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SERIES Q: SWITCHING AND SIGNALLING

Specifications of Signalling System No. 7 – Test
specification

**ISUP basic call test specification: Abstract test
suite for ISUP'92 basic call control procedures**

ITU-T Recommendation Q.784.2

(Previously CCITT Recommendation)

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ITU-T RECOMMENDATION Q.784.2

ISUP BASIC CALL TEST SPECIFICATION: ABSTRACT TEST SUITE FOR ISUP'92 BASIC CALL CONTROL PROCEDURES

Summary

This Recommendation contains the validation (conformance) test specification for ISUP'92 basic call control and signalling procedures. In contrast to Recommendation Q.784.1, where the approach is informal, this Recommendation presents an Abstract Test Suite (ATS), written in TTCN (Tree and Tabular Combined Notation). The main body of this Recommendation presents the requirements regarding the chosen test method, conventions used within the ATS, the test suite structure and the test purposes. Annexes A, B, C and D present the Protocol Implementation Conformance Statements (PICSs), the Protocol Implementation Extra Information for Testing (PIXIT), Protocol Conformance Test Report (PCTR) and the ATS for ISUP'92 basic call control procedures, Annex D being available on electronic media.

Source

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FOREWORD

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Recommendation Q.784.2

ISUP BASIC CALL TEST SPECIFICATION: ABSTRACT TEST SUITE FOR ISUP'92 BASIC CALL CONTROL PROCEDURES

(Geneva, 1997)

1 Scope

This Recommendation contains the validation (conformance) test specification for ISUP'92 basic call control and signalling procedures defined in Recommendation Q.764 [4]. In contrast to Recommendation Q.784.1 [13], where the approach is informal, this Recommendation presents an Abstract Test Suite (ATS) for ISUP'92 basic call, written in TTCN (Tree and Tabular Combined Notation), see [9] and [10]. While the tests in Recommendation Q.784.1 also cover the ISUP as defined in Recommendation Q.767 [5], this Recommendation applies only to exchanges having implemented the ISUP'92 protocol specification. It is applicable for validation testing of all types of exchanges as defined in the ISUP'92 protocol specification. Note that the compatibility tests are covered by Recommendation Q.784.1 [13].

The main text part of this Recommendation presents the requirements regarding the chosen test method, conventions used within the ATS, the Test Suite Structure and the Test Purposes (TSS and TPs) for ISUP'92 basic call control procedures.

Annexes A, B, C and D present the Protocol Implementation Conformance Statements (PICS), the Protocol Implementation Extra Information for Testing (PIXIT), Protocol Conformance Test Report (PCTR) and the ATS for ISUP'92 basic call control procedures, Annex D being available on electronic media.

Annex A provides the Protocol Implementation Conformance Statement (PICS) proforma for the ISUP'92 defined in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646 [7] to [12]. This statement, of which capabilities and options of a telecommunication specification have been implemented, is necessary for evaluating the conformance of a particular implementation.

Annex B provides the Protocol Implementation Extra Information for Testing (PIXIT) proforma, needed as a preparation for testing.

Annex C provides the Protocol Conformance Test Report (PCTR) proforma, used for evaluating the results of the testing campaign.

Annex D explains how to get hold of the actual ATS, which is delivered in electronic form only.

2 References

The following ITU-T Recommendations, and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

- [1] ITU-T Recommendation Q.761 (1993), *Functional description of the ISDN User Part of Signalling System No. 7*.

- [2] ITU-T Recommendation Q.762 (1993), *General function of messages and signals of the ISDN User Part of Signalling System No. 7.*
- [3] ITU-T Recommendation Q.763 (1993), *Formats and codes of the ISDN User Part of Signalling System No. 7.*
- [4] ITU-T Recommendation Q.764 (1993), *ISDN User Part signalling procedures.*
- [5] CCITT Recommendation Q.767 (1991), *Application of the ISDN User Part of CCITT Signalling System No. 7 for international ISDN interconnections.*
- [6] ITU-T Recommendation Q.850 (1993), *Use of cause and location in the Digital Subscriber Signalling System No. 1 and the Signalling System No. 7 ISDN User Part.*
- [7] ISO/IEC 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*
- [8] ISO/IEC 9646-2:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 2: Abstract Test Suite specification.*
- [9] ISO/IEC 9646-3:1992, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 3: The Tree and Tabular Combined Notation (TTCN).*
- [10] ISO/IEC 9646-3/Amd.1:1992, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 3: The Tree and Tabular Combined Notation – Amendment 1: TTCN extensions.*
- [11] ISO/IEC 9646-5:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 5: Requirements on test laboratories and clients for the conformance assessment process.*
- [12] ISO/IEC 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements.*
- [13] ITU-T Recommendation Q.784.1 (1996), *ISUP basic call test specification: Validation and compatibility for ISUP'92 and Q.767 protocols.*
- [14] CCITT Recommendation E.164 (1988), *Numbering plan for the ISDN era.*

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ATS specification, the following definitions apply:

- terms defined in ISDN User Part (ISUP) reference specification [1] to [4];
- terms defined in ISO/IEC 9646-1 [7], ISO/IEC 9646-3 [9] and in ISO/IEC 9646-7 [12].

In particular, the following terms apply:

3.1.1 abstract test case (ATC): A complete and independent specification of the actions required to achieve a specific test purpose, defined at the level of abstraction of a particular Abstract Test Method, starting in a stable testing state and ending in a stable testing state (see [7], subclause 3.3.3).

3.1.2 abstract test method (ATM): The description of how an IUT is to be tested, given at an appropriate level of abstraction to make the description independent of any particular realization of a

Means of Testing, but with enough detail to enable abstract test cases to be specified for this method (see [7], subclause 3.3.5).

3.1.3 abstract test suite (ATS): A test suite composed of abstract test cases (see [7], subclause 3.3.6).

3.1.4 implementation under test (IUT): An implementation of one or more OSI protocols in an adjacent user/provider relationship, being part of a real open system which is to be studied by testing (see [7], subclause 3.3.43).

3.1.5 ISDN number: A number conforming to the numbering and structure specified in Recommendation E.164 [14].

3.1.6 means of testing (MOT): The combination of equipment and procedures that can perform the derivation, selection, parameterization and execution of test cases, in conformance with a reference standardized ATS, and can produce a conformance log (see [7], subclause 3.3.54).

3.1.7 PICS proforma: A document, in the form of a questionnaire, which when completed for an implementation or system becomes the PICS.

3.1.8 PIXIT proforma: A document, in the form of a questionnaire, which when completed for the IUT becomes the PIXIT.

3.1.9 point of control and observation: A point within a testing environment where the occurrence of test events is to be controlled and observed, as defined in an Abstract Test Method (see [7], subclause 3.3.64).

3.1.10 pre-test condition: A setting or state in the IUT which cannot be achieved by providing stimulus from the test environment.

3.1.11 protocol implementation conformance statement (PICS): A statement made by the supplier of a protocol claimed to conform to a given specification, stating which capabilities have been implemented (see [7], subclauses 3.3.39 and 3.3.80).

3.1.12 protocol implementation extra information for testing (PIXIT): A statement made by a supplier or implementor of an IUT (protocol) which contains or references all of the information related to the IUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the IUT (see [7], subclauses 3.3.41 and 3.3.81).

3.1.13 system under test (SUT): The real open system in which the IUT resides (see [7], subclause 3.3.103).

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

3.2 Abbreviations

The ISUP message acronyms can be found in Table 2/Q.762 [2].

This Recommendation uses the following abbreviations:

ASP	Abstract Service Primitive
ATC	Abstract Test Case
ATM	Abstract Test Method
ATS	Abstract Test Suite
CIC	Circuit Identification Code
CntrlE	Controlling Exchange

DLE	Destination Local Exchange
DSS 1	Digital Subscriber System No. 1
ICS	Implementation Conformance Statement
IncIE	Incoming International Exchange
IntermE	Intermediate Exchange
IWorkE	Interworking Exchange
ISC	International Switching Centre
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
IUT	Implementation Under Test
ITE	International Transit Exchange
LAPD	Link Access Protocol for the D-channel
LT	Lower Tester
MOT	Means of Testing
MMI	Man Machine Interface
MTC	Main Test Component
MTP	Message Transfer Part
NNI	Network-Network Interface
NTE	National Transit Exchange
OLE	Originating Local Exchange
OutIE	Outgoing International Exchange
PCM	Pulse Code Modulation
PCO	Point of Control and Observation
PCTR	Protocol Conformance Test Report
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PTC	Parallel Test Component
SCS	System Conformance Statement
SP	Signalling Point
SUT	System Under Test
TP	Test Purpose
TypeA	Type A exchange
TypeB	Type B exchange
TCP	Test Coordination Procedures
TSS	Test Suite Structure

TSS and TP	Test Suite Structure and Test Purposes
TTCN	Tree and Tabular Combined Notation
UNI	User-Network interface
UT	Upper Tester

4 Implementation under test and test methods

4.1 Identification of the system and implementation under test

The System Under Test (SUT) is an exchange.

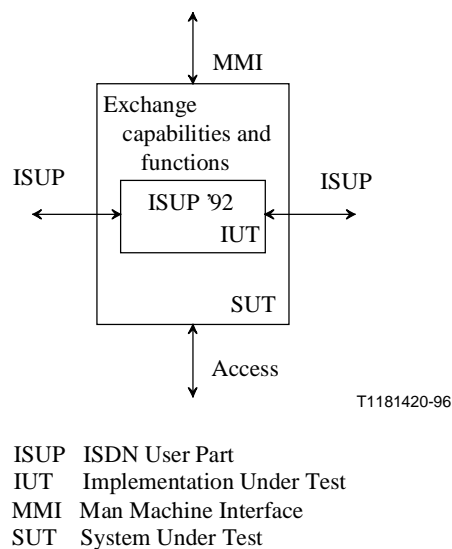


Figure 1/Q.784.2 – Exchange as SUT

The Implementation Under Test (IUT) is the ISUP92 implementation in this exchange, as shown in Figure 1.

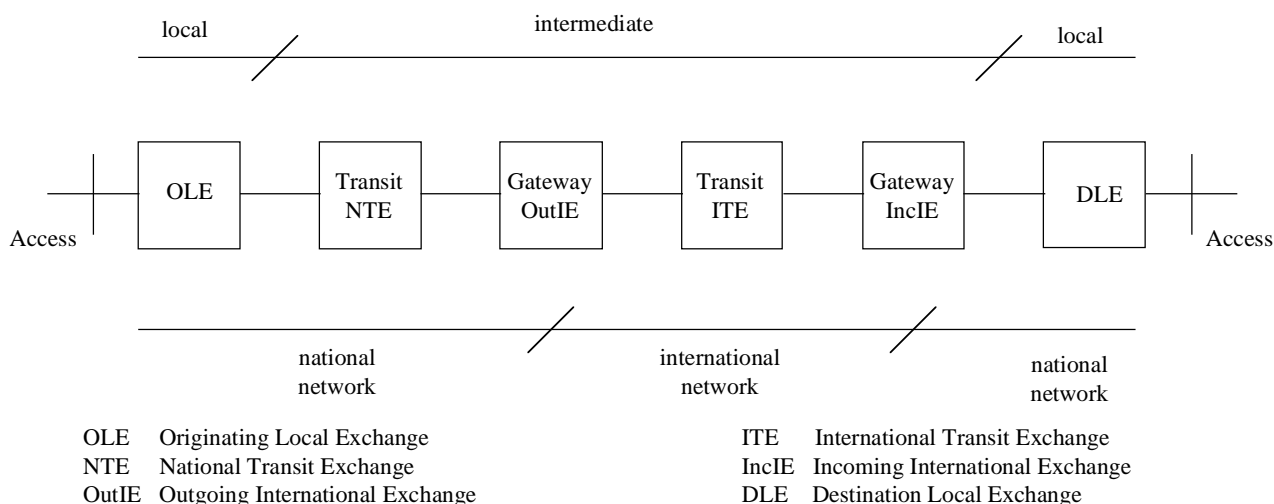
The aim of the ISUP implementation is to assure capabilities and functions for circuit and signalling supervision on the one hand and for call handling on the other.

Circuit supervision is done mainly through the MMI (Man Machine Interface) of the exchange. The MMI interface is implementation dependent and thus not standardized.

The effects of signalling procedures of the ISDN User Part can be observed on the NNI (Network-Network Interface), on the circuits controlled by the ISUP. The ISUP signalling protocol can be observed on the SS No. 7 link on the NNI.

The ISUP implementation will in some exchanges have to interwork with the access signalling system on the UNI (User-Network Interface) and involve call handling in order to establish end-to-end connections.

From the ISUP reference standard, several types of exchanges (or roles) can be identified as presented in Figure 2.



T1181430-96

Figure 2/Q.784.2 – Roles of exchanges

The exchanges can be divided in two main groups according to their functionality: local exchanges, where calls originate and terminate, and intermediate exchanges, with transit functionality. Local exchanges are national, i.e. belong to a national network. Intermediate exchanges are national or international. The international intermediate exchanges which permit access to the international network are the gateway exchanges (incoming and outgoing), also called ISCs – International Switching Centres.

The roles of the exchanges are summarized in Table 1:

Table 1/Q.784.2 – Roles of exchanges

		Local exchange	Intermediate exchange	
			National	International
Originating Local Exchange	TypeA	OLE		
Transit Exchange	TypeB		NTE	ITE
Incoming/Gateway Exchange	TypeA			IncIE
Outgoing/Gateway Exchange	TypeA			OutIE
Destination Local Exchange	TypeA	DLE		

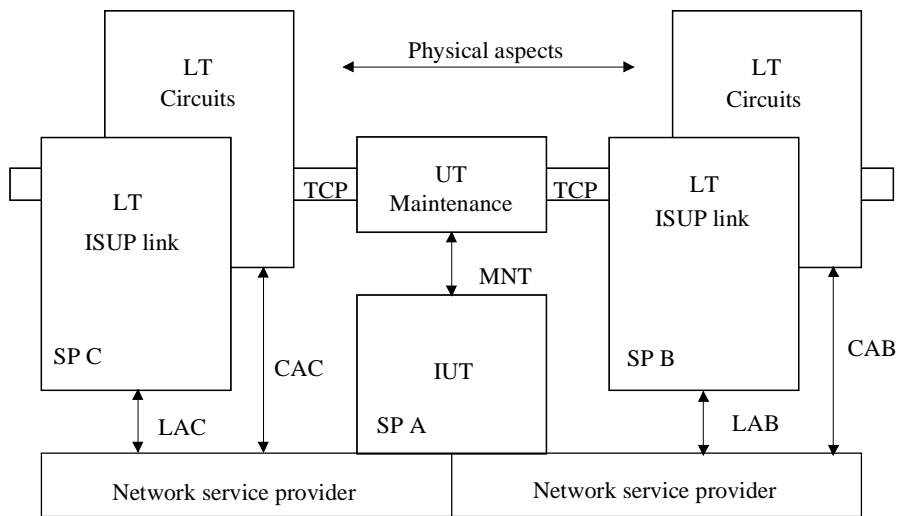
4.2 ATM and testing configuration for ISUP'92

The Abstract Test Method (ATM) chosen for the ISUP'92 testing specification is the distributed multiparty test method. The ATM is defined at an appropriate level of abstraction so that the test cases may be specified appropriately, without adding restrictions to the implementation under test. The testing architectures are described in the following subclauses.

The ATS is written in concurrent TTCN.

4.2.1 Intermediate exchanges

The configuration proposed for testing intermediate exchanges is shown in Figure 3. In order to test the protocol and functionality of transit and gateway exchanges, one needs to consider the incoming and outgoing side of the SUT.



T1181440-96

IUT	Implementation Under Test	LAB	PCO for signalling link AB
LT	Lower Tester	CAB	Circuit PCO on AB interface
PCO	Point of Control and Observation	LAC	PCO for signalling link AC
SP	Signalling Point	CAC	Circuit PCO on AC interface
TCP	Test Coordination Procedures	MNT	Maintenance PCO
UT	Upper Tester		

Figure 3/Q.784.2 – ISUP test method for intermediate exchanges

The IUT is observed and controlled from two ISUP links with associated circuits. The Points of Control and Observation (PCO) are labelled LAB and CAB on one side, and LAC and CAC on the other.

The LAB and LAC PCOs are used by the Lower Testers (LT) for controlling the ISUP signalling link, whereas the CAB and CAC PCOs are used by the lower testers for observing circuit related events, such as connectivity, echo control check, alerting tone, etc.

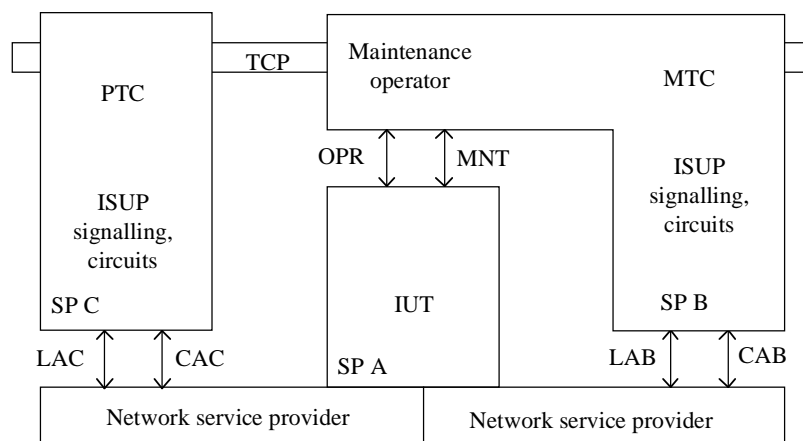
The ISUP PDUs to be sent and observed on the LAB PCO side allow for PDU constraints to be specified and coded down to the bit level.

The MNT PCO is used by the Upper Tester (UT) to control and observe the maintenance functions of the exchange.

The underlying network service provider is the Message Transfer Part (MTP) protocol as specified in Recommendations Q.701 to Q.707.

Figure 4 shows the actual used configuration for intermediate exchanges, with a Main Test Component (MTC), responsible for the A-B interface and a slave Parallel Test Component (PTC), responsible for the C-A interface. The Maintenance PCO (MNT) and the Operator PCO (OPR), needed for a limited number of test cases are integrated in the MTC, for simplifying reasons.

The Test Coordination Procedures (TCP) allow for communication between the testers. The test components are mostly implicitly coordinated (asynchronously); the TCPs are only used when it is necessary to obtain the verdict from the parallel test component.



T1181450-96

IUT	Implementation Under Test	LAB	PCO for signalling link AB
MTC	Main Test Component	CAB	Circuit PCO on AB interface
PCO	Point of Control and Observation	LAC	PCO for signalling link AC
PTC	Parallel Test Component	CAC	Circuit PCO on AC interface
SP	Signalling Point	MNT	Maintenance PCO
TCP	Test Coordination Procedures	OPR	Operator PCO

Figure 4/Q.784.2 – ISUP test configuration for intermediate exchanges

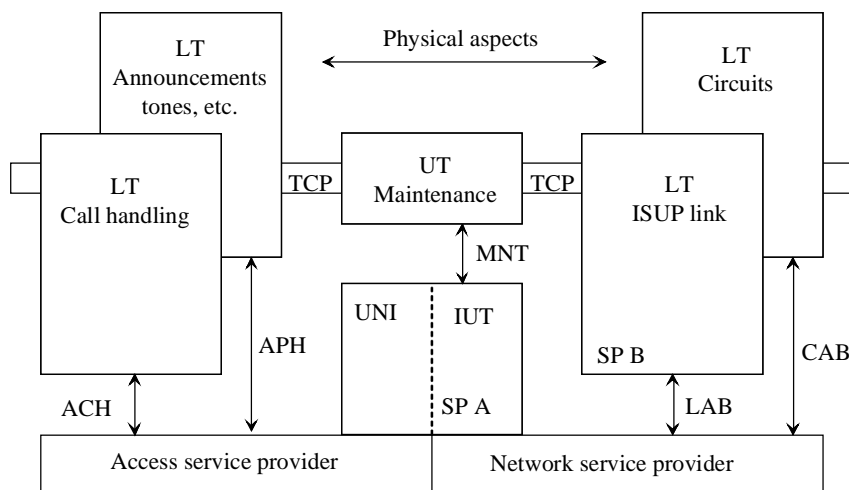
4.2.2 Local exchanges

When testing a local exchange as specified in the reference standard, it is difficult, if not impossible, to observe only ISUP PDUs, if functionality such as connectivity, tones and announcements etc. associated with protocol events is to be considered and used to assign verdicts. The reference standard often refers to actions or events initiated by or to be observed by the calling or called user.

A Point of Control of Observation (PCO) from ISUP (IUT) to the access side is needed, e.g. for stimulating the local exchange to originate a call (send an IAM). Another PCO is needed to check connectivity or to check tones generated etc. by the local exchange.

There is no exposed interface from ISUP (the IUT) towards the access side. For practical testing purposes the natural choice is the access interface. It is therefore reasonable to make use of the access interface (e.g. the user access interface DSS 1) as a PCO and to use existing naming conventions for the Abstract Service Primitives (ASPs) to be used on this PCO.

Figure 5 presents a multiparty testing configuration for local exchanges. In this figure each tester has a single PCO. The PCO for the access uses the underlying access service provider (e.g. LAPD, in case of DSS 1) for observing access events and stimulating the ISUP via the access. The ISUP implementation (IUT) cannot be tested without involving the User-Network Interface (UNI).



T1181460-96

IUT	Implementation Under Test	UNI	User-Network Interface
LT	Lower Tester	LAB	PCO for signalling link AB
PCO	Point of Control and Observation	CAB	Circuit PCO on AB interface
TCP	Test Coordination Procedures	ACH	Access call handling PCO – (D-channel)
SP	Signalling Point	APH	Access physical circuit PCO – (B-channel)
UT	Upper Tester	MNT	Maintenance PCO

Figure 5/Q.784.2 – ISUP test method for originating/destination exchanges

On the right side there are two PCOs as in the test configuration presented in the previous subclause. The LAB PCO is used by the LT controlling the ISUP signalling link, whereas the CAB PCO is used by another LT controlling the traffic channels (for observing circuit related events, such as connectivity, echo control check, alerting tone, etc.).

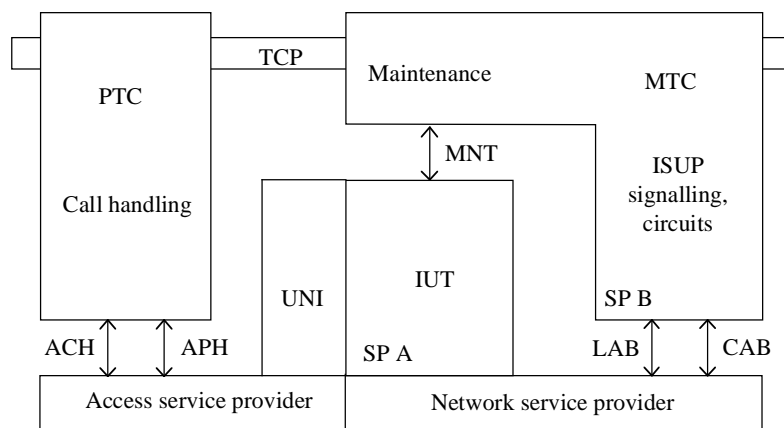
The ISUP PDUs to be sent and observed on the LAB PCO side allow for PDU constraints to be specified and coded down to the bit level.

The MNT PCO is used by the Upper Tester to control and observe the maintenance functions of the exchange.

On the access side there are two PCOs and two LTs similar to the ones on network side. The ACH PCO is used to observe and control the Call Handling events, whereas the APH is used to control and observe physical aspects (e.g. tones and announcements).

The access PDUs to be sent and observed on the ACH PCO are chosen at an appropriate level of abstraction. For the access ASPs DSS 1-like primitive names have been used, whereas access PDU constraints have not been coded to the bit level. The access aspects cannot be left out for local exchanges, widening in this respect to some extent the scope of the ISUP testing.

Figure 6 shows the actual used configuration for local exchanges, with a Main Test Component (MTC), responsible for the A-B interface and a slave Parallel Test Component (PTC), responsible for the UNI access interface. The maintenance PCO is integrated in the MTC, for simplifying reasons.



IUT	Implementation Under Test	LAB	PCO for signalling link AB
MTC	Main Test Component	CAB	Circuit PCO on AB interface
PCO	Point of Control and Observation	ACH	Access call handling PCO (D-channel)
PTC	Parallel Test Component	APH	Access physical circuit PCO (B-channel)
TCP	Test Coordination Procedures	MNT	Maintenance PCO

Figure 6/Q.784.2 – ISUP test configuration for local exchanges

4.2.3 Master-slave aspects in the test configuration

Figures 4 and 6 show the logical test components of the adopted test configuration. The main test component is located on the right side of the IUT, whereas on the left side there are different parallel test components: ISUP (see Figure 4) and access (see Figure 6).

The ATS is written so that the appropriate configuration is chosen – depending on the exchange's *role* to be tested.

The right side main test component may be international or national ISUP and is configurable so that any two of these may be run – based on the answers given to PIXIT questions.

The left side parallel test component may be of any kind: it may be international or national ISUP, an access signalling system or a non-ISUP user part. At test execution exactly one of these configurations will be chosen – based on the information provided in the PICS and PIXIT.

For the gateway exchanges it is assumed by default that the call is set up from the left PTC to the right MTC. In some test cases the call set-up is done in the reverse direction. These test cases are marked in the ATS with the configuration field set to "reversed". They have to be executed with a different set of PIXIT settings.

The message flow in the test cases is designed in such a way that the verdict is assigned based on observing the behaviour on the right side. The left side will in this case mainly act as a slave stimulus/acceptor. There are, however, test cases where the expected behaviour of both sides is needed to assign the verdict. An example of such a test case is the release on both sides after T7 (waiting for ACM) expiry, where the final verdict has to be based on the verdicts assigned on both the AB and the AC interfaces.

5 Conventions used within the ATS

Abbreviations for ISUP messages and parameters are used consistently throughout this Recommendation. Abbreviations for the signalling information of ISUP as defined in

Recommendation Q.762 [2] are consistently used within the ATS and are useful for understanding and/or maintaining the coding detail level.

5.1 Test suite parameters, constants and variables

Most test suite parameters are named using the pattern: TSP_Xxx

Most test suite variables are named using the pattern: TSV_Xxx

All test suite constants are named using the pattern: TSC_Xxx

5.2 Test case variables

Most test case variables are named using the pattern: TCV_Xxx

5.3 ASP constraints

The naming scheme for ASP constraints is: PDU_XY_more_specific

- where PDU indicates the PDU type included, XY indicates the direction and more_specific (if any) describes the constraint with abbreviated naming convention.

Example: IAM_BA_PDC – indicates an IAM sent from SP B to SP A, with a propagation delay counter.

5.4 Timers

All timers are named using the pattern: TN[_min or _max]

Examples: T7, T7_min, T7_max.

5.5 Test suite operations

Most names for test suite operations follow the scheme: TSO_TestSuiteOperationName

The TSO functions are specified using the syntax of C programming language.

5.6 Aliases

Aliases are extensively used instead of cumbersome names for ASP primitives (like MTP TRANSFER_IND).

They are named using the scheme:

S_XXX for the sending of an ISUP message XXX which resolves to the MTP TRANSFER_REQ primitive.

R_XXX for the receipt of an ISUP message XXX which is resolved to the MTP TRANSFER_IND primitive.

5.7 Test case and step identifiers

The general naming convention for the test cases is: ISB_{X}_n_n_n..._{a}_{n_a}

- where **X** is either: **V** – valid stimulus, **I** – inopportune stimulus or **S** – syntactically invalid stimulus; **n** is a one or two-digit test case number aligned with Recommendation Q.784.1 and **a** is a lowercase letter to distinguish between tests in case of variants. The last number plus lower case letter is sometimes used to further distinguish between test cases.

The general naming convention for the dispatcher test steps is: S_n_n_n

– where the n-s are the same as the test case to which they relate.

The dispatched "slaves" are named as follows:

ISUP slave: I_n_n_n.....

access slave: A_n_n_n.....

non-ISUP slave: T_n_n_n.....

Some generic steps with appropriate names, e.g. to complete the call-setup (+S_ACM_etc_BA, +R_ACM_etc_AC) are also used.

5.8 Constraints

The constraints visible on the test case level are all ASP constraints. The ASPs are chained to PDU constraints every time an ISUP message is involved. This allows for a higher level of abstraction on the test case level and hides the information in the ASP constraint part. In the case of access PDUs, no further PDU constraints are defined. Generally derived PDU constraints are avoided for simplicity reasons.

5.9 Dynamic behaviour part

The general scheme of running a test case can be described shortly as follows:

Firstly, the control is given to the main test component, which starts executing. This main test component controls and observes the IUT on the AB signalling link.

Secondly after possibly initializing some data the main test component creates the corresponding parallel test component. This component is the slave process and it is located in a separate test step. It is dispatched using a parameter derived from the role of the exchange to be tested. For each test case exactly one concurrent "slave" parallel test component, either ISUP, or access, or non-ISUP is created. For example if the test configuration requires an ISUP tester on the left side, then the ISUP parallel test component is created, etc.

The main (right) and the parallel (left) test components will then cooperate, most of the time asynchronously driven by the received messages, until the test purpose is achieved and the verdict is set.

The behaviour description is kept on an abstract level, hiding whenever it is possible programming details in the underlying test steps. Test steps are used whenever this saves code without decreasing the readability of the test case. Often functionally related test steps are grouped together using local trees.

The comment fields are extensively used. The message sequence chart for the chosen testing configuration is provided at test case level to quickly give an overview of the expected behaviour. For optimal readability, a non-proportional font is used for printing the arrow diagrams.

5.10 Pre-test conditions

For each test it is assumed that the circuits are unblocked from both sides and idle. Some particular test cases need special pre-test conditions. These are presented in Table 2:

Table 2/Q.784.2 – Special pre-test conditions

Pre-test condition	Test case
Arrange the data in the IUT such that pass on is not possible.	IBC_V_1_7_1_4 IBC_V_1_7_1_5 IBC_V_1_7_2_5 IBC_V_1_7_2_6_a IBC_V_1_7_2_6_b IBC_V_1_7_2_7_a IBC_V_1_7_2_7_b
Arrange the data in the IUT such that the unknown parameter will be passed on by the IUT.	IBC_I_1_7_2_9_a
Arrange the data in the IUT such that the unknown parameter will be discarded by the IUT.	IBC_I_1_7_2_9_b
Arrange the data in the IUT such that the call is switched via satellite connection.	IBC_V_2_3_4_a IBC_V_2_3_4_b IBC_V_2_3_4_c
Arrange the data in the IUT such that a network initiated Suspend message can be triggered by Signalling Point C (SP C).	IBC_V_3_5_b
Arrange the data in the IUT such that it is unable to return the circuit to the idle condition in response to a release message.	IBC_V_5_1
Arrange the data in the IUT such that a continuity check is required on the outgoing circuit.	IBC_V_6_1_1_a
Arrange the data in the IUT such that a continuity check is applied on this call.	IBC_V_6_1_3_a
Arrange the data in the IUT such that a continuity check is required on the outgoing circuit.	IBC_V_6_1_4_a IBC_V_6_1_5 IBC_V_6_2_4
Arrange the data in the IUT such that fallback occurs in the IUT.	IBC_V_6_6_3_a IBC_V_6_6_3_b
Arrange the data in the IUT such that there are enough circuits available for the call.	IBC_V_7_3_7 IBC_V_7_3_8 IBC_V_7_3_9
Arrange the data in the IUT such that the ISDN User Part of Signalling Point B (SP B) becomes unavailable in the IUT.	IBC_V_8_2_2 IBC_V_8_2_3
Arrange the data in the IUT such that the call is routed over a route not requiring echo control devices.	IBC_V_9_1_2

6 Test Suite Structure (TSS)

See Figure 7.

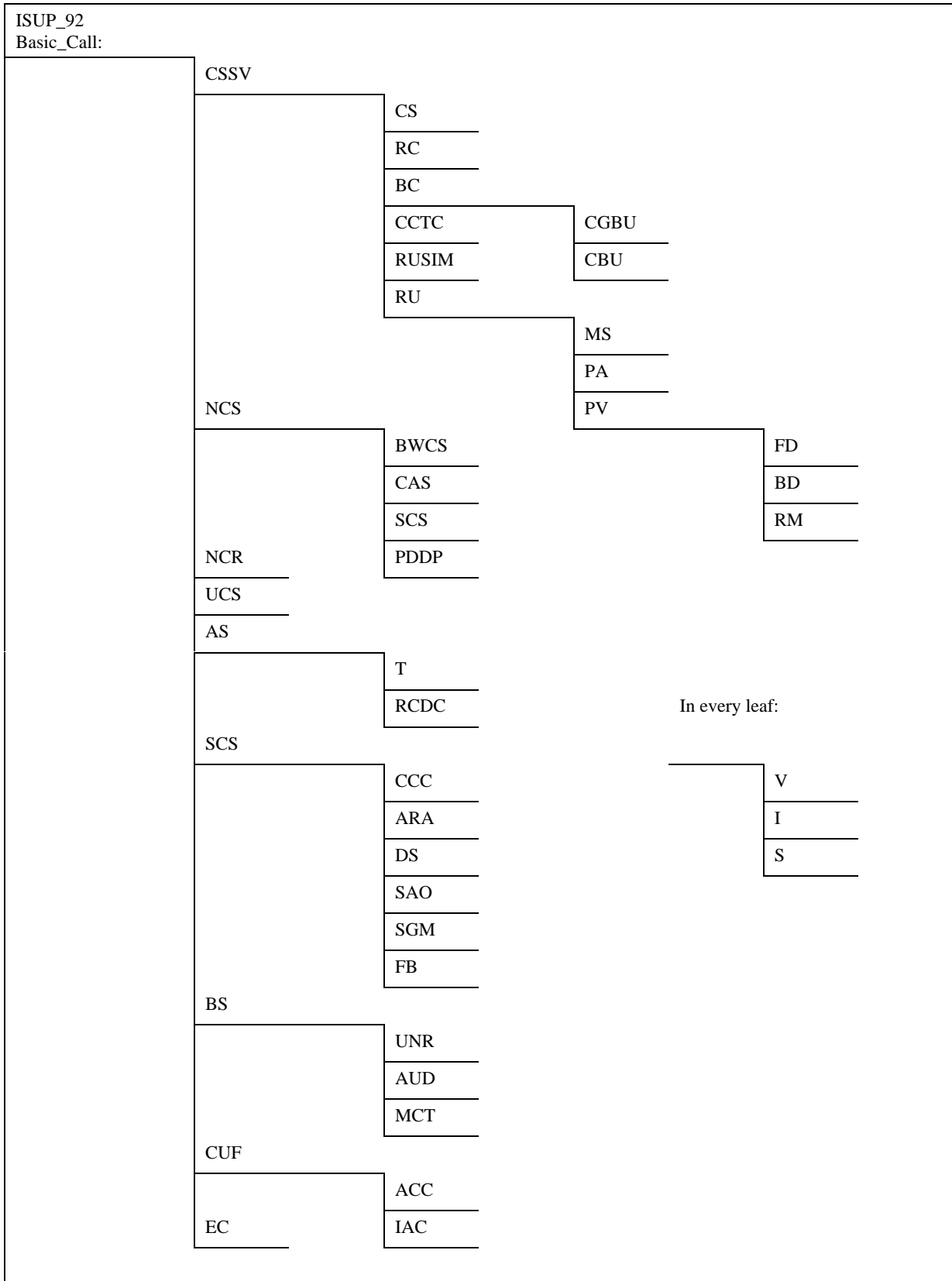


Figure 7/Q.784.2 – Test suite structure

The test suite structure naming conventions are:

CSSV	Circuit Supervision and Signalling Supervision
CS	Circuit Supervision
RC	Reset of Circuits
BC	Blocking of Circuits
CGBU	Circuit Group Blocking Unblocking
CBU	Circuit Blocking Unblocking
CCTC	Continuity Check Test Call
RUSIM	Receipt of Unreasonable Signalling Information Messages
RU	Receipt of Unknown
MS	messages
PA	parameters
PV	parameter values
FD	in the forward direction
BD	in the backward direction
RM	in the release message
NCS	Normal call setup ordinary speech calls
BWCS	Both Way Circuit Selection
CAS	Called Address Sending
SCS	Successful Call Setup
PDDP	Propagation Delay Determination Procedure
NCR	Normal Call Release
UCS	Unsuccessful Call setup
AS	Abnormal Situations
T	Timers
RCDC	Reset of Circuit During a Call
SCS	Special Call Setup
CCC	Continuity Check Call
ARA	Automatic Repeat Attempt
DS	Dual Seizure
SAO	Semi-Automatic Operation
SGM	Simple Segmentation
FB	FallBack
BS	Bearer Services
UNR	64 kbit/s unrestricted connection types
AUD	3.1 kHz audio connection type

MCT	Multirate Connection Types
CUF	Congestion and User Flow control
ACC	Automatic Congestion Control
IAC	ISUP Availability Control
EC	Echo Control
V	Valid behaviour stimulus
I	Inopportune stimulus
S	Syntactically incorrect stimulus (e.g. outside range, use of spare values)

7 Test Purposes (TPs)

7.1 Introduction

For each test requirement a Test Purpose (TP) is defined.

7.1.1 Test Purpose (TP) naming convention

Test purposes are numbered, following the scheme of Recommendation Q.784.1 [13], within each group. Groups are organized according to the Test Suite Structure (TSS) down to the last but one level. The classification in the V/I/S groups is done by the inclusion of V, I or S in the test case name. Additional qualifiers, in the form of lower case letters, are added to identify variants within one generic test case from Recommendation Q.784.1 [13], see Table 3 below. Additionally defined test cases are numbered succeeding the ones used in Recommendation Q.784.1.

Table 3/Q.784.2 – TP Identifier naming convention scheme

Identifier: IBC_<V/I/S>_<N>_<N>...<N>_<a>
IBC = ISUP'92 Basic Call
<group> = group: one character field representing the group reference according to TSS
V: Valid stimulus
I: Inopportune stimulus
S: Syntactically invalid stimulus
<N> = Corresponding reference numbers in Recommendation Q.784.1 (if any).
<a> = Lower case character distinguishing tests with same reference number.

In the subgroups of CSSV/RU/PV/(FD, BD, RM) some special naming conventions apply: The paragraph number of the parameter coding description in Recommendation Q.763 has been included in the test case name to differentiate the various tests of parameter values.

7.1.2 Source of test purpose definition

The test purposes have been developed based on Recommendation Q.784.1. Some additional validation test cases are defined.

7.1.3 Test purpose structure

The test purpose structure is according to the Test Suite Structure (TSS).

Test purposes that test normal behaviour have been grouped in the V – valid behaviour group.

Test purposes that test the IUT behaviour in situations that are not normal operation have been grouped in the I – Inopportune stimulus group.

Test purposes that test the IUT behaviour on spare values or values out of range have been grouped in the S – Syntactically incorrect stimulus group.

7.2 Test purposes for the Basic Call

All of the following test purposes belong to the main group ISUP_92_Basic_Call.

TSS	TP	ISUP'92 reference	Selection expression	Q.784.1 reference
CSSV/CS/	IBC_I_1_1	N/A		1.1
Test purpose <i>Non-allocated circuits</i> To verify that on the receipt of a CIC relating to a circuit which does not exist, the IUT will discard the message and alert the maintenance system.				

TSS	TP	ISUP'92 reference	Selection expression	Q.784.1 reference
CSSV/RC/	IBC_V_1_2_1	2.9.3.1 b)/Q.764		1.2.1
Test purpose <i>RSC received on an idle circuit</i> To verify that on receipt of a Reset circuit message, the IUT will respond by sending a Release complete message.				

TSS	TP	ISUP'92 reference	Selection expression	Q.784.1 reference
CSSV/RC/	IBC_V_1_2_2	2.9.3.1/Q.764		1.2.2
Test purpose <i>RSC sent on an idle circuit</i> To verify that the IUT is able to generate a Reset circuit message.				

TSS	TP	ISUP'92 reference	Selection expression	Q.784.1 reference
CSSV/RC/	IBC_V_1_2_3	2.9.3.1 c)/Q.764		1.2.3
Test purpose <i>RSC received on a locally blocked circuit</i> To verify that on receipt of a Reset circuit message while in its locally blocked state, the IUT will respond by sending a Blocking message and a Release complete message.				

TSS	TP	ISUP'92 reference	Selection expression	Q.784.1 reference
CSSV/RC/	IBC_V_1_2_4	2.9.3.1 d)/Q.764		1.2.4
Test purpose <i>RSC received on a remotely blocked circuit</i> To verify that the IUT is able to react to a Reset circuit message for a remotely blocked circuit.				

TSS CSSV/RC/	TP IBC_V_1_2_5_a	ISUP'92 reference 2.9.3.2/Q.764	Selection expression	Q.784.1 reference 1.2.5
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Test purpose

Circuit group reset received

To verify that on receipt of one Circuit group reset message, the IUT will respond by sending a Circuit group reset acknowledge message.

TSS CSSV/RC/	TP IBC_S_1_2_5_b	ISUP'92 reference 2.9.3.2/Q.764	Selection expression	Q.784.1 reference 1.2.5
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Test purpose

Circuit group reset received

To verify that a Circuit group reset message is discarded by the IUT if there are no circuits affected by the message.

TSS CSSV/RC/	TP IBC_S_1_2_5_c	ISUP'92 reference 2.9.3.2/Q.764 2.9.3.3 i)/Q.764	Selection expression	Q.784.1 reference 1.2.5
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Test purpose

Circuit group reset received

To verify that a Circuit group reset message is discarded by the IUT if there are more than 32 circuits affected by the message.

TSS CSSV/RC/	TP IBC_V_1_2_6	ISUP'92 reference 2.9.3.2/Q.764	Selection expression	Q.784.1 reference 1.2.6
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Test purpose

Circuit group reset sent

To verify that the IUT is able to generate a Circuit group reset message.

TSS CSSV/RC/	TP IBC_V_1_2_7	ISUP'92 reference 2.9.3.2.d)/Q.764	Selection expression	Q.784.1 reference 1.2.7
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Test purpose

Circuit group reset received on remotely blocked circuits

To verify that the IUT is able to react to a Circuit group reset message correctly for remotely blocked circuits.

TSS CSSV/BC/CGBU/	TP IBC_V_1_3_1_1_a	ISUP'92 reference 2.8.2/Q.764 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.1
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Test purpose

CGB and CGU received (maintenance oriented)

To verify that the Circuit group blocking feature (maintenance oriented) can be correctly initiated.

TSS CSSV/BC/CGBU/	TP IBC_S_1_3_1_1_b	ISUP'92 reference 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.1
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Test purpose

CGB for 0 circuits received (maintenance oriented)

To verify that a Circuit group blocking message (maintenance oriented) is discarded by the IUT if there are no circuits affected by the message.

TSS CSSV/BC/CGBU/	TP IBC_S_1_3_1_1_c	ISUP'92 reference 2.8.2.3 ix)/Q.764	Selection expression	Q.784.1 reference 1.3.1.1
<p>Test purpose</p> <p><i>CGB for more than 32 circuits received (maintenance oriented)</i></p> <p>To verify that a Circuit group blocking message (maintenance oriented) is discarded by the IUT if there are more than 32 circuits affected by the message.</p>				

TSS CSSV/BC/CGBU/	TP IBC_V_1_3_1_1_d	ISUP'92 reference 2.8.2/Q.764 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.1
<p>Test purpose</p> <p><i>CGB and CGU received (hardware failure oriented)</i></p> <p>To verify that the Circuit group blocking feature (hardware failure oriented) can be correctly initiated.</p>				

TSS CSSV/BC/CGBU/	TP IBC_S_1_3_1_1_e	ISUP'92 reference 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.1
<p>Test purpose</p> <p><i>CGB for 0 circuits received (hardware failure oriented)</i></p> <p>To verify that a Circuit group blocking message (hardware failure oriented) is discarded by the IUT if there are no circuits affected by the message.</p>				

TSS CSSV/BC/CGBU/	TP IBC_S_1_3_1_1_f	ISUP'92 reference 2.8.2.3 ix)/Q.764	Selection expression	Q.784.1 reference 1.3.1.1
<p>Test purpose</p> <p><i>CGB for more than 32 circuits received (hardware failure oriented)</i></p> <p>To verify that a Circuit group blocking message (hardware failure oriented) is discarded by the IUT if there are more than 32 circuits affected by the message.</p>				

TSS CSSV/BC/CGBU/	TP IBC_V_1_3_1_2_a	ISUP'92 reference 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.2
<p>Test purpose</p> <p><i>CGB and CGU sent</i></p> <p>To verify that the IUT is able to generate a Circuit group blocking message and a Circuit group unblocking message (both maintenance oriented).</p>				

TSS CSSV/BC/CGBU/	TP IBC_V_1_3_1_2_b	ISUP'92 reference 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.2
<p>Test purpose</p> <p><i>CGB and CGU sent</i></p> <p>To verify that the IUT is able to generate a Circuit group blocking message and a Circuit group unblocking message (both hardware failure oriented).</p>				

TSS CSSV/BC/CGBU/	TP IBC_V_1_3_1_3	ISUP'92 reference 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.3
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Test purpose

Blocking with CGB (maintenance oriented); unblocking with UBL

To verify that a circuit which is blocked by a maintenance oriented Circuit group blocking message can be unblocked by a Unblocking message.

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_4	ISUP'92 reference 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.1.4
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Test purpose

UBL after CGB (hardware failure oriented)

To verify that a hardware failure oriented blocking state cannot be removed by an Unblocking message.

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_5_a	ISUP'92 reference 2.8.2.3 i)/Q.764	Selection expression	Q.784.1 reference 1.3.1.5
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Test purpose

CGB sent for remotely blocked circuits (maintenance oriented)

To verify that a Circuit group blocking acknowledgement message is returned if a Circuit group blocking message is received by the IUT for remotely blocked circuits (all maintenance oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_5_b	ISUP'92 reference 2.8.2.3 i)/Q.764	Selection expression	Q.784.1 reference 1.3.1.5
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Test purpose

CGB sent for remotely blocked circuits (hardware failure)

To verify that a Circuit group blocking acknowledgement message is returned if a Circuit group blocking message is received by the IUT for remotely blocked circuits (all hardware failure oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_6_a	ISUP'92 reference 2.8.2.3 ii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.6
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Test purpose

CGU sent for unblocked circuits (maintenance oriented)

To verify that a Circuit group unblocking acknowledge message is returned if a Circuit group unblocking message is received by the IUT for unblocked circuits (all maintenance oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_6_b	ISUP'92 reference 2.8.2.3 ii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.6
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Test purpose

CGU sent for unblocked circuits (hardware failure oriented)

To verify that a Circuit group unblocking acknowledge message is returned if a Circuit group unblocking message is received by the IUT for unblocked circuits (all hardware failure oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_7_a	ISUP'92 reference 2.8.2.3 iii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.7
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Test purpose

Circuit group blocking for unequipped circuits

To verify that the IUT will return a Circuit group blocking acknowledge message with no indication for unequipped circuits if the corresponding Circuit group blocking message contains unequipped circuits (all maintenance oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_7_b	ISUP'92 reference 2.8.2.3 iii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.7
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Test purpose

Circuit group blocking for unequipped circuits

To verify that the IUT will return a Circuit group blocking acknowledge message with no indication for unequipped circuits if the corresponding Circuit group blocking message contains unequipped circuits (all hardware failure oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_8_a	ISUP'92 reference 2.8.2.3 vi)/Q.764	Selection expression	Q.784.1 reference 1.3.1.8
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Test purpose

Wrong CGUA received

To verify that on receipt of a Circuit group unblocking acknowledge message which states unblocking of circuits which shall stay in locally blocked state, these circuits stay in locally blocked state and that the maintenance system is alerted (all maintenance oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_8_b	ISUP'92 reference 2.8.2.3 vi)/Q.764	Selection expression	Q.784.1 reference 1.3.1.8
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Test purpose

Wrong CGUA received

To verify that on receipt of a Circuit group unblocking acknowledge message which states unblocking of circuits which shall stay in locally blocked state, these circuits stay in locally blocked state and that the maintenance system is alerted (all hardware failure oriented).

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_9_a	ISUP'92 reference 2.8.2.3 vii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.9
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Test purpose

Unexpected CGBA

To verify that an unexpected Circuit group blocking acknowledge message (maintenance oriented) will be discarded by the IUT without blocking the affected circuits.

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_9_b	ISUP'92 reference 2.8.2.3 vii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.9
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Test purpose

Unexpected CGBA

To verify that an unexpected Circuit group blocking acknowledge message (hardware failure oriented) will be discarded by the IUT without blocking the affected circuits.

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_10_a	ISUP'92 reference 2.8.2.3 vii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.10
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Test purpose

Unexpected CGUA

To verify that an unexpected Circuit group unblocking acknowledge message (maintenance oriented) will be discarded by the IUT without unblocking the affected circuits.

TSS CSSV/BC/CGBU/	TP IBC_I_1_3_1_10_b	ISUP'92 reference 2.8.2.3 vii)/Q.764	Selection expression	Q.784.1 reference 1.3.1.10
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Test purpose

Unexpected CGUA

To verify that an unexpected Circuit group unblocking acknowledge message (hardware failure oriented) will be discarded by the IUT without unblocking the affected circuits.

TSS CSSV/BC/CBU/	TP IBC_V_1_3_2_1	ISUP'92 reference 2.8.2/Q.764	Selection expression	Q.784.1 reference 1.3.2.1
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Test purpose

BLO received

To verify that the blocking/unblocking procedure can be correctly initiated.

TSS CSSV/BC/CBU/	TP IBC_V_1_3_2_2	ISUP'92 reference 2.8.2/Q.764	Selection expression	Q.784.1 reference 1.3.2.2
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Test purpose

BLO sent

To verify that the IUT is able to generate Blocking messages.

TSS CSSV/BC/CBU/	TP IBC_V_1_3_2_3	ISUP'92 reference 2.8.2/Q.764 2.8.2.3 x)/Q.764	Selection expression	Q.784.1 reference 1.3.2.3
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Test purpose

Blocking from both ends; removal of blocking from one end

To verify that the blocking/unblocking procedure can be correctly initiated.

TSS CSSV/BC/CBU/	TP IBC_V_1_3_2_4	ISUP'92 reference 2.8.2.3 xiv)/Q.764	Selection expression	Q.784.1 reference 1.3.2.4
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Test purpose

IAM received on a remotely blocked circuit

To verify that a received IAM will unblock a remotely blocked circuit.

TSS CSSV/BC/CBU/	TP IBC_V_1_3_2_5	ISUP'92 reference 2.8.2/Q.764 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.2.5
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Test purpose

Blocking with CGB, unblocking with UBL

To verify that a circuit which is blocked by a maintenance-oriented circuit group blocking message can successfully be unblocked by a Unblocking message.

TSS CSSV/BC/CBU/	TP IBC_V_1_3_2_6	ISUP'92 reference 2.8.2/Q.764 2.8.2.2/Q.764	Selection expression	Q.784.1 reference 1.3.2.6
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Test purpose

Blocking with BLO, unblocking with CGU

To verify that a circuit which is blocked by a Blocking message can successfully be unblocked by a maintenance-oriented Circuit group unblocking message.

TSS CSSV/BC/CBU/	TP IBC_I_1_3_2_7	ISUP'92 reference 2.8.2.3 xi)/Q.764	Selection expression	Q.784.1 reference 1.3.2.7
<p>Test purpose</p> <p><i>Unblocking message for unblocked circuit</i></p> <p>To verify that the IUT will return an Unblocking acknowledge message if, for an unblocked circuit, an Unblocking message is received.</p>				

TSS CSSV/BC/CBU/	TP IBC_I_1_3_2_8	ISUP'92 reference 2.8.2.3 xii)/Q.764	Selection expression	Q.784.1 reference 1.3.2.8
<p>Test purpose</p> <p><i>Unexpected BLA for an unblocked circuit</i></p> <p>To verify that if an unexpected Blocking acknowledge message is received for an unblocked circuit, the circuit remains unblocked and that the maintenance system is alerted.</p>				

TSS CSSV/BC/CBU/	TP IBC_I_1_3_2_9	ISUP'92 reference 2.8.2.3 xiii)/Q.764	Selection expression	Q.784.1 reference 1.3.2.9
<p>Test purpose</p> <p><i>Unexpected UBA for blocked circuit</i></p> <p>To verify that after receiving an unexpected Unblocking acknowledge message for a blocked circuit, the IUT will alert the maintenance system and that the circuit remains blocked.</p>				

TSS CSSV/CCP/	TP IBC_V_1_4_1	ISUP'92 reference 2.1.8/Q.764	Selection expression	Q.784.1 reference 1.4.1
<p>Test purpose</p> <p><i>CCR received: Successful</i></p> <p>To verify that the continuity check procedure for the proper alignment of circuits can be correctly performed.</p>				

TSS CSSV/CCP/	TP IBC_V_1_4_2	ISUP'92 reference 2.1.8/Q.764	Selection expression PICS A.13/3	Q.784.1 reference 1.4.2
<p>Test purpose</p> <p><i>CCR sent: Successful</i></p> <p>To verify that the continuity check procedure for the proper alignment of circuits can be correctly performed.</p>				

TSS CSSV/CCP/	TP IBC_V_1_4_3	ISUP'92 reference 2.1.8/Q.764	Selection expression	Q.784.1 reference 1.4.3
<p>Test purpose</p> <p><i>CCR received: Unsuccessful</i></p> <p>To verify that the messages associated with an unsuccessful continuity check procedure can be correctly received by the IUT.</p>				

TSS CSSV/CCP/	TP IBC_V_1_4_4	ISUP'92 reference 2.1.8/Q.764	Selection expression PICS A.13/3	Q.784.1 reference 1.4.4
<p>Test purpose</p> <p><i>CCR sent unsuccessful</i></p> <p>To verify that the IUT can handle an unsuccessful continuity check procedure.</p>				

TSS CSSV/CCP/	TP IBC_I_1_4_5	ISUP'92 reference Table A.1/Q.764	Selection expression	Q.784.1 reference 1.4.5
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Test purpose

CCR not received; verify timer T27

To verify that the IUT sends a Reset circuit message if, after an unsuccessful continuity check within T27, there is no Continuity check request message received.

TSS CSSV/RUSIM/	TP IBC_I_1_5_1_a	ISUP'92 reference 2.9.5.1 a)/Q.764	Selection expression	Q.784.1 reference 1.5.1
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Test purpose

Receipt of unexpected messages

To verify that the IUT is able to send a Release complete message if an unexpected release message is received.

TSS CSSV/RUSIM/	TP IBC_I_1_5_1_b	ISUP'92 reference 2.9.5.1 b)/Q.764	Selection expression	Q.784.1 reference 1.5.1
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Test purpose

Receipt of unexpected messages

To verify that a release complete message is discarded by the IUT if it is sent relating to an idle circuit.

TSS CSSV/RUSIM/	TP IBC_I_1_5_1_c	ISUP'92 reference 2.9.5.1 e)/Q.764	Selection expression	Q.784.1 reference 1.5.1
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Test purpose

Receipt of unexpected messages

To verify that an unexpected message other than Release and release complete is discarded and that a Reset circuit message is returned by the IUT.

TSS CSSV/RUSIM/	TP IBC_I_1_5_2_a	ISUP'92 reference 2.9.5.1 e)/Q.764	Selection expression	Q.784.1 reference 1.5.2
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Test purpose

Receipt of unexpected messages during call setup

To verify that the IUT is able to discard an unexpected message after a backward message is received.

TSS CSSV/RUSIM/	TP IBC_I_1_5_2_b	ISUP'92 reference 2.9.5.1 e)/Q.764	Selection expression	Q.784.1 reference 1.5.2
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Test purpose

Receipt of unexpected messages during call setup

To verify that the IUT is able to send a Reset circuit message if an unexpected message is received before a backward message for an incoming call.

TSS CSSV/RUSIM/	TP IBC_I_1_5_3	ISUP'92 reference 2.9.5.1 c)/Q.764	Selection expression	Q.784.1 reference 1.5.3
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Test purpose

Unexpected RLC for a busy circuit

To verify that the IUT is able to Release a call if an unexpected Release complete message is received for a busy circuit.

TSS CSSV/RU/MS/	TP IBC_V_1_7_1_1	ISUP'92 reference 2.9.5.3.1 1) a)/Q.764 2.9.5.3.1 2) a)/Q.764	Selection expression	Q.784.1 reference 1.7.1.1
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Test purpose
Message compatibility information: Release call
 To verify that the IUT (type A and B exchanges) releases the call if indicated in the Message compatibility information.

TSS CSSV/RU/MS/	TP IBC_V_1_7_1_2_a	ISUP'92 reference 2.9.5.3.1 1) a)/Q.764 2.9.5.3.1 2) a)/Q.764	Selection expression	Q.784.1 reference 1.7.1.2
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Test purpose
Message compatibility information: Discard message
 To verify that the IUT (type A and B exchanges) is able to discard an unknown message, if indicated in the Message compatibility information and if the sending of a Confusion message is not requested.

TSS CSSV/RU/MS/	TP IBC_V_1_7_1_2_b	ISUP'92 reference 2.9.5.3.1 1) a)/Q.764 2.9.5.3.1 2) a)/Q.764	Selection expression	Q.784.1 reference 1.7.1.2
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Test purpose
Message compatibility information: Discard message
 To verify that the IUT (type A and B exchanges) is able to discard an unknown message and send back a Confusion message if indicated in the Message compatibility information and the sending of a Confusion message is requested.

TSS CSSV/RU/MS/	TP IBC_V_1_7_1_3	ISUP'92 reference 2.9.5.3.1 1) a)/Q.764 2.9.5.3.1 2) a)/Q.764	Selection expression	Q.784.1 reference 1.7.1.3
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Test purpose
Message compatibility information: Pass on
 To verify that the IUT (type A and B exchanges) is able to pass on an unknown message, if indicated in the Message compatibility information (bit A = 1).

TSS CSSV/RU/MS/	TP IBC_V_1_7_1_4	ISUP'92 reference 2.9.5.3.1 1) a)/Q.764 2.9.5.3.1 2) a)/Q.764	Selection expression	Q.784.1 reference 1.7.1.4
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Test purpose
Message compatibility information: Pass on not possible
 To verify that the IUT (type A and B exchanges) releases the call if pass on is not possible and if indicated in the Message compatibility information (bit A = 1).

TSS CSSV/RU/MS/	TP IBC_V_1_7_1_5	ISUP'92 reference 2.9.5.3.1 1) a)/Q.764 2.9.5.3.1 2) a)/Q.764	Selection expression	Q.784.1 reference 1.7.1.5
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Test purpose
Message compatibility information: Pass on not possible
 To verify that the IUT (type A and B exchanges) is able to discard an unknown message if pass on is not possible and if indicated in the Message compatibility information (bit A = 1).

TSS CSSV/RU/MS/	TP IBC_V_1_7_1_6	ISUP'92 reference 2.9.5.3.1 2) a)/Q.764	Selection expression Type B	Q.784.1 reference 1.7.1.6
<p>Test purpose</p> <p><i>Message compatibility information: Transit interpretation</i></p> <p>To verify that the IUT (type B exchange) is able to ignore the remaining part of the instruction indicator if A = 0.</p>				

TSS CSSV/RU/MS/	TP IBC_I_1_7_1_7	ISUP'92 reference 2.9.5.3.1 1) b)/Q.764 2.9.5.3.1 2) b)/Q.764	Selection expression	Q.784.1 reference 1.7.1.7
<p>Test purpose</p> <p><i>Unknown message without Message compatibility information</i></p> <p>To check that the IUT (type A and B exchanges) is able to discard an unknown message and send a Confusion message if the unknown message contains no Message compatibility information parameter.</p>				

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_1	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.1
<p>Test purpose</p> <p><i>Parameter compatibility information: Release call</i></p> <p>To verify that the IUT (type A and B exchanges) is able to release the call if indicated in the Parameter compatibility information (bit A = 1).</p>				

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_2_a	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.2
<p>Test purpose</p> <p><i>Parameter compatibility information: Discard message</i></p> <p>To verify that the IUT (type A and B exchanges) is able to discard the message containing an unknown parameter if indicated in the Parameter compatibility information and that a notification is not requested (bit A = 1).</p>				

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_2_b	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.2
<p>Test purpose</p> <p><i>Parameter compatibility information: Discard message</i></p> <p>To verify that the IUT (type A and B exchanges) is able to discard the message containing an unknown parameter and send a notification if indicated in the Parameter compatibility information and that a notification is requested (bit A = 1).</p>				

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_3_a	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.3
<p>Test purpose</p> <p><i>Parameter compatibility information: Discard parameter</i></p> <p>To verify that the IUT (type A and B exchanges) is able to discard an unknown parameter and send a notification, if indicated in the Parameter compatibility information (bit A = 1).</p>				

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_3_b	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.3
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Test purpose
Parameter compatibility information: Discard parameter
 To verify that the IUT (type A and B exchanges) is able to discard an unknown parameter if indicated in the Parameter compatibility information (bit A = 1).

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_4	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.4
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Test purpose
Parameter compatibility information: Pass on
 To verify that the IUT (type A and B exchanges) is able to pass on an unknown parameter if indicated in the Parameter compatibility information (bit A = 1).

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_5	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.5
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Test purpose
Parameter compatibility information: Pass on not possible, release call
 To verify that the IUT (type A and B exchanges) releases the call if pass on is not possible and if it is indicated in the Parameter compatibility information (bit A = 1).

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_6_a	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.6
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Test purpose
Parameter compatibility information: Pass on not possible, discard message
 To verify that the IUT (type A and B exchanges) is able to discard a message containing an unknown parameter and send a notification if pass on is not possible and if indicated in the Parameter compatibility information (bit A = 1).

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_6_b	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.6
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Test purpose
Parameter compatibility information: Pass on not possible, discard message
 To verify that the IUT (type A and B exchanges) is able to discard a message containing an unknown parameter if pass on is not possible and if indicated in the Parameter compatibility information (bit A = 1).

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_7_a	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.7
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Test purpose
Parameter compatibility information: Pass on not possible, discard parameter
 To verify that the IUT (type A and B exchanges) is able to discard an unknown parameter and send a notification if pass on is not possible and if indicated in the Parameter compatibility information (bit A = 1).

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_7_b	ISUP'92 reference 2.9.5.3.2 i) a)/Q.764 2.9.5.3.2 ii) a)/Q.764	Selection expression	Q.784.1 reference 1.7.2.7
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Test purpose

Parameter compatibility information: Pass on not possible, discard parameter

To verify that the IUT (type A and B exchanges) is able to discard an unknown parameter if pass on is not possible and if indicated in the Parameter compatibility information (bit A = 1).

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_8	ISUP'92 reference 2.9.5.3.2 ii) a)/Q.764	Selection expression Type B	Q.784.1 reference 1.7.2.8
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Test purpose

Parameter compatibility information: Transit interpretation

To verify that the IUT (type B exchange) is able to ignore the remaining part of the Instruction indicator if A = 0.

TSS CSSV/RU/PA/	TP IBC_I_1_7_2_9_a	ISUP'92 reference 2.9.5.3.2 i) b)/Q.764 2.9.5.3.2 ii) b)/Q.764	Selection expression PICS A.13/21	Q.784.1 reference 1.7.2.9
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Test purpose

Unknown parameter without Compatibility information: Pass on

To check that the IUT (type A and B exchanges) is able to pass on an unknown parameter if there is no Parameter compatibility information for it.

TSS CSSV/RU/PA/	TP IBC_I_1_7_2_9_b	ISUP'92 reference 2.9.5.3.2 i) b)/Q.764 2.9.5.3.2 ii) b)/Q.764	Selection expression PICS A.13/20	Q.784.1 reference 1.7.2.9
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Test purpose

Unknown parameter without Compatibility information: Discard

To check that the IUT (type A and B exchanges) is able to discard an unknown parameter and send a Confusion message if there is no Parameter compatibility information for it.

TSS CSSV/RU/PA/	TP IBC_I_1_7_2_10	ISUP'92 reference 2.9.5.3/Q.764	Selection expression	Q.784.1 reference 1.7.2.10
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Test purpose

Unknown parameter within a Release message

To check that the IUT (type A and B exchanges) is able to discard an unknown parameter in a Release message without returning a CFN message.

TSS CSSV/RU/PA/	TP IBC_I_1_7_2_11	ISUP'92 reference 2.9.5.3/Q.764	Selection expression	Q.784.1 reference 1.7.2.11
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Test purpose

Unknown parameter within a Confusion message

To check that the IUT (type A and B exchanges) is able to discard an unknown parameter within a CFN message without returning a CFN message.

TSS CSSV/RU/PA/	TP IBC_I_1_7_2_12	ISUP'92 reference 2.9.5.3/Q.764	Selection expression	Q.784.1 reference 1.7.2.12
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Test purpose

Unknown parameter within a Release complete message

To check that the IUT (type A and B exchanges) is able to discard an unknown parameter in a Release complete message without returning a CFN message.

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_13_a	ISUP'92 reference 2.9.5.4.1/Q.764	Selection expression Type A	Q.784.1 reference 1.7.2.13
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Test purpose

Response indicating unrecognized information, discard

To verify that the IUT (type A exchange) is able to discard a CFN message.

TSS CSSV/RU/PA/	TP IBC_V_1_7_2_13_b	ISUP'92 reference 2.9.5.4.2 ii) a)/Q.764	Selection expression Type B	Q.784.1 reference 1.7.2.13
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Test purpose

Response indicating unrecognized information, pass on

To verify that the IUT (type B exchange) is able to pass on transparently a CFN message.

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_9	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
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Test purpose

Receipt of unknown parameter values in the forward direction

To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.

Parameter: 3.9 Called party number (CdPN)

The Filler in the Address signals shall default to '0'H.

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_10_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
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Test purpose

Receipt of unknown parameter values in the forward direction

To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.

Parameter: 3.10 Calling party number (CgPN)

The CgPN parameter shall be discarded if the Nature of address indicator is coded with a spare value.

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_10_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
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Test purpose

Receipt of unknown parameter values in the forward direction

To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.

Parameter: 3.10 Calling party number (CgPN)

The CgPN parameter shall be discarded if the Numbering plan indicator is coded with a spare value.

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_10_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.10 Calling party number (CgPN)</p> <p>The Address presentation restricted indicator shall default to '01'B – presentation restricted.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_10_d	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.10 Calling party number (CgPN)</p> <p>The CgPN parameter shall be discarded if the Screening indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_10_e	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.10 Calling party number (CgPN)</p> <p>The Filler in the Address signals shall default to '0'H.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_11	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.11 Calling party's category (CgPC)</p> <p>The Calling party's category shall default to '0A'H – ordinary calling subscriber.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_23_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.23 Forward Call Indicators (FCIs)</p> <p>The End-to-end method indicator shall default to '00'B.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_23_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.23 Forward Call Indicators (FCIs)</p> <p>The End-to-end information indicator shall default to '0'B.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_23_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.23 Forward Call Indicators (FCIs).</p> <p>The SCCP method indicator shall default to '00'B.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_35_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.35 Nature of connection indicators (NatCon)</p> <p>The Satellite indicator set to the spare value ('11'B) shall default to '10'B – two satellites in the connection.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_35_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.35 Nature of connection indicators (NatCon)</p> <p>The Continuity check indicator set to the spare value ('11'B) shall default either to '00'B – continuity check not required or '01'B – continuity check required on this circuit and a Confusion message with cause 110 and diagnostics shall be sent.</p> <p>NOTE – The sending of the CFN message with cause #110 is an error in this case, because the parameter to be discarded belongs to the mandatory fixed part of the message.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_38	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.38 Optional Forward Call Indicators (OFCIs)</p> <p>The CUG call indicator shall default to '00'B – non-CUG call.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_39_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.39 Original called number (OriCdNb)</p> <p>The OriCdNb parameter shall be discarded if the Nature of address indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_39_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.39 Original called number (OriCdNb)</p> <p>The OriCdNb parameter shall be discarded if the Numbering plan indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_39_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.39 Original called number (OriCdNb)</p> <p>The Address presentation restricted indicator shall default to '01'B – presentation restricted.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_39_d	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.39 Original called number (OriCdNb)</p> <p>The Filler in the Address signals shall default to '0'H.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_44_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.44 Redirecting number (RgNb)</p> <p>The RgNb parameter shall be discarded if the Nature of address indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_44_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.44 Redirecting number (RgNb)</p> <p>The RgNb parameter shall be discarded if the Numbering plan indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_44_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.44 Redirecting number (RgNb)</p> <p>The Address presentation restricted indicator shall default to '01'B – presentation restricted.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_44_d	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.44 Redirecting number (RgNb)</p> <p>The RgNb parameter shall be discarded if the Screening indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_44_e	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.44 Redirecting number (RgNb)</p> <p>The Filler in the Address signals shall default to '0'H.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_45_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.45 Redirection information (RnInf)</p> <p>The spare value of the Redirecting indicator in the Redirection information shall default to '100'B – Call diversion, all redirection information presentation restricted.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_45_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.45 Redirection information (RnInf)</p> <p>The spare values of the Original redirection reason in the Redirection information shall default to '0'H – unknown/not available.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_45_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.45 Redirection information (RnInf)</p> <p>The spare values of the Redirection counter in the Redirection information shall default to 5 forwardings.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_45_d	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.45 Redirection information (RnInf)</p> <p>The spare value of the Redirecting reason in the Redirection information shall default to '0'H – unknown/not available.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_51	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.51 Subsequent number (SubNb)</p> <p>The Filler in the Subsequent number shall default to '0'H.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_60_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.60 User-to-user indicators (UUInd)</p> <p>The spare value of the Service 1 field in the User-to-user indicators shall default to '00'B – no information. The Type (bit A) is request (0).</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_60_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.60 User-to-user indicators (UUInd)</p> <p>The spare value of the Service 2 field in the User-to-user indicators shall default to '00'B – no information. The Type (bit A) is request (0).</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_a_60_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.60 User-to-user indicators (UUInd)</p> <p>The spare value of the Service 3 field in the User-to-user indicators shall default to '00'B – no information. The Type (bit A) is request (0).</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_b_9_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.9 Called party number (CdPN)</p> <p>The call shall be cleared if the Nature of address indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_b_9_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.9 Called party number (CdPN)</p> <p>The call shall be cleared if the Numbering plan indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_b_9_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.9 Called party number (CdPN)</p> <p>The call shall be cleared if a digit in the Address signals is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_b_23	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.23 Forward Call Indicators (FCIs)</p> <p>The call shall be cleared if the ISUP preference indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_b_51	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.51 Subsequent number (SubNb)</p> <p>The call shall be cleared if a digit in the Subsequent number is coded with a spare value.</p>				

TSS CSSV/RU/PV/FD/	TP IBC_S_1_7_3_1_b_54	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression	Q.784.1 reference 1.7.3.1
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the forward direction</i></p> <p>To verify that the IUT (type A and B exchanges) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.54 Transmission Medium Requirement (TMR)</p> <p>The call shall be cleared if the Transmission medium requirement is coded with a spare value.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_5_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.5 Backward Call Indicators (BCIs)</p> <p>The Charging indicator shall default to '10'B – charge.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_5_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.5 Backward Call Indicators (BCIs)</p> <p>The Called party's status indicator shall default to '00'B – no indication.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_5_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.5 Backward Call Indicators (BCIs)</p> <p>The Called party's category indicator shall default to '00'B – no indication.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_5_d	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.5 Backward Call Indicators (BCIs)</p> <p>The End-to-end method indicator shall default to '00'B – no end-to-end method available.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_5_e	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.5 Backward Call Indicators (BCIs)</p> <p>The End-to-end information indicator shall default to '0'B – no end-to-end information available.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_5_f	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.5 Backward Call Indicators (BCIs)</p> <p>The Holding indicator shall default to '0'B – holding not requested.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_5_g	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.5 Backward Call Indicators (BCIs)</p> <p>The SCCP method indicator shall default to '00'B – no indication.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_16_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.16 Connected number (ConNb)</p> <p>The Connected number parameter shall be discarded if the Nature of address indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_16_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.16 Connected number (ConNb)</p> <p>The Connected number parameter shall be discarded if the Numbering plan indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_16_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.16 Connected number (ConNb)</p> <p>The Address presentation restricted indicator shall default to '01'B – presentation restricted.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_16_d	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.16 Connected number (ConNb)</p> <p>The Connected number parameter shall be discarded if the Screening indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_16_e	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.16 Connected number (ConNb)</p> <p>The Filler in the Address signals shall default to '0'H.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_21	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.21 Event information (EvInf)</p> <p>The CPG message shall be discarded if the Event information is not recognized.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_46_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.46 Redirection number (RnNb)</p> <p>The Redirection number parameter shall be discarded if the Nature of address indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_46_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.46 Redirection number (RnNb)</p> <p>The Redirection number parameter shall be discarded if the Numbering plan indicator is coded with a spare value.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_46_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.46 Redirection number (RnNb)</p> <p>The Filler in the Address signals shall default to '0'H.</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_60_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.60 User-to-user indicators (UUInd)</p> <p>The spare value of the Service 1 field in the User-to-user indicators shall default to '00'B – no information. The Type (bit A) is response (1).</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_60_b	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.60 User-to-user indicators (UUInd)</p> <p>The spare value of the Service 2 field in the User-to-user indicators shall default to '00'B – no information. The Type (bit A) is response (1).</p>				

TSS CSSV/RU/PV/BD/	TP IBC_S_1_7_3_2_60_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.2
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the backward direction</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.60 User-to-user indicators (UUInd)</p> <p>The spare value of the Service 3 field in the User-to-user indicators shall default to '00'B – no information. The Type (bit A) is response (1).</p>				

TSS CSSV/RU/PV/	TP IBC_I_1_7_3_3	ISUP'92 reference Table A.2/Q.763 Table A.3/Q.763	Selection expression	Q.784.1 reference 1.7.3.3
<p>Test purpose</p> <p><i>Illegal value in the Type indicator of the Circuit group blocking message</i></p> <p>To verify the IUT is able to discard a Circuit group blocking message and sends a Confusion message if the Type indicator field of the Circuit group supervision message type indicator is set to an illegal value.</p>				

TSS CSSV/RU/PV/RM/	TP IBC_S_1_7_3_4_a_12_a	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.4
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the Release message</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.12 Cause indicators (Cause)</p> <p>The Coding standard of the Cause indicators shall default to '00'B – ITU-T.</p>				

TSS CSSV/RU/PV/RM/	TP IBC_S_1_7_3_4_a_12_b_1	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.4
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in Release message</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.12 Cause indicators (Cause)</p> <p>The Location in the Cause indicators shall default to '7'H – international network.</p>				

TSS CSSV/RU/PV/RM/	TP IBC_S_1_7_3_4_a_12_b_2	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.4
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the Release message</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.12 Cause indicators (Cause)</p> <p>The Location in the Cause indicators shall default to 'A'H – network beyond interworking point.</p>				

TSS CSSV/RU/PV/RM/	TP IBC_S_1_7_3_4_a_12_c	ISUP'92 reference 2.9.5.3.3/Q.764	Selection expression Gateway	Q.784.1 reference 1.7.3.4
<p>Test purpose</p> <p><i>Receipt of unknown parameter values in the Release message</i></p> <p>To verify that the IUT (type A exchange) is able to handle unknown parameter values as demanded in Annex A/Q.763.</p> <p>Parameter: 3.12 Cause indicators (Cause)</p> <p>The spare Cause value of the Cause indicators shall default to:</p> <ul style="list-style-type: none"> 31 – Normal event, unspecified (classes 000 and 001). 47 – Resource unavailable, unspecified (class 010). 63 – Service/option not available, unspecified (class 011). 79 – Service/option not implemented, unspecified (class 100). 95 – Invalid message, unspecified (class 101). 111 – Protocol error, unspecified (class 110). 127 – Interworking, unspecified (class 111). 				

TSS NCS/BWCS/	TP IBC_V_2_1_1	ISUP'92 reference 2.1/Q.764 2.9.1.4/Q.764	Selection expression	Q.784.1 reference 2.1.1
<p>Test purpose</p> <p><i>IAM sent by controlling SP</i></p> <p>To verify that the IUT can initiate an outgoing call on a circuit capable of bothway operation when the IUT is the controlling SP.</p>				

TSS NCS/BWCS/	TP IBC_V_2_1_2	ISUP'92 reference 2.1/Q.764 2.9.1.4/Q.764	Selection expression	Q.784.1 reference 2.1.2
<p>Test purpose</p> <p><i>IAM sent by non-controlling SP</i></p> <p>To verify that IUT can initiate an outgoing call on a circuit capable of both way operation when the IUT is the non-controlling SP.</p>				

TSS NCS/CAS/	TP IBC_V_2_2_1_a	ISUP'92 reference 2.1.1, 2.1.4, 2.1.7, 2.3/Q.764	Selection expression (OLE and PICS A.3/1) or (InterME and PICS A.3/5)	Q.784.1 reference 2.2.1
<p>Test purpose</p> <p><i>"en bloc" operation</i></p> <p>To verify that a call can be successfully established (all digits included in the outgoing IAM).</p>				

TSS NCS/CAS/	TP IBC_V_2_2_1_b	ISUP'92 reference 2.1.1, 2.1.4, 2.1.7, 2.3/Q.764	Selection expression	Q.784.1 reference 2.2.1
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Test purpose
"en bloc" operation
 To verify that a call can be successfully established (all digits included in the incoming IAM).

TSS NCS/CAS/	TP IBC_V_2_2_2_a	ISUP'92 reference 2.1.1, 2.1.4, 2.1.7, 2.3/Q.764	Selection expression (OLE and PICS A.3/2) or (IntermE and PICS A.3/6)	Q.784.1 reference 2.2.2
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Test purpose
overlap operation (with SAM)
 To verify that the IUT can initiate a call using an IAM followed by a SAM.

TSS NCS/CAS/	TP IBC_V_2_2_2_b	ISUP'92 reference 2.1.1, 2.1.4, 2.1.7, 2.3/Q.764	Selection expression	Q.784.1 reference 2.2.2
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Test purpose
overlap operation (with SAM)
 To verify that the IUT can receive a call using an IAM followed by a SAM.

TSS NCS/SCS/	TP IBC_V_2_3_1_a	ISUP'92 reference 2.1.4.1 2) b)/Q.764	Selection expression	Q.784.1 reference 2.3.1
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Test purpose
Ordinary call (with various indications in ACM)
 To verify that a call can be successfully completed using various indications in the address complete message.
 (Subscr free and ISDN.)

TSS NCS/SCS/	TP IBC_V_2_3_1_b	ISUP'92 reference 2.1.4.1 1) a)/Q.764	Selection expression	Q.784.1 reference 2.3.1
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Test purpose
Ordinary call (with various indications in ACM)
 To verify that a call can be successfully completed using various indications in the address complete message.
 (Subscr free and non-ISDN.)

TSS NCS/SCS/	TP IBC_V_2_3_1_c	ISUP'92 reference 2.1.4.1 2) a)/Q.764	Selection expression	Q.784.1 reference 2.3.1
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Test purpose
Ordinary call (with various indications in ACM)
 To verify that a call can be successfully completed using various indications in the address complete message. (No indication and ISDN.)

TSS NCS/SCS/	TP IBC_V_2_3_1_d	ISUP'92 reference 2.1.4.1 2) a)/Q.764	Selection expression	Q.784.1 reference 2.3.1
<p>Test purpose</p> <p><i>Ordinary call (with various indications in ACM)</i></p> <p>To verify that a call can be successfully completed using various indications in the address complete message. (No indication and non-ISDN.)</p>				

TSS NCS/SCS/	TP IBC_V_2_3_1_e	ISUP'92 reference 2.1.4.1 2) b)/Q.764	Selection expression	Q.784.1 reference 2.3.1
<p>Test purpose</p> <p><i>Ordinary call (with various indications in ACM)</i></p> <p>To verify that a call can be successfully completed using various indications in the address complete message. (Subscr free and ISDN.)</p>				

TSS NCS/SCS/	TP IBC_V_2_3_1_f	ISUP'92 reference 2.1.4.1 1) a)/Q.764	Selection expression	Q.784.1 reference 2.3.1
<p>Test purpose</p> <p><i>Ordinary call (with various indications in ACM)</i></p> <p>To verify that a call can be successfully completed using various indications in the address complete message. (Subscr free and non-ISDN.)</p>				

TSS NCS/SCS/	TP IBC_V_2_3_1_g	ISUP'92 reference 2.1.4.1 2) a)/Q.764	Selection expression	Q.784.1 reference 2.3.1
<p>Test purpose</p> <p><i>Ordinary call (with various indications in ACM)</i></p> <p>To verify that a call can be successfully completed using various indications in the address complete message. (No indication and ISDN.)</p>				

TSS NCS/SCS/	TP IBC_V_2_3_1_h	ISUP'92 reference 2.1.4.1 1) b)/Q.764	Selection expression	Q.784.1 reference 2.3.1
<p>Test purpose</p> <p><i>Ordinary call (with various indications in ACM)</i></p> <p>To verify that a call can be successfully completed using various indications in the address complete message. (No indication and non-ISDN.)</p>				

TSS NCS/SCS/	TP IBC_V_2_3_2_a	ISUP'92 reference 2.1.5/Q.764	Selection expression	Q.784.1 reference 2.3.2
<p>Test purpose</p> <p><i>Ordinary outgoing call (with ACM, CPG, and ANM)</i></p> <p>To verify that a call can be successfully completed using an address complete message, a call progress message, and an answer message (CPG alerting).</p>				

TSS NCS/SCS/	TP IBC_V_2_3_2_b	ISUP'92 reference 2.1.5/Q.764	Selection expression	Q.784.1 reference 2.3.2
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Test purpose

Ordinary outgoing call (with ACM, CPG, and ANM)

To verify that a call can be successfully completed using an address complete message, a call progress message, and an answer message (CPG progress).

TSS NCS/SCS/	TP IBC_V_2_3_2_c	ISUP'92 reference 2.1.5/Q.764	Selection expression	Q.784.1 reference 2.3.2
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Test purpose

Ordinary outgoing call (with ACM, CPG, and ANM)

To verify that a call can be successfully completed using an address complete message, a call progress message, and an answer message (CPG in-band information).

TSS NCS/SCS/	TP IBC_V_2_3_2_d	ISUP'92 reference 2.1.5/Q.764	Selection expression	Q.784.1 reference 2.3.2
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Test purpose

Ordinary incoming call (with ACM, CPG, and ANM)

To verify that a call can be successfully completed using an address complete message, a call progress message, and an answer message (CPG alerting).

TSS NCS/SCS/	TP IBC_V_2_3_2_e	ISUP'92 reference 2.1.5/Q.764	Selection expression	Q.784.1 reference 2.3.2
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Test purpose

Ordinary incoming call (with ACM, CPG, and ANM)

To verify that a call can be successfully completed using an address complete message, a call progress message, and an answer message (CPG progress).

TSS NCS/SCS/	TP IBC_V_2_3_2_f	ISUP'92 reference 2.1.5/Q.764	Selection expression	Q.784.1 reference 2.3.2
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Test purpose

Ordinary incoming call (with ACM, CPG, and ANM)

To verify that a call can be successfully completed using an address complete message, a call progress message, and an answer message (CPG in-band information).

TSS NCS/SCS/	TP IBC_V_2_3_3	ISUP'92 reference 2.1.4.1 ii)/Q.764	Selection expression	Q.784.1 reference 2.3.3
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Test purpose

Ordinary call (with CON)

To verify that a call can be successfully completed using the connect message (indications: subscriber free and access ISDN).

TSS NCS/SCS/	TP IBC_V_2_3_4_a	ISUP'92 reference 2.1.1.2 b)/Q.764	Selection expression	Q.784.1 reference 2.3.4
<p>Test purpose</p> <p><i>Call switched via satellite</i></p> <p>To verify that the satellite indicator in the initial address message is correctly set (No satellite already in the connection).</p>				

TSS NCS/SCS/	TP IBC_V_2_3_4_b	ISUP'92 reference 2.1.1.2 b)/Q.764	Selection expression	Q.784.1 reference 2.3.4
<p>Test purpose</p> <p><i>Call switched via satellite</i></p> <p>To verify that the satellite indicator in the initial address message is correctly set (1 satellite already in the connection).</p>				

TSS NCS/SCS/	TP IBC_V_2_3_4_c	ISUP'92 reference 2.1.1.2 b)/Q.764	Selection expression	Q.784.1 reference 2.3.4
<p>Test purpose</p> <p><i>Call switched via satellite</i></p> <p>To verify that the satellite indicator in the initial address message is correctly set (2 satellites already in the connection).</p>				

TSS NCS/SCS/	TP IBC_V_2_3_5_a	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.5
<p>Test purpose</p> <p><i>Blocking and unblocking during a call (initiated)</i></p> <p>To verify that the circuit blocking and unblocking procedure can be correctly initiated after ANM – outgoing call.</p>				

TSS NCS/SCS/	TP IBC_V_2_3_5_b	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.5
<p>Test purpose</p> <p><i>Blocking and unblocking during a call (initiated)</i></p> <p>To verify that the circuit blocking and unblocking procedure can be correctly initiated after ACM – outgoing call.</p>				

TSS NCS/SCS/	TP IBC_V_2_3_5_c	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.5
<p>Test purpose</p> <p><i>Blocking and unblocking during a call (initiated)</i></p> <p>To verify that the circuit blocking and unblocking procedure can be correctly initiated after ANM – incoming call.</p>				

TSS NCS/SCS/	TP IBC_V_2_3_5_d	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.5
<p>Test purpose</p> <p><i>Blocking and unblocking during a call (initiated)</i></p> <p>To verify that the circuit blocking and unblocking procedure can be correctly initiated after ACM – incoming call.</p>				

TSS NCS/SCS/	TP IBC_V_2_3_6_a	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.6
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Test purpose
Blocking and unblocking during a call (received)
 To verify that the circuit blocking and unblocking procedure can be correctly received after ANM – outgoing call.

TSS NCS/SCS/	TP IBC_V_2_3_6_b	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.6
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Test purpose
Blocking and unblocking during a call (received)
 To verify that the circuit blocking and unblocking procedure can be correctly received after ACM – outgoing call.

TSS NCS/SCS/	TP IBC_V_2_3_6_c	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.6
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Test purpose
Blocking and unblocking during a call (received)
 To verify that the circuit blocking and unblocking procedure can be correctly received after ANM – incoming call.

TSS NCS/SCS/	TP IBC_V_2_3_6_d	ISUP'92 reference 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 2.3.6
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Test purpose
Blocking and unblocking during a call (received)
 To verify that the circuit blocking and unblocking procedure can be correctly received after ACM – incoming call.

TSS NCS/PDDP/	TP IBC_V_2_4_1	ISUP'92 reference 2.6/Q.764	Selection expression IntermE and PICS A.13/11	Q.784.1 reference 2.4.1
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Test purpose
IAM sent containing the PDC
 To verify that the IUT is able to increase the PDC by the delay value of the outgoing route (D ms).

TSS NCS/PDDP/	TP IBC_V_2_4_2	ISUP'92 reference 2.6/Q.764	Selection expression IntermE	Q.784.1 reference 2.4.2
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Test purpose
Sending of call history information
 To verify that a call can be successfully completed and the value of the call history information is higher than the value of the propagation delay counter.

TSS NCS/PDDP/	TP IBC_V_2_4_3_a	ISUP'92 reference 2.6/Q.764	Selection expression IntermE	Q.784.1 reference 2.4.3
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Test purpose
Abnormal procedures, protocol delay counter not received
 To verify that the IUT is able to include a PDC in the IAM.

TSS NCS/PDDP/	TP IBC_V_2_4_3_b	ISUP'92 reference 2.6/Q.764	Selection expression PICS A.13/11 and PICS A.10/2	Q.784.1 reference 2.4.3
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Test purpose
Abnormal procedures, call history information not received
Check that the IUT conveys the Call history information correctly.

TSS NCR/	TP IBC_V_3_1_a	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.1
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Test purpose
Calling party clears before address complete, outgoing call
To verify that the calling party can successfully release a call prior to receipt of any backward message.

TSS NCR/	TP IBC_V_3_1_b	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.1
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Test purpose
Calling party clears before address complete, incoming call
To verify that the calling party can successfully release a call prior to receipt of any backward message.

TSS NCR/	TP IBC_V_3_2_a	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.2
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Test purpose
Calling party clears before answer, outgoing call
To verify that the calling party can successfully release a call prior to receipt of answer.

TSS NCR/	TP IBC_V_3_2_b	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.2
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Test purpose
Calling party clears before answer, incoming call
To verify that the calling party can successfully release a call prior to receipt of answer.

TSS NCR/	TP IBC_V_3_3_a	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.3
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Test purpose
Calling party clears after answer, outgoing call
To verify that the calling party can successfully release a call after answer.

TSS NCR/	TP IBC_V_3_3_b	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.3
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Test purpose
Calling party clears after answer, incoming call
To verify that the calling party can successfully release a call after answer.

TSS NCR/	TP IBC_V_3_4_a	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.4
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Test purpose
Called party clears after answer, outgoing call
 To verify that a call can be successfully released in the backward direction.

TSS NCR/	TP IBC_V_3_4_b	ISUP'92 reference 2.3/Q.764	Selection expression	Q.784.1 reference 3.4
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Test purpose
Called party clears after answer, incoming call
 To verify that a call can be successfully released in the backward direction.

TSS NCR/	TP IBC_V_3_5_a	ISUP'92 reference 2.4/Q.764	Selection expression	Q.784.1 reference 3.5
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Test purpose
Suspend initiated by the network, outgoing call
 To verify that the called subscriber can successfully clear back and reanswer the call.

TSS NCR/	TP IBC_V_3_5_b	ISUP'92 reference 2.4/Q.764	Selection expression IntermE	Q.784.1 reference 3.5
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Test purpose
Suspend initiated by the network, incoming call
 To verify that the called subscriber can successfully clear back and reanswer the call.

TSS NCR/	TP IBC_V_3_8	ISUP'92 reference 2.3.1 e)/Q.764	Selection expression	Q.784.1 reference 3.8
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Test purpose
Collision of REL messages
 To verify that a release message may be received at an exchange from a succeeding or preceding exchange after the release of the switch path is initiated.

TSS UCS/	TP IBC_V_4_1_a	ISUP'92 reference 2.2/Q.764	Selection expression	Q.784.1 reference 4.1
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Test purpose
Validate a set of known causes for release
 To verify that the call is released immediately by the outgoing signalling point, if a release message with a given cause is received and the correct indication is given to the calling party.

TSS UCS/	TP IBC_V_4_1_b	ISUP'92 reference 2.2/Q.764	Selection expression	Q.784.1 reference 4.1
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Test purpose
Validate a set of known causes for release
 To verify that the call is released immediately by the outgoing signalling point, if a release message with a given cause is received and the correct indication is given to the calling party.

TSS AS/	TP IBC_V_5_1	ISUP'92 reference 2.9.8.1/Q.764	Selection expression	Q.784.1 reference 5.1
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Test purpose

Inability to release in response to a REL after ANM

To verify that, if the SP is unable to return a circuit to the idle condition in response to a release message, the circuit will be blocked.

TSS AS/T/	TP IBC_I_5_2_1	ISUP'92 reference 2.9.8.3/Q.764	Selection expression	Q.784.1 reference 5.2.1
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Test purpose

T7: waiting for ACM or CON

To check that at the expiry of T7 the circuit will be released.

TSS AS/T/	TP IBC_V_5_2_2	ISUP'92 reference 2.9.8.3 a)/Q.764	Selection expression CntrlE	Q.784.1 reference 5.2.2
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Test purpose

T9: waiting for ANM

To verify that, if an answer message is not received within T9 after receiving an address complete message, the connection is released by the outgoing signalling point.

TSS AS/T/	TP IBC_I_5_2_3	ISUP'92 reference 2.2, 2.9.6/Q.764	Selection expression	Q.784.1 reference 5.2.3
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Test purpose

T1 and T5: failure to receive a RLC

To verify that appropriate actions take place at the expiry of timers T1 and T5.

TSS AS/T/	TP IBC_V_5_2_4	ISUP'92 reference 2.4.1.3, 2.4.2.3, 2.4.3/Q.764	Selection expression CntrlE	Q.784.1 reference 5.2.4
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Test purpose

T6: waiting for RES (network)

To verify that the call is released at the expiry of timer T6.

TSS AS/T/	TP IBC_I_5_2_5	ISUP'92 reference 2.9.8.3/Q.764	Selection expression	Q.784.1 reference 5.2.5
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Test purpose

T8: waiting for COT message if applicable

To verify that when the IAM indicates that the continuity check is required or performed on a previous circuit and the COT message is not received within T8, the connection is released by the incoming signalling point.

TSS AS/T/	TP IBC_I_5_2_6	ISUP'92 reference 2.9.4/Q.764	Selection expression	Q.784.1 reference 5.2.6
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Test purpose

T12 and T13: failure to receive a BLA

To verify that appropriate actions take place at the expiry of timers T12 and T13.

TSS AS/T/	TP IBC_I_5_2_7	ISUP'92 reference 2.9.4/Q.764	Selection expression	Q.784.1 reference 5.2.7
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Test purpose

T14 and T15: failure to receive a UBA

To verify that appropriate actions take place at the expiry of timers T14 and T15.

TSS AS/T/	TP IBC_I_5_2_8	ISUP'92 reference 2.9.3.1/Q.764	Selection expression	Q.784.1 reference 5.2.8
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Test purpose

T16 and T17: failure to receive a RLC

To verify that appropriate actions take place at the expiry of timers T16 and T17.

TSS AS/T/	TP IBC_I_5_2_9	ISUP'92 reference 2.9.4/Q.764	Selection expression	Q.784.1 reference 5.2.9
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Test purpose

T18 and T19: failure to receive a CGBA

To verify that appropriate actions take place at the expiry of timers T18 and T19.

TSS AS/T/	TP IBC_I_5_2_10	ISUP'92 reference 2.9.4/Q.764	Selection expression	Q.784.1 reference 5.2.10
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Test purpose

T20 and T21: failure to receive a CGUA

To verify that appropriate actions take place at the expiry of timers T20 and T21.

TSS AS/T/	TP IBC_I_5_2_11	ISUP'92 reference 2.9.3.2/Q.764	Selection expression	Q.784.1 reference 5.2.11
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Test purpose

T22 and T23: failure to receive a GRA

To verify that appropriate actions take place at the expiry of timers T22 and T23.

TSS AS/RCDC/	TP IBC_V_5_3_1	ISUP'92 reference 2.9.3.1 a)/Q.764	Selection expression	Q.784.1 reference 5.3.1
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Test purpose

Reset of an outgoing circuit during a call

To verify that on receipt of a RSC message the call is immediately released.

TSS AS/RCDC/	TP IBC_V_5_3_2	ISUP'92 reference 2.9.3.1 a)/Q.764	Selection expression	Q.784.1 reference 5.3.2
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Test purpose

Reset of an incoming circuit during a call

To verify that on receipt of a RSC message the call is immediately released.

TSS SCS/CCC/	TP IBC_V_6_1_1_a	ISUP'92 reference 2.1.8/Q.764	Selection expression PICS A.13/3	Q.784.1 reference 6.1.1
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Test purpose
Continuity check required
 To verify that a call can be set up on a circuit requiring a continuity check – outgoing call.

TSS SCS/CCC/	TP IBC_V_6_1_1_b	ISUP'92 reference 2.1.8/Q.764	Selection expression	Q.784.1 reference 6.1.1
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Test purpose
Continuity check required
 To verify that a call can be set up on a circuit requiring a continuity check – incoming call.

TSS SCS/CCC/	TP IBC_V_6_1_2	ISUP'92 reference 2.1.8/Q.764 7/Q.724	Selection expression	Q.784.1 reference 6.1.2
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Test purpose
COT applied on a previous circuit
 To verify if a continuity check is being performed on a previous circuit, a backward message is delayed until receipt of the COT message.

TSS SCS/CCC/	TP IBC_V_6_1_3_a	ISUP'92 reference 2.3, 2.1.8/Q.764	Selection expression PICS A.13/3	Q.784.1 reference 6.1.3
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Test purpose
Calling party clears during a COT
 To verify that the calling party can successfully clear the call during the continuity check phase – outgoing call.

TSS SCS/CCC/	TP IBC_V_6_1_3_b	ISUP'92 reference 2.3, 2.1.8/Q.764	Selection expression	Q.784.1 reference 6.1.3
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Test purpose
Calling party clears during a COT
 To verify that the calling party can successfully clear the call during the continuity check phase – incoming call.

TSS SCS/CCC/	TP IBC_V_6_1_4_a	ISUP'92 reference 2.1.8/Q.764	Selection expression PICS A.13/3	Q.784.1 reference 6.1.4
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Test purpose
Delay of through connect
 To verify that the completion of the speech path is delayed until the residual check-tone has propagated through the return of the speech path (outgoing call).

TSS SCS/CCC/	TP IBC_V_6_1_4_b	ISUP'92 reference 2.1.8/Q.764	Selection expression	Q.784.1 reference 6.1.4
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Test purpose
Delay of through connect
 To verify that the completion of the speech path is delayed until the residual check-tone has propagated through the return of the speech path (incoming call).

TSS SCS/CCC/	TP IBC_V_6_1_5	ISUP'92 reference 2.1.8, 2.8.1 iv), Table A.1/Q.764	Selection expression PICS A.13/3	Q.784.1 reference 6.1.5
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Test purpose
COT unsuccessful
To verify that a repeat attempt of the continuity check is made on the failed circuit.

TSS SCS/ARA/	TP IBC_V_6_2_1	ISUP'92 reference 2.8.1 i), 2.9.1.4/Q.764	Selection expression	Q.784.1 reference 6.2.1
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Test purpose
Dual seizure for non-controlling SP
To verify that an automatic repeat attempt will be made on detection of a dual seizure.

TSS SCS/ARA/	TP IBC_V_6_2_2	ISUP'92 reference 2.8.1 ii), 2.8.2.1/Q.764	Selection expression	Q.784.1 reference 6.2.2
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Test purpose
Blocking of a circuit
To verify that an automatic repeat attempt will be made on receipt of the blocking message after sending an initial address message and before any backward messages have been received.

TSS SCS/ARA/	TP IBC_V_6_2_3	ISUP'92 reference 2.8.1 iii)/Q.764	Selection expression	Q.784.1 reference 6.2.3
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Test purpose
Circuit reset
To verify that an automatic repeat attempt will be made on receipt of the reset circuit message after sending an initial address message and before any backward messages have been received.

TSS SCS/ARA/	TP IBC_V_6_2_4	ISUP'92 reference 2.1.8, 2.8.1 iv), Table A.1/Q.764	Selection expression	Q.784.1 reference 6.2.4
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Test purpose
Continuity check required
To verify that an automatic repeat attempt will be made on continuity check failure.

TSS SCS/ARA/	TP IBC_I_6_2_5	ISUP'92 reference 2.8.1 iv), 2.9.5.1 d)/Q.764	Selection expression	Q.784.1 reference 6.2.5
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Test purpose
Receipt of unreasonable signalling information
To verify that an automatic repeat attempt will be made on receipt of unreasonable signalling information after sending an initial address message and before receiving any backward messages.

TSS SCS/DS/	TP IBC_V_6_3_1	ISUP'92 reference 2.8.1 i), 2.9.1.4/Q.764	Selection expression	Q.784.1 reference 6.3.1
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Test purpose
Dual seizure for controlling SP
 To verify that on detection of dual seizure, the call initiated by the controlling signalling point is completed and the non-controlling signalling point is backed off.

TSS SCS/SAO/	TP IBC_V_6_4_1	ISUP'92 reference 2.1.10, 2.1.1.7.1/Q.764	Selection expression OutIE and PICS A.13/6	Q.784.1 reference 6.4.1
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Test purpose
FOT sent following a call to a subscriber
 To verify that the FOT is correctly sent.

TSS SCS/SAO/	TP IBC_V_6_4_2	ISUP'92 reference 2.1.10, 2.1.1.7.1/Q.764	Selection expression IncIE and PICS A.13/6	Q.784.1 reference 6.4.2
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Test purpose
FOT received following a call to a subscriber
 To verify that the FOT is correctly received.

TSS SCS/SAO/	TP IBC_V_6_4_3	ISUP'92 reference 2.1.10, 2.1.1.7.1/Q.764	Selection expression Gateway and PICS A.13/6	Q.784.1 reference 6.4.3
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Test purpose
FOT sent following a call via codes 11 and 12
 To verify that the FOT is correctly sent.

TSS SCS/SAO/	TP IBC_V_6_4_4	ISUP'92 reference 2.1.10, 2.1.1.7.1/Q.764	Selection expression Gateway and PICS A.13/6	Q.784.1 reference 6.4.4
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Test purpose
FOT received following a call via codes 11 and 12
 To verify that the FOT is correctly received.

TSS SCS/SGM/	TP IBC_V_6_5_1	ISUP'92 reference 2.1.12/Q.764	Selection expression PICS A.13/7	Q.784.1 reference 6.5.1
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Test purpose
Sending of SGM
 Verify that a call can be successfully completed if segmentation applies.

TSS SCS/SGM/	TP IBC_V_6_5_2	ISUP'92 reference 2.6/Q.764	Selection expression PICS A.13/7	Q.784.1 reference 6.5.2
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Test purpose
Receipt of SGM
 Verify that a call can be successfully completed if segmentation applies.

TSS SCS/SGM/	TP IBC_V_6_5_3	ISUP'92 reference 2.1.12/Q.764	Selection expression PICS A.13/7	Q.784.1 reference 6.5.3
<p>Test purpose</p> <p><i>Receipt of SGM after timer T34 expired</i></p> <p>Verify that a call can be successfully completed if segmentation applies and that the SGM message will be discarded if the IUT receives it after T34 expires.</p>				

TSS SCS/FB/	TP IBC_V_6_6_1	ISUP'92 reference 2.5.2/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.1
<p>Test purpose</p> <p><i>Fallback does not occur</i></p> <p>To verify that a call can be successfully completed if fallback does not occur.</p>				

TSS SCS/FB/	TP IBC_V_6_6_2_a	ISUP'92 reference 2.5.2/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.2
<p>Test purpose</p> <p><i>Fallback occurs behind the IUT</i></p> <p>To verify that a call can be successfully completed if fallback occurs behind the IUT and it is indicated in the ACM.</p>				

TSS SCS/FB/	TP IBC_V_6_6_2_b	ISUP'92 reference 2.5.2/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.2
<p>Test purpose</p> <p><i>Fallback occurs behind the IUT</i></p> <p>To verify that a call can be successfully completed if fallback occurs behind the IUT and it is indicated in the CPG.</p>				

TSS SCS/FB/	TP IBC_V_6_6_2_c	ISUP'92 reference 2.5.2/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.2
<p>Test purpose</p> <p><i>Fallback occurs behind the IUT</i></p> <p>To verify that a call can be successfully completed if fallback occurs behind the IUT and it is indicated in the ANM.</p>				

TSS SCS/FB/	TP IBC_V_6_6_2_d	ISUP'92 reference 2.5.2/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.2
<p>Test purpose</p> <p><i>Fallback occurs behind the IUT</i></p> <p>To verify that a call can be successfully completed if fallback occurs behind the IUT and it is indicated in the CON.</p>				

TSS SCS/FB/	TP IBC_V_6_6_3_a	ISUP'92 reference 2.5.1.2.2, 2.5.1.3/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.3
<p>Test purpose</p> <p><i>Fallback occurs in the IUT</i></p> <p>To verify that the IUT is able to perform Fallback (indication in ACM).</p>				

TSS SCS/FB/	TP IBC_V_6_6_3_b	ISUP'92 reference 2.5.1, 2.5.1.2, 2.5.2.2.2, 2 2.5.1.3/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.3
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Test purpose
Fallback occurs in the IUT
To verify that the IUT is able to perform Fallback (indication in CPG).

TSS SCS/FB/	TP IBC_V_6_6_3_c	ISUP'92 reference 2.5.3/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.3
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Test purpose
Fallback occurs in the IUT
To verify that the IUT is able to perform Fallback (indication in ANM).

TSS SCS/FB/	TP IBC_V_6_6_3_d	ISUP'92 reference 2.5.3/Q.764	Selection expression PICS A.13/10	Q.784.1 reference 6.6.3
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Test purpose
Fallback occurs in the IUT
To verify that the IUT is able to perform fallback (indication in CON).

TSS BS/UNR/	TP IBC_V_7_1_1_a	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
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Test purpose
Successful call setup
To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (outgoing call, 2.4 kbit/s).

TSS BS/UNR/	TP IBC_V_7_1_1_b	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
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Test purpose
Successful call setup
To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (outgoing call, 4.8 kbit/s).

TSS BS/UNR/	TP IBC_V_7_1_1_c	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
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Test purpose
Successful call setup
To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (outgoing call, 9.6 kbit/s).

TSS BS/UNR/	TP IBC_V_7_1_1_d	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
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Test purpose
Successful call setup
To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (outgoing call, 19.2 kbit/s).

TSS BS/UNR/	TP IBC_V_7_1_1_e	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (outgoing call, 64 kbit/s).</p>				

TSS BS/UNR/	TP IBC_V_7_1_1_f	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (incoming call, 2.4 kbit/s).</p>				

TSS BS/UNR/	TP IBC_V_7_1_1_g	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (incoming call, 4.8 kbit/s).</p>				

TSS BS/UNR/	TP IBC_V_7_1_1_h	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (incoming call, 9.6 kbit/s).</p>				

TSS BS/UNR/	TP IBC_V_7_1_1_i	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (incoming call, 19.2 kbit/s).</p>				

TSS BS/UNR/	TP IBC_V_7_1_1_j	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 64 kbit/s call can be successfully completed using appropriate transmission medium requirement and user service information parameters (incoming call, 64 kbit/s).</p>				

TSS BS/UNR/	TP IBC_V_7_1_2_a	ISUP'92 reference 2.2/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.2
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Test purpose
Unsuccessful call setup
To verify that the call will be immediately released by the outgoing signalling point, if a release message with a given cause is received and for circuits equipped with echo control, the echo control device is enabled (cause: unallocated number).

TSS BS/UNR/	TP IBC_V_7_1_2_b	ISUP'92 reference 2.2/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.2
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Test purpose
Unsuccessful call setup
To verify that the call will be immediately released by the outgoing signalling point, if a release message with a given cause is received and for circuits equipped with echo control, the echo control device is enabled (cause: no circuit available).

TSS BS/UNR/	TP IBC_V_7_1_2_c	ISUP'92 reference 2.2/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.2
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Test purpose
Unsuccessful call setup
To verify that the call will be immediately released by the outgoing signalling point, if a release message with a given cause is received and for circuits equipped with echo control, the echo control device is enabled (cause: BC not authorized).

TSS BS/UNR/	TP IBC_V_7_1_2_d	ISUP'92 reference 2.2/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.2
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Test purpose
Unsuccessful call setup
To verify that the call will be immediately released by the outgoing signalling point, if a release message with a given cause is received and for circuits equipped with echo control, the echo control device is enabled (cause: BC not presently available).

TSS BS/UNR/	TP IBC_V_7_1_2_e	ISUP'92 reference 2.2/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.2
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Test purpose
Unsuccessful call setup
To verify that the call will be immediately released by the outgoing signalling point, if a release message with a given cause is received and for circuits equipped with echo control, the echo control device is enabled (cause: BC not implemented).

TSS BS/UNR/	TP IBC_V_7_1_3	ISUP'92 reference 2.8.1 i), 2.9.1.4/Q.764	Selection expression PICS A.2/3	Q.784.1 reference 7.1.3
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Test purpose
Dual seizure
To verify that an automatic repeat attempt will be made on detection of a dual seizure with two 64 kbit/s calls.

TSS BS/AUD/	TP IBC_V_7_2_1_a	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/2	Q.784.1 reference 7.2.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 3.1 kHz audio call can be successfully completed using appropriate transmission medium requirement and user service information parameters (outgoing call).</p>				

TSS BS/AUD/	TP IBC_V_7_2_1_b	ISUP'92 reference 2.1/Q.764	Selection expression PICS A.2/2	Q.784.1 reference 7.2.1
<p>Test purpose</p> <p><i>Successful call setup</i></p> <p>To verify that a 3.1 kHz audio call can be successfully completed using appropriate transmission medium requirement and user service information parameters (incoming call).</p>				

TSS BS/MCT/	TP IBC_V_7_3_1_a	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.1
<p>Test purpose</p> <p><i>Outgoing call with "2 × 64 kbit/s unrestricted": Successful</i></p> <p>To verify that the IUT is able to set up an outgoing call with the bearer service "2 × 64 kbit/s unrestricted".</p>				

TSS BS/MCT/	TP IBC_V_7_3_1_b	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.1
<p>Test purpose</p> <p><i>Outgoing call with "384 kbit/s unrestricted": Successful</i></p> <p>To verify that the IUT is able to set up an outgoing call with the bearer service "384 kbit/s unrestricted".</p>				

TSS BS/MCT/	TP IBC_V_7_3_1_c	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.1
<p>Test purpose</p> <p><i>Outgoing call with "1536 kbit/s unrestricted": Successful</i></p> <p>To verify that the IUT is able to set up an outgoing call with the bearer service "1536 kbit/s unrestricted".</p>				

TSS BS/MCT/	TP IBC_V_7_3_1_d	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.1
<p>Test purpose</p> <p><i>Outgoing call with "1920 kbit/s unrestricted": Successful</i></p> <p>To verify that the IUT is able to set up an outgoing call with the bearer service "1920 kbit/s unrestricted".</p>				

TSS BS/MCT/	TP IBC_V_7_3_2_a	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.2
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Test purpose
Incoming call with "2 × 64 kbit/s unrestricted": Successful
 To verify that the IUT is able to set up an incoming call with the bearer service "2 × 64 kbit/s unrestricted".

TSS BS/MCT/	TP IBC_V_7_3_2_b	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.2
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Test purpose
Incoming call with "384 kbit/s unrestricted": Successful
 To verify that the IUT is able to set up an incoming call with the bearer service "384 kbit/s unrestricted".

TSS BS/MCT/	TP IBC_V_7_3_2_c	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.2
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Test purpose
Incoming call with "1536 kbit/s unrestricted": Successful
 To verify that the IUT is able to set up an incoming call with the bearer service "1536 kbit/s unrestricted".

TSS BS/MCT/	TP IBC_V_7_3_2_d	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.2
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Test purpose
Incoming call with "1920 kbit/s unrestricted": Successful
 To verify that the IUT is able to set up an incoming call with the bearer service "1920 kbit/s unrestricted".

TSS BS/MCT/	TP IBC_V_7_3_3	ISUP'92 reference 2.1/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.3
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Test purpose
Unsuccessful multirate call setup: One circuit already busy
 To verify that a multirate call setup is rejected by the IUT if one of the circuits necessary for the call is already busy.

TSS BS/MCT/	TP IBC_V_7_3_4	ISUP'92 reference 2.9.1.4/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.4
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Test purpose
Dual seizure of different connection types: Controlling exchange
 To verify that the IUT is able to detect a dual seizure for calls of different multirate connection types and that it completes the call involving the greater number of circuits.

TSS BS/MCT/	TP IBC_V_7_3_5	ISUP'92 reference 2.9.1.4 b)/Q.764 1.2/Q.763	Selection expression PICS A.2/5	Q.784.1 reference 7.3.5
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Test purpose

Dual seizure of different connection types: Non-controlling exchange

To verify that the IUT is able to detect a dual seizure for calls of different multirate connection types and that it reattempts the call involving the smaller number of circuits.

TSS CUFC/ACC/	TP IBC_V_8_1_1	ISUP'92 reference 2.11/Q.764	Selection expression PICS A.13/23	Q.784.1 reference 8.1.1
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Test purpose

Receipt of a release message containing an automatic congestion level parameter

To verify that the adjacent exchange (SP A), after having received a release message containing an automatic congestion level parameter, reduces the traffic to the overload affected exchange (SP B).

TSS CUFC/ACC/	TP IBC_V_8_1_2	ISUP'92 reference 2.11/Q.764	Selection expression PICS A.13/23	Q.784.1 reference 8.1.2
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Test purpose

Sending of a release message containing an automatic congestion level parameter

To verify that the IUT is able to send a release message containing an automatic congestion level parameter.

TSS CUFC/IAC/	TP IBC_V_8_2_1	ISUP'92 reference 2.13/Q.764	Selection expression PICS A.13/24	Q.784.1 reference 8.2.1
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Test purpose

Receipt of a user part test message

To verify that on receipt of a user part test message, the IUT will respond by sending a user part available message.

TSS CUFC/IAC/	TP IBC_V_8_2_2	ISUP'92 reference 2.13/Q.764	Selection expression PICS A.13/24	Q.784.1 reference 8.2.2
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Test purpose

Sending of a user part test message

To verify that the IUT is able to send a user part test message.

TSS CUFC/IAC/	TP IBC_V_8_2_3	ISUP'92 reference 2.13/Q.764	Selection expression PICS A.13/24	Q.784.1 reference 8.2.3
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Test purpose

T4: waiting to receive a response to a user part test message

To verify that the IUT is able to restart the availability test procedure after expiry of timer T4.

TSS EC/	TP IBC_V_9_1_1	ISUP'92 reference 2.7.1/Q.764	Selection expression PICS A.13/12	Q.784.1 reference 9.1.1
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Test purpose

Q.767 echo control procedure for call setup (initiated in SP A)

To verify that the call can be successfully established with the inclusion of echo control devices.

TSS EC/	TP IBC_V_9_1_2	ISUP'92 reference 2.7.1/Q.764	Selection expression PICS A.13/12	Q.784.1 reference 9.1.2
Test purpose <i>Q.767 echo control procedure for call setup (initiated in SP B)</i> To verify that the call can be successfully established if the IUT does not include an outgoing half echo control device.				

8 Test coverage

8.1 General remarks

The test purposes defined in this test specification cover most main capabilities of the ISUP'92 reference specification. A list of areas/capabilities currently not covered is provided in Table 4. The test purposes defined are not exhaustive, and do not cover all aspects of the reference specification. As can be seen from Table 5, the majority of test purposes (60%) concentrate on valid behaviour.

The number of invalid behaviour test purposes is limited. An expansion of the invalid behaviour test purposes is left for further study.

Table 4/Q.784.2 – Issues not tested

Behaviour on receipt of ISUP messages with format error	Not tested
Overlength messages	Not tested
Dynamic Echo Control Procedure	For further study

Table 5/Q.784.2 – Number of test purposes ISUP'92 basic call

Number of test cases for valid behaviour (V)	162
Number of test cases for inopportune behaviour (I)	41
Number of test cases with syntactically incorrect stimulus (S)	65
Total	268

9 Conformance to the PICS proforma specification

A PICS proforma that conforms to this PICS proforma specification shall be technically equivalent to Annex A, and shall preserve the numbering and ordering of the items in Annex A.

A PICS that conforms to this PICS proforma specification shall:

- a) describe an implementation which is claimed to conform to ISDN User part (ISUP) '92 reference specification [1] to [4];
- b) be a conforming PICS proforma which has been completed in accordance with the instructions for completion given in A.1;
- c) include the information necessary to uniquely identify both the supplier and the implementation.

PICS proforma for ISDN User Part (ISUP) '92**A.1 Instructions for completing the PICS proforma**

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. If necessary, the supplier may provide additional comments separately.

More detailed instructions are given at the beginning of the different subclauses of the PICS proforma.

A.1.1 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in ISDN User Part (ISUP) '92 reference specification [1] to [4] may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into subclauses for the following categories of information:

- instructions for completing the PICS proforma;
- identification of the implementation;
- identification of the reference protocol specification;
- PICS proforma tables (containing the global statement of conformance).

A.1.2 Abbreviations and conventions

The PICS proforma contained in this Annex is composed of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [12].

Item column

It contains a number that identifies the item in the table.

Item description column

It describes each respective item (e.g. parameters, timers, etc.).

Reference column

It gives reference to the ISUP'92 specification [1] to [4], except where explicitly stated otherwise.

Status column

The following notations, defined in ISO/IEC 9646-7 [12], are used for the status column:

- m mandatory – the capability is required to be supported.
- n/a not applicable – in the given context, it is impossible to use the capability. No answer in the support column is required.
- o optional – the capability may be supported or not.
- o.i qualified optional – for mutually exclusive or selectable options from a set. "i" is an integer which identifies a unique group of related optional items and the logic of their selection which is defined immediately following the table.

¹ Copyright release for PICs proforma

Users of this Recommendation may freely reproduce the PICS proforma in this Annex so that it can be used for its intended purpose and may further publish the completed PICS.

ci conditional – the requirement on the capability ("m", "o" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression that is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." shall be used to avoid ambiguities. If an ELSE clause is omitted, "ELSE n/a" shall be implied.

NOTE – Support of a capability means that the capability is implemented in conformance to the ISUP'92 specification [1] to [4].

Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [12], are used for the support column:

Y or y supported by the implementation.

N or n not supported by the implementation.

N/A or – no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status).

Values allowed column

This column contains the values or the ranges of values allowed.

Values supported column

The support column shall be filled in by the supplier of the implementation. In this column the values or the ranges of values supported by the implementation shall be indicated.

References to items

For each possible item answer (answer in the support column) within the PICS proforma, a unique reference exists. It is defined as the table identifier, followed by a slash character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.) respectively.

Example 1: A.5/4 is the reference to the answer of item 4 in Table 5 of Annex A.

Example 2: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in Table 6 of Annex A.

A.2 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides – the System Under Test (SUT) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

A.2.1 Date of the statement

Date of the statement:	
------------------------	--

A.2.2 Implementation Under Test (IUT) identification

IUT name:	
IUT version:	

A.2.3 System Under Test (SUT) identification

SUT name:	
Hardware configuration:	
Operating system:	

A.2.4 Product supplier

Name:	
Address:	
Telephone number:	
Facsimile number:	
Additional information:	

A.2.5 Client

Name:	
Address:	
Telephone number:	
Facsimile number:	
Additional information:	

A.2.6 ICS contact person

Name:	
Telephone number:	
Facsimile number:	
Additional information:	

A.3 Identification of the reference specification

This PICS proforma applies to the following standard: Recommendation Q.764 (March 1993): "ISDN User Part signalling procedures."

A.4 PICS proforma tables

A.4.1 Global statement of conformance

	(Yes/No)
Are all mandatory capabilities implemented?	

NOTE – Answering "No" to this question indicates non-conformance to the reference protocol specification. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming.

All references are to Recommendation Q.764 [4], unless explicitly stated otherwise.

A.4.2 Roles

See Table A.1.

Table A.1/Q.784.2 – Roles

Item	Is the implementation an ...	Reference	Status	Support
1	OLE – Originating Local Exchange	2.1.1.1	o.1	
2	NTE – National Transit Exchange	2.1.1.2	o.1	
3	OutIE – Outgoing International Exchange	2.1.1.3	o.1	
4	IncIE – Incoming International Exchange	2.1.1.4	o.1	
5	ITE – International Transit Exchange	2.1.1.5	o.1	
6	DLE – Destination Local Exchange	2.1.1.6	o.1	
o.1: It is mandatory to support at least one of these items.				

A.4.3 Capabilities

The following matrix is an abbreviation guide for roles:

OLE	NTE	OutIE	ITE	IncIE	DLE
TypeA	TypeB	TypeA	TypeB	TypeA	TypeA
Local	Transit	Gateway	Transit	Gateway	Local
	IntermE	IntermE	IntermE	IntermE	
CntrlE	CntrlE	CntrlE			
	IWorkE	IWorkE	IWorkE	IWorkE	

Table A.2/Q.784.2 – Connection types

Item	Is the exchange able to ...	Reference	Status	Support
1	support the connection type "Speech"?	2.1.1.1 2.1.2.1	o.2	
2	support the connection type "3.1 kHz audio"?	2.1.1.1 2.1.2.1	o.2	
3	support the connection type "64 kbit/s unrestricted"?	2.1.1.1 2.1.2.1	o.2	
4	support the connection type "64 kbit/s unrestricted preferred"?	2.1.1.1 2.1.2.1	o	
5	support of multirate connection types?	2.1.1.1 2.1.2.1	o	
6	support the connection type "2 × 64 kbit/s unrestricted"?	2.1.1.1 2.1.2.1	o	
7	support the connection type "384 kbit/s unrestricted"?	2.1.1.1 2.1.2.1	o	
8	support the connection type "1536 kbit/s unrestricted"?	2.1.1.1 2.1.2.1	o	
9	support the connection type "1920 kbit/s unrestricted"?	2.1.1.1 2.1.2.1	o	
o.2: It is mandatory to support at least one of these items.				

Table A.3/Q.784.2 – Forward address signalling

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[OLE] use the <i>en bloc</i> operation in the forward address signalling (sending)?	2.1.1.1	o.3	
2	[OLE] use the overlap operation in the forward address signalling (sending)?	2.1.2.1	o.3	
3	[IntermE] use the <i>en bloc</i> operation in the forward address signalling (receiving)?	2.1.1.2 to 2.1.1.5	m	
4	[IntermE] use the overlap operation in the forward address signalling (receiving)?	2.1.2.2 to 2.1.1.5	m	
5	[IntermE] use the <i>en bloc</i> operation in the forward address signalling (sending)?	2.1.1.2 to 2.1.1.5	o.4	
6	[IntermE] use the overlap operation in the forward address signalling (sending)?	2.1.2.2 to 2.1.1.5	o.4	
7	[DLE] use the <i>en bloc</i> operation in the forward address signalling (receiving)?	2.1.1.6	m	
8	[DLE] use the overlap operation in the forward address signalling (receiving)?	2.1.2.6	m	
o.3: It is mandatory to support at least one of these items.				
o.4: It is mandatory to support at least one of these items.				

Table A.4/Q.784.2 – OLE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	send the end-of-pulsing signal (ST)?	2.1.1.1 b) 2.1.2.1 b)	o	
2	through-connect the transmission path also in the forward direction immediately after sending IAM for "Speech" or "3.1 kHz audio" calls?	2.1.1.1 d) 2.1.2.1 d)	o	
3	through-connect in the backward direction immediately after IAM in case of overlap signalling?	2.1.2.1 d) i)	o.5	
4	through-connect in the backward direction when Called party number complete (digit analysis, timer T10, receive of ACM) in case of overlap signalling?	2.1.2.1 d) ii)	o.5	
5	handle (generate and route according to) the Transit network selection received from the access?	2.1.11	o	
o.5: It is mandatory to support at least one of these items.				

Table A.5/Q.784.2 – NTE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	route calls using only the connection type in the Transmission medium requirement?	2.1.1.2 a) 2.1.2.2 a)	o.6	
2	route calls using not only the connection type in the Transmission medium requirement?	2.1.1.2 a) 2.1.2.2 a)	o.6	
3	route calls by examining the Bearer capability in the User service information and/or the High layer capability in the User teleservice information?	2.1.1.2 a) 2.1.2.2 a)	c51	
4	support awaiting answer timer T9 if it is a controlling exchange (CntrlE)?	2.1.4.2	o	
o.6: It is mandatory to support at least one of these items. c51: IF A.5/2 THEN o ELSE n/a.				

Table A.6/Q.784.2 – OutIE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	route calls using only the connection type in the Transmission medium requirement?	2.1.1.3 a) 2.1.2.3 a)	o.7	
2	route calls using not only the connection type in the Transmission medium requirement?	2.1.1.3 a) 2.1.2.3 a)	o.7	
3	route calls by examining the Bearer capability in the User service information and/or the High layer capability in the User teleservice information?	2.1.1.3 a) 2.1.2.3 a)	c61	
4	amend or omit the most significant digits in the called party number (country code)?	2.1.1.3 b)	o	
5	send the end-of-pulsing signal (ST)?	2.1.1.3 b) 2.1.2.3 b)	o	
6	support μ -law to A-law conversion?	2.1.1.3 b) 2.1.2.3 b)	n/a	
o.7: It is mandatory to support at least one of these items. c61: IF A.6/2 THEN o ELSE n/a.				

Table A.7/Q.784.2 – ITE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	amend or omit the most significant digits in the called party number (country code)?	2.1.1.4 b)	o	

Table A.8/Q.784.2 – IncIE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	support A-law to μ -law conversion?	2.1.1.5 b) 2.1.2.5 b)	n/a	

Table A.9/Q.784.2 – DLE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	send a network initiated Suspend on receipt of an on-hook condition?	2.4.1	o	
2	send a network initiated Resume on receipt of an off-hook condition?	2.4.2	c91	
c91: IF A.0/1 THEN m ELSE n/a.				

Table A.10/Q.784.2 – IntermeE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	route according to the Transit network selection ?	2.1.11	o	
2	generate Call history information if it is missing?	2.6.1.5	c101	
c101: IF A.13/11 THEN o ELSE n/a.				

Table A.11/Q.784.2 – IWorkE capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	send a network initiated Suspend on receipt of a clear back signal?	2.4.1	o	
2	send a network initiated Resume on receipt of a re-answer indication?	2.4.2	c111	
c111: IF A.11/1 THEN m ELSE n/a.				

Table A.12/Q.784.2 – Gateway capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	perform policing of information for re-segmentation?	2.1.12 d)	o	
2	re-segment without discarding unrecognized parameters that have to be passed on according to the compatibility procedure?	2.1.12 h)	o	

Table A.13/Q.784.2 – Role independent capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	support calls to testing and measuring devices (sending)?	2.1.1.8 2.1.2.8	o	
2	support calls to testing and measuring devices (receiving)?	2.1.1.8 2.1.2.8	o	
3	support the Continuity check procedures?	2.1.8	o	
4	use Continuity-check request message to test for proper CIC-alignment?	2.1.8 Annex G.3 b)	o	
5	do continuity checking for multirate connection type calls?	2.1.8	o	
6	support FOT ?	2.1.10	o	
7	support the Simple segmentation procedure?	2.1.12	o	
8	support in-band tones and announcements?	2.2.4	m	
9	support Cause in the ACM and CPG ?	2.2.4	m	
10	support signalling procedures for connection type allowing fallback?	2.5	o	
11	support the propagation delay determination procedure?	2.6	c131	
12	support the simple (Q.767) echo control procedure?	D.2.8/Q.767	o.8	
13	support the dynamic echo control procedure?	2.7	o.8	
14	handle circuits on more than one PCM-system in one CGB/CGBA and CGU/CGUA ?	2.8	o	
15	support method 1 as preventive action of dual seizure?	2.9.1.3	o.9	
16	support method 2 as preventive action of dual seizure?	2.9.1.3	o.9	
17	support a proprietary method as preventive action of dual seizure?	2.9.1.3	o.9	
18	handle circuits on more than one PCM-system in one GRS/GRA ?	2.9.3	o	
19	support the compatibility procedure?	2.9.5	m	
20	discard an unknown parameter without Parameter compatibility information?	2.9.5.3.2 i) b) 2.9.5.3.2 ii) b)	o.10	
21	pass on an unknown parameter without Parameter compatibility information?	2.9.5.3.2 i) b) 2.9.5.3.2 ii) b)	o.10	

Table A.13/Q.784.2 – Role independent capabilities (concluded)

Item	Is the exchange able to ...	Reference	Status	Support
22	support of ISDN User Part signalling congestion control?	2.10	o	
23	support of automatic congestion control?	2.11	o	
24	support the ISDN User Part availability control?	2.13	o	
25	support interaction with MTP Pause and Resume ?	2.14	m	
c131: IF A.13/13 THEN m ELSE o. o.8: It is mandatory to support at least one of these items. o.9: It is mandatory to support at least one of these items. o.10: It is mandatory to support at least one of these items.				

A.4.4 Timers

See Table A.14.

Table A.14/Q.784.2 – Timers

Item	Use of ...	Reference	Status	Support	Values in seconds	
					allowed	supported
1	T1	Table A.1/Q.764	m		15-60	
2	T2	Table A.1/Q.764	m		180	
3	T3	Table A.1/Q.764	o		120	
4	T4	Table A.1/Q.764	o		300-900	
5	T5	Table A.1/Q.764	m		300-900	
6	T6	Table A.1/Q.764; 4.3.2/Q.118	m		60-120	
7	T7	Table A.1/Q.764	m		20-30	
8	T8	Table A.1/Q.764	m		10-15	
9	T9	Table A.1/Q.764; 4.3.1/Q.118	m		90-120	
10	T10	Table A.1/Q.764	m		4-6	
11	T11	Table A.1/Q.764	m		15-20	
12	T12	Table A.1/Q.764	m		15-60	
13	T13	Table A.1/Q.764	m		300-900	
14	T14	Table A.1/Q.764	m		15-60	
15	T15	Table A.1/Q.764	m		300-900	
16	T16	Table A.1/Q.764	m		15-60	
17	T17	Table A.1/Q.764	m		300-900	
18	T18	Table A.1/Q.764	m		15-60	
19	T19	Table A.1/Q.764	m		300-900	

Table A.14/Q.784.2 – Timers (concluded)

Item	Use of ...	Reference	Status	Support	Values in seconds	
20	T20	Table A.1/Q.764	m		15-60	
21	T21	Table A.1/Q.764	m		300-900	
22	T22	Table A.1/Q.764	m		15-60	
23	T23	Table A.1/Q.764	m		300-900	
24	T24	Table A.1/Q.764	m		0-2	
25	T25	Table A.1/Q.764	m		1-10	
26	T26	Table A.1/Q.764	m		60-180	
27	T27	Table A.1/Q.764	m		240	
28	T28	Table A.1/Q.764	o		10	
29	T29	Table A.1/Q.764	o		0.3-0.6	
30	T30	Table A.1/Q.764	o		5-10	
31	T31	Table A.1/Q.764	o		> 360	
32	T32	Table A.1/Q.764	o		3-5	
33	T33	Table A.1/Q.764	o		12-15	
34	T34	Table A.1/Q.764	c141		2-4	
35	T35	Table A.1/Q.764	m		15-20	
36	T36	Table A.1/Q.764	m		10-15	
37	T37	Table A.1/Q.764	c142		2-4	
38	T38	Table A.1/Q.764; 4.3.2/Q.118	m		60-120	
39	T39	Table A.1/Q.764; 7.9/Q.731.7	o		4-15	
c141: IF A.13/7 THEN m ELSE o.						
c142: IF A.13/13 THEN m ELSE o.						

ANNEX B²

PIXIT proforma for ISDN User Part (ISUP) '92

The PIXIT proforma enlists all the parameters and data that are needed to configure the ATS (and/or the IUT) before executing the testing campaign. It is to be filled out as part of the preparation for testing by, for example, the test client. The testing laboratory then inputs this data into the implementation of the ATS. More information about the purpose and intent of the PIXIT can be found in ISO/IEC 9646-5 [11].

² **Copyright release for PIXIT proforma**

Users of this Recommendation may freely reproduce the PIXIT proforma in this Annex so that it can be used for its intended purpose and may further publish the completed PIXIT.

B.1 Identification summary

PIXIT Number:	
Test Laboratory Name:	
Date of Issue:	
Issued to:	

B.2 Abstract test suite summary

Protocol Specification:	ITU-T Recommendation Q.764 (March 1993): "ISDN User Part signalling procedures."
ATS Specification:	ISUP_92_Basic_call
Abstract Test Method:	Distributed multiparty test method

B.3 Test laboratory

Test Laboratory Identification:	
Test Laboratory Manager:	
Test Laboratory contact:	
Means of Testing:	
Instructions for completion:	

B.4 Client identification

Client Identification:	
Client Test manager:	
Test Facilities required:	

B.5 SUT

Name:	
Version:	
SCS Number:	
Machine configuration:	
Operating system identification:	
IUT Identification:	
PICS Reference for IUT:	
Limitations of the SUT:	
Environmental conditions:	

B.6 Ancillary protocols

Protocol name	Version No.	PICS Ref.	PIXIT Ref.	PCTR Ref.
MTP				
Access protocol				

B.7 Protocol information for ISUP

B.7.1 Protocol identification

Name:	ISDN User Part (ISUP) '92
Version:	
PICS references:	

B.7.2 IUT information – PIXIT proforma tables

The PIXIT information requested in the following tables is needed to provide the necessary information for the execution of the testing campaign. It is assumed that one exchange role is tested at one time. The answers to some PIXIT questions are related to an individual role. A typical example is the nature of address indicator of the called party number value, which is different in the case of international gateways and national exchanges. That is why if several roles are to be tested, one completed copy of the PIXIT proforma for each role is needed.

B.7.2.1 General configuration

Signalling point codes

Two signalling point codes – one incoming and one outgoing have to be defined for the IUT. For an international intermediate exchange the incoming and outgoing point codes are the same, whereas for an international gateway exchange there are two different signalling point codes because they belong to two separate networks (international and national).

Circuit identification codes

From a formal point of view, in most test cases it is sufficient to use only one CIC per signalling link in order to execute the testing. From a practical point of view the tester could select any CIC within a range of CICs belonging to a route, when initiating a call setup. The tester can, however, use the first CIC in the circuit group, without reducing the generality. The ATS requires the first CIC in the group as an answer to the PIXIT questions B.1/5 and B.1/12 in Table B.1.

Table B.1/Q.784.2 – General configuration

Item	Parameter	Parameter type	Explanation	Value
1	TSP_SPA_R	BIT_14	SS No. 7 Signalling point code of the SUT on the AB interface (right side).	
2	TSP_SPB	BIT_14	SS No. 7 Signalling point code of the tester on the AB interface.	
3	TSP_NI_R	BIT_2	SS No. 7 Network indicator on the AB interface.	
4	TSP_SLS_R	BIT_4	SS No. 7 Signalling link selection on the AB interface.	
5	TSP_CIC_R	BIT_12	SS No. 7 Circuit identification code on the AB interface.	
6	TSP_NB_CICS	BIT_12	Number of SS No. 7 Circuit identification codes on the AB and AC interfaces.	
7	TSP_CIC_R_UNEQUIPPED	BIT_12	Unequipped SS No. 7 Circuit identification code on the AB interface.	
8	TSP_SPA_L	BIT_14	SS No. 7 Signalling point code of the SUT on the AC interface (left side).	
9	TSP_SPC	BIT_14	SS No. 7 Signalling point code of the tester on the AC interface.	
10	TSP_NI_L	BIT_2	SS No. 7 Network indicator on the AC interface.	
11	TSP_SLS_L	BIT_4	SS No. 7 Signalling link selection on the AC interface.	
12	TSP_CIC_L	BIT_12	SS No. 7 Circuit identification code on the AC interface.	
13	TSP_GrpCIC	BIT_12	1st CIC in the group of CICs to be blocked/unblocked/reset.	
14	TSP_GrpRange	OCT_1	Range (number of CICs +1 in the group).	
15	TSP_GrpCIC2	BIT_12	1st CIC in the 2nd group of CICs to be blocked/unblocked/reset.	
16	TSP_GrpRange 2	OCT_1	Range (number of CICs + 1 in the 2nd group).	
17	TSP_Link_R	BIT_12	CIC for the signalling link on the AB interface.	
18	TSP_Link_L	BIT_12	CIC for the signalling link on the AC interface.	

B.7.2.2 Parameter values

Called party numbers

The called party numbers have to be specified for each role which is to be tested. See Table B.2.

Table B.2/Q.784.2 – Parameter values

Item	Parameter	Parameter type	Explanation	Value
1	TSP_Nb_SPB	HEX_N	Subscriber number for which the call will be routed to signalling point B (SP B).	
2	TSP_Nb_SPC	HEX_N	Subscriber number for which the call will be routed to signalling point C (SP C).	
3	TSP_Nb_SPC_non_ISUP	HEX_N	Subscriber number for which the call will be routed to signalling point C (SP C) via non-ISUP (e.g. R2 or TUP).	
4	TSP_Nb_Operator	HEX_N	Subscriber number which has to be called to reach the operator located at the IUT (SP A).	
5	TSP_Orig_ISDN_access	BIT_1	Use of ISDN access (1) or non-ISDN access (0) for the user at OLE.	
6	TSP_Dest_ISDN_access	BIT_1	Use of ISDN access (1) or non-ISDN access (0) for the user at DLE.	
7	TSP_PDC_X	OCT_2	Propagation delay on incoming route in ms.	
8	TSP_PDC_D	OCT_2	Propagation delay on outgoing route in ms.	

B.7.2.3 Timer values

See Table B.3.

Table B.3/Q.784.2 – Timer values

Item	Parameter	Parameter type	Type	Value
1	TSP_T_WAIT	INTEGER	Wait for some event timer (max. 30 s).	
2	TSP_T_GUARD	INTEGER	Guard timer for the test case (min. 30 s).	
3	TSP_tol	INTEGER	Tolerance for ISUP timers (in per cent).	

B.7.2.4 Procedural information

See Table B.4.

Table B.4/Q.784.2 – Procedural information

Item	Parameter	Parameter type	Explanation	Value
1	TSP_maxNbCalls	INTEGER	Maximum number of calls per time unit that can still be handled by the IUT.	
2	TSP_moreCalls	INTEGER	Number of calls per time unit, which added to TSP_maxNbCalls would lead to congestion of the IUT.	
3	TSP_lessCalls	INTEGER	Number of calls per time unit, which subtracted from TSP_maxNbCalls would surely not congest the IUT.	

ANNEX C³

Protocol Conformance Test Report (PCTR) proforma for ISDN User Part (ISUP) '92

The PCTR proforma is based on ISO/IEC 9646-5. Any additional information needed can be found in this Annex.

C.1 Identification summary

C.1.1 Protocol conformance test report

PCTR Number:	
PCTR Date:	
Test Laboratory Identification:	
Test Laboratory Manager:	
Signature:	

C.1.2 IUT identification

Name:	
Version:	
Protocol specification:	
PICS:	
Previous PCTR if any:	

³ Copyright release for PCTR proforma

Users of this Recommendation may freely reproduce the PCTR proforma in this Annex so that it can be used for its intended purpose and may further publish the completed PCTR.

C.1.3 Testing environment

PIXIT Number:	
ATS Specification:	
Abstract Test Method:	Distributed multiparty test method
Means of Testing identification:	
Date of testing:	
Conformance Log reference(s):	
Retention Date for Log reference(s):	

C.1.4 Limits and reservation

Additional information relevant to the technical contents or further use of the test report, or the rights and obligations of the test laboratory and the client, may be given here. Such information may include restriction on the publication of the report.

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C.1.5 Comments

Additional comments may be given by either the client or the test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

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.....
.....

C.2 IUT Conformance status

This IUT has/has not been shown by conformance assessment to be non-conforming to the referenced protocol specification.

Strike the appropriate words in this sentence. If the PICS for this IUT is consistent with the static conformance requirements (as specified in C.3 in this report) and there are no "FAIL" verdicts to be recorded (in C.6) strike the word "has/". Otherwise strike the words "/has not".

C.3 Static conformance summary

The PICS for this IUT is or is not consistent with the static conformance requirements in the specified protocol.

Strike the appropriate words in this sentence.

C.4 Dynamic conformance summary

The test campaign did/did not reveal errors in the IUT.

Strike the appropriate words in this sentence. If there are no "FAIL" verdicts to be recorded (in C.6 of this report) strike the word "did/". Otherwise strike the words "/did not".

Summary of the results of groups of test:

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C.5 Static conformance review report

If C.3 indicates non-conformance, this subclause itemizes the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

.....

.....

.....

.....

C.6 Test campaign report

See Table C.1.

Table C.1/Q.784.2 – Test campaign report

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_I_1_1				
IBC_V_1_2_1				
IBC_V_1_2_2				
IBC_V_1_2_3				
IBC_V_1_2_4				
IBC_V_1_2_5_a				
IBC_I_1_2_5_b				
IBC_I_1_2_5_c				
IBC_V_1_2_6				
IBC_V_1_2_7				
IBC_V_1_3_1_1_a				
IBC_I_1_3_1_1_b				
IBC_I_1_3_1_1_c				
IBC_V_1_3_1_1_d				
IBC_I_1_3_1_1_e				
IBC_I_1_3_1_1_f				

Table C.1/Q.784.2 – Test campaign report *(continued)*

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_1_3_1_2_a				
IBC_V_1_3_1_2_b				
IBC_V_1_3_1_3				
IBC_V_1_3_1_4				
IBC_V_1_3_1_5_a				
IBC_V_1_3_1_5_b				
IBC_I_1_3_1_6_a				
IBC_I_1_3_1_6_b				
IBC_I_1_3_1_7_a				
IBC_I_1_3_1_7_b				
IBC_I_1_3_1_8_a				
IBC_I_1_3_1_8_b				
IBC_I_1_3_1_9_a				
IBC_I_1_3_1_9_b				
IBC_I_1_3_1_10_a				
IBC_I_1_3_1_10_b				
IBC_V_1_3_2_1				
IBC_V_1_3_2_2				
IBC_V_1_3_2_3				
IBC_V_1_3_2_4				
IBC_V_1_3_2_5				
IBC_V_1_3_2_6				
IBC_I_1_3_2_7				
IBC_I_1_3_2_8				
IBC_I_1_3_2_9				
IBC_V_1_4_1				
IBC_V_1_4_2				
IBC_V_1_4_3				
IBC_I_1_4_4				
IBC_I_1_4_5				
IBC_V_1_5_1_a				
IBC_V_1_5_1_b				
IBC_V_1_5_1_c				

Table C.1/Q.784.2 – Test campaign report *(continued)*

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_1_5_2_a				
IBC_V_1_5_2_b				
IBC_V_1_5_3				
IBC_V_1_7_1_1				
IBC_V_1_7_1_2_a				
IBC_V_1_7_1_2_b				
IBC_V_1_7_1_3				
IBC_V_1_7_1_4				
IBC_V_1_7_1_5				
IBC_V_1_7_1_6				
IBC_V_1_7_1_7				
IBC_V_1_7_2_1				
IBC_V_1_7_2_2_a				
IBC_V_1_7_2_2_b				
IBC_V_1_7_2_3_a				
IBC_V_1_7_2_3_b				
IBC_V_1_7_2_4				
IBC_V_1_7_2_5				
IBC_V_1_7_2_6_a				
IBC_V_1_7_2_6_b				
IBC_V_1_7_2_7_a				
IBC_V_1_7_2_7_b				
IBC_V_1_7_2_8				
IBC_V_1_7_2_9_a				
IBC_V_1_7_2_9_b				
IBC_V_1_7_2_10				
IBC_V_1_7_2_11				
IBC_V_1_7_2_12				
IBC_V_1_7_2_13_a				
IBC_V_1_7_2_13_b				
IBC_V_1_7_3_1_a_9				
IBC_V_1_7_3_1_a_10_a				
IBC_V_1_7_3_1_a_10_b				

Table C.1/Q.784.2 – Test campaign report *(continued)*

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_1_7_3_1_a_10_c				
IBC_V_1_7_3_1_a_10_d				
IBC_V_1_7_3_1_a_10_e				
IBC_V_1_7_3_1_a_11				
IBC_V_1_7_3_1_a_23_a				
IBC_V_1_7_3_1_a_23_b				
IBC_V_1_7_3_1_a_23_c				
IBC_V_1_7_3_1_a_35_a				
IBC_V_1_7_3_1_a_35_b				
IBC_V_1_7_3_1_a_38				
IBC_V_1_7_3_1_a_39_a				
IBC_V_1_7_3_1_a_39_b				
IBC_V_1_7_3_1_a_39_c				
IBC_V_1_7_3_1_a_39_d				
IBC_V_1_7_3_1_a_44_a				
IBC_V_1_7_3_1_a_44_b				
IBC_V_1_7_3_1_a_44_c				
IBC_V_1_7_3_1_a_44_d				
IBC_V_1_7_3_1_a_44_e				
IBC_V_1_7_3_1_a_45_a				
IBC_V_1_7_3_1_a_45_b				
IBC_V_1_7_3_1_a_45_c				
IBC_V_1_7_3_1_a_45_d				
IBC_V_1_7_3_1_a_51				
IBC_V_1_7_3_1_a_60_a				
IBC_V_1_7_3_1_a_60_b				
IBC_V_1_7_3_1_a_60_c				
IBC_V_1_7_3_1_b_9_a				
IBC_V_1_7_3_1_b_9_b				
IBC_V_1_7_3_1_b_9_c				
IBC_V_1_7_3_1_b_23				
IBC_V_1_7_3_1_b_51				
IBC_V_1_7_3_1_b_54				

Table C.1/Q.784.2 – Test campaign report *(continued)*

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_1_7_3_2_5_a				
IBC_V_1_7_3_2_5_b				
IBC_V_1_7_3_2_5_c				
IBC_V_1_7_3_2_5_d				
IBC_V_1_7_3_2_5_e				
IBC_V_1_7_3_2_5_f				
IBC_V_1_7_3_2_5_g				
IBC_V_1_7_3_2_16_a				
IBC_V_1_7_3_2_16_b				
IBC_V_1_7_3_2_16_c				
IBC_V_1_7_3_2_16_d				
IBC_V_1_7_3_2_16_e				
IBC_V_1_7_3_2_21				
IBC_V_1_7_3_2_46_a				
IBC_V_1_7_3_2_46_b				
IBC_V_1_7_3_2_46_c				
IBC_V_1_7_3_2_60_a				
IBC_V_1_7_3_2_60_b				
IBC_V_1_7_3_2_60_c				
IBC_V_1_7_3_3				
IBC_V_1_7_3_4_a_12_a				
IBC_V_1_7_3_4_a_12_b_1				
IBC_V_1_7_3_4_a_12_b_2				
IBC_V_1_7_3_4_a_12_c				
IBC_V_2_1_1				
IBC_V_2_1_2				
IBC_V_2_2_1_a				
IBC_V_2_2_1_b				
IBC_V_2_2_2_a				
IBC_V_2_2_2_b				
IBC_V_2_3_1_a				
IBC_V_2_3_1_b				
IBC_V_2_3_1_c				

Table C.1/Q.784.2 – Test campaign report *(continued)*

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_2_3_1_d				
IBC_V_2_3_1_e				
IBC_V_2_3_1_f				
IBC_V_2_3_1_g				
IBC_V_2_3_1_h				
IBC_V_2_3_2_a				
IBC_V_2_3_2_b				
IBC_V_2_3_2_c				
IBC_V_2_3_2_d				
IBC_V_2_3_2_e				
IBC_V_2_3_2_f				
IBC_V_2_3_3				
IBC_V_2_3_4_a				
IBC_V_2_3_4_b				
IBC_V_2_3_4_c				
IBC_V_2_3_5_a				
IBC_V_2_3_5_b				
IBC_V_2_3_5_c				
IBC_V_2_3_5_d				
IBC_V_2_3_6_a				
IBC_V_2_3_6_b				
IBC_V_2_3_6_c				
IBC_V_2_3_6_d				
IBC_V_2_4_1				
IBC_V_2_4_2				
IBC_V_2_4_3_a				
IBC_V_2_4_3_b				
IBC_V_3_1_a				
IBC_V_3_1_b				
IBC_V_3_2_a				
IBC_V_3_2_b				
IBC_V_3_3_a				
IBC_V_3_3_b				
IBC_V_3_4_a				

Table C.1/Q.784.2 – Test campaign report *(continued)*

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_3_4_b				
IBC_V_3_5_a				
IBC_V_3_5_b				
IBC_V_3_8				
IBC_V_4_1_a				
IBC_V_4_1_b				
IBC_V_5_1				
IBC_V_5_2_1				
IBC_V_5_2_2				
IBC_V_5_2_3				
IBC_V_5_2_4				
IBC_V_5_2_5				
IBC_V_5_2_6				
IBC_V_5_2_7				
IBC_V_5_2_8				
IBC_V_5_2_9				
IBC_V_5_2_10				
IBC_V_5_2_11				
IBC_V_5_3_1				
IBC_V_5_3_2				
IBC_V_6_1_1_a				
IBC_V_6_1_1_b				
IBC_V_6_1_2				
IBC_V_6_1_3_a				
IBC_V_6_1_3_b				
IBC_V_6_1_4_a				
IBC_V_6_1_4_b				
IBC_V_6_1_5				
IBC_V_6_2_1				
IBC_V_6_2_2				
IBC_V_6_2_3				
IBC_V_6_2_4				
IBC_V_6_2_5				
IBC_V_6_3_1				

Table C.1/Q.784.2 – Test campaign report *(continued)*

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_6_4_1				
IBC_V_6_4_2				
IBC_V_6_4_3				
IBC_V_6_4_4				
IBC_V_6_5_1				
IBC_V_6_5_2				
IBC_V_6_5_3				
IBC_V_6_6_1				
IBC_V_6_6_2_a				
IBC_V_6_6_2_b				
IBC_V_6_6_2_c				
IBC_V_6_6_2_d				
IBC_V_6_6_3_a				
IBC_V_6_6_3_b				
IBC_V_6_6_3_c				
IBC_V_6_6_3_d				
IBC_V_7_1_1_a				
IBC_V_7_1_1_b				
IBC_V_7_1_1_c				
IBC_V_7_1_1_d				
IBC_V_7_1_1_e				
IBC_V_7_1_1_f				
IBC_V_7_1_1_g				
IBC_V_7_1_1_h				
IBC_V_7_1_1_i				
IBC_V_7_1_1_j				
IBC_V_7_1_2_a				
IBC_V_7_1_2_b				
IBC_V_7_1_2_c				
IBC_V_7_1_2_d				
IBC_V_7_1_2_e				
IBC_V_7_1_3				
IBC_V_7_2_1_a				
IBC_V_7_2_1_b				

Table C.1/Q.784.2 – Test campaign report (concluded)

ATS reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in C.7)
IBC_V_7_3_1_a				
IBC_V_7_3_1_b				
IBC_V_7_3_1_c				
IBC_V_7_3_1_d				
IBC_V_7_3_2_a				
IBC_V_7_3_2_b				
IBC_V_7_3_2_c				
IBC_V_7_3_2_d				
IBC_V_7_3_3				
IBC_V_7_3_4				
IBC_V_7_3_5				
IBC_V_8_1_1				
IBC_V_8_1_2				
IBC_V_8_2_1				
IBC_V_8_2_2				
IBC_V_8_2_3				
IBC_V_9_1_1				
IBC_V_9_1_2				

ANNEX D

ATS for ISDN User Part (ISUP) '92 basic call control procedures

The ATS is written in TTCN according to ISO/IEC 9646-3 [9] and [10].

Because the ATS was developed on a separate TTCN tool, the TTCN tables are not completely referenced in the table of contents of this Recommendation. The ATS itself contains a subclause test suite overview, which provides additional information about the ATS. The ATS is not included in this Annex; it is available on electronic media.

The ATS is available from ITU-T both in graphical form (TTCN GR format) in a postscript file ("RDL.PS") and in machine processable form (TTCN MP format) in an ASCII text file ("RDL.MP"). All files are compressed files accompanied by a "README" text file

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