



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.921 *bis*

(03/93)

**DIGITAL SUBSCRIBER SIGNALLING
SYSTEM No. 1**

**ABSTRACT TEST SUITE FOR LAPD
CONFORMANCE TESTING**

ITU-T Recommendation Q.921 *bis*

(Previously "CCITT Recommendation")

FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. The 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, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation Q.921 *bis* was prepared by the ITU-T Study Group XI (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

2 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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Recommendation Q.921 bis

ABSTRACT TEST SUITE FOR LAPD CONFORMANCE TESTING

(Helsinki, 1993)

1 General

This Recommendation presents the abstract test suite (ATS) for Link Access Procedures on the D-channel (LAPD) described in Tree and Tabular Combined Notation (TTCN), for an ISDN user side terminal equipment on ISDN basic access. This test suite aligns with the principles defined in OSI Conformance Testing Methodology and Framework Recommendations X.290 to X.294, inclusive [1].

For basic rate, user-side testing, two equally valid but different Abstract Test Suites (ATS) have been submitted for CCITT consideration. Although these two ATS share a common subset of test purposes, they employ different test methods. This would make the comparability of the test results between the two ATS extremely difficult. In order to facilitate the comparability of the test results, which is fundamental to the achievement of the desirable goal of one-stop testing on a worldwide basis, it has been agreed that only one internationally standardized ATS is required for each protocol. Given the advanced stage of introduction of conformance testing within some countries, it has further been agreed that a reasonable transition period is required before it is possible to move to a single standardized ATS. This Recommendation therefore contains two recommended ATS, one in the body of the text and the other in Annex A. During the transition period, organizations wishing to follow this Recommendation have the option of using either or both ATS, or a subset applicable to their environment. However, from 1 April 1994, the ATS for basic rate, user-side testing, contained in the body of this Recommendation will be the only recommended ATS. The ATS contained in Annex A is recommended for use during the transition period ending 31 March 1994 only.

Subclause 1.1 describes the scope and field of application which provides an objective basis for the applicability of the LAPD tests. Clause 2 contains general aspects of testing and the Protocol Implementation Extra Information for Testing (PIXIT) proforma. Clause 4 contains abbreviations used in this Recommendation.

The type of TTCN used in the development of the test suite for basic rate, user-side testing, pre-dates that to be found in Recommendation X.292 [1]. However, as reflected in X.292 [1], Recommendations produced during the 1989-1992 study period that use a version of TTCN that pre-dates X.292 [1] and which append to the Recommendation a copy of the specification of that version of TTCN used, will be regarded as compliant to Recommendation X.292. For that reason, Appendix III, OSI Conformance Testing Methodology and Framework for Protocol Recommendations for CCITT Applications – Tree and Tabular Combined Notation (TTCN), contains full information on the version of TTCN used for the preparation of the test suite for basic rate, user-side testing.

The General, General Aspects of Testing, Abbreviations, and Reference clauses of this Recommendation are available in printed form. All other clauses and subclauses, including the ATS, are available in electronic format (i.e. diskette) only.