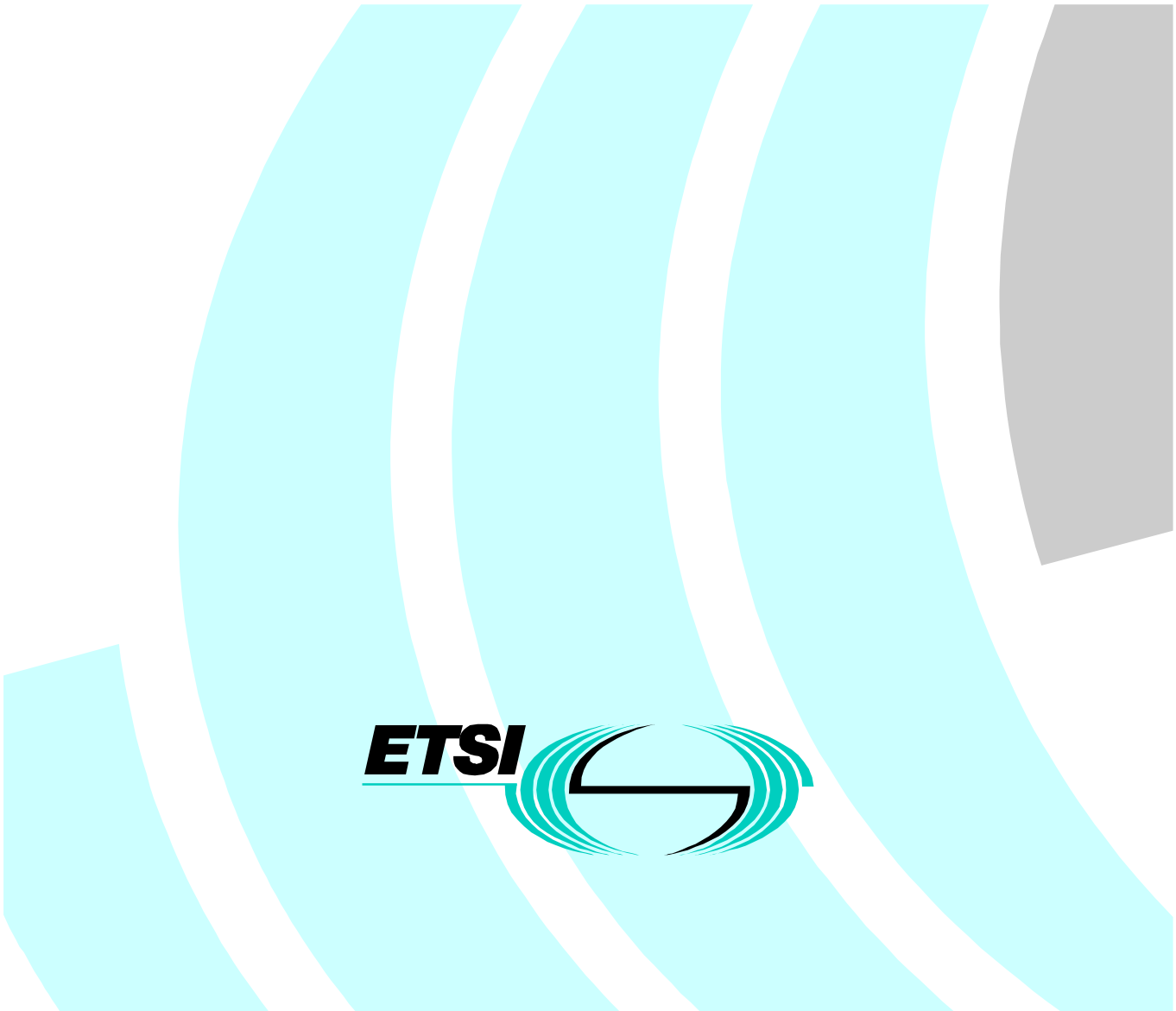
ETSI EG 201 900-2 V1.1.1 (2001-04)

ETSI Guide

**Services and Protocols for Advanced Networks (SPAN);
Narrowband Services over ATM;
Loop Emulation Service (LES) using AAL2;
Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification**



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Foreword

This ETSI Guide (EG) 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 Narrowband over ATM; Loop Emulation Service (LES) using AAL2, as identified below:

Part 1: "Les interface specification [ATM Forum Specification AF VMOA-0145.000 (2000), modified];

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

Introduction

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the "Services and Protocols for Advanced Networks (SPAN); Loop Emulation Service (LES) using AAL2" defined in EG 201 900-1 [1], in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [4] and ETS 300 406 [2].

It allows either the Network Operator to formulate the requirements for the LES implemented in a Customer Premises Interworking Function (CP-IWF) or a Central Office Interworking Function (CO-IWF), or to decide whether an implementation meets these requirements. It details in tabular form the implementation options, i.e. the optional functions additional to those that are mandatory to implement.

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.

[1] ETSI EG 201 900-1: "Services and Protocols for Advanced Networks (SPAN); Narrowband Services over ATM; Loop Emulation Service (LES) using AAL2; Part 1: LES interface specification [ATM Forum Specification AF-VMOA-0145.000 (2000), modified]".

[2] ETSI ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[3] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[4] ISO/IEC 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[5] ETSI EN 300 324-2: "V interface at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

[6] ETSI EN 300 347-2: "V interfaces at the digital Local Exchange (LE); V5.2 interface for the support of Access Network (AN); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

[7] ETSI EN 300 324-1: "V interfaces at the digital Local Exchange (LE); V5.1 interface for the support of Access Network (AN); Part 1: V5.1 interface specification".

3 Definitions and abbreviations

3.1 Definitions

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

- terms defined in EG 201 900-1 [1];
- terms defined in ISO/IEC 9646-1 [3] and in ISO/IEC 9646-7 [4].

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

Implementation Conformance Statement (ICS): statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented

The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

ICS proforma: document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

Protocol ICS (PICS): ICS for an implementation or system claimed to conform to a given protocol specification

Static conformance review: review of the extent to which the static conformance requirements are met by the Implementation Under Test (IUT), accomplished by comparing the PICS with the static conformance requirements expressed in the relevant standard(s) (see ISO/IEC 9646-1 [3])

3.2 Abbreviations

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

CAS	Channel Associated Signalling
CCS	Common Channel Signalling
CO-IWF	Central Office Interworking Function
CP-IWF	Customer Premises Interworking Function
ELCP	Emulated Loop Control Protocol
ICS	Implementation Conformance Statement
ID	Identification
IUT	Implementation Under Test
LES	Loop Emulation Service
OSI	Open Systems Interconnection
PICS	Protocol Implementation Conformance Statement
SCS	System Conformance Statement
SUT	System Under Test

4 Conformance to this PICS proforma specification

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

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

Annex A (normative): Protocol ICS proforma for EG 201 900-1

A.1 Guidance for completing the PICS proforma

A.1.1 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in EG 201 900-1 [1] may provide information about the implementation in a standardized manner.

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

- guidance for completing the PICS proforma;
- identification of the implementation;
- identification of the protocol;
- global statement of conformance;
- <further clauses>.

A.1.2 Abbreviations and conventions

The PICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [4].

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 [4], 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 a 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 a unique conditional status expression which is defined immediately following the table.

Reference column

The reference column makes reference to EG 201 900-1 [1], except where explicitly stated otherwise.

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 [4], 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)

If this PICS proforma is completed in order to describe a multiple-profile support in a system, it is necessary to be able to answer that a capability is supported for one profile and not supported for another. In that case, the supplier shall enter the unique reference to a conditional expression, preceded by "?" (e.g. ?3). This expression shall be given in the space for comments provided at the bottom of the table. It uses predicates defined in the SCS, each of which refers to a single profile and which takes the value TRUE if and only if that profile is to be used.

EXAMPLE 1: ?3: IF prof1 THEN Y ELSE N

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

NOTE: As stated in ISO/IEC 9646-7 [4], support for a received PDU requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.

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 2: 5 .. 20

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

EXAMPLE 3: 2, 4, 6, 8, 9

EXAMPLE 4: '1101'B, '1011'B, '1111'B

EXAMPLE 5: '0A'H, '34'H, '2F'H

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

EXAMPLE 6: reject(1), accept(2)

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

EXAMPLE 7: 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.

References to items

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

EXAMPLE 8: A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 9: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table 6 of annex A.

Prerequisite line

A prerequisite line takes the form: Prerequisite: <predicate>.

A prerequisite line after a clause or table title indicates that the whole clause or the whole table is not required to be completed if the predicate is FALSE.

A.1.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS 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.

However, the tables containing in "CP-IWF role" clause shall only be completed for user implementations, and the tables containing in "CO-IWF role" clause shall only be completed for network implementations.

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 are given at the beginning of the different clauses of the PICS proforma.

A.2 Identification of the implementation

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

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

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

A.2.1 Date of the statement

.....

A.2.2 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

A.2.3 System Under Test (SUT) identification

SUT name:

.....

.....

Hardware configuration:

.....

.....

.....

Operating system:

.....

A.2.4 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.2.5 Client (if different from product supplier)

Name:

.....

Address:

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.2.6 PICS contact person

(A person to contact if there are any queries concerning the content of the PICS.)

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.3 Identification of the protocol

This PICS proforma applies to the following standard:

> ETSI EG 201 900-1: "Services and Protocols for Advanced Networks (SPAN); Narrowband Services over ATM; Loop Emulation Service (LES) using AAL2; Part 1: LES interface specification [ATM Forum Specification AF-VMOA-0145.000 (2000), modified]".

A.4 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No)

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

A.5 CO-IWF

In the tables below those functions that have a "mandatory" status must be supported to ensure the proper operation of the Loop Emulation Service. Functions marked as "optional" are themselves not a necessity for the correct operation of the Loop Emulation Service, but if they are supported then it may be necessary to also support them in the peer CP-IWF to ensure proper operation.

A.5.1 Main features

A.5.1.1 General

Table A.1: Main features

Item	Main features	Reference	Status	Support
1	PSTN?	1.8 [1]	o.101	
2	ISDN-BA?	1.8 [1]	o.101	
Predicated imaginary features:				
o.101: At least one of these options must be supported.				

A.5.1.2 Interfaces

A.5.1.2.1 ATM Interface

Table A.2: ATM Interface

Item	ATM Interface	Reference	Status	Support
1	PDH/Electrical (ITU-T Recommendation G.703)/E3	2.1.1 [1]	o.201	
2	SDH/Electrical (ITU-T Recommendation G.703)/STM1	2.1.1 [1]	o.201	
3	SDH/Optical (ITU-T Recommendation G.957)/STM1	2.1.1 [1]	o.201	
4	SDH/Optical (ITU-T Recommendation G.957)/STM4	2.1.1 [1]	o.201	
5	SDH/Optical (ITU-T Recommendation G.957)/STM16	2.1.1 [1]	o.201	
6	ADSL (ITU-T Recommendation G.992)	2.1.1 [1]	o.201	
7	ETSI SDSL	2.1.1 [1]	o.201	
8	ITU-T SHDSL (ITU-T Recommendation G.991.2)	2.1.1 [1]	o.201	
9	Other (see note)	2.1.1 [1]	o.201	
Predicated imaginary features:				
NOTE: Other standardized ATM Interface options can be added as required. o.201: At least one of these options must be supported.				

A.5.1.2.2 SNI Interfaces

Table A.3: SNI Interfaces

Item	SNI Interfaces	Reference	Status	Support
1	ETSI V5.1 (see note 1)	2 [1]	o.301	
2	ETSI V5.2 (see note 2)	2 [1]	o.301	
3	Other (see note 3)			
Predicated imaginary features:				
o.301: At least one of these options must be supported. NOTE 1: If this item is supported, then suppliers must provide a more detailed PICS as defined in EN 300 324-2 [5]. NOTE 2: If this item is supported, then suppliers must provide a more detailed PICS as defined in EN 300 347-2 [6]. NOTE 3: Other standardized interface options can be added as required.				

A.5.1.3 Protocol Combinations

Table A.4: Protocol Combinations

Item	Protocol Combinations	Reference	Status	Support
1	Loop Emulation Service using CAS (POTS only) without ELCP	4.1.1 [1]	o.401	
2	Loop Emulation Service using PSTN signalling (POTS only) without ELCP	4.1.1 [1]	o.401	
3	Loop Emulation Service using PSTN signalling (POTS only) with ELCP	4.1.1 [1]	o.401	
4	Loop Emulation Service using DSS1 in support of ISDN-BA without ELCP	4.1.1 [1]	o.401	
5	Loop Emulation Service using DSS1 in support of ISDN-BA with ELCP	4.1.1 [1]	o.401	
6	Loop Emulation Service using CAS in support of POTS and DSS1 in support of ISDN-BA (without ELCP)	4.1.1 [1]	o.401	
7	Loop Emulation Service using PSTN signalling in support of POTS and DSS1 in support of ISDN-BA (without ELCP)	4.1.1 [1]	o.401	
8	Loop Emulation Service using PSTN signalling in support of POTS and DSS1 in support of ISDN-BA (with ELCP)	4.1.1 [1]	o.401	
Predicated imaginary features:				
o.401: At least one of these options must be supported.				

A.5.2 LES Capabilities

A.5.2.1 IWF - IWF VCC Capabilities

A.5.2.1.1 VCC Service Class

Table A.5: VCC Service Class

Item	VCC Service Class	Reference	Status	Support
1	CBR VCC Supported	4.1 [1]	o.501	
2	VBR-rt VCC Supported	4.1 [1]	o.501	
Predicated imaginary features:				
o.501: At least one of these options must be supported.				

A.5.2.1.2 VCC Type

Table A.6: VCC Type

Item	VCC Type	Reference	Status	Support
1	VCC set up as PVC	4.2 [1]	o.601	
2	VCC set up as SVC	4.3 [1]	o.601	
3	VCC set up as S-PVC	3.1, 4.1 [1]	o.601	
Predicated imaginary features:				
o.601: At least one of these options must be supported.				

A.5.2.1.3 AAL5 Support

Table A.7: AAL5 Support

Item	Physical layer options	Reference	Status	Support
1	AAL5 (ITU-T Recommendation I.363.5)	2.1.2 [1]	c.701	
Predicated imaginary features:				
c.701: IF A.6/2 THEN m ELSE n/a.				

A.5.2.1.4 ATM SVC Signalling Protocols

Table A.8: ATM SVC Signalling Protocols

Item	ATM SVC Signalling	Reference	Status	Support
1	ATM Forum UNI 4.0	2.1.3 [1]	o.801	
2	ITU-T DSS2 (Q.29xx)	2.1.3 [1]	o.801	
3	ATM Forum PNNI	2.1.3 [1]	o.801	
4	ATM Forum AINI	2.1.3 [1]	o.801	
Predicated imaginary features:				
o.801: IF A.6/2 THEN (At least one of the items must be supported) ELSE n/a.				

A.5.2.2 PSTN Signalling

The tables given below identify the signalling functions required for supporting a PSTN port.

A.5.2.2.1 PSTN CAS/CCS Signalling Options

Table A.9: PSTN CAS/CCS Signalling Options

Item	CAS/CCS options	Reference	Status	Support
1	CAS signalling support	3.3.1 [1]	c.901	
2	CCS V5 PSTN signalling support	3.3.1 [1]	c.902	
Predicated imaginary features:				
c.901: IF A.4/1 OR A.4/6 THEN m ELSE n/a. c.902: IF A.4/2 OR A.4/3 OR A.4/7 OR A.4/8 THEN m ELSE n/a.				

A.5.2.2.2 PSTN CAS Signalling Transport

Table A.10: PSTN CAS Signalling Transport

Item	PSTN CAS Signalling Transport	Reference	Status	Support
1	CAS "ABCD" bit transport via annex L of I.366.2 trunking SSCS	5.1.1 [1]	c.1001	
Predicated imaginary features:				
c.1001: IF A.9/1 THEN m ELSE n/a.				

A.5.2.2.3 Mapping of CAS "ABCD" bits

Table A.11: Mapping of CAS "ABCD" bits

Item	Mapping of CAS "ABCD" bits	Reference	Status	Support
1	Mapping of analogue line signals to CAS "ABCD" bits according to national CAS variant (see note)	5.1.1 [1]	o.1101	
Predicated imaginary features:				
NOTE: Suppliers must provide additional information or references to the national CAS variant that is supported.				
o.1101: IF A.9/1 THEN m ELSE n/a.				

A.5.2.2.4 CCS PSTN Message Support

Indicating support for an item in table A.12 states that the implementation has the ability to support the generation and/or reception of the message according to EN 300 324-1 [7].

It is recommended that if any of the items given in table A.12 are supported, then suppliers must provide a detailed PSTN PICS statement according to the pro-forma specified in EN 300 324-2 [5].

Table A.12: PSTN message support

Item	Message	Reference	Status	Support
1	ESTABLISH	5.1.2.1 [1]	c.1201	
2	ESTABLISH ACK	5.1.2.1 [1]	c.1201	
3	SIGNAL	5.1.2.1 [1]	c.1201	
4	SIGNAL ACK	5.1.2.1 [1]	c.1201	
5	STATUS	5.1.2.1 [1]	c.1201	
6	STATUS ENQUIRY	5.1.2.1 [1]	c.1201	
7	DISCONNECT	5.1.2.1 [1]	c.1201	
8	DISCONNECT COMPLETE	5.1.2.1 [1]	c.1201	
9	PROTOCOL PARAMETER	5.1.2.1 [1]	c.1202	
Predicated imaginary features:				
c.1201: IF A.9/2 THEN m ELSE n/a.				
c.1202: IF A.9/2 THEN o ELSE n/a.				

A.5.2.3 ISDN BA Signalling Options

The tables given below identify the signalling functions required for supporting an ISDN-BA.

A.5.2.3.1 ISDN BA DSS1 Signalling Support

Table A.13: DSS1 Signalling Support

Item	DSS1 Signalling Support	Reference	Status	Support
1	DSS1 signalling support	5.2.1 [1]	c.1301	
Predicated imaginary features:				
c.1301: IF A.4/4 OR A.4./5 OR A.4/6 OR A.4/7 OR A.4/8 THEN m ELSE n/a.				

A.5.2.3.2 DSS1 Signalling Transport

Table A.14: ISDN-BA Signalling Transport

Item	DSS1 Signalling Transport	Reference	Status	Support
1	DSS1 signalling transport via I.366.1 SSCS	5.2.1 [1]	c.1401	
Predicated imaginary features:				
c.1401: IF A.13/1 THEN m ELSE n/a.				

A.5.2.4 CCS Emulated Loop Control Protocol (ELCP) Signalling Options

The tables given below identify the signalling functions required for supporting for activation/deactivation of AAL2 channels and the control of ports.

A.5.2.4.1 ELCP Support

Table A.15: ELCP Support

Item	ELCP Support	Reference	Status	Support
1	Control of the Emulated Loop using the ELCP	5.3 [1]	c.1501	
Predicated imaginary features:				
c.1501: IF A.4/3 OR A.4/5 OR A.4/8 THEN m ELSE n/a.				

A.5.2.4.2 ELCP AAL2 Channel Activation Message Support

Indicating support for an item in table A.16 states that the implementation has the ability to support the generation and/or reception of the message according to the defined procedures.

Table A.16: ELCP AAL2 Channel Activation Message

Item	Message	Reference	Status	Support
1	ALLOCATION	5.3.1.1.1 [1]	c.1601	
2	ALLOCATION COMPLETE	5.3.1.1.1 [1]	c.1601	
3	ALLOCATION REJECT	5.3.1.1.1 [1]	c.1601	
4	DE-ALLOCATION	5.3.1.1.1 [1]	c.1601	
5	DE-ALLOCATION COMPLETE	5.3.1.1.1 [1]	c.1601	
6	DE-ALLOCATION REJECT	5.3.1.1.1 [1]	c.1601	
Predicated imaginary features:				
c.1601: IF A.15/1 THEN m ELSE n/a.				

A.5.2.4.3 ELCP AAL2 Channel Activation Information Element Support

Table A.17: ELCP AAL2 Channel Activation Information Element

Item	Information Element	Reference	Status	Support
1	User Port Identification	5.3.1.1.1, 5.4.2.3 [1]	c.1701	
2	Channel Identifier	5.3.1.1.1 [1]	c.1701	
3	Information Transfer Capability	5.3.1.1.1 [1]	c.1702	
Predicated imaginary features:				
c.1701: IF A.16/1 OR A.16/4 THEN m ELSE n/a. c.1702: IF A.16/1 AND A.1/2 THEN o ELSE n/a.				

A.5.2.4.4 ELCP Port Control Message Support

Indicating support for an item in table A.18 states that the implementation has the ability to support the generation and/or reception of the message according to the defined procedures.

Table A.18: ELCP Port Control Message Support

Item	Message	Reference	Status	Support
1	PORT CONTROL	5.3.1.2.1 [1]	c.1801	
2	PORT CONTROL ACK	5.3.1.2.1 [1]	c.1801	
Predicated imaginary features:				
c.1801: IF A.15/1 THEN m ELSE n/a.				

A.5.2.5 CCS Transport

The "CCS Transport" function is captured separately from the PSTN and ELCP signalling since the same AAL2 channel (i.e. CID = 8) and the same Layer 2 data link (i.e. LAPV5) is shared by both signalling protocols.

Table A.19: CCS Transport

Item	CCS Transport	Reference	Status	Support
1	CCS transport using LAPV5 and I.366.1 SSCS	5.1.2.1, 5.4.1 [1]	c.1901	
Predicated imaginary features:				
c.1901: IF A.9/2 OR A.15/1 THEN m ELSE n/a.				

A.5.2.6 LES EOC Capabilities

Table A.20: LES EOC Capabilities

Item	LES EOC Capabilities	Reference	Status	Support
1	LES EOC support (see note)	6.2 [1]	o	
2	LES EOC transport via I.366.1 SSCS	6.2 [1]	c.2001	
3	SNMPv1 over the LES EOC	6.2.1 [1]	c.2001	
4	Traffic shaping of LES EOC	6.2.2 [1]	c.2001	
Predicated imaginary features:				
NOTE: This designates support of the AAL2 channel (CID = 9) only and the support for the LES EOC MIB is outside the scope of the present document. c.2001: IF A.20/1 THEN m ELSE n/a.				

A.5.2.7 Voice and Voiceband Data Support Options

The functions described in the tables below are applicable to both PSTN and ISDN-BA ports.

A.5.2.7.1 Voice Encoding Profile

Table A.21: Voice Encoding Profile

Item	Voice Encoding Profile	Reference	Status	Support
1	ATM-F Profile 7 Support	Annex A [1]	o.2101	
2	ATM-F Profile 8 Support	Annex A [1]	o.2101	
3	ATM-F Profile 9 Support	Annex A [1]	o.2101	
4	ATM-F Profile 10 Support	Annex A [1]	o.2101	
5	ATM-F Profile 11 Support	Annex A [1]	o.2101	
6	ATM-F Profile 12 Support	Annex A [1]	o.2101	
7	ITU-T Profile 1 Support	7.1 [1]	o.2101	
8	ITU-T Profile 2 Support	7.1 [1]	o.2101	
9	ITU-T Profile 3 Support	7.1 [1]	o.2101	
10	ITU-T Profile 4 Support	7.1 [1]	o.2101	
11	ITU-T Profile 5 Support	7.1 [1]	o.2101	
12	ITU-T Profile 6 Support	7.1 [1]	o.2101	
13	ITU-T Profile 7 Support	7.1 [1]	o.2101	
14	ITU-T Profile 8 Support	7.1 [1]	o.2101	
15	ITU-T Profile 9 Support	7.1 [1]	o.2101	
16	ITU-T Profile 10 Support	7.1 [1]	o.2101	
17	Other (see note)		o.2101	
Predicated imaginary features:				
NOTE: Other profiles may be added. o.2101: At least one of these options must be supported.				

A.5.2.7.2 Selection of Encoding Profile Entry

Table A.22: Selection of Profile Entry

Item	Selection of Encoding Profile Entry	Reference	Status	Support
1	Master slave mode	7.2.3.1 [1]	o.2201	
2	Independent mode	7.2.3.2 [1]	o.2201	
Predicated imaginary features:				
o.2201: At least one of these options must be supported.				

A.5.2.7.3 AAL2 Channel Activation/Deactivation

Table A.23: AAL2 Channel Activation/Deactivation

Item	AAL2 Channel Activation/Deactivation	Reference	Status	Support
1	Implicit channel activation	5.3.2.1 [1]	c.2301	
2	ELCP channel activation	5.3.1.1 [1]	c.2302	
Predicated imaginary features:				
c.2301: IF NOT A.15/1 THEN m ELSE n/a. c.2302: IF A.15/1 THEN m ELSE n/a.				

A.5.2.7.4 Echo Cancellation

Table A.24: Echo Cancellation

Item	Echo Cancellation	Reference	Status	Support
1	Far end echo cancellation	3.7 [1]	o	
2	Removal of echo canceller upon detection of voiceband data	7.4.1 [1]	c.2401	
Predicated imaginary features:				
c.2401: IF A.24/1 THEN m ELSE n/a.				

A.5.2.7.5 DTMF Capabilities

A.5.2.7.5.1 DTMF Transport

Table A.25: DTMF Transport

Item	DTMF Transport	Reference	Status	Support
1	Selection of high bit rate encoding to pass DTMF tones	3.8.1 [1]	o.2501	
2	Transfer by Dialled Digits Packet according to AAL2 type 3 packets defined in annex K/I.366.2	3.8.2 [1]	o.2501	
3	Normal voice encoding scheme transparently passes DTMF tones	3.8 [1]	o.2501	
Predicated imaginary features:				
o.2501: At least one of these items must be supported.				

A.5.2.7.5.2 DTMF Dialled Digits Packet Handling

Table A.26: DTMF Dialled Digits Packet Handling

Item	DTMF Dialled Digits Packet Handling	Reference	Status	Support
1	Origination of Dialled Digits Packet	7.4.2.1 [1]	o.2601	
2	Reception of Dialled Digits Packet	7.4.2.2 [1]	o.2601	
Predicated imaginary features:				
o.2601: IF A.25/2 THEN (At least one of these items must be supported) ELSE n/a.				

A.5.2.7.6 Default CID Assignment

Table A.27: Default CID Assignment

Item	Default CID Assignment	Reference	Status	Support
1	Default CID assignment	4.4.2 [1]	o.2701	
Predicated imaginary features:				
o.2701: IF NOT A.15/1 THEN m ELSE n/a.				

A.5.2.7.7 AAL2 CPS Support

Table A.28: AAL2 CPS Support

Item	AAL2 CPS Support	Reference	Status	Support
1	Optimized CPS Support	4.5 [1]	o.2801	
2	CPS Support according to ITU-T Recommendation I.363.2	2.1.2, 4.5 [1]	o.2801	
Predicated imaginary features:				
o.2801: At least one of these items must be supported.				

A.5.2.7.8 Voiceband Data Support

Table A.29: Voiceband Data Support

Item	Modem Detection	Reference	Status	Support
1	Use of higher bit-rate encoding for passing modem tones between CP-IWF and CO-IWF	3.9 [1]	o.2901	
2	Normal encoding scheme transparently passes modem tones between CP-IWF and CO-IWF	3.9 [1]	o.2901	
3	Detection of modem tones from the far end (i.e. from the SNI interface) and upon detection selecting higher rate encoding entry for transmission	7.4.1 [1]	o.2901	
4	Fax modulation and remodulation according to annex M of I.366.2	8.1 [1]	o.2901	
Predicated imaginary features:				
o.2901: At least one of these items must be supported.				

A.5.2.7.9 Packet Delay Variation

Table A.30: Packet Delay Variation

Item	Packet Delay Variation	Reference	Status	Support
1	Support of up to 20ms packet delay variation	9.1 [1]	m	
Predicated imaginary features:				

A.5.2.7.10 Timing Derivation

Table A.31: Timing Derivation

Item	Timing Derivation	Reference	Status	Support
1	Timing derived from the Service Node Interface	9.2 [1]	m	
Predicated imaginary features:				

A.5.2.7.11 ATM F5 OAM Cells

Table A.32: ATM F5 OAM Cells

Item	ATM F5 OAM Cells	Reference	Status	Support
1	AIS	6.1 [1]	m	
2	RDI	6.1 [1]	m	
3	Loopback	6.1 [1]	m	
4	Continuity Check	6.1 [1]	o	
5	Other (see note)	6.1 [1]	o	
Predicated imaginary features:				
NOTE: Other ATM F5 OAM flows can be added as required.				

A.5.2.8 SNI Interworking

A.5.2.8.1 Interworking of CCS PSTN Protocol with V5.1 and V5.2

Table A.33: CCS PSTN Protocol Interworking

Item	CCS PSTN Protocol Interworking	Reference	Status	Support
1	CCS PSTN Protocol Interworking	C.2.2, C.2.4 [1]	c.3301	
Predicated imaginary features:				
c.3301: IF (A.9/2 AND A.3/1) OR (A.9/2 AND A.3/2) THEN m ELSE n/a.				

A.5.2.8.2 V5.1 and V5.2 DSS1 Message Relay

Table A.34: DSS1 Message Relay

Item	DSS1 Message Relay	Reference	Status	Support
1	DSS1 Message Relay	C.2.3, C.2.4 [1]	c.3401	
Predicated imaginary features:				
c.3401: IF (A.13/1 AND A.3/1) OR (A.13/1 AND A.3/2) THEN m ELSE n/a.				

A.5.2.8.3 Interworking of ELCP Port Control with V5.1 and V5.2

Table A.35: Interworking of ELCP Port Control

Item	Interworking of ELCP Port Control	Reference	Status	Support
1	Interworking of ELCP Port Control	C.3.1, C.3.2, C.3.3 [1]	c.3501	
Predicated imaginary features:				
c.3501: IF (A.15/1 AND A.3/1) OR (A.15/1 AND A.3/2) THEN m ELSE n/a.				

A.5.2.8.4 Interworking of ELCP AAL2 Channel Activation with V5.2 BCC

Table A.36: Interworking of ELCP AAL2 Channel Activation with V5.2 BCC

Item	Interworking of ELCP AAL2 Channel Activation with V5.2 BCC	Reference	Status	Support
1	Interworking of ELCP AAL2 Channel Activation with V5.2 BCC	C.3.4 [1]	c.3601	
Predicated imaginary features:				
c.3601: IF A.15/1 AND A.3/2 THEN m ELSE n/a.				

A.5.2.8.5 Interworking of ELCP AAL2 Channel Activation with V5.1

Table A.37: Interworking of ELCP AAL2 Channel Activation with V5.1

Item	Interworking of ELCP AAL2 Channel Activation with V5.1	Reference	Status	Support
1	Interworking of ELCP AAL2 Channel Activation with V5.1	C.3.5 [1]	c.3701	
Predicated imaginary features:				
c.3701: IF A.15/1 AND A.3/1 THEN o ELSE n/a.				

Table A.38 to table A.49 void.

A.6 CP-IWF

In the tables below those functions that have a "mandatory" status must be supported to ensure the proper operation of the Loop Emulation Service. Functions marked as "optional" are themselves not a necessity for the correct operation of the Loop Emulation Service, but if they are supported then it may be necessary to also support them in the peer CO-IWF to ensure proper operation.

A.6.1 Main features

A.6.1.1 General

Table A.50 Main features

Item	Main features	Reference	Status	Support
1	PSTN?	1.8 [1]	o.5001	
2	ISDN-BA?	1.8 [1]	o.5001	
Predicated imaginary features:				
o.5001: At least one of these options must be supported.				

A.6.1.2 Interfaces

A.6.1.2.1 ATM Interface

Table A.51 ATM Interface

Item	ATM Interface	Reference	Status	Support
1	PDH/Electrical (ITU-T Recommendation G.703)/E3	2.1.1 [1]	o.5101	
2	SDH/Electrical (ITU-T Recommendation G.703)/STM1	2.1.1 [1]	o.5101	
3	SDH/Optical (ITU-T Recommendation G.957)/STM1	2.1.1 [1]	o.5101	
4	SDH/Optical (ITU-T Recommendation G.957)/STM4	2.1.1 [1]	o.5101	
5	SDH/Optical (ITU-T Recommendation G.957)/STM16	2.1.1 [1]	o.5101	
6	ADSL (ITU-T Recommendation G.992)	2.1.1 [1]	o.5101	
7	ETSI SDSL	2.1.1 [1]	o.5101	
8	ITU-T SHDSL (ITU-T Recommendation G.991.2)	2.1.1 [1]	o.5101	
9	Other (see note)	2.1.1 [1]	o.5101	
Predicated imaginary features:				
NOTE: Other standardized ATM interface options can be added as required. o.5101 At least one of these options must be supported.				

A.6.1.2.2 User Side Interfaces

Table A.52: User Side Interfaces

Item	User Side Interfaces	Reference	Status	Support
1	Analogue PSTN interface (see note)	2.2 [1]	o.5201	
2	ISDN-BA (EN 300 012)	2.2 [1]	o.5202	
Predicated imaginary features:				
NOTE: In accordance with the appropriate national standard. o.5201: IF A.50/1 THEN m ELSE n/a. o.5202: IF A.50/2 THEN m ELSE n/a.				

A.6.1.3 Protocol Combinations

Table A.53: Protocol Combinations

Item	Protocol Combinations	Reference	Status	Support
1	Loop Emulation Service using CAS (POTS only) without ELCP	4.1.1 [1]	o.5301	
2	Loop Emulation Service using PSTN signalling (POTS only) without ELCP	4.1.1 [1]	o.5301	
3	Loop Emulation Service using PSTN signalling (POTS only) with ELCP	4.1.1 [1]	o.5301	
4	Loop Emulation Service using DSS1 in support of ISDN-BA without ELCP	4.1.1 [1]	o.5301	
5	Loop Emulation Service using DSS1 in support of ISDN-BA with ELCP	4.1.1 [1]	o.5301	
6	Loop Emulation Service using CAS in support of POTS and DSS1 in support of ISDN-BA (without ELCP)	4.1.1 [1]	o.5301	
7	Loop Emulation Service using PSTN signalling in support of POTS and DSS1 in support of ISDN-BA (without ELCP)	4.1.1 [1]	o.5301	
8	Loop Emulation Service using PSTN signalling in support of POTS and DSS1 in support of ISDN-BA (with ELCP)	4.1.1 [1]	o.5301	
Predicated imaginary features:				
o.5301: At least one of these options must be supported.				

A.6.2 LES Capabilities

A.6.2.1 IWF - IWF VCC Capabilities

A.6.2.1.1 VCC Service Class

Table A.54: VCC Service Class

Item	VCC Service Class	Reference	Status	Support
1	CBR VCC Supported	4.1 [1]	o.5401	
2	VBR-rt VCC Supported	4.1 [1]	o.5401	
Predicated imaginary features:				
o.5401: At least one of these options must be supported.				

A.6.2.1.2 VCC Type

Table A.55: VCC Type

Item	VCC Type	Reference	Status	Support
1	VCC set up as PVC	4.2 [1]	o.5501	
2	VCC set up as SVC	4.3 [1]	o.5501	
3	VCC set up as S-PVC	3.1, 4.1 [1]	o.5501	
Predicated imaginary features:				
o.5501: At least one of these options must be supported.				

A.6.2.1.3 AAL5 Support

Table A.56: AAL5 Support

Item	Physical layer options	Reference	Status	Support
1	AAL5 (ITU-T Recommendation I.363.5)	2.1.2 [1]	c.5601	
Predicated imaginary features:				
c.5601: IF A.55/2 THEN m ELSE n/a.				

A.6.2.1.4 ATM SVC Signalling Protocols

Table A.57: ATM SVC Signalling Protocols

Item	ATM SVC Signalling Protocols	Reference	Status	Support
1	ATM Forum UNI 4.0	2.1.3 [1]	o.5701	
2	ITU-T DSS2 (Q.29xx)	2.1.3 [1]	o.5701	
3	ATM Forum PNNI	2.1.3 [1]	o.5701	
4	ATM Forum AINI	2.1.3 [1]	o.5701	
Predicated imaginary features:				
o.5701: IF A.55/2 THEN (At least one of the items must be supported) ELSE n/a.				

A.6.2.2 PSTN Signalling

The tables given below identify the signalling functions required for supporting a PSTN port.

A.6.2.2.1 PSTN CAS/CCS Signalling Options

Table A.58: PSTN CAS/CCS Signalling Options

Item	CAS/CCS options	Reference	Status	Support
1	CAS signalling support	3.3.1 [1]	c.5801	
2	CCS V5 PSTN signalling support	3.3.1 [1]	c.5802	
Predicated imaginary features:				
c.5801: IF A.53/1 OR A.53/6 THEN m ELSE n/a.				
c.5802: IF A.53/2 OR A.53/3 OR A.53/7 OR A.53/8 THEN m ELSE n/a.				

A.6.2.2.2 PSTN CAS Signalling Transport

Table A.59: PSTN CAS Signalling Transport

Item	PSTN Signalling Transport	Reference	Status	Support
1	CAS "ABCD" bit transport via annex L of I.366.2 trunking SSCS	5.1.1 [1]	c.5901	
Predicated imaginary features:				
c.5901: IF A.58/1 THEN m ELSE n/a.				

A.6.2.2.3 Mapping of CAS "ABCD" bits

Table A.60: Mapping of CAS "ABCD" bits

Item	Mapping of CAS "ABCD" bits	Reference	Status	Support
1	Mapping of analogue line signals to CAS "ABCD" bits according to national CAS variant (see note)	5.1.1 [1]	o.6001	
Predicated imaginary features:				
NOTE: Suppliers must provide additional information or references to the national CAS variant that is supported.				
o.6001: IF A.58/1 THEN m ELSE n/a.				

A.6.2.2.4 CCS PSTN Message Support

Indicating support for an item in table A.61 states that the implementation has the ability to support the generation and/or reception of the message according to EN 300 324-1 [7].

It is recommended that if any of the items given in table A.61 are supported, then suppliers must provide a detailed PSTN PICS statement according to the pro-forma specified in EN 300 324-2 [5].

Table A.61: PSTN message support

Item	Message	Reference	Status	Support
1	ESTABLISH	5.1.2.1 [1]	c.6101	
2	ESTABLISH ACK	5.1.2.1 [1]	c.6101	
3	SIGNAL	5.1.2.1 [1]	c.6101	
4	SIGNAL ACK	5.1.2.1 [1]	c.6101	
5	STATUS	5.1.2.1 [1]	c.6101	
6	STATUS ENQUIRY	5.1.2.1 [1]	c.6101	
7	DISCONNECT	5.1.2.1 [1]	c.6101	
8	DISCONNECT COMPLETE	5.1.2.1 [1]	c.6101	
9	PROTOCOL PARAMETER	5.1.2.1 [1]	c.6102	
Predicated imaginary features:				
c.6101: IF A.58/2 THEN m ELSE n/a. c.6102: IF A.58/2 THEN o ELSE n/a.				

A.6.2.3 ISDN BA Signalling Options

The tables given below identify the signalling functions required for supporting an ISDN-BA.

A.6.2.3.1 ISDN BA DSS1 Signalling Support

Table A.62: DSS1 Signalling Support

Item	DSS1 Signalling Support	Reference	Status	Support
1	DSS1 signalling support	5.2.1 [1]	c.6201	
Predicated imaginary features:				
c.6201: IF A.53/4 OR A.53/5 OR A.53/6 OR A.53/7 OR A.53/8 THEN m ELSE n/a.				

A.6.2.3.2 DSS1 Signalling Transport

Table A.63: ISDN-BA Signalling Transport

Item	DSS1 Signalling Transport	Reference	Status	Support
1	DSS1 signalling transport via I.366.1 SSCS	5.2.1 [1]	c.6301	
Predicated imaginary features:				
c.6301: IF A.62/1 THEN m ELSE n/a.				

A.6.2.4 CCS Emulated Loop Control Protocol Signalling Options

The tables given below identify the signalling functions required for supporting for activation/deactivation of AAL2 channels and the control of ports.

A.6.2.4.1 ELCP Support

Table A.64: ELCP Support

Item	ELCP Support	Reference	Status	Support
1	Control of the Emulated Loop using the ELCP	5.3 [1]	c.6401	
Predicated imaginary features:				
c.6401: IF A.53/3 OR A.53/5 OR A.53/8 THEN m ELSE n/a.				

A.6.2.4.2 ELCP AAL2 Channel Activation Message Support

Indicating support for an item in table A.65 states that the implementation has the ability to support the generation and/or reception of the message according to the defined procedures.

Table A.65: ELCP AAL2 Channel Activation Message

Item	Message	Reference	Status	Support
1	ALLOCATION	5.3.1.1.1 [1]	c.6501	
2	ALLOCATION COMPLETE	5.3.1.1.1 [1]	c.6501	
3	ALLOCATION REJECT	5.3.1.1.1 [1]	c.6501	
4	DE-ALLOCATION	5.3.1.1.1 [1]	c.6501	
5	DE-ALLOCATION COMPLETE	5.3.1.1.1 [1]	c.6501	
6	DE-ALLOCATION REJECT	5.3.1.1.1 [1]	c.6501	
Predicated imaginary features:				
c.6501: IF A.64/1 THEN m ELSE n/a.				

A.6.2.4.3 ELCP AAL2 Channel Activation Information Element Support

Table A.66: ELCP AAL2 Channel Activation Information Element

Item	Information Element	Reference	Status	Support
1	User Port Identification	5.3.1.1.1, 5.4.2.3 [1]	c.6601	
2	Channel Identifier	5.3.1.1.1 [1]	c.6601	
3	Information Transfer Capability	5.3.1.1.1 [1]	c.6602	
Predicated imaginary features:				
c.6601: IF A.65/1 OR A.65/4 THEN m ELSE n/a. c.6602: IF A.65/1 AND A.50/2 THEN o ELSE n/a.				

A.6.2.4.4 ELCP Port Control Message Support

Indicating support for an item in table A.67 states that the implementation has the ability to support the generation and/or reception of the message according to the defined procedures.

Table A.67: ELCP Port Control Message Support

Item	Message	Reference	Status	Support
1	PORT CONTROL	5.3.1.2.1 [1]	c.6701	
2	PORT CONTROL ACK	5.3.1.2.1 [1]	c.6701	
Predicated imaginary features:				
c.6701: IF A.64/1 THEN m ELSE n/a.				

A.6.2.5 CCS Transport

The "CCS Transport" function is captured separately from the PSTN and ELCP signalling since the same AAL2 channel (i.e. CID = 8) and the same Layer 2 data link (i.e. LAPV5) is shared by both signalling protocols.

Table A.68: CCS Transport

Item	CCS Transport	Reference	Status	Support
1	CCS transport using LAPV5 and I.366.1 SSCS	5.1.2.1, 5.4.1 [1]	c.6801	
Predicated imaginary features:				
c.6801: IF A.58/2 OR A.64/1 THEN m ELSE n/a.				

A.6.2.6 LES EOC Capabilities

Table A.69: LES EOC Capabilities

Item	LES EOC Capabilities	Reference	Status	Support
1	LES EOC support (see note)	6.2 [1]	o	
2	LES EOC transport via I.366.1 SSCS	6.2 [1]	c.6901	
3	SNMPv1 over the LES EOC	6.2.1 [1]	c.6901	
4	Traffic shaping of LES EOC	6.2.2 [1]	c.6901	
Predicated imaginary features:				
NOTE: Support of this function designates support of the AAL2 channel (CID = 9) only and the support for the LES EOC MIB is outside the scope of the present document. c.6901: IF A.69/1 THEN m ELSE n/a.				

A.6.2.7 Voice and Voiceband Data Support Options

The functions described in the tables below are applicable to both PSTN and ISDN-BA ports.

A.6.2.7.1 Voice Encoding Profile

Table A.70: Voice Encoding Profile

Item	Voice Encoding Profile	Reference	Status	Support
1	ATM-F Profile 7 Support	Annex A [1]	o.7001	
2	ATM-F Profile 8 Support	Annex A [1]	o.7001	
3	ATM-F Profile 9 Support	Annex A [1]	o.7001	
4	ATM-F Profile 10 Support	Annex A [1]	o.7001	
5	ATM-F Profile 11 Support	Annex A [1]	o.7001	
6	ATM-F Profile 12 Support	Annex A [1]	o.7001	
7	ITU-T Profile 1 Support	7.1 [1]	o.7001	
8	ITU-T Profile 2 Support	7.1 [1]	o.7001	
9	ITU-T Profile 3 Support	7.1 [1]	o.7001	
10	ITU-T Profile 4 Support	7.1 [1]	o.7001	
11	ITU-T Profile 5 Support	7.1 [1]	o.7001	
12	ITU-T Profile 6 Support	7.1 [1]	o.7001	
13	ITU-T Profile 7 Support	7.1 [1]	o.7001	
14	ITU-T Profile 8 Support	7.1 [1]	o.7001	
15	ITU-T Profile 9 Support	7.1 [1]	o.7001	
16	ITU-T Profile 10 Support	7.1 [1]	o.7001	
17	Other (see note)		o.7001	
Predicated imaginary features:				
NOTE: Other profiles may be added. o.7001: At least one of these options must be supported.				

A.6.2.7.2 Selection of Encoding Profile Entry

Table A.71: Selection of Profile Entry

Item	Selection of Encoding Profile Entry	Reference	Status	Support
1	Master slave mode	7.2.3.1 [1]	o.7101	
2	Independent mode	7.2.3.2 [1]	o.7101	
Predicated imaginary features:				
o.7101: At least one of these options must be supported.				

A.6.2.7.3 AAL2 Channel Activation/Deactivation

Table A.72: AAL2 Channel Activation/Deactivation

Item	AAL2 Channel Activation/Deactivation	Reference	Status	Support
1	Implicit channel activation	5.3.2.1 [1]	c.7201	
2	ELCP channel activation	5.3.1.1 [1]	c.7202	
Predicated imaginary features:				
c.7201: IF NOT A.64/1 THEN m ELSE n/a. c.7202: IF A.64/1 THEN m ELSE n/a.				

A.6.2.7.4 Echo Cancellation

Table A.73: Echo Cancellation

Item	Echo Cancellation	Reference	Status	Support
1	Near end echo cancellation	3.7 [1]	o	
2	Removal of echo canceller upon detection of voiceband data	7.4.1 [1]	c.7301	
Predicated imaginary features:				
c.7301: IF A.73/1 THEN m ELSE n/a.				

A.6.2.7.5 DTMF Capabilities

A.6.2.7.5.1 DTMF Transport

Table A.74: DTMF Transport

Item	DTMF Transport	Reference	Status	Support
1	Selection of high bit rate encoding to pass DTMF tones	3.8.1 [1]	o.7401	
2	Transfer by Dialled Digits Packet according to AAL2 type 3 packets defined in annex K/I.366.2	3.8.2 [1]	o.7401	
3	Normal voice encoding scheme transparently passes DTMF tones	3.8 [1]	o.7401	
Predicated imaginary features:				
o.7401: At least one of these items must be supported.				

A.6.2.7.5.2 DTMF Dialled Digits Packet Handling

Table A.75: DTMF Dialled Digits Packet Handling

Item	DTMF Dialled Digits Packet Handling	Reference	Status	Support
1	Origination of Dialled Digits Packet	7.4.2.1 [1]	o.7501	
2	Reception of Dialled Digits Packet	7.4.2.2 [1]	o.7501	
Predicated imaginary features:				
o.7501: IF A.74/2 THEN (At least one of these items must be supported) ELSE n/a.				

A.6.2.7.6 Default CID Assignment

Table A.76: Default CID Assignment

Item	Default CID Assignment	Reference	Status	Support
1	Default CID assignment	4.4.2 [1]	o.7601	
Predicated imaginary features:				
o.7601: IF NOT A.64/1 THEN m ELSE n/a.				

A.6.2.7.7 AAL2 CPS Support

Table A.77: AAL2 CPS Support

Item	AAL2 CPS Support	Reference	Status	Support
1	Optimized CPS Support	4.5 [1]	o.7701	
2	CPS Support according to ITU-T Recommendation I.363.2	2.1.2, 4.5 [1]	o.7701	
Predicated imaginary features:				
o.7701: At least one of these items must be supported.				

A.6.2.7.8 Voiceband Data Support

Table A.78: Voiceband Data Support

Item	Modem Detection	Reference	Status	Support
1	Use of higher bit-rate encoding for passing modem tones from CP-IWF to CO-IWF	3.9 [1]	o.7801	
2	Normal encoding scheme transparently passes modem tones from CP-IWF to CO-IWF	3.9 [1]	o.7801	
3	Detection of modem tones from the near end (i.e. from the customer interface) and upon detection selecting higher rate encoding entry for transmission	7.4.1 [1]	o.7801	
4	Fax modulation and remodulation according to annex M of I.366.2	8.1 [1]	o.7801	
Predicated imaginary features:				
o.7801: At least one of these items must be supported.				

A.6.2.7.9 Packet Delay Variation

Table A.79: Packet Delay Variation

Item	Packet Delay Variation	Reference	Status	Support
1	Support of up to 20 ms packet delay variation	9.1 [1]	m	
Predicated imaginary features:				

A.6.2.7.10 Timing Derivation

Table A.80: Timing Derivation

Item	Timing Derivation	Reference	Status	Support
1	Timing derived from ATM interface	9.2 [1]	o.8001	
2	Timing derived from the AAL2 cell arrival rate	9.2 [1]	o.8001	
3	Local timing source	9.2 [1]	o.8001	
Predicated imaginary features:				
o.8001: At least one of the items must be supported.				

A.6.2.7.11 ATM F5 OAM Cells

Table A.81: ATM F5 OAM Cells

Item	ATM F5 OAM Cells	Reference	Status	Support
1	AIS	6.1 [1]	m	
2	RDI	6.1 [1]	m	
3	Loopback	6.1 [1]	m	
4	Continuity Check	6.1 [1]	o	
5	Other (see note)	6.1 [1]	o	
Predicated imaginary features:				
NOTE: Other ATM F5 OAM flows can be added as required.				

History

Document history			
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