

INTERNATIONAL STANDARDIZED PROFILE

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ISP
12062-6**

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

Part 6: **AMH26 — IPM Requirements for Enhanced MS 94 Access (P7)**

*Technologies de l'information — Profils normalisés internationaux
AMH2n — Systèmes de messagerie — Messagerie entre personnes —
Partie 6: AMH26 — Exigences IPM pour accès amélioré(P7) à MS 94*



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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.

In addition to developing International Standards, ISO/IEC JTC 1 also develops 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 a set of functions. Draft International Standardized Profiles adopted by the joint technical committee 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC ISP 12062-6 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

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 and AMH25 — IPM Requirements for MTS Access (P3) and MTS 94 Access (P3)*
- *Part 5: AMH24 — IPM Requirements for Enhanced MS Access (P7)*
- *Part 6: AMH26 — IPM Requirements for Enhanced MS 94 Access (P7)*

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 rôles for an ISP is to serve as the basis for the development (by organizations other than ISO and IEC) of internationally recognized tests. 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 originally 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). The first edition of this part of ISO/IEC ISP 12062 was harmonized between these three Workshops and ratified by the plenary assemblies of all three Workshops.

Responsibility for maintenance and further development of MHS ISPs has been transferred to ISO/IEC JTC1/SC33/WG1, who have produced this edition to encompass additions and corrections to ISO/IEC 10021. Because new core requirements have been added for support of Universal Characters in addresses which will take time to be implemented within MHS systems, it is expected that the first edition of this part of ISO/IEC ISP 12062 will remain available for an overlap period.

Information technology — International Standardized Profiles

AMH2n — Message Handling Systems — Interpersonal Messaging —

Part 6:

AMH26 — IPM Requirements for Enhanced MS 94 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 94 Access Protocol (see also figure 1), as defined in ISO/IEC 10021-5:1994 and ISO/IEC 10021-6:1996. 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 94 access in an IPM environment can be specified by claiming conformance to profile AMH15 with an additional claim of support of IPM MS attributes (see subclause A.3.1 of ISO/IEC ISP 10611-6). 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 sixth part of a multipart ISP identified in ISO/IEC TR 10000-2 as "AMH2, Message Handling Systems - Interpersonal Messaging".

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

AMH26 - IPM Requirements for Enhanced MS 94 Access (P7)

The AMH26 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 an 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 AMH26 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.

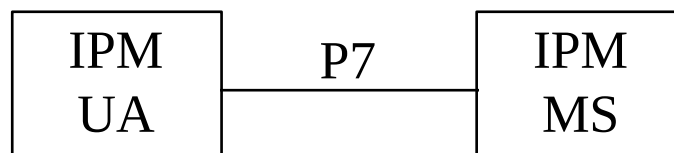


Figure 1 - AMH26 scenario

The OSI upper layer services and protocols to support the Message Handling Systems functions covered by the AMH26 profile are specified in subclause 1.3 of ISO/IEC ISP 10611-6.

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.

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 10000-1:1998, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 1: General principles and documentation framework*

ISO/IEC TR 10000-2:1998, *Information technology - Framework and taxonomy of International Standardized Profiles - Part 2: Principles and Taxonomy for OSI Profiles*

ITU-T Recommendation F.400/X.400 (1999), *Message Handling Systems - System and service overview*

ISO/IEC 10021-1:2003, *Information technology - Message Handling Systems (MHS) - Part 1: System and Service Overview* [see also ITU-T Recommendation F.400/X.400]

ITU-T Recommendation X.402 (1999) | ISO/IEC 10021-2:—¹⁾, *Information technology - Message Handling Systems (MHS): Overall Architecture*

ITU-T Recommendation X.413 (1999) | ISO/IEC 10021-5:1999, *Information technology - Message Handling Systems (MHS): Message Store: Abstract Service Definition*

ITU-T Recommendation X.419 (1999) | ISO/IEC 10021-6: 99, *Information technology - Message Handling Systems (MHS): Protocol Specifications*

ITU-T Recommendation X.420 (1999) | ISO/IEC 10021-7: , *Information technology - Message Handling Systems (MHS): Interpersonal Messaging System*

ISO/IEC ISP 10611-6:2003, *Information technology - International Standardized Profiles AMH1n - Message Handling Systems - Common Messaging - Part 6: AMH15 - MS 94 Access (P7)*

ISO/IEC ISP 12062-1:2003, *Information technology - International Standardized Profiles AMH2n - Message Handling Systems - Interpersonal Messaging - Part 1: IPM MHS Service Support*

ISO/IEC ISP 12062-2:2003, *Information technology - International Standardized Profiles AMH2n - Message Handling Systems - Interpersonal Messaging - Part 2: AMH21 - IPM Content*

1) To be published. (Revision of ISO/IEC 10021-2:1996)

2) To be published. (Revision of ISO/IEC 10021-7:1997)

3 Terms and definitions

For the purposes of this document, the following terms and 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 static conformance requirements - i.e. capability.

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 for the MS 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. Mandatory support of an MS attribute by the MS-user requires that it is supported in the context of at least one supported operation argument and result or supported in 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 an MS-user 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.

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

out of scope (I) : the element 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.

not applicable (-) : the element is not applicable in the particular context in which the classification is used.

4 Abbreviations

AA	Auto-Annotation
AACK	Auto-Acknowledgement
AADV	Auto-Advise
AC	Auto-Correlation
AD	Auto-Deletion
ADIS	Auto-Discard
AF	Auto-Forwarding
AG	Auto-Grouping
ALERT	Alert
AMH	Application Message Handling
BC	Business Class
CV	Conversion
DC	Delivery Constraints
DIR	Use of Directory
DL	Distribution List
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
SMI	Stored Message Incorporation
SPP	Simple Protected Password
STAT	Action Status
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 AMH26 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 AMH26 covers both MSs and MS-users (i.e. UAs). A claim of conformance to profile AMH26 shall confirm that the implementation supports profile AMH15 as specified in ISO/IEC ISP 10611-6 and shall state whether the implementation claims conformance as an MS or as an MS-user.

A claim of conformance to profile AMH26 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 ITU-T X.400 Recommendations.

Implementations conforming to profile AMH26 as specified in this part of ISO/IEC ISP 12062 shall conform to the basic requirements of profile AMH15, as specified in ISO/IEC ISP 10611-6.

Implementations conforming to profile AMH26 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.

For implementations conforming to profile AMH26 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 AMH26 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 10611-6.

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Annex A³

(normative)

ISPICS Proforma for ISO/IEC ISP 12062-6 (AMH26)

This annex modifies the P7 ISPICS proforma as contained in annex A of ISO/IEC ISP 10611-6 for the purposes of conformance to the AMH26 profile.

NOTE - The tables and other material in this annex replace the corresponding clauses of annex A of ISO/IEC ISP 10611-6 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 AMH26. 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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A.0 Identification of the implementation

A.0.1 Identification of PICS

Ref	Question	Response
1	Date of statement (DD/MM/YYYY)	
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 AMH15 implemented?		
2	Are all mandatory requirements of profile AMH26 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 Distribution List (DL)		only class DL+ER is applicable
3.3	IPM Physical Delivery (PD)		not applicable in the case of an MS
3.4	IPM Redirection (RED)		not applicable in the case of an MS

Ref	Question	Response	Comments
3.5	IPM Latest Delivery (LD)		not applicable in the case of an MS
3.6	IPM Return of Content (RoC)		
3.7	IPM Security (SEC)		class(es):
3.8	IPM Use of Directory (DIR)		class(es):
3.9	IPM Simple Protected Password (SPP)		
3.10	IPM Redirection Instructions (RED2)		
3.11	IPM Delivery Constraints (DC)		
3.12	IPM Restricted Delivery (RD)		
3.13	IPM Business Class (BC)		
3.14	IPM Storage and Grouping (SG)		
3.15	IPM Alert (ALERT)		
3.16	IPM Auto-Annotation (AA)		
3.17	IPM Auto-Grouping (AG)		
3.18	IPM Trash (TRASH)		
3.19	IPM Auto-Deletion (AD)		
3.20	IPM Auto-Correlation (AC)		class(es):
3.21	IPM ORAddress Matching (ORAM)		
3.22	IPM ORName Matching (ORNM)		
3.23	IPM Storage of Draft Messages (SDM)		
3.24	IPM Logging (LOG)		
3.25	IPM Auto-Discard (ADIS)		
3.26	IPM Auto-Forward (AF)		
3.27	IPM Auto-Acknowledgement (AACK)		
3.28	IPM Auto-Advise (AADV)		
3.29	IPM Action Status (STAT)		
3.30	IPM Stored Message Incorporation (SMI)		

A.1 Basic requirements

A.1.2.3 Message Retrieval Service Element 94 (MRSE-94)

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	Summarize	o	m	o	m		
2	List	o	m	o	m		

A.1.3.1 MSBind

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1.7.1	suspend-auto-acknowledgement	c ²	c ²	m ¹	m ¹		
2.8.4	assembly-capability	o	o	o	o		
1	support does not require any action by the MS unless it supports the IPM auto-acknowledgement auto-action.						
2	mandatory if the MS-user is able to generate RN's, otherwise optional.						

A.1.3.2 MSMessageSubmission

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1.3.4.3	ipm-assembly-instructions	o	o	o	o		see A.1.9/10
1.3.4.4	originator-body-part-encryption-token	o	o	o	o		
1.3.4.5	originator-forwarded-content-token	o	o	o	o		

A.1.3.9 Delete

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1.3.1	prevent-nrn-generation	o	o	o	o		

A.1.4 MessageSubmissionEnvelope

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
9.4.15	IPMPerRecipientEnvelopeExtensions	o	m	o	m		
9.4.15.1	blind-copy-recipients	o	o	o	m		
9.4.15.2	body-part-encryption-token	o	o	o	o		
9.4.15.3	forwarded-content-token	o	o	o	o		

A.1.8 Common data types

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
17.4.1	ipm-assembly-instructions	o	o	o	o		see A.1.9/10

A.1.9 Extension data types

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
10	IPMAssemblyInstructions						
10.1	assembly-instructions	m	m	m	m		
10.1.1	stored-entry ¹	o	m	m	m		
10.1.2	stored-content	o	o	m	m		
10.1.3	submitted-body-part	o	m	m	m		
10.1.4	stored-body-part	o	o	m	m		
10.1.4.1	message-entry	m	m	m	m		
10.1.4.2	body-part-number	m	m	m	m		
1	this requires the ability to create Report and IPN body parts.						

A.1.12.1 Support of auto-actions

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
5	IPM auto-forward	o	o	o	o		see A.1.12.4
6	IPM auto-acknowledgement	o	o	o	o		see A.1.12.5
7	IPM auto-correlate	o	o	o	o		
8	IPM auto-discard	o	o	o	o		see A.1.12.6
9	IPM auto-advise	o	o	o	o		see A.1.12.7

A.1.12.4 IPMAutoForwardRegistrationParameter

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ipm-auto-forward-registration-parameter	m	m	m	m		
1.1	filter	o	o	m	m		see A.1.8/3
1.2	forwarding-envelope	m	m	m	m		see A.1.12.4.1
1.3	forwarding-heading	m	m	m	m		see A.1.12.4.2
1.4	forwarding-cover-note	o	m	m	m		see A.1.3 of AMH21
1.5	submission-options	o	o	o	o		see A.1.3.2/1.3
1.6	nrn-comment	o	m	m	m		
1.7	ipm-auto-forward-options	o	m	m	m		
1.7.1	forward-all-object-types	o	o	o	o		
1.7.2	include-returned-content	o	c ¹	o	c ¹		
1.7.3	include-returned-ipm	o	c ¹	o	c ¹		
1.7.4	forwarded-content-prohibited	o	o	o	o		
1.7.5	preserve-retrieval-status	o	o	o	o		
1.7.6	delete-delivered-object	o	m	o	m		
1	if forward-all-object-types is supported then m else —						

A.1.12.4.1 MessageSubmissionEnvelope

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	originator-name	m	m	m	m		see A.1.10.2
2	original-encoded-information-types	c ⁴	m	c ⁴	m		see A.1.8/10
3	content-type	m	m	m	m		see A.1.8/11
4	content-identifier	o	o	m	m		
5	priority	m	m	m	m		
6	per-message-indicators	m	m	m	m		see A.1.8/12
7	deferred-delivery-time	o	o	m	m		
8	extensions	m	m	m	m		see A.1.9/1
8.1	recipient-reassignment-prohibited	o	m ²	o	m		
8.2	dl-expansion-prohibited	o	m ²	o	m		
8.3	conversion-with-loss-prohibited	o	o	o	m		
8.4	latest-delivery-time	o	o	o	c ¹		
8.5	originator-return-address	o	o	o	c ¹		see A.1.10.1
8.6	originator-certificate	o	o	o	c ¹		see A.1.8/22
8.7	content-confidentiality-algorithm-identifier	o	o	o	c ¹		
8.8	message-origin-authentication-check	o	o	o	c ¹		see A.1.9/2
8.9	message-security-label	o	o	o	c ¹		see A.1.9/3
8.10	proof-of-submission-request	o	i	o	i		
8.11	content-correlator	o	o	m	m		
8.12	certificate-selectors	o	o	o	c ¹		see A.1.9/7
8.13	multiple-originator-certificates	o	o	o	c ¹		see A.1.9/9
8.14	dl-exempted-recipients	o	o	o	c ¹		see A.1.10.1
8.15	forwarding-request ³	—	—	—	—		
8.16	PrivateExtensions	o	o	o	o		see A.3.3

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
9	per-recipient-fields	m	m	m	m		
9.1	recipient-name	m	m	m	m		see A.1.10.1
9.2	originator-report-request	m	m	m	m		
9.3	explicit-conversion	o	o	o	m		
9.4	extensions	m	m	m	m		see A.1.9/1
9.4.1	originator-requested-alternate-recipient	o	o	o	c ¹		see A.1.10.1
9.4.2	requested-delivery-method	o	o	o	c ¹		
9.4.3	physical-forwarding-prohibited	o	o	o	c ¹		
9.4.4	physical-forwarding-address-request	o	o	o	c ¹		
9.4.5	physical-delivery-modes	o	o	o	c ¹		
9.4.6	registered-mail-type	o	o	o	c ¹		
9.4.7	recipient-number-for-advice	o	o	o	c ¹		
9.4.8	physical-rendition-attributes	o	o	o	c ¹		
9.4.9	physical-delivery-report-request	o	o	o	c ¹		
9.4.10	message-token	o	o	o	c ¹		see A.1.9/4
9.4.11	content-integrity-check	o	o	o	c ¹		
9.4.12	proof-of-delivery-request	o	o	o	c ¹		
9.4.13	certificate-selectors-override	o	o	o	c ¹		see A.1.9/8
9.4.14	recipient-certificate	o	o	o	c ¹		see A.1.8/22
9.4.15	IPMPPerRecipientEnvelope Extensions	o	o	o	m		
9.4.15.1	blind-copy-recipients	o	o	o	m		
9.4.15.2	body-part-encryption-token	o	o	o	o		
9.4.15.3	forwarded-content-token	o	o	o	o		
9.4.16	PrivateExtensions	o	o	o	o		see A.3.3

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	if the MS has a P3 interface to the MTA then m else if supported by the MTA then m else o						
2	only the capability to generate the "prohibited" value is required						
3	the presence of this element is prohibited when using a 94 application-context.						
4	if forwarding-cover-note is supported in IPM Registration AutoForward Parameter then m else —						

A.1.12.4.2 Heading

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	this-IPM	m	m	m	m		see A.1.5/3 of AMH21
2	originator	m	m	m	m		see A.1.5/2 of AMH21
3	authorizing-users	o	o	m	m		see A.1.5/2 of AMH21
4	primary-recipients	m	m	m	m		see A.1.5/1 of AMH21
5	copy-recipients	m	m	m	m		see A.1.5/1 of AMH21
6	blind-copy-recipients	o	o	m	m		see A.1.5/1 of AMH21
7	replied-to-IPM	m	m	m	m		
8	obsoleted-IPMs	o	o	m	m		
9	related-IPMs	o	o	m	m		
10	subject	m	m	m	m		
11	expiry-time	o	o	m	m		
12	reply-time	o	o	m	m		
13	reply-recipients	o	o	m	m		see A.1.5/2 of AMH21
14	importance	o	o	m	m		
15	sensitivity	o	o	m	m		
16	auto-forwarded	o	o	m	m		

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
17	extensions	m	m	m	m		
17.1	incomplete-copy	o	o	o	m		
17.2	languages	o	o	m	m		
17.3	auto-submitted	o	i	o	i		
17.4	body-part-signatures	o	o	o	o		see A.1.2.1/1 of AMH21
17.5	ipm-security-label	o	o	o	o		see A.1.2.1/2 of AMH21
17.6	authorization-time	o	o	o	o		
17.7	circulation-list-recipients	o	o	m	m		see A.1.2.1/3 of AMH21
17.8	distribution-codes	o	o	o	o		see A.1.2.1/4 of AMH21
17.9	extended-subject	m	m	m	m		
17.10	information-category	o	o	o	o		see A.1.2.1/5 of AMH21
17.11	manual-handling-instructions	o	o	o	o		
17.12	originators-reference	o	o	o	o		
17.13	precedence-policy-identifier	o	o	o	o		

A.1.12.5 IPMAutoAcknowledgmentRegistrationParameter

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	auto-acknowledge-suppl-receipt-info	o	m	o	m		
2	submission-options	o	o	o	o		see A.1.3.2/1.3

A.1.12.6 IPMAutoDiscardRegistrationParameter

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	filter	o	o	o	m		see A.1.8/3
2	submission-options	o	o	o	o		see A.1.3.2/1.3
3	auto-discard-expired-ipms	m	m	m	m		
4	auto-discard-obsolete-ipms	m	m	m	m		
5	restrict-obsolete-to-originator	m	m	m	m		

A.1.12.7 IPMAutoAdviseRegistrationParameter

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	enabled	o	m	m	m		
2	filter	o	o	o	m		see A.1.8/3
3	advice-notifications	m	m	m	m		
3.1	absence-advice	o	m	m	m		
3.1.1	advice	o	m	m	m		see A.1.3 of AMH21
3.1.2	next-available	o	m	m	m		
3.2	change-of-address-advice	o	m	m	m		
3.2.1	new-address	o	m	m	m		see A.1.5/2 of AMH21
3.2.2	effective-from	o	m	m	m		
4	suppress-subsequent-notifications	o	m	m	m		
5	use-ipm-if-an-not-supported	o	o	o	o		
6	submission-options	o	o	o	o		see A.1.3.2/1.3

A.1.14 General matching-rules

Ref	Matching Rule	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
14	mSStringMatch	o	o	o	m		
18	mSSubstringsMatch	o	o	o	m		

A.1.15 IPM-specific attributes**A.1.15.1 Support of IPM-specific attributes in the Stored-message subordinate entry-classes**

This table specifies the requirements for the support of IPM-specific attribute-types in the Delivery, Submission and Draft entry-classes, as relevant for the attribute-type.

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ac-correlated-delivered-ipns	o	o	o	o		
2	ac-correlated-delivered-replies	o	o	o	o		
3	ac-delivered-ipn-summary	o	o	o	o		
4	ac-delivered-replies-summary	o	o	o	o		
5	ac-forwarded-ipms	o	o	o	o		
6	ac-forwarding-ipms	o	o	o	o		
7	ac-ipm-recipients	o	o	o	o		
8	ac-obsolete-ipms	o	o	o	o		
9	ac-obsolete-ipms	o	o	o	o		
10	ac-related-ipms	o	o	o	o		
11	ac-relating-ipms	o	o	o	o		
12	ac-replied-to-ipm	o	o	o	o		
13	ac-replying-ipms	o	o	o	o		
14	ac-subject-ipm	o	o	o	o		
15	ac-submitted-ipn-status	o	o	o	o		
16	ac-submitted-ipns	o	o	o	o		
17	ac-submitted-reply-status	o	o	o	o		

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
18	acknowledgement-mode	o	o	o	m		
19	authorization-time	o	o	o	o		
20	authorizing-users	o	o	o	m		
21	auto-forward-comment	o	o	o	m		
22	auto-forwarded	o	o	o	m		
23	bilaterally-defined-body-parts	o	o	o	o		
24	blind-copy-recipients	o	o	o	m		
25	body	o	o	m	m		
26	body-part-encryption-token	o	o	o	o		
27	body-part-security-label	o	o	o	o		
28	body-part-signature-verification-status	o	o	o	o		
29	body-part-signatures	o	o	o	o		
30	body-parts-summary	o	o	o	m		
31	circulation-list-recipients	o	o	o	m		
32	conversion-EITs	o	o	o	m		
33	copy-recipients	o	o	o	m		
34	discard-reason	o	o	o	m		
35	distribution-codes	o	o	o	o		
36	encrypted-body-parts	o	o	o	o		
37	encrypted-data	o	o	o	o		
38	encrypted-parameters	o	o	o	o		
39	expiry-time	o	o	o	m		
40	extended-body-part-types	o	o	o	m		
41	(extended-body-parts)						see A.1.15.3
42	extended-subject	o	o	o	m		
43	forwarded-content-token	o	o	o	o		

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
44	forwarding-token	o	o	o	o		
45	g3-facsimile-body-parts	o	o	o	o		
46	g3-facsimile-data	o	o	o	o		
47	g3-facsimile-parameters	o	o	o	o		
48	g4-class1-body-parts	o	o	o	o		
49	heading	o	o	m	m		
50	ia5-text-body-parts	o	o	o	m		
51	ia5-text-data	o	o	o	o		
52	ia5-text-parameters	o	o	o	o		
53	importance	o	o	o	m		
54	incomplete-copy	o	o	o	o		
55	information-category	o	o	o	o		
56	ipm-auto-discarded	o	o	o	o		
57	ipm-entry-type	m	m	m	m		
58	ipm-intended-recipient	o	o	o	m		
59	ipm-security-label	o	o	o	o		
60	ipm-synopsis	o	o	o	m		
61	ipm-originator	o	o	o	m		
62	languages	o	o	o	m		
63	manual-handling-instructions	o	o	o	o		
64	message-body-parts	o	o	o	m		
65	message-data	o	o	o	o		
66	message-parameters	o	o	o	o		
67	mixed-mode-body-parts	o	o	o	o		
68	nationally-defined-body-parts	o	o	o	o		
69	non-receipt-reason	o	o	o	m		

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
70	notification-extensions	o	o	o	o		
71	nrn-extensions	o	o	o	o		
72	nrn-requestors ¹	o	o	o	o		
73	obsoleted-IPMs	o	o	o	m		
74	originator	o	o	o	m		
75	originators-reference	o	o	o	o		
76	other-notification-type-fields	o	o	o	o		
77	precedence	o	o	o	o		
78	precedence-policy-identifier	o	o	o	o		
79	primary-recipients	o	o	o	m		
80	receipt-time	o	o	o	m		
81	recipient-category	o	o	o	m		
82	related-ipms	o	o	o	m		
83	replied-to-ipm	o	o	o	m		
84	reply-recipients	o	o	o	m		
85	reply-requestors ¹	o	o	o	o		
86	reply-time	o	o	o	m		
87	returned-ipm	o	o	o	o		
88	revised-reply-time	o	o	o	o		
89	rn-extensions	o	o	o	o		
90	rn-requestors ¹	o	o	o	o		
91	sensitivity	o	o	o	m		
92	subject	o	o	o	m		
93	subject-ipm	o	o	m	m		
94	suppl-receipt-info	o	o	o	m		
95	teletex-body-parts	o	o	o	o		

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
96	teletex-data	o	o	o	o		
97	teletex-parameters	o	o	o	o		
98	this-ipm	o	o	m	m		
99	videotex-body-parts	o	o	o	o		
100	videotex-data	o	o	o	o		
101	videotex-parameters	o	o	o	o		
1	These attributes exist for historical reasons and their use is therefore deprecated. The same functionality should now be achieved by the use of the auto-correlation attributes.						

A.1.15.2 Support of IPM-specific attributes in the Message-log subordinate entry-classes

This table specifies the requirements for the support of IPM-specific attribute-types in the Delivery-log and Submission-log entry-classes, as relevant for the attribute-type.

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ac-correlated-delivered-ipns	o	o	c ¹	c ¹		
2	ac-correlated-delivered-replies	o	o	c ¹	c ¹		
3	ac-delivered-ipn-summary	o	o	c ¹	c ¹		
4	ac-delivered-replies-summary	o	o	c ¹	c ¹		
5	ac-forwarded-ipms	o	o	c ¹	c ¹		
6	ac-forwarding-ipms	o	o	c ¹	c ¹		
7	ac-ipm-recipients	o	o	c ¹	c ¹		
8	ac-obsolete-ipms	o	o	c ¹	c ¹		
9	ac-obsolete-ipms	o	o	c ¹	c ¹		
10	ac-related-ipms	o	o	c ¹	c ¹		
11	ac-relating-ipms	o	o	c ¹	c ¹		
12	ac-replied-to-ipm	o	o	c ¹	c ¹		
13	ac-replying-ipms	o	o	c ¹	c ¹		
14	ac-subject-ipm	o	o	c ¹	c ¹		

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
15	ac-submitted-ipn-status	o	o	c ¹	c ¹		
16	ac-submitted-ipns	o	o	c ¹	c ¹		
17	ac-submitted-reply-status	o	o	c ¹	c ¹		
18	acknowledgement-mode	o	o	c ¹	o		
19	authorization-time	o	o	c ¹	o		
20	authorizing-users	o	o	c ¹	o		
21	auto-forward-comment	o	o	c ¹	o		
22	auto-forwarded	o	o	c ¹	o		
23	blind-copy-recipients	o	o	c ¹	c ²		
24	body-part-encryption-token	o	o	c ¹	o		
25	body-part-security-label	o	o	c ¹	o		
26	body-part-signature-verification-status	o	o	c ¹	o		
27	body-part-signatures	o	o	c ¹	o		
28	body-parts-summary	o	o	c ¹	o		
29	circulation-list-recipients	o	o	c ¹	c ²		
30	conversion-EITs	o	o	c ¹	o		
31	copy-recipients	o	o	c ¹	c ²		
32	discard-reason	o	o	c ¹	o		
33	distribution-codes	o	o	c ¹	o		
34	expiry-time	o	o	c ¹	o		
35	extended-subject	o	o	c ¹	m		
36	forwarded-content-token	o	o	c ¹	o		
37	forwarding-token	o	o	c ¹	o		
38	importance	o	o	c ¹	o		
39	incomplete-copy	o	o	c ¹	c ¹		
40	information-category	o	o	c ¹	o		

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
41	ipm-auto-discarded	o	o	c ¹	c ¹		
42	ipm-entry-type	m	m	m	m		
43	ipm-intended-recipient	o	o	c ¹	m		
44	ipm-security-label	o	o	c ¹	o		
45	ipm-synopsis	o	o	c ¹	o		
46	ipn-originator	o	o	c ¹	m		
47	languages	o	o	c ¹	o		
48	manual-handling-instructions	o	o	c ¹	o		
49	non-receipt-reason	o	o	c ¹	o		
50	notification-extensions	o	o	c ¹	c ¹		
51	nrn-extensions	o	o	c ¹	c ¹		
52	nrn-requestors ³	o	o	c ¹	c ¹		
53	obsoleted-IPMs	o	o	c ¹	o		
54	originator	o	o	c ¹	m		
55	originators-reference	o	o	c ¹	o		
56	other-notification-type-fields	o	o	c ¹	c ¹		
57	precedence	o	o	c ¹	o		
58	precedence-policy-identifier	o	o	c ¹	o		
59	primary-recipients	o	o	c ¹	c ²		
60	receipt-time	o	o	c ¹	m		
81	recipient-category	o	o	c ¹	m		
62	related-ipms	o	o	c ¹	o		
63	replied-to-ipm	o	o	c ¹	o		
64	reply-recipients	o	o	c ¹	o		
65	reply-requestors ³	o	o	c ¹	c ¹		
66	reply-time	o	o	c ¹	o		

Ref	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
67	returned-ipm	o	o	c ¹	c ¹		
68	revised-reply-time	o	o	c ¹	c ¹		
69	rn-extensions	o	o	c ¹	c ¹		
70	rn-requestors ³	o	o	c ¹	c ¹		
71	sensitivity	o	o	c ¹	o		
72	subject	o	o	c ¹	m		
73	subject-ipm	o	o	o	o		
74	suppl-receipt-info	o	o	c ¹	c ¹		
75	this-ipm	o	o	o	m		
1 if supported in the corresponding Stored-message subordinate entry-class then o else – 2 m in the context of the Submission-Log entry-class and o in the context of the Delivery-Log entry-class. 3 These attributes exist for historical reasons and their use is therefore deprecated. The same functionality should now be achieved by the use of the auto-correlation attributes.							

A.1.15.3 Extended body part attribute support in Stored-message subordinate entry-classes

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ia5-text-body-part	o	o	o	m		
2	g3-facsimile-body-part	o	o	o	o		
3	g4-class1-body-part	o	o	o	o		
4	teletex-body-part	o	o	o	o		
5	videotex-body-part	o	o	o	o		
6	encrypted-body-part	o	o	o	o		
7	message-body-part	o	m	o	m		
8	mixed-mode-body-part	o	o	o	o		
9	bilaterally-defined-body-part	o	o	o	o		
10	nationally-defined-body-part	o	o	o	o		
11	general-text-body-part	o	m	o	m		

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
12	file-transfer-body-part	o	m	o	m		
13	voice-body-part	o	o	o	o		
14	oda-body-part	o	o	o	o		see ISO/IEC 8613-5
15	report-body-part	o	m	o	m		
16	notification-body-part	o	m	o	m		
17	forwarded-content-body-part	o	m ¹	o	m ¹		see A.3.7
18	pkcs7-body-part	o	o	o	o		
19	other (specify)	o	o	o	o		
1 Support for IPM content-types is mandatory, support for other content-types is optional.							

A.1.16 IPM specific matching-rules

Ref	Matching Rule	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	circulationMemberCheckmarkMatch	o	o	o	o		
2	circulationMemberElementsMatch	o	o	o	o		
3	circulationMemberMatch	o	o	o	o		
4	circulationMemberSingleElement Match	o	o	o	o		
5	circulationMemberSubstringElements Match	o	o	o	o		
6	distributionCodeMatch	o	o	o	o		
7	generalizedTimeMatch	o	o	o	o		
8	generalizedTimeOrderingMatch	o	o	o	o		
9	informationCategoryMatch	o	o	o	o		
10	iPMIdentifierMatch	o	o	o	o		
11	iPMLocationMatch	o	o	o	o		

Ref	Matching Rule	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
12	oRDescriptorElementsMatch	0	0	0	0		
13	oRDescriptorMatch	0	0	0	0		
14	oRDescriptorSingleElementMatch	0	0	0	0		
15	oRDescriptorSubstringElements Match	0	0	0	0		
16	recipientSpecifierElementsMatch	0	0	0	0		
17	recipientSpecifierMatch	0	0	0	0		
18	recipientSpecifierSingleElementMatch	0	0	0	0		
19	recipientSpecifierSubstringElements Match	0	0	0	0		

A.3.6.3 Support in the Stored-message subordinate entry-classes

The following table allows to detail in which context each supported attribute is used by the MS or MS-user as appropriate.

Ref	Attribute	Comments
1	ac-correlated-delivered-ipns	
2	ac-correlated-delivered-replies	
3	ac-delivered-ipn-summary	
4	ac-delivered-replies-summary	
5	ac-forwarded-ipms	
6	ac-forwarding-ipms	
7	ac-ipm-recipients	
8	ac-obsolete-ipms	
9	ac-obsolete-ipms	
10	ac-related-ipms	
11	ac-relating-ipms	
12	ac-replied-to-ipm	

Ref	Attribute	Comments
13	ac-replying-ipms	
14	ac-subject-ipm	
15	ac-submitted-ipn-status	
16	ac-submitted-ipns	
17	ac-submitted-reply-status	
18	acknowledgement-mode	
19	authorization-time	
20	authorizing-users	
21	auto-forward-comment	
22	auto-forwarded	
23	bilaterally-defined-body-parts	
24	blind-copy-recipients	
25	body	
26	body-part-encryption-token	
27	body-part-security-label	
28	body-part-signature-verification-status	
29	body-part-signatures	
30	body-parts-summary	
31	circulation-list-recipients	
32	conversion-EITs	
33	copy-recipients	
34	discard-reason	
35	distribution-codes	
36	encrypted-body-parts	
37	encrypted-data	
38	encrypted-parameters	
39	expiry-time	

Ref	Attribute	Comments
40	extended-body-part-types	
41	(extended-body-parts)	
42	extended-subject	
43	forwarded-content-token	
44	forwarding-token	
45	g3-facsimile-body-parts	
46	g3-facsimile-data	
47	g3-facsimile-parameters	
48	g4-class1-body-parts	
49	heading	
50	ia5-text-body-parts	
51	ia5-text-data	
52	ia5-text-parameters	
53	importance	
54	incomplete-copy	
55	information-category	
56	ipm-auto-discarded	
57	ipm-entry-type	
58	ipm-intended-recipient	
59	ipm-security-label	
60	ipm-synopsis	
61	ipm-originator	
62	languages	
63	manual-handling-instructions	
64	message-body-parts	
65	message-data	
66	message-parameters	

Ref	Attribute	Comments
67	mixed-mode-body-parts	
68	nationally-defined-body-parts	
69	non-receipt-reason	
70	notification-extensions	
71	nrn-extensions	
72	nrn-requestors	
73	obsoleted-IPMs	
74	originator	
75	originators-reference	
76	other-notification-type-fields	
77	precedence	
78	precedence-policy-identifier	
79	primary-recipients	
80	receipt-time	
81	recipient-category	
82	related-ipms	
83	replied-to-ipm	
84	reply-recipients	
85	reply-requestors	
86	reply-time	
87	returned-ipm	
88	revised-reply-time	
89	rn-extensions	
90	rn-requestors	
91	sensitivity	
92	subject	
93	subject-ipm	

Ref	Attribute	Comments
94	suppl-receipt-info	
95	teletex-body-parts	
96	teletex-data	
97	teletex-parameters	
98	this-ipm	
99	videotex-body-parts	
100	videotex-data	
101	videotex-parameters	

A.3.6.4 Support in the Message-log subordinate entry-classes

The following table allows to detail in which context each supported attribute is used by the MS or MS-user as appropriate.

Ref	Attribute	Comments
1	ac-correlated-delivered-ipns	
2	ac-correlated-delivered-replies	
3	ac-delivered-ipn-summary	
4	ac-delivered-replies-summary	
5	ac-forwarded-ipms	
6	ac-forwarding-ipms	
7	ac-ipm-recipients	
8	ac-obsolete-ipms	
9	ac-obsolete-ipms	
10	ac-related-ipms	
11	ac-relating-ipms	
12	ac-replied-to-ipm	
13	ac-replying-ipms	
14	ac-subject-ipm	
15	ac-submitted-ipn-status	

Ref	Attribute	Comments
16	ac-submitted-ipns	
17	ac-submitted-reply-status	
18	acknowledgement-mode	
19	authorization-time	
20	authorizing-users	
21	auto-forward-comment	
22	auto-forwarded	
23	blind-copy-recipients	
24	body-part-encryption-token	
25	body-part-security-label	
26	body-part-signature-verification-status	
27	body-part-signatures	
28	body-parts-summary	
29	circulation-list-recipients	
30	conversion-EITs	
31	copy-recipients	
32	discard-reason	
33	distribution-codes	
34	expiry-time	
35	extended-subject	
36	forwarded-content-token	
37	forwarding-token	
38	importance	
39	incomplete-copy	
40	information-category	
41	ipm-auto-discarded	
42	ipm-entry-type	

Ref	Attribute	Comments
43	ipm-intended-recipient	
44	ipm-security-label	
45	ipm-synopsis	
46	ipn-originator	
47	languages	
48	manual-handling-instructions	
49	non-receipt-reason	
50	notification-extensions	
51	nrn-extensions	
52	nrn-requestors	
53	obsoleted-IPMs	
54	originator	
55	originators-reference	
56	other-notification-type-fields	
57	precedence	
58	precedence-policy-identifier	
59	primary-recipients	
60	receipt-time	
81	recipient-category	
62	related-ipms	
63	replied-to-ipm	
64	reply-recipients	
65	reply-requestors	
66	reply-time	
67	returned-ipm	
68	revised-reply-time	
69	rn-extensions	

Ref	Attribute	Comments
70	rn-requestors	
71	sensitivity	
72	subject	
73	subject-ipm	
74	suppl-receipt-info	
75	this-ipm	

A.3.7 Support of content-types in the forwarded-content-body-parts attribute

The following table shall be completed to indicate which message content-types are supported for the forwarded-content-body-parts attribute, and hence which instances of the forwarded-content-body-parts attribute family are supported.

Ref	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	InterPersonalMessaging (2)	o	m	o	m		
2	InterPersonal Messaging (22)	o	m	o	m		
3	EDI Messaging	o	o	o	o		
4	Voice Messaging	o	o	o	o		
5	Others (specify)	o	o	o	o		

Annex B

(normative)

ISPICS Requirements List for ISO/IEC ISP 12062-6 (AMH26)

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 12062-6 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 10611-6 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 AMH26. 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 AMH26 is claimed should complete the Support column of the tables in annex A of ISO/IEC ISP 10611-6 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 operations****B.1.1.1 Message Retrieval Service Element 94 (MRSE-94)**

Ref	Element	Profile	
		MS-user	MS
A.1.2.3/1	Summarize	m	
A.1.2.3/2	List	m	

B.1.2 O/R names

Ref	OR-Name Form	Profile	
		MS-user	MS
A.1.10.1/2	numeric O/R address	m	
A.1.10.1/3	terminal O/R address	m	

B.1.3 General attributes**B.1.3.1 Support in the Stored-message subordinate entry-classes**

Ref	Attribute	Profile	
		MS-user	MS
A.1.13.1/9	content-correlator		m
A.1.13.1/10	content-identifier		m
A.1.13.1/12	content-length		m
A.1.13.1/13	content-returned		m
A.1.13.1/15	conversion-with-loss-prohibited		m
A.1.13.1/16	converted-EITs		m
A.1.13.1/20	delivered-EITs		m
A.1.13.1/21	delivery-flags		m
A.1.13.1/23	dl-expansion-history		m
A.1.13.1/24	dl-expansion-prohibited		m

Ref	Attribute	Profile	
		MS-user	MS
A.1.13.1/26	internal-trace-information		m
A.1.13.1/27	latest-delivery-time		m
A.1.13.1/31	message-delivery-time		m
A.1.13.1/33	message-identifier		m
A.1.13.1/38	message-submission-time		m
A.1.13.1/40	ms-originated		m
A.1.13.1/41	ms-submission-error		m
A.1.13.1/43	original-EITs		m
A.1.13.1/44	originally-intended-recipient-name		m
A.1.13.1/48	originator-name		m
A.1.13.1/51	other-recipient-names		m
A.1.13.1/57	priority		m
A.1.13.1/63	recipient-names		m
A.1.13.1/65	redirection-history		m
A.1.13.1/68	reporting-DL-name		m
A.1.13.1/77	this-recipient-name		m
A.1.13.1/78	trace-information		m

B.1.3.2 Support in the Message-log subordinate entry-classes

Ref	Attribute	Profile	
		MS-user	MS
A.1.13.2/8	content-correlator		o
A.1.13.2/9	content-identifier		o
A.1.13.2/11	content-length		o
A.1.13.2/12	content-retained		o
A.1.13.2/14	conversion-with-loss-prohibited		o

Ref	Attribute	Profile	
		MS-user	MS
A.1.13.2/15	converted-EITs		o
A.1.13.2/20	delivered-EITs		o
A.1.13.2/21	delivery-flags		o
A.1.13.2/23	dl-expansion-history		o
A.1.13.2/24	dl-expansion-prohibited		o
A.1.13.2/26	internal-trace-information		o
A.1.13.2/27	latest-delivery-time		o
A.1.13.2/30	message-delivery-time		o
A.1.13.2/32	message-identifier		m
A.1.13.2/36	message-submission-time		m
A.1.13.2/38	ms-originated		o
A.1.13.2/39	ms-submission-error		o
A.1.13.2/41	original-EITs		o
A.1.13.2/42	originally-intended-recipient-name		o
A.1.13.2/46	originator-name		m
A.1.13.2/49	other-recipient-names		o
A.1.13.2/55	priority		o
A.1.13.2/561	recipient-names		m
A.1.13.2/63	redirection-history		o
A.1.13.2/65	reporting-DL-name		o
A.1.13.2/74	this-recipient-name		o
A.1.13.2/75	trace-information		o

B.2 Optional functional groups

The following requirements are additional to those specified in B.1 if support of the functional group is claimed.

B.2.1 IPM Conversion (CV)

B.2.1.1 MessageSubmissionEnvelope

Ref	Element	Profile	
		MS-user	MS
A.1.4/8.3	conversion-with-loss-prohibited	m	
A.1.4/9.3	explicit-conversion	m	

B.2.1.2 ProbeSubmissionEnvelope

Ref	Element	Profile	
		MS-user	MS
A.1.5/7.3	conversion-with-loss-prohibited	m	
A.1.5/8.3	explicit-conversion	m	

B.2.2 IPM Distribution List

There are no additional requirements to those specified for the Common Messaging DL FG in annex A.2.1 of ISO/IEC ISP 10611-6.

B.2.3 IPM Physical Delivery (PD)

The following requirements are additional to those specified for the Common Messaging PD FG in annex A.2.2 of ISO/IEC ISP 10611-6.

B.2.3.1 MessageSubmissionEnvelope

Ref	Element	Profile	
		MS-user	MS
A.1.4/8.5	originator-return-address	m	

B.2.4 IPM Redirection (RED)**B.2.4.1 MessageSubmissionEnvelope**

Ref	Element	Profile	
		MS-user	MS
A.1.4/9.4.1	originator-requested-alternate-recipient	m	

B.2.4.2 ProbeSubmissionEnvelope

Ref	Element	Profile	
		MS-user	MS
A.1.5/8.4.1	originator-requested-alternate-recipient	m	

B.2.34.3 Common data types

Ref	Element	Profile	
		MS-user	MS
A.1.8/5.3	alternate-recipient-allowed	m	

B.2.5 IPM Latest Delivery (LD)

There are no additional requirements to those specified for the Common Messaging LD FG in annex A.2.3 of ISO/IEC ISP 10611-6.

B.2.6 IPM Return of Content (RoC)

There are no additional requirements to those specified for the Common Messaging RoC FG in annex A.2.4 of ISO/IEC ISP 10611-6.

B.2.7 IPM Security (SEC)

The following requirements are additional to those specified for the Common Messaging SEC FG in annex A.2.5 of ISO/IEC ISP 10611-6.

Requirements are as specified in annex A.2.2 of ISO/IEC ISP 12062-2, plus the following requirements.

B.2.7.1 MessageSubmission

Ref	Element	MS-user			MS		
		SEC0	SEC0C	SEC1	SEC0	SEC0C	SEC1
A.1.3.2/1.3.4	ms-submission-extensions		c ¹				
A.1.3.2/1.3.4.4	originator-body-part-encryption-token		c ¹			c ¹	
1 shall be supported if storage on submission is supported							

Ref	Element	MS-user			MS		
		S0	S1	S2	S0	S1	S2
A.1.3.2/1.3.4.5	originator-forwarded-content-token	c ¹ C	c ¹ C	c ¹ C	c ²	c ²	c ²
1 shall be supported for all the Common Messaging security classes with confidentiality (SnC) if the FWD FG is supported.							
2 shall be supported if storage on submission is supported							

B.2.7.2 MessageSubmissionEnvelope

Ref	Element	MS-user and MS					
		SEC0	SEC0C	SEC1	SEC2	SEC2R	SEC1W
A.1.4/8.6	originator-certificate	m	m	m	m	m	
A.1.4/8.8	message-origination-authentication-check				m	m	
A.1.4/8.9	message-security-label			m			
A.1.4/8.12	certificate-selectors				m	m	
A.1.4/8.13	multiple-originator-certificates	m	m	m	m	m	
A.1.4/9.4.10	message-token				m	m	
A.1.4/9.4.11	content-integrity-check				m	m	
A.1.4/9.4.13	certificate-selectors-override				m	m	
A.1.4/9.4.15.2	body-part-encryption-token		m				

Ref	Element	MS-user			MS		
		S0	S1	S2	S0	S1	S2
A.1.4/9.4.15.3	forwarded-content-token	c ¹ C	c ¹ C	c ¹ C	c ²	c ²	c ²
1	shall be supported for all the Common Messaging security classes with confidentiality (SnC) if the FWD FG is supported.						
2	shall be supported if storage on submission is supported						

B.2.7.3 Common data types

Ref	Element	MS-user					
		SEC0	SEC0C	SEC1	SEC2	SEC2R	SECIW
A.1.8/23	Certificate						
A.1.8/23.10.8.4	x400Address	m	m	m	m	m	

B.2.7.4 Extension Data Types

Ref	Element	MS-user					
		SEC0	SEC0C	SEC1	SEC2	SEC2R	SECIW
A.1.9/10.1.4	stored-body-part	m	m	m			

Ref	Element	MS-user			MS		
		S0	S1	S2	S0	S1	S2
A.1.9/10.1.2	stored-content	m	m	m			

B.2.7.5 General attributes: support in the Stored-message subordinate entry-classes

Ref	Attribute	MS-user			MS		
		SEC0	SEC0C	SEC1	SEC0	SEC0C	SEC1
A.1.13.1/42	multiple-originator-certificates	m	m	m	m	m	m
A.1.13.1/47	originator-certificate	m	m	m	m	m	m

Ref	Attribute	MS-user		MS	
		SEC2	SEC2R	SEC2	SEC2R
A.1.13.1/5	certificate-selectors	m	m	m	m
A.1.13.1/11	content-integrity-check	m	m	m	m
A.1.13.1/35	message-origin-authentication-check	m	m	m	m
A.1.13.1/39	message-token	m	m	m	m
A.1.13.1/42	multiple-originator-certificates	m	m	m	m
A.1.13.1/47	originator-certificate	m	m	m	m

B.2.7.6 Support of IPM-specific attributes in the Stored-message subordinate entry-classes

Ref	Attribute	MS-user			MS		
		SEC0	SEC0C	SEC1	SEC0	SEC0C	SEC1
A.1.15.1/26	body-part-encryption-token		m			m	
A.1.15.1/27	body-part-security-label			m			m
A.1.15.1/29	body-part-signatures	m	m	m	m	m	m
A.1.15.1/59	ipm-security-label			m			m

Ref	Attribute	MS-user		MS	
		SEC2	SEC2R	SEC2	SEC2R
A.1.15.1/70	notification-extensions	m	m	m	m

Ref	Attribute	MS-user			MS		
		S0	S1	S2	S0	S1	S2
A.1.15.1/28	body-part-signature-verification-status						m
A.1.15.1/43	forwarded-content-token	m	m	m	m	m	m
A.1.15.1/44	forwarding-token	m	m	m	m	m	m

B.2.7.7 Extended body part attribute support in Stored-message subordinate entry-classes

Ref	Element	MS-user		MS	
		SEC0C	SECIW	SEC0C	SECIW
A.1.15.3/6	encrypted-body-part	m		m	
A.1.15.3/18	pkcs7-body-part		m		m

B.2.8 IPM Use of Directory (DIR)

In addition to the requirements specified for the Common Messaging DIR FG in annex A.2.6 of ISO/IEC ISP 10611-6, those requirements also apply within the formal-name component of the OR-descriptor defined in A.1.5/2 of ISO/IEC ISP 12062-2.

B.2.9 IPM Simple Protected Password (SPP)

There are no additional requirements to those specified for the Common Messaging SPP FG in annex A.2.7 of ISO/IEC ISP 10611-6.

B.2.10 IPM Redirection Instructions (RED2)

There are no additional requirements to those specified for the Common Messaging RED2 FG in annex A.2.8 of ISO/IEC ISP 10611-6.

B.2.11 IPM Delivery Constraints (DC)

There are no additional requirements to those specified for the Common Messaging DC FG in annex A.2.9 of ISO/IEC ISP 10611-6.

B.2.12 IPM Restricted Delivery (RD)

There are no additional requirements to those specified for the Common Messaging RD FG in annex A.2.10 of ISO/IEC ISP 10611-6.

B.2.13 IPM Business Class (BC)**B.2.13.1 IPMAutoForwardRegistrationParameter: Heading**

Ref	Element	Profile	
		MS-user	MS
A.1.12.4.2/17.6	authorization-time	m	m
A.1.12.4.2/17.7	circulation-list-recipients	m	m
A.1.12.4.2/17.8	distribution-codes	m	m
A.1.12.4.2/17.10	information-category	m	m
A.1.12.4.2/17.11	manual-handling-instructions	m	m
A.1.12.4.2/17.12	originators-reference	m	m

Ref	Element	Profile	
		MS-user	MS
A.1.12.4.2/17.13	precedence-policy-identifier	m	m

B.2.13.2 Support of IPM-specific attributes in the Stored-message subordinate entry-classes

Ref	Attribute	Profile	
		MS-user	MS
A.1.15.1/19	authorization-time	m	m
A.1.15.1/31	circulation-list-recipients	m	
A.1.15.1/35	distribution-codes	m	m
A.1.15.1/55	information-category	m	m
A.1.15.1/63	manual-handling-instructions	m	m
A.1.15.1/75	originators-reference	m	m
A.1.15.1/77	precedence-policy-identifier	m	m
A.1.15.1/78	precedence-value	m	m

B.2.13.3 IPM Specific Matching Rules

Ref	Matching Rule	Profile	
		MS-user	MS
A.1.16/1	circulationMemberCheckmarkMatch	m	m
A.1.16/6	distributionCodeMatch	m	m
A.1.16/7	generalizedTimeMatch	m	m
A.1.16/8	generalizedTimeOrderingMatch	m	m
A.1.16/9	informationCategoryMatch	m	m

B.2.14 IPM Storage and Grouping (SG)

The following requirements are additional to those specified for the Common Messaging SG FG in annex A.2.11 of ISO/IEC ISP 10611-6.

B.2.14.1 MSMessageSubmission

Ref	Element	Profile	
		MS-user	MS
A.1.3.2/1.3.4.4	originator-body-part-encryption-token		c ¹
A.1.3.2/1.3.4.5	originator-forwarded-content-token		c ²
1	shall be supported if the body-part-encryption-token attribute is supported		
2	shall be supported if the message-token attribute is supported		

B.2.14.2 MessageSubmissionEnvelope

Ref	Element	Profile	
		MS-user	MS
A.1.4/9.4.15.1	blind-copy-recipients	c ¹	
1	mandatory if origination of the Blind Copy Recipients EoS is supported.		

B.2.14.3 IPMAutoForwardRegistrationParameter

Ref	Element	Profile	
		MS-user	MS
A.1.12.4/1.5	submission-options		m

B.2.14.4 IPMAutoAcknowledgmentRegistrationParameter

Ref	Element	Profile	
		MS-user	MS
A.1.12.5/2	submission-options		m

B.2.14.5 IPMAutoDiscardRegistrationParameter

Ref	Element	Profile	
		MS-user	MS
A.1.12.6/2	submission-options		m

B.2.14.6 IPMAutoAdviseRegistrationParameter

Ref	Element	Profile	
		MS-user	MS
A.1.12.7/6	submission-options		m

B.2.15 IPM Alert (ALERT)

There are no additional requirements to those specified for the Common Messaging ALERT FG in annex A.2.12 of ISO/IEC ISP 10611-6.

B.2.16 IPM Auto Annotation (AA)

There are no additional requirements to those specified for the Common Messaging AA FG in annex A.2.13 of ISO/IEC ISP 10611-6.

B.2.17 IPM Auto Grouping (AG)

There are no additional requirements to those specified for the Common Messaging AG FG in annex A.2.14 of ISO/IEC ISP 10611-6.

B.2.18 IPM Trash (TRASH)

There are no additional requirements to those specified for the Common Messaging TRASH FG in annex A.2.15 of ISO/IEC ISP 10611-6.

B.2.19 IPM Auto Deletion (AD)

There are no additional requirements to those specified for the Common Messaging AD FG in annex A.2.16 of ISO/IEC ISP 10611-6.

B.2.20 IPM Auto Correlation (AC)

The following tables specify additional requirements to those specified for the Common Messaging AC FG in annex A.2.17 of ISO/IEC ISP 10611-6. The classification used in annex A.2.17 of ISO/IEC 10611-6 applies to all three classes (AC0, AC1 and AC2) of the IPM AC FG, while in the following tables, distinction is made for the three classes where appropriate.

B.2.20.1 Register-MS

Ref	Element	Profile	
		MS-user	MS
A.1.3.10/2.2.1	auto-action-registrations ¹	m	m
1 although the auto-correlate and ipm-auto-correlate auto-actions are only available on subscription and not on registration per se, it shall be listed among the registered auto-actions.			

B.2.20.2 Support of auto-actions

Ref.	Attribute	MS-user			MS		
		AC0	AC1	AC2	AC0	AC1	AC2
A.1.12.1/7	ipm-auto-correlate	m ¹	m ²	m ³	m ¹	m ²	m ³
1 only the correlation of IPNs with corresponding IPMs is required. 2 only the correlation of IPNs with corresponding IPMs and correlation of replies is to be supported. 3 all aspects of correlation are to be supported.							

B.2.20.3 Support of IPM-specific attributes in Stored-message subordinate entry-classes

Ref.	Attribute	MS-user			MS		
		AC0	AC1	AC2	AC0	AC1	AC2
A.1.15.1/1	ac-correlated-delivered-ipms	m	m	m	m	m	m
A.1.15.1/2	ac-correlated-delivered-replies		m	m		m	m
A.1.15.1/3	ac-delivered-ipn-summary	m	m	m	m	m	m
A.1.15.1/4	ac-delivered-replies-summary		m	m		m	m
A.1.15.1/5	ac-forwarded-ipms			m			m
A.1.15.1/6	ac-forwarding-ipms			m			m
A.1.15.1/7	ac-ipm-recipients	m	m	m	m	m	m
A.1.15.1/8	ac-obsolete-ipms			m			m
A.1.15.1/9	ac-obsolete-ipms			m			m
A.1.15.1/10	ac-related-ipms			m			m
A.1.15.1/11	ac-relating-ipms			m			m

Ref.	Attribute	MS-user			MS		
		AC0	AC1	AC2	AC0	AC1	AC2
A.1.15.1/12	ac-replied-to-ipm		m	m		m	m
A.1.15.1/13	ac-replying-ipms		m	m		m	m
A.1.15.1/14	ac-subject-ipm	m	m	m	m	m	m
A.1.15.1/15	ac-submitted-ipn-status	m	m	m	m	m	m
A.1.15.1/16	ac-submitted-ipns	m	m	m	m	m	m
A.1.15.1/17	ac-submitted-reply-status		m	m		m	m

B.2.20.4 Support of IPM-specific attributes in Message-log subordinate entry classes

Ref.	Attribute	MS-user			MS		
		AC0	AC1	AC2	AC0	AC1	AC2
A.1.15.2/1	ac-correlated-delivered-ipns	c ¹	c ¹	c ¹	c ¹	c ¹	c ¹
A.1.15.2/2	ac-correlated-delivered-replies		c ¹	c ¹		c ¹	c ¹
A.1.15.2/3	ac-delivered-ipn-summary	c ¹	c ¹	c ¹	c ¹	c ¹	c ¹
A.1.15.2/4	ac-delivered-replies-summary		c ¹	c ¹		c ¹	c ¹
A.1.15.2/5	ac-forwarded-ipms			c ¹			c ¹
A.1.15.2/6	ac-forwarding-ipms			c ¹			c ¹
A.1.15.2/7	ac-ipm-recipients	c ^{1,2}	c ^{1,2}	c ^{1,2}	c ^{1,2}	c ^{1,2}	c ^{1,2}
A.1.15.2/8	ac-obsolete-ipms			c ¹			c ¹
A.1.15.2/9	ac-obsolete-ipms			c ¹			c ¹
A.1.15.2/10	ac-related-ipms			c ¹			c ¹
A.1.15.2/11	ac-relating-ipms			c ¹			c ¹
A.1.15.2/12	ac-replied-to-ipm		c ¹	c ¹		c ¹	c ¹
A.1.15.2/13	ac-replying-ipms		c ¹	c ¹		c ¹	c ¹
A.1.15.2/14	ac-subject-ipm	c ¹	c ¹	c ¹	c ¹	c ¹	c ¹
A.1.15.2/15	ac-submitted-ipn-status	c ¹	c ¹	c ¹	c ¹	c ¹	c ¹
A.1.15.2/16	ac-submitted-ipns	c ¹	c ¹	c ¹	c ¹	c ¹	c ¹