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SERIES X: DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

Message Handling Systems

Message Handling Systems – P2 protocol PICS proforma

ITU-T Recommendation X.481

ITU-T X-SERIES RECOMMENDATIONS

DATA NETWORKS AND OPEN SYSTEM COMMUNICATIONS

For further details, please refer to ITU-T List of Recommendations.

ITU-T RECOMMENDATION X.481

MESSAGE HANDLING SYSTEMS – P2 PROTOCOL PICS PROFORMA

Summary

This Recommendation provides the Protocol Implementation Conformance Statement (PICS) proforma for the Message Handling Systems (MHS) P2 protocol specified in ITU-T Rec. X.420 | ISO/IEC 10021-7. The PICS proforma presents in tabular form the mandatory and optional elements of the P2 protocol.

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 user's access is through a User Agent (UA).

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 statement is called a Protocol Implementation Conformance Statement (PICS).

MESSAGE HANDLING SYSTEMS – P2 PROTOCOL PICS PROFORMA[1]

1   Scope

This Recommendation provides the Protocol Implementation Conformance Statement (PICS) proforma for the P2 protocol specified in ITU-T Rec. X.420 | ISO/IEC 10021-7. The PICS proforma presents in tabular form the mandatory and optional elements of the P2 protocol.

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 ITU-T Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publicacion, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard 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.420 (1999) | ISO/IEC 10021-7:1999, *Information technology – Message Handling Systems (MHS): Interpersonal messaging system*.

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*.

3   Definitions

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

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[1] Annex A of this Recommendation is technically aligned with Annex A of ISO/IEC ISP 12062-2, Information technology – International Standardized Profiles AMH2n – Message Handling Systems – Interpersonal Messaging – Part 2: AMH21 – IPM Content.

4   Abbreviations

This Recommendation uses the following abbreviations:

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.420 | ISO/IEC 10021-7;

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.

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Annex A[2]

PICS Proforma for interpersonal messaging protocol (P2)

(This annex forms an integral part of this Recommendation)

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Contents of the PICS proforma

Subclause A.1 specifies the basic requirements for conformance to this Recommendation. Subclause A.2 is allocated but not used; it is present to keep the numbering alignment with the corresponding ISP. Subclause A.3 allows additional information to be provided for certain aspects of an implementation where no specific requirements are included in the base specifications. All subclauses shall be completed as appropriate.

NOTE – The numbering of subclauses and items in this annex is identical to that in ISO/IEC ISP 12062-2, "Information technology – International Standardized Profiles AMH2n – Message Handling Systems – Interpersonal Messaging – Part 2: AMH21 – IPM Content".

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 P2 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 1 – The Profile column is used for functional profiles and uses the same classification.

The classification of information objects and items (elements) is relative to that of the containing information 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 shall be 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.

NOTE 2 – In the case of character repertoires, mandatory support implies that the IPM UA implementation is able to generate and/or receive the encodings of all characters within those repertoires. How graphic characters are originated and rendered is outside the scope of this Recommendation.

NOTE 3 – Where required by the base standards, mandatory support also implies that the IPM UA implementation is able to pass the element on the origination port/reception port to/from the corresponding element on the submission port/delivery port/retrieval port.

optional support (**o**): An implementation is not required to support the element. If support is claimed, then the element shall be treated as if it were specified as mandatory support. If the element is not supported on reception, then it shall be ignored.

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 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.481

Cor:
Cor:
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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)	not applicable
3	Addenda/amendments/corrigenda implemented	
4	MHS Implementors' Guide version implemented	

A.0.3.5 Global statement of conformance

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

A.1 Basic requirements

A.1.1 Supported information objects

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	Interpersonal Message (IPM)	m		m			
1.1	heading	m		m			see A.1.2
1.2	body	m		m			see A.1.3
2	Interpersonal Notification (IPN)	m		o			see A.1.4

A.1.2 IPM heading fields

Ref.	Element	Origination Base	Profile	Reception Base	Profile	Support	Notes/References
1	this-IPM	m		m			see A.1.5/3
2	originator	m		m			see A.1.5/2
3	authorizing-users	o		m			see A.1.5/2
4	primary-recipients	m		m			see A.1.5/1
5	copy-recipients	m		m			see A.1.5/1
6	blind-copy-recipients	o		m			see A.1.5/1
7	replied-to-IPM	m		m			see A.1.5/3
8	obsoleted-IPMs	o		m			see A.1.5/3
9	related-IPMs	o		m			see A.1.5/3
10	subject	m		m			
11	expiry-time	o		m			
12	reply-time	o		m			
13	reply-recipients	o		m			see A.1.5/2
14	importance	o		m			
15	sensitivity	o		m			
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
17.5	ipm-security-label	o		o			see A.1.2.1/2
17.6	authorization-time	o		o			
17.7	circulation-list-recipients	o		m			see A.1.2.1/3
17.8	distribution-codes	o		o			see A.1.2.1/4
17.9	extended-subject	m		m			
17.10	information-category	o		o			see A.1.2.1/5
17.11	manual-handling-instructions	o		o			
17.12	originators-reference	o		o			
17.13	precedence-policy-identifier	o		o			

A.1.2.1   IPM heading subfields

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	BodyPartSignatures						
1.1	body-part-number	m		m			
1.2	body-part-signature	m		m			
1.2.1	signature-algorithm-identifier	m		m			
1.2.2	body-part	m		m			see A.1.3
1.2.3	body-part-security-label	m[1]		m[1]			See A.1.6/3 in ITU-T Rec. X.482 | ISO/IEC ISP 10611-3
1.3	originator-certificate-selector	o		o			See A.1.5/11 in ITU-T Rec. X.482 | ISO/IEC ISP 10611-3
1.4	originator-certificates	o		o			See A.1.6/11 in ITU-T Rec. X.482 | ISO/IEC ISP 10611-3
2	IPMSecurityLabel						
2.1	content-security-label	m		m			See A.1.6/3 in ITU-T Rec. X.482 | ISO/IEC ISP 10611-3
2.2	heading-security-label	o		o			See A.1.6/3 in ITU-T Rec. X.482 | ISO/IEC ISP 10611-3
2.3	body-part-security-labels	m		m			See A.1.6/3 in ITU-T Rec. X.482 | ISO/IEC ISP 10611-3
3	CirculationMember						
3.1	member-name	m		m			see A.1.5/1
3.2	checked	m		m			
3.2.1	simple	o		o			
3.2.2	timestamped	o		o			
3.2.3	signed	o		o			
3.2.3.1	algorithm-identifier	m		m			
3.2.3.2	this-IPM	m		m			see A.1.5/3
3.2.3.3	timestamp	m		m			
4	DistributionCode						
4.1	oid-code	o		o			
4.2	alphanumeric-code	o		o			
4.3	or-descriptor	o		o			see A.1.5/2
5	InformationCategory						
5.1	reference	o		o			
5.2	description	o		o			
[1]	Shall be present if the corresponding body-part-security-labels component is present IPMSecurityLabel.						

A.1.3   IPM body

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	ia5-text	o		o			
1.1	parameters	m		m			
1.1.1	repertoire	o		m			
1.2	data	m		m			

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	**Profile**	**Base**	**Profile**		
2	voice	i		i			
3	g3-facsimile	o		o			
3.1	parameters	m		m			
3.1.1	number-of-pages	o		o			
3.1.2	non-basic-parameters	o		o			
3.1.2.1	two-dimensional	o		o			
3.1.2.2	fine-resolution	o		o			
3.1.2.3	unlimited-length	o		o			
3.1.2.4	b4-length	o		o			
3.1.2.5	a3-width	o		o			
3.1.2.6	b4-width	o		o			
3.1.2.7	uncompressed	o		o			
3.2	data	m		m			
4	g4-class-1	o		o			
5	teletex	o		o			see Note
5.1	parameters	m		m			
5.1.1	number-of-pages	o		o			
5.1.2	telex-compatible	o		m			
5.1.3	non-basic-parameters	o		o			
5.2	data	m		m			
6	videotex	o		o			
6.1	parameters	m		m			
6.1.1	syntax	o		o			
6.2	data	m		m			
7	encrypted	o		o			
7.1	parameters	m		m			
7.2	data	m		m			
8	message	o		o			
8.1	parameters	m		m			
8.1.1	delivery-time	o		o			
8.1.2	delivery-envelope	o		o			
8.2	data	m		m			
9	mixed-mode	o		o			
10	bilaterally-defined	o		o			
11	nationally-defined	o		o			
12	extended	m		m			see A.1.3.1

Note – The teletex body part type should be used purely for teletex documents, obeying page rules, etc. It should not be used to transfer unstructured T.61 character data.

A.1.3.1 Extended body part support

It shall be indicated below which standard extended body part types are supported. It shall be stated in A.3.4 whether any other specific extended body part types are supported.

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	ia5-text-body-part	o		o			see A.1.3/1
2	g3-facsimile-body-part	o		o			see A.1.3/3
3	g4-class1-body-part	o		o			see A.1.3/4
4	teletex-body-part	o		o			see A.1.3/5
5	videotex-body-part	o		o			see A.1.3/6
6	encrypted-body-part	o		o			
7	message-body-part	o		o			see A.1.3/8
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			see Note 1
12	file-transfer-body-part	o		o			see Note 3
13	voice-body-part	o		o			
14	oda-body-part	o		o			see ITU-T Rec. T.415 | ISO/IEC 8613-5
15	report-body-part	o		o			
16	notification-body-part	o		o			
17	ContentBodyParts	o		o			
18	pkcs7-body-part	o		o			

NOTE 1 – This body part type is the preferred means of carrying unstructured character data, except when interworking with 1984 implementations.

NOTE 3 – The octet-aligned EXTERNAL encoding should be used. Only one EXTERNAL component should be used. Where the file to be conveyed contains a compound structure, this may be represented as a SEQUENCE OF EXTERNALS. The primary data should be placed in the first EXTERNAL. Receiving systems may ignore all but the first EXTERNAL in the SEQUENCE.

A.1.3.2 General text repertoire support

It shall be indicated below which character repertoires are supported for support of the General Text body part type. An implementation shall meet the requirements of one or both of repertoire groups A and B.

Ref.	Repertoire set description	Repertoire identifier(s)	Origination		Reception		Support
			A	B	A	B	
1	Basic (ISO 646)	{1,6}	m	m	m	m	
2	Basic-1 (ISO 8859-1)	{1,6,100}	o	m	o	m	
3	Basic + Chinese (1)	{1,6,58}	o	o	o	o	
4	Basic + Chinese (2)	{1,6,165}	o	o	o	o	
5	Basic + Japanese (1)	{1,6,13,87}	o	o	o	o	
6	Basic + Japanese (2)	{1,6,13,168}	o	o	o	o	
7	Basic + Korean	{1,6,149}	o	o	o	o	
8	Basic-1 + Cyrillic (ISO 8859-5)	{1,6,100,144}	o	o	o	o	
9	Basic-1 + Arabic (ISO 8859-6)	{1,6,100,127}	o	o	o	o	
10	Basic-1 + Greek (ISO 8859-7)	{1,6,100,126}	o	o	o	o	
11	Basic-1 + Hebrew (ISO 8859-8)	{1,6,100,138}	o	o	o	o	
12	Basic + suppl. (ISO 8859-10)	{1,6,157}	o	o	o	o	
13	Full Latin (1)	{1,6,100,154}	o	o	o	o	
14	Full Latin (2) (ISO 6937)	{1,6,156}	o	o	o	o	
15	Teletex Basic Latin	{102,103,106,107}	o	o	o	o	
16	ISO/IEC 10646-1 Basic Multilingual Plane	{1,176}	m	m	m	m	

A.1.3.3 File transfer parameters

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	related-stored-file	o		o			
1.1	file-identifier	m		m			
1.1.1	pathname-and-version	o		o			
1.1.1.1	pathname	m		m			
1.1.1.2	file-version	o		o			
1.1.2	cross-reference	o		o			
1.1.2.1	application-cross-reference	m		m			
1.1.2.2	message-reference	o		o			
1.1.2.2.1	user	o		o			
1.1.2.2.2	user-relative-identifier	m		m			
1.1.2.3	body-part-reference	o		o			
1.2	relationship	o		o			
1.2.1	explicit-relationship	o		o			
1.2.2	descriptive-relationship	o		o			

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
2	contents-type	o		o			
2.1	document-type	o		o			
2.1.1	document-type-name	m		m			
2.1.2	parameter	o		o			
2.2	constraint-set-and-abstract-syntax	o		o			
2.2.1	constraint-set-name	m		m			
2.2.2	abstract-syntax-name	m		m			
3	environment	o		o			
3.1	application-reference	o		o			
3.1.1	registered-identifier	o		o			
3.1.2	descriptive-identifier	o		o			
3.2	machine	o		o			
3.2.1	registered-identifier	o		o			
3.2.2	descriptive-identifier	o		o			
3.3	operating-system	o		o			
3.4	user-visible-string	o		o			
4	compression	o		o			
4.1	compression-algorithm-id	m		m			
4.2	compression-algorithm-param	m		m			
5	file-attributes	o		o			
5.1	pathname	o		o			
5.1.1	incomplete-pathname	o		o			
5.1.2	complete-pathname	o		o			
5.2	permitted-actions	o		o			
5.3	storage-account	o		o			
5.3.1	no-value-available	o		o			
5.3.2	actual-values	o		o			
5.4	date-and-time-of-creation	o		o			
5.5	date-and-time-of-last-modification	o		o			
5.6	date-and-time-of-last-read-access	o		o			
5.7	date-and-time-of-last-attribute-modification	o		o			
5.8	identity-of-creator	o		o			
5.8.1	no-value-available	o		o			
5.8.2	actual-values	o		o			
5.9	identity-of-last-modifier	o		o			
5.9.1	no-value-available	o		o			
5.9.2	actual-values	o		o			
5.10	identity-of-last-reader	o		o			
5.10.1	no-value-available	o		o			
5.10.2	actual-values	o		o			

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
5.11	identity-of-last-attribute-modifier	o		o			
5.11.1	no-value-available	o		o			
5.11.2	actual-values	o		o			
5.12	object-availability	o		o			
5.13	object-size	o		o			
5.13.1	no-value-available	o		o			
5.13.2	actual-values	o		o			
5.14	future-object-size	o		o			
5.15	access-control	o		o			
5.15.1	no-value-available	o		o			
5.15.2	actual-values	o		o			
5.15.2.1	action-list	m		m			
5.15.2.2	concurrency-access	o		o			
5.15.2.3	identity	o		o			
5.15.2.4	password	o		o			
5.15.2.5	location	o		o			
5.16	legal-qualifications	o		o			
5.17	private-use	o		o			
5.18	attribute-extensions	o		o			
6	extensions	o		o			

A.1.4   IPN fields

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	subject-ipm	m		m			see A.1.5/3
2	ipn-originator	o		m			see A.1.5/2
3	ipm-intended-recipient	m		m			see A.1.5/2
4	conversion-eits	o		m			
5	notification-extensions	o		o			
5.1	ipn-security-response	o		o			
5.1.1	content-or-arguments	m		m			
5.1.1.1	original-content	o		o			
5.1.1.2	original-security-arguments	o		o			
5.1.1.2.1	original-content-integrity-check	o		o			
5.1.1.2.2	original-message-origin-authentication-check	o		o			
5.1.1.2.3	original-message-token	o		o			
5.1.2	security-diagnostic-code	o		o			

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	**Profile**	**Base**	**Profile**		
6	non-receipt-fields	m		o			
6.1	non-receipt-reason	m		m			
6.2	discard-reason	m		m			
6.3	auto-forward-comment	o		m			
6.4	returned-ipm	o		o			
6.5	nrn-extensions	o		o			
7	receipt-fields	o		o			
7.1	receipt-time	m		m			
7.2	acknowledgement-mode	o		m			
7.3	suppl-receipt-info	o		o			
7.4	rn-extensions	o		o			
8	other-notification-type-fields	o		o			
8.1	absence-advice	o		o			
8.2	change-of-address-advice	o		o			

A.1.5 Common data types

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	**Profile**	**Base**	**Profile**		
1	RecipientSpecifier						
1.1	recipient	m		m			see A.1.5/2
1.2	notification-requests	o		m			
1.2.1	rn	o		o			
1.2.2	nrn	o		m			
1.2.3	ipm-return	o		o			
1.2.4	an-supported	o		o			
1.2.5	suppress-an	o		o			
1.3	reply-requested	o		m			
1.4	recipient-extensions	o		o			
1.4.1	recipient-security-request	o		o			
1.4.2	circulation-list-indicator	o		o			
1.4.3	precedence	o		o			
2	ORDescriptor						
2.1	formal-name	m		m			see A.1.7 in ITU-T Rec. X.482 | ISO/IEC ISP 10611-3
2.2	free-form-name	o		o			
2.3	telephone-number	o		o			
3	IPMIdentifier						
3.1	user	m		m			
3.2	user-relative-identifier	m		m			

A.2 Optional functional groups

Not applicable for the base standard PICS.

NOTE – The numbering of subclauses and items in this annex is identical to that in ISO/IEC ISP 12062-2.

A.3 Additional information

A.3.1 IPM Element of Service support

The following table shall be completed to indicate (Y or ✓), for each IPM Element of Service, whether the Element of Service is made available to the MHS user and, if so, how this is achieved. Where support for origination and reception cannot be covered by a single indication, then both shall be indicated.

The columns have the following meanings:

Service   the EoS can be made dynamically selectable by the MHS user (i.e. for invocation and/or notification, as appropriate) without requiring reconfiguration of the UA or other intervention in each instance (whether the semantics of the EoS are available at a human user interface, programmatic interface or by other means may be specified in the Comments column);

Auto   the EoS is automatically invoked/actioned by the UA without reference to the MHS user (whether selection is dynamically determined based on some other knowledge or criteria may be specified in the Comments column);

Config   the UA may be configured to select the EoS by the execution of some off-line process;

Other   any other means of using the EoS.

Ref.	Element of Service	Service	Auto	Config	Comments/Other
1	Access Management				
2	Additional Physical Rendition				
3	Alternate Recipient Allowed				
4	Alternate Recipient Assignment				
5	Authorization Time Indication				
6	Authorizing Users Indication				
7	Auto-acknowledgement of IP-messages				
8	Auto-action Log				
9	Auto-advise				
10	Auto-assignment of Annotations				
11	Auto-assignment of Group Names				
12	Auto-assignment of Storage Period				
13	Auto-correlation of IP-messages				
14	Auto-correlation of IP-notifications				
15	Auto-correlation of Reports				
16	Auto-deletion after Storage Period				
17	Auto-discarding of IP-messages				
18	Auto-forwarded Indication				
19	Auto-forwarding of IP-messages				
20	Auto-submitted Indication				
21	Basic Physical Rendition				
22	Blind Copy Recipient Indication				
23	Body Part Authentication and Integrity				
24	Body Part Encryption				
25	Circulation List Recipients Indication				

Ref.	Element of Service	Service	Auto	Config	Comments/Other
26	Content Confidentiality				
27	Content Integrity				
28	Content Type Indication				
29	Conversion Prohibition				
30	Conversion Prohibition in Case of Loss of Information				
31	Converted Indication				
32	Counter Collection				
33	Counter Collection with Advice				
34	Cover Page Suppression				
35	Cross-referencing Indication				
36	Deferred Delivery				
37	Deferred Delivery Cancellation				
38	Delivery Log				
39	Delivery Notification				
40	Delivery Time Stamp Indication				
41	Delivery via Bureaufax Service				
42	Designation of Recipient by Directory Name				
43	Disclosure of Other Recipients				
44	Distribution Codes Indication				
45	DL Exempted Recipients				
46	DL Expansion History Indication				
47	DL Expansion Prohibited				
48	EMS (Express Mail Service)				
49	Expiry Date Indication				
50	Explicit Conversion				
51	Forwarded IP-message Indication				
52	Grade of Delivery Selection				
53	Hold for Delivery				
54	Implicit Conversion				
55	Importance Indication				
56	Incomplete Copy Indication				
57	Information Category Indication				
58	IP-message Action Status				
59	IP-message Identification				
60	IP-message Security Labelling				
61	Language Indication				
62	Latest Delivery Designation				
63	Manual Handling Instructions Indication				
64	Message Flow Confidentiality				
65	Message Identification				
66	Message Origin Authentication				
67	Message Security Labelling				

Ref.	Element of Service	Service	Auto	Config	Comments/Other
68	Message Sequence Integrity				
69	MS Register				
70	Multi-destination Delivery				
71	Multi-part Body				
72	Non-delivery Notification				
73	Non-receipt Notification Request Indication				
74	Non-repudiation of Content Received				
75	Non-repudiation of Delivery				
76	Non-repudiation of IP-notification				
77	Non-repudiation of Origin				
78	Non-repudiation of Submission				
79	Obsoleting Indication				
80	Ordinary Mail				
81	Original Encoded Information Types Indication				
82	Originator Indication				
83	Originator Reference Indication				
84	Originator Requested Alternate Recipient				
85	Physical Delivery Notification by MHS				
86	Physical Delivery Notification by PDS				
87	Physical Forwarding Allowed				
88	Physical Forwarding Prohibited				
89	Precedence Indication				
90	Prevention of Non-delivery Notification				
91	Primary and Copy Recipients Indication				
92	Probe				
93	Probe Origin Authentication				
94	Proof of Content Received				
95	Proof of Delivery				
96	Proof of IP-notification				
97	Proof of Submission				
98	Receipt Notification Request Indication				
99	Redirection Disallowed by Originator				
100	Redirection of Incoming Messages				
101	Registered Mail				
102	Registered Mail to Addressee in Person				
103	Reply Request Indication				
104	Replying IP-message Indication				
105	Report Origin Authentication				
106	Request for Forwarding Address				
107	Request for Non-repudiation of Content Received				
108	Request for Non-repudiation of IP-notification				
109	Request for Proof of Content Received				

Ref.	Element of Service	Service	Auto	Config	Comments/Other
110	Request for Proof of IP-notification				
111	Requested Preferred Delivery Method				
112	Restricted Delivery				
113	Return of Content				
114	Secure Access Management				
115	Sensitivity Indication				
116	Special Delivery				
117	Storage of Draft Messages				
118	Storage on Submission				
119	Storage Period Assignment				
120	Stored Message Alert				
121	Stored Message Annotation				
122	Stored Message Deletion				
123	Stored Message Fetching				
124	Stored Message Grouping				
125	Stored Message Listing				
126	Stored Message Summary				
127	Subject Indication				
128	Submission Log				
129	Submission of IP-messages Incorporating Stored Messages				
130	Submission Time Stamp Indication				
131	Typed Body				
132	Undeliverable Mail with Return of Physical Message				
133	Use of Distribution List				
134	User/UA Capabilities Registration				

A.3.2　Encoded information type conversion requests supported

If IPM conversion is supported, the following table shall be completed to indicate (Y or ✓) which encoded information type conversions the implementation can request.

Ref.	Encoded Information Type Conversion	Supported	Comments
1.1	ia5-text-to-teletex (0)		
1.2	ia5-text-to-g3-facsimile (8)		
1.3	ia5-text-to-g4-class-1 (9)		
1.4	ia5-text-to-videotex (10)		
1.5	teletex-to-ia5-text (11)		
1.6	teletex-to-g3-facsimile (12)		
1.7	teletex-to-g4-class-1 (13)		
1.8	teletex-to-videotex (14)		
1.9	videotex-to-ia5-text (16)		
1.10	videotex-to-teletex (17)		

A.3.3 Non-standard integer body part types supported

The following table shall be completed to indicate (Y or ✓) which (if any) non-standard integer body part types the implementation is capable of originating and/or receiving. It shall be stated in the Comments column how such capability is implemented.

NOTE – Use of such non-standard body part types for messaging between 1988 UAs is deprecated. Any rules for accepting or rejecting submission of such body parts will be a local matter.

Ref.	Body Part Type	Orig.	Rec.	Comments
1	ODA (12)			
2	ISO6937Text (13)			
3	USA nationally-defined body part types (310)			
4	JP1 (440)			
5	other (specify)			

A.3.4 Extended body part types supported

The following table shall be completed to indicate (Y or ✓) which (if any) specific extended body part types the implementation is capable of originating and/or receiving (in addition to those specified in A.1.3.1), and the object identifier value(s) supported for the data object, the parameters object (if used) and encoded information types in each case. It shall be stated in the Comments column how such capability is implemented.

Ref.	Extended Body Part Type	Orig.	Rec.	Object Identifier Value(s) / Comments
1				
2				
3				
4				
5				

It should be indicated below whether the implementation can be configured to allow other extended body part types to be used, and how this is achieved.

A.3.5 Other general text body part repertoire support

The following table shall be completed to indicate (Y or ✓) which (if any) other character repertoires the implementation is capable of originating and/or receiving for support of the General Text body part type (in addition to those specified in A.1.3.2). It shall be stated in the Comments column how such capability is implemented.

Ref.	Repertoire set description	Repertoire identifier(s)	Orig.	Rec.	Comments
1					
2					
3					
4					
5					

It should be indicated below whether the implementation can be configured to allow other General Text character repertoires to be used, and how this is achieved.

A.3.6 Implementation constraints

The following table shall be completed to indicate any constraints imposed by the implementation.

Ref.	Constraint	Limit	Comments
1	limit on message size (if any) (see Note 1)		
2	limit on the number of recipients that may be specified in an IPM heading (if any) (see Note 2)		
3	other (specify)		
NOTE 1 – Any limit on the maximum size of message content shall be stated.			
NOTE 2 – Any limit on the number of recipients that may be specified in an IPM heading shall be stated.			

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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