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ITU-T G.967.3

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V-interfaces at the service node (SN): Protocol implementation conformance statements for interfaces at VB5 reference points

ITU-T Recommendation G.967.3

(Formerly CCITT Recommendation)

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ITU-T Recommendation G.967.3

V-interfaces at the service node (SN) – Protocol implementation conformance statements for interfaces at VB5 reference points

Summary

This ITU-T Recommendation defines the Protocol Implementation Conformance Statements (PICS) for protocols across the VB5 reference point as a supporting tool to ensure the interoperability of Access Networks and Service Nodes connected via interfaces at the VB5 reference points. It covers both the Real-Time Management Coordination (RTMC) protocol which applies to the VB5.1 and the VB5.2 reference point and the Broadband Bearer Connection Control (B-BCC) protocol which exclusively applies to the VB5.2 reference point. To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

Source

ITU-T Recommendation G.967.3 was prepared by ITU-T Study Group 13 (1997-2000) and approved under the WTSC Resolution 1 procedure on 10 March 2000.

Keywords

Access Network, PICS, Service Node,VB5 reference points.

FOREWORD

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The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSC Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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V-interfaces at the service node (SN) – Protocol implementation conformance statements for interfaces at VB5 reference points

1 Scope

This ITU-T Recommendation defines the Protocol Implementation Conformance Statements (PICS) for protocols across the VB5 reference point as a supporting tool to ensure the interoperability of Access Network and Service Nodes connected via interface(s) at the VB5 reference point. It covers both the Real-Time Management Coordination (RTMC) protocol which applies to the VB5.1 and the VB5.2 reference point and the Broadband Bearer Connection Control (B-BCC) protocol which exclusively applies to the VB5.2 reference point. To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a telecommunication specification. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

[1] ITU-T Recommendation G.967.1 (1998), *V-interfaces at the service node (SN) – VB5.1 reference point specification*.

[2] ITU-T Recommendation G.967.2 (1999), *V-interfaces at the service node (SN) – VB5.2 reference point specification*.

[3] ETSI EN 301 005-2 (1998), *V-interfaces at the digital Service Node (SN); Interfaces at the VB5.1 reference point for the support of broadband or combined narrowband and broadband Access Networks (ANs); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification*.

[4] ETSI EN 301 005-1 (1998), *V interfaces at the digital Service Node (SN); Interfaces at the VB5.1 reference point for the support of broadband or combined narrowband and broadband Access Networks (ANs); Part 1: Interface specification*.

[5] ETSI EN 301 217-2 (1999), *V interfaces at the digital Service Node (SN); Interfaces at the VB5.2 reference point for the support of broadband or combined narrowband and broadband Access Networks (ANs); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification*.

[6] ETSI EN 301 217-1(1999), *V interfaces at the digital Service Node (SN); Interfaces at the VB5.2 reference point for the support of broadband or combined narrowband and broadband Access Networks (ANs); Part 1: Interface specification*.

[7] ISO/IEC 9646-1:1994 *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts*.

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ITU-T Recommendation, the following terms defined in ISO/IEC 9646-1 [7] apply:

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

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

3.1.3 ICS pro forma: Document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS.

3.1.4 static conformance review: Review of the extent to which the static conformance requirements are met by the Implementation Under Test (IUT), accomplished by comparing the PICS with the static conformance requirements expressed in the relevant standard(s) (see ISO/IEC9646-1 [7]).

3.2 Abbreviations

This Recommendation uses the following abbreviations:

AN	Access Network
B-BCC	Broadband Bearer Connection Control
ETSI	European Telecommunication Standards Institute
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
PICS	Protocol Implementation Conformance Statement
RTMC	Real Time Management Coordination
SAAL	Signalling ATM Adaptation Layer
SN	Service Node
VCL	Virtual Channel Link
VPCI	Virtual Path Connection Identifier
VPL	Virtual Path Link

4 PICS for interfaces at the VB5.1 reference point

ITU-T Recommendation G.967.1 [1] specifies the physical, procedural and protocol requirements for interfaces at the VB5.1 reference point between an Access Network (AN) and a Service Node (SN) with flexible (provisioned) Virtual Path Link (VPL) allocation and flexible (provisioned) Virtual Channel Link (VCL) allocation (controlled by the Q3 interfaces) at the VB5.1 reference point.

The detailed PICS which conforms to the VB5.1 reference point shall be as shown in ETSI EN 301 005-2 – "VB5.1 Protocol Implementation Conformance Statement (PICS) proforma specification" [3].

NOTE – In the ETSI EN 301 005-2 [3], reference is made to EN 301 005-1 [4] for the detailed VB5.1 specification and subclauses. All such references should be understood to refer also to the corresponding subclauses of ITU-T Recommendation G.967.1 [1]. (Subclause numbering is the same in both documents.)

5 PICS for interfaces at the VB5.2 reference point

ITU-T Recommendation G.967.2 [2] specifies the physical, procedural and protocol requirements for interfaces at the VB5.2 reference point between an Access Network (AN) and a Service Node (SN). The VB5.2 reference point provides flexible (provisioned) Virtual Path Link (VPL) allocation and flexible (provisioned) Virtual Channel Link (VCL) allocation (controlled by the Q3 interfaces) as well as on-demand VCL allocation controlled by the SN via the broadband bearer connection control (B-BCC) protocol.

The VB5.2 reference point is a superset of the VB5.1 reference point, enabling on-demand VCL allocation in the AN and across the VB5 reference point via the additional B-BCC function. That is the PICS for interfaces at the VB5.2 reference point comprise the PICS defined for the VB5.1 reference point and those which are specific for the B-BCC protocol.

The detailed PICS which conforms to the VB5.2 reference point shall be as shown in ETSI EN 301 217-2 – "VB5.2 Protocol Implementation Conformance Statement (PICS) proforma specification" [5].

NOTE – In ETSI EN 301 217-2 [5], reference is made to EN 301 005-1 [4] for the detailed VB5.1 specification and subclauses, and to EN 301 217-1 [6] for the detailed VB5.2 specification and subclauses. All such references should be understood to refer also to the corresponding subclauses of ITU-T Recommendations G.967.1 [1] and G.967.2 [2] respectively. (In both cases, subclause numbering is the same in the corresponding ITU-T and ETSI documents.)

6 Differences from the ETSI PICS documents

6.1 Differences from EN 301 005-2 [3]

– "13.6.1.5.2" in the column "Reference" for item 9 of Table A.11 should be replaced by "13.3.1.5.2".

– "13.6.1.5.2" in the column "Reference" for item 9 of Table A.29 should be replaced by "13.3.1.5.2".

6.2 Differences from EN 301 217-2 [5]

– "13.6.1.5.2" in the column "Reference" for item 9 of Table A.12 should be replaced by "13.3.1.5.2".

– "13.6.1.5.2" in the column "Reference" for item 9 of Table A.49 should be replaced by "13.3.1.5.2".

– "AM_FAULT_ACC" in the column "message" for item 9 of Table A.55 should be replaced by "AN_FAULT_ACC".

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