

ETSI EN 301 816-2 V1.1.1 (2001-09)

European Standard (Telecommunications series)

**Broadband Integrated Services Digital Network (B-ISDN);
AAL Type 2 Signalling protocol;
Capability Set 1;
Part 2: Protocol Implementation Conformance
Statement (PICS) proforma specification**



Reference

DEN/SPAN-130211-2

KeywordsATM, B-ISDN, AAL, UNI, layer 3, basic,
broadband, PICS**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
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Foreword

This European Standard (Telecommunications series) 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 User-Network Interface (UNI) and the Network-Network Interface (NNI) signalling protocol specification for the Broadband Integrated Services Digital Network (B-ISDN) for AAL type 2 bearer connection control, as identified below:

- Part 1: "Protocol specification [ITU-T Recommendation Q.2630.1 (1999), modified]";
- Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification";**
- Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification";
- Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification".

National transposition dates	
Date of adoption of this EN:	7 September 2001
Date of latest announcement of this EN (doa):	31 December 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 June 2002
Date of withdrawal of any conflicting National Standard (dow):	30 June 2002

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 given protocol. Such a statement is called an Implementation Conformance Statement (ICS). An ICS stating what capabilities and options have been implemented for a particular protocol is called a protocol ICS. This is commonly abbreviated to "PICS".

EN 301 816-1 [1] is derived from ITU-T Recommendation Q.2630.1 [4]. However, no PICS proforma exists for this Recommendation. Therefore, ETSI has created a PICS proforma that is specific to the European environment. This PICS proforma reflects the requirements contained in ITU-T Recommendation Q.2630.1 [4] with the modifications applied by EN 301 816-1 [1]. This has been done to assist understanding of how the European requirements relate to the requirements contained within ITU-T Recommendation Q.2630.1 [4] (and in particular, to the options specified in that recommendation that are selected by the present document). In practical terms, this means that a number of capabilities specified by ITU-T Recommendation Q.2630.1 [4] appear as items in this PICS proforma with a status more akin to the status that would be expected in a profile ICS (i.e. out-of-scope (I), prohibited (X)).

1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the signalling protocol for ATM AAL Type 2 Signalling Protocol (Capability Set 1) for the Broadband Integrated Services Digital Network (B-ISDN) defined in EN 301 816-1 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [3].

The supplier of a protocol implementation that is claimed to conform to EN 301 816-1 [1] is required to complete a copy of the PICS proforma provided in annex A of the present document and is required to provide the information necessary to identify both the supplier and the implementation.

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 EN 301 816-1 (V1.1.1): "Broadband Integrated Services Digital Network (B-ISDN); AAL Type 2 Signalling protocol; Capability Set 1; Part 1: Protocol specification [ITU-T Recommendation Q.2630.1 (1999), modified]".
- [2] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [3] ISO/IEC 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [4] ITU-T Recommendation Q.2630.1 (1999): "AAL type 2 signalling protocol (Capability Set 1)".
- [5] ETSI ETS 300 486-1: "Broadband Integrated Services Digital Network (B-ISDN); Meta-signalling protocol; Part 1: Protocol specification [ITU-T Recommendation Q.2120 (1995), modified]".
- [6] ITU-T Recommendation Q.850: "Usage of cause and location in the Digital Subscriber Signalling System No. 1 and the Signalling System No. 7 ISDN User Part".
- [7] ITU-T Recommendation Q.2610: "Usage of cause and location in B-ISDN user part and DSS2".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETS 300 486-1 [5], ISO/IEC 9646-1 [2], ISO/IEC 9646-7 [3] and in particular, the following defined in ISO/IEC 9646-1 [2] 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

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

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

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

3.2 Abbreviations

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

AAL	ATM Adaptation Layer
ALC	AAL type 2 Link Characteristics
ATM	Asynchronous Transfer Mode
ATS	Abstract Test Suite
B-ISDN	Broadband ISDN
BLC	Block confirm message
BLO	Block request message
CAS	Channel Associated Signalling
CAU	Cause parameter
CEID	AAL type 2 Connection Element Identifier
CFN	Confusion message
CMD	Circuit Mode Data
CPS	(AAL type 2) Common Part Sub-layer
DTMF	Dual Tone Multi-Frequency
ECF	Establish Confirm message
ERQ	Establish Request message
ESEA	destination E.164 Service Endpoint Address parameter
FAX	demodulated Facsimile data
FRM	Frame mode data
ICS	Implementation Conformance Statement
IE	Information Element
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
M	Mandatory
MC	Major Capability
MF-R1	Multi-Frequency R1
MMR	Maintenance Message Receive
MMT	Maintenance layer Message Transmit
NSAP	Network Service Access Point
NSAP	Network layer Service Access Point
NSEA	destination NSAP Service Endpoint Address parameter
O	Optional
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
REL	Release request message
RES	Reset request message

RLC	Release Confirm message
RSC	Reset Confirm message
SAR	Segmentation and Reassembly (Sub-layer)
SC	Subsidiary Capability
SCS	System Conformance Statement
SDU	Service Data Unit
SMR	Signalling Message Received
SMT	Signalling Message Transmit
SSCOP	Service Specific Connection-Oriented Protocol
SSIA	Service Specific Information (Audio) parameter
SSIM	Service Specific Information (Multirate) parameter
SSISA	Service Specific Information (SAR-assured) parameter
SSISU	Service Specific Information (SAR-unassured) parameter
SSSAR	Segmentation and Reassembly Service Specific Convergence Sub-layer
SUGR	Served User Generated Reference
SUT	Served User Transport
SUT	System Under Test
TCI	Test Connection Indication
TED	Transmission Error Detection
TSS&TP	Test Suite Structure and Test Purposes
UBC	Unblock Confirm message
UBL	Unblock Request message
UNI	User-Network Interface
UU	User-User
VCC	Virtual Channel Connection

4 Conformance

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

A PICS that conforms to this PICS proforma specification shall:

- a) describe an implementation which conforms to EN 301 816-1 [1];
- b) be a conforming PICS proforma, which has been completed in accordance with the instructions for completion given in clause A.1;
- c) include the information necessary to uniquely identify both the supplier and the implementation.

Annex A (normative): PICS proforma for EN 301 816-1

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the PICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed PICS.
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A.1 Guidance for completing the PICS proforma

A.1.1 Purpose and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in EN 301 816-1 may provide information in a standardized manner.

The PICS proforma is subdivided into clauses as follows:

- A.1: guidance for completing the various parts of the PICS proforma;
- A.2: identification of the implementation;
- A.3: identification of the protocol to which this PICS proforma applies;
- A.4: explanation of the PICS proforma tables;
- A.5: global statement of conformance;
- A.6: questions to determine roles;
- A.7: questions for the signalling entity role.

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.

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 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.
i	irrelevant (out-of-scope) - capability outside the scope of the reference specification. No answer is requested from the supplier.

NOTE 1: This use of "i" status is not to be confused with the suffix "i" to the "o" and "c" statuses above.

Reference column

The reference column makes reference to ETS <reference specification id>, 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, 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 ICS 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.

NOTE 2: As stated in ISO/IEC 9646-7, 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: 5 .. 20.
- list of values: <value1>, <value2>, ..., <valueN>;
example: 2, 4, 6, 8, 9;
example: '1101'B, '1011'B, '1111'B;
example: '0A'H, '34'H, '2F'H.
- list of named values: <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>);
example: reject(1), accept(2);
- length: size (<min size> .. <max size>);
example: 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 ICS proforma a unique reference exists, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solids 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 2: A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 3: 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. For each row in each PICS proforma table the supplier shall enter an explicit answer (i.e. by ticking the appropriate "Yes", "No", or "N/A" in each of the support column boxes provided). Where a support column box is left blank, or where it is marked "N/A" without any tick box, no answer is required.

If necessary, the supplier may enter additional comments at the end of each table, or separately.

More detailed instructions may be found at the beginning of each clause of the proforma.

A.1.4 Support for received message parameters

In the message parameter tables, the PICS proforma asks questions about the parameters (parameters) supported in messages received by the IUT. This clause explains what "to support a received PDU parameter" means.

The requirement that an IUT is able to parse a parameter in a received message is already implied by claiming support for the receipt of that received message. This means that "to support a received message parameter" implies more.

Parameters in received messages are regarded as either transparent or non-transparent.

A non-transparent parameter is one that causes the protocol control entity to vary its behaviour in accordance with the content of the parameter. To support a non-transparent parameter means an IUT can process the received parameter and behave according to the procedures described in EN 301 816-1.

A parameter is transparent if the actions taken according to its contents are not detectable in the subsequent behaviour of the protocol (i.e. EN 301 816-1 does not specify the protocol behaviour). To support a transparent parameter means an IUT can receive the parameter concerned and pass it to an appropriate processing entity (e.g. call control); the parameter is not discarded by the protocol control entity. Non-support of a transparent parameter means the IUT discards it.

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 to provide as much detail as possible regarding version numbers and configuration options.

The product supplier 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

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

A.3 Identification of the protocol to which this PICS proforma applies

This PICS proforma applies to the following standard:

EN 301 816-1: "Broadband Integrated Services Digital Network (B-ISDN); AAL Type 2 Signalling protocol; Capability Set 1; Part 1: Protocol specification [ITU-T Recommendation Q.2630.1 (1999), 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 ICS, with an explanation of why the implementation is non-conforming, on pages attached to the ICS proforma.

A.5 Roles

Table A.1: Roles

Item	Role: Does the implementation support...	Reference	Status	Support
R.1	AAL Type 2 Signalling Entity Role		M	<input type="checkbox"/> Yes <input type="checkbox"/> No
R.1.1	End Entity Role		O.1	<input type="checkbox"/> Yes <input type="checkbox"/> No
R.1.2	Transit Entity Role		O.1	<input type="checkbox"/> Yes <input type="checkbox"/> No
O.1: At least one of the roles must be supported.				

A.6 AAL Type 2 signalling entity capabilities

This clause contains the PICS proforma tables related to the AAL Type 2 Signalling Entity role.

A.6.1 Major capabilities

Each question in table A.2 refers to a major function of the protocol. Answering "Yes" to a particular question states that the implementation supports all the mandatory procedures for that function defined in the referenced clauses and clauses of ITU-T Recommendation Q.2630.1 as modified by EN 301 816-1. Answering "No" to a particular question states that the implementation does not support that function of the protocol.

Table A.2: Major capabilities

Item	Major capabilities: Does the implementation support...	Reference	Status	Support
MC.1	Connection control	5	M if R.1.2 o.2 if R.1.1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
MC.2	Maintenance control	5	M if R.1.2 o.2 if R.1.1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
o.2: It is mandatory to support at least one of these two items.				

NOTE: AAL Type 2 signalling is symmetrical between two peers. This EN does not distinguish between a signalling entity belonging to an AAL type 2 service end point and an AAL type 2 switch.

A.6.2 Subsidiary capabilities

Indicating support for an item in table A.3 states that the implementation supports special cases or options within a major capability.

Table A.3: Subsidiary capabilities

Item	Subsidiary capabilities: Does the implementation support...	Reference	Status	Support
SC.1	Outgoing protocol procedure	5	M if R.1.2 o.3 if not R.1.2	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
SC.2	Incoming protocol procedure	5	M if R.1.2 o.3 if not R.1.2	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
SC.3	Non-switched	Annex A	o.3	<input type="checkbox"/> Yes <input type="checkbox"/> No
o.3: It is mandatory to support at least one of these items.				

A.6.3 Messages

The tables in this clause ask questions related to the supported PDUs in the signalling entity role. In the B-ISDN protocol, PDUs are known by the term "messages".

A.6.3.1 Message, parameter and field formats

Indicating support for an item in table A.4 states that the implementation has the ability to either recognize or to transmit the message listed in that item. Support for the receipt of a particular type of PDU means support for recognizing and acting upon all valid instances of that PDU type, including all valid PDU parameters, to the extent required by EN 301 816-1.

NOTE: M.x stands for Message Number x.

Table A.4: Message, parameter and field formats

Item	Message, parameter and field formats. Does the implementation...	Reference	Status	Support
M.1	Support coding conventions and content of reserved fields	7.1.1	M	<input type="checkbox"/> Yes <input type="checkbox"/> No
M.2	Support AAL type 2 message format	7.1.2	M	<input type="checkbox"/> Yes <input type="checkbox"/> No
M.3	Support AAL type 2 parameter format	7.1.3	M	<input type="checkbox"/> Yes <input type="checkbox"/> No
M.4	Support AAL type 2 field-fixed length format	7.1.4	M	<input type="checkbox"/> Yes <input type="checkbox"/> No
M.5	Support AAL type 2 field-variable length format	7.1.5	M	<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.2 AAL type 2 messages

A.6.3.2.1 AAL Type 2 Signalling messages

A.6.3.2.1.1 Messages received by the signalling entity

Indicating support of an item in table A.5 states that the implementation has the ability to recognize the message listed in that item associated to signalling.

Table A.5: AAL Type 2 Signalling messages received by the signalling entity

Item	AAL2 signalling messages. Does the implementation support...	Reference	Conditions for status	Status	Support
SMR.1	Establish Confirm (ECF)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.2	Establish Request (ERQ)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.3	Release Request (REL)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.4	Release Confirm (RLC)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

A.6.3.2.1.2 Messages transmitted by the signalling entity

Indicating support of an item in table A.6 states that the implementation has the ability to transmit the message listed in that item associated to signalling.

Table A.6: AAL Type 2 Signalling messages transmitted by the signalling entity

Item	AAL2 signalling messages. Does the implementation support...	Reference	Conditions for status	Status	Support
SMT.1	Establish Confirm (ECF)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.2	Establish Request (ERQ)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.3	Release Confirm (RLC)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.4	Release Request (REL)	7.2.1	MC.1 Not MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

A.6.3.2.2 AAL Type 2 Maintenance messages

A.6.3.2.2.1 Messages received by the maintenance entity

Indicating support of an item in table A.7 states that the implementation has the ability to recognize the message listed in that item associated to maintenance.

Table A.7: AAL Type 2 Maintenance messages received by the maintenance entity

Item	AAL2 Maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.1	Block confirm (BLC)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.2	Block request (BLO)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.3	Confusion (CFN)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.4	Reset confirm (RSC)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.5	Reset request (RES)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.6	Unblock confirm (UBC)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.7	Unblock request (UBL)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

A.6.3.2.2 Messages transmitted by the maintenance entity

Indicating support of an item in table A.8 states that the implementation has the ability to transmit the message listed in that item associated to maintenance.

Table A.8: AAL Type 2 Maintenance messages transmitted by the signalling entity

Item	AAL2 Maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.1	Block confirm (BLC)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.2	Block request (BLO)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.3	Confusion (CFN)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.4	Reset confirm (REL)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.5	Reset request (RSC)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.6	Unblock confirm (UBC)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.7	Unblock request (UBL)	7.2.1	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

A.6.3.3 Parameters of the AAL type 2 signalling protocol messages received by the signalling entity

The tables in this clause ask questions related to the support of PDU parameters in messages received by the IUT in the signalling entity role. In the B-ISDN, protocol PDU parameters are known by the term "parameters".

Tables A.9, A.10, A.11 and A.12 deal with the parameters that appear in all messages that are received by the IUT in the signalling entity role associated to signalling.

NOTE: IE stands for Parameter.

Table A.9: Parameters of the AAL type 2 signalling protocol ERQ (Establish Request) message received by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMR.1-IE.1	Connection element identifier	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.2	Destination E.164 service endpoint address	7.2.2	MC.1 AND NOT SC.3 MC.1 AND SC.3 NOT MC.1	O.4 N/A N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> N/A
SMR.1-IE.3	Destination NSAP service endpoint address	7.2.2	MC.1 AND NOT SC.3 MC.1 AND SC.3 NOT MC.1	O.4 N/A N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> N/A
SMR.1-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.5	Link characteristics	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.6	Originating signalling association identifier	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.7	Served user generated reference	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.8	Served user transport	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMR.1-IE.9	Service specific information (audio)	7.2.2	MC.1 NOT MC.1	O.5 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.10	Service specific information (multirate)	7.2.2	MC.1 NOT MC.1	O.5 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.2-IE.11	Service specific information (SAR-assured)	7.2.2	MC.1 NOT MC.1	O.5 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.12	Service specific information (SAR-unassured)	7.2.2	MC.1 NOT MC.1	O.5 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.1-IE.13	Test connection indicator	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

O.4: At least one of those parameters must be received properly in the instance of one message.
O.5: At most one of these parameters is received in an instance of the message.
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".

Table A.10: Parameters of the AAL type 2 signalling protocol ECF (Establish Confirm) message received by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMR.2-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.3-IE.6	Originating signalling association identifier	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".

Table A.11: Parameters of the AAL type 2 signalling protocol REL (Release) message received by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMR.3-IE.14	Cause	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.3-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

NOTE: Designates the destination signalling association identifier field in the message header.

Table A.12: Parameters of the AAL type 2 signalling protocol RLC (Release Confirm) message received by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMR.4-IE.14.1	Cause in RLC used to reject a connection establishment	7.2.2	MC.1 NOT MC.1	O.6 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.4-IE.14.2	Cause in RLC to report unrecognized information received in the REL message	7.2.2	MC.1 NOT MC.1	O.6 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMR.4-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

O.6: One of the causes must appear in the RLC message.
NOTE: Designates the destination signalling association identifier field in the message header.

A.6.3.4 Parameters of the AAL type 2 signalling protocol messages transmitted by the signalling entity

The tables in this clause ask questions related to the support of PDU parameters in messages transmitted by the IUT in the signalling entity role. In the B-ISDN, protocol PDU parameters are known by the term "parameters".

Tables A.13, A.14, A.15 and A.16 deal with the parameters that appear in all messages that are transmitted by the IUT in the signalling entity role associated to signalling.

NOTE: IE stands for Parameter.

Table A.13: Parameters of the AAL type 2 signalling protocol ERQ (Establish Request) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMT.1-IE.1	Connection element identifier	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.2	Destination E.164 service endpoint address	7.2.2	MC.1 AND NOT SC.3 MC.1 and SC.3 NOT MC.1	O.7 N/A N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> N/A
SMT.1-IE.3	Destination NSAP service endpoint address	7.2.2	MC.1 AND NOT SC.3 MC.1 and SC.3 NOT MC.1	O.7 N/A N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> N/A
SMT.1-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.5	Link characteristics	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.6	Originating signalling association identifier	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.7	Served user generated reference	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.8	Served user transport	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.9	Service specific information (audio)	7.2.2	MC.1 NOT MC.1	O.8 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.10	Service specific information (multirate)	7.2.2	MC.1 NOT MC.1	O.8 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.2-IE.11	Service specific information (SAR-assured)	7.2.2	MC.1 NOT MC.1	O.8 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.12	Service specific information (SAR-unassured)	7.2.2	MC.1 NOT MC.1	O.8 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.1-IE.13	Test connection indicator	7.2.2	MC.1 NOT MC.1	O N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
O.7: Exactly one of those parameters must be present in the instance of one message.					
O.8: At most one of these parameters is present in an instance of the message.					
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					

Table A.14: Parameters of the AAL type 2 signalling protocol ECF (Establish Confirm) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMT.2-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.2-IE.6	Originating signalling association identifier	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					

Table A.15: Parameters of the AAL type 2 signalling protocol REL (Release) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMT.3-IE.14	Cause	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.3-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

NOTE: Designates the destination signalling association identifier field in the message header.

Table A.16: Parameters of the AAL type 2 signalling protocol RLC (Release Confirm) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 signalling protocol messages	Reference	Conditions for status	Status	Support
SMT.4-IE.14.1	Cause in RLC used to reject a connection establishment	7.2.2	MC.1 NOT MC.1	O.9 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.4-IE.14.2	Cause in RLC to report unrecognized information received in the REL message	7.2.2	MC.1 NOT MC.1	O.9 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
SMT.4-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.1 NOT MC.1	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

O.9: One of the two causes must appear in the RLC.
NOTE: Designates the destination signalling association identifier field in the message header.

A.6.3.5 Parameters of the AAL type 2 maintenance messages received by the signalling entity

The tables in this clause ask questions related to the support of PDU parameters in messages received by the IUT in the signalling entity role. In the B-ISDN, protocol PDU parameters are known by the term "parameters".

Tables A.17, A.18, A.19, A.20, A.21, A.22 and A.23 deal with the parameters that appear in all messages that are received by the IUT in the signalling entity role associated to maintenance.

Table A.17: Parameters of the AAL type 2 maintenance protocol RES (Reset Request) message received by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.5-IE.1	Connection element identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.5-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.5-IE.6	Originating signalling association identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".

Table A.18: Parameters of the AAL type 2 maintenance protocol RSC (Reset Confirm) message received by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.4-IE.14	Cause	7.2.2	MC.2 NOT MC.2	O.10 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.4-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
O.10: Present only if the cause reports unrecognized information received.					
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					

Table A.19: Parameters of the AAL type 2 maintenance protocol BLO (Block Request) message received by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.2-IE.1	Connection element identifier	7.2.2	MC.2 NOT MC.2	M (see note 2) N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.2-IE.4	Destination signalling association identifier (see note 1)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.2-IE.6	Originating signalling association identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
NOTE 1: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					
NOTE 2: The channel identifier field is set to "Null", but the path identifier includes a value identifying an AAL type 2 path.					

Table A.20: Parameters of the AAL type 2 maintenance protocol BLC (Block Confirm) message received by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.1-IE.14	Cause	7.2.2	MC.2 NOT MC.2	O.11 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.1-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
O.11: Present if it reports unrecognized information received.					
NOTE: Designates the destination signalling association identifier field in the message header.					

Table A.21: Parameters of the AAL type 2 maintenance protocol UBL (Unblock Request) message received by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.7-IE.1	Connection element identifier	7.2.2	MC.2 NOT MC.2	M (see note 2) N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.7-IE.4	Destination signalling association identifier (see note 1)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.7-IE.6	Originating signalling association identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
NOTE 1: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					
NOTE 2: The channel identifier field is set to "Null", but the path identifier includes a value identifying an AAL type 2 path.					

Table A.22: Parameters of the AAL type 2 maintenance protocol UBC (Unblock Confirm) message received by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.6-IE.14	Cause	7.2.2	MC.2 NOT MC.2	O.12 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.6-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
O.12: Present if cause reports unrecognized information received.					
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					

Table A.23: Parameters of the AAL type 2 maintenance protocol CFN (Confusion) message received by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMR.3-IE.14	Cause	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMR.3-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
NOTE: Designates the destination signalling association identifier field in the message header.					

A.6.3.6 Parameters of the AAL type 2 Maintenance messages transmitted by the signalling entity

The tables in this clause ask questions related to the support of PDU parameters in messages transmitted by the IUT in the signalling entity role. In the B-ISDN, protocol PDU parameters are known by the term "parameters".

Tables A.24, A.25, A.26, A.27, A.28, A.29 and A.30 deal with the parameters that appear in all messages that are transmitted by the IUT in the signalling entity role associated to maintenance.

Table A.24: Parameters of the AAL type 2 maintenance protocol RES (Reset Request) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.5-IE.1	Connection element identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.5-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.5-IE.6	Originating signalling association identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					

Table A.25: Parameters of the AAL type 2 maintenance protocol RSC (Reset Confirm) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.4-IE.14	Cause	7.2.2	MC.2 NOT MC.2	O.13 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.4-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

O.13: Present only if the cause reports unrecognized information received.
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".

Table A.26: Parameters of the AAL type 2 maintenance protocol BLO (Block Request) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.2-IE.1	Connection element identifier	7.2.2	MC.2 NOT MC.2	M (see note 2) N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.2-IE.4	Destination signalling association identifier (see note 1)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.2-IE.6	Originating signalling association identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

NOTE 1: Designates the destination signalling association identifier field in the message header and contains the value "unknown".
NOTE 2: The channel identifier field is set to "Null", but the path identifier includes a value identifying an AAL type 2 path.

Table A.27: Parameters of the AAL type 2 maintenance protocol BLC (Block Confirm) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.1-IE.14	Cause	7.2.2	MC.2 NOT MC.2	O.14 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.1-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

O.14: Present only if the cause reports unrecognized information received.
NOTE: Designates the destination signalling association identifier field in the message header.

Table A.28: Parameters of the AAL type 2 maintenance protocol UBL (Unblock Request) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.7-IE.1	Connection element identifier	7.2.2	MC.2 NOT MC.2	M (see note 2) N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.7-IE.4	Destination signalling association identifier (see note 1)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.7-IE.6	Originating signalling association identifier	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

NOTE 1: Designates the destination signalling association identifier field in the message header and contains the value "unknown".
NOTE 2: The channel identifier field is set to "Null", but the path identifier includes a value identifying an AAL type 2 path.

Table A.29: Parameters of the AAL type 2 maintenance protocol UBC (Unblock Confirm) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.6-IE.14	Cause	7.2.2	MC.2 NOT MC.2	O.15 N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.6-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
O.15: Present if cause reports unrecognized information received.					
NOTE: Designates the destination signalling association identifier field in the message header and contains the value "unknown".					

Table A.30: Parameters of the AAL type 2 maintenance protocol CFN (Confusion) message transmitted by the signalling entity

Item	Parameters of the AAL type 2 maintenance messages. Does the implementation support...	Reference	Conditions for status	Status	Support
MMT.3-IE.14	Cause	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
MMT.3-IE.4	Destination signalling association identifier (see note)	7.2.2	MC.2 NOT MC.2	M N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
NOTE: Designates the destination signalling association identifier field in the message header.					

A.6.3.7 Structure of parameters

These tables complete the detailed implementation conformance statement.

A.6.3.7.1 Identifiers of the AAL type 2 message parameters

Table A.31: Identifiers of the AAL type 2 message parameter contents

AAL type 2 parameter	Does the implementation support the parameter field:	Status	Value	Support
CAU	Cause	M	00000001	<input type="checkbox"/> Yes <input type="checkbox"/> No
CEID	Connection element identifier	M	00000010	<input type="checkbox"/> Yes <input type="checkbox"/> No
ESEA	Destination E.164 service end point address	M	00000011	<input type="checkbox"/> Yes <input type="checkbox"/> No
NSEA	Destination NSAP service endpoint address	M	00000100	<input type="checkbox"/> Yes <input type="checkbox"/> No
ALC	Link characteristics	M	00000101	<input type="checkbox"/> Yes <input type="checkbox"/> No
OSAID	Originating signalling association identifier	M	00000110	<input type="checkbox"/> Yes <input type="checkbox"/> No
SUGR	Served user generated reference	M	00000111	<input type="checkbox"/> Yes <input type="checkbox"/> No
SUT	Served user transport	M	00001000	<input type="checkbox"/> Yes <input type="checkbox"/> No
SSIA	Service specific information (audio)	M	00001001	<input type="checkbox"/> Yes <input type="checkbox"/> No
SSIM	Service specific information (multirate)	M	00001010	<input type="checkbox"/> Yes <input type="checkbox"/> No
SSISA	Service specific information (SAR-assured)	M	00001011	<input type="checkbox"/> Yes <input type="checkbox"/> No
SSISU	Service specific information (SAR-unassured)	M	00001100	<input type="checkbox"/> Yes <input type="checkbox"/> No
TCI	Test connection indicator	M	00001101	<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.2 Cause parameter contents

NOTE: IER stands for Parameter Receive.

Table A.32: Cause parameter contents

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.14.1	Cause value	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Coding standard	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	ITU-T Standardized coding as in Q.850 and Q.2610	O	00	<input type="checkbox"/> Yes <input type="checkbox"/> No
	ISO/IEC standards	O	01	<input type="checkbox"/> Yes <input type="checkbox"/> No
	national standard	O	10	<input type="checkbox"/> Yes <input type="checkbox"/> No
	standard defined for the network	O	11	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Cause			
	Unallocated (unassigned) number	O	001	<input type="checkbox"/> Yes <input type="checkbox"/> No
	No route to destination	O	003	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Normal, unspecified	O	031	<input type="checkbox"/> Yes <input type="checkbox"/> No
	No circuit/channel available	O	034	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Network out of order	O	038	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Temporary failure	O	041	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Switching equipment congestion	O	042	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Requested circuit/channel not available	O	044	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Resource unavailable, unspecified	O	047	<input type="checkbox"/> Yes <input type="checkbox"/> No
	AAL parameters cannot be supported	O	093	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Invalid message, unspecified	O	095	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Mandatory parameter is missing	O	096	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Message type non-existent or not implemented	O	097	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Parameter/parameter non-existent or not implemented	O	099	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Invalid parameter contents			
	Recovery on timer expiry	O	100	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Message with unrecognized parameter, discarded	O	102	<input type="checkbox"/> Yes <input type="checkbox"/> No
		O	110	<input type="checkbox"/> Yes <input type="checkbox"/> No
IER.14.2	Diagnostics	O		
	1. Field length	O		<input type="checkbox"/> Yes <input type="checkbox"/> No
	2. Diagnostic	O		<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.3 Connection element identifier parameter content

Table A.33: Connection element identifier parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.1.1	Path identifier	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Octet 1	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Octet 2	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Octet 3	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Octet 4	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
IER.1.2	Channel identifier	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Octet 1	M		<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.4 Destination E.164 service endpoint address parameter content

Table A.34: Destination E.164 service endpoint address parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
AAL2_0_01 clause 8.1.2.2	Nature of address	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
IER.4.1	Spare	M	0000000	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Subscriber number (national use)		0000001	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Unknown		0000010	<input type="checkbox"/> Yes <input type="checkbox"/> No
	national number		0000011	<input type="checkbox"/> Yes <input type="checkbox"/> No
	international number		0000100	<input type="checkbox"/> Yes <input type="checkbox"/> No
	network specific number		0000101	<input type="checkbox"/> Yes <input type="checkbox"/> No
	spare		0000110- 1101111	<input type="checkbox"/> Yes <input type="checkbox"/> No
	reserved for national use		1110000- 1111110	<input type="checkbox"/> Yes <input type="checkbox"/> No
	spare		1111111	<input type="checkbox"/> Yes <input type="checkbox"/> No
	IER.4.2		E.164 address	M
	Field length	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	4 bits reserved First hexadecimal digit of address	C (see note)		<input type="checkbox"/> Yes <input type="checkbox"/> No
	4 bits reserved ---	C		<input type="checkbox"/> Yes <input type="checkbox"/> No
	4 bits reserved Last hexadecimal digit of address	C		<input type="checkbox"/> Yes <input type="checkbox"/> No

NOTE: Conditional on field length.

A.6.3.7.5 Destination NSAP service endpoint address parameter content

Table A.35: Destination NSAP service endpoint address parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.3.1	NSAP address	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Octet 1	M		<input type="checkbox"/> Yes <input type="checkbox"/> No
	---	M		---
	Octet 20	M		<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.6 Link characteristics information element content

Table A.36: Link characteristics parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.5.1	Maximum CPS-SDU bit rate	M	(see note 1)	<input type="checkbox"/> Yes <input type="checkbox"/> No
IER.5.2	Average CPS-SDU bit rate	M	(see note 1)	<input type="checkbox"/> Yes <input type="checkbox"/> No
IER.5.3	Maximum CPS-SDU size	M	(see note 2)	<input type="checkbox"/> Yes <input type="checkbox"/> No
IER.5.4	Average CPS-SDU size	M	(see note 2)	<input type="checkbox"/> Yes <input type="checkbox"/> No

NOTE 1: Coded as a CPS-CDU bit rate field.
NOTE 2: Coded as a CPS-SDU size field.

A.6.3.7.7 Originating signalling association identifier parameter content

Table A.37: Originating signalling association identifier parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.6.1	Originating signalling association identifier parameter content	M	Octet 1 (see note)	<input type="checkbox"/> Yes <input type="checkbox"/> No
		M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
		M	Octet 3	<input type="checkbox"/> Yes <input type="checkbox"/> No
		M	Octet 4	<input type="checkbox"/> Yes <input type="checkbox"/> No

NOTE: This field is coded as a signalling association identifier field.

A.6.3.7.8 Served user generated reference parameter content

Table A.38: Served user generated reference parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.7.1	Served user generated reference parameter content	M	Octet 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
		M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
		M	Octet 3	<input type="checkbox"/> Yes <input type="checkbox"/> No
		M	Octet 4	<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.9 Served user transport parameter content

Table A.39: Served user transport parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.8.1	Field length	M	Octet 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Served user transport octet 1	M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
	---	---	---	---
	Served user transport octet n (see note)	M	Octet n (see note)	<input type="checkbox"/> Yes <input type="checkbox"/> No

NOTE: n can reach a value up to 254.

A.6.3.7.10 Service specific information (audio) parameter content

Table A.40: Service specific information (audio) parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support	
IER.9.1	Audio service			<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Profile type	Reserved	M	Octet 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Profile identifier		M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
	FRM CMD MR-R2 MF-R1 DTMF CAS FAX A/μ law		M	Octet 3	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of		M	Octet 4	<input type="checkbox"/> Yes <input type="checkbox"/> No
	frame mode data		M	Octet 5	<input type="checkbox"/> Yes <input type="checkbox"/> No
IER.9.2	Organizational unique identifier		M	Octet 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
			M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
			M	Octet 3	<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.11 Service specific information (multirate) parameter content

Table A.41: Service specific information (multirate) parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support	
IER.10.1	Multirate			<input type="checkbox"/> Yes <input type="checkbox"/> No	
	FRM Reserved Multiplier n for n x 6 464 kbit/s		M	Octet 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of		M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
	frame mode data		M	Octet 3	<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.12 Service specific information (SAR-assured) parameter content

Table A.42: Service specific information (SAR-assured) parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.11.1	Segmentation and reassembly (assured data transfer)	O.8		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSSAR-SDU	M	Octet 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the forward direction	M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSSAR-SDU	M	Octet 3	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the backward direction	M	Octet 4	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSCOP-SDU	M	Octet 5	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the forward direction	M	Octet 6	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSCOP-SDU	M	Octet 7	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the backward direction	M	Octet 8	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSCOP-SDU	M	Octet 9	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the backward direction	M	Octet 10	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSCOP-UU	M	Octet 11	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the forward direction	M	Octet 12	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSCOP-UU	M	Octet 13	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the backward direction	M	Octet 14	<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.3.7.13 Service specific information (SAR-unassured) parameter content

Table A.43: Service specific information (SAR-unassured) parameter content

Item	Does the implementation support the parameter field:	Status	Value	Support
IER.12.1	Segmentation and reassembly (unassured data transfer)	O.8		<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSSAR-SDU	M	Octet 1	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the forward direction	M	Octet 2	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSSAR-SDU	M	Octet 3	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the backward direction	M	Octet 4	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Maximum length of SSSAR-SDU	M	Octet 5	<input type="checkbox"/> Yes <input type="checkbox"/> No
	In the backward direction	M	Octet 6	<input type="checkbox"/> Yes <input type="checkbox"/> No
	TED Reserved	M	Octet 7	<input type="checkbox"/> Yes <input type="checkbox"/> No

A.6.4 Timers in the signalling entity role

Indicating support for an item in table A.44 states that the implementation has a timer that operates in accordance with the description in ITU-T Recommendation Q.2630.1 as modified by EN 301 816-1.

The table indicates the permitted range of values for each timer. The supplier shall state the values supported by their implementation.

NOTE: TM stands for Timer.

Table A.44: Timers in the signalling entity role

Item	Timer: Does the implementation support...	Conditions for status	Status	Reference	Support	Values Allowed	Value Supported
TM.1	Timer_ERQ	MC.1 NOT MC.1	M N/A	Table 8-1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5-30s	
TM.2	Timer_REL	MC.1 NOT MC.1	M N/A	Table 8-1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2-60s	
TM.3	Timer_RES	MC.1 NOT MC.1	M N/A	Table 8-1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2-60s	
TM.4	Timer_BLO	MC.1 NOT MC.1	M N/A	Table 8-1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2-60s	
TM.5	Timer_UBL	MC.2 NOT MC.2	M N/A	Table 8-1	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2-60s	

History

Document history		
V1.1.1	January 2001	Public Enquiry PE 20010601: 2001-01-31 to 2001-06-01
V1.1.1	July 2001	Vote V 20010907: 2001-07-09 to 2001-09-07
V1.1.1	September 2001	Publication