INTERNATIONAL TELECOMMUNICATION UNION

ITU-T X.481

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TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

SERIES X: DATA NETWORKS AND OPEN SYSTEM COMMUNICATION

Message Handling Systems

Messaging Handling Systems – P2 protocol PICS proforma

ITU-T Recommendation X.481
Superseded by a more recent version

(Previously "CCITT Recommendation")

Superseded by a more recent version

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Superseded by a more recent version

FOREWORD

The ITU-T (Telecommunication Standardization Sector) is a permanent organ of the International Telecommunication Union (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 (Helsinki, March 1-12, 1993).

ITU-T Recommendation X.481 was revised by ITU-T Study Group 7 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 5th of October 1996.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

CONTENTS

SUMMARY

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

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).

Recommendation X.481

MESSAGING HANDLING SYSTEMS – P2 PROTOCOL PICS PROFORMA

(Geneva, 1992; revised in 1996)

1 Scope

This Recommendation provides the Protocol Implementation Conformance Statement (PICS) proforma for the P2 protocol specified in CCITT 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 Recommendation X.296. Details of the use of this proforma is provided in Annex A.

2 Normative references

The following Recommendations and other references 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 other references are subject to revision: all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

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

NOTE – References to specific clauses of ITU-T Recommendations shall be considered to refer also to the corresponding clauses of the equivalent ISO/IEC Standards (as noted below) unless otherwise stated.

- ITU-T Recommendation X.290 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – General concepts.* (See also ISO/IEC 9646-1.)
- ITU-T Recommendation X.296 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statement.* (See also ISO/IEC 9646-7.)
- CCITT Recommendation X.402 (1992), *Message Handling Systems: Overall architecture.* (See also ISO/IEC 10021-2.)
- CCITT Recommendation X.420 (1992), *Message Handling Systems: Interpersonal messaging system.* (See also ISO/IEC 10021-7.)
- ISO/IEC 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*
- ISO/IEC 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation Conformance Statements.*
- ISO/IEC 10021-2:1990, *Information technology – Text Communication – Message-Oriented Text Interchange Systems MOTIS) – Part 2: Overall Architecture.*
- ISO/IEC 10021-7:1990, *Information technology – Text Communication – Message-Oriented Text Interchange Systems (MOTIS) – Part 7: Interpersonal Messaging System.*

3 Definitions

Terms used in this Recommendation are defined in the referenced base Standards.

4 Abbreviations

For the purposes of this Recommendation, the following abbreviations are used.

IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
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

Support level for protocol elements and features:

m	mandatory full support
o	optional support
c	conditional support
i	out of scope
–	not applicable

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 the items in the PICS proforma in this Recommendation.

A PICS which conforms to this Recommendation shall:

a) describe an implementation which conforms to CCITT 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.

Annex A[1)]

PICS Proforma for interpersonal messaging protocol (P2)

(This annex forms an integral part of this Recommendation)

In the event of a discrepancy becoming apparent in the body of this Recommendation and the tables in this annex, this annex is to take precedence.

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.

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1) **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.

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

In each table, the "Base" column reflects the level of support required for conformance to the base standard, using the classification and notation defined in A.0.2.5.

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).

Contents of the PICS proforma

A.0 Identification of the implementation

A.0.1 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(1996)

Corr:
Corr:
Corr:
Corr:
Implementors' Guide version:

A.0.2 Instructions

A.0.2.1 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.0.2.2 Symbols, terms and abbreviations

The following definitions apply.

A.0.2.3 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 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.0.2.4 Base column

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 ISP.

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.0.2.5 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).
Y-	The element or feature is minimally 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.0.3 Identification of the implementation

A.0.3.1 Date of statement

Ref.	Question	Response
1	Date of statement (DD/MM/YY)	

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	Comments
1	Are all mandatory base standards requirements implemented?		

A.1 Basic requirements

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

A.1.2 IPM heading fields

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	this-IPM	m		m			A.1.5/3
2	originator	m		m			A.1.5/2
3	authorizing-users	o		m			A.1.5/2
4	primary-recipients	m		m			A.1.5/1
5	copy-recipients	m		m			A.1.5/1
6	blind-copy-recipients	o		m			A.1.5/1
7	replied-to-IPM	m		m			A.1.5/3
8	obsoleted-IPMs	o		m			A.1.5/3
9	related-IPMs	o		m			A.1.5/3
10	subject	m		m			
11	expiry-time	o		m			
12	reply-time	o		m			
13	reply-recipients	o		m			A.1.5/2
14	importance	o		m			
15	sensitivity	o		m			
16	auto-forwarded	o		m			
17	extensions	o		m			
17.1	incomplete-copy	o		o			
17.2	languages	o		m			
17.3	auto-submitted	o		o			

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			
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			(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	i		i			

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
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	externally-defined	o		o			A.1.3.1
NOTE – The teletex body part type should be used purely for teletex documents, obeying page rules, etc.							

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.	Extended Body Part Type	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	ia5-text-body-part	o		o			A.1.3/1
2	g3-facsimile-body-part	o		o			A.1.3/3
3	g4-class1-body-part	o		o			A.1.3/4
4	teletex-body-part	o		o			A.1.3/5
5	videotex-body-part	o		o			A.1.3/6
6	encrypted-body-part	I		I			
7	message-body-part	o		o			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			(Note)
12	file-transfer-body-part	o		o			
13	voice-body-part	o		o			
14	oda-body-part	o		o			ISO/IEC 8613-1
NOTE – This body part type is the preferred means of carrying unstructured character data, except when interworking with 1984 implementations.							

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	

A.1.3.3 File transfer parameters

Ref.	Extended Body Part Type	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			

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Ref.	Extended Body Part Type	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
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			
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	m		m			

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Ref.	Extended Body Part Type	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
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			
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			
5.14	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			A.1.5/3
2	ipn-originator	o		m			A.1.5/2
3	ipm-preferred-recipient	m		m			A.1.5/2
4	conversion-eits	o		m			
5	notification-extensions	o		o			
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			

A.1.5 Common data types

Ref.	Element	Origination		Reception		Support	Notes/References
		Base	Profile	Base	Profile		
1	RecipientSpecifier						
1.1	recipient	m		m			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			
1.3	reply-requested	o		m			
1.4	recipient-extensions	o		o			
2	ORDescriptor						
2.1	formal-name	m		m			
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 the one in ISO/IEC 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 offline process.

Other any other means of using the EoS.

Superseded by a more recent version

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	Authorizing Users Indication				
6	Auto-forwarded Indication				
7	Basic Physical Rendition				
8	Blind Copy Recipient Indication				
9	Body Part Encryption Indication				
10	Content Confidentiality				
11	Content Integrity				
12	Content Type Indication				
13	Conversion Prohibition				
14	Conversion Prohibition in Case of Loss of Information				
15	Converted Indication				
16	Counter Collection				
17	Counter Collection with Advice				
18	Cross-referencing Indication				
19	Deferred Delivery				
20	Deferred Delivery Cancellation				
21	Delivery Notification				
22	Delivery Time Stamp Indication				
23	Delivery via Bureaufax Service				
24	Designation of Recipient by Directory Name				
25	Disclosure of Other Recipients				
26	DL Expansion History Indication				
27	DL Expansion Prohibited				
28	EMS (Express Mail Service)				
29	Expiry Date Indication				
30	Explicit Conversion				
31	Forwarded IP-message Indication				
32	Grade of Delivery Selection				
33	Hold for Delivery				

Superseded by a more recent version

Ref.	Element of Service	Service	Auto	Config.	Comments/Other
34	Implicit Conversion				
35	Importance Indication				
36	Incomplete Copy Indication				
37	IP-message Identification				
38	Language Indication				
39	Latest Delivery Designation				
40	Message Flow Confidentiality				
41	Message Identification				
42	Message Origin Authentication				
43	Message Security Labelling				
44	Message Sequence Integrity				
45	MS Register				
46	Multi-destination Delivery				
47	Multi-part Body				
48	Non-delivery Notification				
49	Non-receipt Notification Request Indication				
50	Non-repudiation of Delivery				
51	Non-repudiation of Origin				
52	Non-repudiation of Submission				
53	Obsoleting Indication				
54	Ordinary Mail				
55	Original Encoded Information Types Indication				
56	Originator Indication				
57	Originator Requested Alternate Recipient				
58	Physical Delivery Notification by MHS				
59	Physical Delivery Notification by PDS				
60	Physical Forwarding Allowed				
61	Physical Forwarding Prohibited				
62	Prevention of Non-delivery Notification				
63	Primary and Copy Recipients Indication				
64	Probe				
65	Probe Origin Authentication				

Superseded by a more recent version

Ref.	Element of Service	Service	Auto	Config.	Comments/Other
66	Proof of Delivery				
67	Proof of Submission				
68	Receipt Notification Request Indication				
69	Redirection Disallowed by Originator				
70	Redirection of Incoming Messages				
71	Registered Mail				
72	Registered Mail to Addressee in Person				
73	Reply Request Indication				
74	Replying IP-message Indication				
75	Report Origin Authentication				
76	Request for Forwarding Address				
77	Requested Preferred Delivery Method				
78	Restricted Delivery				
79	Return of Content				
80	Secure Access Management				
81	Sensitivity Indication				
82	Special Delivery				
83	Stored Message Alert				
84	Stored Message Auto-forward				
85	Stored Message Deletion				
86	Stored Message Fetching				
87	Stored Message Listing				
88	Stored Message Summary				
89	Subject Indication				
90	Submission Time Stamp Indication				
91	Typed Body				
92	Undeliverable Mail with Return of Physical Message				
93	Use of Distribution List				
94	User/UA Capabilities Registration				

A.3.2 Encoded information type conversion requests supported

The following table shall be completed if support of the IPM Conversion FG is claimed, 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.

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)			

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.

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 externally-defined 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) (Note 1)		
2	limit on the number of recipients that may be specified in an IPM heading (if any) (Note 2)		
3	other (specify)		

NOTES

1 Any limit on the maximum size of message content shall be stated.

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 form an integral part of this Recommendation)

Corrigenda to the referenced Recommendations are contained in the joint MHS Implementors' Guide, Version 11, March 1994 (ITU Special Rapporteur's Group on Message Handling Systems and ISO/IEC JTC1/SC18/WG4 SWG on Messaging).

B.1 Amendments and corrigenda for the 1990/1992 base specifications

The following amendments and corrigenda to the equivalent International Standards are considered as normative references in this Recommendation.

ISO/IEC 10021-1/Cor.1:1991	ISO/IEC 10021-2/Cor.1:1991	ISO/IEC 10021-7:1990/Cor.1:1991
ISO/IEC 10021-1/Cor.2:1991	ISO/IEC 10021-2/Cor.2:1991	ISO/IEC 10021-7:1990/Cor.2:1991
ISO/IEC 10021-1/Cor.3:1992	ISO/IEC 10021-2/Cor.3:1992	ISO/IEC 10021-7:1990/Cor.3:1992
ISO/IEC 10021-1/Cor.4:1992	ISO/IEC 10021-2/Cor.4:1992	ISO/IEC 10021-7:1990/Cor.4:1992
ISO/IEC 10021-1/Cor.5:1992	ISO/IEC 10021-2/Cor.5:1993	ISO/IEC 10021-7:1990/Cor.5:1992
ISO/IEC 10021-1/Cor.6:1994	ISO/IEC 10021-2/Cor.6:1994	ISO/IEC 10021-7:1990/Cor.6:1993
	ISO/IEC 10021-2/Cor.7:1994	ISO/IEC 10021-7:1990/Cor.7:1994
		ISO/IEC 10021-7:1990/Cor.8:1994
ISO/IEC 10021-1/Am.2:1994	ISO/IEC 10021-2/Am.1:1994	
	ISO/IEC 10021-2/Am.2:1994	

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