

norm

NEN-ISO/IEC 10021-1 (en)

Information technology - Message Handling Systems (MHS) - Part 1: System and service overview (ISO/IEC 10021-1:2003, IDT)

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**Information technology — Message
Handling Systems (MHS)**
Part 1:
System and service overview

*Technologies de l'information — Systèmes de messagerie (MHS)
Partie 1: Présentation générale du système et des services*

ISO/IEC 10021-1:2003(E)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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.

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ISO/IEC 10021-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

This part of ISO/IEC 10021 is technically aligned with ITU-T Recommendation F.400/X.400 (1999) but is not published as identical text.

This second edition cancels and replaces the first edition (ISO/IEC 10021-1:1990), which has been technically revised. It also incorporates Technical Corrigenda 1 to 7 and consolidates Amendment 1:1994.

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 4: Message transfer system — Abstract service definition and procedures*
- *Part 5: Message store: Abstract service definition*
- *Part 6: Protocol specifications*
- *Part 7: Interpersonal messaging system*
- *Part 8: Electronic Data Interchange Messaging Service*
- *Part 9: Electronic Data Interchange Messaging System*
- *Part 10: MHS routing*
- *Part 11: MHS Routing — Guide for messaging systems managers* [Technical Report]

Introduction

This document is one of a set of Recommendations | International Standards for Message Handling. The entire set provides a comprehensive specification for a Message Handling System (MHS) comprising any number of co-operating open systems.

Message Handling Systems and Services enable users to exchange messages on a store-and-forward basis. A message submitted by one user, the originator, is conveyed by the Message Transfer System (MTS), the principal component of a larger Message Handling System (MHS), and is subsequently delivered to one or more additional users, the message's recipients.

An MHS comprises a variety of interconnected functional entities. Message Transfer Agents (MTAs) co-operate to perform the store-and-forward message transfer function. Message Stores (MSs) provide storage for messages and enable their submission, retrieval and management. User Agents (UAs) help users access MHS. Access Units (AUs) provide links to other communication systems and Services of various kinds (e.g., Telematic Services, Postal Services).

This part of ISO/IEC 10021 specifies the overall system and service description of Message Handling capabilities.

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Information technology — Message Handling Systems (MHS) —

Part 1: System and service overview

1 Scope

This part of ISO/IEC 10021 defines the overall system and service of an MHS and serves as a general overview of MHS.

Other aspects of Message Handling Systems and Services are defined in other parts of ISO/IEC 10021. The structure of ISO/IEC 10021 (all parts) defining the Message Handling System and Services is shown in Table 1.

The technical aspects of MHS are defined in other parts of ISO/IEC 10021. The overall system architecture of MHS is defined in ISO/IEC 10021-2:2003.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 7498-1:1994, *Information technology – Open Systems Interconnection – Basic Reference Model: The Basic Model*

ISO/IEC 8649:1996, *Information technology – Open Systems Interconnection – Service definition for the Association Control Service Element*

ISO/IEC 8824-1:1998, *Information technology – Abstract Syntax Notation One (ASN.1): Specification of basic notation*

ISO/IEC 8825-1:1998, *Information technology – ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)*

ISO/IEC 9066-1:1989, *Information processing systems – Text communication – Reliable Transfer – Part 1: Model and service definition*

ISO/IEC 13712-1:1995, *Information technology – Remote Operations: Concepts, model and notation*

ISO/IEC 9594 (all parts), *Information technology – Open Systems Interconnection – The Directory*

ISO/IEC 10021-2:2003, *Information technology – Message Handling Systems (MHS) – Part 2: Overall architecture*

ISO/IEC 10021-4:2003, *Information technology – Message Handling Systems (MHS) – Part 4: Message transfer system: Abstract service definition and procedures*

ISO/IEC 10021-5:1999, *Information technology – Message Handling Systems (MHS) – Part 5: Message store: Abstract service definition*

ISO/IEC 10021-6:2003, *Information technology – Message Handling Systems (MHS) – Part 6: Protocol specifications*

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ISO/IEC 10021-7:2003, *Information technology – Message Handling Systems (MHS) – Part 7: Interpersonal messaging system*

ISO/IEC 10021-8:1999, *Information technology – Message Handling Systems (MHS) – Part 8: Electronic Data Interchange Messaging Service*

ISO/IEC 10021-9:1999, *Information technology – Message Handling Systems (MHS) – Part 9: Electronic Data Interchange Messaging System*

ISO/IEC 10021-10:1999, *Information technology – Message Handling Systems (MHS) – Part 10: MHS routing*

ISO/IEC 10021-11:1999, *Information technology – Message Handling Systems (MHS) – Part 11: MHS Routing – Guide for messaging systems managers*

ISO/IEC 11588-1:1996, *Information technology – Message Handling Systems (MHS) management – Part 1: Model and architecture*

ISO/IEC 11588-3:1997, *Information technology – Message Handling Systems (MHS) management – Part 3: Logging information.*

ISO/IEC 11588-8:1997, *Information technology – Message Handling Systems (MHS) management – Part 8: Message Transfer Agent management.*

CCITT Recommendation F.423:1992, *Message handling services: Intercommunication between the interpersonal messaging service and the telefax service*

CCITT Recommendation F.440:1992, *Message handling services: The voice messaging service*

CCITT Recommendation T.330:1988, *Telematic access to interpersonal messaging system*

CCITT Recommendation X.408 (1988), *Message handling systems: Encoded information type conversion rules*

CCITT Recommendation X.440 (1992), *Message handling systems: Voice messaging system*

Table 1 – Structure of MHS Standards

Short title	Joint MHS		Joint support		ITU-T only	
	ISO/IEC	ITU-T	ISO/IEC	ITU-T	System	Service
MHS: System and service overview	10021-1	X.400				F.400
MHS: Overall architecture	10021-2	X.402				
MHS: Encoded information type conversion rules					X.408	
MHS: MTS: Abstract service definition and procedures	10021-4	X.411				
MHS: MS: Abstract -service definition	10021-5	X.413				
MHS: Protocol specifications	10021-6	X.419				
MHS: Interpersonal messaging system Telematic Access to IPMS	10021-7	X.420				
MHS: EDI messaging service	10021-8	F.435			T.330	
MHS: EDI messaging system	10021-9	X.435				
MHS: Voice messaging service						
MHS: Voice messaging system					F.440	
MHS: Routing	10021-10	X.412			X.440	
MHS: Routing: Guide for Messaging System Managers	10021-11	X.404				
MHS: Naming and addressing for public MH services						F.401
MHS: The public message transfer service						F.410
MHS: Intercommunication with public physical delivery services						F.415
MHS: The public IPM service						F.420
MHS: Intercommunication between IPM service and Telex						F.421
MHS: Intercommunication between IPM service and Telefax						F.423
OSI: Basic Reference Model			7498-1	X.200		
OSI: Specification of Abstract Syntax Notation One (ASN.1)			8824-1	X.680		
OSI: Specification of Basic Encoding Rules for Abstract Syntax Notation One (ASN.1)			8825-1	X.690		
OSI: Association Control: Service Definition			8649	X.217		
OSI: Association Control: Protocol Specification			8650-1	X.227		
OSI: Reliable Transfer: Model and service definition			9066-1	X.218		
OSI: Reliable Transfer: Protocol Specification			9066-2	X.228		
OSI: Remote Operations: Concepts, Model & Notation			13712-1	X.880		
OSI: Remote Operations: Service Definition			13712-2	X.881		
OSI: Remote Operations: Protocol Specification			13712-3	X.882		

3 Terms and definitions

For the purposes of this document, the terms and definitions given in Annex A and the following apply.

3.1 Open Systems Interconnection

This part of ISO/IEC 10021 makes use of the following terms defined in ISO/IEC 7498-1:

- a) Application Layer;
- b) application-process;
- c) Open Systems Interconnection;
- d) OSI Reference Model.

ISO/IEC 10021-1:2003(E)**3.2 Directory Systems**

This part of ISO/IEC 10021 makes use of the following terms defined in ISO/IEC 9594-1:

- a) directory entry;
- b) directory system agent;
- c) Directory System;
- d) directory user agent.

This part of ISO/IEC 10021 makes use of the following terms defined in ISO/IEC 9594-2:

- e) attribute;
- f) group;
- g) name.

4 Abbreviations

A	Additional
ADMD	Administration Management Domain
AU	Access Unit
CA	Contractual Agreement
DL	Distribution List
DSA	Directory System Agent
DUA	Directory User Agent
E	Essential
EDI	Electronic Data Interchange
EIT	Encoded Information Type
I/O	Input/Output
IP	Interpersonal
IPM	Interpersonal Messaging
IPMS	Interpersonal Messaging System
MD	Management Domain
MH	Message Handling
MHS	Message Handling System
MS	Message Store
MT	Message Transfer
MTA	Message Transfer Agent
MTS	Message Transfer System
N/A	Not applicable
OR	Originator/Recipient
OSI	Open Systems Interconnection
PD	Physical Delivery
PDAU	Physical Delivery Access Unit
PDS	Physical Delivery System
PM	Per-message
PR	Per-recipient
PRMD	Private Management Domain

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