

# ISO/IEC 9646-1:1994-12 (E)

## Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope.....</b>	<b>1</b>
<b>2</b>	<b>Normative references.....</b>	<b>2</b>
<b>3</b>	<b>Definitions .....</b>	<b>3</b>
<b>3.1</b>	<b>Reference model definitions .....</b>	<b>3</b>
<b>3.2</b>	<b>Terms defined in other International Standards, ITU-T Recommendations and Technical Reports .....</b>	<b>3</b>
<b>3.3</b>	<b>Conformance testing definitions .....</b>	<b>4</b>
<b>4</b>	<b>Abbreviations.....</b>	<b>10</b>
<b>5</b>	<b>The meaning of conformance in OSI.....</b>	<b>11</b>
<b>5.1</b>	<b>Introduction.....</b>	<b>11</b>
<b>5.2</b>	<b>Conformance requirements .....</b>	<b>11</b>
<b>5.3</b>	<b>Static conformance requirements .....</b>	<b>11</b>
<b>5.4</b>	<b>Dynamic conformance requirements .....</b>	<b>12</b>
<b>5.5</b>	<b>Conformance requirements related to transfer syntaxes .....</b>	<b>12</b>
<b>5.6</b>	<b>Implementation Conformance Statements (ICSs).....</b>	<b>12</b>
<b>5.6.1</b>	<b>Introduction.....</b>	<b>12</b>
<b>5.6.2</b>	<b>Protocol Implementation Conformance Statement (PICS) .....</b>	<b>12</b>
<b>5.6.3</b>	<b>Profile Implementation Conformance Statement (profile ICS) .....</b>	<b>12</b>
<b>5.6.4</b>	<b>System Conformance Statement (SCS) .....</b>	<b>13</b>
<b>5.7</b>	<b>A conforming system.....</b>	<b>13</b>
<b>5.8</b>	<b>Interworking and conformance.....</b>	<b>13</b>
<b>6</b>	<b>Conformance and testing .....</b>	<b>14</b>
<b>6.1</b>	<b>Objectives of conformance testing .....</b>	<b>14</b>
<b>6.1.1</b>	<b>Introduction.....</b>	<b>14</b>
<b>6.1.2</b>	<b>Basic Interconnection Tests .....</b>	<b>14</b>
<b>6.1.3</b>	<b>Capability tests .....</b>	<b>14</b>
<b>6.1.4</b>	<b>Behavior tests.....</b>	<b>15</b>
<b>6.1.5</b>	<b>Conformance resolution tests .....</b>	<b>15</b>
<b>6.2</b>	<b>Extra information for testing .....</b>	<b>15</b>
<b>6.2.1</b>	<b>Implementation Extra Information for Testing (IXIT) .....</b>	<b>15</b>
<b>6.2.2</b>	<b>Protocol Implementation Extra Information for Testing (PIXIT) .....</b>	<b>16</b>
<b>6.2.3</b>	<b>Profile Implementation Extra Information for Testing (profile IXIT).....</b>	<b>16</b>
<b>6.3</b>	<b>Conformance assessment process overview .....</b>	<b>16</b>
<b>6.4</b>	<b>Use of Basic Interconnection Tests and capability tests in the test campaignlg</b>	
<b>6.5</b>	<b>Analysis of results.....</b>	<b>18</b>
<b>6.5.1</b>	<b>Test outcomes and test verdicts .....</b>	<b>18</b>
<b>6.5.2</b>	<b>Conformance test reports .....</b>	<b>18</b>
<b>6.5.3</b>	<b>Repeatability of results .....</b>	<b>19</b>
<b>6.5.4</b>	<b>Comparability of results .....</b>	<b>19</b>
<b>6.5.5</b>	<b>Auditability of results.....</b>	<b>19</b>
<b>7</b>	<b>Test methods .....</b>	<b>19</b>
<b>7.1</b>	<b>Introduction.....</b>	<b>19</b>

7.2	Classification of real open systems and IUTs for conformance testing.....	19
7.2.1	Classification of SUTs.....	19
7.2.2	Identification of the IUT.....	21
7.3	Abstract testing methodology.....	21
7.3.1	General.....	21
7.3.2	Points of Control and Observation (PCOs).....	23
7.4	Abstract testing functions.....	23
7.5	Overview of Abstract Test Methods.....	24
7.5.1	End-system IUTs in the Single-Party Testing context.....	24
7.5.2	The Local and Distributed test methods.....	24
7.5.3	The Coordinated and Remote test methods.....	24
7.5.4	Variants of abstract test methods.....	24
7.5.5	IUTs in the Multi-Party Testing context.....	24
7.6	Applicability of test methods to real open systems.....	24
7.7	Applicability of the test methods to OSI protocols and layers.....	26
8	Test suites.....	26
8.1	Structure.....	26
8.2	Abstract and executable test cases.....	26
8.3	Base specification conformance testing specifications.....	28
8.4	Profile Test Specifications (PTS).....	28
9	Relationships between parts, concepts and roles.....	29
10	Compliance.....	29
<b>Annex</b>		
A	Options.....	31
B	Index of parts 1 , 2, 4, 5, 6 and 7.....	32