INTERNATIONAL STANDARD

ISO/IEC 10021-5

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Information technology — Message Handling Systems (MHS): Message store: Abstract service definition

Technologies de l'information — Systèmes de messagerie (MHS): Dépôt de message: Définition de service abstrait

Reference number
ISO/IEC 10021-5:1996(E)

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 10021-5 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 18, *Document processing and related communication*, in collaboration with ITU-T. The identical text is published as ITU-T Recommendation X.413.

This third edition is a revision of the second edition (ISO/IEC 10021-5:1994).

ISO/IEC 10021 consists of the following parts, under the general title *Information technology — Message Handling Systems (MHS)*:

— *Part 1: System and Service Overview*

— *Part 2: Overall Architecture*

— *Part 3: Abstract Service Definition Conventions*

— *Part 4: Message Transfer System: Abstract Service Definition and Procedures*

— *Part 5: Message Store: Abstract Service Definition*

— *Part 6: Protocol Specification*

— *Part 7: Interpersonal Messaging System*

— *Part 8: Electronic Data Interchange Messaging Service*

— *Part 9: Electronic Data Interchange Messaging System*

Annexes A to F form an integral part of this part of ISO/IEC 10021. Annexes G to J are for information only.

Introduction

This Recommendation | International Standard is one of a series of Recommendations | International Standards defining Message Handling in a distributed open systems environment.

Message Handling provides for the exchange of messages between users on a store-and-forward basis. A message submitted by one user (the originator) is transferred through the message-transfer-system (MTS) and delivered to one or more other users (the recipients).

This Recommendation | International Standard defines the Message Store abstract-service (MS abstract-service) which supports message-retrieval from a Message Store (MS) and message-submission through the MS in a Message Handling System (MHS). The MS abstract-service also provides message-administration services, as defined by the Message Transfer System (MTS) abstract-service.

INTERNATIONAL STANDARD

ITU-T RECOMMENDATION

INFORMATION TECHNOLOGY – MESSAGE HANDLING SYSTEMS (MHS): MESSAGE STORE: ABSTRACT SERVICE DEFINITION

SECTION 1 – GENERAL

1 Scope

This Recommendation | International Standard defines the Message Store abstract-service. This abstract-service is provided by the Message Store access protocol (specified in ITU-T Rec. X.419 | ISO/IEC 10021-6) in conjunction with the MTS abstract-service (defined in ITU-T Rec. X.411 | ISO/IEC 10021-4), together with the Remote Operations Service Element (ROSE) services (defined in ITU-T Rec. X.219 | ISO/IEC 9072-1). The abstract-syntax for the application-layer protocols used in this Recommendation | International Standard is defined in ITU-T Rec. X.680 | ISO/IEC 8824-1.

Other Recommendations | parts of ISO/IEC 10021 define other aspects of the MHS. ITU-T Rec. F.400/X.400 | ISO/IEC 10021-1 defines the user-oriented services provided by the MHS. ITU-T Rec. X.402 | ISO/IEC 10021-2 provides an architectural overview of the MHS. ITU-T Rec. X.420 | ISO/IEC 10021-7 defines the abstract-service for Interpersonal Messaging and defines the format of Interpersonal Messages.

Section 2 of this Recommendation | International Standard contains the Message Store abstract-service definition. Clause 6 describes the MS model. Clause 7 defines the semantics and abstract-syntax of the MS-bind and the MS-unbind abstract-operations. Clause 8 defines the semantics and abstract-syntax of the operations of the MS abstract-service. Clause 9 defines the semantics and abstract-syntax of the errors of the abstract-service.

Section 3 of this Recommendation | International Standard defines the general-attribute-types, general-matching-rules, and general-auto-action-types related to the MS. Clause 10 contains an overview. Clause 11 defines the semantics and abstract-syntax of the general-attribute-types. Clause 12 defines the semantics and abstract-syntax of the general-matching-rules. Clause 13 defines the semantics and abstract-syntax of the general-auto-action-types.

Section 4 of this Recommendation | International Standard describes the procedures for Message Store and the ports realization. Clause 14 contains an overview. Clause 15 describes how the Message Transfer System abstract-service is consumed. Clause 16 describes how the Message Store abstract-service is supplied. Clause 17 describes how the MS ports are realized.

The requirements for conformance to this Recommendation | International Standard are stated in clause 10 of ITU-T Rec. X.419 | ISO/IEC 10021-6.

2 Normative references

The following Recommendations and 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 and 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 edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Reference Model references

This Recommendation | International Standard cites the following Reference Model specification:

- ITU-T Recommendation X.200 (1994) | ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model.*

2.2 Presentation references

This Recommendation | International Standard cites the following Presentation specifications:

- ITU-T Recommendation X.680 (1994) | ISO/IEC 8824-1:1995, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation.*
- ITU-T Recommendation X.681 (1994) | ISO/IEC 8824-2:1995, *Information technology – Abstract Syntax Notation One (ASN.1): Information object specification.*
- ITU-T Recommendation X.682 (1994) | ISO/IEC 8824-3:1995, *Information technology – Abstract Syntax Notation One (ASN.1): Constraint specification.*
- ITU-T Recommendation X.690 (1994) | ISO/IEC 8825-1:1995, *Information technology – ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER).*

2.3 Remote Operations references

This Recommendation | International Standard cites the following Remote Operations specification:

- ITU-T Recommendation X.880 (1994) | ISO/IEC 13712-1:1995, *Information technology – Remote Operations: Concepts, model and notation.*

2.4 Directory references

This Recommendation | International Standard cites the following Directory specifications:

- ITU-T Recommendation X.501 (1993) | ISO/IEC 9594-2:1995, *Information technology – Open Systems Interconnection – The Directory: Models.*
- ITU-T Recommendation X.509 (1993) | ISO/IEC 9594-8:1995, *Information technology – Open Systems Interconnection – The Directory: Authentication framework.*
- ITU-T Recommendation X.520 (1993) | ISO/IEC 9594-6:1995, *Information technology – Open Systems Interconnection – The Directory: Selected attribute types.*

2.5 Message Handling references

This Recommendation | International Standard cites the following Message Handling System specifications:

- ITU-T Recommendation F.400/X.400 (1993), *Message handling services: Message handling system and service overview.*

  ISO/IEC 10021-1:1996, *Information technology – Message Handling Systems (MHS) – Part 1: System and service overview.*
- ITU-T Recommendation X.402 (1995) | ISO/IEC 10021-2:1996, *Information technology – Message Handling Systems (MHS): Overall architecture.*
- ITU-T Recommendation X.411 (1995) | ISO/IEC 10021-4:1996, *Information technology – Message Handling Systems (MHS): Message transfer system: Abstract service definition and procedures.*
- ITU-T Recommendation X.419 (1995) | ISO/IEC 10021-6:1996, *Information technology – Message Handling Systems (MHS): Protocol specifications.*
- ITU-T Recommendation X.420[1)] | ISO/IEC 10021-7...[1)], *Information technology – Message Handling Systems (MHS): Interpersonal messaging system.*

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1) Presently at the stage of draft.