INTERNATIONAL STANDARD

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Information technology — Open Systems Interconnection — Systems Management: Test Management Function

Technologies de l'information — Interconnexion de systèmes ouverts (OSI) — Gestion-systèmes: Fonction de gestion de tests

Contents

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 10164-12 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 21, *Open Systems Interconnection, data management and open distributed processing*, in collaboration with CCITT. The identical text is published as ITU-T Recommendation X.745.

ISO/IEC 10164 consists of the following parts, under the general title *Information technology — Open Systems Interconnection — Systems Management*:

— *Part 1: Object management function*

— *Part 2: State management function*

— *Part 3: Attributes for representing relationships*

— *Part 4: Alarm reporting function*

— *Part 5: Event report management function*

— *Part 6: Log control function*

— *Part 7: Security alarm reporting function*

— *Part 8: Security audit trail function*

— *Part 9: Objects and attributes for access control*

— *Part 10: Accounting metering function*

— *Part 11: Workload monitoring function*

— *Part 12: Test management function*

— *Part 13: Summarisation function*

— *Part 14: Confidence and diagnostic test categories*

— *Part 15: Scheduling function*

Annex A forms an integral part of this part of ISO/IEC 10164. Annex B is for information only.

Introduction

ISO/IEC 10164 is a multipart standard developed according to ISO 7498 and ISO/IEC 7498-4. ISO/IEC 10164 is related to the following International Standards

- ISO/IEC 9595:1991, *Information technology – Open Systems Interconnection – Common management information service definition*;

- ISO/IEC 9596-1:1991, *Information technology – Open Systems Interconnection – Common management information protocol – Part 1: Specification*;

- ISO/IEC 10040:1992, *Information technology – Open Systems Interconnection – Systems management overview*;

- ISO/IEC 10165:1992, *Information technology – Open Systems Interconnection – Structure of management information.*

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ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – OPEN SYSTEMS INTERCONNECTION – SYSTEMS MANAGEMENT: TEST MANAGEMENT FUNCTION

1   Scope

This Recommendation | International Standard defines a Systems Management Function that may be used by an application process in a centralized or decentralized management environment to interact for the purpose of systems management, as defined by CCITT Rec. X.700 | ISO/IEC 7498-4. This Recommendation | International Standard defines a function which consists of generic definitions, services and functional units. This function is positioned in the application layer of CCITT Rec. X.200 | ISO/IEC 7498 and is defined according to the model provided by ISO 9545. The role of systems management functions is described by CCITT Rec. X.701 | ISO/IEC 10040.

This Recommendation | International Standard

  –   establishes user requirements for this Recommendation | International Standard;

  –   establishes a test model that relates the service and generic definitions provided by this function to user requirements;

  –   defines generic object classes, attribute types, action types, notification types, packages and parameters documented in accordance with CCITT Rec. X.722 | ISO/IEC 10165-4;

  –   specifies compliance requirements placed on other standards that make use of these generic definitions;

  –   defines the service provided by the function;

  –   specifies the protocol that is necessary in order to provide the service;

  –   defines the relationship between this service and SMI operations and notifications;

  –   specifies the abstract syntax necessary to identify and negotiate the functional unit in protocol;

  –   defines relationships with other systems management functions;

  –   specifies conformance requirements to be met by implementations of this Recommendation | International Standard.

This Recommendation | International Standard does not

  –   define the nature of any implementation intended to provide the Test management function;

  –   specify the manner in which management is accomplished by the user of the Test management function;

  –   define the nature of any interactions which result in the use of the Test management function;

  –   specify the services necessary for the establishment, normal and abnormal release of a management association;

  –   specify the details of specific tests or test categories;

  –   specify a framework or methodology for conformance tests.

2   Normative references

The following Recommendations | International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations | Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent editions of the Recommendations | Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunications | Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

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2.1 Identical Recommendations | International Standards

– ITU-T Recommendation X.210 (1993) | ISO/IEC 10731:1993, *Information technology – Open Systems Interconnection – Basic Reference Model – Conventions for the definition of OSI services.*

– ISO/TR 8509:1987, *Information processing systems – Open Systems Interconnection – Service conventions.*

– CCITT Recommendation X.701 (1992) | ISO/IEC 10040:1992, *Information technology – Open Systems Interconnection – Systems management overview.*

– CCITT Recommendation X.731 (1992) | ISO/IEC 10164-2:1992, *Information technology – Open Systems Interconnection – Systems Management: State management function.*

– CCITT Recommendation X.732 (1992) | ISO/IEC 10164-3:1992, *Information technology – Open Systems Interconnection – Systems Management: Attributes for representing relationships.*

– CCITT Recommendation X.734 | ISO/IEC 10164-5:1992, *Information technology – Open Systems Interconnection – Systems Management: Event report management function.*

– CCITT Recommendation X.720 (1992) | ISO/IEC 10165-1:1992, *Information technology – Open Systems Interconnection – Structure of Management information: Management information model.*

– CCITT Recommendation X.721 (1992) | ISO/IEC 10165-2:1992, *Information technology – Open Systems Interconnection – Structure of management information: Definition of management information.*

– CCITT Recommendation X.722 (1992) | ISO/IEC 10165-4:1992, *Information technology – Open Systems Interconnection – Structure of management information: Guidelines for the definition of managed objects.*

2.2 Paired Recommendations | International Standards equivalent in technical content

– CCITT Recommendation X.200 (1988), *Reference Model of Open Systems Interconnection for CCITT Applications.*

  ISO 7498:1984, *Information processing systems – Open Systems Interconnection – Basic Reference Model.*

– CCITT Recommendation X.208 (1988), *Specification of Abstract Syntax Notation One (ASN.1).*

  ISO/IEC 8824:1990, *Information technology – Open Systems Interconnection – Specification of Abstract Syntax Notation One (ASN.1).*

– CCITT Recommendation X.209 (1988), *Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*

  ISO 8825:1990, *Information technology – Open Systems Interconnection – Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1).*

– CCITT Recommendation X.700, *Management framework definition for Open Systems Interconnection (OSI) for CCITT applications.*

  ISO/IEC 7498-4:1989, *Information processing systems – Open Systems Interconnection – Basic Reference Model – Part 4: Management framework.*

– CCITT Recommendation X.710 (1991), *Common Management Information Service Definition for CCITT Applications.*

  ISO/IEC 9595:1991, *Information technology – Open Systems Interconnection – Common management information service definition.*

– CCITT Recommendation X.290 (1991), *OSI Conformance Testing Methodology and Framework for Protocol Recommendations for CCITT Applications – General Concepts.*

  ISO/IEC 9646-1:1991, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*

2.3 Additional references

– ISO/IEC 9545:1989, *Information processing systems – Open Systems Interconnection – Application Layer structure.*