ETSI

EUROPEAN
TELECOMMUNICATION
STANDARD

DRAFT

pr ETS 300 374-3

August 1997

Second Edition

Source: ETSI TC-SPS

Reference: RE/SPS-03058

ICS: 33.020

Key words: IN, CS1, INAP, TSS&TP, testing

Intelligent Network (IN);
Intelligent Network Capability Set 1 (CS1);
Core Intelligent Network Application Protocol (INAP);
Part 3: Test Suite Structure and Test Purposes (TSS&TP)
specification for Service Switching Function (SSF) and
Specialized Resource Function (SRF)

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE
Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE
X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 4 92 94 42 00 - Fax: +33 4 93 65 47 16

Contents

Blank page

Foreword

This draft second edition European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the One-step Approval Procedure.

This ETS is part 3 of a multi-part standard covering the Capability Set 1 (CS1) core Intelligent Network Protocol (INAP) as described below:

Part 1: "Protocol specification";

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

Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for Service Switching Function (SSF) and Specialized Resource Function (SRF)";

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

Part 5: "Protocol specification for the Service Control Function (SCF) - Service Data Function (SDF) interface";

Part 6: "PICS proforma specification for the SCF-SDF interface".

Proposed transposition dates	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Blank page

1 Scope

This third part of ETS 300 374 provides the Test Suite Structure and Test Purposes (TSS&TP) for conformance testing of the Service Switching Function (SSF) and the Specialized Resource Function (SRF) of the core Intelligent Network Application Protocol (INAP) of Intelligent Network (IN) Capability Set 1 (CS1) according to ETS 300 374-1 [1].

ISO/IEC 9646-1 [3] and ISO/IEC 9646-2 [4] are used as the basis for the test methodology.

2 Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1]   ETS 300 374-1 (1994): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 1: Protocol specification".

[2]   ETS 300 374-2 (1996): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification for Service Switching Function (SSF), Specialized Resource Function (SRF) and Service Control Function (SCF)".

[3]   ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[4]   ISO/IEC 9646-2: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification".

3 Definitions and abbreviations

3.1 Definitions

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

- terms defined in ETS 300 374-1 [1];
- terms defined in ISO/IEC 9646-1 [3] and in ISO/IEC 9646-2 [4].

In particular, the following terms defined in ISO/IEC 9646-1 [3] apply:

- Abstract Test Suite (ATS);
- Implementation Under Test (IUT);
- System Under Test (SUT);
- Protocol Implementation Conformance Statement (PICS).

3.2 Abbreviations

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

aS	assisting SSF
aSSP	assisting SSP
ATS	Abstract Test Suite
BI	Invalid Behaviour tests
BO	Inopportune Behaviour tests
bS	tests for SSP basic functions
BV	Valid Behaviour tests
CA	Capability tests
cI	IP with direct path to SCP
EDP-N	Event Detection Point - Notification
EDP-R	Event Detection Point - Request
FE	Functional Entity
FSM	Finite State Machine
IN	Intelligent Network
INAP	Intelligent Network Application Protocol
IP	Intelligent Peripheral
iS	initiating SSF
iSSP	initiating SSP
IUT	Implementation Under Test
PICS	Protocol Implementation Conformance Statement
PDU	Protocol Data Unit
rS	SSF relay
SCF	Service Control Function
SCP	Service Control Point
SDF	Service Data Function
SDP	Service Data Point
SRF	Specialized Resource Function
SRSM	SRF call State Model
SSF	Service Switching Function
SSME	SSF Management Entity
SSP	Service Switching Point
SUT	System Under Test
TCAP	Transaction Capabilities Application Part
TDP	Trigger Detection Point
TP	Test Purpose
TSS	Test Suite Structure

4 Test Suite Structure (TSS)

4.1 Overview

Tables 1 and 2 show the structure of the test suites for SSF and SRF.

Table 1: Test suite structure of the SSF tests

SUT	Interface	Category	State	Group
SSP	SCF-SSF **bS**: SSP basic functions	CA	State 1	Network event
				Operation
			State 3	Operation
			State 6	Network event
			State 7	Operation
		BV	State 1	Network event
				Operation
			State 3	Network event
				Operation
				Operation error
			State 6	Network event
				Operation
				Operation error
			State 7	Operation
			State 8	Network event
		BI	State 1	Operation
			State 3	Operation
				Operation error
			State 6	Operation
			State 7	Operation
		BO	State 1	Operation
			State 3	Operation
			State 6	Operation
	SCF-SSF-SRF **rS**: add. for SSP with relay functions	BV	State 3	Operation
			State 4	Network event
				Operation
				Operation error
		BI	State 3	Operation
			State 4	Operation
		BO	State 1	Operation
			State 3	Operation
			State 4	Operation
			State 6	Operation

(continued)

Table 1 (concluded): Test suite structure of the SSF tests

SUT	Interface	Category	State	Group
SSP	SCF-SSF **iS**: add. for SSP acting as initiating SSP	BV	State 3	Operation
			State 5	Network event
				Operation
				Operation error
		BI	State 3	Operation
			State 5	Operation
		BO	State 1	Operation
			State 3	Operation
			State 5	Operation
			State 6	Operation
	SCF-SSF **aS**: add. for SSP acting as assisting SSP	BV		Network event
			State 1	
			State 3	Network event
				Operation
				Operation error
			State 4	Network event
				Operation
				Operation error
		BI	State 3	Operation
			State 4	Operation
		BO	State 3	Operation
			State 4	Operation

Table 2: Test suite structure of the SRF tests

SUT	Interface	Category	State	Group
IP	SCF-SRF **cl (**IP direct path to SCP)	BV	State 1	Network event
			State 2	
				Network event
				Operation
				Operation error
			State 3	Network event
				Operation
		BI	State 2	Operation
			State 3	Operation
		BO	State 1	Operation
			State 2	Operation

4.2 Physical scenarios

The test suites given in subclause 4.1 are based on the mapping of Functional Entities (FE) to Physical Entities (PE) as shown in table 3.

Table 3: Mapping of functional entities to physical entities

PE	FE			
	SRF	**SSF**	**SCF**	**SDF**
SSP	o	m	n/a	n/a
SCP	n/a	n/a	m	o
SDP	n/a	n/a	n/a	m
IP	m	n/a	n/a	n/a

The application of the test suites according to subclause 4.1 is given in figures 1 to 5 for a number of different example physical scenarios.

The following figures illustrate mainly the SRF configurations. The SDP is included for better understanding of the whole IN configuration. Nevertheless, it possible to support an SCP with an integrated SDF.
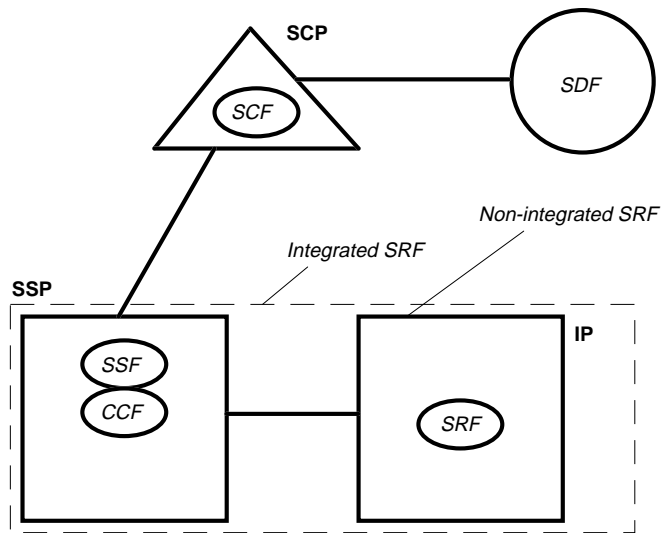
applied test suite groups for SSP testing: bS + rS

Figure 1: Example for SCP with single SSP Non-integrated or Integrated SRF
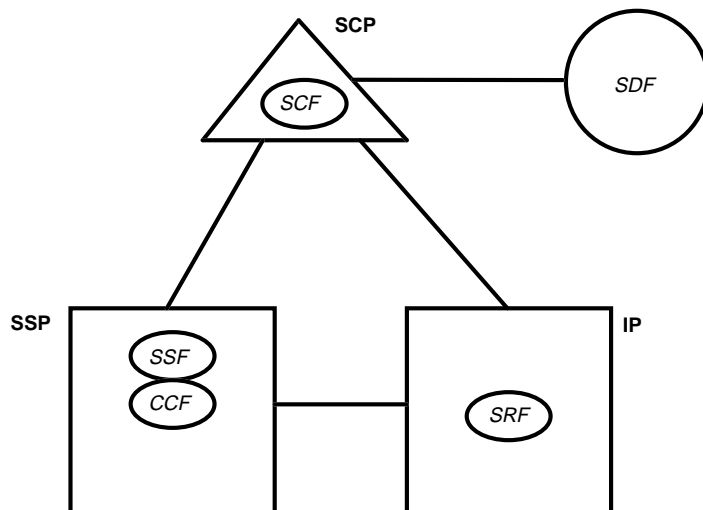
applied test suite groups for iSSP testing: bS + iS
applied test suite groups for IP testing: cI

Figure 2: Example for direct path SCP - IP
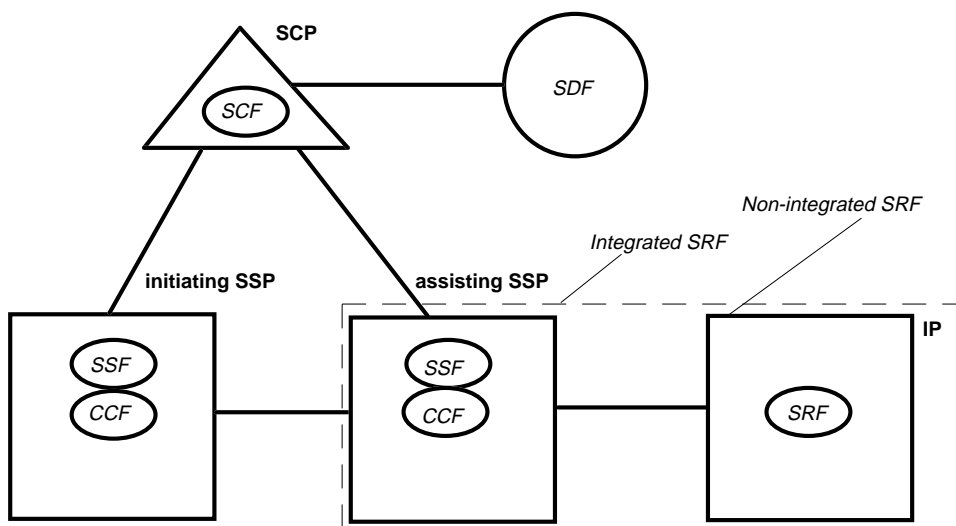
applied test suite groups for iSSP testing: bS + iS
applied test suite groups for aSSP testing: aS + rS

Figure 3: Example for SSP Assist/Hand-off (assisting SSP with relay)
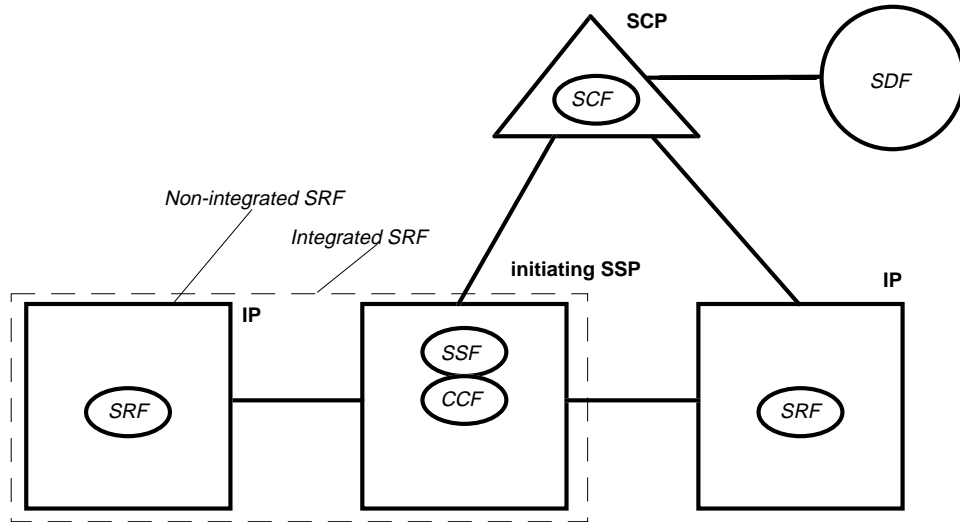
applied test suite groups for iSSP testing: bS + iS + rS
applied test suite groups for IP testing: cI

Figure 4: Example for SSP Assist/Hand-off (initiating SSP with relay)
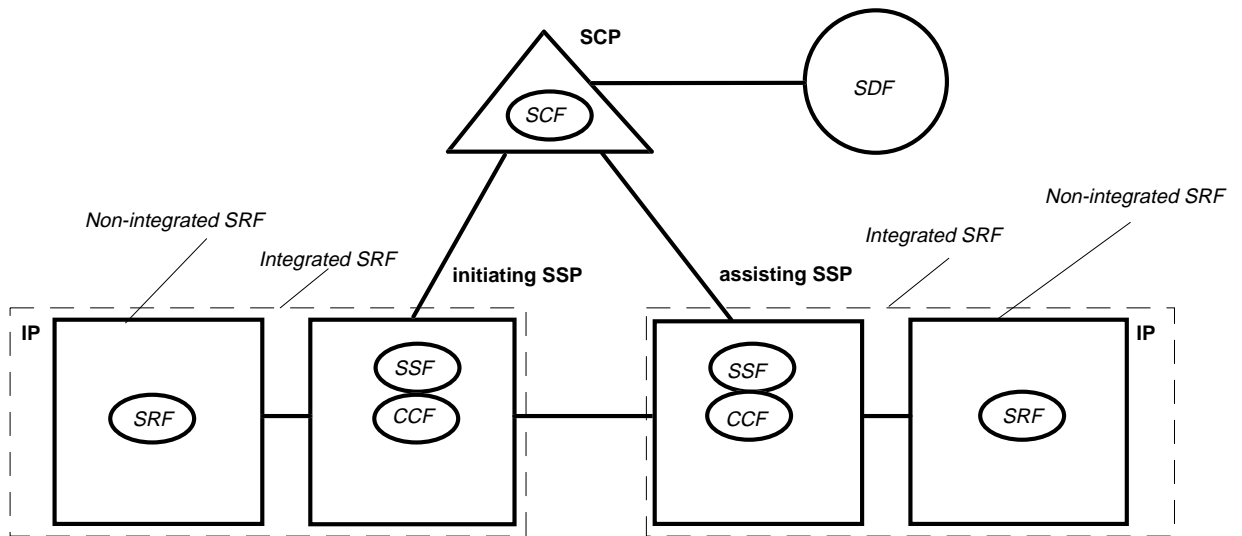
applied test suite groups for iSSP testing: bS + iS + rS
applied test suite groups for aSSP testing: aS + rS

Figure 5: Example for SSP Assist/Hand-off (initiating and assisting SSP with relay)

4.3 Test groups

4.3.1 Interface groups

4.3.1.1 Basic SSF - bS

The defined test purposes cover the INAP procedures at the SSP for the basic functions as described in ETS 300 374-1 [1], clauses 7 to 10. The basic functions are the INAP procedures at the SSP for the following operations:

ActivateServiceFiltering
ActivityTest
ApplyCharging
ApplyChargingReport
CallInformationRequest
CallInformationReport
Cancel (CCF events)
CollectInformation
Connect
Continue
EventNotificationCharging
EventReportBCSM
FurnishChargingInformation
InitialDP
InitiateCallAttempt
ReleaseCall
RequestNotificationChargingEvent
RequestReportBCSMEvent
ResetTimer
SendChargingInformation
ServiceFilteringResponse

4.3.1.2 SSF relay - rS

The defined test purposes cover the INAP procedures at the SSP needed in addition to the basic functions for the user interaction with relay as described in ETS 300 374-1 [1], clauses 7 to 10. These are the procedures for the following operations:

Cancel (PA, PC)
ConnectToResource
DisconnectForwardConnection
PlayAnnouncement
PromptAndCollectUserInformation
SpecializedResourceReport

4.3.1.3 Initiating SSF - iS

The defined test purposes cover the INAP procedures at the initiating SSP needed in addition to the basic functions as described in ETS 300 374-1 [1], clauses 7 to 10. These are the procedures for the following operations:

Connect (hand-off)
DisconnectForwardConnection
EstablishTemporaryConnection

4.3.1.4   Assisting SSF - aS

The defined test purposes cover the INAP procedures at the assisting SSP needed in addition to the basic and relay functions as described in ETS 300 374-1 [1], clauses 7 to 10. These are the procedures for the following operations:

> AssistRequestInstructions

4.3.1.5   IP with direct path to SCP - cI

The defined test purposes cover the INAP procedures at the IP related to the SRF-SCF interface in case of a direct path between SCP and IP as described in ETS 300 374-1 [1], clauses 7 to 10. These are the procedures for the following operations:

> AssistRequestInstructions
> Cancel
> PlayAnnouncement
> PromptAndCollectUserInformation
> SpecializedResourceReport

4.3.2   Main test groups

4.3.2.1   Capability tests (CA)

Capability testing provides a limited testing to ascertain the capabilities stated in the PICS can be observed.

4.3.2.2   Valid Behaviour tests (BV)

Predefined state transitions are considered as valid. The test purposes in the valid behaviour test sub group cover as far as reasonable the verification of the normal and exceptional procedures of the various Finite State Machines (FSMs), i.e. a valid behaviour test is a test where the message sequence and the message contents is considered as valid.

4.3.2.3   Invalid Behaviour tests (BI)

This test sub group is intended to verify that the IUT is able to react properly having received an invalid Protocol Data Unit (PDU). An invalid PDU is defined as a syntactically incorrect message.

4.3.2.4   Inopportune Behaviour tests (BO)

This test group is intended to verify that the IUT is able to react properly in the case an inopportune protocol event occurring. Such an event is syntactically correct but occurs when it is not expected, e.g. a correctly coded operation is received in a wrong state (the IUT may respond by sending error UnexpectedComponentSequence).

4.4   Test step structure

4.4.1   Preambles

The preamble test group contains the preamble test steps needed for initialisation of the IUT before testing the particular test purpose. Each preamble shall start from the IUT initial state as defined in subclause 5.1.4.

4.4.2   Postambles

After each test case the IUT shall be brought back to the initial state as defined in subclause 5.1.4.

4.5　　　Timers of the Abstract Test Suite (ATS)

This subclause describes the timers and counters used in the ATS. The "min" and "max" indications define if the timer value represents the minimum or maximum limit of a timer. The timer values contain some additional tolerances for delays caused by test simulators. Therefore, a bigger timer tolerance is given than defined in ETS 300 374-1 [1]:

Minimum value of ATS timer = minimum ETS timer;

Maximum value of ATS timer = maximum ETS timer $\times$ 1,2.

Table 4 shows the identified timers used in the ATS and the references to ETS 300 374-1 [1].

Table 4: ATS timer values

ATS timer name	ATS timer value [s]	ETS timer name	Reference to ETS 300 374-1 [1]
T_{SSFmin}	(note)	T_{SSF}	not defined
T_{SSFmax}	(note)		
T_{SRFmin}	(note)	T_{SRF}	not defined
T_{SRFmax}	(note)		
$T_{SCF-SSFmin}$	(note)	$T_{SCF-SSF}$	not defined
$T_{SCF-SSFmax}$	(note)		
$T_{ActTestmin}$	(note)	$T_{ActTest}$	not defined
$T_{ActTestmax}$	(note)		
$T_{ASSIST/HAND-OFFmin}$	(note)	$T_{ASSIST/HAND-OFF}$	not defined
$T_{ASSIST/HAND-OFFmax}$	(note)		
T_{asfmin}	1	T_{asf}	6.1
T_{asfmax}	12		
T_{atmin}	1	T_{at}	6.1
T_{atmax}	12		
T_{acmin}	1	T_{ac}	6.1
T_{acmax}	12		
T_{acrmin}	1	T_{acr}	6.1
T_{acrmax}	12		
T_{arimin}	1	T_{ari}	6.1
T_{arimax}	12		
T_{cgmin}	1	T_{cg}	6.1
T_{cgmax}	12		
$T_{cirpmin}$	1	T_{cirp}	6.1
$T_{cirpmax}$	12		
$T_{cirqmin}$	1	T_{cirq}	6.1
$T_{cirqmax}$	12		
T_{canmin}	1	T_{can}	6.1
T_{canmax}	12		
T_{cimin}	1	T_{ci}	6.1
T_{cimax}	72		

(continued)

Table 4 (concluded): ATS timer values

ATS timer name	ATS timer value [s]	ETS timer name	Reference to ETS 300 374-1 [1]
T_{conmin}	1	T_{con}	6.1
T_{conmax}	12		
T_{ctrmin}	1	T_{ctr}	6.1
T_{ctrmax}	12		
T_{cuemin}	1	T_{cue}	6.1
T_{cuemax}	12		
T_{dfcmin}	1	T_{dfc}	6.1
T_{dfcmax}	12		
T_{etcmin}	1	T_{etc}	6.1
T_{etcmax}	72		
T_{encmin}	1	T_{enc}	6.1
T_{encmax}	12		
T_{erbmin}	1	T_{erb}	6.1
T_{erbmax}	12		
T_{fcimin}	1	T_{fci}	6.1
T_{fcimax}	12		
T_{idpmin}	1	T_{idp}	6.1
T_{idpmax}	12		
T_{icamin}	1	T_{ica}	6.1
T_{icamax}	12		
T_{rcmin}	1	T_{rc}	6.1
T_{rcmax}	12		
T_{rncmin}	1	T_{rnc}	6.1
T_{rncmax}	12		
T_{rrbmin}	1	T_{rrb}	6.1
T_{rrbmax}	12		
T_{rtmin}	1	T_{rt}	6.1
T_{rtmax}	12		
T_{scimin}	1	T_{sci}	6.1
T_{scimax}	12		
T_{sfrmin}	1	T_{sfr}	6.1
T_{sfrmax}	12		
T_{pamin}	1	T_{pa}	6.1
T_{pamax}	1 800		
T_{pcmin}	1	T_{pc}	6.1
T_{pcmax}	1 800		
T_{srrmin}	1	T_{srr}	6.1
T_{srrmax}	12		
NOTE: The value of this timer is given in ETS 300 374-2 [2].			

5 Test Purposes (TP)

5.1 Introduction

For each test requirement a TP is defined.

At the start of each test sub group the preambles and the postambles are listed.

5.1.1 Test purpose naming convention

The identifier of the TP is built according to the scheme in table 5.

Table 5: TP identifier naming convention scheme

Identifier:	IN**<t><c><s><g><nn>**				
<t> =	interface:	(1)	SCP: Basic SCF (bC)	(not used)
		(2)	SCP: SCF-SSF relay handling (rC)	(not used)
		(3)	SCP: SCF Assist with relay handling (aC)	(not used)
		(4)	SCP: SCF direct path IP handling (pC)	(not used)
		(5)	SCP: SCF-SDF handling (dC)	(not used)
		6	SSP: Basic SSF (bS)	
		7	SSP: SSF relay (rS)	
		8	SSP: Initiating SSF (iS)	
		9	SSP: Assisting SSF (aS)	
		A	IP: SCF-SRF direct path to SCP (cI)	
		(B)	SDP: SCF-SDF direct path to SCP (cD)	(not used)
<c> =	category:	1	BIT, Basic Interconnection tests	(not used)
		2	CA, Capability tests	
		3	BV, Valid Behaviour tests	
		4	BI, Invalid Behaviour tests	
		5	BO, Inopportune Behaviour tests	
<s> =	state:	0	not relevant	
		1	State 1 / State a in case of SSF	
		2	State 2 / State b in case of SSF	
		3	State 3 / State c in case of SSF	
		4	State 4 / State d in case of SSF	
		5	State 5 / State e in case of SSF	
		6	State 6 / State f in case of SSF	
		7	State 7 / State ma in case of SSF	
		8	State 8 / State mb in case of SSF	
<g> =	group:	0	Network event	
		1	Operation	
		2	Return result	
		3	Operation error	
<nn> =	sequential number:	(01-99)		

5.1.2 Source of test purpose definition

The test purposes are based on ETS 300 374-1 [1]. In each test purpose, a reference to the relevant subclauses of ETS 300 374-1 [1] is made below the test purpose name.

5.1.3 Initial state

The initial state for all SUTs (SSP, IP) shall be "Idle" for all test purposes.

5.1.4 Untested procedures

Application Context Name negotiation is not tested. Tests on Application Context Name negotiation shall be part of test purposes and associated ATS for Transaction Capabilities Application Part (TCAP) testing.

5.2 Service Switching Point (SSP)

5.2.1 Basic SSF - bS

The test group objective is to test the INAP procedures at the SSP for basic functions.

5.2.1.1 Capability tests (CA)

The test group objective is to test the SSP general capability of interconnecting with the partner entity.

5.2.1.1.1 SSF-FSM state "Idle"

The test group objective is to check the capability of the IUT of establishing a relation between the SCP and SSP initiated by the SSP or by the SCP.

5.2.1.1.1.1 Network events

Preamble:	-
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN621001   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to the called party, with at least the
              parameters:
-      serviceKey,
-      calledPartyNumber.

5.2.1.1.1.2 Operations

Preamble:	-
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN621101   To ensure that the IUT being in the "Idle" state, receiving an **InitiateCallAttempt**
              invoke containing mandatory parameters only, with:
7.1.5.1,   -   destinationRoutingAddress,
9.20   followed by a **RequestReportBCSMEvent** invoke with:
-      bcsmEvents including at least:
-      eventTypeBCSM (routeSelectFailure),
-      eventTypeBCSM (oCalledPartyBusy),
-      eventTypeBCSM (oNoAnswer),
-      eventTypeBCSM (oAnswer),
-      monitorMode being interrupted,
and a **Continue** invoke,

              does not return any error, reject the invoke or abort the dialogue within the
              operation time out.

5.2.1.1.2   SSF-FSM state "Waiting For Instructions"

The test group objective is to check the capability of the IUT to handle Connect operations on a detected IN call.

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: Terminate the dialogue.

IN623101   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                  Connect invoke containing mandatory parameters only, with:
7.1.5.3,   -   destinationRoutingAddress,
9.11

                             does not return any error, reject the invoke or abort the dialogue within the
                             operation time out.

5.2.1.1.3   SSF-FSM state "Monitoring"

The test group objective is to check the capability of the IUT to handle detection point related instructions sent by the SCP.

Preamble: Originating trigger detected. InitialDP invoke has been sent. EDP-R armed on
                           oAnswer, Connect invoke received.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN626001   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on
                  oAnswer,
7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing all mandatory parameters, with
                             at least the parameter:
                             -          eventTypeBCSM (oAnswer).

5.2.1.1.4   SSME-FSM state "Idle"

The test group objective is to check the capability of the IUT to handle non call associated operation sent by the SCP.

Preamble: -
Postamble: ActivateServiceFiltering invoke with filteringTimeOut being duration with value =
                           0.

IN627101   To ensure that the IUT being in the "Idle" state, receiving an **ActivateServiceFiltering**
                  invoke containing mandatory parameters only, with:
7.1.1.4,   -   filteredCallTreatment including sFBillingChargingCharacteristics only,
9.1   -   filteringCharacteristics being interval,
                  -          filteringTimeOut being duration,
                  -          filteringCriteria being serviceKey,

                             sends **ActivateServiceFiltering** result and terminates the dialogue by means of
                             basic end.

Preamble: -
Postamble: CallGap invoke with gapIndicators including duration (0).

IN627102   To ensure that the IUT being in the "Idle" state, receiving a **CallGap** invoke containing
                  mandatory parameters only, with:
7.1.1.4,   -   gapCriteria being gapOnService,
9.6   -   gapIndicators

                             does not return any error, reject the invoke or abort the dialogue within the
                             operation timeout and terminates the dialogue by means of prearranged end.

5.2.1.2 Valid Behaviour tests (BV)

The test group objective is to test the SSP capability of reacting correctly on network events and of accepting and if appropriate responding to PDUs (operations, operation errors) that are syntactically and semantically valid.

5.2.1.2.1 SSF-FSM state "Idle"

The test group objective is to check that a valid operation InitialDP is sent to the SCP and a valid InitiateCallAttempt operation is accepted in the SSF-FSM state "Idle".

5.2.1.2.1.1 Network events

Preamble: -
Postamble: ReleaseCall invoke and terminate the dialogue.

IN631001   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to the called party, with at least the
             parameters:
             - serviceKey,
             - calledPartyNumber.

IN631002   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to the calling party, with at least the
             parameters:
             - serviceKey,
             - callingPartyNumber.

IN631003   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to the calling party, with at least the
             parameters:
             - serviceKey,
             - callingPartysCategory.

IN631004   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to location information, with at least the
             parameters:
             - serviceKey,
             - locationNumber.

IN631005   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to supplementary services, with at least
             the parameters:
             - serviceKey,
             - originalCalledPartyID.

IN631006   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to supplementary services, with at least
                     the parameters:
                     -        serviceKey,
                     -        forwardCallIndicators.

IN631007   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to supplementary services, with at least
                     the parameters:
                     -        serviceKey,
                     -        redirectingPartyID.

IN631008   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to supplementary services, with at least
                     the parameters:
                     -        serviceKey,
                     -        redirectionInformation.

IN631009   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to the type of connection and teleservice,
                     with at least the parameters:
                     -        serviceKey,
                     -        highLayerCompatibility,
                     -        bearerCapability being bearerCap.

IN631010   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and all parameters related to additional information, with at least the
                     parameters:
                     -        serviceKey,
                     -        additionalCallingPartyNumber.

IN631011   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and indicating the TDP, with at least the parameters:
                     -        serviceKey,
                     -        eventTypeBCSM.

IN631012   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and the network operator specific parameter indicating SRF
                     capabilities, with at least the parameters:
                     -        serviceKey,
                     -        iPSSPCapabilities.

IN631013   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and the network operator specific parameter indicating IP
                            availability, with at least the parameters:
                            -       serviceKey,
                            -       iPAvailable.

IN631014   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and network operator specific extensions, with at least the
                            parameters:
                            -       serviceKey,
                            -       extensions.

IN631015   To ensure that the IUT being in the "Idle" state, at detection of a TDP,

7.1.5.1,   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
9.19   parameters and the network operator specific parameter indicating service
                            interaction, with at least the parameters:
                            -       serviceKey,
                            -       serviceInteractionIndicators.

Preamble: Call Gap invoke sent.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN631016   To ensure that the IUT being in the "Idle" state, at detection of a TDP which matches
                  the Call Gap Criteria,
7.1.5.1,
9.19   initiates a dialogue and sends an **InitialDP** invoke containing all mandatory
                            parameters and indicating call gapping encountered, with at least the
                            parameters:
                            -       serviceKey,
                            -       cGEncountered.

5.2.1.2.1.2   Operations

Preamble: -
Postamble: ReleaseCall invoke and terminate the dialogue.

IN631101   To ensure that the IUT being in the "Idle" state, receiving an **InitiateCallAttempt**
                  invoke containing mandatory parameters only, with:
7.1.5.1,   -   destinationRoutingAddress,
9.20   followed by a **RequestReportBCSMEvent** invoke with:
                  -       bCSMEvent being at least
                          -       eventTypeBCSM (routeSelectFailure),
                          -       eventTypeBCSM (oCalledPartyBusy),
                          -       eventTypeBCSM (oNoAnswer),
                          -       eventTypeBCSM (oAnswer),
                          -       monitorMode being interrupted,
                  and a **Continue** invoke

                            does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

IN631102   To ensure that the IUT being in the "Idle" state, receiving an **InitiateCallAttempt**
                  invoke containing mandatory and optional parameters, with:
7.1.5.1,   -   destinationRoutingAddress,
9.20   -   alertingPattern,
                  -         callingPartyNumber,
                  followed by a **RequestReportBCSMEvent** invoke with:
                  -         bCSMEvent being at least
                            -         eventTypeBCSM (routeSelectFailure),
                            -         eventTypeBCSM (oCalledPartyBusy),
                            -         eventTypeBCSM (oNoAnswer),
                            -         eventTypeBCSM (oAnswer),
                            -         monitorMode being interrupted,
                  and a **Continue** invoke

                          does not return any error, reject the invoke or abort the dialogue within the
                          operation time out.

IN631103   To ensure that the IUT being in the "Idle" state, receiving an **InitiateCallAttempt**
                  invoke containing network operator specific extensions, with:
7.1.5.1,   -   destinationRoutingAddress,
9.20   -   extensions,
                  followed by a **RequestReportBCSMEvent** invoke with:
                  -         bCSMEvent being at least
                            -         eventTypeBCSM (routeSelectFailure),
                            -         eventTypeBCSM (oCalledPartyBusy),
                            -         eventTypeBCSM (oNoAnswer),
                            -         eventTypeBCSM (oAnswer),
                            -         monitorMode being interrupted,
                  and a **Continue** invoke

                          does not return any error, reject the invoke or abort the dialogue within the
                          operation time out.

IN631104   To ensure that the IUT being in the "Idle" state, receiving an **InitiateCallAttempt**
                  invoke containing the network operator specific parameter indicating service
7.1.5.1,   interaction, with:
9.20   -   destinationRoutingAddress,
                  -         serviceInteractionIndicators,
                  followed by a **RequestReportBCSMEvent** invoke with:
                  -         bCSMEvent being at least
                            -         eventTypeBCSM (routeSelectFailure),
                            -         eventTypeBCSM (oCalledPartyBusy),
                            -         eventTypeBCSM (oNoAnswer),
                            -         eventTypeBCSM (oAnswer),
                            -         monitorMode being interrupted,
                  and a **Continue** invoke

                          does not return any error, reject the invoke or abort the dialogue within the
                          operation time out.

5.2.1.2.2 SSF-FSM state "Waiting For Instructions"

The test group objective is to check that the SSF reacts correctly on network events, expiration of the application timer T_{SSF}, and a valid operation or operation sequence is accepted in the SSF-FSM state "Waiting for Instructions".

5.2.1.2.2.1 Network events

Preamble: Trigger detected. InitialDP invoke has been sent. ResetTimer invoke has been received.

Postamble: -

IN633001   To ensure that the IUT being in the "Waiting For Instructions State", at detection of calling party abandon and no call information or charging reports pending,

7.1.5.

aborts the dialogue.

IN633002   To ensure that the IUT being in the "Waiting For Instructions" state, at detection of T_{SSF} expiration,

7.1.5.1,
8.3.1   aborts the dialogue.

Preamble: Originating trigger detected. InitialDP invoke has been sent. oAbandon DP is armed as an EDP-N.

Postamble: -

IN633003   To ensure that the IUT being in the "Waiting For Instructions State", at detection of calling party abandon as an EDP-N

7.1.5.

sends an **EventReportBCSM** and terminates the dialogue by means of prearranged end.

Preamble: Originating trigger detected. InitialDP invoke has been sent. oAbandon DP is armed as an EDP-N and call information report is requested.

Postamble: -

IN633004   To ensure that the IUT being in the "Waiting For Instructions State", at detection of calling party abandon as an EDP-N and call information report pending,

7.1.5.

sends an **EventReportBCSM** followed by a **CallInformationReport** invoke and terminates the dialogue by means of prearranged end.

Preamble: Originating trigger detected. InitialDP invoke has been sent. oDisconnect DP and oMidCall are armed as EDP-R for leg 2. Continue invoke received. MidCall Event has occurred and EventReportBCSM invoke has been sent.

Postamble: ReleaseCall invoke and terminate the dialogue.

IN633005   To ensure that the IUT being in the "Waiting For Instructions State", at detection of call party disconnection as an EDP-R,

7.1.5.

sends an **EventReportBCSM** invoke, containing all mandatory parameters, with at least:
-    eventTypeBCSM (oDisconnect),
and does not terminate the dialogue.

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. tAbandon DP is armed as an EDP-N.
Postamble:	-

IN633006   To ensure that the IUT being in the "Waiting For Instructions State", at detection of calling party abandon as an EDP-N

7.1.5.

> sends an **EventReportBCSM** invoke, containing all mandatory parameters, with at least:
> -   eventTypeBCSM (tAbandon),
> and terminates the dialogue by means of prearranged end.

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. tAbandon DP is armed as an EDP-N and call information report is requested.
Postamble:	-

IN633007   To ensure that the IUT being in the "Waiting For Instructions State", at detection of calling party abandon as an EDP-N and call information report pending,

7.1.5.

> sends an **EventReportBCSM** invoke, containing all mandatory parameters, with at least:
> -   eventTypeBCSM (oAbandon),
>   followed by a **CallInformationReport** invoke,
>
> and terminates the dialogue by means of prearranged end.

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. tDisconnect DP and tMidCall are armed as EDP-R for leg 2. Continue invoke received. MidCall Event has occurred and EventReportBCSM invoke (tMidCall) has been sent.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN633008   To ensure that the IUT being in the "Waiting For Instructions State", at detection of call party disconnection as an EDP-R,

7.1.5.

> sends an **EventReportBCSM** invoke, containing all mandatory parameters, with at least:
> -   eventTypeBCSM (oDisconnect)
> and does not terminate the dialogue.

5.2.1.2.2.2   Operations

Preamble:	Trigger detected. InitialDP invoke has been sent.
Postamble:	Terminate the dialogue.

IN633101   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing mandatory parameters only, with:

7.1.5.3,
9.11   -   destinationRoutingAddress,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633102   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing parameters valid for local exchanges only, with:

7.1.5.3,
9.11   -   destinationRoutingAddress,
         -      alertingPattern,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633103	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing parameters, valid for transit exchanges only with:
7.1.5.3,	- destinationRoutingAddress,
9.11	- routeList,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633104	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing cutAndPaste parameter with minimum value as stated in
7.1.5.3,	ETS 300 374-2 [2], with:
9.11	- destinationRoutingAddress,
	- cutAndPaste,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633105	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing cutAndPaste parameter with maximum value as stated in
7.1.5.3,	ETS 300 374-2 [2], with:
9.11	- destinationRoutingAddress,
	- cutAndPaste,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633106	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing parameters related to supplementary services, with:
7.1.5.3,	- destinationRoutingAddress,
9.11	- originalCalledPartyID,
	- redirectingPartyID,
	- redirectionInformation,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633107	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing mandatory and optional parameters related to the calling
7.1.5.3,	party, with:
9.11	- destinationRoutingAddress,
	- callingPartyNumber,
	- callingPartysCategory,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633108	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing network operator specific extensions, with:
7.1.5.3,	- destinationRoutingAddress,
9.11	- extensions,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633109	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke containing the network operator specific parameter indicating service
7.1.5.3,	interaction, with:
9.11	- destinationRoutingAddress,
	- serviceInteractionIndicators,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633110   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                    ReleaseCall invoke, with:
7.1.5.3,   -   cause,
9.23
                            does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

IN633111   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                    Continue invoke,
7.1.5.3,
9.13   does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: Connect invoke and terminate the dialogue.

IN633112   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                    SendChargingInformation invoke containing mandatory parameters only, with:
7.1.5.3,   -   sCIBillingChargingCharacteristics,
9.27   -   legID being sendingSideID (leg1),

                            does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

IN633113   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                    SendChargingInformation invoke containing network operator specific extensions,
7.1.5.3,   with:
9.27   -   sCIBillingChargingCharacteristics,
                    -       legID being sendingSideID,
                    -       extensions,

                            does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN633114   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                    FurnishChargingInformation invoke,
7.1.5.3,
9.18   does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

IN633115   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                    ResetTimer invoke containing mandatory parameters only, with:
7.1.5.3,   -   timerValue being minimum value as stated in ETS 300 374-2 [2],
9.26
                            does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

IN633116   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                    ResetTimer invoke containing mandatory parameters, with:
7.1.5.3,   -   timerID (0),
9.26   -   timerValue being minimum value as stated in ETS 300 374-2 [2],

                            does not return any error, reject the invoke or abort the dialogue within the
                            operation time out.

IN633117 7.1.5.3, 9.26	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **ResetTimer** invoke containing network operator specific extensions, with: - timerValue being minimum value as stated in ETS 300 374-2 [2], - extensions, does not return any error, reject the invoke or abort the dialogue within the operation time out.

Preamble: **Postamble:**	Originating trigger detected. InitialDP invoke has been sent. Cancel invoke with allRequests and terminate the dialogue.

IN633118
 	
7.1.5.3,
9.25
	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestReportBCSMEvent** invoke indicating a single EDP and containing mandatory parameters only, with:
	- bcsmEvents including:
	  - eventTypeBCSM (analyzedInformation),
	  - monitorMode (interrupted),
	followed by **Continue** invoke,
	
	does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633119
 	
7.1.5.3,
9.25
	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestReportBCSMEvent** invoke indicating multiple EDPs and containing mandatory and optional parameters, with:
	- bcsmEvents including:
	  - eventTypeBCSM (routeSelectFailure),
	  - monitorMode (notifyAndContinue),
	also including:
	  - eventTypeBCSM (oCalledPartyBusy),
	  - monitorMode (notifyAndContinue),
	also including:
	  - eventTypeBCSM (oNoAnswer),
	  - monitorMode (notifyAndContinue),
	  - dPSpecificCriteria being applicationTimer,
	and including:
	  - eventTypeBCSM (oAnswer),
	  - monitorMode (interrupted),
	followed by **Connect** invoke containing mandatory parameters only,
	
	does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633120
 	
7.1.5.3,
9.25
	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestReportBCSMEvent** invoke indicating a single EDP and containing mandatory parameters only, with:
	- bcsmEvents including:
	  - eventTypeBCSM (oAbandon),
	  - monitorMode (notifyAndContinue),
	followed by **Continue** invoke,
	
	does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633121   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                  RequestReportBCSMEvent invoke indicating a single EDP on a specific leg, with:
7.1.5.3,   -   bcsmEvents including:
9.25   -   eventTypeBCSM (oMidCall),
                         -      monitorMode (interrupted),
                         -      legID being sendingSideID (leg1),
                  followed by **Continue** invoke,

                         does not return any error, reject the invoke or abort the dialogue within the
                         operation time out.

IN633122   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                  RequestReportBCSMEvent invoke indicating multiple EDPs on different legs, with:
7.1.5.3,   -   bcsmEvents including:
9.25   -   eventTypeBCSM (oDisconnect),
                         -      monitorMode (notifyAndContinue),
                         -      legID being sendingSideID (leg1),
                         -      eventTypeBCSM (oDisconnect),
                         -      monitorMode (transparent),
                         -      legID being sendingSideID (leg2),
                  followed by **Continue** invoke,

                         does not return any error, reject the invoke or abort the dialogue within the
                         operation time out.

IN633123   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                  RequestReportBCSMEvent invoke containing network operator specific extensions,
7.1.5.3,   with:
9.25   -   bcsmEvents including:
                         -      eventTypeBCSM (oDisconnect)
                         -      monitorMode (notifyAndContinue)
                         -      legID being sendingSideID (leg1),
                  -      extensions,
                  followed by **Connect** invoke containing mandatory parameters only,

                         does not return any error, reject the invoke or abort the dialogue within the
                         operation time out.

Preamble: Terminating trigger detected. InitialDP invoke has been sent.
Postamble: Cancel invoke with allRequests and terminate the dialogue.

IN633124   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
                  RequestReportBCSMEvent invoke indicating a single EDP and containing mandatory
7.1.5.3,   parameters only, with:
9.25   -   bcsmEvents including:
                         -      eventTypeBCSM (tAbandon),
                         -      monitorMode (interrupted),
                  followed by **Connect** invoke containing mandatory parameters only,

                         does not return any error, reject the invoke or abort the dialogue within the
                         operation time out.

IN633125

9.25

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
RequestReportBCSMEvent invoke indicating multiple EDPs and containing
mandatory and optional parameters, with:
- bcsmEvents including:
    - eventTypeBCSM (tCalledPartyBusy),
    - monitorMode (interrupted),
    - eventTypeBCSM (tNoAnswer),
    - monitorMode (interrupted),
    - dPSpecificCriteria being applicationTimer,
    - eventTypeBCSM (tAnswer),
    - monitorMode (notifyAndContinue),

followed by **Connect** invoke containing mandatory parameters only,

does not return any error, reject the invoke or abort the dialogue within the
operation time out.

IN633126

7.1.5.3,
9.25

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
RequestReportBCSMEvent invoke indicating a single EDP on a specific leg, with:
- bcsmEvents including:
    - eventTypeBCSM (tMidCall),
    - monitorMode (transparent),
    - legID being sendingSideID (leg2),

followed by **Connect** invoke containing mandatory parameters only,

does not return any error, reject the invoke or abort the dialogue within the
operation time out.

IN633127

7.1.5.3,
9.25

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
RequestReportBCSMEvent invoke indicating multiple EDPs on different legs, with:
- bcsmEvents including:
    - eventTypeBCSM (tDisconnect),
    - monitorMode (transparent),
    - legID being sendingSideID (leg1),
    - eventTypeBCSM (tDisconnect),
    - monitorMode (interrupted),
    - legID being sendingSideID (leg2),

followed by **Continue** invoke,

does not return any error, reject the invoke or abort the dialogue within the
operation time out.

IN633128

7.1.5.3,
9.25

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a
RequestReportBCSMEvent invoke containing network operator specific extensions,
with:
- bcsmEvents including:
    - eventTypeBCSM (tDisconnect),
    - monitorMode (notifyAndContinue),
    - legID being sendingSideID (leg1),
- extensions,

followed by **Connect** invoke containing mandatory parameters only,

does not return any error, reject the invoke or abort the dialogue within the
operation time out.

| **Preamble:** | Trigger detected. InitialDP invoke has been sent. |
| **Postamble:** | ReleaseCall invoke and terminate the dialogue. |

IN633129

7.1.5.3,
9.3

To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **ApplyCharging** invoke containing mandatory parameters only, with:
- aChBillingChargingCharacteristics,
- sendCalculationToSCPIndication (TRUE),
followed by **Connect** invoke containing mandatory parameters only,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633130

7.1.5.3,
9.3

To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **ApplyCharging** invoke containing mandatory and optional parameters, with:
- aChBillingChargingCharacteristics,
- sendCalculationToSCPIndication (TRUE),
- partyToCharge being sendingSideID (leg1),
followed by **Continue** invoke,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633131

7.1.5.3,
9.3

To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **ApplyCharging** invoke containing network operator specific extensions, with:
- aChBillingChargingCharacteristics,
- sendCalculationToSCPIndication (TRUE),
- extensions,
followed by **Connect** invoke containing mandatory parameters only,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633132

7.1.5.3,
9.24

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestNotificationChargingEvent** invoke containing mandatory parameters only, with:
- eventTypeCharging,
- monitorMode (interrupted),
followed by **Connect** invoke containing mandatory parameters only,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633133

7.1.5.3,
9.24

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestNotificationChargingEvent** invoke containing mandatory and optional parameters, with:
- eventTypeCharging,
- monitorMode (notifyAndContinue),
- legID being sendingSideID (leg2),
followed by **Continue** invoke,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633134

7.1.5.3,
9.8

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **CallInformationRequest** invoke indicating a single information type, with:
- requestedInformationTypeList (releaseCause),
followed by **Continue** invoke,

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633135   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **CallInformationRequest** invoke indicating multiple types of information, with:

7.1.5.3,   -   requestedInformationTypeList (callAttempt ElapsedTime),
9.8   followed by **Continue** invoke,

         does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633136   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **CallInformationRequest** invoke indicating multiple types of information, with:

7.1.5.3,   -   requestedInformationTypeList (callStopTime),
9.8   followed by **Continue** invoke,

         does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633137   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **CallInformationRequest** invoke indicating multiple types of information, with:

7.1.5.3,   -   requestedInformationTypeList (callConnectedElapsedTime),
9.8   followed by **Continue** invoke,

         does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633138   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **CallInformationRequest** invoke indicating multiple types of information, with:

7.1.5.3,   -   requestedInformationTypeList (calledAddress),
9.8   followed by **Continue** invoke,

         does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN633139   To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **CallInformationRequest** invoke containing network operator specific extensions, with:

7.1.5.3,   -   requestedInformationTypeList (releaseCause),
9.8   -   extensions,
followed by **Connect** invoke containing mandatory parameters only,

         does not return any error, reject the invoke or abort the dialogue within the operation time out.

5.2.1.2.2.3   **Operation errors**

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: -

IN633301   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **MissingCustomerRecord** on InitialDP,

7.1.5.3,
9.19   returns to "Idle" state.

IN633302   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **MissingParameter** on InitialDP,

7.1.5.3,
9.19   returns to "Idle" state.

IN633303   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **SystemFailure** on InitialDP,

7.1.5.3,
9.19   returns to "Idle" state.

IN633304   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
TaskRefused on InitialDP,

7.1.5.3,
9.19   returns to "Idle" state.

IN633305   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
UnexpectedComponentSequence on InitialDP,

7.1.5.3,
9.19   returns to "Idle" state.

IN633306   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
UnexpectedDataValue on InitialDP,

7.1.5.3,
9.19   returns to "Idle" state.

IN633307   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
UnexpectedParameter on InitialDP,

7.1.5.3,
9.19   returns to "Idle" state.

Preamble: Trigger detected. InitialDP invoke has been sent ApplyCharging invoke has been received requesting a report at end of connection and Disconnect DP has been armed as an EDP-R. Disconnection event is detected. IUT sends ApplyChargingReport invoke followed by EventReportBCSM invoke.

Postamble: -

IN633308   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
MissingParameter on ApplyChargingReport,

7.1.5.3,
9.4   returns to "Idle" state.

IN633309   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
UnexpectedComponentSequence on ApplyChargingReport,

9.4   returns to "Idle" state.

IN633310   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
UnexpectedParameter on ApplyChargingReport,

7.1.5.3,
9.4   returns to "Idle" state.

IN633311   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
UnexpectedDataValue on ApplyChargingReport,

7.1.5.3,
9.4   returns to "Idle" state.

IN633312   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
ParameterOutOfRange on ApplyChargingReport,

7.1.5.3,
9.4   returns to "Idle" state.

IN633313   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
SystemFailure on ApplyChargingReport,

7.1.5.3,
9.4   returns to "Idle" state.

IN633314   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error
TaskRefused on ApplyChargingReport,

7.1.5.3,
9.4   returns to "Idle" state.

5.2.1.2.3 SSF-FSM state "Monitoring"

The test group objective is to check that the SSF reacts correctly on network events and a valid operation or operation sequence is accepted in the SSF FSM state "Monitoring".

5.2.1.2.3.1 Network events

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-R armed on oAnswer, Connect invoke received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN636001

7.1.5.6,
9.17

To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on oAnswer,

      sends an **EventReportBCSM** invoke, containing all mandatory parameters, with at least the parameter:
- eventTypeBCSM (oAnswer).

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-R armed on oAbandon, Connect invoke received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN636002

7.1.5.6,
9.17

To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on oAbandon,

      sends an **EventReportBCSM** invoke, containing all mandatory parameters, with at least the parameter:
- eventTypeBCSM (oAbandon).

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-R armed on routeSelectFailure, Connect invoke received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN636003

7.1.5.6,
9.17

To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on routeSelectFailure,

      sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (routeSelectFailure),
- eventSpecificInformationBCSM being routeSelectFailureSpecificInfo including failureCause.

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-R armed on collectedInfo with dPSpecificCriteria being numberOfDigits (1). CollectInformation invoke received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN636004

7.1.5.6,
9.17

To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on collectedInfo,

      sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (collectInfo),
- eventSpecificInformationBCSM being collectedInfoSpecificInfo including calledPartyNumber.

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-N armed on oNoAnswer with dPSpecificCriteria being applicationTimer with the minimum value as stated in ETS 300 374-2 [2], Connect invoke received.
Postamble:	Terminate the dialogue.

IN636005 To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on oNoAnswer,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with:
- eventTypeBCSM (oNoAnswer),
- miscCallInfo including messageType (notification)

and terminates the dialogue by means of prearranged end.

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-N armed on oCalledPartyBusy, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636006 To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on oCalledPartyBusy,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (oCalledPartyBusy),
- miscCallInfo including messageType (notification),
- eventSpecificInformationBCSM being oCalledPartyBusySpecificInfo including busyCause

and terminates the dialogue by means of prearranged end.

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-N armed on analyzedInformation, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636007 To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on analyzedInformation,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (analyzedInformation),
- miscCallInfo including messageType (notification),
- eventSpecificInformationBCSM being analyzedInfoSpecificInfo including calledPartyNumber

and terminates the dialogue by means of prearranged end.

Preamble:	Originating trigger detected. InitialDP invoke has been sent. EDP-N armed on oMidCall for leg 1, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636008 To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on oMidCall for leg 1,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (oMidCall),
- legID being receivingSideID (leg1),
- miscCallInfo including messageType (notification)

and terminates the dialogue by means of prearranged end.

| **Preamble:** | Originating trigger detected. InitialDP invoke has been sent. EDP-R armed on oDisconnect for leg 1, Connect invoke received. |
| **Postamble:** | ReleaseCall invoke and terminate the dialogue. |

IN636009

7.1.5.6,
9.17

To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on oDisconnect for leg 1,

      sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (oDisconnect),
- legID being receivingSideID (leg1),
- eventSpecificInformationBCSM being oDisconnectSpecificInfo including releaseCause.

| **Preamble:** | Originating trigger detected. InitialDP invoke has been sent. EDP-N armed on oCalledPartyBusy, Connect invoke received. |
| **Postamble:** | Terminate the dialogue. |

IN636010

7.1.5.6,
9.17

To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on oCalledPartyBusy,

      sends an **EventReportBCSM** invoke, containing network operator specific extensions, with at least the parameters:
- eventTypeBCSM (oCalledPartyBusy),
- extensions.

| **Preamble:** | Originating trigger detected. InitialDP invoke has been sent. Charging event notification is requested and EDP-N on oDisconnect armed, Connect invoke received. |
| **Postamble:** | ReleaseCall invoke and terminate the dialogue. |

IN636011

7.1.5.6,
9.16

To ensure that the IUT being in the "Monitoring" state, at detection of a charging event,

      sends an **EventNotificationCharging** invoke, containing mandatory parameters only, with at least the parameters:
- eventTypeCharging.

IN636012

7.1.5.6,
9.16

To ensure that the IUT being in the "Monitoring" state, at detection of a charging event,

      sends an **EventNotificationCharging** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeCharging,
- eventSpecificInformationCharging.

IN636013

7.1.5.6,
9.16

To ensure that the IUT being in the "Monitoring" state, at detection of a charging event,

      sends an **EventNotificationCharging** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeCharging,
- monitorMode.

IN636014

7.1.5.6,
9.16

To ensure that the IUT being in the "Monitoring" state, at detection of a charging event,

      sends an **EventNotificationCharging** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeCharging,
- legID being receivingSideID.

IN636015   To ensure that the IUT being in the "Monitoring" state, at detection of a charging event,

7.1.5.6,   sends an **EventNotificationCharging** invoke, containing network operator
9.16   specific extensions, with at least the parameters:
                            -          eventTypeCharging,
                            -          extensions.

Preamble: Trigger detected. InitialDP invoke has been sent. Call information is requested
                            including releaseCause, Connect invoke received.
Postamble: Terminate the dialogue.

IN636016   To ensure that the IUT being in the "Monitoring" state, at detection of call release,

7.1.5.6,   sends a **CallInformationReport** invoke, containing mandatory parameters only
9.7   and indicating a single information type, with at least the parameters:
                            -          requestedInformationList including:
                                    -          requestedInformationType (releaseCause),
                                    -          requestedInformationValue being releaseCauseValue
                            and terminates the dialogue by means of prearranged end.

Preamble: Trigger detected. InitialDP invoke has been sent. Call information is requested
                            including callAttemptElapsedTime, callStopTime, callConnectedElapsedTime
                            and calledAddress, Connect invoke received.
Postamble: Terminate the dialogue.

IN636017   To ensure that the IUT being in the "Monitoring" state, at detection of call release,

7.1.5.6,   sends a **CallInformationReport** invoke, containing mandatory parameters only
9.7   and indicating a multiple information type, with at least the parameters:
                            -          requestedInformationList including:
                                    -          requestedInformationType (callAttemptElapsedTime),
                                    -          requestedInformationValue being callAttemptElapsedTimeValue,
                                    also including:
                                    -          requestedInformationType (callStopTime),
                                    -          requestedInformationValue being callStopTimeValue,
                                    also including:
                                    -          requestedInformationType (callConnectedElapsedTime),
                                    -          requestedInformationValue   being   callConnectedElapsedTime-
                                            Value,
                                    and including:
                                    -          requestedInformationType (calledAddress),
                                    -          requestedInformationValue being calledAddressValue
                            and terminates the dialogue by means of prearranged end.

Preamble: Trigger detected. InitialDP invoke has been sent. Call information is requested,
                            Connect invoke received.
Postamble: Terminate the dialogue.

IN636018   To ensure that the IUT being in the "Monitoring" state, at detection of call release,

7.1.5.6,   sends a **CallInformationReport** invoke, containing network operator specific
9.7   extensions, with at least the parameters:
                            -          requestedInformationList,
                            -          extensions
                            and terminates the dialogue by means of prearranged end.

Preamble: Trigger detected. InitialDP invoke has been sent. ApplyCharging invoke and Connect invoke received.

Postamble: Terminate the dialogue.

IN636019   To ensure that the IUT being in the "Monitoring" state, at detection of conditions for charging report,

7.1.5.6,
9.4   sends an **ApplyChargingReport** invoke, with:
            -      callResult.

Preamble: Originating trigger detected. InitialDP invoke has been sent. oDisconnect DP is armed as an EDP-N and apply charging report is requested for end of call, Connect invoke received.

Postamble: Terminate the dialogue.

IN636020   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on oDisconnect with legID being sendingSideID (leg1) and conditions for charging report,

7.1.5.   sends an **EventReportBCSM** invoke,
            followed by an **ApplyChargingReport** invoke,
            terminates the dialogue by means of prearranged end.

Preamble: Originating trigger detected. InitialDP invoke has been sent. oDisconnect DP is armed as an EDP-R and call information requested, Connect invoke received.

Postamble: ReleaseCall invoke and terminate the dialogue.

IN636021   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on oDisconnect,

7.1.5.   sends a **CallInformationReport** invoke,
            followed by an **EventReportBCSM** invoke and does not terminate the dialogue.

Preamble: Originating trigger detected. InitialDP invoke has been sent. oAnswer is armed as an EDP-N, Connect invoke received.

Postamble: -

IN636022   To ensure that the IUT being in the "Monitoring" state, at detection of a calling party abandon,

7.1.5.   aborts the dialogue.

Preamble: Terminating trigger detected. InitialDP invoke has been sent. EDP-R armed on tNoAnswer, Connect invoke received.

Postamble: ReleaseCall invoke and terminate the dialogue.

IN636023   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on tNoAnswer,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing all mandatory parameters, with at least the parameters:
            -      eventTypeBCSM (tNoAnswer).

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. EDP-R armed on tCalledPartyBusy, Connect invoke received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN636024   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on tCalledPartyBusy,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (tCalledPartyBusy),
- eventSpecificInformationBCSM being tCalledPartyBusySpecificInfo including busyCause.

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. EDP-N armed on tAnswer, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636025   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on tAnswer,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (tAnswer),
- miscCallInfo including messageType (notification)
and terminates the dialogue by means of prearranged end.

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. EDP-N armed on tAbandon, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636026   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on tAbandon,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (tAbandon),
- miscCallInfo including messageType (notification)
and terminates the dialogue by means of prearranged end.

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. EDP-R armed on tMidCall for leg 2, Connect invoke received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN636027   To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-R on tMidCall for leg 2,

7.1.5.6,
9.17   sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
- eventTypeBCSM (tMidCall),
- legID being receivingSideID (leg2).

Preamble:	Terminating trigger detected. InitialDP invoke has been sent. EDP-N armed on tDisconnect for leg 2, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636028

7.1.5.6,
9.17

To ensure that the IUT being in the "Monitoring" state, at detection of an EDP-N on tDisconnect for leg 2,

> sends an **EventReportBCSM** invoke, containing mandatory and optional parameters, with at least the parameters:
> - eventTypeBCSM (tDisconnect),
> - legID being receivingSideID (leg2),
> - miscCallInfo including messageType (notification),
> - eventSpecificInformationBCSM being tDisconnectSpecificInfo including releaseCause
>
> and terminates the dialogue by means of prearranged end.

5.2.1.2.3.2   Operations

Preamble:	Trigger detected. InitialDP invoke has been sent. Call information is requested, Connect invoke received.
Postamble:	Cancel invoke with allRequests and terminate the dialogue.

IN636101

7.1.1.4,
9.2

To ensure that the IUT being in the "Monitoring" state, receiving an **ActivityTest** invoke,

> sends an **ActivityTest** result.

Preamble:	Originating trigger detected. InitialDP invoke has been sent. oDisconnect is armed as an EDP-N, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636102

7.1.5.6,
9.23

To ensure that the IUT being in the "Monitoring" state, receiving a **ReleaseCall** invoke, with cause,

> does not return any error, reject the invoke or abort the dialogue within the operation time out and terminates the dialogue by means of prearranged end.

Preamble:	Trigger detected. InitialDP invoke has been sent. EDPs are armed on oDisconnect and oMidCall, call information is requested, Connect invoke received.
Postamble:	Terminate the dialogue.

IN636103

9.9

To ensure that the IUT being in the "Monitoring" state, receiving a **Cancel** invoke, with allRequests,

> does not return any error, reject the invoke or abort the dialogue within the operation time out and terminates the dialogue by means of prearranged end.

Preamble:	Trigger detected. InitialDP invoke has been sent. Call information is requested, Connect invoke received.
Postamble:	Cancel invoke with allRequests and terminate the dialogue.

IN636104

7.1.5.6,
9.27

To ensure that the IUT being in the "Monitoring" state, receiving a **SendChargingInformation** invoke containing mandatory parameters only, with:
- sCIBillingChargingCharacteristics,
- legID being sendingSideID (leg1),

> does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636105

7.1.5.6,
9.27

To ensure that the IUT being in the "Monitoring" state, receiving a **SendChargingInformation** invoke containing network operator specific extensions, with:
- sCIBillingChargingCharacteristics,
- legID being sendingSideID,
- extensions,

    does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636106

7.1.5.6,
9.25

To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke indicating a single EDP and containing mandatory parameters only, with:
- bcsmEvents including:
  - eventTypeBCSM (analyzedInformation),
  - monitorMode (interrupted),
followed by **Continue** invoke,

    does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636107

7.1.5.6,
9.25

To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke indicating multiple EDPs and containing mandatory and optional parameters, with:
- bcsmEvents including:
  - eventTypeBCSM (routeSelectFailure),
  - monitorMode (notifyAndContinue),
  also including:
  - eventTypeBCSM (oCalledPartyBusy),
  - monitorMode (notifyAndContinue),
  also including:
  - eventTypeBCSM (oNoAnswer),
  - monitorMode (notifyAndContinue),
  - dPSpecificCriteria being applicationTimer,
  and including:
  - eventTypeBCSM (oAnswer),
  - monitorMode (interrupted),
followed by **Continue** invoke containing mandatory parameters only,

    does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636108

7.1.5.6,
9.25

To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke indicating a single EDP and containing mandatory parameters only, with:
- bcsmEvents including:
  - eventTypeBCSM (oAbandon),
  - monitorMode (notifyAndContinue),
followed by **Continue** invoke,

    does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636109   To ensure that the IUT being in the "Monitoring" state, receiving a
                  RequestReportBCSMEvent invoke indicating a single EDP on a specific leg, with:
7.1.5.6,   -   bcsmEvents including:
9.25   -   eventTypeBCSM (oMidCall),
                          -       monitorMode (interrupted),
                          -       legID being sendingSideID (leg1),
                  followed by **Continue** invoke,

                          does not return any error, reject the invoke or abort the dialogue within the
                          operation time out.

IN636110   To ensure that the IUT being in the "Monitoring" state, receiving a
                  RequestReportBCSMEvent invoke indicating multiple EDPs on different legs, with:
7.1.5.6,   -   bcsmEvents including:
9.25   -   eventTypeBCSM (oDisconnect),
                          -       monitorMode (notifyAndContinue),
                          -       legID being sendingSideID (leg1),
                          -       eventTypeBCSM (oDisconnect),
                          -       monitorMode (transparent),
                          -       legID being sendingSideID (leg2),
                  followed by **Continue** invoke,

                          does not return any error, reject the invoke or abort the dialogue within the
                          operation time out.

IN636111   To ensure that the IUT being in the "Monitoring" state, receiving a
                  RequestReportBCSMEvent invoke containing network operator specific extensions,
7.1.5.6,   with:
9.25   -   bcsmEvents including:
                          -       eventTypeBCSM (oDisconnect)
                          -       monitorMode (notifyAndContinue)
                          -       legID being sendingSideID (leg1),
                  -       extensions,
                  followed by **Continue** invoke containing mandatory parameters only,

                          does not return any error, reject the invoke or abort the dialogue within the
                          operation time out.

IN636112   To ensure that the IUT being in the "Monitoring" state, receiving a
                  RequestReportBCSMEvent invoke indicating a single EDP and containing mandatory
7.1.5.6,   parameters only, with:
9.25   -   bcsmEvents including:
                          -       eventTypeBCSM (tAbandon),
                          -       monitorMode (interrupted),
                  followed by **Continue** invoke containing mandatory parameters only,

                          does not return any error, reject the invoke or abort the dialogue within the
                          operation time out.

IN636113

9.25

To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke indicating multiple EDPs and containing mandatory and optional parameters, with:
- bcsmEvents including:
    - eventTypeBCSM (tCalledPartyBusy),
    - monitorMode (interrupted),
    - eventTypeBCSM (tNoAnswer),
    - monitorMode (interrupted),
    - dPSpecificCriteria being applicationTimer,
    - eventTypeBCSM (tAnswer),
    - monitorMode (notifyAndContinue),

followed by **Continue** invoke containing mandatory parameters only,

does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636114

7.1.5.6,
9.25

To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke indicating a single EDP on a specific leg, with:
- bcsmEvents including:
    - eventTypeBCSM (tMidCall),
    - monitorMode (transparent),
    - legID being sendingSideID (leg2),

followed by **Continue** invoke containing mandatory parameters only,

does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636115

7.1.5.6,
9.25

To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke indicating multiple EDPs on different legs, with:
- bcsmEvents including:
    - eventTypeBCSM (tDisconnect),
    - monitorMode (transparent),
    - legID being sendingSideID (leg1),
    - eventTypeBCSM (tDisconnect),
    - monitorMode (interrupted),
    - legID being sendingSideID (leg2),

followed by **Continue** invoke,

does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636116

7.1.5.6,
9.25

To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke containing network operator specific extensions, with:
- bcsmEvents including:
    - eventTypeBCSM (tDisconnect),
    - monitorMode (notifyAndContinue),
    - legID being sendingSideID (leg1),
- extensions,

followed by **Continue** invoke containing mandatory parameters only,

does not return any error, reject the invoke or abort the dialogue within the operation time out.

Preamble:	Trigger detected. InitialDP invoke has been sent. Call information is requested, Connect invoke received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN636117	To ensure that the IUT being in the "Monitoring" state, receiving a **RequestNotificationChargingEvent** invoke containing mandatory parameters only, with:
7.1.5.6, 9.24	- eventTypeCharging, - monitorMode (interrupted), followed by **Continue** invoke containing mandatory parameters only,
	does not return any error, reject the invoke or abort the dialogue within the operation time out.

IN636118	To ensure that the IUT being in the "Monitoring" state, receiving a **RequestNotificationChargingEvent** invoke containing mandatory and optional parameters, with:
7.1.5.3, 9.24	- eventTypeCharging, - monitorMode (notifyAndContinue), - legID being sendingSideID (leg2), followed by **Continue** invoke,
	does not return any error, reject the invoke or abort the dialogue within the operation time out.

5.2.1.2.3.3 Operation errors

Preamble:	Trigger detected. InitialDP invoke has been sent. Call information is requested, Connect invoke received. Conditions for charging report fulfilled, ApplyCharging invoke is sent.
Postamble:	-

IN636301	To ensure that the IUT being in the "Monitoring" state, receiving an error **MissingParameter** on ApplyChargingReport,
7.1.5.6, 9.4	returns to "Idle" state.

IN636302	To ensure that the IUT being in the "Monitoring" state, receiving an error **UnexpectedComponentSequence** on ApplyChargingReport,
7.1.5.6, 9.4	returns to "Idle" state.

IN636303	To ensure that the IUT being in the "Monitoring" state, receiving an error **UnexpectedParameter** on ApplyChargingReport,
7.1.5.6, 9.4	returns to "Idle" state.

IN636304	To ensure that the IUT being in the "Monitoring" state, receiving an error **UnexpectedDataValue** on ApplyChargingReport,
7.1.5.6, 9.4	returns to "Idle" state.

IN636305	To ensure that the IUT being in the "Monitoring" state, receiving an error **ParameterOutOfRange** on ApplyChargingReport,
7.1.5.6, 9.4	returns to "Idle" state.

IN636306	To ensure that the IUT being in the "Monitoring" state, receiving an error **SystemFailure** on ApplyChargingReport,
7.1.5.6, 9.4	returns to "Idle" state.

IN636307   To ensure that the IUT being in the "Monitoring" state, receiving an error **TaskRefused**
                on ApplyChargingReport,
7.1.5.6,
9.4   returns to "Idle" state.

5.2.1.2.4   SSME-FSM state "Idle"

The test group objective is to check that a valid operation ActivateServiceFiltering or CallGap is accepted
in the SSME-FSM state "Idle".

Preamble: -
Postamble: ActivateServiceFiltering invoke with filteringTimeOut being duration with
                value = 0.

IN637101   To ensure that the IUT being in the "Idle" state, receiving an **ActivateServiceFiltering**
                invoke containing mandatory parameters only, with:
7.1.1.4,   -   filteredCallTreatment including sFBillingChargingCharacteristics only,
9.1   -   filteringCharacteristics being interval,
                -       filteringTimeOut being duration,
                -       filteringCriteria being serviceKey,

                        sends **ActivateServiceFiltering** result and terminates the dialogue by means of
                        basic end.

IN637102   To ensure that the IUT being in the "Idle" state, receiving an **ActivateServiceFiltering**
                invoke containing mandatory and optional parameters, with:
7.1.1.4,   -   filteredCallTreatment including:
9.1   -   sFBillingChargingCharacteristics,
                        -       informationToSend,
                        -       maximumNumberOfCounters,
                -       filteringCharacteristics being numberOfCalls,
                -       filteringTimeOut being stopTime,
                -       filteringCriteria being addressAndService including:
                        -       calledAddressValue,
                        -       serviceKey,
                        -       callingAddressValue,
                        -       locationNumber,
                -       startTime,

                        sends **ActivateServiceFiltering** result and terminates the dialogue by means of
                        basic end.

IN637103   To ensure that the IUT being in the "Idle" state, receiving an **ActivateServiceFiltering**
                invoke containing network operator specific extensions, with:
7.1.1.4,   -   filteredCallTreatment,
9.1   -   filteringCharacteristics,
                -       filteringTimeOut,
                -       filteringCriteria,
                -       extensions,

                        sends **ActivateServiceFiltering** result and terminates the dialogue by means of
                        basic end.

Preamble:	-
Postamble:	CallGap invoke with gapIndicators including duration with value = 0.

IN637104

To ensure that the IUT being in the "Idle" state, receiving a **CallGap** invoke containing mandatory parameters only, with:

7.1.1.4,
9.6
- gapCriteria being gapOnService and,
- gapIndicators

does not return any error, reject the invoke or abort the dialogue within the operation time out and terminates the dialogue by means of prearranged end.

IN637105

To ensure that the IUT being in the "Idle" state, receiving a **CallGap** invoke containing mandatory and optional parameters, with:

7.1.1.4,
9.6
- gapCriteria being callingAddressAndService including:
  - callingAddressValue,
  - serviceKey,
  - locationNumber,
- gapIndicators,
- controlType,
- gapTreatment being both,

does not return any error, reject the invoke or abort the dialogue within the operation time out and terminates the dialogue by means of prearranged end.

IN637106

To ensure that the IUT being in the "Idle" state, receiving a **CallGap** invoke containing network operator specific extensions, with:

7.1.1.4,
9.6
- gapCriteria,
- gapIndicators,
- gapTreatment,
- extensions,

does not return any error, reject the invoke or abort the dialogue within the operation time out and terminates the dialogue by means of prearranged end.

5.2.1.2.5 SSME-FSM state "Non Call Associated Treatment"

The test group objective is to check that a valid operation ServiceFilteringResponse is sent to the SCP in the SSME-FSM state "Non Call Associated Treatment".

Preamble:	ActivateServiceFiltering invoke received with filteringCharacteristics being interval, filteredCallTreatment including maximumNumberOfCounters (1), filteringTimeOut being duration and filteringCriteria being serviceKey and ActivateServiceFiltering result sent.
Postamble:	-

IN638001

To ensure that the IUT being in the "Non Call Associated Treatment" state, at the end of a filtering duration,

7.1.1.4,
9.30

initiates a dialogue, sends a **ServiceFilteringResponse** invoke containing all mandatory parameters, with at least the parameters:
- countersValue including 1 counterAndValue,
- filteringCriteria being serviceKey
and terminates the dialogue by means of prearranged end.

Preamble:	ActivateServiceFiltering invoke received with filteringCharacteristics being interval, filteredCallTreatment including maximumNumberOfCounters (>1), filteringTimeOut being duration and filteringCriteria being addressAndService including calledAddressValue, serviceKey, callingAddressValue and locationNumber and ActivateServiceFiltering result sent.
Postamble:	-

IN638002   To ensure that the IUT being in the "Non Call Associated Treatment" state, at the end of a filtering duration,

7.1.1.4,
9.30   initiates a dialogue, sends a **ServiceFilteringResponse** invoke containing all mandatory parameters, with at least the parameters:
-        countersValue including multiple counterAndValue,
-        filteringCriteria being addressAndService including:
        -        calledAddressValue,
        -        serviceKey,
        -        callingAddressValue,
        -        locationNumber
and terminates the dialogue by means of prearranged end.

Preamble:	ActivateServiceFiltering invoke received with filteringCharacteristics being interval, filteredCallTreatment including maximumNumberOfCounters (1), filteringTimeOut being duration, filteringCriteria being serviceKey, and ActivateServiceFiltering result sent.
Postamble:	-

IN638003   To ensure that the IUT being in the "Non Call Associated Treatment" state, at the end of a filtering duration,

7.1.1.4,
9.30   initiates a dialogue, sends a **ServiceFilteringResponse** invoke containing network operator specific extensions, with at least the parameters:
-        countersValue,
-        filteringCriteria,
-        extensions
and terminates the dialogue by means of prearranged end.

5.2.1.3   Invalid Behaviour tests (BI)

The test group objective is to test the SSP capability of reacting correctly on PDUs (operations, operation errors) that are syntactically invalid and if appropriate responding to the partner entity.

5.2.1.3.1   SSF-FSM state "Idle"

The test group objective is to check that an invalid InitiateCallAttempt operation is rejected by the SSF in the SSF-FSM state "Idle".

Preamble:	-
Postamble:	-

IN641101   To ensure that the IUT being in the "Idle" state, receiving an **InitiateCallAttempt** invoke without the parameter destinationRoutingAddress,

7.1.5.1,
9.20   rejects the invoke and terminates the dialogue.

5.2.1.3.2 SSF-FSM state "Waiting For Instructions"

The test group objective is to check that the SSF reacts correctly on receipt of an InitialDP error or an invalid operation in the SSF-FSM state "Waiting For Instructions".

5.2.1.3.2.1 Operations

Preamble: Trigger detected. InitialDP invoke has been sent. ResetTimer invoke is received.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN643101

7.1.5.1,
9.2

To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **ActivityTest** invoke with an argument,

rejects the invoke or aborts the dialogue.

IN643102

7.1.5.1,
9.3

To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **ApplyCharging** invoke without the parameter sendCalculationToSCPIndication,

sends an error MissingParameter.

IN643103

7.1.5.1,
9.3

To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **ApplyCharging** invoke with the parameter sendCalculationToSCPIndication set to FALSE,

sends an error UnexpectedDataValue.

IN643104

7.1.5.1,
9.11

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **Connect** invoke without the parameter destinationRoutingAddress,

rejects the invoke or aborts the dialogue.

IN643105

7.1.5.1,
9.13

To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **Continue** invoke with an argument,

rejects the invoke or aborts the dialogue.

IN643106

7.1.5.1,
9.25

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestReportBCSMEvent** invoke with:
- bcsmEvents including eventTypeBCSM (oMidCall)
- but not including legID,

sends an error MissingParameter.

IN643107

7.1.5.1,
9.25

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestReportBCSMEvent** invoke with:
- bcsmEvents including eventTypeBCSM (oDisconnect)
- but not including legID,

sends an error MissingParameter.

IN643108

7.1.5.1,
9.25

To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestReportBCSMEvent** invoke with:
- bcsmEvents including eventTypeBCSM (tMidCall)
- but not including legID,

sends an error MissingParameter.

IN643109	To ensure that the IUT being in the "Waiting For Instructions" state, receiving a **RequestReportBCSMEvent** invoke with:
7.1.5.1,	- bcsmEvents including eventTypeBCSM (tDisconnect)
9.25	- but not including legID,
	sends an error MissingParameter.

IN643110	To ensure that the IUT being in the "Waiting For Instructions" state receiving a **CollectInformation** invoke without having received a RequestReportBCSMEvent
7.1.5.1,	invoke with:
9.10	- eventTypeBCSM (collectInfo),
	- monitorMode (interrupted)
	sends an error UnexpectedComponentSequence.

IN643111	To ensure that the IUT being in the "Waiting For Instructions" state receiving a **ReleaseCall** invoke without an argument
7.1.5.1,	
9.23	rejects the invoke or aborts the dialogue.

5.2.1.3.2.2   **Operation errors**

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: -

IN643301	To ensure that the IUT being in the "Waiting For Instructions" state, receiving an **InitialDP** error in a TC-Continue message,
7.1.5.1,	
10.2.1	aborts the dialogue.

5.2.1.3.3   **SSF-FSM state "Monitoring"**

The test group objective is to check that the SSF reacts correctly on receipt of an invalid operation in the SSF-FSM state "Monitoring".

Preamble: Trigger detected. InitialDP invoke has been sent. Connect invoke is received followed by **RequestReportBCSMEvent**.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN646101	To ensure that the IUT being in the "Monitoring" state, receiving an **ActivityTest** invoke with an argument,
7.1.5.1,	
9.2	rejects the invoke or aborts the dialogue.

IN646102	To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke with:
7.1.5.1,	- bcsmEvents including eventTypeBCSM (oMidCall)
9.25	- but not including legID,
	sends an error MissingParameter.

IN646103	To ensure that the IUT being in the "Monitoring" state, receiving a **RequestReportBCSMEvent** invoke with:
7.1.5.1,	- bcsmEvents including eventTypeBCSM (tDisconnect)
9.25	- but not including legID,
	sends an error MissingParameter.

IN646104   To ensure that the IUT being in the "Monitoring" state receiving a **ReleaseCall** invoke without an argument

              rejects the invoke or aborts the dialogue.

5.2.1.3.4   SSME-FSM state "Idle"

The test group objective is to check that the SSF reacts correctly on receipt of an invalid ActivateServiceFiltering operation in the SSME-FSM state "Idle".

Preamble: -
Postamble: -

IN647101   To ensure that the IUT being in the "Idle" state, receiving an **ActivateServiceFiltering** invoke without the parameter filteredCallTreatment,

7.1.1.4,
9.1   rejects the invoke and terminates the dialogue by means of basic end.

5.2.1.4   Inopportune Behaviour tests (BO)

The test group objective is to test the SSP capability of reacting correctly on PDUs (operations, operation errors) that are syntactically valid but semantically incorrect, and if appropriate responding to the partner entity.

5.2.1.4.1   SSF-FSM state "Idle"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Idle".

Preamble: -
Postamble: -

IN651101   To ensure that the IUT being in the "Idle" state, receiving an **ActivityTest** invoke,

7.1.5.1,
9.2   rejects the invoke and terminates the dialogue by means of basic end or aborts the dialogue.

IN651102   To ensure that the IUT being in the "Idle" state, receiving an **ApplyCharging** invoke,

7.1.5.1,
9.3   sends an error UnexpectedComponentSequence and terminates the dialogue by means of basic end or aborts the dialogue.

IN651103   To ensure that the IUT being in the "Idle" state, receiving a **Cancel** invoke,

7.1.5.1,
9.9   sends an error CancelFailed and terminates the dialogue by means of basic end or aborts the dialogue.

IN651104   To ensure that the IUT being in the "Idle" state, receiving a **CollectInformation** invoke,

7.1.5.1,
9.10   sends an error UnexpectedComponentSequence and terminates the dialogue by means of basic end or aborts the dialogue.

IN651105   To ensure that the IUT being in the "Idle" state, receiving a **CallInformationRequest** invoke,

7.1.5.1,
9.8   sends an error UnexpectedComponentSequence and terminates the dialogue by means of basic end or aborts the dialogue.

IN651106   To ensure that the IUT being in the "Idle" state, receiving an **Connect** invoke,

7.1.5.1,   sends an error UnexpectedComponentSequence and terminates the dialogue
9.11   by means of basic end or aborts the dialogue.

IN651107   To ensure that the IUT being in the "Idle" state, receiving a **Continue** invoke,

7.1.5.1,   rejects the invoke and terminates the dialogue by means of basic end or aborts
9.13   the dialogue.

IN651108   To   ensure   that   the   IUT   being   in   the   "Idle"   state,   receiving   an
                  FurnishChargingInformation invoke,

7.1.5.1,
9.18   sends an error UnexpectedComponentSequence and terminates the dialogue
                          by means of basic end or aborts the dialogue.

IN651109   To ensure that the IUT being in the "Idle" state, receiving a **ReleaseCall** invoke,

7.1.5.1,   rejects the invoke and terminates the dialogue by means of basic end or aborts
9.23   the dialogue.

IN651110   To   ensure   that   the   IUT   being   in   the   "Idle"   state,   receiving   a
                  RequestNotificationChargingEvent invoke,

7.1.5.1,
9.24   sends an error UnexpectedComponentSequence and terminates the dialogue
                          by means of basic end or aborts the dialogue.

IN651111   To   ensure   that   the   IUT   being   in   the   "Idle"   state,   receiving   a
                  RequestReportBCSMEvent invoke,

7.1.5.1,
9.25   sends an error UnexpectedComponentSequence and terminates the dialogue
                          by means of basic end or aborts the dialogue.

IN651112   To   ensure   that   the   IUT   being   in   the   "Idle"   state,   receiving   a
                  SendChargingInformation invoke,

7.1.5.1,
9.27   sends an error UnexpectedComponentSequence and terminates the dialogue
                          by means of basic end or aborts the dialogue.

5.2.1.4.2   SSF-FSM state "Waiting For Instructions"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not
allowed in the SSF-FSM state "Waiting For Instructions".

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN653101   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an
                  InitiateCallAttempt invoke,
7.1.5.3,
9.20   sends an error UnexpectedComponentSequence or aborts the dialogue.

5.2.1.4.3   SSF-FSM state "Monitoring"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Monitoring".

Preamble:	Trigger detected. InitialDP invoke has been sent. RequestReportBCSMEvent invoke with eventTypeBCSM (oDisconnect) and monitorMode (interrupted) received. Connect invoke has been received.
Postamble:	Cancel invoke with allRequests, ReleaseCall invoke and terminate the dialogue.

IN656101   To ensure that the IUT being in the "Monitoring" state, receiving a **CollectInformation** invoke,

7.1.5.6,
9.10   sends an error UnexpectedComponentSequence or aborts the dialogue.

IN656102   To ensure that the IUT being in the "Monitoring" state, receiving a **CallInformationRequest** invoke,

7.1.5.6,
9.8   sends an error UnexpectedComponentSequence or aborts the dialogue.

IN656103   To ensure that the IUT being in the "Monitoring" state, receiving a **Connect** invoke,

7.1.5.6,
9.11   sends an error UnexpectedComponentSequence or aborts the dialogue.

IN656104   To ensure that the IUT being in the "Monitoring" state, receiving a **Continue** invoke,

7.1.5.6,
9.13   aborts the dialogue.

IN656105   To ensure that the IUT being in the "Monitoring" state, receiving a **FurnishChargingInformation** invoke,

7.1.5.6,
9.18   sends an error UnexpectedComponentSequence or aborts the dialogue.

IN656106   To ensure that the IUT being in the "Monitoring" state, receiving an **InitiateCallAttempt** invoke,

7.1.5.6,
9.20   sends an error UnexpectedComponentSequence or aborts the dialogue.

IN656107   To ensure that the IUT being in the "Monitoring" state, receiving a **ResetTimer** invoke,

7.1.5.6,
9.26   sends an error UnexpectedComponentSequence or aborts the dialogue.

5.2.2 SSF relay - rS

The test group objective is to test the INAP procedures at the SSP for user interaction with relay.

5.2.2.1 Valid Behaviour tests (BV)

The test group objective is to test the SSP capability of reacting correctly on network events related to user interaction and of accepting and if appropriate responding to PDUs (operations, operation errors) for user interaction with relay that are syntactically and semantically valid.

5.2.2.1.1 SSF-FSM state "Waiting For Instructions"

The test group objective is to check that a valid ConnectToResource operation is accepted in the state "Waiting For Instructions".

Preamble:	Trigger detected. InitialDP invoke has been sent.
Postamble:	DisconnectForwardConnection invoke, followed by ReleaseCall invoke and terminate the dialogue.

IN733101

7.1.5.3,
9.12

To ensure that the IUT being in the state "Waiting For Instructions" receiving **ConnectToResource** invoke containing mandatory parameters only with:
- resourceAddress being none

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN733102

7.1.5.3,
9.12

To ensure that the IUT being in the state "Waiting For Instructions" receiving **ConnectToResource** invoke containing mandatory parameters only with:
- resourceAddress being iPRoutingAddress

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN733103

7.1.5.3,
9.12

To ensure that the IUT being in the state "Waiting For Instructions" receiving **ConnectToResource** invoke containing network operator specific extensions with:
- resourceAddress,
- extensions

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN733104

7.1.5.3,
9.12

To ensure that the IUT being in the state "Waiting For Instructions" receiving **ConnectToResource** invoke containing network operator specific parameter indicating service interaction with:
- resourceAddress,
- serviceInteractionIndicators

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

5.2.2.1.2 SSF-FSM state "Waiting For End Of User Interaction"

The test group objective is to test that the SSF being in the state "Waiting For End Of User Interaction" reacts correctly on expiration of T_{SSF} or on receipt of an error on ApplyChargingReport and accepts and correctly handles valid DisconnectForwardConnection, PlayAnnouncement, PromptAndCollectUserInformation and Cancel operations.

5.2.2.1.2.1 Network events

Preamble: Trigger detected. InitialDP invoke has been sent. ConnectToResource invoke has been received.

Postamble: -

IN734001

7.1.5.4

To ensure that the IUT being in the "Waiting For End Of User Interaction" state at detection of T_{SSF} expiration

aborts the dialogue.

5.2.2.1.2.2 Operations

Preamble: Trigger detected. InitialDP invoke has been sent. ConnectToResource invoke has been received.

Postamble: ReleaseCall invoke and terminate the dialogue.

IN734101

7.1.5.4,
9.14

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **DisconnectForwardConnection** invoke

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN734102

7.1.5.4,
9.21

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory and optional parameters with:
- informationToSend being tone including:
  - toneID,
  - duration,
- disconnectFromIPForbidden (FALSE),
- requestAnnouncementComplete (FALSE)

does not return any error, reject the invoke, or abort the dialogue within the **duration** time out.

Preamble: Trigger detected. InitialDP invoke has been sent. ConnectToResource invoke received.

Postamble: DisconnectForwardConnection invoke, followed by ReleaseCall invoke and terminate the dialogue.

IN734103

7.1.5.4,
9.21,
9.31

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being elementaryMessageID

sends **SpecializedResourceReport** invoke.

IN734104

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being text being messageContent

sends **SpecializedResourceReport** invoke.

IN734105

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being elementaryMessageIDs including multiple elementaryMessageID

sends **SpecializedResourceReport** invoke.

IN734106

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameter only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being integer

sends **SpecializedResourceReport** invoke.

IN734107

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being
    - number

sends **SpecializedResourceReport** invoke.

IN734108

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being
    - time

sends **SpecializedResourceReport** invoke.

IN734109

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being
    - date

sends **SpecializedResourceReport** invoke.

IN734110

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being
    - price

sends **SpecializedResourceReport** invoke.

IN734111

7.1.5.4,
9.21

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory and optional parameters with:
- informationToSend being inbandInfo including:
    - messageID being elementaryMessageID,
    - numberOfRepetitions,
    - duration,
    - interval

sends **SpecializedResourceReport** invoke.

IN734112

7.1.5.4,
9.21

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing mandatory and optional parameters with:
- informationToSend being displayInformation

sends **SpecializedResourceReport** invoke.

IN734113

7.1.5.4,
9.21,
9.29

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke containing network operator specific extensions with:
- informationToSend being tone including toneID,
- extensions

sends **SpecializedResourceReport** invoke.

IN734114

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory parameter only with:
- collectedInfo being collectedDigits including maximumNbOfDigits
after having received the number of digits as specified in maximumNbOfDigits from the user

sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734115

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
    - minimumNbOfDigits,
    - maximumNbOfDigits,
- informationToSend being tone including toneID
after having received the number of digits as specified in maximumNbOfDigits from the user

sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734116

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
    - maximumNbOfDigits,
    - endOfReplyDigit with the maximum length as stated in ETS 300 374-2 [2],
- informationToSend being tone including toneID
after having received the number of digits as specified in maximumNbOfDigits from the user

sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734117

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
    - maximumNbOfDigits,
    - cancelDigit with the maximum length as stated in ETS 300 374-2 [2],
- informationToSend being tone including toneID
after having received the number of digits as specified in maximumNbOfDigits from the user

sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734118
 	
 7.1.5.4,
 9.22
	To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
	 - collectedInfo being collectedDigits including:
	      - maximumNbOfDigits,
	      - startDigit with the maximum length as stated in ETS 300 374-2 [2],
	 - informationToSend being tone including toneID
	 after having received the number of digits as specified in maximumNbOfDigits from the user
	
	     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734119
 	
 7.1.5.4,
 9.22
	To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
	 - collectedInfo being collectedDigits including:
	      - maximumNbOfDigits,
	      - firstDigitTimeOut,
	 - informationToSend being tone including toneID
	 after having received the number of digits as specified in maximumNbOfDigits from the user
	
	     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734120
 	
 7.1.5.4,
 9.22
	To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
	 - collectedInfo being collectedDigits including:
	      - maximumNbOfDigits,
	      - interDigitTimeOut,
	 - informationToSend being tone including toneID
	 after having received the number of digits as specified in maximumNbOfDigits from the user
	
	     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734121
 	
 7.1.5.4,
 9.22
	To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
	 - collectedInfo being collectedDigits including:
	      - maximumNbOfDigits,
	      - errorTreatment (repeatPrompt),
	 - informationToSend being tone including toneID
	 after having received the number of digits as specified in maximumNbOfDigits from the user
	
	     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734122
 	
 7.1.5.4,
 9.22
	To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
	 - collectedInfo being collectedDigits including:
	      - maximumNbOfDigits,
	      - interruptableAnnInd (FALSE),
	 - informationToSend being tone including toneID
	 after having received the number of digits as specified in maximumNbOfDigits from the user
	
	     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734123

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
  - maximumNbOfDigits,
  - voiceInformation
- informationToSend being tone including toneID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734124

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
  - maximumNbOfDigits,
  - voiceBack,
- informationToSend being tone including toneID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734125

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including maximumNbOfDigits,
- informationToSend being inbandInfo including messageID being elementaryMessageID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

IN734126

7.1.5.4,
9.22

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including maximumNbOfDigits,
- informationToSend being inbandinfo

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

Preamble: ConnectToResource invoke received, followed by PlayAnnouncement invoke. Announcement is active.

Postamble: DisconnectForwardConnection invoke, followed by ReleaseCall invoke and terminate the dialogue.

IN734127

7.1.5.4,
8.1.2.2,
9.9

To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **Cancel** invoke containing with:
- invokeID

     sends error Cancelled on PlayAnnouncement.

5.2.2.1.2.3 **Operation errors**

Preamble: Trigger detected. InitialDP invoke has been sent. ApplyCharging invoke and ConnectToResource invoke have been received, followed by PlayAnnouncement invoke. ApplyChargingReport invoke has been sent.

Postamble: -

IN734301 To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **MissingParameter** on ApplyChargingReport

7.1.5.4,
9.3 returns to "Idle" state.

IN734302 To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **UnexpectedComponentSequence** on ApplyChargingReport

7.1.5.4,
9.3 returns to "Idle" state.

IN734303 To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **UnexpectedParameter** on ApplyChargingReport

7.1.5.4,
9.3 returns to "Idle" state.

IN734304 To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **UnexpectedDataValue** on **ApplyChargingReport**

7.1.5.4,
9.3 returns to "Idle" state.

IN734305 To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **ParameterOutOfRange** on ApplyChargingReport

7.1.5.4,
9.3 returns to "Idle" state.

IN734306 To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **SystemFailure** on ApplyChargingReport

7.1.5.4,
9.3 returns to "Idle" state.

IN734307 To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **TaskRefused** on ApplyChargingReport

7.1.5.4,
9.3 returns to "Idle" state.

5.2.2.2 **Invalid Behaviour tests (BI)**

The test group objective is to test the SSP capability of reacting correctly and if appropriate responding to the partner entity on receipt of PDUs (operations, operation errors) for user interaction with relay that are syntactically invalid.

5.2.2.2.1 **SSF-FSM state "Waiting For Instructions"**

The test group objective is to check that an invalid ConnectToResource operation is rejected by the SSF in the SSF-FSM state "Waiting For Instructions".

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN743101 To ensure that the IUT being in the state "Waiting For Instructions receiving **ConnectToResource** invoke without resourceAddress

7.1.5.3,
10.2 rejects the invoke.

5.2.2.2.2 SSF-FSM state "Waiting For End Of User Interaction"

The test group objective is to check that an invalid PlayAnnouncement or PromptAndCollectUserInformation operation is rejected by the SSF in the SSF-FSM state "Waiting For End Of User Interaction".

Preamble:	Trigger detected. InitialDP invoke has been sent to the SCP and SCP has sent back ConnectToResource invoke.
Postamble:	DisconnectForwardConnection invoke, ReleaseCall invoke and terminate the dialogue.

IN744101   To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PlayAnnouncement** invoke without informationToSend

7.1.5.4,
10.2   rejects the invoke.

IN744102   To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PromptAndCollectUserInformation** invoke without collectedInfo

7.1.5.4,
10.2   rejects the invoke.

IN744103   To ensure that the IUT being in the state "Waiting For End Of User Interaction" receiving **PromptAndCollectUserInformation** invoke with collectedInfo not including maximumNbOfDigits

7.1.5.4,
10.2   rejects the invoke.

5.2.2.3 Inopportune Behaviour tests (BO)

The test group objective is to test the SSP capability of responding correctly to operations for user interaction with relay that are syntactically valid but semantically incorrect.

5.2.2.3.1 SSF-FSM state "Idle"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Idle".

Preamble:	-
Postamble:	-

IN751101   To ensure that the IUT being in the state "Idle" receiving **ConnectToResource** invoke

7.1.5.1,
8.1.13   sends error UnexpectedComponentSequence and terminates the dialogue.

IN751102   To ensure that the IUT being in the state "Idle" receiving **DisconnectForwardConnection** invoke

7.1.5.1,
8.1.13   sends error UnexpectedComponentSequence and terminates the dialogue by means of basic end.

IN751103   To ensure that the IUT being in the state "Idle" receiving **PlayAnnouncement** invoke

7.1.5.1,
8.1.13   sends error UnexpectedComponentSequence and terminates the dialogue by means of basic end.

IN751104   To ensure that the IUT being in the state "Idle" receiving **PromptAndCollectUserInformation** invoke

7.1.5.1,
8.1.13   sends error UnexpectedComponentSequence and terminates the dialogue by means of basic end.

IN751105   To ensure that the IUT being in the state "Idle" receiving **Cancel** invoke (related to **PlayAnnouncement** or **PromptAndCollectUserInformation**)

7.1.5.1,
8.1.13   rejects the invoke and terminates the dialogue by means of basic end.

5.2.2.3.2   SSF-FSM state "Waiting For Instructions"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Waiting For Instructions".

Preamble: Trigger detected. InitialDP invoke has been sent ResetTimer invoke has been received.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN753101   To ensure that the IUT being in the state "Waiting For Instructions" receiving **DisconnectForwardConnection** invoke with TC-Continue

7.1.5.3,
8.1.13   sends error UnexpectedComponentSequence.

IN753102   To ensure that the IUT being in the state "Waiting For Instructions" receiving **Cancel** invoke (related to **PlayAnnouncement** or **PromptAndCollectUserInformation**) with
7.1.5.3,   TC-Continue
8.1.13

         sends error CancelFailed (operationNotCancellable).

IN753103   To ensure that the IUT being in the state "Waiting For Instructions" receiving **PlayAnnouncement** invoke with TC-Continue

7.1.5.3,
8.1.13   sends error UnexpectedComponentSequence.

IN753104   To ensure that the IUT being in the state "Waiting For Instructions" receiving **PromptAndCollectUserInformation** invoke with TC-Continue

7.1.5.3,
8.1.13   sends error UnexpectedComponentSequence.

5.2.2.3.3   SSF-FSM state "Waiting for End of User Interaction"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Waiting for End of User Interaction".

Preamble: Trigger detected. InitialDP invoke has been sent. ConnectToResource invoke was received.
Postamble: DisconnectForwardConnection invoke, followed by ReleaseCall invoke and terminate the dialogue.

IN754105   To ensure that the IUT being in the state "Waiting for End of User Interaction" receiving **InitiateCallAttempt** invoke with TC-Continue

7.1.5.4,
8.1.13   sends error UnexpectedComponentSequence.

5.2.2.3.4 SSF-FSM state "Monitoring"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Monitoring".

Preamble:	Trigger detected. InitialDP invoke has been sent. RequestReportBCSMEvent invoke with eventTypeBCSM (oDisconnect) and monitorMode (interrupted) received. Connect invoke has been received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN756101

To ensure that the IUT being in the state "Monitoring" receiving **ConnectToResource** invoke with TC-Continue

7.1.5.6,
9.12   sends error UnexpectedComponentSequence.

IN756102

To ensure that the IUT being in the state "Monitoring" receiving **DisconnectForwardConnection** invoke with TC-Continue

7.1.5.6,
9.14   sends error UnexpectedComponentSequence.

IN756103

To ensure that the IUT being in the state "Monitoring" receiving **PlayAnnouncement** invoke with TC-Continue

7.1.5.6,
9.21   sends error UnexpectedComponentSequence.

IN756104

To ensure that the IUT being in the state "Monitoring" receiving **PromptAndCollectUserInformation** invoke with TC-Continue

7.1.5.6,
9.22   sends error UnexpectedComponentSequence.

IN756105

To ensure that the IUT being in the state "Monitoring" receiving **Cancel** invoke (related to **PlayAnnouncement** or **PromptAndCollectUserInformation**)

7.1.5.6,
9.9   sends error CancelFailed.

5.2.3 Initiating SSF - iS

The test group objective is to test the INAP procedures for an SSP acting as initiating SSP.

5.2.3.1 Valid Behaviour tests (BV)

The test group objective is to test the initiating SSP capability of reacting correctly on network events and of accepting and if appropriate responding to PDUs (operations, operation errors) that are syntactically and semantically valid.

5.2.3.1.1 SSF-FSM state "Waiting For Instructions"

The test group objective is to check that valid EstablishTemporaryConnection or Connect operation is accepted in the SSF FSM state "Waiting For Instructions".

Preamble:	Trigger detected. InitialDP invoke has been sent.
Postamble:	DisconnectForwardConnection invoke, followed by ReleaseCall invoke and terminate the dialogue.

IN833101

To ensure that the IUT being in the state "Waiting For Instructions" receiving **EstablishTemporaryConnection** invoke containing mandatory parameters only with:

7.1.5.3,
9.15   - assistingSSPIPRoutingAddress

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN833102

7.1.5.3,
9.15

To ensure that the IUT being in the state "Waiting For Instructions" receiving **EstablishTemporaryConnection** invoke containing mandatory and optional parameters with:
- assistingSSPIPRoutingAddress,
- correlationID

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN833103

7.1.5.3,
9.15

To ensure that the IUT being in the state "Waiting For Instructions" receiving **EstablishTemporaryConnection** invoke containing the network operator specific parameter indicating the originating SCF, with:
- assistingSSPIPRoutingAddress,
- correlationID,
- sCFID

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN833104

7.1.5.3,
9.15

To ensure that the IUT being in the state "Waiting For Instructions" receiving **EstablishTemporaryConnection** invoke containing network operator specific extensions with:
- assistingSSPIPRoutingAddress,
- extensions

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN833105

7.1.5.3,
9.15

To ensure that the IUT being in the state "Waiting For Instructions" receiving **EstablishTemporaryConnection** invoke containing network operator specific parameter indicating service interaction with:
- assistingSSPIPRoutingAddress,
- serviceInteractionIndicators

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN833106

7.1.5.3,
9.11

To ensure that the IUT being in the state "Waiting For Instructions" receiving **Connect** invoke to initiate a hand-off procedure containing mandatory and optional parameters, with:
- destinationRoutingAddress,
- correlationID

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN833107

7.1.5.3,
9.11

To ensure that the IUT being in the state "Waiting For Instructions" receiving **Connect** invoke to initiate a hand-off procedure containing the network operator specific parameter indicating the originating SCF, with:
- destinationRoutingAddress,
- correlationID,
- sCFID

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

5.2.3.1.2 SSF-FSM state "Waiting For End Of Temporary Connection"

The test group objective is to test that the SSF being in the state "Waiting For End Of Temporary Connection" reacts correctly on receipt of an error on ApplyChargingReport and accepts a valid DisconnectForwardConnection operation.

5.2.3.1.2.1 Network events

Preamble:	Trigger detected. InitialDP invoke has been sent. EstablishTemporaryConnection invoke has been received.
Postamble:	-

IN835001
7.1.5.3,
9.12

To ensure that the IUT being in the "Waiting For End Of Temporary Connection" state at detection of T_{SSF} expiration

aborts the dialogue.

5.2.3.1.2.2 Operation

Preamble:	Trigger detected. InitialDP invoke has been sent. EstablishTemporaryConnection invoke has been received.
Postamble:	ReleaseCall invoke and terminate the dialogue.

IN835101
7.1.5.4,
9.14

To ensure that the IUT being in the state "Waiting For End Of Temporary Connection" receiving **DisconnectForwardConnection** invoke

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

5.2.3.1.2.3 Operation errors

Preamble:	Trigger detected. InitialDP invoke has been sent. EstablishTemporaryConnection invoke and ApplyCharging invoke have been received, ApplyChargingReport invoke sent.
Postamble:	-

IN835301
7.1.5.4,
9.4

To ensure that the IUT being in the "Waiting For End Of Temporary Connection" receiving an error **MissingParameter** on ApplyChargingReport

returns to "Idle" state.

IN835302
7.1.5.4,
9.4

To ensure that the IUT being in the "Waiting For End Of Temporary Connection" receiving an error **UnexpectedComponentSequence** on ApplyChargingReport

returns to "Idle" state.

IN835303
7.1.5.4,
9.4

To ensure that the IUT being in the "Waiting For End Of Temporary Connection" receiving an error **UnexpectedParameter** on ApplyChargingReport

returns to "Idle" state.

IN835304
7.1.5.4,
9.4

To ensure that the IUT being in the "Waiting For End Of Temporary Connection" receiving an error **UnexpectedDataValue** on ApplyChargingReport

returns to "Idle" state.

IN835305
7.1.5.4,
9.4

To ensure that the IUT being in the "Waiting For End Of Temporary Connection" receiving an error **ParameterOutOfRange** on ApplyChargingReport

returns to "Idle" state.

IN835306	To ensure that the IUT being in the "Waiting For End Of Temporary Connection" receiving an error **SystemFailure** on ApplyChargingReport
7.1.5.4,	
9.4	returns to "Idle" state.

IN835307	To ensure that the IUT being in the "Waiting For End Of Temporary Connection" receiving an error **TaskRefused** on ApplyChargingReport
7.1.5.4,	
9.4	returns to "Idle" state.

5.2.3.2 Invalid Behaviour tests (BI)

The test group objective is to test the initiating SSP capability of reacting correctly on receipt of operations that are syntactically invalid.

5.2.3.2.1 SSF-FSM state "Waiting For Instructions"

The test group objective is to check that an invalid EstablishTemporaryConnection operation is rejected by the SSF in the SSF-FSM state "Waiting For Instructions".

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: DisconnectForwardConnection invoke, followed by ReleaseCall invoke and terminate the dialogue.

IN843101	To ensure that the IUT being in the state "Waiting For Instructions" receiving **EstablishTemporaryConnection** invoke without assistingSSPIPRoutingAddress
7.1.5.3,	
9.15	rejects the invoke.

5.2.3.2.2 SSF-FSM state "Waiting For End Of Temporary Connection"

The test group objective is to check that an invalid DisconnectForwardConnection operation is rejected by the SSF in the SSF-FSM state "Waiting For End Of Temporary Connection".

Preamble: Trigger detected. InitialDP invoke has been sent. EstablishTemporaryConnection invoke has been received.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN845101	To ensure that the IUT being in the state "Waiting For End Of Temporary Connection" receiving **DisconnectForwardConnection** invoke with any argument
7.1.5.4,	
9.14	rejects the invoke.

5.2.3.3 Inopportune Behaviour tests (BO)

The test group objective is to test the initiating SSP capability of responding correctly to operations for user interaction with relay that are syntactically valid but semantically incorrect.

5.2.3.3.1 SSF-FSM state "Idle"

The test group objective is to check that the initiating SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Idle".

Preamble: -
Postamble: -

IN851101	To ensure that the IUT being in the state "Idle" receiving **ConnectToResource** invoke
7.1.5.1,	
8.1.13	sends error UnexpectedComponentSequence and terminates the dialogue by means of basic end or aborts the dialogue.

IN851102   To ensure that the IUT being in the state "Idle" receiving
              DisconnectForwardConnection invoke

7.1.5.1,
8.1.13   sends error UnexpectedComponentSequence and terminates the dialogue by
                    means of basic end or aborts the dialogue.

IN851103   To ensure that the IUT being in the state "Idle" receiving **PlayAnnouncement** invoke

7.1.5.1,   sends error UnexpectedComponentSequence and terminates the dialogue by
8.1.13   means of basic end or aborts the dialogue.

IN851104   To ensure that the IUT being in the state "Idle" receiving
              PromptAndCollectUserInformation invoke

7.1.5.1,
8.1.13   sends error UnexpectedComponentSequence and terminates the dialogue by
                    means of basic end or aborts the dialogue.

IN851105   To ensure that the IUT being in the state "Idle" receiving **Cancel** invoke

7.1.5.1,   rejects the invoke and terminates the dialogue by means of basic end or aborts
9.9   the dialogue.

5.2.3.3.2   SSF-FSM state "Waiting For Instructions"

The test group objective is to check that the initiating SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Waiting For Instructions".

Preamble: Trigger detected. InitialDP invoke has been sent.
Postamble: ReleaseCall invoke and terminate the dialogue.

IN853101   To ensure that the IUT being in the state "Waiting For Instructions" receiving
              DisconnectForwardConnection invoke with TC-Continue

7.1.5.3,
9.12   sends error UnexpectedComponentSequence.

IN853102   To ensure that the IUT being in the state "Waiting For Instructions" receiving **Cancel**
              invoke (related to **PlayAnnouncement** or **PromptAndCollectUserInformation**) with
7.1.5.3,   TC-Continue
9.12
                    sends error CancelFailed (operationNotCancellable).

IN853103   To ensure that the IUT being in the state "Waiting For Instructions" receiving
              PlayAnnouncement invoke with TC-Continue

7.1.5.3,
9.12   sends error UnexpectedComponentSequence.

IN853104   To ensure that the IUT being in the state "Waiting For Instructions" receiving
              PromptAndCollectUserInformation invoke with TC-Continue

7.1.5.3,
9.12   sends error UnexpectedComponentSequence.

5.2.3.3.3   SSF-FSM state "Waiting for End of Temporary Connection"

The test group objective is to check that the SSF being in the SSF-FSM state "Waiting for End of User Interaction" reacts correctly on receipt of an operation that is not allowed in this state.

Preamble:	Trigger detected. InitialDP invoke has been sent. EstablishTemporaryConnection operation has been received.
Postamble:	DisconnectForwardConnection invoke, ReleaseCall invoke, and terminate the dialogue.

IN855105   To ensure that the IUT being in the state "Waiting for End of Temporary Connection" receiving **InitiateCallAttempt** invoke with TC-Continue

7.1.5.5,
8.1.13   sends error UnexpectedComponentSequence.

IN855109   To ensure that the IUT being in the state "Waiting for End of Temporary Connection" receiving **PlayAnnouncement** invoke with TC-Continue

7.1.5.5,
8.1.13   sends error UnexpectedComponentSequence.

IN855110   To ensure that the IUT being in the state "Waiting for End of Temporary Connection" receiving **PromptAndCollectUserInformation** invoke with TC-Continue

7.1.5.5,
8.1.13   sends error UnexpectedComponentSequence.

5.2.3.3.4   SSF-FSM state "Monitoring"

The test group objective is to check that the SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Monitoring".

Preamble:	Trigger detected. InitialDP invoke has been sent. RequestReportBCSMEvent invoke with eventTypeBCSM (oDisconnect) and monitorMode (interrupted) received. Connect invoke received.
Postamble:	Cancel invoke with allRequests, ReleaseCall invoke, and terminate the dialogue.

IN856101   To ensure that the IUT being in the state "Monitoring" receiving **DisconnectForwardConnection** invoke with TC-Continue

7.1.5.6,
8.2.17   sends error UnexpectedComponentSequence.

IN856102   To ensure that the IUT being in the state "Monitoring" receiving **EstablishTemporaryConnection** invoke with TC-Continue

7.1.5.6,
8.2.17   sends error UnexpectedComponentSequence.

5.2.4   Assisting SSF - aS

The test group objective is to test the INAP procedures for an SSP acting as assisting SSP.

5.2.4.1   Valid Behaviour tests (BV)

The test group objective is to test the assisting SSP capability of reacting correctly on network events and of accepting and if appropriate responding to PDUs (operations, operation errors) that are syntactically and semantically valid.

5.2.4.1.1   SSF-FSM state "Idle"

The test group objective is to check that on detection of an assist request a valid AssistRequestInstructions operation is sent.

| **Preamble:** | - |
| **Postamble:** | Terminate the dialogue. |

IN931101   To ensure that the IUT being in the state "Idle" detecting an assist request

7.1.6.1,   sends **AssistRequestInstructions** invoke containing all mandatory parameters,
9.12   with:
-        correlationID.

IN931102   To ensure that the IUT being in the state "Idle" detecting an assist request

7.1.6.1,   sends **AssistRequestInstructions** invoke containing the network operator
9.5   specific parameter indicating SRF capabilities, with:
-        correlationID,
-        iPSSPCapabilities.

IN931103   To ensure that the IUT being in the state "Idle" detecting an assist request

7.1.6.1,   sends **AssistRequestInstructions** invoke containing the network operator
9.5   specific parameter indicating IP availability, with:
-        correlationID,
-        iPAvailable.

IN931104   To ensure that the IUT being in the state "Idle" detecting an assist request

7.1.6.1,   sends **AssistRequestInstructions** invoke containing network operator specific
9.5   extensions, with:
-        correlationID,
-        extensions.

5.2.4.1.2 SSF-FSM state "Waiting For Instructions"

The test group objective is to test that the SSF being in the state "Waiting For Instructions" reacts correctly on network events or on receipt of an error on AssistRequestInstructions and accepts valid ApplyCharging, ConnectToResource, FurnishChargingInformation, ResetTimer and SendCharging-Information operations.

5.2.4.1.2.1 Network events

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent and ResetTimer invoke has been received.

Postamble: -

IN932001 To ensure that the IUT being in the "Waiting For Instructions" state, at detection of T_{SSF} expiration,

7.1.6.2,
9.12 aborts the dialogue.

IN932002 To ensure that the IUT being in the "Waiting For Instructions" state, receiving release indication from initiating SSP,

7.1.6.2,
9.12 aborts the dialogue.

5.2.4.1.2.2 Operations

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.

Postamble: Terminate the dialogue.

IN932101 To ensure that the IUT being in the state "Waiting For Instructions" receiving
ApplyCharging invoke containing mandatory parameters only, with:
7.1.6.2, - aChBillingChargingCharacteristics,
9.12 - sendCalculationToSCPIndication (TRUE),
followed by **ConnectToResource** invoke,

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN932102 To ensure that the IUT being in the state "Waiting For Instructions" receiving
ConnectToResource invoke containing mandatory parameters only with:
7.1.6.2, - resourceAddress being none
9.12

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN932103 To ensure that the IUT being in the state "Waiting For Instructions" receiving
ConnectToResource invoke containing mandatory parameters only with:
7.1.6.2, - resourceAddress being iPRoutingAddress
9.12

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN932104 To ensure that the IUT being in the state "Waiting For Instructions" receiving
FurnishChargingInformation invoke
7.1.6.2,
9.12 does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN932105	To ensure that the IUT being in the state "Waiting For Instructions" receiving

ResetTimer containing mandatory parameters only, with:

7.1.6.2,
9.12

- timerValue being minimum value as stated in ETS 300 374-2 [2],

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

IN932106	To ensure that the IUT being in the state "Waiting For Instructions" receiving

SendChargingInformation containing mandatory parameters only, with:

7.1.6.2,
9.12

- sCIBillingChargingCharacteristics,
- legID being sendingSideID (leg1),

followed by **ConnectToResource** invoke,

does not return any error, reject the invoke, or abort the dialogue within the operation time out.

5.2.4.1.2.3   Operation errors

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.

Postamble: -

IN932301   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **MissingCustomerRecord** on AssistRequestInstructions,

7.1.6.2, 9.19

returns to "Idle" state.

IN932302   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **MissingParameter** on AssistRequestInstructions,

7.1.6.2, 9.19

returns to "Idle" state.

IN932303   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **TaskRefused** on AssistRequestInstructions,

7.1.6.2, 9.19

returns to "Idle" state.

IN932304   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **UnexpectedComponentSequence** on AssistRequestInstructions,

7.1.6.2, 9.19

returns to "Idle" state.

IN932305   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **UnexpectedDataValue** on AssistRequestInstructions,

7.1.6.2, 9.19

returns to "Idle" state.

IN932306   To ensure that the IUT being in the "Waiting For Instructions" state, receiving an error **UnexpectedParameter** on AssistRequestInstructions,

7.1.6.2, 9.19

returns to "Idle" state.

5.2.4.1.3   SSF-FSM state "Waiting For End Of User Interaction"

The test group objective is to test that the SSF being in the state "Waiting For End Of User Interaction" reacts correctly on network events or on receipt of an error on ApplyChargingReport and accepts valid DisconnectForwardConnection, PlayAnnouncement, PromptAndCollectUserInformation, Cancel, ResetTimer and ActivityTest operations.

5.2.4.1.3.1   Network events

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent. ConnectToResource invoke, ResetTimer invoke and ApplyCharging invoke have been received.

Postamble: -

IN933001   To ensure that the IUT being in the "Waiting For End Of User Interaction" state at detection of T_{SSF} expiration

7.1.6.3,
9.12   aborts the dialogue.

IN933002   To ensure that the IUT being in the "Waiting For End Of User Interaction" state at detection of conditions for charging report

7.1.6.3,
9.12   sends **ApplyChargingReport** invoke with callResult.

5.2.4.1.3.2   Operations

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent. ConnectToResource invoke has been received.

Postamble: Terminate the dialogue.

IN933101   To ensure that the IUT being in the "Waiting For End Of User Interaction" state, receiving **DisconnectForwardConnection** invoke

7.1.6.3,
9.12   does not return any error, reject the invoke, or abort the dialogue within the operation time out.

Preamble: AssistRequestInstructions invoke has been sent. ConnectToResource invoke received.

Postamble: DisconnectForwardConnection invoke and terminate the dialogue.

IN933102   To ensure that the IUT being in the "Waiting For End Of User Interaction" state, receiving **PlayAnnouncement** containing mandatory parameters only, with:
7.1.6.3,   -   informationToSend   being   inbandInfo   including   messageID   being
9.12   elementaryMessageID.

                    sends **SpecializedResourceReport** invoke.

IN933103   To ensure that the IUT being in the "Waiting For End Of User Interaction" state, receiving   **PromptAndCollectUserInformation**   invoke   containing   mandatory
7.1.6.3,   parameters only, with:
9.12   -   collectedInfo being collectedDigits including maximumNbOfDigits,
                    -          informationToSend   being   inbandInfo   including   messageID   being
                    elementaryMessageID.
                    after having received the number of digits as specified in maximumNbOfDigits from the user

                    sends **PromptAndCollectUserInformation** result with digitsResponse.

IN933104	To ensure that the IUT being in the "Waiting For End Of User Interaction" state, receiving **ResetTimer** invoke containing mandatory parameters only, with:
7.1.6.3, 9.12	- timerValue being minimum value as stated in ETS 300 374-2 [2],
	does not return any error, reject the invoke, or abort the dialogue within the operation time out.

Preamble:	An assist request was detected. AssistRequestInstructions invoke has been sent. ConnectToResource invoke received, followed by PlayAnnouncement invoke. Announcement is active.
Postamble:	DisconnectForwardConnection invoke and terminate the dialogue.

IN933105	To ensure that the IUT being in the "Waiting For End Of User Interaction" state receiving **Cancel** invoke with:
7.1.6.3, 9.12	- invokeID
	sends error Cancelled on PlayAnnouncement.

IN933106	To ensure that the IUT being in the "Waiting For End Of User Interaction" state receiving **ActivityTest** invoke
7.1.6.3, 9.12	sends **ActivityTest** result.

5.2.4.1.3.3 **Operation errors**

Preamble:	An assist request was detected. AssistRequestInstructions invoke has been sent. ConnectToResource invoke, PlayAnnouncement invoke and ApplyCharging invoke have been received. ApplyChargingReport invoke sent.
Postamble:	-

IN933301	To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **MissingParameter** on ApplyChargingReport
7.1.6.3, 9.12	returns to "Idle" state.

IN933302	To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **UnexpectedComponentSequence** on ApplyChargingReport
7.1.6.3, 9.12	returns to "Idle" state.

IN933303	To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **UnexpectedParameter** on ApplyChargingReport
7.1.6.3, 9.12	returns to "Idle" state.

IN933304	To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **UnexpectedDataValue** on ApplyChargingReport
7.1.6.3, 9.12	returns to "Idle" state.

IN933305	To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **ParameterOutOfRange** on ApplyChargingReport
7.1.6.3, 9.12	returns to "Idle" state.

IN933306	To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an error **SystemFailure** on ApplyChargingReport
7.1.6.3, 9.12	returns to "Idle" state.

IN933307   To ensure that the IUT being in the "Waiting For End Of User Interaction" receiving an
                  error **TaskRefused** on ApplyChargingReport

7.1.6.3,
9.12   returns to "Idle" state.

5.2.4.2   Invalid Behaviour tests (BI)

The test group objective is to test the assisting SSP capability of reacting correctly on receipt of operations
that are syntactically invalid.

5.2.4.2.1   SSF-FSM state "Waiting For Instructions"

The test group objective is to check that an invalid ConnectToResource or ResetTimer operation is
rejected by the SSF in the SSF-FSM state "Waiting For Instructions".

Preamble: An assist request was detected. AssistRequestInstructions invoke has been
                           sent.
Postamble: Terminate the dialogue.

IN942101   To ensure that the IUT being in the state "Waiting For Instructions" receiving
                  ConnectToResource invoke without resourceAddress

7.1.6.2,
9.12   rejects the invoke.

IN942102   To ensure that the IUT being in the state "Waiting For Instructions" receiving
                  ResetTimer without timerValue

7.1.6.2,
9.12   rejects the invoke.

5.2.4.2.2   SSF-FSM state "Waiting for End of User Interaction"

The test group objective is to check that an invalid DisconnectForwardConnection, PlayAnnouncement,
PromptAndCollectUserInformation, ResetTimer or Cancel operation is rejected by the SSF in the SSF-
FSM state "Waiting For End of User Interaction".

Preamble: An assist request was detected. AssistRequestInstructions invoke has been
                           sent. ConnectToResource invoke has been received.
Postamble: DisconnectForwardConnection invoke and terminate the dialogue.

IN943101   To ensure that the IUT being in the "Waiting For End Of User Interaction" state,
                  receiving **DisconnectForwardConnection** invoke containing an argument

7.1.6.3,
9.12   reject the invoke.

IN943102   To ensure that the IUT being in the "Waiting For End Of User Interaction" state,
                  receiving **PlayAnnouncement** without informationToSend,

7.1.6.3,
9.12   rejects the invoke.

IN943103   To ensure that the IUT being in the "Waiting For End Of User Interaction" state,
                  receiving **PromptAndCollectUserInformation** invoke without collectedInfo

7.1.6.3,
9.12   rejects the invoke.

IN943104   To ensure that the IUT being in the "Waiting For End Of User Interaction" state,
                  receiving **ResetTimer** invoke without timerValue

7.1.6.3,
9.12   rejects the invoke.

Preamble:	An assist request was detected. AssistRequestInstructions invoke has been sent. ConnectToResource invoke received, followed by PlayAnnouncement invoke. Announcement is active.
Postamble:	DisconnectForwardConnection invoke and terminate the dialogue.

IN943105   To ensure that the IUT being in the "Waiting For End Of User Interaction" state receiving **Cancel** invoke without argument

7.1.6.3,
9.12   rejects the invoke.

5.2.4.3   Inopportune Behaviour tests (BO)

The test group objective is to test the assisting SSP capability of responding correctly to operations for user interaction with relay that are syntactically valid but semantically incorrect.

5.2.4.3.1   SSF-FSM state "Waiting For Instructions"

The test group objective is to check that the assisting SSF reacts correctly on receipt of an operation that is not allowed in the SSF-FSM state "Waiting For Instructions".

Preamble:	An assist request was detected. AssistRequestInstructions invoke has been sent and ResetTimer invoke has been received.
Postamble:	Terminate the dialogue.

IN952101   To ensure that the IUT being in the "Waiting For Instructions" state, receiving **DisconnectForwardConnection** invoke

7.1.6.2,
9.12   sends an error UnexpectedComponentSequence.

IN952102   To ensure that the IUT being in the "Waiting For Instructions" state, receiving **Cancel** invoke (related to ResetTimer

7.1.6.2,
9.12   sends error CancelFailed (operationNotCancellable).

IN952103   To ensure that the IUT being in the "Waiting For Instructions" state, receiving **PlayAnnouncement** invoke

7.1.1.6.2,
7.3.12   sends an error UnexpectedComponentSequence.

IN952104   To ensure that the IUT being in the "Waiting For Instructions" state, receiving **PromptAndCollectUserInformation** invoke

7.1.6.2,
9.12   sends an error UnexpectedComponentSequence.

5.3 Intelligent Peripheral (IP)

The test group objective is to test the INAP procedures at the IP.

5.3.1 Valid Behaviour tests (BV)

The test group objective is to test the IP capability of reacting correctly on network events and of accepting and if appropriate responding to PDUs (operations, operation errors) that are syntactically and semantically valid.

5.3.1.1 SRSM-FSM state "Idle"

The test group objective is to check that in the "Idle" state on detection of an assist request a valid AssistRequestInstructions operation is sent.

Preamble: -
Postamble: Initiate a bearer channel disconnect request to the SRF and terminate the dialogue.

INA31001 To ensure that the IUT being in the state "Idle" detecting an assist request
         sends **AssistRequestInstructions** invoke containing all mandatory parameters,
7.3.4.1,   with:
7.3.4.2,   -   correlationID.
9.5

INA31002 To ensure that the IUT being in the state "Idle" detecting an assist request
         sends **AssistRequestInstructions** invoke containing network operator specific
7.3.4.1,   extensions, with:
7.3.4.2,   -   correlationID,
9.5   -   extensions.

5.3.1.2 SRSM-FSM state "Connected"

The test group objective is to check that the IP in the "Connected" state reacts correctly on expiration of TSRF and bearer channel disconnection and accepts valid operations PlayAnnouncement and PromptAndCollectUserInformation as well as error indication on AssistRequestInstructions.

5.3.1.2.1 Network events

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.
Postamble: -

INA32001 To ensure that the IUT being in the "Connected" state, at detection of T_{SRF} expiration,
         returns to "Idle" state.
7.3.4.2,
8.3.2

INA32002 To ensure that the IUT being in the "Connected" state, receiving bearer channel
         disconnect indication from SSP,
7.3.4.2,   returns to "Idle" state.
10.1.3

| 5.3.1.2.2 | **Operations** |

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.

Postamble: Initiate a bearer channel disconnect request to the SRF and terminate the dialogue.

INA32101

7.3.4.2,
9.21,
9.29

To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being elementaryMessageID

  sends **SpecializedResourceReport** invoke.

INA32102

7.3.4.2,
9.21,
9.29

To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being text being messageContent

  sends **SpecializedResourceReport** invoke.

INA32103

7.3.4.2,
9.21,
9.29

To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being elementaryMessageIDs including multiple elementaryMessageID

  sends **SpecializedResourceReport** invoke.

INA32104

7.3.4.2,
9.21,
9.29

To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameter only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being integer

  sends **SpecializedResourceReport** invoke.

INA32105

7.3.4.2,
9.21,
9.29

To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being number

  sends **SpecializedResourceReport** invoke.

INA32106

7.3.4.2,
9.21,
9.29

To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being time

  sends **SpecializedResourceReport** invoke.

INA32107

7.3.4.2,
9.21,
9.29

To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being date

  sends **SpecializedResourceReport** invoke.

INA32108	To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory parameters only with:
7.3.4.2, 9.21, 9.29	- informationToSend being inbandInfo including messageID being variableMessage including elementaryMessageID and variablePart being price sends **SpecializedResourceReport** invoke.

INA32109	To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory and optional parameters with:

7.3.4.2,
9.21,
9.29
	- informationToSend being inbandInfo including:
	   - messageID being elementaryMessageID,
	   - numberOfRepetitions,
	   - duration,
	   - interval,
	- disconnectFromIPForbidden (FALSE),
	- requestAnnouncementComplete (FALSE)
	
	    does not return any error, reject the invoke, or abort the dialogue within the duration time out.

INA32110	To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory and optional parameters with:

7.3.4.2,
9.21,
9.29
	- informationToSend being tone including:
	   - toneID,
	   - duration,
	- disconnectFromIPForbidden (FALSE),
	- requestAnnouncementComplete (FALSE)
	
	    does not return any error, reject the invoke, or abort the dialogue within the duration time out.

INA32111	To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing mandatory and optional parameters with:
7.3.4.2, 9.21, 9.29	- informationToSend being displayInformation, - disconnectFromIPForbidden (FALSE) sends **SpecializedResourceReport** invoke.

INA32112	To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke containing network operator specific extensions with:
7.3.4.2, 9.21, 9.29	- informationToSend being tone including toneID, - extensions sends **SpecializedResourceReport** invoke.

INA32113	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory parameter only with:
7.3.4.2, 9.22	- collectedInfo being collectedDigits including maximumNbOfDigits after having received the number of digits as specified in maximumNbOfDigits from the user sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32114

7.3.4.2,
9.22

To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
  - minimumNbOfDigits,
  - maximumNbOfDigits,
- disconnectFromIPForbidden (FALSE),
- informationToSend being tone including toneID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32115

7.3.4.2,
9.22

To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
  - maximumNbOfDigits,
  - endOfReplyDigit with the maximum length as stated in ETS 300 374-2 [2],
- informationToSend being tone including toneID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32116

7.3.4.2,
9.22

To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
  - maximumNbOfDigits,
  - cancelDigit with the maximum length as stated in ETS 300 374-2 [2],
- informationToSend being tone including toneID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32117

7.3.4.2,
9.22

To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
  - maximumNbOfDigits,
  - startDigit with the maximum length as stated in ETS 300 374-2 [2],
- informationToSend being tone including toneID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32118

7.3.4.2,
9.22

To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
- collectedInfo being collectedDigits including:
  - maximumNbOfDigits,
  - firstDigitTimeOut,
- informationToSend being tone including toneID

after having received the number of digits as specified in maximumNbOfDigits from the user

     sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32119	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including:

    -    maximumNbOfDigits,
    -    interDigitTimeOut,
-    disconnectFromIPForbidden (FALSE),
-    informationToSend being tone including toneID
after having received the number of digits as specified in maximumNbOfDigits from the user

        sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32120	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including:

    -    maximumNbOfDigits,
    -    errorTreatment (repeatPrompt),
-    informationToSend being tone including toneID
after having received the number of digits as specified in maximumNbOfDigits from the user

        sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32121	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including:

    -    maximumNbOfDigits,
    -    interruptableAnnInd (FALSE),
-    informationToSend being tone including toneID,
after having received the number of digits as specified in maximumNbOfDigits from the user

        sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32122	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including:

    -    maximumNbOfDigits,
    -    voiceInformation,
-    informationToSend being tone including toneID,
after having received the number of digits as specified in maximumNbOfDigits from the user

        sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32123	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including:

    -    maximumNbOfDigits,
    -    voiceBack,
-    informationToSend being tone including toneID,
after having received the number of digits as specified in maximumNbOfDigits from the user

        sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32124	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including maximumNbOfDigits,
	- informationToSend being displayInformation,
	after having received the number of digits as specified in maximumNbOfDigits from the user
	sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32125	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional parameters with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including maximumNbOfDigits,
	- informationToSend being inbandInfo including messageID being elementaryMessageID,
	after having received the number of digits as specified in maximumNbOfDigits from the user
	sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32126	To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke containing network operator specific extensions with:
7.3.4.2,	
9.22	- collectedInfo being collectedDigits including maximumNbOfDigits,
	- informationToSend being tone including toneID
	- extensions,
	after having received the number of digits as specified in maximumNbOfDigits from the user
	sends **PromptAndCollectUserInformation** result with digitsResponse.

INA32127	To ensure that the IUT being in the state "Connected" receiving **Cancel** invoke containing with the invokeID of the PlayAnnouncement invoke
8.2.2,	
9.9	sends error Cancelled on **PlayAnnouncement**.

5.3.1.2.3   **Operation errors**

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.

Postamble: -

INA32301	To ensure that the IUT being in the "Connected" state, receiving an error **MissingCustomerRecord** on AssistRequestInstructions,
8.2.6, 10.2	returns to "Idle" state.

INA32302	To ensure that the IUT being in the "Connected" state, receiving an error **MissingParameter** on AssistRequestInstructions,
8.2.7, 10.2.	returns to "Idle" state.

INA32303	To ensure that the IUT being in the "Connected" state, receiving an error **TaskRefused** on AssistRequestInstructions,
8.2.15, 10.2.	returns to "Idle" state.

INA32304	To ensure that the IUT being in the "Connected" state, receiving an error **UnexpectedComponentSequence** on AssistRequestInstructions,
8.2.17, 10.2.	returns to "Idle" state.

INA32305	To ensure that the IUT being in the "Connected" state, receiving an error **UnexpectedDataValue** on AssistRequestInstructions,
8.2.18, 10.2.	
	returns to "Idle" state.

INA32306	To ensure that the IUT being in the "Connected" state, receiving an error **UnexpectedParameter** on AssistRequestInstructions,
8.2.19, 10.2.	
	returns to "Idle" state.

5.3.1.3   SRSM-FSM state "User Interaction"

The test group objective is to check that the IP in the "User Interaction" state reacts correctly on expiration of TSRF and bearer channel disconnection and accepts valid operations PlayAnnouncement and PromptAndCollectUserInformation.

5.3.1.3.1   Network events

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent. PlayAnnouncement invoke has been received.

Postamble: -

INA33001	To ensure that the IUT being in the "User Interaction" state, at detection of T_{SRF} expiration,
7.3.4.3, 8.3.2	returns to the "Idle" state

INA33002	To ensure that the IUT being in the "User Interaction" state, receiving bearer channel disconnect indication from SSP,
7.3.4.3, 10.1.3	returns to the "Idle" state

5.3.1.3.2   Operations

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent. PlayAnnouncement invoke has been received.

Postamble: Terminate the dialogue.

INA33101	To ensure that the IUT being in the "User Interaction" state, receiving **PlayAnnouncement** invoke containing mandatory and optional parameters, with:
7.3.4.3, 9.21	- informationToSend being inbandInfo including messageID being elementaryMessageID,
	- disconnectFromIPForbidden (FALSE)
	sends SpecializedResourceReport invoke.

INA33102	To ensure that the IUT being in the "User Interaction" state, receiving **PromptAndCollectUserInformation** invoke containing mandatory and optional
7.3.4.3, 9.22	parameters, with:
	- informationToSend being inbandInfo including messageID being elementaryMessageID,
	- collectedInfo being collectedDigits including maximumNbOfDigits,
	- disconnectFromIPForbidden (FALSE)
	after having received the number of digits as specified in maximumNbOfDigits from the user
	sends **PromptAndCollectUserInformation** result with digitsResponse.

5.3.2   Invalid Behaviour tests (BI)

The test group objective is to test the IP capability of reacting correctly on operations that are syntactically invalid and if appropriate responding to the partner entity.

5.3.2.1   SRSM-FSM state "Connected"

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.
Postamble: Terminate the dialogue.

INA42101   To ensure that the IUT being in the state "Connected" receiving **PlayAnnouncement** invoke without informationToSend

7.3.4.3,
10.2   rejects the invoke or aborts the dialogue.

INA42102   To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke without collectedInfo

7.3.4.3,
10.2   rejects the invoke or aborts the dialogue.

INA42103   To ensure that the IUT being in the state "Connected" receiving **PromptAndCollectUserInformation** invoke with collectedInfo not including

7.3.4.3,
10.2   maximumNbOfDigits

                rejects the invoke or aborts the dialogue.

5.3.2.2   SRSM-FSM state "User Interaction"

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.
Postamble: Terminate the dialogue.

INA43101   To ensure that the IUT being in the state "User Interaction" receiving **PlayAnnouncement** invoke without informationToSend

7.3.4.3,
10.2   rejects the invoke or aborts the dialogue.

INA43102   To ensure that the IUT being in the state "User Interaction" receiving **PromptAndCollectUserInformation** invoke without collectedInfo

7.3.4.3,
10.2   rejects the invoke or aborts the dialogue.

INA43103   To ensure that the IUT being in the state "User Interaction" receiving **PromptAndCollectUserInformation** invoke with collectedInfo not including

7.3.4.3,
10.2   maximumNbOfDigits

                rejects the invoke or aborts the dialogue.

INA43104   To ensure that the IUT being in the state "User Interaction" receiving **Cancel** invoke (related to allRequests)

7.1.5.4,
8.2.3   rejects the invoke.

5.3.3 Inopportune Behaviour tests (BO)

The test group objective is to test the IP capability of reacting correctly on operations that are syntactically valid but semantically incorrect, and if appropriate responding to the partner entity.

5.3.3.1 SRSM-FSM state "Idle"

The test group objective is to check that the IP reacts correctly on receipt of an operation that is not allowed in the SRSM-FSM state "Idle".

Preamble: -
Postamble: -

INA51101 To ensure that the IUT being in the state "Idle" receiving a **PlayAnnouncement** invoke

7.3.4.1,
8.1.13 sends error UnexpectedComponentSequence and terminates the dialogue.

INA51102 To ensure that the IUT being in the state "Idle" receiving a **PromptAndCollectUserInformation** invoke

7.3.4.1,
8.1.13 sends error UnexpectedComponentSequence and terminates the dialogue.

INA51103 To ensure that the IUT being in the state "Idle" receiving a **Cancel** invoke

7.3.4.1,
8.1.13 rejects the invoke and terminates the dialogue.

5.3.3.2 SRSM-FSM state "Connected"

The test group objective is to check that the IP reacts correctly on receipt of an operation that is not allowed in the SRSM-FSM state "Connected".

Preamble: An assist request was detected. AssistRequestInstructions invoke has been sent.
Postamble: Terminate the dialogue.

INA52101 To ensure that the IUT being in the state "Connected" receiving a **Cancel** invoke (related to allRequests)

7.3.4.2,
8.1.13 rejects the invoke or terminates the dialogue.

6 Compliance

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

a) consist of a set of test cases corresponding to the set or to a subset of the test purposes specified in clause 5;
b) use a test suite structure which is an appropriate subset of the whole of the test suite structure specified in clause 4;
c) use the same naming conventions for the test groups and test cases;
d) maintain the relationship specified in clause 5 between the test groups and test purposes and the entries in the PICS proforma (ETS 300 374-2 [2]) to be used for test case deselection;
e) comply with ISO/IEC 9646-2 [4].

In the case of a) or b) above, a subset shall be used only where a particular abstract test method makes some test purposes untestable. All testable test purposes from clause 5 shall be included in a compliant ATS.

Annex A (informative): TP coverage

Table A.1 gives some figures about the number of test purposes for each test group.

Table A.1: TP coverage

SUT	Interface	Category	Number of TPs
SSP	SCF-SSF **bS**: SSP basic functions	CA	6
		BV	143
		BI	18
		BO	20
	SCF-SSF-SRF **rS**: add. for SSP with relay functions	BV	39
		BI	4
		BO	15
	SCF-SSF **iS**: add. for SSP acting as initiating SSP	BV	16
		BI	2
		BO	14
	SCF-SSF **aS**: add. for SSP acting as assisting SSP	BV	31
		BI	7
		BO	4
IP	SCF-SRF **cl** (IP direct path to SCP)	BV	41
		BI	7
		BO	4

History

Document history		
February 1996	First Edition	
August 1997	One-step Approval Procedure	OAP 9748: 1997-08-01 to 1997-11-28