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SERIES X: DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

Message Handling Systems

Message Handling Systems – IPM-MS attributes PICS proforma

ITU-T Recommendation X.487

(Previously CCITT Recommendation)

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ITU-T RECOMMENDATION X.487

MESSAGE HANDLING SYSTEMS – IPM-MS ATTRIBUTES PICS PROFORMA

Summary

This Recommendation provides the PICS proforma for access to a message store (MS) in an Interpersonal Messaging (IPM) environment using the P7 MS 94 Access Protocol, as defined in ITU-T Rec. X.413 | ISO/IEC 10021-5 and ITU-T Rec. X.419 | ISO/IEC 10021-6.

Source

ITU-T Recommendation X.487 was prepared by ITU-T Study Group 7 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 18th of June 1999. Reprinted April 2000 to realign the presentation of the X.480-series Recommendations.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation the term *recognized operating agency (ROA)* includes any individual, company, corporation or governmental organization that operates a public correspondence service. The terms *Administration, ROA* and *public correspondence* are defined in the *Constitution of the ITU (Geneva, 1992)*.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, the ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

CONTENTS

Introduction

This Recommendation is one in a set of Recommendations defining message handling in a distributed open system environment.

Message handling provides for the exchange of messages between users on a store-and-forward basis. A message submitted by one user (the originator) is transferred through the Message Transfer System (MTS) and delivered to one or more users (the recipients). The MTS comprises a number of Message Transfer Agents (MTAs), which transfer messages and deliver them to their recipients.

To evaluate the capabilities of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given OSI protocol. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

Recommendation X.487

MESSAGE HANDLING SYSTEMS – IPM-MS ATTRIBUTES PICS PROFORMA[1]

1 Scope

This Recommendation provides the Protocol Implementation Conformance Statement (PICS) proforma for the IPM-MS attributes specified in ITU-T Rec. X.413 | ISO/IEC 10021-5 and ITU-T Rec. X.419 | ISO/IEC 10021-6. The PICS proforma presents in tabular form the mandatory and optional IPM-MS attributes.

This PICS proforma is based on the relevant guidance for PICS proformas given in ITU-T Rec. X.296 | ISO/IEC 9646-7.

2 Normative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

2.1 Identical Recommendations | International Standards

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

– ITU-T Recommendation X.413 (1999) | ISO/IEC 10021-5:1999, *Information technology – Message handling systems: Message store – Abstract service definition.*

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

2.2 Paired Recommendations | International Standards equivalent in technical content

– ITU-T Recommendation X.290 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – General concepts.*

ISO/IEC 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*

– ITU-T Recommendation X.296 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statements.*

ISO/IEC 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation conformance statements.*

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[1] Annex A in this Recommendation is technically aligned with Annex A in ISO/IEC ISP 12062-6, Information technology – International Standardized Profiles AMH2n – Message Handling Systems – Interpersonal Messaging – Part 6: AMH26 – IPM Requirements for Enhanced MS 94 Access (P7).

3 Definitions

Terms used in this Recommendation are defined in the referenced Recommendations | International Standards.

4 Abbreviations

This Recommendation uses the following abbreviations:

IPM Interpersonal Messaging

ISP International Standardized Profile

MHS Message Handling Systems

MS Message Store

MTA Message Transfer Agent

OSI Open Systems Interconnection

PDU Protocol Data Unit

PICS Protocol Implementation Conformance Statement

UA User Agent

5 Conformance

A conforming PICS proforma shall be technically equivalent to the text of the PICS proforma in this Recommendation and shall preserve the numbering and ordering of items in the PICS proforma in this Recommendation.

A PICS which conforms to this Recommendation shall:

a) describe an implementation which conforms to ITU-T Rec. X.413 | ISO/IEC 10021-5 and ITU-T Rec. X.419 | ISO/IEC 10021-6;

b) be a conforming PICS proforma, which has been completed in accordance with the instructions for completion given in Annex A;

c) include the information necessary to uniquely identify both the supplier and the implementation.

Annex A[2]

PICS proforma for IPM-MS attributes

(This annex forms an integral part of this Recommendation)

Contents of the PICS proforma

NOTE – The numbering of subclauses and items in this annex is identical to that in ISO/IEC ISP 12062-6, Information technology – International Standardized Profiles AMH2n – Message Handling Systems – Interpersonal Messaging – Part 6: AMH26 – IPM Requirements for Enhanced MS 94 Access (P7).

A.0 Instructions and identification

A.0.1 Instructions

A.0.1.1 Purpose of the proforma

The purpose of the PICS proforma is to provide suppliers of implementations of the P7 protocol with a consistent means of stating which proforma has been implemented.

The proforma is in the form of a questionnaire and consists of a set of items. An item is provided for each capability for which an implementation choice is allowed. Items are also provided for mandatory capabilities for which no implementation choice is allowed. Each item includes an item number, an item description, a status value specifying the support requirement, and room for a support answer to be provided by the supplier.

A.0.1.2 Item numbering

Each line in the PICS proforma which requires implementation detail to be entered is given a number in the first column. The item number column provides a means of uniquely referencing each possible answer within the PICS proforma.

A.0.1.3 Base column

In each table, the "Base" column reflects the level of support required for conformance to the base standard.

The following classifications are used in this PICS to specify static conformance requirements – i.e. capability.

NOTE – The profile column is used for functional profiles and uses the same classification.

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[2] **Copyright release for PICS proformas**

Users of this Recommendation may freely reproduce the PICS proforma in this annex so that it can be used for its intended purpose and may further publish the completed PICS.

In the case of 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. 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. The way in which attribute values are stored by an MS implementation, or used by a 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. If support of an operation as a responder is not claimed, then an appropriate error indication shall be generated (as a minimum, a ROSE reject shall be generated).

conditional support (**c**): The element shall be supported under the conditions specified in this Recommendation. 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 Recommendation – i.e. it will not be the subject of a conformance test.

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

A.0.1.4 Support column

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 or is minimally supported).

A.0.1.5 References column

The "References" 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).

A reference to a specific item is specified by the following sequence:

a) if the reference is to an item in another document, then the reference starts with unambiguous identifier for that document;

b) the number of the subclause enclosing the table, or the number of the table if they are numbered;

c) a solidus character "/";

d) the item number, to identify the row in which the answer appears.

A.0.2 Identification of PICS proforma corrigenda

The supplier of the PICS proforma shall identify any corrigenda that have been applied (i.e. Technical Corrigendum or equivalent) to the published proforma. Suppliers of the proforma should modify the proforma, or attach relevant additional pages in order to apply the corrigenda and then record the application of the corrigenda in the table below.

Corrigenda to ITU-T Recommendation X.487

Cor:
Cor:
Cor:
Cor:
Implementors' Guide version:

A.0.3 Identification of the implementation

A.0.3.1 Date of statement

Ref.	Question	Response
1	Date of statement (YYYY-MM-DD)	

A.0.3.2 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.0.3.3 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.0.3.4 Identification of protocol

Ref.	Question	Response
1	Title, reference number and date of publication of the protocol standard	
2	Protocol version(s)	
3	Addenda/amendments/corrigenda implemented	
4	MHS Implementors' Guide version implemented	

A.0.3.5 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.0.3.6 Global statement of conformance

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

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		o			
2	List	o		o			

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]		m[1]			
2.8.4	assembly-capability	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 UA is able to generate RNs, 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			see A.1.9/10
1.3.4.4	originator-body-part-encryption-token	o		o			
1.3.4.5	originator-forwarded-content-token	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			

A.1.4 MessageSubmissionEnvelope

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
9.4.15	IPMPerRecipientEnvelope Extensions	o		o			
9.4.15.1	blind-copy-recipients	o		o			
9.4.15.2	body-part-encryption-token	o		o			
9.4.15.3	forwarded-content-token	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			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			
10.1.1	stored-entry[1]	o		m			
10.1.2	stored-content	o		m			
10.1.3	submitted-body-part	o		m			
10.1.4	stored-body-part	o		m			
10.1.4.1	message-entry	m		m			
10.1.4.2	body-part-number	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			see A.1.12.4
6	IPM auto-acknowledgement	o		o			see A.1.12.5
7	IPM auto-correlate	o		o			
8	IPM auto-discard	o		o			see A.1.12.6
9	IPM auto-advise	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			
1.1	filter	o		m			see A.1.8/3
1.2	forwarding-envelope	m		m			see A.1.12.4.1
1.3	forwarding-heading	m		m			see A.1.12.4.2
1.4	forwarding-cover-note	o		m			see A.1.3 of ITU-T Rec. X.481 | ISO/IEC 12062-2
1.5	submission-options	o		o			see A.1.3.2/1.3
1.6	nrn-comment	o		m			
1.7	ipm-auto-forward-options	o		m			
1.7.1	forward-all-object-types	o		o			
1.7.2	include-returned-content	o		o			
1.7.3	include-returned-ipm	o		o			
1.7.4	forwarded-content-prohibited	o		o			
1.7.5	preserve-retrieval-status	o		o			
1.7.6	delete-delivered-object	o		o			

A.1.12.4.1 MessageSubmissionEnvelope

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	originator-name	m		m			see A.1.10.2
2	original-encoded-information-types	c[4]		c[4]			see A.1.8/10
3	content-type	m		m			see A.1.8/11
4	content-identifier	o		m			
5	priority	m		m			
6	per-message-indicators	m		m			see A.1.8/12
7	deferred-delivery-time	o		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
8	extensions	m		m			see A.1.9/1
8.1	recipient-reassignment-prohibited	o		o			
8.2	dl-expansion-prohibited	o		o			
8.3	conversion-with-loss-prohibited	o		o			
8.4	latest-delivery-time	o		o			
8.5	originator-return-address	o		o			see A.1.10.1
8.6	originator-certificate	o		o			see A.1.8/22
8.7	content-confidentiality-algorithm-identifier	o		o			
8.8	message-origin-authentication-check	o		o			see A.1.9/2
8.9	message-security-label	o		o			see A.1.9/3
8.10	proof-of-submission-request	o		o			
8.11	content-correlator	o		m			
8.12	certificate-selectors	o		o			see A.1.9/7
8.13	multiple-originator-certificates	o		o			see A.1.9/9
8.14	dl-exempted-recipients	o		o			see A.1.10.1
8.15	forwarding-request[3]	-		-			
8.16	PrivateExtensions	o		o			see A.3.3
9	per-recipient-fields	m		m			
9.1	recipient-name	m		m			see A.1.10.1
9.2	originator-report-request	m		m			
9.3	explicit-conversion	o		o			
9.4	extensions	m		m			see A.1.9/1
9.4.1	originator-requested-alternate-recipient	o		o			see A.1.10.1
9.4.2	requested-delivery-method	o		o			
9.4.3	physical-forwarding-prohibited	o		o			
9.4.4	physical-forwarding-address-request	o		o			
9.4.5	physical-delivery-modes	o		o			
9.4.6	registered-mail-type	o		o			
9.4.7	recipient-number-for-advice	o		o			
9.4.8	physical-rendition-attributes	o		o			
9.4.9	physical-delivery-report-request	o		o			
9.4.10	message-token	o		o			see A.1.9/4
9.4.11	content-integrity-check	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
9.4.12	proof-of-delivery-request	o		o			
9.4.13	certificate-selectors-override	o		o			see A.1.9/8
9.4.14	recipient-certificate	o		o			see A.1.8/22
9.4.15	IPMPerRecipientEnvelopeExtensions	o		o			
9.4.15.1	blind-copy-recipients	o		o			
9.4.15.2	body-part-encryption-token	o		o			
9.4.15.3	forwarded-content-token	o		o			
9.4.16	PrivateExtensions	o		o			see A.3.3
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			see A.1.5/3 of ITU-T Rec. X.481 | ISO/IEC 12062-2
2	originator	m		m			see A.1.5/2 of ITU-T Rec. X.481 | ISO/IEC 12062-2
3	authorizing-users	o		m			see A.1.5/2 of ITU-T Rec. X.481 | ISO/IEC 12062-2
4	primary-recipients	m		m			see A.1.5/1 of ITU-T Rec. X.481 | ISO/IEC 12062-2
5	copy-recipients	m		m			see A.1.5/1 of ITU-T Rec. X.481 | ISO/IEC 12062-2
6	blind-copy-recipients	o		m			see A.1.5/1 of ITU-T Rec. X.481 | ISO/IEC 12062-2
7	replied-to-IPM	m		m			
8	obsoleted-IPMs	o		m			
9	related-IPMs	o		m			
10	subject	m		m			
11	expiry-time	o		m			
12	reply-time	o		m			
13	reply-recipients	o		m			see A.1.5/2 of ITU-T Rec. X.481 | ISO/IEC 12062-2
14	importance	o		m			
15	sensitivity	o		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
16	auto-forwarded	o		m			
17	extensions	m		m			
17.1	incomplete-copy	o		o			
17.2	languages	o		m			
17.3	auto-submitted	o		o			
17.4	body-part-signatures	o		o			see A.1.2.1/1 of ITU-T Rec. X.481 | ISO/IEC 12062-2
17.5	ipm-security-label	o		o			see A.1.2.1/2 of ITU-T Rec. X.481 | ISO/IEC 12062-2
17.6	authorization-time	o		o			
17.7	circulation-list-recipients	o		m			see A.1.2.1/3 of ITU-T Rec. X.481 | ISO/IEC 12062-2
17.8	distribution-codes	o		o			see A.1.2.1/4 of ITU-T Rec. X.481 | ISO/IEC 12062-2
17.9	extended-subject	m		m			
17.10	information-category	o		o			see A.1.2.1/5 of ITU-T Rec. X.481 | ISO/IEC 12062-2
17.11	manual-handling-instructions	o		o			
17.12	originators-reference	o		o			
17.13	precedence-policy-identifier	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		o			
2	submission-options	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			see A.1.8/3
2	submission-options	o		o			see A.1.3.2/1.3
3	auto-discard-expired-ipms	m		m			
4	auto-discard-obsoleted-ipms	m		m			
5	restrict-obsoleting-to-originator	m		m			

A.1.12.7 IPMAutoAdviseRegistrationParameter

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	enabled	o		m			
2	filter	o		o			see A.1.8/3
3	advice-notifications	m		m			
3.1	absence-advice	o		m			
3.1.1	advice	o		m			see A.1.3 of ITU-T Rec. X.481 | ISO/IEC 12062-2
3.1.2	next-available	o		m			
3.2	change-of-address-advice	o		m			
3.2.1	new-address	o		m			see A.1.5/2 of ITU-T Rec. X.481 | ISO/IEC 12062-2
3.2.2	effective-from	o		m			
4	suppress-subsequent-notifications	o		m			
5	use-ipm-if-an-not-supported	o		o			
6	submission-options	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			
18	mSSubstringsMatch	o		o			

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			
2	ac-correlated-delivered-replies	o		o			
3	ac-delivered-ipn-summary	o		o			
4	ac-delivered-replies-summary	o		o			
5	ac-forwarded-ipms	o		o			
6	ac-forwarding-ipms	o		o			
7	ac-ipm-recipients	o		o			
8	ac-obsoleted-ipms	o		o			
9	ac-obsoleting-ipms	o		o			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
10	ac-related-ipms	o		o			
11	ac-relating-ipms	o		o			
12	ac-replied-to-ipm	o		o			
13	ac-replying-ipms	o		o			
14	ac-subject-ipm	o		o			
15	ac-submitted-ipn-status	o		o			
16	ac-submitted-ipns	o		o			
17	ac-submitted-reply-status	o		o			
18	acknowledgement-mode	o		o			
19	authorization-time	o		o			
20	authorizing-users	o		o			
21	auto-forward-comment	o		o			
22	auto-forwarded	o		o			
23	bilaterally-defined-body-parts	o		o			
24	blind-copy-recipients	o		o			
25	body	o		m			
26	body-part-encryption-token	o		o			
27	body-part-security-label	o		o			
28	body-part-signature-verification-status	o		o			
29	body-part-signatures	o		o			
30	body-parts-summary	o		o			
31	circulation-list-recipients	o		o			
32	conversion-EITs	o		o			
33	copy-recipients	o		o			
34	discard-reason	o		o			
35	distribution-codes	o		o			
36	encrypted-body-parts	o		o			
37	encrypted-data	o		o			
38	encrypted-parameters	o		o			
39	expiry-time	o		o			
40	extended-body-part-types	o		o			
41	(extended-body-parts)						see A.1.15.3
42	extended-subject	o		o			
43	forwarded-content-token	o		o			
44	forwarding-token	o		o			
45	g3-facsimile-body-parts	o		o			
46	g3-facsimile-data	o		o			
47	g3-facsimile-parameters	o		o			
48	g4-class1-body-parts	o		o			
49	heading	o		m			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
50	ia5-text-body-parts	o		o			
51	ia5-text-data	o		o			
52	ia5-text-parameters	o		o			
53	importance	o		o			
54	incomplete-copy	o		o			
55	information-category	o		o			
56	ipm-auto-discarded	o		o			
57	ipm-entry-type	m		m			
58	ipm-intended-recipient	o		o			
59	ipm-security-label	o		o			
60	ipm-synopsis	o		o			
61	ipn-originator	o		o			
62	languages	o		o			
63	manual-handling-instructions	o		o			
64	message-body-parts	o		o			
65	message-data	o		o			
66	message-parameters	o		o			
67	mixed-mode-body-parts	o		o			
68	nationally-defined-body-parts	o		o			
69	non-receipt-reason	o		o			
70	notification-extensions	o		o			
71	nrn-extensions	o		o			
72	nrn-requestors[1]	o		o			
73	obsoleted-IPMs	o		o			
74	originator	o		o			
75	originators-reference	o		o			
76	other-notification-type-fields	o		o			
77	precedence-policy-identifier	o		o			
78	precedence-value	o		o			
79	primary-recipients	o		o			
80	receipt-time	o		o			
81	recipient-category	o		o			
82	related-ipms	o		o			
83	replied-to-ipm	o		o			
84	reply-recipients	o		o			
85	reply-requestors[1]	o		o			
86	reply-time	o		o			
87	returned-ipm	o		o			
88	revised-reply-time	o		o			
89	rn-extensions	o		o			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
90	rn-requestors[1]	o		o			
91	sensitivity	o		o			
92	subject	o		o			
93	subject-ipm	o		m			
94	suppl-receipt-info	o		o			
95	teletex-body-parts	o		o			
96	teletex-data	o		o			
97	teletex-parameters	o		o			
98	this-ipm	o		m			
99	videotex-body-parts	o		o			
100	videotex-data	o		o			
101	videotex-parameters	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		c[1]			
2	ac-correlated-delivered-replies	o		c[1]			
3	ac-delivered-ipn-summary	o		c[1]			
4	ac-delivered-replies-summary	o		c[1]			
5	ac-forwarded-ipms	o		c[1]			
6	ac-forwarding-ipms	o		c[1]			
7	ac-ipm-recipients	o		c[1]			
8	ac-obsoleted-ipms	o		c[1]			
9	ac-obsoleting-ipms	o		c[1]			
10	ac-related-ipms	o		c[1]			
11	ac-relating-ipms	o		c[1]			
12	ac-replied-to-ipm	o		c[1]			
13	ac-replying-ipms	o		c[1]			
14	ac-subject-ipm	o		c[1]			
15	ac-submitted-ipn-status	o		c[1]			
16	ac-submitted-ipns	o		c[1]			
17	ac-submitted-reply-status	o		c[1]			
18	acknowledgement-mode	o		c[1]			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
19	authorization-time	o		c[1]			
20	authorizing-users	o		c[1]			
21	auto-forward-comment	o		c[1]			
22	auto-forwarded	o		c[1]			
23	blind-copy-recipients	o		c[1]			
24	body-part-encryption-token	o		c[1]			
25	body-part-security-label	o		c[1]			
26	body-part-signature-verification-status	o		c[1]			
27	body-part-signatures	o		c[1]			
28	body-parts-summary	o		c[1]			
29	circulation-list-recipients	o		c[1]			
30	conversion-EITs	o		c[1]			
31	copy-recipients	o		c[1]			
32	discard-reason	o		c[1]			
33	distribution-codes	o		c[1]			
34	expiry-time	o		c[1]			
35	extended-subject	o		c[1]			
36	forwarded-content-token	o		c[1]			
37	forwarding-token	o		c[1]			
38	importance	o		c[1]			
39	incomplete-copy	o		c[1]			
40	information-category	o		c[1]			
41	ipm-auto-discarded	o		c[1]			
42	ipm-entry-type	m		m			
43	ipm-intended-recipient	o		c[1]			
44	ipm-security-label	o		c[1]			
45	ipm-synopsis	o		c[1]			
46	ipn-originator	o		c[1]			
47	languages	o		c[1]			
48	manual-handling-instructions	o		c[1]			
49	non-receipt-reason	o		c[1]			
50	notification-extensions	o		c[1]			
51	nrn-extensions	o		c[1]			
52	nrn-requestors[3]	o		c[1]			
53	obsoleted-IPMs	o		c[1]			
54	originator	o		c[1]			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
55	originators-reference	o		c[1]			
56	other-notification-type-fields	o		c[1]			
57	precedence-policy-identifier	o		c[1]			
58	precedence-value	o		c[1]			
59	primary-recipients	o		c[1]			
60	receipt-time	o		c[1]			
61	recipient-category	o		c[1]			
62	related-ipms	o		c[1]			
63	replied-to-ipm	o		c[1]			
64	reply-recipients	o		c[1]			
65	reply-requestors[3]	o		c[1]			
66	reply-time	o		c[1]			
67	returned-ipm	o		c[1]			
68	revised-reply-time	o		c[1]			
69	rn-extensions	o		c[1]			
70	rn-requestors[3]	o		c[1]			
71	sensitivity	o		c[1]			
72	subject	o		c[1]			
73	subject-ipm	o		o			
74	suppl-receipt-info	o		c[1]			
75	this-ipm	o		o			

1 if supported in the corresponding Stored-message subordinate entry-class then o else –

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			
2	g3-facsimile-body-part	o		o			
3	g4-class1-body-part	o		o			
4	teletex-body-part	o		o			
5	videotex-body-part	o		o			
6	encrypted-body-part	o		o			
7	message-body-part	o		o			
8	mixed-mode-body-part	o		o			
9	bilaterally-defined-body-part	o		o			
10	nationally-defined-body-part	o		o			
11	general-text-body-part	o		o			
12	file-transfer-body-part	o		o			
13	voice-body-part	o		o			
14	oda-body-part	o		o			see ISO/IEC 8613-5
15	report-body-part	o		o			
16	notification-body-part	o		o			
17	forwarded-content-body-part	o		o			see A.3.7
18	pkcs7-body-part	o		o			
19	other (specify)	o		o			

A.1.16 IPM specific matching-rules

Ref.	Matching Rule	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	circulationMemberCheck markMatch	o		o			
2	circulationMemberElements Match	o		o			
3	circulationMemberMatch	o		o			
4	circulationMemberSingle ElementMatch	o		o			
5	circulationMember SubstringElementsMatch	o		o			
6	distributionCodeMatch	o		o			
7	generalizedTimeMatch	o		o			
8	generalizedTimeOrdering Match	o		o			
9	informationCategoryMatch	o		o			
10	iPMIdentifierMatch	o		o			
11	iPMLocationMatch	o		o			
12	oRDescriptorElements Match	o		o			
13	oRDescriptorMatch	o		o			
14	oRDescriptorSingleElement Match	o		o			
15	oRDescriptorSubstring ElementsMatch	o		o			
16	recipientSpecifierElements Match	o		o			
17	recipientSpecifierMatch	o		o			
18	recipientSpecifierSingle ElementMatch	o		o			
19	recipientSpecifierSubstring ElementsMatch	o		o			

A.2 Optional functional groups

Not applicable to base standard PICS.

NOTE – The numbering of subclauses in this annex is identical to that in ISO/IEC ISP 12062-6.

A.3 Additional information

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-obsoleted-ipms	
9	ac-obsoleting-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	
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	

Ref.	Attribute	Comments
39	expiry-time	
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	ipn-originator	
62	languages	
63	manual-handling-instructions	
64	message-body-parts	
65	message-data	
66	message-parameters	
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-policy-identifier	
78	precedence-value	
79	primary-recipients	
80	receipt-time	
81	recipient-category	

Ref.	Attribute	Comments
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	
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-obsoleted-ipms	
9	ac-obsoleting-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	
16	ac-submitted-ipns	
17	ac-submitted-reply-status	

Ref.	Attribute	Comments
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	
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-policy-identifier	
58	precedence-value	
59	primary-recipients	
60	receipt-time	

Ref.	Attribute	Comments
61	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	
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		o			
2	InterPersonalMessaging (22)	o		o			
3	EDI messaging	o		o			
4	Voice messaging	o		o			
5	Others (specify)	o		o			

Annex B

Amendments and corrigenda

(This annex forms an integral part of this Recommendation)

Recommendations and International Standards are subject to constant review and revision by ITU-T and ISO/IEC. The following amendments and corrigenda are approved by ITU-T and ISO/IEC and are considered as normative references in this Recommendation.

None.

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