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**DATA NETWORKS AND OPEN SYSTEM
COMMUNICATIONS**

**OPEN SYSTEMS INTERCONNECTION –
CONFORMANCE TESTING**

**OSI CONFORMANCE TESTING
METHODOLOGY AND FRAMEWORK
FOR PROTOCOL RECOMMENDATIONS
FOR ITU-T APPLICATIONS – TEST
REALIZATION**

ITU-T Recommendation X.293

(Previously "CCITT Recommendation")

FOREWORD

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

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

ITU-T Recommendation X.293 was revised by ITU-T Study Group 7 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 10th of April 1995.

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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ITU-T X-SERIES RECOMMENDATIONS
DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS
 (February 1994)

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SUMMARY

This Recommendation specifies requirements and gives guidance concerning the realization of Means of Testing (MOT) for Implementation under Test (IUTs), in conformance with a reference Abstract Test Suite (ATS) specified in compliance with Recommendation X.291. Test realization involves a protocol, multiple protocols or profile. The text was developed jointly with ISO/IEC JTC 1 and the main intent of this revision is to reflect the changes as a result of the work on Protocol Profile Testing Methodology (PPTM) and on Multi-Party Testing Methodology (MPyTM).

INTRODUCTION

Recommendations X.290 and X.291 define a general methodology for testing the conformance of implementations to OSI protocol specifications and/or transfer syntaxes issued as ITU-T Recommendations or International Standards; these Recommendations also put requirements on the production of OSI conformance testing specifications and Abstract Test Suites (ATS) specifications.

Recommendation X.292 defines a standardized test notation, the Tree and Tabular Combined Notation (TTCN), for the specification of an ATS.

Once OSI conformance testing specifications and ATSs in compliance with Recommendation X.291 are available, the test results obtained by different test laboratories should be comparable, they they base their test operations on the same reference ATS specification.

Recommendation X.294 puts requirements on the conformance assessment process, so that test results can be compared with those of other test laboratories, and can have a wide acceptance.

This Recommendation concentrates on the intermediate stage, namely, test realization. Before the test preparation can begin, a Means of Testing (MOT) the Implementation under Test (IUT) has to be made available.

Test realization are those organizations which take responsibility for providing such an MOT.

Recommendation X.295 defines a general methodology for specifying the requirements for the production of Profile Test Specification (PTS) for conformance testing against profiles.

Recommendation X.296 defines how to express and document the conformance of systems to base specifications and profiles, using Implementation Conformance Statements (ICS) based on standardized ICS proformas and profile Requirements Lists (RLs).

This Recommendation places requirements on test realization, to ensure that the execution of test cases reflects the behaviour specified in the reference ATS specification. In this way, the purpose of the ATS is achieved.

This Recommendation is also published as ISO/IEC 9646-4:1994.



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