INTERNATIONAL STANDARDIZED PROFILE

ISO/IEC ISP 12062-5

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

Part 5:
AMH24 — IPM Requirements for Enhanced MS Access (P7)

Technologies de l'information — Profils normalisés internationaux AMH2n — Systèmes de messagerie — Messagerie entre personnes —

Partie 5: AMH24 — Prescriptions IPM pour accès accru à MS (P7)

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 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 12062-5 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, B and C form an integral part of this part of ISO/IEC ISP 12062.

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 5 :
AMH24 - IPM Requirements for Enhanced MS Access (P7)

1   Scope

1.1   General

This part of ISO/IEC ISP 12062 covers access to a message store (MS) in an Interpersonal Messaging (IPM) environment using the P7 MS Access Protocol (see also figure 1). 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.

The type of MS access specified in this part of ISO/IEC ISP 12062 allows an IPM user agent (UA) to interact with an MS in a full and flexible manner without having to retrieve complete messages. Minimal attribute support for MS access in an IPM environment can be specified by claiming conformance to profile AMH13 with an additional claim of support of IPM MS attributes (see subclause A.3.1 of ISO/IEC ISP 10611-5). Annex A of this part of ISO/IEC ISP 12062 may be used in such a case.

1.2   Position within the taxonomy

This part of ISO/IEC ISP 12062 is the fifth part 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 specifies the following profile:

   AMH24 - IPM Requirements for Enhanced MS Access (P7)

The AMH24 profile may be combined with any T-Profiles (see ISO/IEC TR 10000) specifying the OSI connection-mode Transport service.

1.3   Scenario

The model used is one of access to a IPM message store (MS) by an IPM MS-user - specifically, the intercommunication between an IPM MS and an IPM MS-user (i.e. an IPM user agent) using the P7 protocol, as shown in figure 1.

The AMH24 profile covers all aspects of the MS Abstract Service, as defined in ISO/IEC 10021-5, when realized using the P7 protocol in an IPM environment.
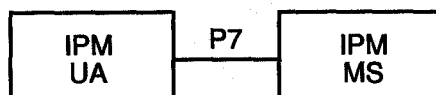
Figure 1 - AMH24 scenario

The OSI upper layer services and protocols to support the Message Handling Systems functions covered by the AMH24 profile are specified in subclause 1.3 of ISO/IEC ISP 10611-5.

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 C.

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 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 10021-5: 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 10021-6: 1990, *Information technology - Text Communication - Message-Oriented Text Interchange Systems (MOTIS) - Part 6: Protocol Specifications. [see also CCITT Recommendation X.419(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 10611-5: 1994, *Information technology - International Standardized Profiles AMH1n - Message Handling Systems - Common Messaging - Part 5: AMH13 - MS Access (P7).*

ISO/IEC ISP 12062-1: 1995, *Information technology - International Standardized Profiles AMH2n - Message Handling Systems - Interpersonal Messaging - Part 1: IPM MHS Service Support.*

ISO/IEC ISP 12062-2: 1995, *Information technology - International Standardized Profiles AMH2n - Message Handling Systems - Interpersonal Messaging - Part 2: IPM Content.*

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

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

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

CCITT Recommendation X.419(1992), *Message handling systems: Protocol specifications.*

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 operations, arguments, results, attributes and other protocol features for this part of ISO/IEC ISP 12062, the following terminology is defined.

The following classifications are used in this part of ISO/IEC ISP 12062 to specify <u>static</u> conformance requirements - i.e. <u>capability</u>.

In the case of arguments and results (protocol elements), the classification is relative to that of the containing element, if any. Where the constituent elements of a non-primitive element are not individually specified, then each shall be considered to have the classification of that element. Where the range of values to be supported for an element is not specified, then all values defined in the MHS base standards shall be supported.

mandatory support (m) : the element or feature shall be fully supported. An implementation shall be able to generate the element, and/or receive the element and perform all associated procedures (i.e. implying the ability to handle both the syntax and the semantics of the element) as relevant, as specified in the MHS base standards. Where support for origination (generation) and reception are not distinguished, then both capabilities shall be assumed. Mandatory support of an MS attribute requires that it is supported in the context of all applicable supported operation arguments and results and also for use within a selector to the level of support claimed for the filter item. The way in which attribute values are stored by an MS implementation, or used by a UA implementation, is otherwise a local matter.

optional support (o) : an implementation is not required to support the element or feature. If support is claimed, the element shall be treated as if it were specified as mandatory support. If support is not claimed, and the element is an argument, then an implementation shall generate an appropriate error indication if the element is received. If support is not claimed, and the element is a result, then an implementation may ignore the element if it is received.

4   Abbreviations

AMH   Application Message Handling
CV   Conversion
DIR   Use of Directory
FG   Functional group
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
RED   Redirection
RoC   Return of Content
SEC   Security
UA   User agent

Support level for protocol elements and features (see 3.2):

m   mandatory support
o   optional support

5   Conformance

This part of ISO/IEC ISP 12062 states requirements upon implementations to achieve interworking. A claim of conformance to this part of ISO/IEC ISP 12062 is a claim that all requirements in the relevant base standards are satisfied, and that all requirements in the following clauses and in annexes A and B of this part of ISO/IEC ISP 12062 are satisfied.

5.1   Conformance statement

For each implementation claiming conformance to profile AMH24 as specified in this part of ISO/IEC ISP 12062, a PICS shall be made available stating support or non-support of each option identified in this part of ISO/IEC ISP 12062.

The scope of conformance to profile AMH24 covers both MSs and MS-users (i.e. UAs). A claim of conformance to profile AMH24 shall confirm that the implementation supports profile AMH13 as specified in ISO/IEC ISP 10611-5 and shall state whether the implementation claims conformance as an MS or as an MS-user.

A claim of conformance to profile AMH24 as an MS-user shall confirm that the implementation supports profile AMH21 as specified in ISO/IEC ISP 12062-2.

5.2   MHS conformance

This part of ISO/IEC ISP 12062 specifies implementation options or selections such that conformant implementations will satisfy the conformance requirements of ISO/IEC 10021 and the CCITT X.400 Recommendations.

Implementations conforming to profile AMH24 as specified in this part of ISO/IEC ISP 12062 shall conform to the basic requirements of profile AMH13, as specified in ISO/IEC ISP 10611-5.

Implementations conforming to profile AMH24 as specified in this part of ISO/IEC ISP 12062 shall additionally implement all the mandatory support (m) features identified as basic requirements in annexes A and B except those features that are components of an unimplemented optional feature. It shall be stated which optional support (o) features are implemented.

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For implementations conforming to profile AMH24 as specified in this part of ISO/IEC ISP 12062, it shall be stated whether or not they support any of the optional functional groups as specified in ISO/IEC ISP 12062-1 which are applicable to the scope of this profile and to the role (i.e. MS or MS-user) for which conformance is claimed. For each functional group for which support is claimed, an implementation shall additionally implement all the mandatory support (m) features identified for that functional group in annex B except those features that are components of an unimplemented optional feature. It shall be stated which optional support (o) features are implemented.

Implementations shall support the procedures associated with supported protocol elements as specified in the base standards and as further specified in ISO/IEC ISP 12062-1. The MHS Elements of Service corresponding to such procedures are indicated in annex A of ISO/IEC ISP 12062-1.

5.3   Underlying layers conformance

Implementations conforming to profile AMH24 as specified in this part of ISO/IEC ISP 12062 shall also meet the requirements for support of underlying layers as specified in subclause 5.3 of ISO/IEC ISP 10611-5.

Annex A[1]

(normative)

ISPICS Proforma

for ISO/IEC ISP 12062-5 (AMH24)

This annex modifies the P7 ISPICS proforma as contained in annex A of ISO/IEC ISP 10611-5 for the purposes of conformance to the AMH24 profile.

NOTE - The tables and other material in this annex replace the corresponding clauses of annex A of ISO/IEC ISP 10611-5 or should otherwise be inserted as appropriate.

In the event of a discrepancy becoming apparent in the body of this part of ISO/IEC ISP 12062 and the tables in this annex, this annex is to take precedence.

Clause A.1 specifies the basic requirements for conformance to profile AMH24. Clause A.2 specifies additional requirements to those specified in A.1 for each of the optional functional groups if conformance to such a functional group is claimed. Clause A.3 allows additional information to be provided for certain aspects of an implementation where no specific requirements are included in ISO/IEC ISP 12062 or in ISO/IEC ISP 10611. All three clauses shall be completed as appropriate.

In each table, the "Base" column reflects the level of support required for conformance to the base standard and the "Profile" column specifies the level of support required by this ISP (using the classification and notation defined in 3.2).

The "Ref" column is provided for cross-referencing purposes. The notation employed for references also indicates composite elements which contain sub-elements (a sub-element reference is prefixed by the reference of the composite element).

The "Support" column is provided for completion by the supplier of the implementation as follows:

Y   the element or feature is fully supported (i.e. satisfying the requirements of the m profile support classification)

N   the element or feature is not supported, further qualified to indicate the action taken on receipt of such an element as follows:

            ND - the element is discarded/ignored
            NR - the PDU is rejected (with an appropriate error indication where applicable)

- or blank   the element or feature is not applicable (i.e. a major feature or composite protocol element which includes this element or feature is not supported)

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[1]**Copyright release for ISPICS proformas**
Users of this International Standardized Profile may freely reproduce the ISPICS proforma in this annex so that it can be used for its intended purpose and may further publish the completed ISPICS.

A.0   Identification of the implementation

A.0.1 Identification of PICS

Ref	Question	Response
1	Date of statement (DD/MM/YY)	
2	PICS serial number	
3	System conformance statement cross reference	

A.0.2 Identification of IUT

Ref	Question	Response
1	Implementation name	
2	Implementation version	
3	Hardware name	
4	Hardware version	
5	Operating system name	
6	Operating system version	
7	Special configuration	
8	Other information	

A.0.3 Identification of supplier

Ref	Question	Response
1	Organization name	
2	Contact name(s)	
3	Address	
4	Telephone number	
5	Telex number	
6	Fax number	
7	E-mail address	
8	Other information	

A.0.4 Identification of protocol

Ref	Question	Response
1	Title, reference number and date of publication of the protocol standard	
2	Protocol version(s)	not applicable
3	Addenda/amendments/corrigenda implemented	
4	Defect reports implemented	not applicable

A.0.5 Type of implementation

Ref	Implementation Type	Response
1	MS-user (UA)	
2	MS (co-located with MTA)	
3	MS (P3 interface to MTA)	

NOTE - A separate PICS shall be completed for each implementation type for which conformance is claimed.

A.0.6 Global statement of conformance

Ref	Question	Response
1	Are all mandatory base standards requirements implemented?	

A.0.7 Statement of profile conformance

Ref	Question	Response	Comments
1	Are all mandatory requirements of profile AMH13 implemented?		
2	Are all mandatory requirements of profile AMH24 implemented?		
3	Are all mandatory requirements of any of the following optional functional groups implemented?		
3.1	IPM Conversion (CV)		not applicable in the case of an MS
3.2	IPM Physical Delivery (PD)		not applicable in the case of an MS
3.3	IPM Redirection (RED)		not applicable in the case of an MS
3.4	IPM Latest Delivery (LD)		not applicable in the case of an MS

Ref	Question	Response	Comments
3.5	IPM Return of Content (RoC)		
3.6	IPM Security (SEC)		class(es):
3.7	IPM Use of Directory (DIR)		not applicable in the case of an MS

A.1.6 AutoForwardRegistration Parameter

The following elements are additional to those specified in annex A.1.6 of ISO/IEC ISP 10611-5.

Ref	Element	UA		MS		Support	Notes/References
		Base	Profile	Base	Profile		
4.1	auto-forwarding-comment	o	o	o	m		
4.2	cover-note	o	o	o	m		
4.3	this-ipm-prefix	o	o	o	m		

A.1.12   IPM-specific attributes

Ref	Attribute	UA		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	acknowledgment-mode	o	o	o	m		
2	authorizing-users	o	o	o	m		
3	auto-forward-comment	o	o	o	m		
4	auto-forwarded	o	o	o	m		
5	bilaterally-defined-body-parts	o	o	o	o		
6	blind-copy-recipients	o	o	o	m		
7	body	m	m	m	m		
8	conversion-eits	o	o	o	m		
9	copy-recipients	o	o	o	m		
10	discard-reason	o	o	o	m		
11	encrypted-body-parts	o	I	o	i		
12	encrypted-data	o	I	o	I		
13	encrypted-parameters	o	I	o	i		
14	expiry-time	o	o	o	m		
15	extended-body-part-types	o	o	o	m		
16	(extended-body-parts)						see A.1.12.1
17	g3-facsimile-body-parts	o	o	o	o		
18	g3-facsimile-data	o	o	o	o		

Ref	Attribute	UA		MS		Support	Notes/References
		Base	Profile	Base	Profile		
19	g3-facsimile-parameters	o	o	o	o		
20	g4-class1-body-parts	o	o	o	o		
21	heading	m	m	m	m		
22	ia5-text-body-parts	o	o	o	m		
23	ia5-text-data	o	o	o	o		
24	ia5-text-parameters	o	o	o	o		
25	importance	o	o	o	m		
26	incomplete-copy	o	o	o	o		
27	ipm-entry-type	m	m	m	m		
28	ipm-preferred-recipient	o	o	o	m		
29	ipm-synopsis	o	o	o	m		
30	ipn-originator	o	o	o	m		
31	languages	o	o	o	m		
32	message-body-parts	o	o	o	m		
33	message-data	o	o	o	o		
34	message-parameters	o	o	o	o		
35	mixed-mode-body-parts	o	o	o	o		
36	nationally-defined-body-parts	o	o	o	o		
37	non-receipt-reason	o	o	o	m		
38	nrn-requestors	o	o	o	m		
39	obsoleted-ipms	o	o	o	m		
40	originator	o	o	o	m		
41	primary-recipients	o	o	o	m		
42	receipt-time	o	o	o	m		
43	related-ipms	o	o	o	m		
44	replied-to-ipm	o	o	o	m		

Ref	Attribute	UA		MS		Support	Notes/References
		Base	Profile	Base	Profile		
45	reply-recipients	o	o	o	m		
46	reply-requestors	o	o	o	m		
47	reply-time	o	o	o	m		
48	returned-ipm	o	o	o	o		
49	rn-requestors	o	o	o	m		
50	sensitivity	o	o	o	m		
51	subject	o	o	o	m		
52	subject-ipm	m	m	m			
53	suppl-receipt-info	o	o	o	o		
54	teletex-body-parts	o	o	o	o		
55	teletex-data	o	o	o	o		
56	teletex-parameters	o	o	o	o		
57	this-ipm	m	m	m	m		
58	videotex-body-parts	o	o	o	o		
59	videotex-data	o	o	o	o		
60	videotex-parameters	o	o	o	o		
61	voice-body-parts	o	i	o	i		
62	voice-data	o	i	o	i		
63	voice-parameters	o	i	o	i		

A.1.12.1 Extended body part attribute support

Ref	Extended Body Part Attribute	UA		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ia5-text-body-parts	o	o	o	m		
2	message-body-parts	o	o	o	m		
3	general-text-body-parts	o	o	o	m		
4	other (specify)	o	o	o	o		

Annex B

(normative)

ISPICS Requirements List

for ISO/IEC ISP 12062-5 (AMH24)

In the event of a discrepancy becoming apparent in the body of this part of ISO/IEC ISP 12062 and the tables in this annex, this annex is to take precedence.

This annex specifies the support constraints and characteristics of ISO/IEC ISP 12062-5 on what shall or may appear in the implementation columns of an ISPICS. Such requirements are additional to those specified in annex A of ISO/IEC ISP 10611-5 as modified by annex A of this part of ISO/IEC ISP 12062 (references are to the corresponding table entries in those annexes).

Clause B.1 specifies the basic requirements for conformance to profile AMH24. Clause B.2 specifies additional requirements to those specified in B.1 for each of the optional functional groups if conformance to such a functional group is claimed.

In each table, the "Profile" column specifies the level of support required by this ISP (using the classification and notation defined in 3.2). The supplier of an implementation for which conformance to profile AMH24 is claimed should complete the Support column of the tables in annex A of ISO/IEC ISP 10611-5 as modified by annex A of this part of ISO/IEC ISP 12062 in accordance with the requirements contained therein together with any additional requirements in this annex for the type of implementation (i.e. MS or MS-user) in question.

The "Ref" column is provided for cross-referencing purposes. The notation employed for references also indicates composite elements which contain sub-elements (a sub-element reference is prefixed by the reference of the composite element).

B.1 Basic requirements

B.1.1 Supported application contexts

No additional requirements.

B.1.2 Supported operations

B.1.2.1 Message Retrieval Service Element (MRSE)

Ref	Operation	Profile	
		UA	MS
A.1.2.3/1	Summarize	m	
A.1.2.3/2	List	m	

B.1.3 Operation arguments/results

No additional requirements.

B.1.4 MessageSubmissionEnvelope

No additional requirements.

B.1.5 ProbeSubmissionEnvelope

No additional requirements.

B.1.6 AutoForwardRegistrationParameter

Ref	Element	Profile	
		UA	MS
A.1.6/4	other-parameters		c1

c1 - if the MS supports autoforwarding then m else o

B.1.7 AutoAlertRegistrationParameter

No additional requirements.

B.1.8 Common data types

No additional requirements.

B.1.9 Extension data types

No additional requirements.