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PROFILE

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**Information technology — International  
Standardized Profiles AMH2n — Message  
Handling Systems — Interpersonal  
Messaging —**

**Part 1:**  
IPM MHS Service Support

*Technologies de l'information — Profils normalisés internationaux  
AMH2n — Systèmes de messagerie — Messagerie entre personnes —  
Partie 1: Support de service de IPM MHS*



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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 JTC1. In addition to developing International Standards, ISO/IEC JTC1 has created a Special Group on Functional Standardization for the elaboration of International Standardized Profiles.

An International Standardized Profile is an internationally agreed, harmonized document which identifies a standard or group of standards, together with options and parameters, necessary to accomplish a function or set of functions.

Draft International Standardized Profiles are circulated to national bodies for voting. Publication as an International Standardized Profile requires approval by at least 75% of the national bodies casting a vote.

International Standardized Profile ISO/IEC ISP 12062-1 was prepared with the collaboration of:

- OSI Asia-Oceania Workshop (AOW);
- European Workshop for Open Systems (EWOS) [jointly with the European Telecommunications Standards Institute (ETSI)];
- OSE Implementors' Workshop (OIW).

ISO/IEC ISP 12062 consists of the following parts, under the general title *Information technology - International Standardized Profiles AMH2n - Message Handling Systems - Interpersonal Messaging*:

- *Part 1 : IPM MHS Service Support*
- *Part 2 : AMH21 - IPM Content*
- *Part 3 : AMH22 - IPM Requirements for Message Transfer (P1)*
- *Part 4 : AMH23 - IPM Requirements for MTS Access (P3)*
- *Part 5 : AMH24 - IPM Requirements for Enhanced MS Access (P7)*

Annexes A and B form an integral part of this part of ISO/IEC ISP 12062. Annexes C and D are for information only.

## Introduction

This part of ISO/IEC ISP 12062 is defined within the context of Functional Standardization, in accordance with the principles specified by ISO/IEC TR 10000, "Framework and Taxonomy of International Standardized Profiles". The context of Functional Standardization is one part of the overall field of Information Technology (IT) standardization activities, covering base standards, profiles, and registration mechanisms. A profile defines a combination of base standards that collectively perform a specific well-defined IT function. Profiles standardize the use of options and other variations in the base standards, and provide a basis for the development of uniform, internationally recognized system tests.

One of the most important rôles for an ISP is to serve as the basis for the development (by organizations other than ISO and IEC) of internationally recognized tests and test centres. ISPs are produced not simply to 'legitimize' a particular choice of base standards and options, but to promote real system interoperability. The development and widespread acceptance of tests based on this and other ISPs is crucial to the successful realization of this goal.

The text for this part of ISO/IEC ISP 12062 was developed in close cooperation between the MHS Expert Groups of the three Regional Workshops: the North American OSE Implementors' Workshop (OIW), the European Workshop for Open Systems (EWOS) (jointly with the corresponding expert group of the European Telecommunications Standards Institute - ETSI) and the OSI Asia-Oceania Workshop (AOW). This part of ISO/IEC ISP 12062 is harmonized between these three Workshops and it has been ratified by the plenary assemblies of all three Workshops.

# Information technology – International Standardized Profiles AMH2n – Message Handling Systems – Interpersonal Messaging –

## Part 1 : IPM MHS Service Support

### 1 Scope

#### 1.1 General

This part of ISO/IEC ISP 12062 contains the overall specifications of the support of MHS Elements of Service and associated MHS functionality in an Interpersonal Messaging (IPM) environment which are generally not appropriate for consideration only from the perspective of a single MHS protocol. These specifications form part of the Interpersonal Messaging application functions, as defined in the parts of ISO/IEC ISP 12062, and are based on the Common Messaging content type-independent specifications in ISO/IEC ISP 10611. Such specifications are in many cases applicable to more than one MHS protocol or are otherwise concerned with component functionality which, although it can be verified via protocol, is not just related to protocol support. They are therefore designed to be referenced in the MHS Interpersonal Messaging application profiles ISO/IEC ISP 12062-2 (AMH21), ISO/IEC ISP 12062-3 (AMH22), ISO/IEC ISP 12062-4 (AMH23) and ISO/IEC ISP 12062-5 (AMH24), which specify the support of specific MHS protocols and associated functionality.

The specifications in this part of ISO/IEC ISP 12062 are divided into **basic requirements**, which are required to be supported by all IPM MHS implementations, and a number of optional **functional groups**, which cover significant discrete areas of related functionality which are not required to be supported by all implementations.

An overview of the scope and applicability of the AMH2n set of profiles and of the structure of this multipart ISP is provided in annex D.

#### 1.2 Position within the taxonomy

This part of ISO/IEC ISP 12062 is the first part, as common text, of a multipart ISP identified in ISO/IEC TR 10000-2 as "AMH2, Message Handling Systems - Interpersonal Messaging" (see also ISO/IEC TR 10000-1, 8.2 for the definition of multipart ISPs).

This part of ISO/IEC ISP 12062 does not, on its own, specify any profiles.

### 2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part of ISO/IEC ISP 12062. At the time of publication, the editions indicated were valid. All documents are subject to revision, and parties to agreements based on this part of ISO/IEC ISP 12062 are warned against automatically applying any more recent editions of the documents listed below, since the nature of references made by ISPs to such documents is that they may be specific to a particular edition. Members of IEC and ISO maintain registers of currently valid International Standards and ISPs, and the Telecommunications Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

Amendments and corrigenda to the base standards referenced are listed in annex B.

NOTE - References in the body of this part of ISO/IEC ISP 12062 to specific clauses of ISO/IEC documents shall be considered to refer also to the corresponding clauses of the equivalent ITU-T Recommendations (as noted below) unless otherwise stated.

ISO/IEC 8613-1: 1994, *Information technology - Open Document Architecture (ODA) and Interchange Format - Part 1: Introduction and general principles.*

ISO/IEC TR 10000-1: 1992, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: Framework.*

ISO/IEC TR 10000-2: 1994, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and taxonomy for OSI profiles.*

ISO/IEC 10021-1: 1990, *Information technology - Text Communication - Message-Oriented Text Interchange Systems (MOTIS) - Part 1: System and Service Overview. [see also CCITT Recommendation X.400(1992)]*

ISO/IEC 10021-2: 1990, *Information technology - Text Communication - Message-Oriented Text Interchange Systems (MOTIS) - Part 2: Overall Architecture. [see also CCITT Recommendation X.402(1992)]*

ISO/IEC 10021-4: 1990, *Information technology - Text Communication - Message-Oriented Text Interchange Systems (MOTIS) - Part 4: Message Transfer System: Abstract Service Definition and Procedures. [see also CCITT Recommendation X.411(1992)]*

ISO/IEC 10021-5: 1990, *Information technology - Text Communication - Message-Oriented Text Interchange Systems (MOTIS) - Part 5: Message Store: Abstract Service Definition. [see also CCITT Recommendation X.413(1992)]*

ISO/IEC 10021-7: 1990, *Information technology - Text Communication - Message-Oriented Text Interchange Systems (MOTIS) - Part 7: Interpersonal Messaging System. [see also CCITT Recommendation X.420(1992)]*

ISO/IEC ISP 10610-1: 1993, *Information technology - International Standardized Profile FOD11 - Open Document Format: Simple document structure - Character content architecture only - Part 1: Document Application Profile (DAP).*

ISO/IEC ISP 10611-1: 1994, *Information technology - International Standardized Profiles AMH1n - Message Handling Systems - Common Messaging - Part 1: MHS Service Support.*

CCITT Recommendation X.400(1992), *Message handling system and service overview.*

CCITT Recommendation X.402(1992), *Message handling systems: Overall architecture.*

CCITT Recommendation X.411(1992), *Message handling systems: Message transfer system: Abstract service definition and procedures.*

CCITT Recommendation X.413(1992), *Message handling systems: Message store: Abstract service definition.*

CCITT Recommendation X.420(1992), *Message handling systems: Interpersonal messaging system.*

### 3 Definitions

For the purposes of this part of ISO/IEC ISP 12062, the following definitions apply.

Terms used in this part of ISO/IEC ISP 12062 are defined in the referenced base standards; in addition, the following terms are defined.

### 3.1 General

**Basic requirement** : an Element of Service, protocol element, procedural element or other identifiable feature specified in the base standards which is required to be supported by all MHS implementations.

**Functional group** : a specification of one or more related Elements of Service, protocol elements, procedural elements or other identifiable features specified in the base standards which together support a significant optional area of MHS functionality.

NOTE - A functional group can cover any combination of MHS features specified in the base standards for which the effect of implementation can be determined at a standardized external interface - i.e. via a standard OSI communications protocol (other forms of exposed interface, such as a standardized programmatic interface, are outside the scope of this version of ISO/IEC ISP 12062).

### 3.2 Support classification

To specify the support level of Elements of Service for this part of ISO/IEC ISP 12062, the following terminology is defined.

#### mandatory support (m) :

##### for origination:

for MT and MS Elements of Service:

a service provider (i.e. an MTA or MS) shall be able to make the Element of Service available to a service user in the rôle of originator; a service user (i.e. a UA) shall be able to use the Element of Service in the rôle of originator.

for IPM Elements of Service:

a service provider (i.e. an IPM UA) shall implement all procedures specified in the base standards which are associated with the provision of the Element of Service, including use of the corresponding MT or MS Element(s) of Service, as appropriate; where specified in the base standards, a service provider shall make the Element of Service available to the service user in the rôle of originator; in all cases it shall be stated in the PICS whether the Element of Service is made available to the service user and, if so, how this is achieved.

##### for reception:

for MT and MS Elements of Service:

a service provider (i.e. an MTA or MS) shall be able to make the Element of Service available to a service user in the rôle of recipient; a service user (i.e. a UA) shall be able to use the Element of Service in the rôle of recipient.

for IPM Elements of Service:

a service provider (i.e. an IPM UA) shall implement all procedures specified in the base standards which are associated with the provision of the Element of Service, including use of the corresponding MT or MS Element(s) of Service, as appropriate; where specified in the base standards, a service provider shall make the Element of Service available to the service user in the rôle of recipient; in all cases it shall be stated in the PICS whether the Element of Service is made available to the service user and, if so, how this is achieved.

**optional support (o)** : an implementation is not required to support the Element of Service. If support is claimed, then the Element of Service shall be treated as if it were specified as mandatory support.

**conditional support (c)** : the Element of Service shall be supported under the conditions specified in this part of ISO/IEC ISP 12062. If these conditions are met, the Element of Service shall be treated as if it were specified as mandatory support. If these conditions are not met, the Element of Service shall be treated as if it were specified as optional support (unless otherwise stated).

**out of scope (i)** : the Element of Service is outside the scope of this part of ISO/IEC ISP 12062 - i.e. it will not be the subject of an ISP conformance test. However, the handling of associated protocol elements may be specified separately in the subsequent parts of this ISP.

**not applicable (—)** : the Element of Service is not applicable in the particular context in which this classification is used.

### 3.3 Profile object identifiers

Profiles that are specified in ISO/IEC ISP 12062 are identified by the object identifiers in table 1.

NOTE - These object identifiers are included for formal purposes and any use of them is not defined. They are not related to any implementation of messaging and do not appear in the protocols specified in this ISP.

**Table 1 - Profile object identifiers**

| Profile | Object Identifier                                                             |
|---------|-------------------------------------------------------------------------------|
| AMH21   | { iso(1) standard(0) interpersonal-messaging(12062) ipm-content (2) }         |
| AMH22   | { iso(1) standard(0) interpersonal-messaging(12062) ipm-message-transfer(3) } |
| AMH23   | { iso(1) standard(0) interpersonal-messaging(12062) ipm-mts-access(4) }       |
| AMH24   | { iso(1) standard(0) interpersonal-messaging(12062) ipm-ms-access(5) }        |

## 4 Abbreviations

|       |                                    |
|-------|------------------------------------|
| 84IW  | 84 Interworking                    |
| AMH   | Application Message Handling       |
| ASN.1 | Abstract Syntax Notation One       |
| CV    | Conversion                         |
| DIR   | Use of Directory                   |
| DL    | Distribution List                  |
| EoS   | Element of Service                 |
| FG    | Functional group                   |
| FWD   | Manual Forwarding                  |
| IPM   | Interpersonal Messaging            |
| ISP   | International Standardized Profile |
| LD    | Latest Delivery                    |
| MHS   | Message Handling Systems           |
| MS    | Message store                      |
| MT    | Message transfer                   |
| MTA   | Message transfer agent             |
| MTS   | Message Transfer System            |
| OSI   | Open Systems Interconnection       |
| PD    | Physical Delivery                  |
| PDAU  | Physical delivery access unit      |
| RED   | Redirection                        |
| RoC   | Return of Content                  |
| SEC   | Security                           |
| UA    | User agent                         |

Support level for Elements of Service (see 3.2):

m mandatory support

- o optional support
- c conditional support
- i out of scope
- not applicable

## 5 Conformance

No conformance requirements are specified in this part of ISO/IEC ISP 12062.

NOTE - This part of ISO/IEC ISP 12062 is a reference specification of the basic requirements and functional groups covered by the AMH2n set of profiles and is additional to the protocol-specific requirements specified in the following parts of ISO/IEC ISP 12062. Although this part of ISO/IEC ISP 12062 contains normative requirements, there is no separate conformance to this part (i.e. it is not identified in the MHS taxonomy in ISO/IEC TR 10000-2) since such requirements are only significant when referenced in the context of a particular protocol.

Conformance requirements are specified by protocol for each MHS functional object in the following parts of ISO/IEC ISP 12062 with reference to the specifications in this part. Support of functionality as specified in this part may only be verifiable where the effect of implementation can be determined at a standardized external interface - i.e. via a standard OSI communications protocol. Further, the provision of Elements of Service and other functionality at a service interface will not necessarily be verifiable unless such interface is realized in the form of a standard OSI communications protocol. Other forms of exposed interface (such as a human user interface or a standardized programmatic interface) may be provided, but are not required for conformance to this version of ISO/IEC ISP 12062.

## 6 Basic requirements

Annex A specifies the basic requirements for support of MHS Elements of Service (EoS) for conformance to ISO/IEC ISP 12062. Basic requirements specify the level of support required by all IPM MHS implementations, as appropriate to each type of MHS functional object - i.e. MTA, MS or UA (as MTS-user or MS-user, as relevant).

An implementation conforming to the basic requirements of ISO/IEC ISP 12062 shall conform to the basic requirements of ISO/IEC ISP 10611, as appropriate to the type of MHS functional object.

### 6.1 Message length

If a UA implementation imposes any constraint on the size of the message content, then such constraint shall be stated in the PICS.

### 6.2 Number of recipients

If a UA implementation imposes any limit on the number of recipients that can be specified in an IPM heading, then such limit shall be stated in the PICS.

## 7 Functional groups

Annex A also specifies any additional requirements for support of MHS EoS if support of an optional functional group (FG) is claimed, as appropriate to each type of MHS functional object. The following subclauses summarize the functionality supported by each of the optional FGs and identify any particular requirements or implementation considerations which are outside the scope of formal conformance to ISO/IEC ISP 12062. A summary of the functional groups, identifying which may be supported (Y) and which are not applicable (N) for each type of MHS functional object (i.e. MTA, MS or UA - whether as MTS-user or as MS-user is not distinguished), is given in table 2.

The conformance requirements for support of the various functional groups, covering support of additional protocol elements and/or procedures, are specified in parts 2, 3, 4 and 5 of this ISP, according to the protocol(s) to which each functional group relates.