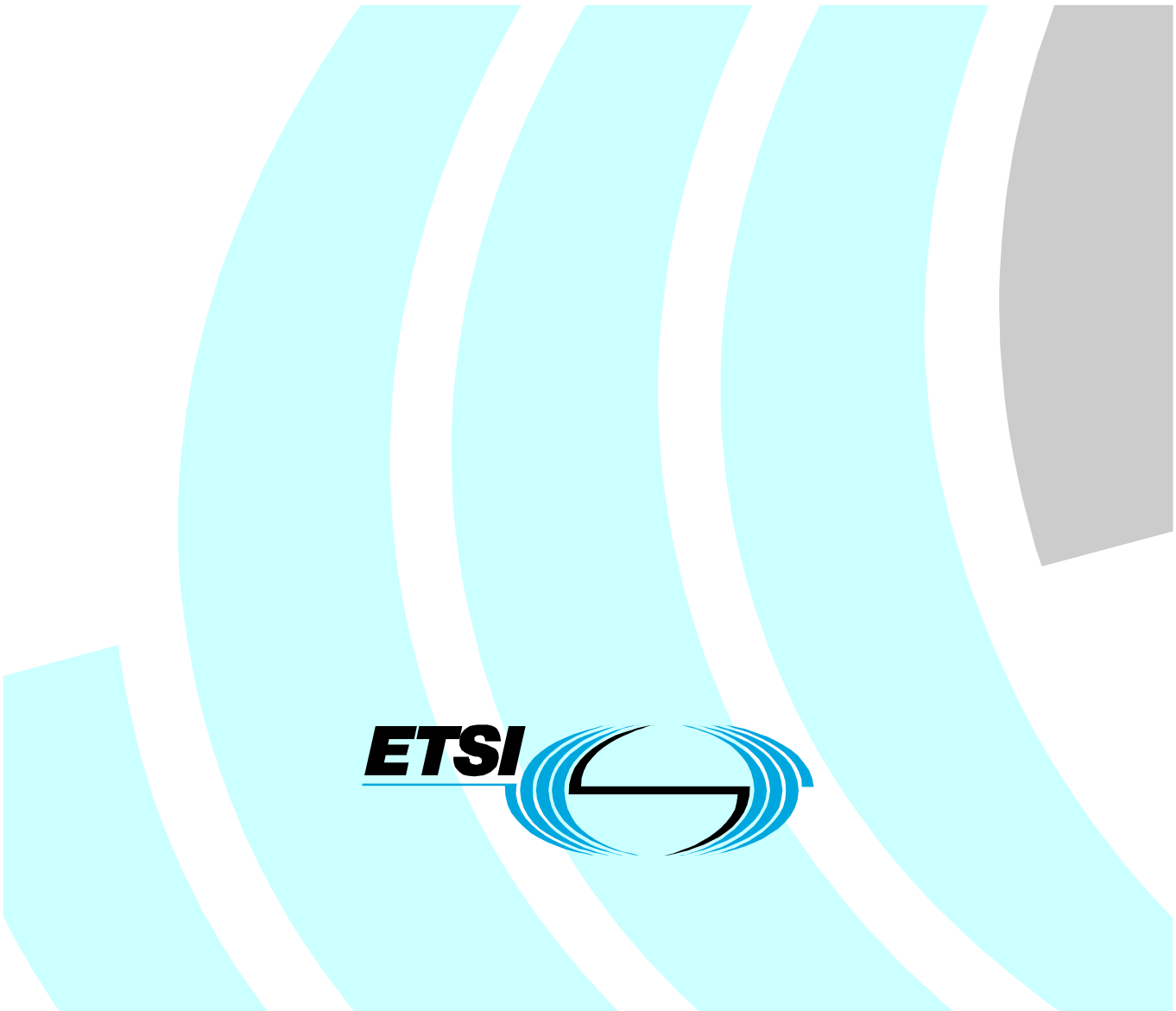
ETSI TS 102 113-2 V1.1.1 (2003-03)

Technical Specification

**Services and Protocols for Advanced Networks (SPAN);
Network Integration Testing
between GSM Phase 2+, ISDN and PSTN;
Part 2: Abstract Test Suite (ATS) and partial Protocol
Implementation eXtra Information for Testing (PIXIT)**



Reference
DTS/SPAN-130298-2

Keywords
GSM_phase2, ISDN, NIT, PSTN, testing,
TSS&TP

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

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

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Contents

Intellectual Property Rights

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

All published ETSI deliverables shall include information which directs the reader to the above source of information.

Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN).

The present document is part 2 of a multi-part deliverable covering the Network integration testing between GSM Phase 2+, ISDN and PSTN, as identified below:

Part 1: "Test Suite Structure and Test Purposes (TSS&TP)";

Part 2: "Abstract Test Suite (ATS), and partial Protocol Implementation eXtra Information for Testing (PIXIT)".

Introduction

The present document contains the Implementation Conformance Statement (ICS) and Implementation eXtra Information for Testing (IXIT) for Network Integration Testing for the European ISDN and PLMN, covering Network Integration Testing (NIT) between ISDN-GSM, PSTN-GSM, PLMN-ISDN, PLMN-PSTN and PLMN-PLMN networks. The objective is to verify the level of international or national end-to-end support of ISDN and PLMN (GSM) services. Both bearer services (and associated teleservices) and supplementary services are checked for interworking capability and compatibility, in the European ISDN and PLMN.

1 Scope

The present document specifies the Implementation Conformance Statement (ICS) and Implementation eXtra Information for Testing (IXIT) for Network Integration Testing for Network Integration Testing (NIT) to verify the overall compatibility of GSM, ISDN and non-ISDN (PSTN) over the national or international ISUP between networks. Network Integration Testing will assure that the appropriate requested features passes between an ISDN subscriber and the mobile subscriber across the national or international ISUP (ISUP V2) interface.

2 References

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

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at http://docbox.etsi.org/Reference.

[1] ETSI EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".

[2] ETSI ETS 300 092-1: "Integrated Services Digital Network (ISDN); Calling Line Identification Presentation (CLIP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[3] ETSI ETS 300 093-1: "Integrated Services Digital Network (ISDN); Calling Line Identification Restriction (CLIR) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[4] ETSI ETS 300 097-1: "Integrated Services Digital Network (ISDN); Connected Line Identification Presentation (COLP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[5] ETSI ETS 300 098-1: "Integrated Services Digital Network (ISDN); Connected Line Identification Restriction (COLR) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[6] ETSI ETS 300 138-1: "Integrated Services Digital Network (ISDN); Closed User Group (CUG) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[7] ETSI ETS 300 055-1: "Integrated Services Digital Network (ISDN); Terminal Portability (TP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[8] ETSI ETS 300 286-1: "Integrated Services Digital Network (ISDN); User-to-User Signalling (UUS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[9] ETSI ETS 300 207-1: "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[10] ETSI ETS 300 141-1: "Integrated Services Digital Network (ISDN); Call Hold (HOLD) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[11] ETSI ETS 300 058-1: "Integrated Services Digital Network (ISDN); Call Waiting (CW) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[12] ETSI ETS 300 369-1: "Integrated Services Digital Network (ISDN); Explicit Call Transfer (ECT) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

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

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

[15] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification ".

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

[17] ETSI TS 100 543: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Forwarding (CF) supplementary services; Stage 2 (GSM 03.82)".

[18] ETSI EN 300 940: "Digital cellular telecommunications system (Phase 2+) (GSM); Mobile radio interface layer 3 specification (GSM 04.08)".

[19] ETSI EN 300 951: "Digital cellular telecommunications system (Phase 2+) (GSM); Line identification supplementary services; Stage 3 (GSM 04.81)".

[20] ETSI EN 300 952: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Forwarding (CF) supplementary services; Stage 3 (GSM 04.82)".

[21] ETSI EN 300 953: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 3 (GSM 04.83)".

[22] ETSI TS 100 569 : "Digital cellular telecommunications system (Phase 2+) (GSM); Closed User Group (CUG) supplementary services; Stage 3 (GSM 04.85)".

[23] ETSI TS 100 956 : "Digital cellular telecommunications system (Phase 2+) (GSM); Call Barring (CB) supplementary services; Stage 3 (GSM 04.88)".

[24] ETSI TS 100 913: "Digital cellular telecommunications system (Phase 2+) (GSM); General on Terminal Adaptation Functions (TAF) for Mobile Stations (MS) (GSM 07.01)".

[25] ETSI TS 100 976: "Digital cellular telecommunications system (Phase 2+) (GSM); General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN) (GSM 09.07)".

[26] ETSI TS 124 087 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); User-to-User Signalling (UUS) Supplementary Service - Stage3 (3G TS 24.087 version 3.0.0 Release 1999)".

[27] ETSI ETS 300 559: "Digital cellular telecommunications system (Phase 2) (GSM);Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface (GSM 04.11)".

[28] ETSI ETS 300 646-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; Digital cellular telecommunications system (Phase 2); Application of ISDN User Part (ISUP) version 2 for the ISDN-Public Land Mobile Network (PLMN) signalling interface; Part 1: Protocol specification (GSM 09.12 version 4.1.1)".

[29] ETSI ETS 300 001: "Attachments to the Public Switched Telephone Network (PSTN); General technical requirements for equipment connected to an analogue subscriber interface in the PSTN".

[30] ETSI EN 300 954: "Digital cellular telecommunications system; Multi Party (MPTY) supplementary services; Stage 3 (GSM 04.84 version 5.0.1)".

[31] ETSI ETS 300 648: "Public Switched Telephone Network (PSTN); Calling Line Identification Presentation (CLIP) supplementary service; Service description".

[32] ISO/IEC 9646-4: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 4: Test realization".

[33] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[34] ITU-T Recommendation G.711: "Pulse code modulation (PCM) of voice frequencies".

[35] ITU-T Recommendation H.221: "Frame structure for a 64 to 1920 kbit/s channel in audiovisual teleservices".

[36] ITU-T Recommendation H.242: "System for establishing communication between audiovisual terminals using digital channels up to 2 Mbit/s".

[37] ITU-T Recommendation V.110: "Support by an ISDN of data terminal equipments with V-Series type interfaces".

[38] ITU-T Recommendation X.30: "Support of X.21, X.21 bis and X.20 bis based Data Terminal Equipments (DTEs) by an Integrated Services Digital Network (ISDN)".

[39] ITU-T Recommendation F.721: "Videotelephony teleservice for ISDN".

[40] ISO/IEC 7776: "Information technology - Telecommunications and information exchange between systems - High-level data link control procedures - Description of the X.25 LAPB-compatible DTE data link procedures".

[41] ISO/IEC 8208: "Information technology - Data communications - X.25 Packet Layer Protocol for Data Terminal Equipment".

3 Definitions

3.1 Definitions related to conformance testing

For the purposes of the present document, the terms and definitions given in ISO/IEC 9646-1 [14] apply:

Abstract Test Case (ATC): Refer to ISO/IEC 9646-1 [14].

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [14].

Implementation Conformance Statement (ICS) proforma: Refer to ISO/IEC 9646-1 [14].

Implementation eXtra Information for Testing (IXIT) proforma: Refer to ISO/IEC 9646-1 [14].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [14].

lower tester: Refer to ISO/IEC 9646-1 [14].

Point of Control and Observation: Refer to ISO/IEC 9646-1 [14].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [14].

Protocol Implementation eXtra Information for Testing (PIXIT): Refer to ISO/IEC 9646-1 [14].

System Under Test (SUT): Refer to ISO/IEC 9646-1 [14].

Test Purpose: Refer to ISO/IEC 9646-1 [14].

3.2 Definitions related to test purpose descriptions

Alternate speech and facsimile group 3 (TS 61): this Teleservice allows the connection of ITUgroup 3 fax apparatus (send and/or receive) to the mobile stations of a GSM PLMN

NOTE: Facsimile connections may be established to/from group 3 apparatus in the PSTN, ISDN or GSM PLMN.

Alternate Speech/Data: provides the capability to swap between speech and data during a call

NOTE 1: If either the speech or data portion of the call requires a full rate channel, a full rate channel shall be used for the duration of the call.

NOTE 2: The access interface at the mobile station for the data portion is assumed to be a standard data interface. Some means must be provided to select the speech/data capability.

Automatic Facs. group 3 (TS 62): this teleservice allows connection of ITUgroup 3 fax apparatus to and from the mobile stations of a GSM PLMN

NOTE: Facsimile connections may be established to and from group 3 apparatus in the PSTN, ISDN or GSM PLMN.

BC=3,1 kHz audio: bearer capability information element with its information transfer capability field set to "3,1 kHz Audio" and its user information layer one protocol field set to "G.711 A-law"

BC=speech: bearer capability information element with its information transfer capability field set to "speech" and its user information layer one protocol field set to "G.711 A-law"

BC=UDI: bearer capability information element with its information transfer capability set to "unrestricted digital information"

BC=UDI/TA: bearer capability information element with its information transfer capability set to "unrestricted digital information with tones/announcements" and its user information layer one protocol field set to "ITU-T Recommendations H.221 and H.242"

BC=V110/X30: bearer capability information element with its information transfer capability set to "unrestricted digital information" and its user information layer 1 field set to "ITU standardized rate adaption V.110/X.30", including sync/async and user rate values

CF active: call forwarding (U, B or NR) supplementary service is already activated with the address of user C

CUG default request: calling user do not include in the outgoing SETUP message a explicit request for the CUG supplementary service

GSM-BC=3,1 kHz (External to the PLMN): Used to select a "3,1 kHz audio" interworking function at the MSC

NOTE: This service category is used when interworking with the ISDN or PSTN "3,1 kHz audio" service and includes the capability to select a modem at the interworking function. "External to the PLMN" indicates that the "3,1 kHz audio" service is only used outside of the PLMN, in the ISDN/PSTN. The connection within the PLMN, user access point to the interworking function, is an unrestricted digital connection.

GSM-BC=Speech (TS 11): this service provides the transmission of speech information and audible signalling tones of the PSTN/ISDN

NOTE: In the GSM PLMN and the fixed network processing technique appropriate for speech such as analogue transmission, echo cancellation and low bit rate voice encoding may be used.

GSM-BC=UD: Unrestricted Digital Information (UD); Provides the transfer of unrestricted digital information

GSM - Bearer service categories: all bearer service categories provide information transfer between R/S reference points and allow the use of sub-rate information streams which are rate adapted

GSM teleservices: teleservices supported by a GSM PLMN are described by a number of attributes which are intended to be largely independent. They are grouped into the following categories:

- high layer attributes,
- low layer attributes (describing the Bearer capabilities which support the Teleservice),
- information transfer attributes,
- access attributes,
- general attributes.

HLC=Facsimile G2/G3: high layer compatibility information element with its high layer characteristics identification field set to "facsimile group 2/3 (ITU-T Recommendation F.182)"

HLC=facsimile group 4: high layer compatibility information element with its high layer characteristics identification field set to "facsimile group 4 class 1"

HLC=telephony: high layer compatibility information element with its high layer characteristics identification field set to "telephony"

HLC=telex: high layer compatibility information element with its high layer characteristics identification field set to "telex"

HLC=videotelephony_ic: high layer compatibility information element with its high layer characteristics identification field set to "videotelephony (ITU-T Recommendation F.721)" and its extended audiovisual characteristics field set to "capability set of initial channel of ITU-T Recommendation H.221"

LLC=telematic_term: low layer compatibility information element with its user information layer 2 field indicating "ISO/IEC 7776 DTE-DTE operation" and user information layer 3 field indicating "ISO/IEC 8208"

LLC=V110/X30: low layer compatibility information element with its user information layer 1 field indicating "ITUstandardized rate adaption V.110/X.30" and including sync/async and user rate values

LLC=voice band data via modem: low layer compatibility information element with its user information layer 1 field indicating a "modem type" coding

NPI=unknown: numbering plan identification coded as "unknown"

PI=PR: presentation indicator coded as "Presentation restricted"

SI=NP: screening indicator coded as "Network provided"

SI=UPVP: screening indicator forwarded to the served user coded as "User-provided, verified and passed"

Speech followed by Data: provides a speech connection first and then at some time while the call is in progress, the user can switch to a data connection

NOTE: The user cannot switch back to speech after the data portion. If either the speech or data portion of the call requires a full rate channel, a full rate channel shall be used from the start of the call. The network may then change to a half rate channel for the data portion.

TON=international: type of number coded as "international"

TON=unknown: type of number coded as "unknown"

UI length=32: length of the User information field of the User-user information element is 35 octets

3.3 Abbreviations

For the purpose of the present document the following abbreviations apply:

ATS	Abstract Test Suite
3PTY	Three-party conference
BC	Bearer capability information element
BS	Base Station
BSC	Base Station Controller
BSS	Base Station System
CAMEL	Customized Applications for Mobile Network Enhanced Logic
CD	Call Deflection
CDMA	Code Division Multiple Access
CFB	Call Forwarding Busy
CFNR	Call Forwarding No Response
CFNRc	Call Forwarding on mobile subscriber Not Reachable
CFNRy	Call Forwarding on No Reply
CFU	Call Forwarding Unconditional
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
COLP	Connected Line Identification Presentation
COLR	Connected Line Identification Restriction
CONF	CONFerence (add-on)
CUG	Closed User Group
CW	Call Waiting
ECT	Explicit Call Transfer
FPH	FreePHone service
GSM	Global System for Mobile Communication
H/V-PLMN	Home/Visited PLMN
HLC	High Layer Compatibility information element
HPLMN	Home Public Land Mobile Network
IA	Incoming Access
ICB	Incoming Calls Barred within a CUG
IMSI	International Mobile Subscriber Identity
IN	Intelligent Network
INAP	Intelligent Network Application Part
IP	Internet Protocol
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
IUT	Implementation Under Test
LLC	Low Layer Compatibility information element
MAP	Mobile Application Part
MCID	Malicious Call Identification
MS	Mobile Station
MSC	Mobile Switching Center
MSISDN	Mobile Station ISDN number
MT	Mobile Terminal
MTP	Message Transfer Part
NIT	Network Integration Testing
OCB	Outgoing Calls Barred within a CUG
OSI	Open Systems Interconnection
PI	Presentation Indicator
PIXIT	Protocol Implementation eXtra Information for Testing
PLMN	Public Land Mobile Network
PSTN	Public Switched Telephone Network
SGSN	Serving GPRS Support Node
SI	Screening Indicator
SMS	Short Message Service
SUB	SUBaddressing
TCAP	Transaction Capabilities Application Part
TON	Type Of Number

TP	Terminal portability
TSS	Test Suite Structure
TSS&TP	Test Suite Structure and Test Purposes
UD	Unrestricted Digital information
UMTS	Universal Mobile Telecommunications System
UUS	User-to-user signalling
UUS1	UUS service 1
UUS2	UUS service 2
UUS3	UUS service 3
VLR	Visitor Location Register
VPLMN	Visited Public Land Mobile Network

4 Conformance to this ICS and IXIT proformas specification

If it claims to conform to the present document, the actual ICS proforma to be filled in by a supplier shall be technically equivalent to the text of the ICS proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

An ICS, which conforms to the present document, shall be a conforming ICS proforma completed in accordance with the guidance for completion given in clause A.1.

A test realizer, producing a executable test suite for this ATS specification is required, as specified in ISO/IEC 9646-7 [33], to produce an augmented partial IXIT proforma conformant with the text of the partial IXIT proforma given in annex B.

An augmented partial IXIT proforma which conforms to this partial IXIT proforma specification shall, as a minimum, have contents which are technically equivalent to annex B. The augmented partial IXIT proforma may contain additional questions that need to be answered in order to prepare the Means Of Testing (MOT) for a particular IUT. The test laboratory may further augment the augmented partial IXIT proforma to produce a IXIT proforma conformant with this partial IXIT proforma specification.

A IXIT proforma which conforms to this partial IXIT proforma specification shall, as a minimum, have contents which are technically equivalent to annex B. The IXIT proforma may contain additional questions that need to be answered in order to prepare the test laboratory for a particular IUT.

5 ATS Conformance

The test realizer, producing a Means Of Testing (MOT) and Executable Test Suite (ExTS) for this Abstract Test Suite (ATS) specification, shall comply with the requirements of ISO/IEC 9646-4 [32]. In particular, these concern the realization of an Executable Test Suite (ExTS) based on each ATS. The test realizer shall provide a statement of conformance of the MOT to this ATS specification.

An ExTS which conforms to this ATS specification shall contain test groups and test cases which are technically equivalent to those contained in the ATS in annex C. All sequences of test events comprising an abstract test case shall be capable of being realized in the executable test case. Any further checking which the test system might be capable of performing is outside the scope of this ATS specification and shall not contribute to the verdict assignment for each test case.

A test laboratory which claims to conform to this ATS specification shall use a MOT which conforms to this ATS.

Annex A (normative): End-to-end ICS proforma

A.1 Guidance for completing the ICS proforma

A.1.1 Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined by ETSI, may provide information about the implementation in a standardized manner.

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

- guidance for completing the proformas;
- identification of the implementation;
- global statement of conformance.

A.1.2 Abbreviations and conventions

The ICS proforma contained in annex A is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [33].

Item column:

- The item column contains a number which identifies the item in the table.

Item description column:

- The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Status column:

- The following notations, defined in ISO/IEC 9646-7 [33], are used for the status column:

m	mandatory - the capability is required to be supported.
o	optional - the capability may be supported or not.
n/a	not applicable - in the given context, it is impossible to use the capability.
x	prohibited (excluded) - there is a requirement not to use this capability in the given context.
o.i	qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.
ci	conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table.

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 [33], are used for the support column:

  Y or y — supported by the implementation.

  N or n — not supported by the implementation.

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

It is also possible to provide a comment to an answer in the space provided at the bottom of the table.

Values allowed column:

- The values allowed column contains the type, the list, the range, or the length of values allowed. The following notations are used:

  - range of values: <min value> .. <max value>

EXAMPLE 1: 5 .. 20

  - list of values: <value1>, <value2>, ..., <valueN>

EXAMPLE 2: 2 ,4 ,6 ,8, 9

EXAMPLE 3: "1101"B, "1011"B, "1111"B

EXAMPLE 4: "0A"H, "34"H, 2F"H

  - list of named values: <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>

EXAMPLE 5: reject(1), accept(2)

  - length: size (<min size> .. <max size>)

EXAMPLE 6: size (1 .. 8)

Values supported column:

- The values supported 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.

A.1.3 Instructions for completing the ICS proforma

The supplier of the implementation shall complete the ICS proforma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in clause A.1.2.

If necessary, the supplier may provide additional comments in space at the bottom of the tables, or separately on sheets of paper.

More detailed instructions may be given at the beginning of the different clauses of the ICS proforma.

A.2 Identification of the implementation

Identification of the Implementation Under Test (IUT), the Integrated Services Digital Network provided by the European public telecommunications operator, 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 and IXIT should be named as the contact person.

A.2.1 Date of the statement

Void

A.2.2 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

A.2.3 ICS contact person

(A person to contact if there are any queries concerning the content of the ICS or IXIT)

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.3 Identification of the document

This ICS proforma apply to the following standard:

- EN 300 403-1
- EN 300 940

Other ETSI standards related to ISDN, DSS1 and PLMN signalling, layer 3 testing.

A.4 ISDN - GSM Interworking

A.4.1 Basic call

Table A.1: Services based on bearer capability speech

Item	Service	Reference	Status	Support
	ISDN			
1	Speech	EN 300 403-1	o	
	GSM			
2	TS 11	EN 300 940	o.1	

Table A.2: Bearer service 3,1 kHz audio

Item	Service	Reference	Status	Support
	ISDN			
1	Bearer service 3,1 kHz audio	EN 300 403-1	o	
2	Telefax G3 terminals		o	
	GSM			
3	Multi Numbering Scheme and TS11	EN 300 940	o.1	
4	Single Numbering Scheme		o.2	
5	Single Numbering Scheme and TS11		o	
6	Telefax G3 terminals at calling user side and Telefax G3 terminals (TS61) at called side		o	
7	Telefax G3 terminals at calling user side and TS62 at the called side		o	
8	Telefax G3 terminals at calling user side and TS62 and Single Numbering Scheme at the called side		o	
o.1	It is mandatory to support at least one of these options			
o.2	It is mandatory to support at least one of these options			

Table A.3: User rates for Bearer service 3,1 kHz audio ISDN/GSM

Item	Service	Reference	Status	Support
	GSM			
1	Selection criteria: synchronous mode, BS 31 MODE: synchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s	EN 300 940 TS 100 976	o	
2	Selection criteria: synchronous mode, BS 32 MODE: synchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s		o	
3	Selection criteria: synchronous mode, BS 33 MODE: synchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
4	Selection criteria: synchronous mode, BS 34 MODE: synchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	
5	Selection criteria: asynchronous mode, BS 21 MODE: asynchronous USER_RATE: 0,3 kbit/s G_USER_RATE: 0,3 kbit/s		o	
6	Selection criteria: asynchronous mode, BS 22 MODE: asynchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s		o	
7	Selection criteria: asynchronous mode, BS 24 MODE: asynchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s		o	
8	Selection criteria: asynchronous mode, BS 25 MODE: asynchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
9	Selection criteria: asynchronous mode, BS 26 MODE: asynchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	

Table A.4: Services based on bearer service unrestricted digital information

Item	Service	Reference	Status	Support
	ISDN			
1	Services based on bearer service unrestricted digital information	EN 300 403-1	o	
	GSM			
2	UDI	EN 300 940	o	
3	Multi Numbering Scheme		o.3	
4	Single Numbering Scheme		o.4	
o.3	It is mandatory to support at least one of these options			
o.4	It is mandatory to support at least one of these options			

Table A.5: User rates for UDI / ISDN

Item	Service	Reference	Status	Support
GSM				
1	Selection criteria: synchronous mode, BS 31 MODE: synchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s	EN 300 940 TS 100 976	o	
2	Selection criteria: synchronous mode, BS 32 MODE: synchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s		o	
3	Selection criteria: synchronous mode, BS 33 MODE: synchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
4	Selection criteria: synchronous mode, BS 34 MODE: synchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	
5	Selection criteria: asynchronous mode, BS 21 MODE: asynchronous USER_RATE: 0,3 kbit/s G_USER_RATE: 0,3 kbit/s		o	
6	Selection criteria: asynchronous mode, BS 22 MODE: asynchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s		o	
7	Selection criteria: asynchronous mode, BS 24 MODE: asynchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s		o	
8	Selection criteria: asynchronous mode, BS 25 MODE: asynchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
9	Selection criteria: asynchronous mode, BS 26 MODE: asynchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	

Table A.6: Services based on bearer service unrestricted digital information with tones/announcements

Item	Service	Reference	Status	Support
ISDN				
1	Services based on bearer service unrestricted digital information with tones/announcements	EN 300 403-1	o	

A.4.2 Supplementary services

Table A.7: CLIP service

Item	Service	Reference	Status	Support
ISDN				
1	CLIP	ETS 300 092-1	o	
GSM				
2	The called user is provided with CLIP	EN 300 940 EN 300 951	o	

Table A.8: CLIR service

Item	Service	Reference	Status	Support
ISDN				
1	Calling line identification restriction (CLIR)	ETS 300 093-1	o	
GSM				
2	The called user is provided with CLIP	EN 300 940 EN 300 951	o	

Table A.9: COLP service

Item	Service	Reference	Status	Support
ISDN				
1	Calling user is provided with COLP	EN 300 403-1 ETS 300 097-1	o	
GSM				
2	Connected Line Identification Presentation (COLP)	EN 300 940 EN 300 951	o	

Table A.10: COLR service

Item	Service	Reference	Status	Support
ISDN				
1	The calling user is provided with COLP	EN 300 403-1 ETS 300 097-1	o	
GSM				
2	Connected Line Identification Restriction (COLR)	EN 300 940 EN 300 951	o	

Table A.11: CUG service

Item	Service	Reference	Status	Support
	ISDN			
1	CUG	ETS 300 138-1	o	
	GSM			
2	CUG	TS 100 569	o	
3	CUG supporting options are: not OA, not OCB, not Pref. CUG for ISDN user and calling and called user have the same CUG, and CUG supporting options of GSM user are IA and not ICB		o	
4	CUG supporting options are: not OA, not OCB, not Pref. CUG for ISDN user and calling and called user have the same CUG, and CUG supporting options of GSM user are not IA and not ICB		o	
5	CUG supporting options are: not OA, not OCB, not Pref. CUG for ISDN user and called user is not a member of CUG		o	
6	CUG supporting options are: OA, not OCB, not Pref. CUG for ISDN user and calling and called user have the same CUG, and CUG supporting options of GSM user are IA and ICB		o	
7	CUG supporting options are: OA, not OCB, not Pref. CUG for ISDN user and calling and called user have the same CUG, and CUG supporting options of GSM user are IA and not ICB		o	
8	CUG supporting options are: OA, not OCB, not Pref. CUG for ISDN user and calling and called user have the same CUG, and CUG supporting options of GSM user are not IA and ICB		o	
9	CUG supporting options are: OA, not OCB, not Pref. CUG for ISDN user and called user is not a member of CUG		o	
10	Calling user is not member of CUG s and called user has CUG with not IA and not ICB		o	

Table A.12: SUB service

Item	Service	Reference	Status	Support
	ISDN			
1	Subaddressing (SUB)	EN 300 403-1	o	
	GSM			
2	SUB where the called served user is provided with SUB	EN 300 940	o	

Table A.13: CF services

Item	Service	Reference	Status	Support
	ISDN			
1	Call to a forwarding subscriber	EN 300 403-1	o	
	GSM			
2	CF where user A is in network N1 and user B and C are in network N2	EN 300 952	o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				

Table A.14: CFU service

Item	Service	Reference	Status	Support
	ISDN			
1	Call to a forwarding subscriber (CFU)	EN 300 403-1	o	
	GSM			
2	CFU - calling user is not notified of call diversion	EN 300 952	o.5	
3	CFU - calling user is notified of call diversion		o.6	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.5	It is mandatory to support at least one of these options			
o.6	It is mandatory to support at least one of these options			

Table A.15: CFB service

Item	Service	Reference	Status	Support
	ISDN			
1	Call to a forwarding subscriber (CFB)	EN 300 403-1	o	
	GSM			
2	CFB where user B is provided with CBFNDUB and calling user is not notified of call diversion and there is no notification to forwarding subscriber	EN 300 952	o.7	
3	CFB where user B is provided with CBFNDUB and calling user is notified of call diversion and there is notification to forwarding subscriber		o.8	
4	CFB where calling user is not notified of call diversion		o.9	
5	CFB; Calling user is notified of call diversion		o.10	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.7	It is mandatory to support at least one of these options			
o.8	It is mandatory to support at least one of these options			
o.9	It is mandatory to support at least one of these options			
o.10	It is mandatory to support at least one of these options			

Table A.16: CFNRy service

Item	Service	Reference	Status	Support
	ISDN			
1	Call to a forwarding subscriber (CFNRy)	EN 300 403-1	o	
	GSM			
2	CFNRy - user B is provided with CFNRy and calling user is not notified of call diversion and there is no notification to forwarding subscriber	EN 300 952	o.11	
3	CFNRy - user B is provided with CFNRy and calling user is notified of call diversion and there is notification to forwarding subscriber		o.12	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.11	It is mandatory to support at least one of these options			
o.12	It is mandatory to support at least one of these options			

Table A.17: CFNRc service

Item	Service	Reference	Status	Support
	ISDN			
1	Call to forwarding subscriber (CFNRc)	EN 300 403-1	o	
	GSM			
2	CFNRc - User B is provided with CFNRc and calling user is not notified of call diversion	EN 300 952	o.13	
3	CFNRc - User B is provided with CFNRc and calling user is notified of call diversion		o.14	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.13	It is mandatory to support at least one of these options			
o.14	It is mandatory to support at least one of these options			

Table A.18: HOLD service

Item	Service	Reference	Status	Support
	ISDN			
1	Call hold (HOLD)	EN 300 403-1 ETS 300 141-1 ETS 300 196-1	o	
	GSM			
2	Call hold (HOLD)	EN 300 953	o	

Table A.19: CW service

Item	Service	Reference	Status	Support
	ISDN			
1	Call waiting (CW)	ETS 300 058-1 EN 300 403-1	o	
	GSM			
2	The called user is provided with CW	EN 300 953	o	

Table A.20.: ECT service

Item	Service	Reference	Status	Support
	ISDN			
1	ECT	ETS 300 369-1	o	

Table A.21: UUS1i service

Item	Service	Reference	Status	Support
	ISDN			
1	User-user signalling (UUS) service 1 implicitly requested	ETS 300 286-1	o	
	GSM			
2	User-user signalling (UUS) service 1 implicitly requested	EN 300 940	o	

Table A.22: UUS1e service

Item	Service	Reference	Status	Support
	ISDN			
1	User-user signalling (UUS) service 1 explicitly requested	ETS 300 286-1	o	
	GSM			
2	User-user signalling (UUS) service 1 explicitly requested	ETS 300 646-1	o	

Table A.23 UUS2 service

Item	Service	Reference	Status	Support
	ISDN			
1	User-user signalling (UUS) 2 service	ETS 300 286-1	o	
	GSM			
2	User-user signalling (UUS) 2 service	ETS 300 646-1 TS 124 087	o	

Table A.24: UUS3 service

Item	Service	Reference	Status	Support
	ISDN			
1	User-user signalling (UUS) 3 service	ETS 300 286-1	o	
	GSM			
2	User-user signalling (UUS) 3 service	ETS 300 646-1 TS 124 087	o	

Table A.25: Interaction CFU/CLIP/COLP

Item	Service	Reference	Status	Support
	Configuration			
1.1	Interaction CFU/CLIP/COLP		o	
1.2	User A is provided with CLIP and COLP, and User B is provided with CFU and calling user is not notified of call diversion and User C is provided with CLIP	EN 300 951 EN 300 952 ETS 300 092-1 ETS 300 097-1	o.15	
1.3	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFU and calling user is not notified of call diversion		o.16	
1.4	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFU and calling user is notified of call diversion		o.17	
1.5	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFU and calling user is notified of call diversion and CLIP		o.18	
1.6	User A is provided with CLIP and COLP, user C is provided with COLR and CLIP and user B is provided with CFU and calling user is notified of call diversion and CLIP		o.19	
o.15	It is mandatory to support at least one of these options			
o.16	It is mandatory to support at least one of these options			
o.17	It is mandatory to support at least one of these options			
o.18	It is mandatory to support at least one of these options			
o.19	It is mandatory to support at least one of these options			

Table A.26: Interaction CFB/CLIP/COLP

Item	Service	Reference	Status	Support
	Configuration			
1.1	Interaction CFB/CLIP/COLP		o	
1.2	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFBUDUB and calling user is notified of call diversion and there is notification to forwarding subscriber	EN 300 951 EN 300 952 ETS 300 092-1 ETS 300 097-1	o.20	
1.3	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFBUDUB and calling user is not notified of call diversion and there is no notification to forwarding subscriber and CLIR		o.21	
1.4	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFBUDUB and calling user is not notified of call diversion and CLIR		o.22	
1.5	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFBUDUB and calling user is notified of call diversion and CLIP		o.23	
1.6	User A is provided with CLIR and COLP, and User B is provided with CFU and calling user is notified of call diversion, User C is provided with COLR and CLIP		o.24	
1.7	User A is provided with CLIP and COLP, user C is provided with CLIP and user B is provided with CFBNDUB and calling user is not notified of call diversion and there is no notification to forwarding subscriber		o.25	
1.8	User A is provided with CLIR and COLP, user C is provided with COLR and CLIP and user B is provided with CFBNDUB and calling user is notified of call diversion and there is notification to forwarding subscriber		o.26	
1.9	User A is provided with CLIP and COLP, user C is provided with COLR and CLIP and user B is provided with CFBUDUB and calling user is notified of call diversion and CLIP		o.27	
o.20	It is mandatory to support at least one of these options			
o.21	It is mandatory to support at least one of these options			
o.22	It is mandatory to support at least one of these options			
o.23	It is mandatory to support at least one of these options			
o.24	It is mandatory to support at least one of these options			
o.25	It is mandatory to support at least one of these options			
o.26	It is mandatory to support at least one of these options			
o.27	It is mandatory to support at least one of these options			

Table A.27: Interaction CFNRy/CLIP/COLP

Item	Service	Reference	Status	Support
	Configuration			
1.1	Interaction CFNRy/CLIP/COLP		o	
1.2	User A is provided with CLIR and COLP, user C is provided with COLR and CLIP and user B is provided with CFNRy and calling user is notified of call diversion and there is notification to forwarding subscriber	EN 300 951 EN 300 952 ETS 300 092-1 ETS 300 097-1	o.28	
1.3	User A is provided with COLP, user C is provided with CLIP and user B is provided with CFNRy and calling user is notified of call diversion and there is notification to forwarding subscriber		o.29	
o.28	It is mandatory to support at least one of these options			
o.29	It is mandatory to support at least one of these options			

Table A.28: Interaction CFNRc/CLIP/COLP

Item	Service	Reference	Status	Support
	Configuration			
1.1	Configuration ISDN-GSM		o	
1.2	Interaction CFNRc/CLIP/COLP	EN 300 951 EN 300 952 ETS 300 092-1 ETS 300 097-1	o	
1.3	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFNRc and calling user is notified of call diversion		o.30	
1.4	User A is provided with CLIP and COLP, User C is provided with CLIP and User B is provided with CFNRc and calling user is not notified of call diversion and CLIR		o.31	
1.5	User A is provided with CLIP and COLP, user C is provided with COLR and CLIP and user B is provided with CFU and calling user is notified of call diversion and CLIP		o.32	
o.30	It is mandatory to support at least one of these options			
o.31	It is mandatory to support at least one of these options			
o.32	It is mandatory to support at least one of these options			

A.4.2.1 Non-symmetrical tests

Table A.29: TP service

Item	Service	Reference	Status	Support
	ISDN			
1	Terminal portability (TP)	ETS 300 055-1	c.1	
c.1:	Precondition: must be a basic access			

A.5 Interworking PSTN-GSM

A.5.1 Basic call

When performing network integration testing between PSTN and GSM users, the following tables related to the implemented interworking capabilities should be filled in.

Table A.30: PSTN-GSM interworking capabilities, basic call

Item	Service	Reference	Status	Support
	PSTN			
1	Call establishment to a GSM user	ETS 300 001	o	
	GSM			
2	Multi Numbering Scheme and TS11	EN 300 940	o	

A.5.2 Interworking PSTN-GSM -Supplementary services

Table A.31: CLIP service

Item	Service	Reference	Status	Support
	PSTN			
1	Call to a GSM user	ETS 300 001	o	
	GSM			
2	The called user is provided with CLIP	EN 300 940 EN 300 951	o	

Table A.32: CLIR service

Item	Service	Reference	Status	Support
	PSTN			
1	The calling user is provided with CLIR subscription	ETS 300 001 ETS 300 093-1	o	
	GSM			
2	The called user is provided with CLIP	EN 300 951	o	

Table A.33: CUG service

Item	Service	Reference	Status	Support
	PSTN			
1	Closed user group (Calling user is not member of a CUG)	ETS 300 001	o	
	GSM			
2	CUG incoming access "not allowed"	TS 100 569	o	

Table A.34: CFU service

Item	Service	Reference	Status	Support
1	Configuration PSTN-GSM			
	PSTN			
2	Call to a forwarding subscriber (CFU)	ETS 300 001	o	
	GSM			
3	Call forwarding unconditional (CFU)	EN 300 952	o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				

Table A.35: CFB service

Item	Service	Reference	Status	Support
1	Configuration PSTN-GSM			
	PSTN			
2	Call to a forwarding subscriber (CFB)	ETS 300 001	o	
	GSM			
3	CFB- Called user with CFBUDUB	EN 300 952	o.33	
4	CFB - Called user with CFBNDUB and notification to forwarding subscriber		o.34	
5	CFB - Called user with CFBNDUB and no notification to forwarding subscriber		o.35	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.33: It is mandatory to support at least one of these options o.34: It is mandatory to support at least one of these options o.35: It is mandatory to support at least one of these options				

Table A.36: CFNRy service

Item	Service	Reference	Status	Support
1	Configuration PSTN-GSM			
	PSTN			
2	Call to a forwarding subscriber (CFNRy)	ETS 300 001	o	
	GSM			
3	CFNRy with notification to forwarding subscriber	EN 300 952	o.36	
4	CFNRy with no notification to forwarding subscriber		o.37	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.36: It is mandatory to support at least one of these options o.37: It is mandatory to support at least one of these options				

Table A.37: CFNRc service

Item	Service	Reference	Status	Support
1	Configuration PSTN-GSM			
	PSTN			
2	Call to forwarding subscriber (CFNRc)	ETS 300 001	o	
	GSM			
3	CFNRc with notification to forwarding subscriber	EN 300 952	o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				

A.5.2.1 Non-symmetrical tests

Table A.38: Call barring service

Item	Service	Reference	Status	Support
	GSM			
1	The Network B supports barring of all incoming calls (BAIC) and barring of incoming calls when roaming outside the home GSM country (BIC-Roam). The MS is roaming outside the home GSM country.	TS 100 956	o	

Table A.39: Multiparty service

Item	Service	Reference	Status	Support
	GSM			
1	MPTY	EN 300 954	o	

A.6 GSM-ISDN Interworking

A.6.1 Basic call

Table A.40: Teleservice 11

Item	Service	Reference	Status	Support
	GSM			
1	Teleservice 11	EN 300 940 TS 100 976	o	
	ISDN			
2	Services based on bearer capability speech	EN 300 403-1	o	

Table A.41: Teleservice 12

Item	Service	Reference	Status	Support
	GSM			
1	Teleservice 12	EN 300 940 TS 100 976	o	
	ISDN			
2	Services based on bearer capability speech	EN 300 403-1	o	

Table A.42: Information transfer 3,1 kHz audio, ex PLMN

Item	Service	Reference	Status	Support
	GSM			
1	Audio	EN 300 940	o	
	ISDN			
2	Bearer service 3,1kHz audio	EN 300 403-1	o	

Table A.43: User rates for 3,1 kHz/GSM-ISDN

Item	Service	Reference	Status	Support
	GSM			
1	Selection criteria: synchronous mode, BS 31 MODE: synchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s	EN 300 940	o	
2	Selection criteria: synchronous mode, BS 32 MODE: synchronous USER_RATE: 2,4kbit/s G_USER_RATE: 2,4 kbit/s		o	
3	Selection criteria: synchronous mode, BS 33 MODE: synchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
4	Selection criteria: synchronous mode, BS 34 MODE: synchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	
5	Selection criteria: asynchronous mode, BS 21 MODE: asynchronous USER_RATE: 0,3 kbit/s G_USER_RATE: 0,3 kbit/s		o	
6	Selection criteria: asynchronous mode, BS 22 MODE: asynchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s		o	
7	Selection criteria: asynchronous mode, BS 24 MODE: asynchronous USER_RATE: 2,4kbit/s G_USER_RATE: 2,4 kbit/s		o	
8	Selection criteria: asynchronous mode, BS 25 MODE: asynchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
9	Selection criteria: asynchronous mode, BS 26 MODE: asynchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	

Table A.44: Information transfer unrestricted digital information

Item	Service	Reference	Status	Support
	GSM			
1	UDI	EN 300 940	o	
	ISDN			
2	Bearer service UDI	EN 300 403-1	o	

Table A.45 User rates for UDI/GSM-ISDN

Item	Service	Reference	Status	Support
	GSM			
1	Selection criteria: synchronous mode, BS 31 MODE: synchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s	EN 300 940	o	
2	Selection criteria: synchronous mode, BS 32 MODE: synchronous USER_RATE: 2,4kbit/s G_USER_RATE: 2,4 kbit/s		o	
3	Selection criteria: synchronous mode, BS 33 MODE: synchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
4	Selection criteria: synchronous mode, BS 34 MODE: synchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	
5	Selection criteria: asynchronous mode, BS 21 MODE: asynchronous USER_RATE: 0,3 kbit/s G_USER_RATE: 0,3 kbit/s		o	
6	Selection criteria: asynchronous mode, BS 22 MODE: asynchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s		o	
7	Selection criteria: asynchronous mode, BS 24 MODE: asynchronous USER_RATE: 2,4kbit/s G_USER_RATE: 2,4 kbit/s		o	
8	Selection criteria: asynchronous mode, BS 25 MODE: asynchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
9	Selection criteria: asynchronous mode, BS 26 MODE: asynchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	

Table A.46: Teleservice 62/Automatic Facsimile G3

Item	Service	Reference	Status	Support
	GSM			
1	Teleservice 62 / Automatic Facsimile G3	EN 300 940 TS 100 976	o	
	ISDN			
2	Telefax G3 terminals	EN 300 403-1	o	

Table A.47: Teleservice 61/Alternate speech and facsimile group 3

Item	Service	Reference	Status	Support
	GSM			
1	Teleservice 61	EN 300 940 TS 100 976	o	
	ISDN			
2	Bearer service 3,1 kHz audio	EN 300 403-1	o	

Table A.48: Bearer service 81/Speech followed by data

Item	Service	Reference	Status	Support
	GSM			
1	Bearer service 81 / Speech followed by data	EN 300 940 TS 100 976 TS 100 913	o	
	ISDN			
2	Bearer service 3,1 kHz audio	EN 300 403-1	o	

A.6.2 GSM-ISDN Interworking - Supplementary services

Table A.49: CLIP service

Item	Service	Reference	Status	Support
	GSM			
1	The calling user is provided with CLIP	EN 300 940 EN 300 951	o	
	ISDN			
2	The called user is provided with CLIP	ETS 300 092-1	o	

Table A.50: CLIR service

Item	Service	Reference	Status	Support
	GSM			
1	CLIR	EN 300 940 EN 300 951	o	
	ISDN			
2	The called user is provided with CLIP	ETS 300 092-1 ETS 300 093-1	o	

Table A.51: COLP service

Item	Service	Reference	Status	Support
	GSM			
1	Calling user is provided with COLP	EN 300 940 EN 300 951	o	
	ISDN			
2	COLP	ETS 300 097-1	o	

Table A.52: COLR service

Item	Service	Reference	Status	Support
	GSM			
1	The calling user is provided with COLP	EN 300 940	o	
	ISDN			
2	COLR	EN 300 403-1 ETS 300 098-1	o	

Table A.53: CUG service

Item	Service	Reference	Status	Support
	GSM			
1	CUG supporting options are not OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of ISDN user are IA and not ICB	TS 100 569	o	
2	CUG supporting options are not OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of ISDN user are not IA and not ICB		o	
3	CUG supporting options are OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of ISDN user are IA and not ICB		o	
4	CUG supporting options are OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of ISDN user are IA and ICB		o	
5	CUG supporting options are OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of ISDN user are not IA and ICB		o	
6	CUG supporting options are OA, not OCB, not Pref. CUG for GSM user and called user is not a CUG subscriber		o	
7	CUG supporting options are not OA, not OCB, not Pref. CUG for GSM user and called user is not a CUG subscriber		o	
8	Calling user is not a CUG subscriber and called user CUG supporting options are not IA and not ICB		o	
	ISDN			
2	CUG	ETS 300 138-1	o	

Table A.54: SUB service

Item	Service	Reference	Status	Support
	GSM			
1	Subaddressing (SUB)	EN 300 940	o	
	ISDN			
2	Subaddressing (SUB)	EN 300 403-1	o	

Table A.55: HOLD service

Item	Service	Reference	Status	Support
	GSM			
1	Call hold (HOLD)	EN 300 940 EN 300 953	o	
	ISDN			
2	Call hold (HOLD)	EN 300 403-1 ETS 300 141-1	o	

Table A.56: CW service

Item	Service	Reference	Status	Support
	GSM			
1	Call waiting (CW)	EN 300 940 EN 300 953	o	
	ISDN			
2	Call waiting	EN 300 403-1 ETS 300 058-1	o	

Table A.57: UUS1

Item	Service	Reference	Status	Support
	GSM			
1	User-user signalling (UUS) service	EN 300 940	o	
	ISDN			
2	User-user signalling (UUS) service	EN 300 403-1	o	

Table A.58: ECT service

Item	Service	Reference	Status	Support
	ISDN			
1	ECT	ETS 300 369-1	o	

Table A.59: CFU Configuration - GSM-ISDN

Item	Service	Reference	Status	Support
	Configuration			
1.1	Configuration GSM-ISDN		o	
1.2	CFU; User B is in network N2 and is provided with CFU and calling user is notified of call diversion and there is notification to forwarding subscriber and with diverted-to number	ETS 300 207-1 EN 300 952 TS 100 543	o.38	
1.3	CFU; User B is in network N2 and is provided with CFU and calling user is not notified of call diversion and there is no notification to forwarding subscriber and without diverted-to number		o.39	
o.38	It is mandatory to support at least one of these options			
o.39	It is mandatory to support at least one of these options			

Table A.60: CFB - Configuration GSM-ISDN

Item	Service	Reference	Status	Support
	Configuration			
1.1	Configuration GSM-ISDN		o	
1.2	CFB; User B is in network N2 and is provided with CFBNDUB and calling user is notified of call diversion and there is notification to forwarding subscriber and with diverted to number	ETS 300 207-1 ETS 300 092-1 EN 300 951	o.40	
1.3	CFB; User B is in network N2 and is provided with CFBNDUB and calling user is not notified of call diversion and there is no notification to forwarding subscriber and without diverted-to number		o.41	
1.4	User B is in network N2 and is provided with CFBUDUB and calling user is notified of call diversion and there is notification to forwarding subscriber and with diverted-to number		o.42	
1.5	User B is in network N2 and is provided with CFBUDUB and calling user is not notified of call diversion and there is no notification to forwarding subscriber and without diverted-to number		o.43	
o.40	It is mandatory to support at least one of these options			
o.41	It is mandatory to support at least one of these options			
o.42	It is mandatory to support at least one of these options			
o.43	It is mandatory to support at least one of these options			

Table A.61: CFNR - Configuration GSM-ISDN

Item	Service	Reference	Status	Support
	Configuration			
1.1	Configuration GSM-ISDN		o	
1.2	CFNR; User B is in network N2 and is provided with CFNR option A (late release) and calling user is notified of call diversion and with diverted-to number	ETS 300 207-1 ETS 300 092-1 EN 300 951	o.44	
1.3	CFNR; User B is in network N2 and is provided with CFNR option A (late release) and calling user is not notified of call diversion and without diverted-to number		o.45	
o.44	It is mandatory to support at least one of these options			
o.45	It is mandatory to support at least one of these options			

A.6.2.1 Non-symmetrical tests

Table A.62: TP service

Item	Service	Reference	Status	Support
	ISDN			
1	Terminal portability (TP)	ETS 300 055-1	c.2	
c.2:	Precondition: must be a basic rate interface access			

Table A.63: MPTY service

Item	Service	Reference	Status	Support
	GSM			
1	MPTY	EN 300 954	o	

A.7 GSM- PSTN interworking

When performing network integration testing between GSM and PSTN users, the following tables related to the implemented interworking capabilities should be filled in.

A.7.1 Basic call

Table A.64: GSM - PSTN interworking capabilities, basic call

Item	Service	Reference	Status	Support
GSM				
1	call establishment using information transfer speech (TS11) to a PSTN user	EN 300 940	o	
2	call establishment using the information transfer 3,1 kHz ex GSM to a PSTN user		o	
3	call establishment using Teleservice 62 / Automatic Facsimile group 3		o	
4	call establishment using Teleservice 61 / Alternate speech and facsimile group 3		o	
5	call establishment using Emergency calls		o	

A.7.2 GSM-PSTN Interworking - Supplementary services

Table A.65: CLIP service

Item	Service	Reference	Status	Support
GSM				
1	Basic call to a user provided with CLIP Service	EN 300 940	o	
PSTN				
2	The called user is provided with CLIP	ETS 300 648	o	

Table A.66: CLIR service

Item	Service	Reference	Status	Support
GSM				
1	Calling user is provided with CLIR	EN 300 940 EN 300 951	o	
PSTN				
2	The called user is provided with CLIP	ETS 300 648	o	

Table A.67: COLP service

Item	Service	Reference	Status	Support
GSM				
1	COLP; Calling user is provided with COLP	EN 300 940 EN 300 951	o	
PSTN				
2	COLP	Network operator specific	o	

Table A.68: CUG service

Item	Service	Reference	Status	Support
	GSM			
1	CUG service	TS 100 569	o	
2	CUG with outgoing access "allowed"		o.46	
3	CUG outgoing access not "allowed"		o.47	
	PSTN			
4	The called user is not member of CUG	ETS 300 001	o	
o.46	It is mandatory to support at least one of these options.			
o.47	It is mandatory to support at least one of these options.			

Table A.69: CFU service

Item	Service	Reference	Status	Support
1	Configuration GSM-PSTN			
	GSM			
2	CFU; User B is in network N2 and is provided with CFU and calling user is notified of call diversion and with diverted-to number	EN 300 940	o.48	
3	CFU; User B is in network N2 and is provided with CFU and calling user is not notified of call diversion and without diverted-to number		o.49	
	PSTN			
4	Call forwarding unconditional (CFU)	Network operator specific	o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.48	It is mandatory to support at least one of these options.			
o.49	It is mandatory to support at least one of these options.			

Table A.70: CFB service

Item	Service	Reference	Status	Support
1	Configuration GSM-PSTN			
	GSM			
2	CFB; User B is in network N2 and is provided with CFB and calling user is notified of call diversion and with diverted-to number	EN 300 940	o.50	
3	CFB; User B is in network N2 and is provided with CFB and calling user is not notified of call diversion and without diverted-to number		o.51	
	PSTN			
4	Call forwarding busy (CFB)	Network operator specific	o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.50	It is mandatory to support at least one of these options.			
o.51	It is mandatory to support at least one of these options.			

Table A.71: CFNR service

Item	Service	Reference	Status	Support
1	Configuration GSM-PSTN			
	GSM			
2	CFNR - User B is in network N2 and is provided with CFNR and calling user is notified of call diversion and with diverted-to number	EN 300 940	o.52	
3	CFNR - User B is in network N2 and is provided with CFNR and calling user is not notified of call diversion and without diverted-to number		o.53	
	PSTN			
4	Call forwarding on no reply (CFNR)	Network operator specific	o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.52	It is mandatory to support at least one of these options.			
o.53	It is mandatory to support at least one of these options.			

A.7.2.1 Non-symmetrical tests

Table A.72: MPTY

Item	Service	Reference	Status	Support
	GSM			
1	MPTY	EN 300 954	o	

A.8 GSM-GSM Interworking

A.8.1 Basic call

Table A.73: Teleservice 11

Item	Service	Reference	Status	Support
	GSM			
1	TS11 for user originated call	EN 300 940	o	

Table A.74: Information transfer 3,1 kHz audio, ex PLMN

Item	Service	Reference	Status	Support
	GSM			
1	Audio	EN 300 940	o	

Table A.75: User rates for 3,1 kHz ex PLMN GSM/GSM

Item	Service	Reference	Status	Support
GSM				
1	Selection criteria: synchronous mode, BS 31 MODE: synchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s	EN 300 940	o	
2	Selection criteria: synchronous mode, BS 32 MODE: synchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s		o	
3	Selection criteria: synchronous mode, BS 33 MODE: synchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
4	Selection criteria: synchronous mode, BS 34 MODE: synchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	
5	Selection criteria: asynchronous mode, BS 21 MODE: asynchronous USER_RATE: 0,3 kbit/s G_USER_RATE: 0,3 kbit/s		o	
6	Selection criteria: asynchronous mode, BS 22 MODE: asynchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s		o	
7	Selection criteria: asynchronous mode, BS 24 MODE: asynchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s	EN 300 940	o	
8	Selection criteria: asynchronous mode, BS 25 MODE: asynchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
9	Selection criteria: asynchronous mode, BS 26 MODE: asynchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	

Table A.76: Information transfer unrestricted digital information

Item	Service	Reference	Status	Support
GSM				
1	UDI	EN 300 940 TS 100 976	o	

Table A.77: User rates for UDI - GSM/GSM

Item	Service	Reference	Status	Support
GSM				
1	Selection criteria: synchronous mode, BS 31 MODE: synchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s	EN 300 940	o	
2	Selection criteria: synchronous mode, BS 32 MODE: synchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s		o	
3	Selection criteria: synchronous mode, BS 33 MODE: synchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
4	Selection criteria: synchronous mode, BS 34 MODE: synchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	
5	Selection criteria: asynchronous mode, BS 21 MODE: asynchronous USER_RATE: 0,3 kbit/s G_USER_RATE: 0,3 kbit/s		o	
6	Selection criteria: asynchronous mode, BS 22 MODE: asynchronous USER_RATE: 1,2 kbit/s G_USER_RATE: 1,2 kbit/s		o	
7	Selection criteria: asynchronous mode, BS 24 MODE: asynchronous USER_RATE: 2,4 kbit/s G_USER_RATE: 2,4 kbit/s		o	
8	Selection criteria: asynchronous mode, BS 25 MODE: asynchronous USER_RATE: 4,8 kbit/s G_USER_RATE: 4,8 kbit/s		o	
9	Selection criteria: asynchronous mode, BS 26 MODE: asynchronous USER_RATE: 9,6 kbit/s G_USER_RATE: 9,6 kbit/s		o	

Table A.78: Teleservice 62/Automatic Facsimile G3

Item	Service	Reference	Status	Support
GSM				
1	TS 62	EN 300 940	o	
2	With TS62 for user originated call		o	
3	TS62 for user originated call and TS11 for user terminated call		o	

Table A.79: Teleservice 61

Item	Service	Reference	Status	Support
GSM				
1	Teleservice 61	EN 300 940	o	
2	TS61 where user A and user B are in the same PLMN and user B is roaming in a VPLMN		o	
3	TS61 and single numbering scheme		o	

Table A.80: BS 61

Item	Service	Reference	Status	Support
GSM				
1	BS 61	EN 300 940	o	
2	BS 61 and single numbering scheme		o	
3	BS 61 where user A and user B are in the same PLMN and user B is roaming in a VPLMN		o	
4	BS61 Asynchronous and BS22		o	
5	BS61 Asynchronous and single numbering scheme and BS22		o	
6	BS61 where user A and user B are in the same PLMN and user B is roaming in a VPLMN , asynchronous mode and BS22		o	

Table A.81: Bearer service 81/Speech followed by data

Item	Service	Reference	Status	Support
GSM				
1	BS81	EN 300 940	o	
2	BS81 and single numbering scheme		o	
3	BS81; User A and user B are in the same PLMN and user B is roaming in a VPLMN		o	
4	BS81 Async and BS22		o	
5	BS81; User A and user B are in the same PLMN and user B is roaming in a VPLMN, asynchronous mode and BS22		o	

Table A.82: Short message service

Item	Service	Reference	Status	Support
GSM				
1	Short message service	ETS 300 559	o	

A.8.2 GSM-GSM Interworking - Supplementary services

Table A.83: CLIP service

Item	Service	Reference	Status	Support
GSM - Origination				
1	The calling user is provided with CLIP	EN 300 940 EN 300 951	o	
GSM - Destination				
2	The called user is provided with CLIP	EN 300 940 EN 300 952	o	

Table A.84: CLIR service

Item	Service	Reference	Status	Support
GSM-Origination				
1	The calling user is provided with CLIR	EN 300 940 EN 300 951	o	
GSM-Destination				
2	The called user is provided with CLIP	EN 300 940 EN 300 952	o	

Table A.85: COLP service

Item	Service	Reference	Status	Support
GSM - Origination				
1	Calling user is provided with COLP	EN 300 940 EN 300 951	o	
GSM - Destination				
2	Connected line identification presentation (COLP)	EN 300 940 EN 300 952	o	
Please specify any national deviations, e.g. activation procedure:				

Table A.86: COLR service

Item	Service	Reference	Status	Support
GSM - Origination				
1	The calling user is provided with COLP	EN 300 940 EN 300 951	o	
GSM - Destination				
2	Connected line identification restriction (COLR)	EN 300 940 EN 300 952	o	

Table A.87: CUG service

Item	Service	Reference	Status	Support
GSM				
1	CUG supporting options are not OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of GSM user are IA and not ICB	TS 100 569	o	
2	CUG supporting options are not OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of GSM user are not IA and not ICB		o	
3	CUG supporting options are OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of called user are IA and not ICB		o	
4	CUG supporting options are OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of called user are IA and ICB		o	
5	CUG supporting options are OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of called user are not IA and ICB		o	
6	CUG supporting options are OA, not OCB, not Pref. CUG for calling user and called user is not a CUG subscriber		o	
7	CUG supporting options are not OA, not OCB, not Pref. CUG for calling user and called user is not a CUG subscriber		o	
8	Calling user is not a CUG subscriber and CUG supporting options of called user are not IA and not ICB		o	
9	CUG supporting options are not OA, not OCB, not Pref. CUG for calling user and calling and called user have the same CUG, and CUG supporting options of GSM user are IA and not ICB where user A and user B are in the same PLMN and user B is roaming in a VPLMN		o	

Item	Service	Reference	Status	Support
	GSM			
10	CUG supporting options are not OA, not OCB, not Pref. CUG for calling user and calling and called user have the same CUG, and CUG supporting options of called user are not IA and not ICB where user A and user B are in the same PLMN and user B is roaming in a VPLMN	TS 100 569	o	
11	CUG supporting options are OA, not OCB, not Pref. CUG for calling user and calling and called user have the same CUG, and CUG supporting options of called user are IA and not ICB where user A and user B are in the same PLMN and user B is roaming in a VPLMN		o	
12	CUG supporting options are OA, not OCB, not Pref. CUG for calling user and calling and called user have the same CUG, and CUG supporting options of called user are not IA and ICB where user A and user B are in the same PLMN and user B is roaming in a VPLMN		o	
13	CUG supporting options are OA, not OCB, not Pref. CUG for calling user and calling and called user have the same CUG, and CUG supporting options of called user are IA and ICB where user A and user B are in the same PLMN and user B is roaming in a VPLMN		o	
14	CUG supporting options are not OA, not OCB, not Pref. CUG. Calling and called user have the same CUG, and CUG supporting options of GSM user are IA and not ICB where user A and user B are in the same PLMN and user B is roaming in a VPLMN		o	
15	CUG supporting options are not OA, not OCB, not Pref. CUG for calling user, user A is roaming in a VPLMN and calling and called user have the same CUG, and CUG supporting options of GSM user are IA and not ICB where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A		o	
16	CUG supporting options are OA, not OCB, not Pref. CUG for calling user, user A is roaming in a VPLMN and calling and called user have the same CUG, and CUG supporting options of GSM user are IA and not ICB where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A	TS 100 569	o	
17	CUG supporting options are OA, not OCB, not Pref. CUG for calling user, user A is roaming in a VPLMN and calling and called user have the same CUG, and CUG supporting options of GSM user are not IA and ICB where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A		o	
18	CUG supporting options are OA, not OCB, not Pref. CUG for calling user, user A is roaming in a VPLMN and calling and called user have the same CUG, and CUG supporting options of GSM user are IA and ICB where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A		o	
19	CUG supporting options are OA, not OCB, not Pref. CUG for calling user, user A is roaming in a VPLMN and calling and called user have the same CUG, and CUG supporting options of GSM user are not IA and not ICB where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A		o	
20	CUG supporting options are OA, not OCB, not Pref. CUG for calling user, user A is roaming in a VPLMN and called user is not a CUG subscriber where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A		o	

Item	Service	Reference	Status	Support
	GSM			
21	CUG supporting options are not OA, not OCB, not Pref. CUG for calling user, user A is roaming in a VPLMN and called user is not a CUG subscriber where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A		o	
22	Calling user is not a CUG subscriber, user A is roaming in a VPLMN and calling and called user have the same CUG, and CUG supporting options of GSM user are not IA and not ICB where user A and user B are in the same PLMN and user B is roaming in the same VPLMN as user A		o	

Table A.88: CUG/CFU interactions

Item	Service	Reference	Status	Support
	GSM			
1	User A belongs to CUG with supporting options not OA, not ocb, not Pref CUG, user B belongs to the same CUG with supporting options not OA, not ocb, not Pref CUG and user B is provided with CFU and has active call forwarding to C which belongs to the same CUG with supporting options not IA, not ICB	TS 100 569	o	
2	User A belongs to CUG with supporting options not OA, not ocb, not Pref CUG, user B belongs to the same CUG with supporting options not OA, not ocb, not Pref CUG and user B is provided with CFU and has active call forwarding to C which is not a CUG subscriber		o	
3	User A belongs to CUG with supporting options not OA, not ocb, not Pref CUG, user B belongs to the same CUG with supporting options OA, not ocb, not Pref CUG and user B is provided with CFU and has active call forwarding to C which is not a CUG subscriber		o	
4	User A belongs to CUG with supporting options OA, not ocb, not Pref CUG, user B belongs to the same CUG with supporting options not OA, not ocb, not Pref CUG and user B is provided with CFU and has active call forwarding to C which is not a CUG subscriber		o	
5	User A belongs to CUG with supporting options OA, not ocb, not Pref CUG, user B belongs to the same CUG with supporting options not OA, not ocb, not Pref CUG and user B is provided with CFU and has active call forwarding to C which belongs to the same CUG		o	

Table A.89: SUB service

Item	Service	Reference	Status	Support
	GSM			
1	Subaddressing (SUB)	EN 300 940	o	

Table A.90: CFU service

Item	Service	Reference	Status	Support
	GSM			
1	User A and C are in network N1 and user B is in network N2 and is provided with CFU and calling user is notified of call diversion	EN 300 940 EN 300 952	o	
2	User A and C are in network N1 and user B is in network N2 and is provided with CFU and calling user is not notified of call diversion		o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				

Table A.91: CFB service

Item	Service	Reference	Status	Support
	GSM			
1	User A and C are in network N1 and user B is in network N2 and is provided with CFBNDUB and calling user is notified of call diversion	EN 300 940 EN 300 952	o.54	
2	User A and C are in network N1 and user B is in network N2 and is provided with CFBNDUB and calling user is not notified of call diversion		o.55	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.54	It is mandatory to support at least one of these options.			
o.55	It is mandatory to support at least one of these options.			

Table A.92: CFNRy service

Item	Service	Reference	Status	Support
	GSM			
1	User A and C are in network N1 and user B is in network N2 and is provided with CFNRy and calling user is notified of call diversion and there is notification to forwarding subscriber	EN 300 940 EN 300 952	o	
2	User A and C are in network N1 and user B is in network N2 and is provided with CFNRy and calling user is not notified of call diversion and there is no notification to forwarding subscriber		o	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				

Table A.93: CFNRc service

Item	Service	Reference	Status	Support
	GSM			
1	User A and C are in network N1 and user B is in network N2 and is provided with CFNRc and calling user is notified	EN 300 940 EN 300 952	o.56	
2	User A and C are in network N1 and user B is in network N2 and is provided with CFNRc and calling user is not notified of call diversion		o.57	
Please specify configuration: (if other than A and C in Originating network, B in Destination Network)				
o.56	It is mandatory to support at least one of these options.			
o.57	It is mandatory to support at least one of these options.			

Table A.94: HOLD service

Item	Service	Reference	Status	Support
	GSM			
1	Call hold (HOLD)	EN 300 940 EN 300 953	o	

Table A.95: CW/CFB interactions

Item	Service	Reference	Status	Support
	GSM			
1	User A and C are in network N1 and user B is in network N2 and is provided with CW and CFB and calling user is notified of call diversion	EN 300 940 EN 300 953	o.58	
2	User A and C are in network N1 and user B is in network N2 and is provided with CW and CFB and calling user is not notified of call diversion		o.59	
o.58	It is mandatory to support at least one of these options			
o.59	It is mandatory to support at least one of these options			

Table A.96: UUS1 service

Item	Service	Reference	Status	Support
	GSM			
1	User-user signalling (UUS) service 1 implicitly requested	EN 300 940	o	

Table A.97: MPTY

Item	Service	Reference	Status	Support
	GSM			
1	MPTY	EN 300 954	o	

Table A.98: Call barring service

Item	Service	Reference	Status	Support
	GSM - Origination			
1	The calling user activates Barring of Outgoing international	TS 100 956	o	
	GSM - Destination			
2	The GSM supports barring of all incoming calls (BAIC).	TS 100 956	o.60	
3	The Network B supports barring of all incoming calls (BAIC) and barring of incoming calls when roaming outside the home GSM country (BIC-Roam). The MS is roaming outside the home GSM country.		o.61	
o.60	It is mandatory to support at least one of these options			
o.61	It is mandatory to support at least one of these options			

Annex B (normative): Partial End-to-end IXIT proforma

B.1 Instructions for completing the IXIT proforma

Before running the end-to-end test suite each participating public network operator will need to supply information concerning the allocation and availability of suitable test numbers which will be required for setting up international connections.

This clause contains a questionnaire, which shall be completed before performing the end-to-end test suite. Additional information is used by the testing personnel for selecting and for setting the correct parameters on the test equipment.

This questionnaire contains only the information required to perform the tests.

B.2 Identification summary

PIXIT number:

.....

Date of issue:

.....

Issued to:

.....

B.3 Abstract test suite summary

Protocol specification:

ATS specification:

Abstract test method: Remote test method (see ISO/IEC 9646-2)

Annex C: Machine Processable (MP) format of End-to-end ATS

The TTCN MP file corresponding to this ATS is contained in the text-only file detailed below:

- MINIT- 53-CH01f.mp

Copies of this file may be obtained from your national Standards Organization (NSO).

Table B.1: IXIT Values

Item	Parameter	Value
1	P_COM_PATTERN_ISDN_GSM Pattern for B-channel check for all ISDN GSM test cases	
2	P_COMM_CHECK_TWICE_ISDN_GSM Check B-channel two times for all ISDN GSM test cases?	
3	P_COMM_CHECK_ISDN_GSM Do B-channel check for all ISDN GSM test cases?	
4	P_COM_PATTERN_PSTN_GSM Pattern for B-channel check for all PSTN GSM test cases	
5	P_COMM_CHECK_TWICE_PSTN_GSM Check B-channel two times for all PSTN GSM test cases?	
6	P_COMM_CHECK_PSTN_GSM Do B-channel check for all PSTN GSM test cases?	
7	P_COM_PATTERN_GSM_ISDN Pattern for B-channel check for all GSM ISDN test cases	
8	P_COMM_CHECK_TWICE_GSM_ISDN Check B-channel two times for all GSM ISDN test cases?	
9	P_COMM_CHECK_GSM_ISDN Do B-channel check for all GSM ISDN test cases?	
10	P_COM_PATTERN_GSM_PSTN Pattern for B-channel check for all GSM PSTN test cases	
11	P_COMM_CHECK_TWICE_GSM_PSTN Check B-channel two times for all GSM PSTN test cases?	
12	P_COMM_CHECK_GSM_PSTN Do B-channel check for all GSM PSTN test cases?	
13	P_COM_PATTERN_GSM_GSM Pattern for B-channel check for all GSM GSM test cases	
14	P_COMM_CHECK_TWICE_GSM_GSM Check B-channel two times for all GSM GSM test cases?	
15	P_COMM_CHECK_GSM_GSM Do B-channel check for all GSM GSM test cases?	
16	P_C_N1_Prefix Network N1 international prefix	

Item	Parameter	Value
17	P_G3_IMSI_A IMSI of GSM Subscriber A	
18	P_G3_IMSI_B IMSI of GSM Subscriber B	
19	P_G3_IMSI_C IMSI of GSM Subscriber C	
20	P_G3_IMSI_CUG_B IMSI of CUG User B	
21	P_G3_IMSI_CUG_D IMSI of CUG User D	
22	P_G3_IMSI_D IMSI of GSM Subscriber D	
23	P_G3_IMSI_E IMSI of GSM Subscriber E	
24	P_G3_IMSI_MNS IMSI of GSM subscriber with multi-numbering scheme	
25	P_G3_IMSI_SNS IMSI of GSM subscriber with single-numbering scheme	
26	P_G3_NUM_A Number of GSM subscriber A in HPLMN (Type of Number: unknown)	
27	P_G3_NUM_B Number of GSM subscriber B in VPLMN (Type of Number: unknown)	
28	P_G3_NUM_C Number of GSM subscriber C in HPLMN (Type of Number: unknown)	
29	P_G3_NUM_CUG_B GSM called party number for speech. User B is CUG member (IA, not ICB), (Type of Number: unknown)	
30	P_G3_NUM_CUG_C GSM called party number for speech. User C is CUG member (IA, ICB), (Type of Number: unknown)	
31	P_G3_NUM_CUG_D GSM called party number for speech. User D is CUG member (not IA, not ICB), (Type of Number: unknown)	
32	P_G3_NUM_CUG_E GSM called party number for speech. User E is CUG member (not IA, ICB), (Type of Number: unknown)	
33	P_G3_NUM_D Number of GSM subscriber D in HPLMN (Type of Number: unknown)	

Item	Parameter	Value
34	P_G3_NUM_E Number of GSM subscriber E in VPLMN (Type of Number: unknown)	
35	P_G3_NUM_INCOMPLETE GSM called party number (valid but incomplete number)	
36	P_G3_NUM_MNS_SPEECH MSISDN for GSM subscriber with multi-numbering scheme: Speech	
37	P_G3_NUM_MNS_TS61 MSISDN for GSM subscriber with multi-numbering scheme: TS61	
38	P_G3_NUM_MNS_UDI_48 MSISDN for GSM subscriber with multi-numbering scheme: UDI 4.8 kBit/s	
39	P_G3_NUM_N_C GSM called party number User C (national)	
40	P_G3_NUM_N_D Number of GSM subscriber D (Type of Number: national)	
41	P_G3_NUM_SNS IMSI of GSM subscriber with single-numbering scheme	
42	P_G3_NUM_UDI_CUG_D GSM called party number for UDI. User D is CUG member (not IA, not ICB), (Type of Number: unknown)	
43	P_G3_NUM_UNASSIGNED GSM called party number (unassigned number)	
44	P_G3_PASSWORD GSM Password for Supplementary Services	
45	P_G3_SMS_8BIT_CODING TRUE if 8 bit coding is used for the SMS data	
46	P_G3_SMS_NUM_A SMS calling party number	
47	P_G3_SMS_NUM_B SMS called party number	
48	P_G3_SMS_NUM_SC SMS number of the Service Center	
49	P_G3_SMS_TON_A type of number	
50	P_G3_SMS_TON_B type of number	
51	P_G3_SMS_TON_SC type of number	

Item	Parameter	Value
52	P_G3_SMS_TP_DATA short message data (hexadecimal)	
53	P_G3_TINIT originating PTC start delay timer	
54	P_G3_TI_V_1 First) GSM TI Value	
55	P_G3_TI_V_2 Second GSM TI Value for multiple originating calls	
56	P_G3_TMPTY timeout value for all multiparty related durations	
57	P_ID_ASUB Network N1 ISDN access number subaddress	
58	P_ID_BNUM_I Network N2 ISDN access number (international)	
59	P_ID_BSUB Network N2 ISDN access subaddress	
60	P_ID_CR_LEN_1 ISDN 1 CR Length	
61	P_ID_CR_LEN_2 ISDN 2 CR Length	
62	P_ID_CR_LEN_3 ISDN 3 CR Length	
63	P_ID_CR_LEN_4 ISDN 4 CR Length	
64	P_ID_CR_VALUE ISDN CR Value	
65	P_ID_CUG_INDEX Closed user group number (must be the same for both networks)	
66	P_ID_CUG_INDEX_2 Closed user group number (must be the same for both networks)	
67	P_ID_NUM_A Network N1 ISDN User A access number (Type of Number: unknown)	
68	P_ID_NUM_B Network N2 ISDN User B access number (Type of Number: unknown)	
69	P_ID_NUM_C Network N1 ISDN User C access number (Type of Number: unknown)	
70	P_ID_NUM_CUG_B Network N1 ISDN User B access number with CGU attributes (IA, not ICB) (international)	

Item	Parameter	Value
71	P_ID_NUM_CUG_C Network N1 ISDN User C access number with CGU attributes (IA, ICB) (international)	
72	P_ID_NUM_CUG_D Network N1 ISDN User D access number with CGU attributes (not IA, not ICB) (international)	
73	P_ID_NUM_CUG_E Network N1 ISDN User E access number with CGU attributes (not IA, ICB) (international)	
74	P_ID_NUM_D Network N1 ISDN User D access number (international)	
75	P_ID_NUM_FPH_B Network N1 ISDN User B access number with <FREEPHONE attributes (international)	
76	P_ID_NUM_I_A Network N1 ISDN User A access (international)	
77	P_ID_NUM_I_B Network N1 ISDN User B access (international)	
78	P_ID_NUM_N_A Network N1 ISDN User A access (national)	
79	P_ID_NUM_N_B Network N1 ISDN User B access (national)	
80	P_ID_NUM_S_A Network N1 ISDN User A access number (subscriber)	
81	P_ID_NUM_S_B Network N2 ISDN User B access number (subscriber)	
82	P_ID_NUM_UNASSIGNED Network N1 ISDN number (unassigned)	
83	P_ID_T_CFG_1 ISDN 1 T configuration ?	
84	P_ID_T_CFG_2 ISDN 2 T configuration ?	
85	P_ID_T_CFG_3 ISDN 3 T configuration ?	
86	P_ID_T_CFG_4 ISDN 4 T configuration ?	
87	P_G3_Appl_Description Executing external IP Application	
88	P_G3_Appl_Parameters	
89	P_P_CLI TRUE if CLI can be provided by PSTN (network N1) for calls to ISDN users	
90	P_P_COL TRUE if COL can be provided by PSTN (network N2) for calls from ISDN users	

Item	Parameter	Value
91	P_P_FREEPHONE_B Network N2 PSTN Freephone number User B (Type of Number: unknown)	
92	P_P_NUM_A PSTN called party number A	
93	P_P_NUM_B PSTN called party number B	
94	P_P_NUM_C PSTN called party number C	
95	P_P_NUM_D PSTN called party number D	
96	P_P_NUM_UNASSIGNED PSTN called party number (unassigned number)	
97	P_T_BCHECK Duration of B-channel check procedure in seconds (the duration of the watchdog timers T_WAIT and T_WAIT_MTC is increased respectively)	
98	P_T_STOP_RINGING Time (ms) after which ringing at (analog) B side has to terminate when A clears before answer	
99	P_T_WAIT Time (min) for waiting activity on called side. (e.g. 4 min) if P_T_BCHECK is 0 or if there is no traffic channel check is to be done	
100	P_T_WAIT_MTC Time (min) for the MTC to wait for all the PTCs' verdicts MUST be longer than P_T_WAIT (e.g. 6 min)	

B.4 Test campaign report

Table B.2

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___SP__01				
IG___SP__02				
IG___SP__03				
IG___SP__04				
IG___SP__05				
IG___AU__01				
IG___AU__02				
IG___AU__03				
IG___AU__04				
IG___AU__05				
IG___AU__06				
IG___AU__07				
IG___AU__08				
IG___AU__09				
IG___AU__10VA01				
IG___AU__10VA02				
IG___AU__10VA03				
IG___AU__10VA04				
IG___AU__10VA05				
IG___AU__10VA06				
IG___AU__10VA07				
IG___AU__10VA08				
IG___AU__10VA09				
IG___AU__11VA01				
IG___AU__11VA02				
IG___AU__11VA03				
IG___AU__11VA04				
IG___AU__11VA05				
IG___AU__11VA06				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___AU__11VA07				
IG___AU__11VA08				
IG___AU__11VA09				
IG___AU__12VA01				
IG___AU__12VA02				
IG___AU__12VA03				
IG___AU__12VA04				
IG___AU__12VA05				
IG___AU__12VA06				
IG___AU__12VA07				
IG___AU__12VA08				
IG___AU__12VA09				
IG___DU__01				
IG___DU__02				
IG___DU__03				
IG___DU__04				
IG___DU__05VA01				
IG___DU__05VA02				
IG___DU__05VA03				
IG___DU__05VA04				
IG___DU__05VA05				
IG___UD__05VA06				
IG___UD__05VA07				
IG___UD__05VA08				
IG___UD__05VA09				
IG___UD__06VA01				
IG___UD__06VA02				
IG___UD__06VA03				
IG___UD__06VA04				
IG___UD__06VA05				
IG___UD__06VA06				
IG___UD__06VA07				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___UD__06VA08				
IG___UD__06VA09				
IG___UD__07VA01				
IG___UD__07VA02				
IG___UD__07VA03				
IG___UD__07VA04				
IG___UD__07VA05				
IG___UD__07VA06				
IG___UD__07VA07				
IG___UD__07VA08				
IG___UD__07VA09				
IG___SP_U01				
IG___SP_U02				
IG___SP_U03				
IG___SP_U04				
IG___SP_U05				
IG___SP_U06				
IG___SP_U07				
IG___SP_U08				
IG___SP_U09				
IG___SP_U10				
IG___SP_U11				
IG___AU_U01				
IG___AU_U02				
IG___AU_U03				
IG___AU_U04				
IG___AU_U05				
IG___AU_U06				
IG___AU_U07				
IG_____AU_U08_SNS				
IG___AU_U09				
IG___AU_U10_SNS				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___AU_U11				
IG___AU_U12				
IG___AU_U13				
IG___AU_U14				
IG___AU_U15				
IG___AU_U16_SNS				
IG___DU_U01				
IG___UD_U02				
IG___UD_U03				
IG___UD_U04				
IG___UD_U05				
IG___UD_U06				
IG___UD_U07				
IG___UD_U08				
IG___UD_U09				
IG___UD_U11				
IG___UD_U12				
IG___UD_U13				
IG___UD_U14				
IG___UD_U15				
IG___UD_U16				
IG___UD_U17				
IG___UD_U18				
IG___UD_U19				
IG___UD_U20				
IG___UD_U21				
IG___UD_U22				
IG___UD_U23				
IG___UD_U24				
IG___UD_U25				
IG___UD_U26				
IG___UD_U27				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___DU_U28				
IG___UT_U01_TA				
IG___SPSSCLIP01				
IG___SPSSCLIP02				
IG___SPSSCLIP03				
IG___SPSSCLIP04				
IG___SPSSCLIP05				
IG___SPSSCLIR01				
IG___SPSSCLIR02				
IG___SPSSCOLP01				
IG___SPSSCOLP02				
IG___SPSSCOLR01				
IG___SPSSCUG01				
IG___SPSSCUG02				
IG___SPSSCUG03				
IG___SPSSCUG04				
IG___SPSSCUG05				
IG___SPSSCUG06				
IG___SPSSCUG07				
IG___SPSSCUG08				
IG___SPSSCUG09				
IG___SPSSCUG10				
IG___SPSSCUG11				
IG___SPSSSUB01				
IG___SPSSSUB02				
IG___SPSSCFU01				
IG___SPSSCFU02				
IG___SPSSCFB01				
IG___SPSSCFB02				
IG___SPSSCFB03				
IG___SPSSCFB04				
IG___SPSSCFNRy01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___SPSSCFNRy02				
IG___SPSSCFNRc01				
IG___SPSSCFNRc02				
IG___SPSSHOLD01				
IG___SPSSHOLD02				
IG___SPSSHOLD03				
IG___SPSSHOLD04				
IG___SPSSHOLD05				
IG___SPSSHOLD06				
IG___SPSSCW01				
IG___SPSSCW02				
IG___SPSSUUS1i01				
IG___SPSSUUS1i02				
IG___SPSSUUS1i03				
IG___SPSSUUS1i04				
IG___SPSSUUS1i05				
IG___SPSSUUS1i06				
IG___SPSICFU_CLI_COL01_CLI_COL				
IG___SPSICFU_CLI_COL02_CLI_COL				
IG___SPSICFU_CLI_COL03_CLI_COL				
IG___SPSICFB_CLI_COL01				
IG___SPSICFB_CLI_COL02				
IG___SPSICFB_CLI_COL03				
IG___SPSICFB_CLI_COL04				
IG___SPSICFB_CLI_COL05				
IG___SPSICFB_CLI_COL06				
IG___SPSICFNRy_CLI_COL01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___SPSICFNRy_CLI_COL02				
IG___SPSICFNRy_CLI_COL03				
IG___SPSICFNRc_CLI_COL01				
IG___SPSICFNRc_CLI_COL02				
IG___SPSICFNRc_CLI_COL03				
IG___SPSICFNRc_CLI_COL04				
IG___SPSICFNRc_CLI_COL05				
IG___SPSICFNRc_CLI_COL06				
IG___SPSICUG_CFU01				
IG___SPSICUG_CFU02				
IG___SPSICUG_CFU03				
IG___SPSICUG_CFU04				
IG___SPSICUG_CFU05				
IG___SPSICFB_CW01				
IG___SPSICFB_CW02				
IG___SPSICFB_CW03				
IG___SPSICFB_CW04				
IG___SPSICFB_CW05				
IG___SPSICFB_CW06				
IG___SPSNTP01				
IG___SPSNTP02				
IG___SPSSUUS1e01				
IG___SPSSUUS1e02				
IG___SPSSUUS1e03				
IG___SPSSUUS204				
IG___SPSSUUS205				
IG___SPSSUUS206				
IG___SPSSUUS307				
IG___SPSSUUS308				
IG___SPSSUUS309				
IG___SPSNCONF01				
IG___SPSNCONF02				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___SPSNCONF03				
IG___SPSNCONF04				
IG___SPSNCONF05				
IG___SPSNCONF06				
IG___SPSNCONF07				
IG___SPSNCONF08				
IG___SPSN3PTY01				
IG___SPSN3PTY02				
IG___SPSN3PTY03				
IG___SPSN3PTY04				
IG___SPSNECT01				
IG___SPSNECT02				
IG___SPSNECT03				
IG___SPSNECT04				
IG___SPSNCBS01				
IG___SPSNCBS02				
IG___SPSNCCBS01				
IG___SPSNCCNR01				
IG___SPSNAoC01				
IG___SPSNAoC02				
IG___SPSNMPTY01				
IG___SPSNMPTY02				
IG___SPSNMPTY03				
IG___SPSNMPTY04				
IG___UDSSCLIP01				
IG___UDSSCLIP02				
IG___UDSSCLIP03				
IG___UDSSCLIP04				
IG___UDSSCLIP05				
IG___UDSSCLIR01				
IG___UDSSCLIR02				
IG___UDSSCOLP01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___UDSSCOLP02				
IG___UDSSCOLR01				
IG___UDSSCUG01				
IG___UDSSCUG02				
IG___UDSSCUG03				
IG___UDSSCUG04				
IG___UDSSCUG05				
IG___UDSSCUG06				
IG___UDSSCUG07				
IG___UDSSCUG08				
IG___UDSSCUG09				
IG___UDSSCUG10				
IG___UDSSCUG11				
IG___UDSSSUB01				
IG___UDSSSUB02				
IG___UDSSCFU01				
IG___UDSSCFU02				
IG___UDSSCFB01				
IG___UDSSCFB02				
IG___UDSSCFB03				
IG___UDSSCFB04				
IG___UDSSCFNRy01				
IG___UDSSCFNRy02				
IG___UDSSCFNRc01				
IG___UDSSCFNRc02				
IG___UDSSUSS1i01				
IG___UDSSUSS1i02				
IG___UDSSUSS1i03				
IG___UDSSUSS1i04				
IG___UDSSUSS1i05				
IG___UDSSUSS1i06				
IG___UDSICFU_CLI_COL01_CLI_COL				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___UDSICFU_CLI_COL02_CLI_COL				
IG___UDSICFU_CLI_COL03_CLI_COL				
IG___UDSICFB_CLI_COL01				
IG___UDSICFB_CLI_COL02				
IG___UDSICFB_CLI_COL03				
IG___UDSICFB_CLI_COL04				
IG___UDSICFB_CLI_COL05				
IG___UDSICFB_CLI_COL06				
IG___UDSICFNRy_CLI_COL01				
IG___UDSICFNRy_CLI_COL02				
IG___UDSICFNRy_CLI_COL03				
IG___UDSICFNRc_CLI_COL01				
IG___UDSICFNRc_CLI_COL02				
IG___UDSICFNRc_CLI_COL03				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
IG___UDSICFNRc_CLI_COL04				
IG___UDSICFNRc_CLI_COL05				
IG___UDSICFNRc_CLI_COL06				
IG___UDSICUG_CFU01				
IG___UDSICUG_CFU02				
IG___UDSICUG_CFU03				
IG___UDSICUG_CFU04				
IG___UDSICUG_CFU05				
IG___UDSSUSS1e01				
IG___UDSSUSS1e02				
IG___UDSSUSS1e03				
IG___UDSSUSS204				
IG___UDSSUSS205				
IG___UDSSUSS206				
IG___UDSSUSS307				
IG___UDSSUSS308				
IG___UDSSUSS309				
IG___UDSNCBS01				
IG___UDSNCBS02				
PG___SP__01				
PG___SP__02				
PG___SP__03				
PG___SP__04				
PG___SP_U01				
PG___SP_U02				
PG___SP_U03				
PG___SP_U04				
PG___SP_U05				
PG___SP_U06				
PG___SP_U07				
PG___SP_U08				
PG___SP_U09				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
PG___SP_U10				
PG___SP_U11				
PG___SPSSCLIP01				
PG___SPSSCLIR01				
PG___SPSSCUG01				
PG___SPSSCFU01				
PG___SPSSCFB01				
PG___SPSSCFB02				
PG___SPSSCFB03				
PG___SPSSCFNRy01				
PG___SPSSCFNRy02				
PG___SPSSCFNRc01				
PG___SPSNCBS01				
PG___SPSNCBS02				
PG___SPSNMPTY01				
PG___SPSNMPTY02				
PG___SPSNMPTY03				
PG___SPSNMPTY04				
PG___AUBch01				
PG___AUBch02				
PG___AUBch03				
PG___AUBch04				
PG___AUBch05				
PG___AUBch06				
GI___SP__01				
GI___SP__02				
GI___SP__03				
GI___SP__04				
GI___SP__05				
GI___SP__06				
GI___AU__01				
GI___AU__02				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___AU__03VA01				
GI___AU__03VA02				
GI___AU__03VA03				
GI___AU__03VA04				
GI___AU__03VA05				
GI___AU__03VA06				
GI___AU__03VA07				
GI___AU__03VA08				
GI___AU__03VA09				
GI___AU__04VA01				
GI___AU__04VA02				
GI___AU__04VA03				
GI___AU__04VA04				
GI___AU__04VA05				
GI___AU__04VA06				
GI___AU__04VA07				
GI___AU__04VA08				
GI___AU__04VA09				
GI___AU__05				
GI___AU__06				
GI___DU__01				
GI___DU__02				
GI___UD__03VA01				
GI___UD__03VA02				
GI___UD__03VA03				
GI___UD__03VA04				
GI___UD__03VA05				
GI___UD__03VA06				
GI___UD__03VA07				
GI___UD__03VA08				
GI___UD__03VA09				
GI___FX__01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___FX__02				
GI___FX__03				
GI___FX__04				
GI___AF__01				
GI___AF__02				
GI___AF__03				
GI___AF__04				
GI___AF__06				
GI___AF__07				
GI___AD__01IG____DATA				
GI___AD__02IG____DATA				
GI___AD__03IG____DATA				
GI___AD__04IG____DATA				
GI___FD__01IG____FB_DATA				
GI___FD__02IG____FB_DATA				
GI___FD__03				
GI___FD__04				
GI___FD__05				
GI___FD__06				
GI___EC_01				
GI___EC_02				
GI___EC_03				
GI___EC_04				
GI___EC_05				
GI___EC_12				
GI___SP_U01IG___				
GI___SP_U02IG___				
GI___SP_U03IG___				
GI___SP_U04IG___				
GI___SP_U05IG___				
GI___SP_U06IG___				
GI___SP_U07IG___				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___AU_U01				
GI___AU_U02				
GI___AU_U03				
GI___AU_U04				
GI___AU_U05				
GI___AU_U06				
GI___AU_U07				
GI___UD_U01				
GI___UD_U02				
GI___UD_U03				
GI___UD_U04				
GI___UD_U05				
GI___UD_U06				
GI___UD_U07				
GI___FX_U01				
GI___FX_U02				
GI___FX_U03				
GI___FX_U04				
GI___FX_U05				
GI___FX_U06				
GI___FX_U07				
GI___AF_U01				
GI___AF_U02				
GI___AF_U03				
GI___AF_U04				
GI___AF_U05				
GI___AF_U06				
GI___AF_U07				
GI___EC_U01				
GI___EC_U02				
GI___SPSSCLIP01				
GI___SPSSCLIP02				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___SPSSCLIR01				
GI___SPSSCLIR02				
GI___SPSSCOLP01				
GI___SPSSCOLP02				
GI___SPSSCOLR01				
GI___SPSSCUG01				
GI___SPSSCUG02				
GI___SPSSCUG03				
GI___SPSSCUG04				
GI___SPSSCUG05				
GI___SPSSCUG06				
GI___SPSSCUG07				
GI___SPSSCUG08				
GI___SPSSCUG09				
GI___SPSSCUG10				
GI___SPSSSUB01				
GI___SPSSSUB02				
GI___SPSSCFU01				
GI___SPSSCFU02				
GI___SPSSCFU03				
GI___SPSSCFU04				
GI___SPSSCFU05				
GI___SPSSCFB01				
GI___SPSSCFB02				
GI___SPSSCFB03				
GI___SPSSCFB04				
GI___SPSSCFB05				
GI___SPSSCFB06				
GI___SPSSCFB07				
GI___SPSSCFB08				
GI___SPSSCFB09				
GI___SPSSCFNR01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___SPSSCFNR02				
GI___SPSSCFNR03				
GI___SPSSCFNR04				
GI___SPSSCFNR05				
GI___SPSSCFNR06				
GI___SPSSCFNR07				
GI___SPSSCFNR08				
GI___SPSSCFNR09				
GI___SPSSHOLD01				
GI___SPSSHOLD02				
GI___SPSSCW01				
GI___SPSSCW02				
GI___SPSSUUS1i01				
GI___SPSSUUS1i02				
GI___SPSSUUS1i03				
GI___SPSSUUS1i04				
GI___SPSSUUS1i05				
GI___SPSSUUS1i06				
GI___SPSNTP01				
GI___SPSNTP02				
GI___SPSNMCID01				
GI___SPSNMCID02				
GI___SPSNMPTY01				
GI___SPSNMPTY02				
GI___SPSNMPTY03				
GI___SPSNMPTY04				
GI___SPSNMPTY05				
GI___SPSNMPTY06				
GI___SPSNMPTY07				
GI___SPSNMPTY08				
GI___SPSNMPTY09				
GI___SPSNMPTY10				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___SPSNMPTY11				
GI___SPSNECT01				
GI___SPSNECT02				
GI___SPSNECT03				
GI___SPSNECT04				
GI___SPSNCD01				
GI___SPSNCD02				
GI___SPSNCD03				
GI___SPSNCD04				
GI___SPSNCD05				
GI___SPSNCD06				
GI___SPSNCD07				
GI___SPSNCD08				
GI___SPSNCD09				
GI___SPSNCD10				
GI___SPSNCD11				
GI___SPSNCD12				
GI___SPSNCBS01				
GI___UDSSCLIP01				
GI___UDSSCLIP02				
GI___UDSSCLIR01				
GI___UDSSCOLP01				
GI___UDSSCOLP02				
GI___UDSSCOLR01				
GI___UDSSCUG01				
GI___UDSSCUG02				
GI___UDSSCUG03				
GI___UDSSCUG04				
GI___UDSSCUG05				
GI___UDSSCUG06				
GI___UDSSCUG07				
GI___UDSSCUG08				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___UDSSCUG09				
GI___UDSSCUG10				
GI___UDSSSUB01				
GI___UDSSSUB02				
GI___UDSSCFU01				
GI___UDSSCFU02				
GI___UDSSCFU03				
GI___UDSSCFU04				
GI___UDSSCFU05				
GI___UDSSCFB01				
GI___UDSSCFB02				
GI___UDSSCFB03				
GI___UDSSCFB04				
GI___UDSSCFB05				
GI___UDSSCFB06				
GI___UDSSCFB07				
GI___UDSSCFB08				
GI___UDSSCFB09				
GI___UDSSCFNR01				
GI___UDSSCFNR02				
GI___UDSSCFNR03				
GI___UDSSCFNR04				
GI___UDSSCFNR05				
GI___UDSSCFNR06				
GI___UDSSCFNR07				
GI___UDSSCFNR08				
GI___UDSSCFNR09				
GI___UDSSUUS1i01				
GI___UDSSUUS1i02				
GI___UDSSUUS1i03				
GI___UDSSUUS1i04				
GI___UDSSUUS1i05				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GI___UDSSUUS1i06				
GI___UDSNCBS01				
GI___UDSNCD01				
GI___UDSNCD02				
GI___UDSNCD03				
GI___UDSNCD04				
GI___UDSNCD05				
GI___UDSNCD06				
GI___UDSNCD07				
GI___UDSNCD08				
GI___UDSNCD09				
GI___UDSNCD10				
GI___UDSNCD11				
GI___UDSNCD12				
GP___SP__01				
GP___SP__02				
GP___SP__03				
GP___SP__04				
GP___SP__05				
GP___SP__07				
GP___AU__01				
GP___AU__02				
GP___AU__03				
GP___AU__04				
GP___FX__01				
GP___FX__02				
GP___FX__03				
GP___AF__01_FAXG3				
GP___AF__02_FAXG3				
GP___AF__03_FAXG3				
GP___AF__04_FAXG3				
GP___EC_01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GP___EC_02				
GP___EC_03				
GP___EC_04				
GP___EC_05				
GP___EC_06				
GP___EC_07				
GP___EC_08				
GP___EC_09				
GP___SP_U01				
GP___SP_U02				
GP___SP_U03				
GP___SP_U04				
GP___AU_U01				
GP___AU_U02				
GP___AU_U03				
GP___AU_U04				
GP___FX_U01				
GP___FX_U02				
GP___FX_U03				
GP___FX_U04				
GP___AF_U01_FAXG3				
GP___AF_U02_FAXG3				
GP___AF_U03_FAXG3				
GP___AF_U04_FAXG3				
GP___UD_U01				
GP___EC_U01				
GP___SPSSCLIP01				
GP___SPSSCLIP02				
GP___SPSSCLIR01				
GP___SPSSCLIR02				
GP___SPSSCOLR01				
GP___SPSSCUG01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GP___SPSSCUG02				
GP___SPSSCFU01				
GP___SPSSCFU02				
GP___SPSSCFB01				
GP___SPSSCFB02				
GP___SPSSCFNR01				
GP___SPSSCFNR02				
GP___SPSNMCID01				
GP___SPSNMCID02				
GP___SPSNMPTY01				
GP___SPSNMPTY02				
GP___SPSNMPTY03				
GP___SPSNMPTY04				
GP___SPSNMPTY05				
GP___SPSNMPTY06				
GP___SPSNMPTY07				
GP___SPSNMPTY08				
GP___SPSNMPTY09				
GP___SPSNMPTY10				
GP___SPSNMPTY11				
GP___SPSNCBS01				
GG___SP__01				
GG___SP__02				
GG___SP__03				
GG___SP__04				
GG___AU__01				
GG___AU__02				
GG___AU__03VA01				
GG___AU__03VA02				
GG___AU__03VA03				
GG___AU__03VA04				
GG___AU__03VA05				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___AU__03VA06				
GG___AU__03VA07				
GG___AU__03VA08				
GG___AU__03VA09				
GG___AU__04VA01				
GG___AU__04VA02				
GG___AU__04VA03				
GG___AU__04VA04				
GG___AU__04VA05				
GG___AU__04VA06				
GG___AU__04VA07				
GG___AU__04VA08				
GG___AU__04VA09				
GG___UD__01				
GG___UD__02				
GG___UD__03VA01				
GG___UD__03VA02				
GG___UD__03VA03				
GG___UD__03VA04				
GG___UD__03VA05				
GG___UD__03VA06				
GG___UD__03VA07				
GG___UD__03VA08				
GG___UD__03VA09				
GG___FX__01				
GG___FX__02				
GG___FX__03				
GG___FX__04				
GG___AF__01_FAXG3				
GG___AF__02_FAXG3				
GG___AF__03_FAXG3				
GG___AF__04_FAXG3				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___AF__05_FAXG3				
GG___AF__06_FAXG3				
GG___AF__07_FAXG3				
GG___AF__08_FAXG3				
GG___AF__09_FAXG3				
GG___AF__10_FAXG3				
GG___AF__11_FAXG3				
GG___AF__12_FAXG3				
GG___AF__13_FAXG3				
GG___AF__14_FAXG3				
GG___AF__15_FAXG3				
GG___AF__16_FAXG3				
GG___AF__17_FAXG3				
GG___AF__18_FAXG3				
GG___AF__19_FAXG3				
GG___AF__20_FAXG3				
GG___AD__01_DATA				
GG___AD__02_DATA				
GG___AD__03_DATA				
GG___AD__04_DATA				
GG___AD__05_DATA				
GG___AD__06_DATA				
GG___AD__07_DATA				
GG___AD__08_DATA				
GG___AD__09_DATA				
GG___AD__10_DATA				
GG___AD__11_DATA				
GG___AD__12_DATA				
GG___AD__13_DATA				
GG___AD__14_DATA				
GG___AD__15_DATA				
GG___AD__16_DATA				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___FD__01_FB_DATA				
GG___FD__02_FB_DATA				
GG___FD__03_FB_DATA				
GG___FD__04_FB_DATA				
GG___FD__05_FB_DATA				
GG___FD__06_FB_DATA				
GG___FD__07_FB_DATA				
GG___FD__08_FB_DATA				
GG___FD__09_FB_DATA				
GG___FD__10_FB_DATA				
GG___FD__11_FB_DATA				
GG___FD__12_FB_DATA				
GG___FD__13_FB_DATA				
GG___FD__14_FB_DATA				
GG___FD__15_FB_DATA				
GG___FD__16_FB_DATA				
GG___PP__01				
GG___PP__02				
GG___PP__03				
GG___PP__04				
GG___SMS_RECEIVE_DATA				
GG___SMS_SEND_DATA				
GG___SMS_SEND_SMMA				
GG___SP_U01				
GG___SP_U02				
GG___SP_U03				
GG___SP_U04				
GG___SP_U05				
GG___SP_U06				
GG___SP_U07				
GG___SP_U08				
GG___SP_U09				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___AU_U01				
GG___AU_U02				
GG___AU_U03				
GG___AU_U04				
GG___AU_U05				
GG___AU_U07				
GG___AU_U08				
GG___AU_U09				
GG___UD_U01				
GG___UD_U02				
GG___UD_U03				
GG___UD_U04				
GG___UD_U05				
GG___UD_U06				
GG___UD_U07				
GG___UD_U08				
GG___UD_U09				
GG___FX_U01				
GG___FX_U02				
GG___FX_U03				
GG___FX_U04				
GG___FX_U05				
GG___FX_U06				
GG___FX_U07				
GG___FX_U08				
GG___FX_U09				
GG___AF_U01_FAXG3				
GG___AF_U02_FAXG3				
GG___AF_U03_FAXG3				
GG___AF_U04_FAXG3				
GG___AF_U05_FAXG3				
GG___AF_U06_FAXG3				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___AF_U07_FAXG3				
GG___AF_U08_FAXG3				
GG___AF_U09_FAXG3				
GG___AF_U10_FAXG3				
GG___AF_U11_FAXG3				
GG___AF_U12_FAXG3				
GG___AF_U13_FAXG3				
GG___AF_U14_FAXG3				
GG___AF_U15_FAXG3				
GG___SPSSCLIP01				
GG___SPSSCLIP02				
GG___SPSSCLIR01				
GG___SPSSCLIR02				
GG___SPSSCOLP01				
GG___SPSSCOLP02				
GG___SPSSCOLR01				
GG___SPSSCUG01				
GG___SPSSCUG02				
GG___SPSSCUG03				
GG___SPSSCUG04				
GG___SPSSCUG05				
GG___SPSSCUG06				
GG___SPSSCUG07				
GG___SPSSCUG08				
GG___SPSSCUG09				
GG___SPSSCUG10				
GG___SPSSCUG11				
GG___SPSSCUG12				
GG___SPSSCUG13				
GG___SPSSCUG14				
GG___SPSSCUG15				
GG___SPSSCUG16				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___SPSSCUG17				
GG___SPSSCUG18				
GG___SPSSCUG19				
GG___SPSSCUG20				
GG___SPSSCUG21				
GG___SPSSCUG22				
GG___SPSSCUG23				
GG___SPSSCUG24				
GG___SPSSCUG25				
GG___SPSSCUG26				
GG___SPSSCUG27				
GG___SPSSSUB01				
GG___SPSSSUB02				
GG___SPSSCFU01				
GG___SPSSCFU02				
GG___SPSSCFB01				
GG___SPSSCFB02				
GG___SPSSCFNRy01				
GG___SPSSCFNRy02				
GG___SPSSCFNRc01				
GG___SPSSCFNRc02				
GG___SPSSHOLD01				
GG___SPSSHOLD02				
GG___SPSSHOLD03				
GG___SPSSHOLD04				
GG___SPSSHOLD05				
GG___SPSSHOLD06				
GG___SPSSCW01				
GG___SPSSCW02				
GG___SPSSUUS1i01				
GG___SPSSUUS1i02				
GG___SPSSUUS1i03				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___SPSSUUS1i04				
GG___SPSSUUS1i05				
GG___SPSSUUS1i06				
GG___SPSSMPTY01				
GG___SPSSMPTY02				
GG___SPSSMPTY03				
GG___SPSSMPTY04				
GG___SPSSMPTY05				
GG___SPSSMPTY06				
GG___SPSSMPTY07				
GG___SPSSMPTY08				
GG___SPSSMPTY09				
GG___SPSSMPTY10				
GG___SPSSMPTY11				
GG___SPSSCBS01				
GG___SPSSCBS02				
GG___SPSSCBS03				
GG___SPSNCUG_CFU01				
GG___SPSNCUG_CFU02				
GG___SPSNCUG_CFU03				
GG___SPSNCUG_CFU04				
GG___SPSNCUG_CFU05				
GG___SPSNCFB_CW01				
GG___SPSNCFB_CW02				
GG___UDSSCLIP01				
GG___UDSSCLIP02				
GG___UDSSCLIR01				
GG___UDSSCLIR02				
GG___UDSSCOLP01				
GG___UDSSCOLP02				
GG___UDSSCOLR01				
GG___UDSSCUG01				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___UDSSCUG02				
GG___UDSSCUG03				
GG___UDSSCUG04				
GG___UDSSCUG05				
GG___UDSSCUG06				
GG___UDSSCUG07				
GG___UDSSCUG08				
GG___UDSSCUG09				
GG___UDSSCUG10				
GG___UDSSCUG11				
GG___UDSSCUG12				
GG___UDSSCUG13				
GG___UDSSCUG14				
GG___UDSSCUG15				
GG___UDSSCUG16				
GG___UDSSCUG17				
GG___UDSSCUG18				
GG___UDSSCUG19				
GG___UDSSCUG20				
GG___UDSSCUG21				
GG___UDSSCUG22				
GG___UDSSCUG23				
GG___UDSSCUG24				
GG___UDSSCUG25				
GG___UDSSCUG26				
GG___UDSSCUG27				
GG___UDSSSUB01				
GG___UDSSSUB02				
GG___UDSSCFU01				
GG___UDSSCFU02				
GG___UDSSCFB01				
GG___UDSSCFB02				

ATS Reference	Selected ? (Y/N)	Run ? (Y/N)	Verdict	Observations
GG___UDSSCFB03				
GG___UDSSCFB04				
GG___UDSSCFNRy01				
GG___UDSSCFNRy02				
GG___UDSSCFNRc01				
GG___UDSSCFNRc02				
GG___UDSSUUS1i01				
GG___UDSSUUS1i02				
GG___UDSSUUS1i03				
GG___UDSSUUS1i04				
GG___UDSSUUS1i05				
GG___UDSSUUS1i06				
GG___UDSSCBS01				
GG___UDSSCBS02				
GG___UDSSCBS03				
GG___UDSNCUG_CFU01				
GG___UDSNCUG_CFU03				
GG___UDSNCUG_CFU04				
GG___UDSNCUG_CFU05				
GG___UDSNCUG_CFU06				
G_ERASE_ALL_CF				

Annex C (normative): Abstract Test Suite (ATS)

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [40].

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table of contents. The ATS itself contains a test suite overview part which provides additional information and references.

C.1 The TTCN Graphical form (TTCN.GR)

The TTCN.GR representation of this ATS is contained in an Adobe Portable Document Format™ file (MINIT-53-CH01i_2plus.PDF contained in archive ts_10211302v010101p0.zip) which accompanies the present document.

C.2 The TTCN Machine Processable form (TTCN.MP)

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (MINIT-53-CH01i_2plus.MP contained in archive ts_10211302v010101p0.zip) which accompanies the present document.

NOTE: Where an ETSI Abstract Test Suite (in TTCN) is published in both .GR and .MP format these two forms shall be considered equivalent. In the event that there appears to be syntactical or semantic differences between the two then the problem shall be resolved and the erroneous format (whichever it is) shall be corrected.

Annex D (informative): Bibliography

ETSI ETS 300 083: "Integrated Services Digital Network (ISDN); Circuit mode structured bearer service category usable for speech information transfer; Terminal requirements for end-to-end compatibility".

ETSI ETS 300 084: "Integrated Services Digital Network (ISDN); Circuit mode structured bearer service category usable for 3,1 kHz audio information transfer; Terminal requirements necessary for end-to-end compatibility".

ETSI ETS 300 267-1: "Integrated Services Digital Network (ISDN); Telephony 7 kHz and videotelephony teleservices; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

ETSI ETS 300 080: "Integrated Services Digital Network (ISDN); ISDN lower layer protocols for telematic terminals".

ETSI ETS 300 103: "Integrated Services Digital Network (ISDN); Support of CCITT Recommendation X.21, X.21 bis and X.20 bis based Data Terminal Equipments (DTEs) by an ISDN Synchronous and asynchronous terminal adaptation functions".

ETSI ETS 300 061-1: "Integrated Services Digital Network (ISDN); Subaddressing (SUB) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

ETSI ETS 300 121 "Integrated Services Digital Network (ISDN); Application of the ISDN User Part (ISUP) of CCITT Signalling System No.7 for international ISDN interconnections (ISUP version 1)".

ETSI ETS 300 185-1: "Integrated Services Digital Network (ISDN); Conference call, add-on (CONF) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

ETSI ETS 300 210-1: "Integrated Services Digital Network (ISDN); Freephone (FPH) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

ETSI ETS 300 130-1: "Integrated Services Digital Network (ISDN); Malicious Call Identification (MCID) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

ETSI ETS 300 188-1: "Integrated Services Digital Network (ISDN); Three-Party (3PTY) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

ETSI ETS 300 356-1 "Integrated Services Digital Network (ISDN); Signalling System No.7; ISDN User Part (ISUP) version 2 for the international interface; Part 1: Basic services [ITU-T Recommendations Q.761 to Q.764 (1993), modified]".

EN 300 359-1: "ISDN Completion of Calls to Busy Subscriber (CCBS) supplementary service, DSS1 protocol".

ETSI ETS 300 195-1: "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

ETSI ETS 300 289 (1994) "Business TeleCommunications (BTC); 64 kbit/s digital unrestricted leased line with octet integrity (D64U); Connection characteristics".

ETSI TBR 008: "Integrated Services Digital Network (ISDN); Telephony 3,1 kHz teleservice; Attachment requirements for handset terminals".

ETSI ETR 193 "Methods for Testing and Specification (MTS); Network Integration Testing (NIT); Methodology aspects; Test Co-ordination Procedure (TCP) style guide".

ETSI ETR 350 (GSM 01.04): "Digital cellular telecommunications system (Phase 2+) (GSM); Abbreviations and acronyms (GSM 01.04 version 5.0.1)".

ETSI TS 100 500 : "Digital cellular telecommunications system (Phase 2+); Principles of telecommunication services supported by a GSM Public Land Mobile Network (PLMN) (GSM 02.01)".

ETSI EN 300 904: "Digital cellular telecommunications system (Phase 2+) (GSM); Bearer Services (BS) supported by a GSM Public Land Mobile Network (PLMN) (GSM 02.02)".

ETSI TS 100 905: "Digital cellular telecommunications system (Phase 2+) (GSM); Teleservices supported by a GSM Public Land Mobile Network (PLMN) (GSM 02.03)".

ETSI EN 300 918: "Digital cellular telecommunications system (Phase 2+) (GSM); General on supplementary services (GSM 02.04)".

ETSI TS 100 907: "Digital cellular telecommunications system (Phase 2+); Man-machine Interface (MMI) of the Mobile Station (MS) (3GPP TS 02.30)".

ETSI TS 100 514: "Digital cellular telecommunications system (Phase 2+) (GSM); Line identification Supplementary Services - Stage 1 (GSM 02.81)".

ETSI TS 100 515: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Forwarding (CF) Supplementary Services - Stage 1 (GSM 02.82)".

ETSI TS 100 516: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Waiting (CW) and Call Holding (HOLD); Supplementary Services - Stage 1 (GSM 02.83)".

ETSI TS 100 518: "Digital cellular telecommunications system (Phase 2+) (GSM); Closed User Group (CUG) Supplementary Services - Stage 1 (GSM 02.85)".

ETSI TS 100 520: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Barring (CB) Supplementary Services - Stage 1 (GSM 02.88)".

ETSI TS 100 927: "Digital cellular telecommunications system (Phase 2+); Numbering, Addressing and Identification (3GPP TS 03.03 version 7.7.0 Release 1998)".

ETSI TS 100 524: "Digital cellular telecommunications system (Phase 2+) (GSM); Signalling requirements relating to routeing of calls to mobile subscribers (GSM 03.04)".

ETSI EN 300 928: "Digital cellular telecommunications system (Phase 2+) (GSM); Technical realization of Supplementary Services (GSM 03.11)".

ETSI TS 100 544: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Waiting (CW) and Call Hold (HOLD) supplementary services; Stage 2 (GSM 03.83)".

ETSI TS 100 546: "Digital cellular telecommunications system (Phase 2+) (GSM); Closed User Group (CUG) supplementary services - Stage 2; (GSM 03.85)".

ETSI TS 100 548: "Digital cellular telecommunications system (Phase 2+) (GSM); Call Barring (CB) supplementary services - Stage 2 (GSM 03.88)".

ETSI TS 100 941: "Digital cellular telecommunications system (Phase 2+); Mobile radio interface layer 3; Supplementary services specification; General aspects (3GPP TS 04.10)".

ETSI EN 300 950: "European digital cellular telecommunications system (Phase 2); Mobile radio interface layer 3 supplementary services specification Formats and coding (GSM 04.80)".

ETSI TS 101 642 : "Digital cellular telecommunications system (Phase 2+); Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface - Interface Principles (3GPP TS 08.02)".

ETSI TS 100 589 : "Digital cellular telecommunications system (Phase 2+); Signalling Transport Mechanism Specification for the Base Station System - Mobile Services Switching Centre (BSS-MSC) Interface (3GPP TS 08.06)".

ETSI TS 100 590 : "Digital cellular telecommunications system (Phase 2+); Mobile-services Switching Centre - Base Station System (MSC - BSS) interface; Layer 3 specification (3GPP TS 08.08)".

ETSI TR 101 643: "Digital cellular telecommunications system (Phase 2+) (GSM); General network interworking scenarios (GSM 09.01)".

ETSI TS 100 974: "Digital cellular telecommunications system (Phase 2+); Mobile Application Part (MAP) Specification (3GPP TS 09.02)".

ETSI TS 100 600: "Digital cellular telecommunications system (Phase 2+) (GSM); Signalling requirements on interworking between the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN) and the Public Land Mobile Network (PLMN) (GSM 09.03)".

ETSI ETS 300 605: "Digital cellular telecommunications system (Phase 2) (GSM); Information element mapping between Mobile Station - Base Station System (MS - BSS) and Base Station System - Mobile-services Switching Centre (BSS - MSC) signalling procedures and the Mobile Application Part (MAP)".

ETSI ETS 300 606: "Digital cellular telecommunications system (Phase 2) (GSM); Signalling interworking for supplementary services (GSM 09.11)".

ETSI ETR 060: "Signalling Protocols and Switching (SPS); Guidelines for using Abstract Syntax Notation One (ASN.1) in telecommunication application protocols".

ETSI EG 201 018: "Integrated Services Digital Network (ISDN); Application of the Bearer Capability (BC), High Layer Compatibility (HLC) and Low Layer Compatibility (LLC) information elements by terminals supporting ISDN services".

ETSI TS 123 002 (V3.2.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Network architecture (3G TS 23.002 version 3.2.0 Release 1999)".

ETSI TS 122 034 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); High Speed Circuit Switched Data (HSCSD) - Stage 1 (3G TS 22.034 version 3.1.0 Release 1999)".

ETSI TS 122 060 (V3.2.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); General Packet Radio Service (GPRS); Service description; Stage 1 (3G TS 22.060 version 3.2.0 Release 1999)".

ETSI TS 122 072 (V3.0.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Deflection Service description - Stage 1 (3G TS 22.072 version 3.0.1 Release 1999)".

ETSI TS 122 078 (V3.2.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Customized Applications for Mobile network Enhanced Logic (CAMEL); Service description - Stage 1 (3G TS 22.078 version 3.2.0 Release 1999)".

ETSI TS 122 081 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Line identification Suplementary Services; Stage 1 (3G TS 22.081 version 3.1.0 Release 1999)".

ETSI TS 122 082 (V3.0.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Forwarding (CF) supplementary services - Stage 1 (3G TS 22.082 version 3.0.1 Release 1999)".

ETSI TS 122 083 (V3.0.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Waiting (CW) and Call Holding (HOLD); Supplementary Services - Stage 1 (3G TS 22.083 version 3.0.1 Release 1999)".

ETSI TS 122 084 (V3.0.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); MultiParty (MPTY) Supplementary Services - Stage 1 (3G TS 22.084 version 3.0.1 Release 1999)".

ETSI TS 122 085 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Closed User Group (CUG) Supplementary Services - Stage 1 (3G TS 22.085 version 3.1.0 Release 1999)".

ETSI TS 122 087 (V3.0.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); User-to-User Signalling (UUS); Service description - Stage 1 (3G TS 22.087 version 3.0.1 Release 1999)".

ETSI TS 122 088 (V3.0.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Barring (CB) Supplementary Services - Stage 1 (3G TS 22.088 version 3.0.1 Release 1999)".

ETSI TS 122 091 (V3.0.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Explicit Call Transfer (ECT) (3G TS 22.091 version 3.0.1 Release 1999)".

ETSI TS 122 093 (V3.0.1): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Completion of Calls to Busy Subscriber (CCBS); Service description, Stage 1 (3GPP TS 22.093 version 5.0.0 Release 5)".

ETSI TS 122 100 (V3.5.0): "Universal Mobile Telecommunications System (UMTS); UMTS phase 1 Release 99 (3G TS 22.100 version 3.5.0 Release 1999)".

ETSI TS 122 101 (V3.8.0): "Universal Mobile Telecommunications System (UMTS); Service principals (3G TS 22.101 version 3.8.0 Release 1999)".

ETSI TS 122 105 (V3.7.0): "Universal Mobile Telecommunications System (UMTS); Services and Service Capabilities (3G TS 22.105 version 3.7.0 Release 1999)".

ETSI TS 123 034 (V3.1.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); High Speed Circuit Switched Data (HSCSD) - Stage 2 (3G TS 23.034 version 3.1.1 Release 1999)".

ETSI TS 123 039 (V3.1.0): "Interface Protocols for the Connection of Short Message Service Centres (SMSCs) to Short Message Entities (SMEs)".

ETSI TS 123 041 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Technical realization of Cell Broadcast Service (CBS) (3G TS 23.041 version 3.1.0 Release 1999)".

ETSI TS 123 060 (V3.2.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); General Packet Radio Service (GPRS); Service description; Stage 2 (3G TS 23.060 version 3.2.1 Release 1999)".

ETSI TS 123 066 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Support of Mobile Number Portability (MNP); Technical Realisation; Stage 2 (3G TS 23.066 version 3.1.0 Release 1999)".

ETSI TS 123 072 (V3.2.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Deflection (CD) Supplementary Service - Stage 2 (3G TS 23.072 version 3.2.0 Release 1999)".

ETSI TS 123 078 (V3.3.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Customized Applications for Mobile network Enhanced Logic (CAMEL) phase 3 - Stage 2 (3G TS 23.078 version 3.3.0 Release 1999)".

ETSI TS 123 081 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Line identification supplementary services - Stage 2 (3G TS 23.081 version 3.0.0 Release 1999)".

ETSI TS 123 082 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Forwarding (CF) supplementary services - Stage 2 (3G TS 23.082 version 3.1.0 Release 1999)".

ETSI TS 123 083 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 2 (3G TS 23.083 version 3.1.0 Release 1999)".

ETSI TS 123 084 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Multi Party (MPTY) supplementary services - Stage 2 (3G TS 23.084 version 3.1.0 Release 1999)".

ETSI TS 123 085 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Closed User Group (CUG) supplementary service - Stage 2 (3G TS 23.085 version 3.0.0 Release 1999)".

ETSI TS 123 086 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Advice of Charge (AoC) supplementary services - Stage 2 (3G TS 23.086 version 3.0.0 Release 1999)".

ETSI TS 123 087 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); User-to-user signalling (UUS) Supplementary Service - Stage 2 (3G TS 23.087 version 3.0.0 Release 1999)".

ETSI TS 123 088 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Barring (CB) Supplementary Services - Stage 2 (3G TS 23.088 version 3.0.0 Release 1999)".

ETSI TS 123 091 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Explicit Call Transfer (ECT) supplementary service - Stage 2 (3G TS 23.091 version 3.1.0 Release 1999)".

ETSI TS 123 093 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Technical realization of Completion of Calls to Busy Subscriber (CCBS) - Stage 2 (3G TS 23.093 version 3.1.0 Release 1999)".

ETSI TS 124 007 (V3.2.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Mobile radio interface signalling layer 3 (3G TS 24.007 version 3.2.0 Release 1999)".

ETSI TS 124 008 (V3.2.1): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Mobile radio interface layer 3 specification, Core Network protocols - Stage 3 (3G TS 24.008 version 3.2.1 Release 1999)".

ETSI TS 124 010 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Mobile radio interface layer 3 Supplementary services specification; General aspects (3G TS 24.010 version 3.0.0 Release 1999)".

ETSI TS 124 011 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Point-to-Point (PP) Short Message Service (SMS) support on mobile radio interface (3G TS 24.011 version 3.1.0 Release 1999)".

ETSI TS 124 012 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Short Message Service Cell Broadcast (SMSCB) support on the mobile radio interface (3G TS 24.012 version 3.0.0 Release 1999)".

ETSI TS 124 065 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); General Packet Radio Service (GPRS); Mobile Station (MS) - Serving GPRS Support Node (SGSN); Subnetwork Dependent Convergence Protocol (SNDCP) (3G TS 24.065 version 3.1.0 Release 1999)".

ETSI TS 124 072 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Deflection (CD) Supplementary Service - Stage 3 (3G TS 24.072 version 3.0.0 Release 1999)".

ETSI TS 124 080 (V3.1.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Mobile radio interface layer 3 supplementary services specification; Formats and coding (3G TS 24.080 version 3.1.0 Release 1999)".

ETSI TS 124 081 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Line identification supplementary services - Stage 3 (3G TS 24.081 version 3.0.0 Release 1999)".

ETSI TS 124 082 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Forwarding (CF) supplementary services - Stage 3 (3G TS 24.082 version 3.0.0 Release 1999)".

ETSI TS 124 083 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Waiting (CW) and Call Hold (HOLD) supplementary services - Stage 3 (3G TS 24.083 version 3.0.0 Release 1999)".

ETSI TS 124 084 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Multi Party (MPTY) supplementary service - Stage 3 (3G TS 24.084 version 3.0.0 Release 1999)".

ETSI TS 124 085 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Closed User Group (CUG) supplementary service - Stage 3 (3G TS 24.085 version 3.0.0 Release 1999)".

ETSI TS 124 086 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Advice of Charge (AOC) supplementary services - Stage3 (3G TS 24.086 version 3.0.0 Release 1999)".

ETSI TS 124 088 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Call Barring (CB) Supplementary Service - Stage3 (3G TS 24.088 version 3.0.0 Release 1999)".

ETSI TS 124 090 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Unstructured Supplementary Service Data (USSD) - Stage 3 (3G TS 24.090 version 3.0.0 Release 1999)".

ETSI TS 124 091 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Explicit Call Transfer (ECT) supplementary service - Stage 3 (3G TS 24.091 version 3.0.0 Release 1999)".

ETSI TS 124 093 (V3.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); Completion of calls to Busy Subscriber (CCBS) - Stage 3 (3G TS 24.093 version 3.0.0 Release 1999)".

ETSI ETS 300 956 ed.2 (1998-07): "Digital cellular telecommunications system (Phase 2+) (GSM);Call Barring (CB) supplementary services; Stage 3 (GSM 04.88 version 5.1.0)".

ETSI TS 100 545 (V6.0.0): "Digital cellular telecommunications system (Phase 2+) (GSM); Multi Party (MPTY) supplementary services; Stage 2 (GSM 03.84 version 7.0.0 Release 1998)".

ETSI ETS 300 569 ed.2 (1996-11): "Digital cellular telecommunications system (Phase 2) (GSM);Closed User Group (CUG) supplementary services; Stage 3 (GSM 04.85)".

ITU-T Recommendation G.821 "Error performance of an international digital connection operating at a bit rate below the primary rate and forming part of an Integrated Services Digital Network".

ITU Recommendation G.822 (1988): "Controlled slip rate objectives of an international digital connection".

ITU Recommendation O.152 (1988): "Error performance measuring equipment for bit rates of 64 kbit/s and N × 64 kbit/s ".

ITU Recommendation I.112 (1988): "Vocabulary and terms for ISDNs".

ITU Recommendation I.210 (1988): "Principles of telecommunication services supported by an ISDN and the means to describe them".

ITU Recommendation I.411 (1988): "ISDN user-network interfaces - Reference configurations".

ITU Recommendation E.164 (1988): "The international public telecommunication numbering plan".

ITU Recommendation Q.699: "Interworking between ISDN access and non-ISDN access over ISDN User Part of Signalling System No. 7".

ITU Recommendation Q.761 (1993): "Signalling System No. 7 - ISDN User Part functional description".

ITU Recommendation Q.762 (1993): "Signalling System No. 7 - ISDN User Part general functions of messages and signals".

ITU Recommendation Q.763 (1993): "Signalling System No. 7 - ISDN User Part formats and codes".

ITU Recommendation Q.764 (1993): "Signalling System No. 7 - ISDN User Part signalling procedures".

ITU-T Recommendation F.182: "Operational provisions for the international public facsimile service between subscribers with Group 3 facsimile terminals (Telefax 3)".

History

Document history		
V1.1.1	March 2003	Publication