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European Standard (Telecommunications series)

Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Quality of Service class and parameters indication at call/connection establishment; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification

[Endorsement of ITU-T Recommendations Q.2965.1B and Q.2965.2B modified]

Reference

DEN/SPAN-130251-2

Keywords

ATM, B-ISDN, DSS2, PICS, quality, endorsement

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Contents

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN), and is now submitted for the Vote phase of the ETSI standards Two-step Approval Procedure.

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) to support Quality of Service class and parameters indication at call/connection establishment, as identified below:

Part 1: "Protocol specification [ITU-T Recommendations Q.2965.1 (1999) and Q.2965.2 (1999), modified]";

Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification [Endorsement of ITU-T Recommendations Q.2965.1B and Q.2965.2B modified]";

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 [7] by supporting the connection characteristics (Quality of Service class, End-to-end transit delay) indication.

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

Endorsement notice

The elements of ITU-T Recommendation Q.2965.1B (2000) and ITU-T Recommendation Q.2965.2B (2000) apply, with the modifications identified below.

Modifications to ITU-T Recommendation Q.2965.1B

Clause 1 (Scope)

Replace the text with:

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 specification for support of Quality of Service class and parameters indication at call/connection establishment defined in EN 301 815-1 [9] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [6] and ETS 300 406 [10].

The supplier of a protocol implementation which is claimed to conform to EN 301 815-1 [9] 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 [7] or of the protocol for the point-to-multipoint call/bearer connections as defined in EN 300 771-1 [8].

Clause 2 (Normative references), first paragraph

Replace the first paragraph with:

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.

Clause 2, end

Add the following references at the end of clause 2:

[7] 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]".

[8] 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]".

[9] ETSI EN 301 815-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Quality of Service Class and Parameters indication at call/connection establishment; Part 1: Protocol specification [ITU-T Recommendations Q.2965.1 (1999) and Q.2965.2 (1999), modified]".

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

Throughout the text of ITU-T Recommendation Q.2965.1B

Replace references as shown in the following table.

Reference in ITU-T Recommendation Q.2965.1B	Modified reference
ITU-T Recommendation Q.2931 [2]	ITU-T Recommendation Q.2931 as modified by EN 300 443-1 [7]
ITU-T Recommendation Q.2965.1 [1]	ITU-T Recommendation Q.2965.1 as modified by EN 301 815-1 [9]

Annex A

Table A.2/Q.2965.1B (Major capabilities of the user role)

Replace table A.2/Q.2965.1B with the following table.

Table A.2: Major capabilities of the user role

Item	Major capability: Does the implementation support ...	Conditions for status	Status	Reference	Support
	Call establishment at the originating interface				
MCu1	outgoing calls with the inclusion in SETUP messages of a QoS parameter information element with QoS class values in valid combination with bearer class, broadband transfer capability and ATM traffic descriptor parameters?		O.2	9.1, 10, annex A	[ ]Yes [ ]No
	Call establishment at the destination interface				
MCu2	incoming calls with the analysis of the QoS parameter information element in SETUP messages?		O.2	9.2, 10 annex A	[ ]Yes [ ]No
O.2 Support of at least one of these options is mandatory					
Comments:					

Table A.5/Q.2965.1B (Major capabilities of the network role)

Replace table A.5/Q.2965.1B with the following table.

Table A.5: Major capabilities of the network role

Item	Major capability: Does the implementation support ...	Conditions for status	Status	Reference	Support
	Call establishment at the originating interface				
MCn1	outgoing calls with the analysis of the QoS parameter information element in SETUP messages?		M	9.1, 10, annex A	[ ]Yes [ ]No
	Call establishment at the destination interface				
MCn2	incoming calls with the inclusion in SETUP messages of a QoS parameter information element with QoS class values in valid combination with bearer class, broadband transfer capability and ATM traffic descriptor parameters?		M	9.2, 10, annex A	[ ]Yes [ ]No
Comments:					

Modifications to ITU-T Recommendation Q.2965.2B

Clause 1 (Scope)

Replace text with:

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 specification for support of Quality of Service Class and parameters indication at call/connection establishment defined in EN 301 815-1 [9] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [6] and ETS 300 406 [10].

The supplier of a protocol implementation which is claimed to conform to EN 301 815-1 [9] 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 [7] or of the protocol for the point-to-multipoint call/bearer connections as defined in EN 300 771-1 [8].

Clause 2 (Normative references), first paragraph

Replace the first paragraph with:

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.

Clause 2, end

Add the following references at the end of clause 2:

[7]   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]".

[8]   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]".

[9]   ETSI EN 301 815-1 (V1.3): "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. two (DSS2) protocol; Quality of Service Class and parameters indication at call/connection establishment; Part 1: Protocol specification [ITU-T Recommendations Q.2965.1 (1999) and Q.2965.2 (1999), modified]".

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

Throughout the text of ITU-T Recommendation Q.2965.2B

Replace references as shown in the following table.

Reference in ITU-T Recommendation Q.2965.2B	Modified reference
ITU-T Recommendation Q.2931 [2]	ITU-T Recommendation Q.2931 as modified by EN 300 443-1 [7]
ITU-T Recommendation Q.2965.2 [1]	ITU-T Recommendation Q.2965.2 as modified by EN 301 815-1 [9]

Annex A

Table A.2/Q.2965.2B (Major capabilities of the user role)

Replace table A.2/Q.2965.2B with the following table.

Table A.2: Major capabilities

Item	Major capability: Does the implementation support ...	Conditions for status	Status	Reference	Support
	Call establishment at the originating interface				
MCu1	outgoing calls with the inclusion in SETUP messages of an End-to-end transit delay information element with values in valid combination with bearer class, broadband transfer capability ATM traffic descriptor and QoS parameters?		O	9.1.1, annex A	[ ]Yes [ ]No
MCu2	outgoing calls with the inclusion in SETUP messages of an Extended QoS parameter information element with values in valid combination with bearer class, broadband transfer capability and QoS class?	R1.2 NOT R1.2	O N/A	10.1.1, annex A	[ ]Yes [ ]No [ ]N/A
	Call establishment at the destination interface				
Mcu3.1	incoming calls with the analysis of the End-to-end transit delay information element in SETUP messages?		M	9.2.1, annex A	[ ]Yes [ ]No
MCu3.2	incoming calls with the inclusion in CONNECT messages of an End-to-end transit delay information element?		O	9.2.2, 10.2.2	[ ]Yes [ ]No
Mcu4.1	incoming calls with the analysis of the Extended QoS parameter information element in SETUP messages?	R1.2 NOT R1.2	M N/A	10.2.1, annex A	[ ]Yes [ ]No [ ]N/A
MCu4.2	incoming calls with the inclusion in CONNECT messages of an Extended QoS parameter information element?	R1.2 NOT R1.2	O N/A	10.2.2	[ ]Yes [ ]No [ ]N/A
Comments:					

Clause A.7.2 (Subsidiary capabilities)

Insert the following table and re-number all following tables accordingly.

Table A.3: Subsidiary capabilities

Item	Subsidiary capability: Does the implementation...	Conditions for status	Status	Reference	Support
SCu1	set the maximum end-to-end transit delay in outgoing SETUP messages to the value "any end-to-end transit delay value acceptable, deliver cumulative end-to-end transit delay value to called user"?	MCu1 NOT MCu1	O N/A	8.2.1, 9.1.1	[ ]Yes [ ]No [ ]N/A
SCu2	update the cumulative transit delay value received in a SETUP message to account for expected increases?		O	9.2.1	[ ]Yes [ ]No
SCu3	reject an incoming call, if the updated cumulative transit delay value exceeds the received maximum transit delay value?	SCu2 NOT SCu2	O N/A	9.2.1	[ ]Yes [ ]No [ ]N/A
Comments:					

Table A.11/Q.2965.2B (Major capabilities of the network role)

Replace table A.11/Q.2965.2B with the following table.

Table A.8: Major capabilities

Item	Major capability: Does the implementation ...	Conditions for status	Status	Reference	Support
	Call establishment at the originating interface				
MCn1.1	analysis of the End-to-end transit delay information element in SETUP messages?		M	9.1.1, annex A, annex B	[ ]Yes [ ]No
MCn1.2	inclusion in CONNECT messages of an End-to-end transit delay information element?		M	9.1.2, 10.1.2	[ ]Yes [ ]No
MCn2.1	analysis of the Extended QoS parameter information element in SETUP messages?	R2.2 NOT R2.2	M N/A	10.1.1, annex A, annex B	[ ]Yes [ ]No [ ]N/A
MCn2.2	inclusion in CONNECT messages of an Extended QoS parameter information element?	R2.2 NOT R2.2	M N/A	10.1.2	[ ]Yes [ ]No [ ]N/A
	Call establishment at the destination interface				
MCn3.1	inclusion in SETUP messages of an End-to-end transit delay information element with values in valid combination with bearer class, broadband transfer capability ATM traffic descriptor and QoS parameters?		M	9.2.1, annex A	[ ]Yes [ ]No
MCn3.2	analysis of the End-to-end transit delay information element in CONNECT messages?		M	9.2.2, 10.2.2, annex B	[ ]Yes [ ]No
MCn4.1	inclusion in SETUP messages of an Extended QoS parameter information element with values in valid combination with bearer class, broadband transfer capability and QoS class?	R2.2 NOT R2.2	M N/A	10.2.1, annex A	[ ]Yes [ ]No [ ]N/A
MCn4.2	analysis of the Extended QoS parameter information element in CONNECT messages?	R2.2 NOT R2.2	M N/A	10.2.2, annex B	[ ]Yes [ ]No [ ]N/A
Comments:					

Clause A.8.2 (Subsidiary capabilities)

Insert the following table and re-number all following tables accordingly.

Table A.12: Subsidiary capabilities

Item	Subsidiary capability: Does the implementation...	Conditions for status	Status	Reference	Support
SCn1	automatically generate an end-to-end transit delay information element for inclusion in SETUP messages? (see note)	R2.2 NOT R2.2	O N/A	10.2.1, annex B	[ ]Yes [ ]No [ ]N/A
SCn2	automatically generate an Extended QoS parameters information element for inclusion in SETUP messages? (see note)	R2.2 NOT R2.2	O N/A	10.2.1, annex B	[ ]Yes [ ]No [ ]N/A
NOTE:	This may be necessary, if no End-to-end transit delay/Extended QoS parameters information was received in the setup indication.				
Comments:					

History

Document history
V1.1.1	December 2001	Public Enquiry	PE 20020419:	2001-12-19 to 2002-04-19
V1.1.1	May 2002	Vote	V 20020712:	2002-05-13 to 2002-07-12