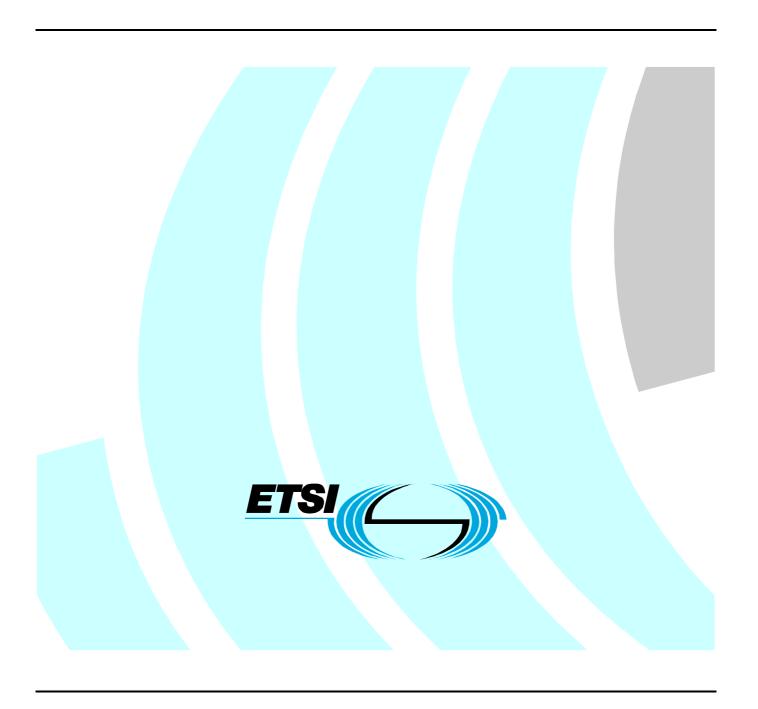# ETSI EN 301 068-2 V1.2.1 (2002-04)

European Standard (Telecommunications series)

Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; ATM transfer capability and traffic parameter indication; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification

ETSI

Reference

REN/SPAN-130203-2

Keywords

ATM, B-ISDN, DSS2, ISDN, layer 3, PICS, UNI

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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 Digital Subscriber Signalling System No. two (DSS2) protocol specification for the Broadband Integrated Services Digital Network (B-ISDN) ATM transfer capability and traffic parameter indication, as identified below:

Part 1: "Protocol specification [ITU-T Recommendation Q.2961.1 (1995), Q.2961.2 (1997), Q.2961.3 (1997), Q.2961.4 (1997), Q.2961.6 (1998), modified]";

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

Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for the user";

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

Part 5: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network";

Part 6: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network".

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 a Protocol Implementation Conformance Statement (PICS). The Protocol specification, part 1 of the present document, extends the basic call control procedures defined in EN 300 443-1 [1] by supporting the connection characteristics (ATM transfer capability and traffic parameters) indication.

National transposition dates	
Date of adoption of this EN:	26 April 2002
Date of latest announcement of this EN (doa):	31 July 2002
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 January 2003
Date of withdrawal of any conflicting National Standard (dow):	31 January 2003

1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the Broadband Integrated Services Digital Network (B-ISDN) Digital Subscriber Signalling System No. two (DSS2) protocol with connection characteristics indication defined in EN 301 068-1 [3] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [5] and ETS 300 406 [6].

The supplier of a protocol implementation which is claimed to conform to EN 301 068-1 [3] 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 the supplier and the implementation.

Further ENs (or further parts of the present document) provide the method of testing and detailed application specific requirements to determine conformance to the present document.

The provision of this capability requires the support of the protocol for the basic point-to-point call/bearer connections as defined in EN 300 443-1 [1] or of the protocol for the point-to-multipoint call/bearer connections as defined in EN 300 771-1 [2].

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 300 443-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; B-ISDN user-network interface layer 3 specification for basic call/bearer control; Part 1: Protocol specification [ITU-T Recommendation Q.2931 (1995), modified]".

[2] ETSI EN 300 771-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; B-ISDN user-network interface layer 3 specification for point-to-multipoint call/bearer control; Part 1: Protocol specification [ITU-T Recommendation Q.2971 (1995), modified]".

[3] ETSI EN 301 068-1 (V1.3.1): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Connection characteristics; ATM transfer capability and traffic parameter indication; Part 1: Protocol specification [ITU-T Recommendations Q.2961.1 (1995), Q.2961.2 (1997), Q.2961.3 (1997), Q.2961.4 (1997), modified]".

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

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

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

[7] ITU-T Recommendation I.371: "Traffic control and congestion control in B-ISDN".

[8] ITU-T Recommendation Q.2961.6: "Digital subscriber signalling system No. 2 - Additional traffic parameters: Additional signalling procedures for the support of the SBR2 and SBR3 ATM transfer capabilities".

[9]   ITU-T Recommendation Q.2931: "Digital Subscriber Signalling System No. 2 - User-Network Interface (UNI) layer 3 specification for basic call/connection control".

[10]   Void.

[11]   ITU-T Recommendation Q.2961.1: "Digital subscriber signalling system No. 2 - Additional traffic parameters: Additional signalling capabilities to support traffic parameters for the tagging option and the sustainable cell rate parameter set".

[12]   ITU-T Recommendation Q.2961.2: "Digital subscriber signalling system No. 2 - Additional traffic parameters: Support of ATM transfer capability in the broadband bearer capability information element".

[13]   ITU-T Recommendation Q.2961.3: "Digital subscriber signalling system No. 2 - Additional traffic parameters: Signalling capabilities to support traffic parameters for the available bit rate (ABR) ATM transfer capability".

[14]   ITU-T Recommendation Q.2961.4: "Digital subscriber signalling system No. 2 - Additional traffic parameters: Signalling capabilities to support traffic parameters for the ATM Block Transfer (ABT) ATM transfer capability".

3   Definitions and abbreviations

3.1   Definitions

For the purposes of the present document, the terms and definitions given in EN 301 068-1 [3], ISO/IEC 9646-1 [4] and ISO/IEC 9646-7 [5] and the following 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, 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

3.2   Abbreviations

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

ABR   Available Bit Rate ATC
ABT   ATM Block Transfer ATC
ATC   ATM Transfer Capability
ATM   Asynchronous Transfer Mode
B-ISDN   Broadband ISDN
DBR   Deterministic Bit Rate ATC
DSS2   Digital Subscriber Signalling System No. two
ICS   Implementation Conformance Statement
IUT   Implementation Under Test
PDU   Protocol Data Unit
PICS   Protocol Implementation Conformance Statement
SBR   Statistical Bit Rate ATC
SUT   System Under Test
VP   Virtual Path

4   Conformance

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):
PICS proforma for EN 301 068-1

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.

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 EN 301 068-1 may provide information about the implementation in a standardized manner.

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

- instructions for completing the PICS proforma;

- identification of the implementation;

- identification of the protocol;

- global statement of conformance;

- roles;

- user role:

  - major capabilities;

  - PDUs;

  - PDU parameters;

  - timers;

  - call states;

- network role:

  - major capabilities;

  - PDUs;

  - PDU parameters;

  - timers;

  - call states.

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.

NOTE: In the case where items of the group do not always belong to the same table, all o.i shall be defined in the last clause of the PICS proforma, and the text "which is defined immediately following the table" should be replaced by "which is defined in the last clause of this annex".

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.

c: o: conditional optional - the capability may be supported or not if the hierarchically preceding capability is supported.

c: m: conditional mandatory - the capability is required to be supported if the hierarchically preceding capability is supported.

Reference column

The reference column makes reference to EN 301 068-1, except where explicitly stated otherwise. Whenever reference is made directly to ITU-T Recommendation Q.2961.x, it means as endorsed by EN 301 068-1.

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 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: ?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, 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 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 1:   A.5/4 is the reference to the answer of item 4 in table A.5.

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

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 column boxes provided, using the notation described in clause A.1.2.

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

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

A.2 Identification of the implementation

Identification of the IUT and the system in which it resides (the 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 identification

IUT name:

....

....

IUT version:

....

A.2.3 System under test 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:

EN 301 068-1 (V1.3.1): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling
System No. two (DSS2) protocol; Connection characteristics; ATM transfer capability and traffic parameter indication;
Part 1: Protocol specification [ITU-T Recommendations Q.2961.1 (1995), Q.2961.2 (1997), Q.2961.3 (1997), Q.2961.4
(1997), Q.2961.6 (1998), 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 <reference specification type>
            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   Roles

Table A.1: Roles

Item	Major role: Does the implementation support...	Conditions for status	Status	Reference	Support
R1.1	the user role?		O.1		[ ] Yes [ ] No
R1.2	the network role?		O.1		[ ] Yes [ ] No
O.1 It is mandatory to support exactly one of these items.					
Comments:					

A.6   User role

This clause contains the PICS proforma tables related to the user role. They are to be completed only for user implementations:

Prerequisite: R1.1   user role

A.6.1   Major capabilities

Table A.2: Major capabilities

Item	Major capability: Does the implementation ...	Conditions for status	Status	Reference	Support
MCu1	support the DBR ATC?		O.2	Q.2961.2	[ ] Yes [ ] No
MCu2	support the SBR ATC?		O.2	Q.2961.2	[ ] Yes [ ] No
MCu2.1	support the SBR configuration 1 (SBR1) ATC?	MCu2 NOT MCu2	O.3 N/A	Q.2961.2	[ ] Yes [ ] No [ ]N/A
MCu2.2	support the SBR configuration 2 like (SBR2-like) ATC (see note)?	MCu2 NOT MCu2	O.3 N/A	Q.2961.6	[ ] Yes [ ] No [ ]N/A
MCu2.3	support the SBR configuration 3 like (SBR3-like) ATC (see note)?	MCu2 NOT MCu2	O.3 N/A	Q.2961.6	[ ] Yes [ ] No [ ]N/A
MCu3	support the ABR ATC?		O.2	Q.2961.3	[ ] Yes [ ] No
MCu4	support the ABT ATC?		O.2	Q.2961.4	[ ] Yes [ ] No
MCu4.1	support the ABT with Immediate transmission (ABT-IT) ATC?	MCu4 NOT MCu4	O.4 N/A	Q.2961.4	[ ] Yes [ ] No [ ]N/A
MCu4.2	support the ABT with delayed transmission (ABT-DT) ATC?	MCu4 NOT MCu4	O.4 N/A	Q.2961.4	[ ] Yes [ ] No [ ]N/A
O.2 The support of at least one of these items is mandatory.					
O.3 The support of at least one of these items is mandatory.					
O.4 The support of at least one of these items is mandatory.					
NOTE: The SBR2/3-like ATCs identified in ITU-T Recommendation Q.2961.2 are different from SBR2 and SBR3 defined in ITU-T Recommendation I.371, in that the Tagging traffic management option applies only locally and the request support applies separately to each direction of the connection. Further, the Broadband traffic capability field coding in the Broadband bearer capability information element are different.					
Comments:					

A.6.2 Subsidiary capabilities

Table A.3: Subsidiary capabilities

Item	Subsidiary capability: Does the implementation...	Conditions for status	Status	Reference	Support
SCu1	recognize additional Broadband bearer capability codepoints received, for backward compatibility with CBR (see note 1)?	MCu1 NOT MCu1	O N/A	2.6.1 [Q.2961.2]	[ ] Yes [ ] No [ ] N/A
SCu2	recognize additional Broadband bearer capability codepoints received, for backward compatibility with VBR (see note 2)?	MCu2 NOT MCu1	O N/A	2.6.1 [Q.2961.2]	[ ] Yes [ ] No [ ] N/A
SCu3	handle traffic management options for local support of tagging?	MCu2.2 NOT MCu2.2	O N/A	9.2 [Q.2961.1]	[ ] Yes [ ] No [ ] N/A
SCu3.1	send local tagging request in outgoing call request (see note 3)?	SCu3 NOT SCu3	O N/A	9.2.1 [Q.2961.1]	[ ] Yes [ ] No [ ] N/A
SCu.3.2	indicate local tagging not allowed (see note 4)?	SCu3 NOT SCu3	O N/A	9.2.2 [Q.2961.1]	[ ] Yes [ ] No [ ] N/A
NOTE 1:	Constant Bit Rate (with end-to-end timing required) information transfer capability as supported in the first edition of ITU-T Recommendation Q.2931.				
NOTE 2:	Variable Bit Rate (with end-to-end timing required or not required) information transfer capability as supported in the first edition of ITU-T Recommendation Q.2931.				
NOTE 3:	If local tagging is requested and indicated as being applied by the network, then SBR configuration 3 (SBR3) is provided locally. Otherwise SBR configuration 2 (SBR2) is provided locally.				
NOTE 4:	If local tagging is not allowed, then SBR configuration 2 (SBR2) is requested and shall apply locally.				
Comments:					

A.6.3 PDUs

No items requiring response.

A.6.4 PDU parameters received by the user

Table A.4: Information elements in the CONNECT message received by the user

Item	CONNECT message received by the user: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IERu1	ABR setup parameters?	MCu3 NOT MCu3	M N/A	8.1.1 [Q.2961.3]	[ ] Yes [ ] No [ ] N/A
IERu2	ATM traffic descriptor (see note)?	MCu3 or MCu4 NOT MCu3 or MCu4	M N/A	8.1.1 [Q.2961.3]	[ ] Yes [ ] No [ ] N/A
NOTE:	Received when ABR was indicated in the transmitted SETUP message and PCR and MCR parameters were included in the ATM traffic parameter information element. Received when ABT was indicated in the transmitted SETUP message and at least one traffic parameter was indicated as being negotiable.				
Comments:					

Table A.5: Information elements in the SETUP message received by the user

Item	SETUP message received by the user: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IERu3	ABR setup parameters?	MCu3	M	8.1.2 [Q.2961.3],	[ ] Yes [ ] No
		NOT MCu3	N/A	8.1.2 [Q.2961.4]	[ ] N/A
IERu4	ATM traffic descriptor?		M	[Q.2931]	[ ] Yes [ ] No
IERu5	Minimum acceptable ATM traffic descriptor?	MCu3 or MCu4	M	8.1.2 [Q.2961.3],	[ ] Yes [ ] No
		NOT MCu3 or MCu4	N/A	8.1.2 [Q.2961.4]	[ ] N/A
NOTE:	Received when ABR is indicated in the received SETUP message and the calling user indicated negotiation of the MCR ATM traffic parameter. Received when ABT is indicated in the received SETUP message and at least one of the PCR, SCR, MBS or RM ATM traffic parameters was indicated as being negotiable.				
Comments:					

A.6.5 PDU parameters sent by the user

Table A.6: Information elements in the CONNECT message sent by the user

Item	CONNECT message sent by the user: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IETu1	ABR setup parameters?	MCu3	M	8.1.1 [Q.2961.3]	[ ] Yes [ ] No
		NOT MCu3	N/A		[ ] N/A
IETu2	ATM traffic descriptor?	MCu3 or MCu4	05	8.1.1 [Q.2961.3]	[ ] Yes [ ] No
		NOT MCu3 or MCu4	N/A		[ ] N/A
O.5:	Mandatory when ABR was indicated in the received SETUP message and PCR and MCR parameters were included in the ATM traffic parameter information element. Mandatory when ABT was indicated in the received SETUP message and at least one traffic parameter was indicated as being negotiable.				
Comments:					

Table A.7: Information elements in the SETUP message sent by the user

Item	SETUP message sent by the user: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IETu3	ABR setup parameters?	MCu3	M	8.1.2 [Q.2961.3],	[ ] Yes [ ] No
		NOT MCu3	N/A	8.1.2 [Q.2961.4]	[ ] N/A
IETu4	ATM traffic descriptor?		M	[Q.2931]	[ ] Yes [ ] No
IETu5	Minimum acceptable ATM traffic descriptor?	MCu3 or MCu4	O.6	8.1.2 [Q.2961.3],	[ ] Yes [ ] No
		NOT MCu3 or MCu4	N/A	8.1.2 [Q.2961.4]	[ ] N/A
O.6:	Mandatory when ABR is indicated in the transmitted SETUP message and the calling user indicates negotiation of the MCR ATM traffic parameter. Mandatory when ABT is indicated in the transmitted SETUP message and at least one of the PCR, SCR, MBS or RM ATM traffic parameters is indicated as being negotiable.				
Comments:					

A.6.6   Timers

No items requiring response.

A.6.7   Call states

No items requiring response.

A.7   Network role

This clause contains the PICS proforma tables related to the network role. They are needed to be completed only for network implementations:

Prerequisite: R1.2   network role

A.7.1   Major capabilities

Table A.8: Major capabilities

Item	Major capability: Does the implementation ...	Conditions for status	Status	Reference	Support
MCn1	support the DBR ATC?		O.7	Q.2961.2	[ ] Yes [ ] No
MCn2	support the SBR ATC?		O.7	Q.2961.2	[ ] Yes [ ] No
MCn2.1	support the SBR configuration 1 (SBR1) ATC?	MCn2 NOT MCn2	O.8 N/A	Q.2961.2	[ ] Yes [ ] No [ ]N/A
MCn2.2	support the SBR configuration 2 like (SBR2-like) ATC (see note)?	MCn2 NOT MCn2	O.8 N/A	Q.2961.6	[ ] Yes [ ] No [ ]N/A
MCn2.3	support the SBR configuration 3 like (SBR3-like) ATC (see note)?	MCn2 NOT MCn2	O.8 N/A	Q.2961.6	[ ] Yes [ ] No [ ]N/A
MCn3	support the ABR ATC?		O.7	Q.2961.3	[ ] Yes [ ] No
MCn4	support the ABT ATC?		O.7	Q.2961.4	[ ] Yes [ ] No
MCn4.1	support the ABT with Immediate transmission (ABT-IT) ATC?	MCn4 NOT MCn4	O.9 N/A	Q.2961.4	[ ] Yes [ ] No [ ]N/A
MCn4.2	support the ABT with delayed transmission (ABT-DT) ATC?	MCn4 NOT MCn4	O.9 N/A	Q.2961.4	[ ] Yes [ ] No [ ]N/A
O.7	The support of at least one of these items is mandatory.				
O.8	The support of at least one of these items is mandatory.				
O.9	The support of at least one of these items is mandatory.				
NOTE:	The SBR2/3-like ATCs identified in ITU-T Recommendation Q.2961.2 are different from SBR2 and SBR3 defined in ITU-T Recommendation I.371, in that the Tagging traffic management option applies only locally and the request support applies separately to each direction of the connection. Further, the Broadband traffic capability field coding in the Broadband bearer capability information element are different.				
Comments:					

A.7.2   Subsidiary capabilities

Table A.9: Subsidiary capabilities

Item	Subsidiary capability: Does the implementation...	Conditions for status	Status	Reference	Support
SCn1	recognize additional Broadband bearer capability codepoints received, for backward compatibility with CBR (see note 1)?	MCn1 NOT MCn1	O N/A	2.6.1 [Q.2961.2]	[ ] Yes [ ] N] [ ] N/A
SCn2	recognize additional Broadband bearer capability codepoints received, for backward compatibility with VBR (see note 2)?	MCn2 NOT MCn1	O N/A	2.6.1 [Q.2961.2]	[ ] Yes [ ] No [ ] N/A
SCn3	handle traffic management options for local support of tagging?	MCn2.2 NOT MCn2.2	O N/A	9.2 [Q.2961.1]	[ ] Yes [ ] No [ ] N/A
SCn3.1	send local tagging supported in an incoming call indication (see note 3)?	SCn3 NOT SCn3	O N/A	9.2.2 [Q.2961.1]	[ ] Yes [ ] No [ ] N/A
SCn.3.2	indicate local tagging not supported (see note 4)?	SCn3 NOT SCn3	O N/A	9.2.1 [Q.2961.1]	[ ] Yes [ ] No [ ] N/A
NOTE 1:	Constant Bit Rate (with end-to-end timing required) information transfer capability as supported in the first edition of ITU-T Recommendation Q.2931.				
NOTE 2:	Variable Bit Rate (with end-to-end timing required or not required) information transfer capability as supported in the first edition of ITU-T Recommendation Q.2931.				
NOTE 3:	If local tagging is indicated as being supported by the network and the called user responds with tagging requested, then SBR configuration 3 (SBR3) is provided locally. Otherwise SBR configuration 2 (SBR2) shall apply locally.				
NOTE 4:	If local tagging is indicated as not being supported, then SBR configuration 2 (SBR2) is provided locally.				
Comments:					

A.7.3   PDUs

No items requiring response.

A.7.4   PDU parameters received by the network

Table A.10: Information elements in the CONNECT message received by the network

Item	CONNECT message received by the network: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IERn1	ABR setup parameters?	MCn3 NOT MCn3	M N/A	8.1.1 [Q.2961.3]	[ ] Yes [ ] No [ ] N/A
IERn2	ATM traffic descriptor (see note)?	MCn3 or MCn4 NOT MCn3 or MCn4	M N/A	8.1.1 [Q.2961.3]	[ ] Yes [ ] No [ ] N/A
NOTE:	Received when ABR was indicated in the transmitted SETUP message and PCR and MCR parameters were included in the ATM traffic parameter information element. Received when ABT was indicated in the transmitted SETUP message and at least one traffic parameter (included in the Minimum acceptable ATM traffic descriptor information element) was indicated as being negotiable.				
Comments:					

Table A.11: Information elements in the SETUP message received by the network

Item	SETUP message received by the network: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IERn3	ABR setup parameters?	MCn3 NOT MCn3	M N/A	8.1.2 [Q.2961.3], 8.1.2 [Q.2961.4]	[ ] Yes [ ] No [ ] N/A
IERu4	ATM traffic descriptor?		M	[Q.2931]	[ ] Yes [ ] No
IERu5	Minimum acceptable ATM traffic descriptor?	MCn3 or MCn4 NOT MCn3 or MCn4	M N/A	8.1.2 [Q.2961.3], 8.1.2 [Q.2961.4]	[ ] Yes [ ] No [ ] N/A
NOTE:	Received when ABR is indicated in the received SETUP message and the calling user indicated negotiation of the MCR ATM traffic parameter. Received when ABT is indicated in the received SETUP message and at least one of the PCR, SCR, MBS or RM ATM traffic parameters (included in the Minimum acceptable ATM traffic descriptor information element) is indicated by the calling user as being negotiable.				
Comments:					

A.7.5   PDU parameters sent by the network

Table A.12: Information elements in the CONNECT message sent by the network

Item	CONNECT message sent by the network: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IETn1	ABR setup parameters?	MCn3 NOT MCn3	M N/A	8.1.1 [Q.2961.3]	[ ] Yes [ ] No [ ] N/A
IETn2	ATM traffic descriptor?	MCn3 or MCn4 NOT MCn3 or MCn4	0.10 N/A	8.1.1 [Q.2961.3]	[ ] Yes [ ] No [ ] N/A
O.10:	Mandatory when ABR was indicated in the received SETUP message and PCR and MCR parameters were included in the ATM traffic parameter information element. Mandatory when ABT was indicated in the received SETUP message and at least one traffic parameter (included in the Minimum acceptable ATM traffic descriptor information element) was indicated by the calling user as being negotiable.				
Comments:					

Table A.13: Information elements in the SETUP message sent by the network

Item	SETUP message sent by the network: Does the implementation support the ...	Conditions for status	Status	Reference	Support
IETn3	ABR setup parameters?	MCn3	M	8.1.2 [Q.2961.3],	[ ] Yes [ ] No
		NOT MCn3	N/A	8.1.2 [Q.2961.4]	[ ] N/A
IETn4	ATM traffic descriptor?		M	[Q.2931]	[ ] Yes [ ] No
IETn5	Minimum acceptable ATM traffic descriptor?	MCn3 or MCn4	O.11	8.1.2 [Q.2961.3],	[ ] Yes [ ] No
		NOT MCn3 or MCn4	N/A	8.1.2 [Q.2961.4]	[ ] N/A
O.11:	Mandatory when ABR is indicated in the transmitted SETUP message and the calling user indicates negotiation of the MCR ATM traffic parameter. Mandatory when ABT is indicated in the transmitted SETUP message and at least one of the PCR, SCR, MBS or RM ATM traffic parameters (included in the Minimum acceptable ATM traffic descriptor information element) is indicated by the calling user as being negotiable.				
Comments:					

A.7.6   Timers

No items requiring response.

A.7.7   Call states

No items requiring response.

Annex B (informative):
Bibliography

EN 300 443-2: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; B-ISDN user-network interface layer 3 specification for basic call/bearer control; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

History

Document history			
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