ISO/IEC 9646-2:1994-12 (E)

Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Definitions 2

4 Abbreviations 2

5 Compliance 3

6 Conformance requirements in OSI base specifications 3
6.1 Introduction 3
6.2 General requirements 3
6.3 Conformance clauses 3
6.4 Multi-specification dependencies 4

7 Requirements on ICS proformas 4

8 Abstract Test Suite production process leading to conformance testing specifications 4

9 Conformance requirements and ICS proforma 5

10 Test Suite Structure and Test Purposes (TSS&TP) 5

10.1 Basic requirements 5

10.2 Specification of the test suite structure 5

10.3 Specification of the test purposes 7

10.4 Coverage 8

10.5 TSS&TP compliance clause 9

11 Abstract testing methodology 9

11.1 Introduction 9

11.2 General specification of the Single Party Testing context 10

11.2.1 Introduction 10

11.2.2 Requirements on the Lower Tester 10

11.2.3 Requirements on the Upper Tester 11

11.3 Abstract Test Methods for Single Party Testing methods 11

11.3.1 Introduction 11
11.3.3 The Distributed test method 11
11.3.4 The Coordinated test method 13
11.3.5 The Remote test method 13
11.4 Test method variants 14
11.4.1 Embedded and Non-Embedded variants of test methods in the Single Party Testing context 14
11.4.2 Multi-user variants 14
11.5 General specification of the Multi-Party Testing context 14
11.5.1 Introduction 14
11.5.2 Lower Tester Control Function 15
11.5.3 Upper Testers 15
11.5.4 Test Coordination Procedures 15
11.5.5 Illustration of Abstract Test Methods for Multi-Party Testing 15
11.6 Choice of Abstract Test Method 18
11.6.1 Introduction 18
11.6.2 Comprehensive testing Service 18
11.6.3 Types of Implementation Under Test 18
11.6.4 Applicability of the Abstract Test Methods 18
12 Specification of Abstract Test Suites 19
12.1 General 19
12.2 Use of Tree and Tabular Combined Notation (TTCN) 19
12.3 Specification of abstract test cases 19
12.4 Assignment Of Verdicts 21
12.5 Abstract Test Suite specification conformance clause 21
12.6 Consistency with base specification 21
12.7 Copyright 21
13 Specification of a Test Management Protocol (TMP) 21
14 Information in an ATS specification concerning use of the ATS 22
15 Maintenance of Abstract Test Suite specifications 22
Annex A Applicability of the test methods to OSI protocols 23
A.1 The Physical layer 23
A.2 Data Link and Media Access Control protocols 23

A.3 Network protocols **23**
A.4 Transport protocol **24**
A.5 Session protocol **25**
A.6 Presentation and Application protocols **25**
A.7 Connectionless protocols **27**

B Guidance for protocol specifiers to facilitate conformance testing **28**
B.1 Introduction **28**
B.2 Guidance on scope **28**
B.3 Guidance on normative references **29**
B.4 Guidance on requirements and options **29**
B.5 Checklist for conformance clauses **30**
B.6 Guidance on PDUs **30**
B.7 Guidance on states **31**
B.8 Guidance onFDTs **31**
B.9 Miscellaneous guidance **32**

C Relationship between ISO/IEC 9646 and ISO/IEC 7498 Service notation **33**