INTERNATIONAL TELECOMMUNICATION UNION

ITU-T Q.2971 C

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

(12/1999)

SERIES Q: SWITCHING AND SIGNALLING

Broadband ISDN – B-ISDN application protocols for access signalling

Digital Subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the user

ITU-T Recommendation Q.2971 C

(Formerly CCITT Recommendation)

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ITU-T Recommendation Q.2971 C

Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the user

Summary

This ITU-T Recommendation specifies Test Suite Structure and Test Purposes (TSS & TP) for the user attached to the T_B reference point or coincident S_B and T_B reference point (as defined in ITU-T Recommendation I.413 [2]) of implementations conforming to the procedures for the support of point-to-multipoint switched virtual channel connections, between a root and multiple leaves of the Digital Subscriber Signalling System No. 2 (DSS2) protocol for the Broadband Integrated Services Digital Network (B-ISDN), ITU-T Recommendation Q.2971 [1].

Further parts of this ITU-T Recommendation specify the Protocol Implementation Conformance Statement (PICS) proforma and Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on this ITU-T Recommendation.

Source

ITU-T Recommendation Q.2971 C was prepared by ITU-T Study Group 11 (1997-2000) and approved under the WTSC Resolution 1 procedure on 3 December 1999.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

CONTENTS

ITU-T Recommendation Q.2971 C[1]

Digital subscriber signalling system No. 2 – User-network interface layer 3 specification for point-to-multipoint call/connection control: Test Suite Structure and Test Purposes (TSS & TP) for the user

1 Scope

This ITU-T Recommendation specifies Test Suite Structure and Test Purposes (TSS & TP) for the user attached to the T_B reference point or coincident S_B and T_B reference point (as defined in ITU-T Recommendation I.413 [2]) of implementations conforming to the procedures for the support of point-to-multipoint switched virtual channel connections, between a root and multiple leaves of the Digital Subscriber Signalling System No. 2 (DSS2) protocol for the Broadband Integrated Services Digital Network (B-ISDN), ITU-T Recommendation Q.2971 [1].

Further parts of this ITU-T Recommendation specify the Protocol Implementation Conformance Statement (PICS) proforma and Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on this ITU-T Recommendation.

This Recommendation is applicable to equipment, supporting point-to-multipoint calls/connections, to be attached at either side of a T_B reference point or coincident S_B and T_B reference point when used as an access to the public B-ISDN.

The test suite structure provides the grouping of tests in the test suite, the test purposes part is a list of test purposes realized in the ATS part of the Recommendation. Test purposes are generated from the protocol specification, refers to observable events only but gives no guarantee that all test purpose defined is testable. Untestable test purposes are identified in the ATS part.

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 Q.2971 (1995), *Digital subscriber signalling system No. 2 – User-Network interface layer 3 specification for point-to-multipoint call/connection control.*

[2] ITU-T Recommendation I.413 (1993), *B-ISDN user-network interface*.

[3] ETSI ETS 300 771-3 (1998), *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 3: Test Suite Structure and Test Purposes (TSS&TP) specification for the user.*

3 Endorsement

The text of ETS 300 771-3 [3] was approved by ITU-T as Recommendation Q.2971 C with agreed modifications as given below.

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[1] ITU-T Recommendation Q.2971 C was previously numbered as Q.2971 *ter* during the approval process.

NOTE – New or modified text is indicated using sidebars. In addition, double underlining and/or strike-out are used to highlight detailed modifications where necessary.

4 Coverage

This ITU-T Recommendation covers protocol specification of Q.2971 [1] as modified by Q.2971 Corrigendum 1 (12/99).

5 Modifications

Throughout the text of ETSI Standard ETS 300 771-3 [3] replace references and expressions as shown in the following table:

Reference in ETS 300 771-3	Modified reference
ETS 300 771	Recommendation of the Q.2971-series
ETS 300 771-1	ITU-T Recommendation Q.2971 (10/95)
ETS	Recommendation
standard	Recommendation

Other modifications

Page 5, Foreword

Delete the whole Foreword.

NOTE – It is replaced by the Foreword of this ITU-T Recommendation.

Page 7, clause 1 Scope

Replace the whole clause with the following:

"**1 Scope**

See clause 1 Scope of this Recommendation above."

Page 7, clause 2 Normative References

Modify reference [2] as below:

[2] Void~~"ETS 300 771-2: 2: Broadband Integrated Services Digital Network (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 2: Protocol Implementation Conformance Statement (PICS) proforma specification"~~.

Page 11, subclause 6.1.3

Modify the subclause as below:

"**6.1.3 Test strategy**

As the base standard ETS 300 771-1 [1] contains no explicit requiremenrs for testing, the TPs were generated as a result of an analysis of the base ITU-T Recommendation~~standard and PICS specification ETS 300 771-2 [2]~~. The criteria applied include the following:

– only the requirements from the point of view of the T_B or coincident S_B and T_B reference point are considered;

– whether or not a test case can be built from the TP is not considered."

Pages 52 to 53, subclause 6.2.1.5.9, test purposes L3MU_21_37 to L3MU_21_39

Modify test purposes as below:

"**L3MU_21_37**

Ensure that the IUT in U4 and P4 for party 1 and P4 for party 2, on receipt of a DROP PARTY message (Optional information element with content error present, IE instruction field flag = IE instruction field not significant, Endpoint reference value = party 2),

optionally sends a STATUS message (Cause = value 100 and optional diagnostics field carrying correct IE identifier, Call state value = 4, Endpoint reference value = party 2, Endpoint reference party state = 6) followed by a DROP PARTY ACKNOWLEDGE message ~~and optionally sends a STATUS message (Cause value = 100, Call state value = 4, Endpoint reference value = party 2, Endpoint reference party state = 6 or 0 dependant on the order of transmission)~~, remains in P4 for party 1, enters P0 for party 2 and remains in U4.

L3MU_21_38

Ensure that the IUT in U10 and P7 for party 1 and P4 for party 2, on receipt of a DROP PARTY message (Optional information element with content error present, IE instruction field flag = IE instruction field not significant, Endpoint reference value = party 2),

optionally sends a STATUS message (Cause = value 100 and optional diagnostics field carrying correct IE identifier, Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6) followed by a DROP PARTY ACKNOWLEDGE message ~~and optionally sends a STATUS message (Cause value = 100 Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6 or 0 dependant on the order of transmission)~~, remains in P7 for party 1, enters P0 for party 2 and remains in U10.

L3MU_21_39

Ensure that the IUT in U10 and P7 for party 1 and P7 for party 2, on receipt of a DROP PARTY message (Optional information element with content error present, IE instruction field flag = IE instruction field not significant, Endpoint reference value = party 2),

optionally sends a STATUS message (Cause = value 100 and optional diagnostics field carrying correct IE identifier, Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6) followed by a DROP PARTY ACKNOWLEDGE message ~~and optionally sends a STATUS message (Cause value = 100, Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6 or 0 dependant on the order of transmission)~~, remains in P7 for party 1, enters P0 for party 2 and remains in U10."

Page 86, subclause 6.2.2.4.8, test purposes L3MU_43_25 to L3MU_43_27

Modify test purposes as below:

"**L3MU_43_25**

Ensure that the IUT in U7 and P3 for party 1 and P3 for party 2, on receipt of a DROP PARTY message (Optional information element with content error present, IE instruction field flag = IE instruction field not significant, Endpoint reference value = party 2),

optionally sends a STATUS message (Cause = value 100 and optional diagnostics field carrying correct IE identifier, Call state value = 7, Endpoint reference value = party 2, Endpoint reference party state = 6) followed by a DROP PARTY ACKNOWLEDGE message ~~and optionally sends a STATUS message (Cause value = 100, Call state value = 7, Endpoint reference value = party 2, Endpoint reference party state = 6 or 0 dependant on the order of transmission)~~, remains in P3 for party 1, enters P0 for party 2 and remains in U7.

Selection: IUT stable in U7 and P3.

L3MU_43_26

Ensure that the IUT in U10 and P7 for party 1 and P3 for party 2, on receipt of a DROP PARTY message (Optional information element with content error present, IE instruction field flag = IE instruction field not significant, Endpoint reference value = party 2),

optionally sends a STATUS message (Cause = value 100 and optional diagnostics field carrying correct IE identifier, Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6) followed by a DROP PARTY ACKNOWLEDGE message ~~and optionally sends a STATUS message (Cause value = 100, Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6 or 0 dependant on the order of transmission)~~, remains in P7 for party 1, enters P0 for party 2 and remains in U10.

Selection: IUT stable in U7 and P3.

L3MU_43_27

Ensure that the IUT in U10 and P7 for party 1 and P7 for party 2, on receipt of a DROP PARTY message (Optional information element with content error present, IE instruction field flag = IE instruction field not significant, Endpoint reference value = party 2),

optionally sends a STATUS message (Cause = value 100 and optional diagnostics field carrying correct IE identifier, Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6) followed by a DROP PARTY ACKNOWLEDGE message ~~and optionally sends a STATUS message (Cause value = 100, Call state value = 10, Endpoint reference value = party 2, Endpoint reference party state = 6 or 0 dependant on the order of transmission)~~, remains in P7 for party 1, enters P0 for party 2 and remains in U10."

Page 94, History

Delete the whole clause "History".

APPENDIX I

Bibliography

[A] ETSI Standard ETS 300 771-1 (1997), *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.*

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