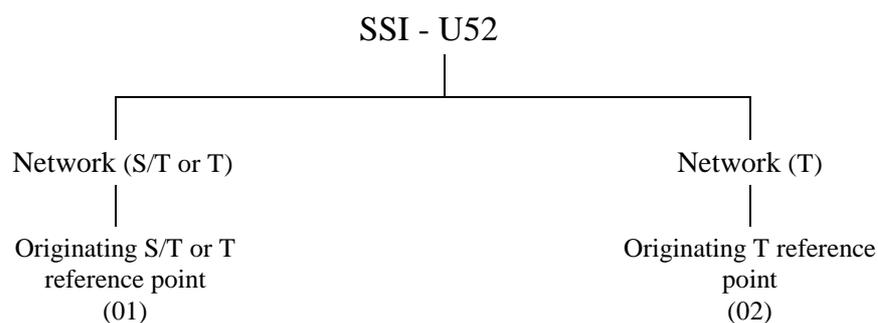
**SSI\_N51\_01\_005 subclause 5.51.2.1**

Ensure that the IUT in the Null call state N0 and OCB Idle state, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB supplementary service is activated, and the call is to be barred according to the barring program which specifies the MSN number used in the Called party number information element of the SETUP message,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**6.2.52 Interaction between OCB and CFB**

**Selection:** IUT supports the interaction between OCB and CFB.  
PICS: MC 2.27 AND MC 2.21.

**6.2.52.1 Test suite substructure**

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

**Figure 41: N52 test suite substructure - level 2**

**6.2.52.2 Originating S/T or T reference point****SSI\_N52\_01\_001 subclause 5.52.2.1**

Ensure that the IUT in the call state N00 and OCB Idle state, on receipt of a FACILITY message (DCR) containing a Facility information element coded as CFB ActivationDiversion invoke component and the forwardedToAddress parameter contains the address which is barred according to the barring program,

- sends a FACILITY message (DCR) containing a Facility information element with a valid CFB ActivationDiversion return error component indicating "supplementaryServiceInteractionNotAllowed".

**6.2.52.3 Originating T reference point****SSI\_N52\_02\_001 subclause 5.52.3.2**

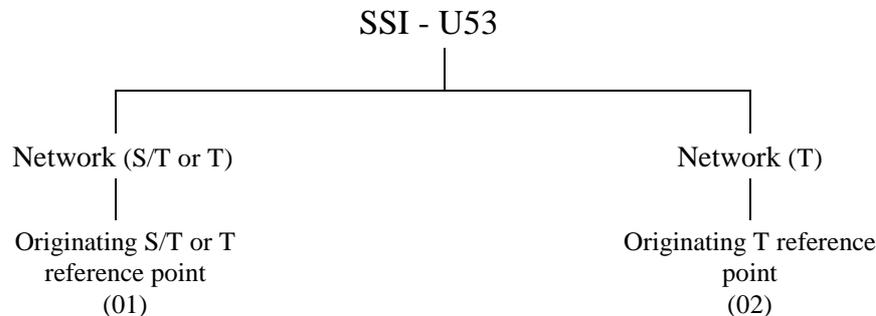
Ensure that the IUT in the Overlap Receiving call state N25 and OCB Idle state, on receipt of a FACILITY message containing a CallRerouting invoke component in the Facility information element and the calledAddress parameter contains the address which is barred according to the barring program,

- sends a FACILITY message containing in the Facility information element a CallRerouting error component indicating "supplementaryServiceInteractionNotAllowed".

## 6.2.53 Interaction between OCB and CFNR

**Selection:** IUT supports the interaction between OCB and CFNR.  
PICS: MC 2.27 AND MC 2.22.

### 6.2.53.1 Test suite substructure



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

**Figure 42: N53 test suite substructure - level 2**

### 6.2.53.2 Originating S/T and T reference point

#### SSI\_N53\_01\_001 subclause 5.53.2.1

Ensure that the IUT in the call state N00 and OCB Idle state, on receipt of a FACILITY message (DCR) containing a Facility information element coded as CFNR ActivationDiversion invoke component and the forwardedToAddress parameter contains the address which is barred according to the barring program,

- sends a FACILITY message (DCR) containing a Facility information element with a valid CFNR ActivationDiversion return error component indicating "supplementaryServiceInteractionNotAllowed".

### 6.2.53.3 Originating T reference point

#### SSI\_N53\_02\_001 subclause 5.53.3.2

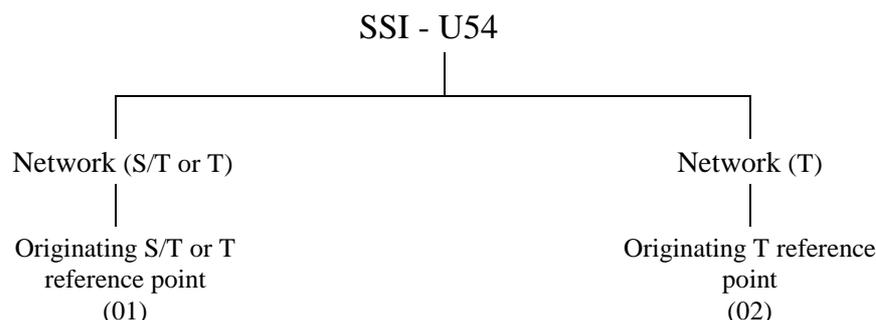
Ensure that the IUT in the Overlap Receiving call state N25 and OCB Idle state, on receipt of a FACILITY message containing a CallRerouting invoke component in the Facility information element and the calledAddress parameter contains the address which is barred according to the barring program,

- sends a FACILITY message containing in the Facility information element a CallRerouting error component indicating "supplementaryServiceInteractionNotAllowed".

## 6.2.54 Interaction between OCB and CFU

**Selection:** IUT supports the interaction between OCB and CFU.  
PICS: MC 2.27 AND MC 2.23.

### 6.2.54.1 Test suite substructure



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

**Figure 43: N54 test suite substructure - level 2**

### 6.2.54.2 Originating S/T or T reference point

#### SSI\_N54\_01\_001 subclause 5.54.2.1

Ensure that the IUT in the call state N00 and OCB Idle state, on receipt of a FACILITY message (DCR) containing a Facility information element coded as CFU ActivationDiversioin invoke component and the forwardedToAddress parameter contains the address which is barred according to the barring program,

- sends a FACILITY message (DCR) containing a Facility information element with a valid CFU ActivationDiversioin return error component indicating "supplementaryServiceInteractionNotAllowed".

### 6.2.54.3 Originating T reference point

#### SSI\_N54\_02\_001 subclause 5.54.3.2

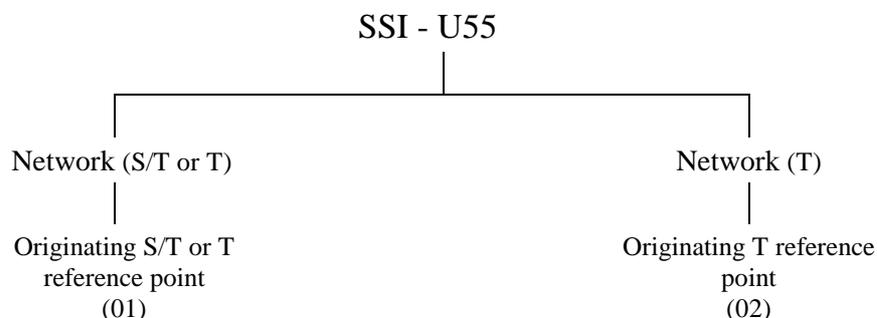
Ensure that the IUT in the Overlap Receiving call state N25 and OCB Idle state, on receipt of a FACILITY message containing a CallRerouting invoke component in the Facility information element and the calledAddress parameter contains the address which is barred according to the barring program,

- sends a FACILITY message containing in the Facility information element a CallRerouting error component indicating "supplementaryServiceInteractionNotAllowed".

## 6.2.55 Interaction between OCB and CD

**Selection:** IUT supports the interaction between OCB and CD.  
PICS: MC 2.27 AND MC 2.24.

### 6.2.55.1 Test suite substructure



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

**Figure 44: N55 test suite substructure - level 2**

### 6.2.55.2 Originating S/T or T reference point

#### SSI\_N55\_01\_001 subclause 5.55.2.1

Ensure that the IUT in the Call Received call state N07 and OCB Idle state, on receipt of a FACILITY message containing a Facility information element coded as CallDeflection invoke component and the deflectionAddress parameter contains the address which is barred according to the barring program for the instance identified by the call reference in the FACILITY message,

- sends a FACILITY message containing a Facility information element with a valid CallDeflection return error component indicating "supplementaryServiceInteractionNotAllowed".

### 6.2.55.3 Originating T reference point

#### SSI\_N55\_02\_001 subclause 5.55.3.2

Ensure that the IUT in the Overlap Receiving call state N25 and OCB Idle state, on receipt of a FACILITY message containing a CallRerouting invoke component in the Facility information element and the calledAddress parameter contains the address which is barred according to the barring program,

- sends a FACILITY message containing in the Facility information element a CallRerouting error component indicating "supplementaryServiceInteractionNotAllowed".

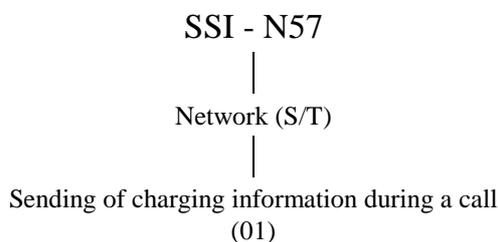
## 6.2.56 Interaction between OCB- UC and OCB-F

No protocol impact.

## 6.2.57 Interaction between CCNR and AOC

**Selection:** IUT supports the interaction between CCNR and AOC.  
PICS: MC 2.28 AND (MC 2.12 OR MC 2.13 OR MC 2.14).

### 6.2.57.1 Test suite substructure



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

**Figure 45: N57 test suite substructure - level 2**

### 6.2.57.2 Sending of charging information (S/T reference point)

#### SSI\_N57\_01\_001 subclause 5.57.2.2.1 normal

Ensure that the IUT, in call state N10 of a call resulting from a CCNR invocation, and in the AOC-D activated state as a result of retaining an AOC-D request from the original call, in which AOC-D had been successfully requested on a per call basis, to transfer charging information to the served user,

- includes a Facility information element including an AOCDCurrencyInfo or an AOCDChargingUnit invoke component in a FACILITY message and remains in call state N10.

#### SSI\_N57\_01\_002 subclause 5.57.2.2.1 normal

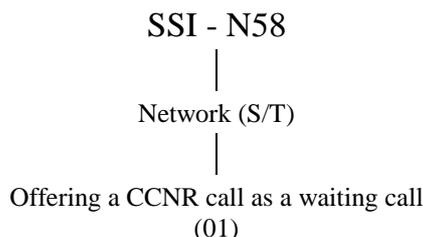
Ensure that the IUT, in call state N10 of a call resulting from a CCNR invocation, and in the AOC-D activated state as a result of retaining an AOC-D request from the original call, in which AOC-D had been successfully requested on a per call basis, receiving a DISCONNECT message,

- responds with a RELEASE message with a Facility information element including an AOCDCurrency or an AOCDChargingUnit invoke component and enters call state N19.

## 6.2.58 Interaction between CCNR and CW

**Selection:** IUT supports the interaction between CCNR and CW.  
PICS: MC 2.28 AND MC 2.6.

### 6.2.58.1 Test suite substructure



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

**Figure 46: N58 test suite substructure - level 2**

### 6.2.58.2 Sending of charging information (S/T reference point)

#### SSI\_N58\_01\_001 subclause 5.58.2.2.1 normal

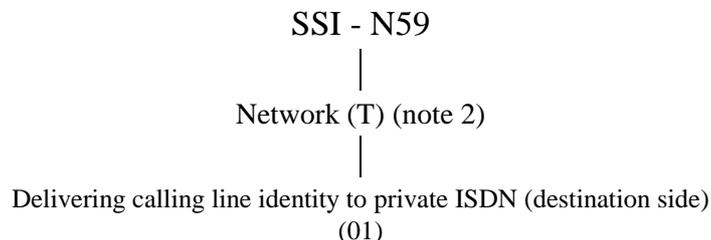
Ensure that the IUT, in call state N00 and CCNR Free state (at user B), to offer the CCNR call to user B when a channels busy condition is encountered but a network determined user busy condition does not result,

- sends a SETUP message with a Channel identification information element indicating "no B-channel available" and enters call state N06.

### 6.2.59 Interaction between CCNR and CLIP

**Selection:** IUT supports the interaction between CCNR and CLIP.  
PICS: MC 2.28 AND MC 2.1.

#### 6.2.59.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: No specific interaction requirements apply at S/T reference point.

**Figure 47: N59 test suite substructure - level 2**

#### 6.2.59.2 Delivering calling line identity to private ISDN

**Selection:** The public network supports the originatingAddress parameter in the CCNR-T-Request invoke component.

#### SSI\_N59\_01\_001 subclause 5.59.3.2.1

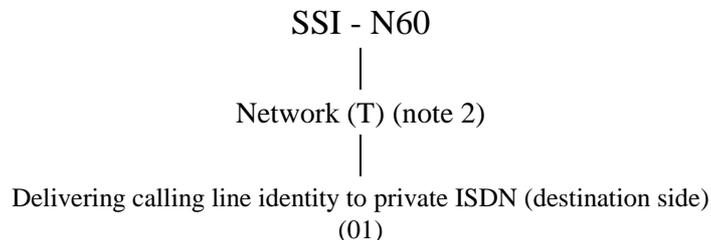
Ensure that the IUT, in the Null call state N00 and CCNR idle state, on receipt of a REGISTER message from the originating network with a CCNR-T-Request invoke component containing the calling party address in the originatingAddress parameter,

- sends the REGISTER message with the CCNR-T-Request invoke component and originatingAddress parameter to the destination user and enters call state N31 for this call.

## 6.2.60 Interaction between CCNR and CLIR

**Selection:** IUT supports the interaction between CCNR and CLIR.  
PICS: MC 2.28 AND MC 2.2.

### 6.2.60.1 Test suite substructure



NOTE 1: Numbers in brackets represent subgroup numbers and are used in TP identifiers.

NOTE 2: No specific interaction requirements apply at S/T reference point.

**Figure 48: N60 test suite substructure - level 2**

### 6.2.60.2 Delivering calling line identity to private ISDN

**Selection:** The public network supports the originatingAddress parameter in the CCNR-T-Request invoke component.

#### **SSI\_N60\_01\_001 subclause 5.60.3.2.1**

Ensure that the IUT, in the Null call state N00 and CCNR idle state, on receipt of a REGISTER message from the originating network with a CCNR-T-Request invoke component containing the calling party address in the originatingAddress parameter and presentation is allowed,

- sends the REGISTER message with the CCNR-T-Request invoke component with originatingAddress parameter and the PresentationAllowedIndicator set to "true" to the destination user and enters call state N31 for this call.

#### **SSI\_N60\_01\_002 subclause 5.60.3.2.1**

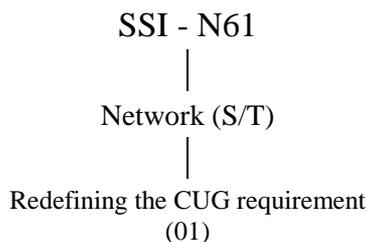
Ensure that the IUT, in the Null call state N00 and CCNR idle state, on receipt of a REGISTER message from the originating network with a CCNR-T-Request invoke component containing the calling party address in the originatingAddress parameter and presentation is not allowed,

- sends the REGISTER message with the CCNR-T-Request invoke component, but not including the originatingAddress parameter and the PresentationAllowedIndicator, to the destination user and enters call state N31 for this call.

## 6.2.61 Interaction between CCNR and CUG

**Selection:** IUT supports the interaction between CCNR and CUG.  
PICS: MC 2.28 AND MC 2.8.

### 6.2.61.1 Test suite substructure



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

**Figure 49: N61 test suite substructure - level 2**

### 6.2.61.2 Redefining the CUG requirement (S/T reference point)

#### SSI\_N61\_01\_001 subclause 5.61.2.2

Ensure that the IUT, in call state N00 and CCNR Free state, receiving a SETUP message with a Facility information element including a CCBSCall invoke component and a CUGCall invoke component while the original call contained a CUGCall invoke component with identical CUG requirements,

- sends a CALL PROCEEDING message and enters call state N03.

#### SSI\_N61\_01\_002 subclause 5.61.2.2

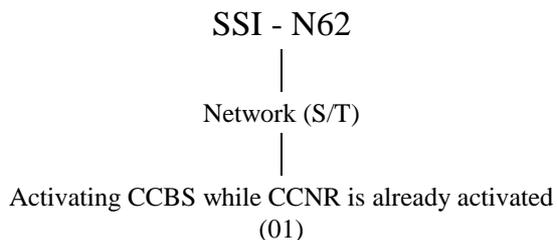
Ensure that the IUT, in call state N00 and CCNR Free state, receiving a SETUP message with a Facility information element including a CCBSCall invoke component and a CUGCall invoke component while the original call contained a CUGCall invoke component with different CUG requirements,

- sends a DISCONNECT or a RELEASE COMPLETE message containing a Facility information element with a CUGCall return error component indicating "invalidOrUnregisteredCUGIndex" and a Cause information element indicating cause #29 "facility rejected" and enters call state N12 or remains in call state N00.

## 6.2.62 Interaction between CCNR and CCBS

**Selection:** IUT supports the interaction between CCNR and CCBS.  
 PICS: MC 2.28 AND MC 2.7.

### 6.2.62.1 Test suite substructure



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

**Figure 50: N62 test suite substructure - level 2**

### 6.2.62.2 Sending of charging information (S/T reference point) - Network A side

**Selection:** IUT supports the check for identical calls option.

#### **SSI\_N62\_01\_001 subclause 5.62.2.2**

Ensure that the IUT in the Disconnect Indication call state N12, CCBS Activated state and CCNR Idle state, receiving a FACILITY message with a dummy call reference containing a Facility information element with a CCNRRequest invoke component including the callLinkageID parameter but the CCBS supplementary service is already activated for an identical call in queue A,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCNRRequest return error component indicating "cCBSIsAlreadyActivated".

**Selection:** Check for identical calls = Yes

#### **SSI\_N62\_01\_002 subclause 5.62.2.2**

Ensure that the IUT in the Null call state N00, CCNR Activated state and CCBS Idle state, receiving a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRequest invoke component including the callLinkageID parameter but the CCNR supplementary service is already activated for an identical call in queue A,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRequest return error component indicating "cCBSIsAlreadyActivated".

**Selection:** Check for identical calls = Yes

#### **SSI\_N62\_01\_003 subclause 5.62.2.2**

Ensure that the IUT in the Null call state N00, CCBS idle state and CCNR Idle state, due to the fact that the CCNR call has been cleared because User B is busy again and the network option "CCBS request retention" is set to no, receiving a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRequest invoke component including the callLinkageID parameter,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRequest return result component and enters the CCBS Activated state.

**Selection:** Check for identical calls = Yes

#### **SSI\_N62\_01\_004 subclause 5.62.2.2**

Ensure that the IUT in the Null call state N00, CCBS idle state and CCNR Idle state, due to the fact that the CCNR call has been cleared because User B is busy again and the network option "CCBS request retention" is set to no, receiving a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRequest invoke component including the callLinkageID parameter

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRequest return result component and enters the CCBS Activated state.

**Selection:** Check for identical calls = No

#### **SSI\_N62\_01\_005 subclause 5.62.2.2**

Ensure that the IUT in the Call Delivered call state N04, CCBS Call Init state and CCNR idle state, on receipt of a FACILITY message with a dummy call reference containing a Facility information element with a CCNRRequest invoke component including the callLinkageID parameter,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCNRRequest return result component and enters the CCNR Activated state.

**Selection:** Check for identical calls = No

#### **SSI\_N62\_01\_006 subclause 5.62.2.2**

Ensure that the IUT in the Call Delivered call state N04, CCBS Call Init state and CCNR idle state, on receipt of a FACILITY message with a dummy call reference containing a Facility information element with a CCNRRequest invoke component including the callLinkageID parameter,

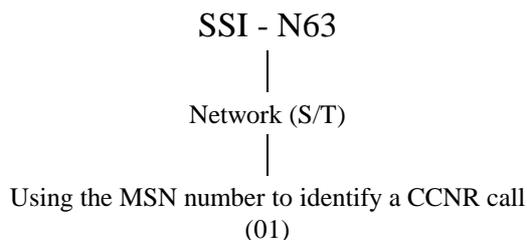
- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCNRRequest return result component and enters the CCNR Activated state.

**Selection:** Check for identical calls = Yes

## 6.2.63 Interaction between CCNR and MSN

**Selection:** IUT supports the interaction between CCNR and MSN.  
PICS: MC 2.28 AND MC 2.4.

### 6.2.63.1 Test suite substructure



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

**Figure 51: N63 test suite substructure - level 2**

### 6.2.63.2 Sending of charging information (S/T reference point) - Network A side

#### SSI\_N63\_01\_001 subclause 5.63.2.1

Ensure that the IUT in the Outgoing call proceeding call state N03 and CCNR Call Init state, and the CCNR request has not been deactivated and the user provided a valid multiple subscriber number in the original call,

- sends a FACILITY message containing a Facility information element with a CCBSERase invoke component including the cCBSEraseReason parameter indicating "normal-unspecified" and a Called party number information element containing the calling user's identity and remains in the call state N03.

#### SSI\_N63\_01\_002 subclause 5.63.2.1

Ensure that the IUT in the Null call state N00 and CCNR Activated state, having checked that the user is neither busy nor CCBS busy, in order to indicate that it is prepared for establishment of the requested call and the user provided a valid multiple subscriber number in the original call,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRemoteUserFree invoke component and a Called party number information element containing the calling user's identity.

#### SSI\_N63\_01\_003 subclause 5.63.2.1

Ensure that the IUT in the Null call state N00 and CCNR Activated state, and having determined that user A is either busy or CCBS busy and the user provided a valid multiple subscriber number in the original call,

- sends a FACILITY message containing a Facility information element with a CCBSBFree invoke component and a Called party number information element containing the calling user's identity.

#### SSI\_N63\_01\_004 subclause 5.63.2.1

Ensure that the IUT in the Null call state N00 and CCNR Activated state, to request the status of user A and the user provided a valid multiple subscriber number in the original call,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCBSStatusRequest invoke component and a Called party number information element containing the calling user's identity and remains in the CCNR Activated state.

#### SSI\_N63\_01\_005 subclause 5.63.2.1

Ensure that the IUT in the Outgoing call proceeding call state N03 and CCNR Call Init state, and the CCNR request has not been deactivated and the user provided an invalid multiple subscriber number in the original call,

- sends a FACILITY message containing a Facility information element with a CCBSERase invoke component including the cCBSERaseReason parameter indicating "normal-unspecified" and a Called party number information element containing the calling user's identity of the original call and remains in the call state N03.

#### **SSI\_N63\_01\_006 subclause 5.63.2.1**

Ensure that the IUT in the Null call state N00 and CCNR Activated state, having checked that the user is neither busy nor CCBS busy, in order to indicate that it is prepared for establishment of the requested call and the user provided an invalid multiple subscriber number in the original call,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCBSRemoteUserFree invoke component and a Called party number information element containing the calling user's identity of the original call.

#### **SSI\_N63\_01\_007 subclause 5.63.2.1**

Ensure that the IUT in the Null call state N00 and CCNR Activated state, and having determined that user A is either busy or CCBS busy and the user provided an invalid multiple subscriber number in the original call,

- sends a FACILITY message containing a Facility information element with a CCBSBFree invoke component and a Called party number information element containing the calling user's identity of the original call.

#### **SSI\_N63\_01\_008 subclause 5.63.2.1**

Ensure that the IUT in the Null call state N00 and CCNR Activated state, to request the status of user A and the user provided an invalid multiple subscriber number in the original call,

- sends a FACILITY message with a dummy call reference containing a Facility information element with a CCBSStatusRequest invoke component and a Called party number information element containing the calling user's identity of the original call and remains in the CCNR Activated state.

#### **SSI\_N63\_01\_009 subclause 5.63.2.1**

Ensure that the IUT in the CCNR Activated state and the user provided a valid multiple subscriber number in the original call, receiving a FACILITY message with the dummy call reference containing a Facility information element with a CCNRInterrogate invoke component without a cCBSReference parameter and with a partyNumberOfA parameter containing the MSN,

- sends a FACILITY message with the dummy call reference containing a Facility information element with a CCNRInterrogate return result component with the Recall mode and the Call details parameters and remains in the CCNR Activated state.

#### **SSI\_N63\_01\_010 subclause 5.63.2.2**

Ensure that the IUT in the CCNR Activated state and the user provided no multiple subscriber number in the original call, receiving a FACILITY message with the dummy call reference containing a Facility information element with a CCNRInterrogate invoke component without a cCBSReference parameter and with a partyNumberOfA parameter with invalid content,

- sends a FACILITY message with the dummy call reference containing a Facility information element with a CCNRInterrogate return result component with the Recall mode and the Call details parameters for the original call and remains in the CCNR Activated state.

#### **SSI\_N63\_01\_011 subclause 5.63.2.2**

Ensure that the IUT in the CCNR Activated state and the user provided no multiple subscriber number in the original call, receiving a FACILITY message with the dummy call reference containing a Facility information element with a CCNRInterrogate invoke component without a cCBSReference parameter and without a partyNumberOfA parameter,

- sends a FACILITY message with the dummy call reference containing a Facility information element with a CCNRInterrogate return result component with the Recall mode and the Call details parameters for the original call and remains in the CCNR Activated state.

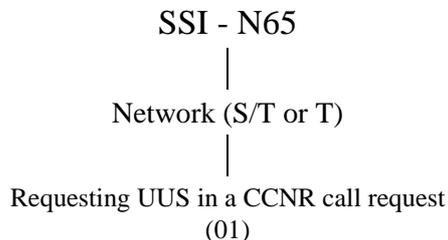
## **6.2.64 Interaction between CCNR and SUB**

This subclause refers to EN 300 195-1 [4], subclause 5.64. No test purpose related to the specified supplementary service interaction can be defined as the specified behaviour is not observable at the interface between the remote network and the remote user.

## 6.2.65 Interaction between CCNR and UUS

**Selection:** IUT supports the interaction between CCNR and UUS.  
PICS: MC 2.28 AND MC 2.9.

### 6.2.65.1 Test suite substructure



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

**Figure 52: N65 test suite substructure - level 2**

### 6.2.65.2 Requesting UUS in a CCNR call request

#### **SSI\_N65\_01\_001 subclause 5.65.2.1**

Ensure that the IUT, in call state N00 and CCNR Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a User-user information element,

- accepts the UUS request (resulting in the sending of a SETUP message containing a User-user information element to the remote user), continues basic call procedure using the retained call information and enters call state N03.

#### **SSI\_N65\_01\_002 subclause 5.65.2.1**

Ensure that the IUT, in call state N00 and CCNR Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a UserUserService invoke component indicating "service1",

- accepts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service1" to the remote user), continues basic call procedure using the retained call information and enters call state N03.

#### **SSI\_N65\_01\_003 subclause 5.65.2.1**

Ensure that the IUT, in call state N00 and CCNR Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a UserUserService invoke component indicating "service2",

- accepts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service2" to the remote user), continues basic call procedure using the retained call information and enters call state N03.

#### **SSI\_N65\_01\_004 subclause 5.65.2.1**

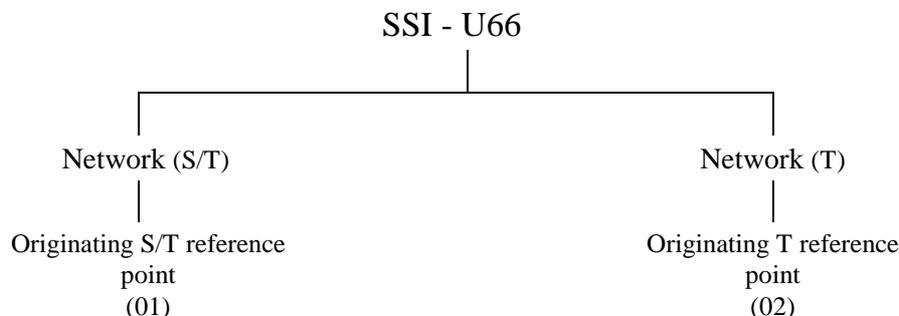
Ensure that the IUT, in call state N00 and CCNR Free state, on receipt of a SETUP message containing Bearer capability information elements from the original call and a Facility information element with a CCBSCall invoke component including the CCBSReference from the previously sent CCBSRemoteUserFree invoke component and a UserUserService invoke component indicating "service3",

- accepts the UUS request (resulting in the sending of a SETUP message containing a Facility information element with a UserUserService invoke component indicating "service3" to the remote user), continues basic call procedure using the retained call information and enters call state N03.

## 6.2.66 Interaction between CCNR and OCB

**Selection:** IUT supports the interaction between CCNR and OCB.  
**PICS:** MC 2.28 AND MC 2.27.

### 6.2.66.1 Test suite substructure



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

**Figure 53: N66 test suite substructure - level 2**

### 6.2.66.2 Originating S/T and T reference point

#### SSI\_N66\_01\_001 subclause 5.66.2.1

Ensure that the IUT in the Null call state N00, CCNR Free state and OCB Idle state, while the OCB-F service has been activated after the CCNR service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-F supplementary service is activated, and the call is not to be barred according to the barring program,

- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

#### SSI\_N66\_01\_002 subclause 5.66.2.1

Ensure that the IUT in the Null call state N00, CCNR Free state and OCB Idle state, while the OCB-UC service has been activated after the CCNR service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-UC supplementary service is activated, and the call is not to be barred according to the barring program,

- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

#### SSI\_N66\_01\_003 subclause 5.66.2.1

Ensure that the IUT in the Null call state N00, CCNR Free state and OCB Idle state, while the OCB-F service has been activated after the CCNR service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-F supplementary service is activated, and the call is to be barred according to the barring program,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

#### SSI\_N66\_01\_004 subclause 5.66.2.1

Ensure that the IUT in the Null call state N00, CCNR Free state and OCB Idle state, while the OCB-UC service has been activated after the CCNR service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB-UC supplementary service is activated and the call is to be barred according to the barring program,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**SSI\_N66\_01\_005 subclause 5.66.2.1**

Ensure that the IUT in the Overlap sending call state N02, CCNR Free state and OCB Idle state, while the OCB-F service has been activated after the CCNR service, on receipt of an INFORMATION message, and the call is to be barred according to the barring program and the content of the INFORMATION message,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**SSI\_N66\_01\_006 subclause 5.66.2.1**

Ensure that the IUT in the Overlap sending call state N02, CCNR Free state and OCB Idle state, while the OCB-UC service has been activated after the CCNR service, on receipt of an INFORMATION message, and the call is to be barred according to the barring program and the content of the INFORMATION message,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**6.2.66.3 Originating S/T reference point****SSI\_N66\_02\_001 subclause 5.66.2.1**

Ensure that the IUT in the Call delivered call state N04, CCNR Idle state and OCB Idle state, while the OCB-F service has been activated before the CCNR service, on receipt of a FACILITY message containing a Facility information element with a CCNRRequest invoke component including the CallLinkageID,

- sends a FACILITY message containing a Facility information element with a CCNRRequest return result component including the CCBSReference and recallMode and remains in call state N04.

**SSI\_N66\_02\_002 subclause 5.66.2.1**

Ensure that the IUT in the Call delivered call state N04, CCNR Idle state and OCB Idle state, while the OCB-UC service has been activated before the CCNR service, on receipt of a FACILITY message containing a Facility information element with a CCNRRequest invoke component including the CallLinkageID,

- sends a FACILITY message containing a Facility information element with a CCNRRequest return result component including the CCBSReference and recallMode and remains in call state N04.

**SSI\_N66\_02\_003 subclause 5.66.2.1**

Ensure that the IUT in the Null call state N00, CCNR Free state and OCB Idle state, while the OCB-UC service has been activated before the CCNR service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB supplementary service is activated, not including a Facility information element with a DisableOcb invoke component but the original call contained a DisableOcb invoke component, and the call is to be barred according to the barring program and the content of the SETUP message,

- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

**Selection:** IUT supports the disabling procedure. PICS: MC 5.

**SSI\_N66\_02\_004 subclause 5.66.2.2**

Ensure that the IUT in the Null call state N00, CCNR Free state and OCB Idle state, while the OCB-UC service has been activated after the CCNR service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB supplementary service is activated, including a Facility information element with a DisableOcb invoke component, and the call is to be barred according to the barring program and the content of the SETUP message,

- sends a call clearing message containing the cause #31 "normal, unspecified" and an OcbInvoked invoke component and enters the corresponding call state.

**Selection:** IUT supports the disabling procedure. PICS: MC 5.

#### 6.2.66.4 Originating T reference point

##### SSI\_N66\_03\_001 subclause 5.66.3.1

Ensure that the IUT in the Null call state N00, CCNR Free state and OCB Idle state, while the OCB-UC service has been activated before the CCNR service, on receipt of a SETUP message containing a Bearer capability and a High layer compatibility information element corresponding to a basic service for which the OCB supplementary service is activated, including a Facility information element with the same DisableOcb invoke component as in the original, and the call is to be barred according to the barring program and the content of the SETUP message,

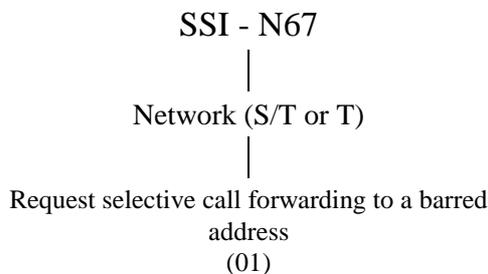
- sends a CALL PROCEEDING message and enters the Overlap sending N2 or the Outgoing call proceeding N3 call state.

**Selection:** IUT supports the disabling procedure. PICS: MC 5.

#### 6.2.67 Interaction between OCB and SCF

**Selection:** IUT supports the interaction between OCB and SCF.  
PICS: MC 2.27 AND MC 2.29.

##### 6.2.67.1 Test suite substructure



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

**Figure 54: N67 test suite substructure - level 2**

##### 6.2.67.2 Request selective call forwarding to a barred address

###### SSI\_N67\_01\_001 subclause 5.67.2.1

Ensure that the IUT in the Null call state N00 state and OCB Idle state, while the OCB-F service has been activated, on receipt of a FACILITY message containing a Facility information element coded as ActivationSCF invoke component indicating "scfb" in the sCFProcedure parameter and containing in the forwardedToAddress parameter an address that is to be barred according to the activated barring program,

- sends a FACILITY message containing a Facility information element with a valid ActivationSCF return error component indicating "supplementaryServiceInteractionNotAllowed".

###### SSI\_N67\_01\_002 subclause 5.67.2.1

Ensure that the IUT in the Null call state N00 state and OCB Idle state, while the OCB-F service has been activated, on receipt of a FACILITY message containing a Facility information element coded as ActivationSCF invoke component indicating "scfnr" in the sCFProcedure parameter and containing in the forwardedToAddress parameter an address that is to be barred according to the activated barring program,

- sends a FACILITY message containing a Facility information element with a valid ActivationSCF return error component indicating "supplementaryServiceInteractionNotAllowed".

###### SSI\_N67\_01\_003 subclause 5.67.2.1

Ensure that the IUT in the Null call state N00 state and OCB Idle state, while the OCB-F service has been activated, on receipt of a FACILITY message containing a Facility information element coded as ActivationSCF invoke component indicating "scfu" in the sCFProcedure parameter and containing in the forwardedToAddress parameter an address that is to be barred according to the activated barring program,

- sends a FACILITY message containing a Facility information element with a valid ActivationSCF return error component indicating "supplementaryServiceInteractionNotAllowed".

#### SSI\_N67\_01\_004 subclause 5.67.2.1

Ensure that the IUT in the Null call state N00 state and OCB Idle state, while the OCB-UC service has been activated, on receipt of a FACILITY message containing a Facility information element coded as ActivationSCF invoke component indicating "scfb" in the sCFProcedure parameter and containing in the forwardedToAddress parameter an address that is to be barred according to the activated barring program,

- sends a FACILITY message containing a Facility information element with a valid ActivationSCF return error component indicating "supplementaryServiceInteractionNotAllowed".

#### SSI\_N67\_01\_005 subclause 5.67.2.1

Ensure that the IUT in the Null call state N00 state and OCB Idle state, while the OCB-UC service has been activated, on receipt of a FACILITY message containing a Facility information element coded as ActivationSCF invoke component indicating "scfnr" in the sCFProcedure parameter and containing in the forwardedToAddress parameter an address that is to be barred according to the activated barring program,

- sends a FACILITY message containing a Facility information element with a valid ActivationSCF return error component indicating "supplementaryServiceInteractionNotAllowed".

#### SSI\_N67\_01\_006 subclause 5.67.2.1

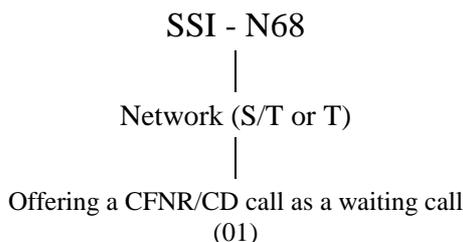
Ensure that the IUT in the Null call state N00 state and OCB Idle state, while the OCB-UC service has been activated, on receipt of a FACILITY message containing a Facility information element coded as ActivationSCF invoke component indicating "scfu" in the sCFProcedure parameter and containing in the forwardedToAddress parameter an address that is to be barred according to the activated barring program,

- sends a FACILITY message containing a Facility information element with a valid ActivationSCF return error component indicating "supplementaryServiceInteractionNotAllowed".

## 6.2.68 Interaction between CW and CFNR/CD

**Selection:** IUT supports the interaction between CW and CFNR/CD.  
PICS: MC 2.6 AND MC 2.22/MC2.24.

### 6.2.68.1 Test suite substructure



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

**Figure 55: N68 test suite substructure - level 2**

### 6.2.68.2 Offering a CFNR/CD call as a waiting call - calling network side

#### SSI\_N68\_01\_001 subclause 5.68.2.1.1

Ensure that the IUT in the Call Delivered call state N04, while CFNR has been invoked at the called user, to indicate that CW was invoked at the diverted-to user,

- sends a Notification indicator information element coded "call is a waiting call" in a PROGRESS message if a Progress indicator information element is also received OR in a NOTIFY message to the calling user.

**Selection:** Summary condition "calling user is notified of diversion" has a value other than "no"

OR

Subscription option "calling user receives notification that the call has been forwarded" is not supported.

**SSI\_N68\_01\_002 subclause 5.68.2.1.1**

Ensure that the IUT in the Call Delivered call state N04, while CDA has been invoked at the called user, to indicate that CW was invoked at the diverted-to user,

- sends a Notification indicator information element coded "call is a waiting call" in a PROGRESS message if a Progress indicator information element is also received OR in a NOTIFY message to the calling user.

**Selection:** Summary condition "calling user is notified of diversion" has a value other than "no"

OR

Subscription option "calling user receives notification that the call has been forwarded" is not supported.

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## 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 [10].

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.

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## 8 Requirements for a comprehensive testing service

As a minimum the Remote test method, as specified in ISO/IEC 9646-2 [10], shall be used by any organization claiming to provide a comprehensive testing service for network equipment claiming conformance to EN 300 195-1 [4].

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## Bibliography

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

EN 300 182-2 (V1.2): "Integrated Services Digital Network (ISDN); Advice of Charge (AOC) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

EN 300 185-2 (V1.2): "Integrated Services Digital Network (ISDN); Conference call, add-on (CONF) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

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## History

<b>Document history</b>		
Edition 1	May 1997	Publication as ETS 300 195-5
V1.3.2	August 1999	Public Enquiry PE 9953: 1999-08-04 to 1999-12-03