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SERIE X: REDES DE DATOS Y COMUNICACIÓN
ENTRE SISTEMAS ABIERTOS

Sistemas de tratamiento de mensajes

**Sistemas de tratamiento de mensajes –
Formulario de declaración de conformidad
de implementación de protocolo para el
protocolo P7**

Recomendación UIT-T X.484

(Anteriormente Recomendación del CCITT)

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RECOMENDACIÓN UIT-T X.484

SISTEMAS DE TRATAMIENTO DE MENSAJES – FORMULARIO DE DECLARACIÓN DE CONFORMIDAD DE IMPLEMENTACIÓN DE PROTOCOLO PARA EL PROTOCOLO P7

Resumen

Esta Recomendación proporciona el formulario de declaración de conformidad de implementación de protocolo (PICS, *protocol implementation conformance statement*) para el protocolo P7 de los sistemas de tratamiento de mensajes (MHS, *message handling systems*) (acceso MS 88 y acceso MS 94) especificados en la Rec. UIT-T X.413 | ISO/CEI 10021-5 y en la Rec. UIT-T X.419 | ISO/CEI 10021-6. El formulario de PICS presenta en forma tabular los elementos obligatorios y facultativos del protocolo P7.

Orígenes

La Recomendación UIT-T X.484, ha sido revisada por la Comisión de Estudio 7 (1997-2000) del UIT-T y fue aprobada por el procedimiento de la Resolución N.º 1 de la CMNT el 25 de septiembre de 1998.

Según la decisión de la Comisión de Estudio 7 (18 de junio de 1999) de publicar una nueva edición de las Recomendaciones relativas a los sistemas de tratamiento de mensajes, se decidió, de acuerdo con el Director de la TSB, publicar también las Recomendaciones X.481, X.482, X.483, X.484 y X.486 con fecha 1999.

PREFACIO

La UIT (Unión Internacional de Telecomunicaciones) es el organismo especializado de las Naciones Unidas en el campo de las telecomunicaciones. El UIT-T (Sector de Normalización de las Telecomunicaciones de la UIT) es un órgano permanente de la UIT. Este órgano estudia los aspectos técnicos, de explotación y tarifarios y publica Recomendaciones sobre los mismos, con miras a la normalización de las telecomunicaciones en el plano mundial.

La Conferencia Mundial de Normalización de las Telecomunicaciones (CMNT), que se celebra cada cuatro años, establece los temas que han de estudiar las Comisiones de Estudio del UIT-T, que a su vez producen Recomendaciones sobre dichos temas.

La aprobación de Recomendaciones por los Miembros del UIT-T es el objeto del procedimiento establecido en la Resolución N.º 1 de la CMNT.

En ciertos sectores de la tecnología de la información que corresponden a la esfera de competencia del UIT-T, se preparan las normas necesarias en colaboración con la ISO y la CEI.

NOTA

En esta Recomendación, la expresión *empresa de explotación reconocida (EER)* designa a toda persona, compañía, empresa u organización gubernamental que explote un servicio de correspondencia pública. Los términos *Administración, EER y correspondencia pública* están definidos en la *Constitución de la UIT (Ginebra, 1992)*.

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Introducción

Esta Recomendación forma parte de un conjunto de Recomendaciones que definen el tratamiento de mensajes en un entorno de sistemas abiertos distribuidos.

La finalidad del tratamiento de mensajes es el intercambio de mensajes entre usuarios con un sistema de almacenamiento y retransmisión. El mensaje presentado por un usuario (el originador) se transfiere a través del sistema de transferencia de mensajes (MTS, *message transfer system*) y se entrega a uno o más usuarios (los destinatarios). El MTS comprende varios agentes de transferencia de mensajes (MTA, *message transfer agent*), que transfieren los mensajes y los entregan a los destinatarios.

Para evaluar las capacidades de una implementación particular es necesario disponer de una declaración que indique las capacidades y opciones que han sido implementadas para un protocolo OSI determinado. Dicha declaración se denomina declaración de conformidad de implementación de protocolo (PICS).

SISTEMAS DE TRATAMIENTOS DE MENSAJES – FORMULARIO DE DECLARACIÓN DE CONFORMIDAD DE IMPLEMENTACIÓN DE PROTOCOLO PARA EL PROTOCOLO P7¹

1 Alcance

Esta Recomendación proporciona el formulario de declaración de conformidad de implementación de protocolo (PICS), para el protocolo P7 especificado en la Rec. UIT-T X.413 | ISO/CEI 10021-5 y en la Rec. UIT-T X.419 | ISO/CEI 10021-6. El formulario de PICS presenta en forma tabular los elementos obligatorios y facultativos del protocolo P7. Se proporcionan dos formularios PICS. El anexo A contiene el formulario PICS para el acceso a almacenamiento de mensajes para la versión 1994 y ulteriores de las Recomendaciones | Normas Internacionales del MHS. El anexo B contiene el formulario PICS para el acceso a almacenamiento de mensajes para la versión 1988 de las Recomendaciones | Normas Internacionales del MHS.

El formulario de PICS se basa en las directrices pertinentes sobre formularios de PICS que figuran en la Rec. UIT-T X.296 | ISO/CEI 9646-7.

2 Referencias normativas

Las siguientes Recomendaciones y Normas Internacionales contienen disposiciones que, mediante su referencia en este texto, constituyen disposiciones de la presente Recomendación | Norma Internacional. Al efectuar esta publicación, estaban en vigor las ediciones indicadas. Todas las Recomendaciones y Normas son objeto de revisiones, por lo que se preconiza que los participantes en acuerdos basados en la presente Recomendación | Norma Internacional investiguen la posibilidad de aplicar las ediciones más recientes de las Recomendaciones y las Normas Internacionales actualmente vigentes. La Oficina de Normalización de las Telecomunicaciones de la UIT mantiene una lista de las Recomendaciones UIT-T actualmente vigentes.

2.1 Recomendaciones | Normas internacionales idénticas

- Recomendación UIT-T X.402 (1999) | ISO/CEI 10021-2:1999, *Tecnología de la Información – Sistemas de tratamiento de mensajes: Arquitectura global.*
- Recomendación UIT-T X.413 (1999) | ISO/CEI 10021-5:1999, *Tecnología de la Información – Sistemas de tratamiento de mensajes: Memoria de mensajes: Definición del servicio abstracto.*
- Recomendación UIT-T X.419 (1999) | ISO/CEI 10021-6:1999, *Tecnología de la Información – Sistemas de tratamiento de mensajes: Especificaciones de protocolo.*

2.2 Pares de Recomendaciones | Normas internacionales de contenido técnico equivalente

- Recomendación UIT-T X.290 (1995), *Metodología y marco de las pruebas de conformidad de interconexión de sistemas abiertos de las Recomendaciones sobre los protocolos para aplicaciones del UIT-T – Conceptos generales.*
ISO/CEI 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts.*
- Recomendación UIT-T X.296 (1995), *Metodología y marco de las pruebas de conformidad de interconexión de sistemas abiertos de las Recomendaciones sobre los protocolos para aplicaciones del UIT-T – Declaraciones de conformidad de implementación.*
ISO/CEI 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation conformance statements.*

¹ El anexo A de la presente Recomendación está alineado técnicamente con el anexo A de ISO/CEI ISP 10611-6, *Information technology – International Standardized Profiles AMH1n – Message Handling Systems – Common Messaging – Part 6: AMH15 – MS 94 Access (P7)*. El anexo B de esta Recomendación está alineado técnicamente con el anexo A de ISO/CEI ISP 10611-5, *Information Technology – International Standardized Profiles AMH1n – Message Handling Systems – Common Messaging – Part 5: AMH13 – MS Access (P7)*.

3 Definiciones

Los términos utilizados en esta Recomendación se definen en las Recomendaciones | Normas Internacionales referenciadas.

4 Abreviaturas

En esta Recomendación se utilizan las siguientes siglas.

ISP	Perfil normalizado internacional (<i>international standardized profile</i>)
MHS	Sistema de tratamiento de mensaje (<i>message handling systems</i>)
MS	Memoria de mensajes (<i>message store</i>)
MTA	Agente de transferencia de mensajes (<i>message transfer agent</i>)
OSI	Interconexión de sistemas abiertos (<i>open systems interconnection</i>)
PDU	Unidad de datos de protocolo (<i>protocol data unit</i>)
PICS	Declaración de conformidad de implementación de protocolo (<i>protocol implementation conformance statement</i>)
UA	Agente de usuario (<i>user agent</i>)

5 Conformidad

Un formulario de PICS conforme será técnicamente equivalente al texto del formulario de PICS de esta Recomendación y observará la numeración y el orden de los elementos del formulario de PICS de esta Recomendación.

Un formulario de PICS conforme a esta Recomendación deberá:

- a) describir una implementación conforme al contexto de aplicación 1994 o 1988 definido en la Rec. UIT-T X.413 | ISO/CEI 10021-5 y a la Rec. UIT-T X.419 | ISO/CEI 10021-6;
- b) ser un formulario de PICS conforme, completado según las instrucciones que figuran en el anexo A o en el anexo B según proceda;
- c) incluir la información necesaria para identificar de manera única tanto al proveedor como a la implementación.

Anexo A²

Formulario de PICS para el protocolo P7 de acceso a memoria de mensaje (MS 94)

(Este anexo es parte integrante de la presente Recomendación)

Contents of the PICS proforma

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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 10611-6, "Information technology – International Standardized Profiles AMH1n – Message Handling Systems – Common Messaging – Part 6: AMH15 – MS 94 Access (P7)".

² **Comunicado sobre derechos de autor del formulario de PICS**

Los usuarios de esta Recomendación pueden reproducir libremente el formulario de PICS de este anexo a fin de que pueda ser utilizado para los fines previstos, y pueden además publicar el PICS cumplimentado.

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.

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 and also for use within a selector to the level of support claimed for the filter item. Mandatory support of an MS attribute by the MS-user requires that it is supported in the context of at least one supported operation argument and result or supported in a selector to the level of support claimed for the filter item (see table in A.3.6). The way in which attribute values are stored by an MS implementation, or used by an MS-user implementation, is otherwise a local matter.

optional support (o): An implementation is not required to support the element or feature. If support is claimed, the element shall be treated as if it were specified as mandatory support. If support is not claimed, and the element is an argument, then an implementation shall generate an appropriate error indication if the element is received. If support is not claimed, and the element is a result, then an implementation may ignore the element if it is received. 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 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.484

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)	1994 version
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.1.1 Supported application contexts

Ref.	Application Context	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ms-access-94	o		o			Note 1
2	ms-reliable-access-94	o		o			Note 2

NOTE 1 – For a MS implementation, the application-context ms-access shall also be supported.

NOTE 2 – For a MS implementation, the application-contexts ms-access and ms-reliable-access shall also be supported.

A.1.2 Supported operations

A.1.2.1 Bind and Unbind

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	MSBind	m		m			see A.1.3.1
2	MSUnbind	m		m			

A.1.2.2 MS Message Submission Service Element (MS-MSSE)

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	MSMessageSubmission	m		m			see A.1.3.2
2	MSProbeSubmission	o		m			see A.1.3.3
3	CancelDeferredDelivery	o		m ¹			see A.1.3.4
4	SubmissionControl	o		o			see A.1.3.5

1 Except when the Submission or Submission-Log entry-class is supported, an MS is only required to be able to copy the syntax of the arguments and results of these operations to the MTA or MS-user, as appropriate; it is not required to be able to originate such elements.

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

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	Summarize	o		m			see A.1.3.6
2	List	o		m			see A.1.3.7
3	Fetch	m		m			see A.1.3.8
4	Delete	m		m			see A.1.3.9
5	Register-MS	o		m			see A.1.3.10
6	Alert	o		o			see A.1.3.11
7	Modify	o		o			see A.1.3.12

A.1.2.4 Message Administration Service Element 94 (MASE-94)

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	Register	o		o			see A.1.3.13
2	ChangeCredentials (MTA to MS)	–		o			
3	ChangeCredentials (MS-user to MTA via MS)	o		o			see A.1.3.14

NOTE – For an MS-user, some or all of the services and functionality supported by these operations may be implemented by other means as a local matter.

A.1.3 Operation arguments/results

A.1.3.1 MSBind

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	initiator-name	m		m			see A.1.10.2
1.2	initiator-credentials	m		m			
1.2.1	simple	m		m			
1.2.1.1	ia5-string	o		m			
1.2.1.2	octet-string	o		m			
1.2.2	strong	o		o			
1.2.2.1	bind-token	m		m			
1.2.2.1.1	token-type-identifier	m		m			
1.2.2.1.2	token	m		m			see A.1.11
1.2.2.2	certificate	o		o			see A.1.8/22
1.2.2.3	certificate-selector	o		o			see A.1.8/24
1.2.3	protected	o		o			
1.2.3.1	signature	m		m			
1.2.3.1.1	password	o		o			
1.2.3.1.2	time1	o		o			
1.2.3.1.3	time2	o		o			
1.2.3.1.4	random1	o		o			
1.2.3.1.5	random2	o		o			
1.2.3.2	time1	o		o			
1.2.3.3	time2	o		o			
1.2.3.4	random1	o		o			
1.2.3.5	random2	o		o			
1.3	security-context	o		o			see A.1.9/3
1.4	fetch-restrictions	o		o			
1.4.1	allowed-content-types	o		o			
1.4.2	allowed-EITs	o		o			
1.4.3	maximum-attribute-length	o		o			
1.5	ms-configuration-request	o		m			
1.6	ua-registration-identifier	o		o			
1.7	bind-extensions	o		o			
2	RESULT						
2.1	responder-credentials	m		m			
2.1.1	simple	m		m			
2.1.1.1	ia5-string	m		o			
2.1.1.2	octet-string	m		o			
2.1.2	strong	o		o			
2.1.2.1	bind-token	m		m			
2.1.2.1.1	token-type-identifier	m		m			
2.1.2.1.2	token	m		m			see A.1.11
2.1.2.2	certificate	o		o			see A.1.8/22
2.1.2.3	certificate-selector	o		o			see A.1.8/24

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
2.1.3	protected	o		o			
2.1.3.1	signature	m		m			
2.1.3.1.1	password	o		o			
2.1.3.1.2	time1	o		o			
2.1.3.1.3	time2	o		o			
2.1.3.1.4	random1	o		o			
2.1.3.1.5	random2	o		o			
2.1.3.2	time1	o		o			
2.1.3.3	time2	o		o			
2.1.3.4	random1	o		o			
2.1.3.5	random2	o		o			
2.2	available-auto-actions	o		c ²			
2.3	available-attribute-types	o		m			
2.4	alert-indication	o		o			
2.5	content-types-supported	o		c ³			
2.6	entry-classes-supported	o		m			see A.1.8/5
2.7	matching-rules-supported	o		m			
2.8	bind-result-extensions	c ¹⁰		c ¹⁰			
2.8.1	modify-capability	c ¹²		c ¹²			
2.8.2	modify-retrieval-status-capability	c ¹³		c ¹³			
2.8.3	protected-change-credentials-capability	c ¹⁴		c ¹⁴			
2.9	message-group-depth	o		c ¹¹			
2.10	auto-action-error-indication	c ⁷		c ⁷			
2.10.1	indication-only	c ⁸		c ⁸			
2.10.2	auto-action-log-entry	c ⁹		c ⁹			
2.11	unsupported-extensions	o		o			
2.12	ua-registration-id-unknown	c ⁶		m ⁵			
2.13	service-information	o		o			
<p>2 if at least one auto-action type is supported then m else –</p> <p>3 if at least one content-type is supported then m else –</p> <p>5 if the MS does not support UA registration and has received the element ua-registration-identifier in the argument, it shall generate the value TRUE</p> <p>6 shall be supported if ua-registration-identifier is supported</p> <p>7 shall be supported if at least one auto-action is supported</p> <p>8 shall be supported if the Auto-action Log entry-class is not supported</p> <p>9 shall be supported if the Auto-action Log entry-class is supported</p> <p>10 shall be supported if at least one extension is supported</p> <p>11 shall be supported if message grouping functionality is supported</p> <p>12 shall be supported if the Modify operation is supported</p> <p>13 shall be supported if modification of the retrieval-status attribute is supported</p> <p>14 shall be supported if protected credentials are supported</p>							

A.1.3.2 MSMessageSubmission

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	(envelope)	m		m			see A.1.4
1.2	content	m		m			
1.3	submission-options	o		o			
1.3.1	object-entry-class	o		o			see A.1.8/5
1.3.2	disable-auto-modify	o		o			
1.3.3	add-message-group-names	o		o			
1.3.4	ms-submission-extensions	o		o			
1.3.4.1	originator-token	o		o			see A.1.9/4
1.3.4.2	originator-certificate-selectors-override	o		o			see A.1.9/8
2	RESULT						
2.1	mts-result	m		m			
2.1.1	message-submission-identifier	m		m			see A.1.8/8
2.1.2	message-submission-time	m		m			
2.1.3	content-identifier	o		m			
2.1.4	extensions	o		m			see A.1.9/1
2.1.4.1	originating-MTA-certificate	o		o			see A.1.8/22
2.1.4.2	proof-of-submission	o		o			see A.1.9/6
2.1.4.3	originating-MTA-certificate-selector	o		o			see A.1.8/24
2.1.5	ms-message-result	o		o			
2.1.5.1	created-entry	o		o			
2.1.5.2	auto-action-error-indication	o		o			
2.1.5.2.1	indication-only	c ²		c ²			
2.1.5.2.2	auto-action-log-entry	c ³		c ³			
2.1.5.3	ms-submission-result-extensions	o		o			
2.2	store-draft-result	o		o			
2.2.1	created-entry	m		m			
2.2.2	auto-action-error-indication	o		o			
2.2.2.1	indication-only	c ²		c ²			
2.2.2.2	auto-action-log-entry	c ³		c ³			
2.2.3	ms-submission-result-extensions	o		o			
2	shall be supported if the Auto-action Log entry-class is not supported						
3	shall be supported if the Auto-action Log entry-class is supported						

A.1.3.3 MSProbeSubmission

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	(envelope)	m		m			see A.1.5
1.2	submission-options	o		o			
1.2.1	object-entry-class	o		o			see A.1.8/5
1.2.2	disable-auto-modify	o		o			
1.2.3	add-message-group-names	o		o			
1.2.4	ms-submission-extensions	o		o			
2	RESULT						
2.1	probe-submission-identifier	m		m			see A.1.8/8
2.2	probe-submission-time	m		m			
2.3	content-identifier	o		m			
2.4	extensions	o		m			
2.5	ms-probe-result	o		o			
2.5.1	created-entry	o		o			
2.5.2	auto-action-error-indication	o		o			
2.5.2.1	indication-only	c ²		c ²			
2.5.2.2	auto-action-log-entry	c ³		c ³			
2.5.3	ms-submission-result-extensions	o		o			
2	shall be supported if the Auto-action Log entry-class is not supported						
3	shall be supported if the Auto-action Log entry-class is supported						

A.1.3.4 CancelDeferredDelivery

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	message-submission-identifier	m		m			see A.1.8/8
2	RESULT						
2.1	NULL	m		m			

A.1.3.5 SubmissionControl

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	controls	m		m			
1.1.1	restrict	m		o			
1.1.2	permissible-operations	m		o			
1.1.3	permissible-maximum-content-length	m		o			
1.1.4	permissible-lowest-priority	m		o			
1.1.5	permissible-security-context	o		o			see A.1.9/3
2	RESULT						
2.1	waiting	m		m			
2.1.1	waiting-operations	o		m			
2.1.2	waiting-messages	o		m			
2.1.3	waiting-content-types	o		m			
2.1.4	waiting-encoded-information-types	o		m			see A.1.8/10

A.1.3.6 Summarize

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	entry-class	o		m			see A.1.8/5
1.2	selector	m		m			see A.1.8/7
1.3	summary-requests	o		m			
1.4	summarize-extensions	o		o			
2	RESULT						
2.1	next	c ¹		m			
2.2	count	m		m			
2.3	span	m		m			
2.4	summaries	o		m			
2.4.1	absent	m		m			
2.4.2	present	m		m			
2.4.2.1	type	m		m			
2.4.2.2	value	m		m			
2.4.2.3	count	m		m			
2.4.2.4	summarize-result-extensions	o		o			
1 if limit is supported in the Selector then m else –							

A.1.3.7 List

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	entry-class	o		m			see A.1.8/5
1.2	selector	m		m			see A.1.8/7
1.3	requested-attributes	m		m			see A.1.8/1
1.4	list-extensions	o		o			
2	RESULT						
2.1	next	c ¹		m			
2.2	requested	m		m			see A.1.8/2
2.3	list-result-extensions	o		o			
1 if limit is supported in the Selector then m else –							

A.1.3.8 Fetch

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	entry-class	o		m			see A.1.8/5
1.2	item	m		m			
1.2.1	search	o		o			see A.1.8/7
1.2.2	precise	o		o			
1.3	requested-attributes	m		m			see A.1.8/1
1.4	fetch-extensions	o		o			
2	RESULT						
2.1	entry-information	m		m			see A.1.8/2
2.2	list	o		o			
2.3	next	c ¹		c ¹			
2.4	fetch-result-extensions	o		o			
1 if search is supported then m else –							

A.1.3.9 Delete

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	entry-class	o		m			see A.1.8/5
1.2	items	m		m			
1.2.1	selector	o		m			see A.1.8/7
1.2.2	sequence-numbers	o		m			
1.3	delete-extensions	o		o			
2	RESULT						
2.1	delete-result-94	m		m			
2.1.1	entries-deleted	m		m			
2.1.2	delete-result-extensions	o		o			

A.1.3.10 Register-MS

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	auto-action-registrations	o		o			see A.1.8/15
1.2	auto-action-deregistrations	o		o			
1.2.1	auto-action-type	m		m			
1.2.2	registration-identifier	o		o			
1.3	list-attribute-defaults	o		o			
1.4	fetch-attribute-defaults	o		o			
1.5	change-credentials	m		m			
1.5.1	old-credentials	m		m			
1.5.1.1	simple	m		m			
1.5.1.1.1	ia5-string	o		m			
1.5.1.1.2	octet-string	o		m			
1.5.2	new-credentials	m		m			
1.5.2.1	simple	m		m			
1.5.2.1.1	ia5-string	o		m			
1.5.2.1.2	octet-string	o		m			
1.6	user-security-labels	o		o			see A.1.9/3
1.7	ua-registrations	o		o			see A.1.8/16
1.8	submission-defaults	o		o			
1.8.1	object-entry-class	o		o			
1.8.2	disable-auto-modify	o		o			
1.8.3	add-message-group-names	o		o			
1.8.4	ms-submission-extensions	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1.9	message-group-registrations	o		o			
1.9.1	register-group	o		o			see A.1.8/14
1.9.2	deregister-group	o		o			
1.9.3	change-descriptors	o		o			see A.1.8/14
1.10	registration-status-request	o		o			
1.10.1	registrations	m		m			
1.10.2	restrict-message-groups	o		o			
1.10.2.1	parent-group	o		o			
1.10.2.2	immediate-descendants-only	o		o			
1.10.2.3	omit-descriptors	o		o			
1.11	register-ms-extensions	o		o			
1.11.1	protected-change-credentials	o		o			
2	RESULT						
2.1	no-status-information	m		m			
2.2	registered-information	o		o			
2.2.1	auto-action-registrations	o		o			see A.1.8/15
2.2.2	list-attribute-defaults	o		o			
2.2.3	fetch-attribute-defaults	o		o			
2.2.4	ua-registrations	o		o			see A.1.8/16
2.2.5	submission-defaults	o		o			see A.1.8/17
2.2.6	message-group-registrations	o		o			see A.1.8/14
2.2.7	register-ms-result-extensions	o		o			

A.1.3.11 Alert

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	alert-registration-identifier	m		m			
1.2	new-entry	o		m			see A.1.8/2
2	RESULT						
2.1	NULL	m		m			

A.1.3.12 Modify

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	entry-class	o		m			see A.1.8/5
1.2	entries	m		m			
1.2.1	selector	o		o			see A.1.8/7
1.2.2	specific-entries	o		o			
1.2.3	modifications	m		m			see A.1.8/19
1.2.4	modify-extensions	o		o			
2	RESULT						
2.1	entries-modified	m		m			
2.2	modify-result-extensions	o		o			

A.1.3.13 Register

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	user-name	o		o			see A.1.10.2
1.2	user-address	o		o			
1.3	deliverable-class	o		o			
1.3.1	content-types	o		o			
1.3.2	maximum-content-length	o		o			
1.3.3	encoded-information-types-constraints	o		o			see A.1.8/20
1.3.4	security-labels	o		o			see A.1.9/3
1.3.5	extensions	o		o			
1.4	default-delivery-controls	o		o			
1.4.1	restrict	o		o			
1.4.2	permissible-operations	o		o			
1.4.3	permissible-maximum-content-length	o		o			
1.4.4	permissible-lowest-priority	o		o			
1.4.5	permissible-content-types	o		o			
1.4.6	permissible-encoded-information-types	o		o			see A.1.8/20
1.5	redirections	o		o			
1.5.1	redirection-classes	o		o			
1.5.1.1	content-types	o		o			
1.5.1.2	maximum-content-length	o		o			
1.5.1.3	encoded-information-types-constraints	o		o			see A.1.8/20
1.5.1.4	security-labels	o		o			see A.1.9/3
1.5.1.5	priority	o		o			
1.5.1.6	objects	o		o			
1.5.1.7	applies-only-to	o		o			see A.1.8/21

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1.5.2	recipient-assigned-alternate-recipient	o		o			see A.1.10.1
1.6	restricted-delivery	o		o			see A.1.8/21
1.7	retrieve-registrations	o		o			
1.7.1	standard-parameters	o		o			
1.7.2	extensions	o		o			
1.8	extensions	o		o			
2	RESULT						
2.1	empty-result	m		m			
2.2	non-empty-result	o		m			
2.2.1	registered-information	o		m			
2.2.1.1	user-name	o		o			see A.1.10.2
2.2.1.2	user-address	o		o			
2.2.1.3	deliverable-class	o		o			
2.2.1.3.1	content-types	o		o			
2.2.1.3.2	maximum-content-length	o		o			
2.2.1.3.3	encoded-information-types-constraints	o		o			see A.1.8/20
2.2.1.3.4	security-labels	o		o			see A.1.9/3
2.2.1.3.5	extensions	o		o			
2.2.1.4	default-delivery-controls	o		o			
2.2.1.4.1	restrict	o		o			
2.2.1.4.2	permissible-operations	o		o			
2.2.1.4.3	permissible-maximum-content-length	o		o			
2.2.1.4.4	permissible-lowest-priority	o		o			
2.2.1.4.5	permissible-content-types	o		o			
2.2.1.4.6	permissible-encoded-information-types	o		o			see A.1.8/20
2.2.1.5	redirections	o		o			
2.2.1.5.1	redirection-classes	o		o			
2.2.1.5.1.1	encoded-information-types-constraints	o		o			see A.1.8/20
2.2.1.5.1.2	maximum-content-length	o		o			
2.2.1.5.1.3	content-types	o		o			
2.2.1.5.1.4	security-labels	o		o			see A.1.9/3
2.2.1.5.1.5	priority	o		o			
2.2.1.5.1.6	objects	o		o			
2.2.1.5.1.7	applies-only-to	o		o			see A.1.8/21
2.2.1.5.2	recipient-assigned-alternate-recipient	o		o			see A.1.10.1
2.2.1.6	restricted-delivery	o		o			see A.1.8/21
2.2.1.7	extensions	o		o			
2.2.2	extensions	o		o			

A.1.3.14 ChangeCredentials

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	old-credentials	m		m			
1.1.1	simple	m		m			
1.1.1.1	IA5String	o		m			
1.1.1.2	OCTET STRING	o		m			
1.2	new-credentials	m		m			
1.2.1	simple	m		m			
1.2.1.1	IA5String	o		m			
1.2.1.2	OCTET STRING	o		m			
2	RESULT						
2.1	NULL	m		m			

A.1.4 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	m		m			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			
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			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
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	x ³		x 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			
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			
9.4.16	PrivateExtensions	o		o			see A.3.3
3	the presence of this element is prohibited when using 94 application-context						

A.1.5 ProbeSubmissionEnvelope

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	m		m			see A.1.8/10
3	content-type	m		m			see A.1.8/11
4	content-identifier	o		m			
5	content-length	o		m			
6	per-message-indicators	m		m			see A.1.8/12
7	extensions	m		m			see A.1.9/1
7.1	recipient-reassignment-prohibited	o		o			
7.2	dl-expansion-prohibited	o		o			
7.3	conversion-with-loss-prohibited	o		o			
7.4	originator-certificate	o		o			see A.1.8/22
7.5	message-security-label	o		o			see A.1.9/3
7.6	content-correlator	o		m			
7.7	probe-origin-authentication-check	o		o			see A.1.9/5
7.8	certificate-selectors	o		o			see A.1.9/7
7.9	PrivateExtensions	o		o			see A.3.3
8	per-recipient-fields	m		m			
8.1	recipient-name	m		m			see A.1.10.1
8.2	originator-report-request	m		m			
8.3	explicit-conversion	o		o			
8.4	extensions	m		m			see A.1.9/1
8.4.1	originator-requested-alternate-recipient	o		o			see A.1.10.1
8.4.2	requested-delivery-method	o		o			
8.4.3	physical-rendition-attributes	o		o			
8.4.4	PrivateExtensions	o		o			see A.3.3

A.1.6 (Not used)

NOTE – Not used to maintain clause numbering alignment with Annex B.

A.1.7 (Not used)

NOTE – Not used to maintain clause numbering alignment with Annex B.

A.1.8 Common data types

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	AttributeSelection						
1.1	type	m		m			
1.2	from	o		o			
1.3	count	o		o			
2	EntryInformation						
2.1	sequence-number	m		m			
2.2	attributes	m		m			
3	Filter						
3.1	item	m		m			see A.1.8/4
3.2	and	o		m			
3.3	or	o		m			
3.4	not	o		m			
4	FilterItem						
4.1	equality	o		m			
4.2	substrings	o		o			
4.2.1	type	m		m			
4.2.2	strings	m		m			
4.2.2.1	initial	o		m			
4.2.2.2	any	o		m			
4.2.2.3	final	o		m			
4.3	greater-or-equal	o		m			
4.4	less-or-equal	o		m			
4.5	present	o		m			
4.6	approximate-match	o		o			
4.7	other-match	o		o			
4.7.1	matching-rule	m		m			
4.7.2	attribute-type	m		m			
4.7.3	match-value	m		m			
5	EntryClass						
5.1	delivery	m		m			
5.2	submission	o		o			
5.3	draft	o		o			
5.4	stored-message	m		m			
5.5	delivery-log	c ⁴		c ⁴			
5.6	submission-log	c ⁵		c ⁵			
5.7	message-log	c ⁶		c ⁶			
5.8	auto-action-log	o		o			
6	Range						
6.1	sequence-number-range	o		m			
6.1.1	from	o		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
6.1.2	to	o		m			
6.2	creation-time-range	o		m			
6.2.1	from	o		m			
6.2.2	to	o		m			
7	Selector						
7.1	child-entries	o		m			
7.2	range	o		m			see A.1.8/6
7.3	filter	o		m			see A.1.8/3
7.4	limit	o		m			
7.5	override	o		o			
8	MTSIdentifier						
8.1	global-domain-identifier	m		m			see A.1.8/9
8.2	local-identifier	m		m			
9	GlobalDomainIdentifier						
9.1	country-name	m		m			
9.2	administration-domain-name	m		m			
9.3	private-domain-identifier	o		o			
10	EncodedInformationTypes						
10.1	built-in-encoded-information-types	m		m			
10.2	(non-basic parameters)	o		o			
10.3	extended-encoded-information-types	o		o			
11	ContentType						
11.1	built-in	o		o			
11.2	extended	o		o			
12	PerMessageIndicators						
12.1	disclosure-of-other-recipients	o		m			
12.2	implicit-conversion-prohibited	m		m			
12.3	alternate-recipient-allowed	o		m			
12.4	content-return-request	o		o			
12.5	reserved	o		o			
12.6	bit-5	o		o			
12.7	bit-6	o		o			
12.8	service-message	o		o			
13	TokenData						
13.1	type	m		m			
13.2	value	m		m			
14	MessageGroupNameAndDescriptor						
14.1	message-group-name	m		m			
14.2	message-group-descriptor	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
15	AutoActionRegistration						
15.1	auto-action-type	m		m			
15.2	registration-identifier	o		o			
15.3	registration-parameter	o		o			
16	UARegistration						
16.1	ua-registration-identifier	m		m			
16.2	ua-list-attribute-defaults	o		o			
16.3	ua-fetch-attribute-defaults	o		o			
16.4	ua-submission-defaults	o		o			
16.4.1	object-entry-class	o		o			see A.1.8/5
16.4.2	disable-auto-modify	o		o			
16.4.3	add-message-group-names	o		o			
16.4.4	ms-submission-extensions	o		o			
16.5	content-specific-defaults	o		o			
17	MSSubmissionOptions						
17.1	object-entry-class	o		o			see A.1.8/5
17.2	disable-auto-modify	o		o			
17.3	add-message-group-names	o		o			
17.4	ms-submission-extensions	o		o			
18	OrderedAttribute						
18.1	attribute-type	m		m			
18.2	attribute-values	m		m			
18.2.1	value	m		m			
18.2.2	position	m		m			
19	EntryModification						
19.1	strict	o		o			
19.2	modification	m		m			
19.2.1	add-attribute	o		o			
19.2.2	remove-attribute	o		o			
19.2.3	add-values	o		o			see A.1.8/18
19.2.4	remove-values	o		o			see A.1.8/18
20	EncodedInformationTypes Constraints						
20.1	unacceptable-eits	o		o			
20.2	acceptable-eits	o		o			
20.3	exclusively-acceptable-eits	o		o			
21	Restriction						
21.1	permitted	o		o			
21.2	source-type	o		o			
21.3	source-name	o		o			
21.3.1	exact-match	o		o			
21.3.2	pattern-match	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
22	Certificates						
22.1	userCertificate	m		m			see A.1.8/23
22.2	certificationPath	o		o			see A.1.8/23
23	Certificate						
23.1	version	o		o			
23.2	serialNumber	m		m			
23.3	signature	m		m			
23.4	issuer	m		m			
23.5	validity	m		m			
23.6	subject	m		m			
23.7	subjectPublicKeyInfo	m		m			
23.8	issuerUniqueIdentifier	o		o			
23.9	subjectUniqueIdentifier	o		o			
23.10	extensions	m		m			
23.10.1	authorityKeyIdentifier	o		o			
23.10.2	subjectKeyIdentifier	o		o			
23.10.3	keyUsage	o		o			
23.10.4	extKeyUsage	o		o			
23.10.5	privateKeyUsagePeriod	o		o			
23.10.6	certificatePolicies	o		o			
23.10.7	policyMappings	o		o			
23.10.8	subjectAltName	o		o			
23.10.8.1	otherName	o		o			
23.10.8.1.1	mta-name	o		o			
23.10.8.2	rfc822Name	-		-			
23.10.8.3	dNSName	-		-			
23.10.8.4	x400Address	o		o			
23.10.8.5	directoryName	o		o			
23.10.8.6	ediPartyName	-		-			
23.10.8.7	uniformResourceIdentifier	-		-			
23.10.8.8	iPAddress	-		-			
23.10.8.9	registeredID	-		-			
23.10.9	issuerAltName	o		o			
23.10.10	subjectDirectoryAttributes	o		o			
23.10.11	basicConstraints	o		o			
23.10.12	nameConstraints	o		o			
23.10.13	policyConstraints	o		o			
23.10.14	cRLDistributionPoints	o		o			
24	CertificateAssertion						
24.1	serialNumber	o		o			
24.2	issuer	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
24.3	subjectKeyIdentifier	o		o			
24.4	authorityKeyIdentifier	o		o			
24.5	certificateValid	o		o			
24.6	privateKeyValid	o		o			
24.7	subjectPublicKeyAlgID	o		o			
24.8	keyUsage	o		o			
24.9	subjectAltName	o		o			
24.10	policy	o		o			
24.11	pathToName	–		–			
<p>4 if Submission-log is supported then m else – (see clause 6.3.7.4 of ITU-T Rec. X.413 ISO/IEC 10021-5)</p> <p>5 if Submission and Delivery-log entry-classes are supported then m else – (see clause 6.3.7.4 of ITU-T Rec. X.413 ISO/IEC 10021-5)</p> <p>6 if Delivery-log and/or Submission-log entry-class is supported then m else – (see clause 6.3.7.4 of ITU-T Rec. X.413 ISO/IEC 10021-5)</p>							

A.1.9 Extension data types

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ExtensionField						
1.1	type	o		m			
1.1.1	standard-extension	m		m			
1.1.2	private-extension	o		m			
1.2	criticality	m		m			
1.3	value	m		m			
2	MessageOriginAuthentication Check						
2.1	algorithm-identifier	m		m			
2.2	content	m		m			
2.3	content-identifier	o		o			
2.4	message-security-label	o		o			see A.1.9/3
3	SecurityLabel						
3.1	security-policy-identifier	o		o			
3.2	security-classification	o		o			
3.3	privacy-mark	o		o			
3.4	security-categories	o		o			
4	MessageToken						
4.1	token-type-identifier	m		m			
4.2	asymmetric-token	m		m			
4.2.1	signature-algorithm-identifier	m		m			
4.2.2	name	m		m			
4.2.3	time	m		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
4.2.4	signed-data	o		o			
4.2.4.1	content-confidentiality-algorithm-identifier	o		o			
4.2.4.2	content-integrity-check	o		o			
4.2.4.3	message-security-label	o		o			see A.1.9/3
4.2.4.4	proof-of-delivery-request	o		o			
4.2.4.5	message-sequence-number	o		o			
4.2.5	encryption-algorithm-identifier	o		o			
4.2.6	encrypted-data	o		o			
4.2.6.1	content-confidentiality-key	o		o			
4.2.6.2	content-integrity-check	o		o			
4.2.6.3	message-security-label	o		o			see A.1.9/3
4.2.6.4	content-integrity-key	o		o			
4.2.6.5	message-sequence-number	o		o			
5	ProbeOriginAuthenticationCheck						
5.1	algorithm-identifier	m		m			
5.2	content-identifier	o		o			
5.3	message-security-label	o		o			see A.1.9/3
6	ProofOfSubmission						
6.1	algorithm-identifier	m		m			
6.2	message-submission-envelope	m		m			
6.3	content	m		m			
6.4	message-submission-identifier	m		m			
6.5	message-submission-time	m		m			
7	CertificateSelectors						
7.1	encryption-recipient	o		o			see A.1.8/24
7.2	encryption-originator	o		o			see A.1.8/24
7.3	content-integrity-check	o		o			see A.1.8/24
7.4	token-signature	o		o			see A.1.8/24
7.5	message-origin-authentication	o		o			see A.1.8/24
8	CertificateSelectorsOverride						
8.1	encryption-recipient	o		o			see A.1.8/24
8.2	encryption-originator	o		o			see A.1.8/24
8.3	content-integrity-check	o		o			see A.1.8/24
8.4	token-signature	o		o			see A.1.8/24
9	ExtendedCertificate						
9.1	directory-entry	o		o			
9.2	certificate	o		o			see A.1.8/22

A.1.10 OR-names

A.1.10.1 OR-name forms for identification of remote MTS-users

Ref.	ORName Form	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	mnemonic OR-address	m		m			see A.1.10.3
2	numeric OR-address	o		m			see A.1.10.4
3	terminal OR-address	o		m			see A.1.10.5
4	formatted postal OR-address	o		m			see A.1.10.6
5	unformatted postal OR-address	o		m			see A.1.10.7
6	directory-name	o		m			

A.1.10.2 OR-name forms for local MS-user authentication

Ref.	ORName Form	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	mnemonic OR-address	o		o			see A.1.10.3
2	numeric OR-address	o		o			see A.1.10.4
3	terminal OR-address	o		o			see A.1.10.5
4	formatted postal OR-address	–		–			
5	unformatted postal OR-address	–		–			
6	directory-name	o		o			

A.1.10.3 Mnemonic OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
1.4	organization-name	o		m			
1.5	personal-name	o		m			
1.5.1	surname	m		m			
1.5.2	given-name	o		m			
1.5.3	initials	o		m			
1.5.4	generation-qualifier	o		m			
1.6	organizational-unit-names	o		m			
2	built-in-domain-defined-attributes	o		c ¹			
3	extension-attributes	o		m			
3.1	common-name	o		m			
3.2	teletex-common-name	o		m			
3.3	universal-common-name	o		m			see A.1.10.8
3.4	teletex-organization-name	o		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
3.5	universal-organization-name	o		m			see A.1.10.8
3.6	teletex-personal-name	o		m			
3.6.1	surname	m		m			
3.6.2	given-name	o		m			
3.6.3	initials	o		m			
3.6.4	generation-qualifier	o		m			
3.7	universal-personal-name	o		m			
3.7.1	surname	m		m			see A.1.10.8
3.7.2	given-name	o		m			see A.1.10.8
3.7.3	initials	o		m			see A.1.10.8
3.7.4	generation-qualifier	o		m			see A.1.10.8
3.8	teletex-organizational-unit-names	o		m			
3.9	universal-organizational-unit-names	o		m			see A.1.10.8
3.10	teletex-domain-defined-attributes	o		c ¹			
3.11	universal-domain-defined-attributes	o		c ¹			see A.1.10.8
1 if the mnemonic OR-address form is considered in the context of local MS-user identification then o else m							

A.1.10.4 Numeric OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
1.4	numeric-user-identifier	m		m			
2	built-in-domain-defined-attributes	o		c ¹			
3	extension-attributes	o		m			
3.1	teletex-domain-defined-attributes	o		c ¹			
3.2	universal-domain-defined-attributes	o		c ¹			see A.1.10.8
1 if the Numeric OR-address form is considered in the context of local MS-user identification then o else m							

A.1.10.5 Terminal OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	o		m			
1.2	administration-domain-name	o		m			
1.3	network-address	m		m			
1.4	terminal-identifier	o		m			
1.5	private-domain-name	o		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1.6	organization-name	o		o			
1.7	personal-name	o		o			
1.8	organizational-unit-names	o		o			
2	built-in-domain-defined-attributes	o		c ¹			
3	extension-attributes	o		m			
3.1	extended-network-address	m		m			
3.1.1	e163-4-address	o		m			
3.1.2	psap-address	o		m			
3.2	terminal-type	o		m			
3.3	common-name	o		o			
3.4	teletex-common-name	o		o			
3.5	universal-common-name	o		o			see A.1.10.8
3.6	teletex-organization-name	o		o			
3.7	universal-organization-name	o		o			see A.1.10.8
3.8	teletex-personal-name	o		o			
3.9	universal-personal-name	o		o			see A.1.10.8
3.10	teletex-organizational-unit-names	o		o			
3.11	universal-organizational-unit-names	o		o			see A.1.10.8
3.12	unformatted-postal-address	o		o			
3.13	universal-unformatted-postal-address	o		o			see A.1.10.8
3.14	teletex-domain-defined-attributes	o		c ¹			
3.15	universal-domain-defined-attributes	o		c ¹			see A.1.10.8
1 if the terminal OR-address form is considered in the context of local MS-user identification then o else m							

A.1.10.6 Formatted postal OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
2	extension-attributes	m		m			
2.1	physical-delivery-country-name	m		m			
2.2	physical-delivery-office-name	o		m			
2.3	universal-physical-delivery-office-name	o		m			see A.1.10.8
2.4	physical-delivery-office-number	o		m			
2.5	universal-physical-delivery-office-number	o		m			see A.1.10.8
2.6	physical-delivery-organization-name	o		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
2.7	universal-physical-delivery-organization-name	o		m			see A.1.10.8
2.8	physical-delivery-personal-name	o		m			
2.9	universal-physical-delivery-personal-name	o		m			see A.1.10.8
2.10	postal-code	m		m			
2.11	poste-restante-address	o		m			
2.12	universal-poste-restante-address	o		m			see A.1.10.8
2.13	post-office-box-address	o		m			
2.14	universal-post-office-box-address	o		m			see A.1.10.8
2.15	pds-name	o		m			
2.16	street-address	o		m			
2.17	universal-street-address	o		m			see A.1.10.8
2.18	unique-postal-name	o		m			
2.19	universal-unique-postal-name	o		m			see A.1.10.8
2.20	extension-OR-address-components	o		m			
2.21	universal-extension-OR-address-components	o		m			see A.1.10.8
2.22	extension-physical-delivery-address-components	o		m			
2.23	universal-extension-physical-delivery-address-components	o		m			see A.1.10.8
2.24	local-postal-attributes	o		m			
2.25	universal-local-postal-attributes	o		m			see A.1.10.8

A.1.10.7 Unformatted postal OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
2	extension-attributes	m		m			
2.1	unformatted-postal-address	m		m			
2.2	universal-unformatted-postal-address	m		m			see A.1.10.8
2.3	physical-delivery-country-name	m		m			
2.4	postal-code	m		m			
2.5	pds-name	o		m			

A.1.10.8 UniversalOrBMPString

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	UniversalOrBMPString						
1.1	character-encoding						
1.1.1	two-octets	m		m			
1.1.2	four-octets	m		m			
1.2	iso-639-language-code	o		o			

A.1.11 Token types

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	asymmetric-token	o		o			
1.1	signature-algorithm-identifier	m		m			
1.2	name	m		m			
1.2.1	recipient-name	m		m			
1.2.2	mta	–		–			
1.3	time	m		m			
1.4	signed-data	o		o			
1.5	encryption-algorithm-identifier	o		o			
1.6	encrypted-data	o		o			

A.1.12 Auto-actions

A.1.12.1 Support of auto-actions

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	auto-alert	o		o			see A.1.12.2
2	auto-modify	o		o			see A.1.12.3
3	auto-correlate-reports	o		o			
4	auto-delete	o		o			

A.1.12.2 AutoAlertRegistrationParameter

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	filter	o		m			see A.1.8/3
2	alert-destinations	o		o			
2.1	alert-address	m		m			
2.2	alert-qualifier	o		o			
3	requested-attributes	o		m			see A.1.8/1
4	suppress-alert-destinations	o		o			

A.1.12.3 AutoModifyRegistrationParameter

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	entry-class	o		o			see A.1.8/5
2	filter	o		m			see A.1.8/3
3	modifications	m		m			see A.1.8/19

A.1.13 General attributes

A.1.13.1 Support in the Stored-message subordinate entry-classes

This table specifies the requirements for the support of general 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-report-list	o		o			
2	AC-report-subject-entry	o		o			
3	AC-report-summary	o		o			
4	AC-uncorrelated-report-list	o		o			
5	certificate-selectors	o		o			see A.1.9/7
6	child-sequence-numbers	o		m			
7	content	o		m			
8	content-confidentiality-algorithm-identifier	o		o			
9	content-correlator	o		o			
10	content-identifier	o		o			
11	content-integrity-check	o		o			
12	content-length	o		o			
13	content-returned	o		o			
14	content-type	o		m			
15	conversion-with-loss-prohibited	o		o			
16	converted-EITs	o		o			
17	creation-time	o		m			
18	deferred-delivery-cancellation-time	o		o			
19	deferred-delivery-time	o		o			
20	delivered-EITs	o		o			
21	delivery-flags	o		o			
22	dl-exempted-recipients	o		o			
23	dl-expansion-history	o		o			
24	dl-expansion-prohibited	o		o			
25	entry-type	o		m			
26	internal-trace-information	o		o			
27	latest-delivery-time	o		o			
28	locally-originated	o		o			
29	marked-for-deletion	o ²		o ²			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
30	message-delivery-envelope	o		m			
31	message-delivery-time	o		o			
32	message-group-name	o ²		o ²			
33	message-identifier	o		o			
34	message-notes	o ²		o ²			
35	message-origin-authentication-check	o		o			
36	message-security-label	o		o			
37	message-submission-envelope	o		m			
38	message-submission-time	o		o			
39	message-token	o		o			
40	ms-originated	o		o			
41	ms-submission-error	o		o			
42	multiple-originator-certificates	o		o			see A.1.9/9
43	original-EITs	o		o			
44	originally-intended-recipient-name	o		o			
45	originating-MTA-certificate	o		o			see A.1.8/22
46	originating-MTA-certificate-selector	o		o			see A.1.8/24
47	originator-certificate	o		o			see A.1.8/22
48	originator-name	o		o			
49	originator-report-request	o		o			
50	originator-return-address	o		o			
51	other-recipient-names	o		o			
52	parent-sequence-number	o		m			
53	per-message-indicators	o		o			
54	per-recipient-message-submission-fields	o		o			
55	per-recipient-probe-submission-fields	o		o			
56	per-recipient-report-delivery-fields	o		m			
57	priority	o		o			
58	probe-origin-authentication-check	o		o			
59	probe-submission-envelope	o		o			
60	proof-of-delivery-request	o		o			
61	proof-of-submission	o		o			
62	recipient-certificate	o		o			see A.1.8/22
63	recipient-names	o		o			
64	recipient-reassignment-prohibited	o		o			
65	redirection-history	o		o			
66	report-delivery-envelope	o		m			
67	report-origin-authentication-check	o		o			
68	reporting-DL-name	o		o			
69	reporting-MTA-certificate	o		o			see A.1.8/22

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
70	retrieval-status	o		m			
71	security-classification	o		o			
72	sequence-number	o		m			
73	signature-verification-status	o		o			
74	storage-period	o ²		o ²			
75	storage-time	o ²		o ²			
76	subject-submission-identifier	o		m			
77	this-recipient-name	o		o			
78	trace-information	o		o			
2 if this attribute is supported then the Modify abstract-operation shall be supported							

A.1.13.2 Support in the Message-log subordinate entry-classes

This table specifies the requirements for the support of general 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-report-list	o		c ²			
2	AC-report-subject-entry	o		c ²			
3	AC-report-summary	o		c ²			
4	AC-uncorrelated-report-list	o		c ²			
5	certificate-selectors	o		c ²			
6	child-sequence-numbers	o		m			
7	content-confidentiality-algorithm-identifier	o		c ²			
8	content-correlator	o		c ²			
9	content-identifier	o		c ²			
10	content-integrity-check	o		c ²			
11	content-length	o		c ²			
12	content-returned	o		c ²			
13	content-type	m		m			
14	conversion-with-loss-prohibited	o		c ²			
15	converted-EITs	o		c ²			
16	creation-time	o		m			
17	deferred-delivery-cancellation-time	o		c ²			
18	deferred-delivery-time	o		c ²			
19	deletion-time	m		m			
20	delivered-EITs	o		c ²			
21	delivery-flags	o		c ²			
22	dl-exempted-recipients	o		c ²			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
23	dl-expansion-history	o		c ²			
24	dl-expansion-prohibited	o		c ²			
25	entry-type	o		m			
26	internal-trace-information	o		c ²			
27	latest-delivery-time	o		c ²			
28	locally-originated	o		c ²			
29	marked-for-deletion	o		c ²			see Note
30	message-delivery-time	o		c ²			
31	message-group-name	o		c ²			see Note
32	message-identifier	o		c ²			
33	message-notes	o		c ²			see Note
34	message-origin-authentication-check	o		c ²			
35	message-security-label	o		c ²			
36	message-submission-time	o		c ²			
37	message-token	o		c ²			
38	ms-originated	o		c ²			
39	ms-submission-error	o		c ²			
40	multiple-originator-certificates	o		c ²			
41	original-EITs	o		c ²			
42	originally-intended-recipient-name	o		c ²			
43	originating-MTA-certificate	o		c ²			see A.1.8/22
44	originating-MTA-certificate-selector	o		c ²			
45	originator-certificate	o		c ²			see A.1.8/22
46	originator-name	o		c ²			
47	originator-report-request	o		c ²			
48	originator-return-address	o		c ²			
49	other-recipient-names	o		c ²			
50	parent-sequence-number	o		m			
51	per-message-indicators	o		c ²			
52	per-recipient-message-submission-fields	o		c ²			
53	per-recipient-probe-submission-fields	o		c ²			
54	per-recipient-report-delivery-fields	o		m			
55	priority	o		c ²			
56	probe-origin-authentication-check	o		c ²			
57	probe-submission-envelope	o		c ²			
58	proof-of-delivery-request	o		c ²			
59	proof-of-submission	o		c ²			
60	recipient-certificate	o		c ²			
61	recipient-names	o		c ²			
62	recipient-reassignment-prohibited	o		c ²			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
63	redirection-history	o		c ²			
64	report-origin-authentication-check	o		c ²			
65	reporting-DL-name	o		c ²			
66	reporting-MTA-certificate	o		c ²			see A.1.8/22
67	retrieval-status	m		m			
68	security-classification	o		c ²			
69	sequence-number	m		m			
70	signature-verification-status	o		c ²			
71	storage-period	o		c ²			see Note
72	storage-time	o		c ²			see Note
73	subject-submission-identifier	o		m			
74	this-recipient-name	o		c ²			
75	trace-information	o		c ²			

2 if supported in the corresponding Stored-message subordinate entry-class then o else –
NOTE – If this attribute is supported then the Modify abstract-operation and/or the auto-modify auto-action shall be supported.

A.1.13.3 Support in the Auto-action-log entry-class

This table specifies the requirements for the support of general attribute-types in the Auto-action-log entry-class.

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	auto-action-error	o		m			
2	auto-action-registration-identifier	o		m			
3	auto-action-subject-entry	o		m			
4	auto-action-type	o		m			
5	content-type	o		m			
6	creation-time	o		m			
7	entry-type	o		m			
8	retrieval-status	o		m			
9	sequence-number	o		m			

A.1.14 General matching-rules

The following table shall be completed to indicate which general matching-rules are supported by the implementation.

Ref.	Matching Rule	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	bitStringMatch	o		o			
2	booleanMatch	o		o			
3	contentIdentifierMatch	o		o			
4	integerMatch	o		m			
5	integerOrderingMatch	o		m			
6	mSStringCaseSensitiveMatch	o		o			
7	objectIdentifierMatch	o		m			
8	uTCTimeMatch	o		m			
9	uTCTimeOrderingMatch	o		m			
10	contentCorrelatorMatch	o		o			
11	mSSingleSubstringMatch	i		i			see Note
12	mSStringListElementsMatch	o		o			
13	mSStringListMatch	o		o			
14	mSStringMatch	o		o			
15	mSStringOrderingMatch	i		i			see Note
16	mSSingleSubstringListElements Match	o		o			
17	mSSingleSubstringListMatch	o		o			
18	mSSubstringsMatch	o		o			
19	mTSIdentifierMatch	o		o			
20	oRAddressElementsMatch	o		o			
21	oRAddressMatch	o		o			
22	oRAddressSubstringElements Match	o		o			
23	oRNameElementsMatch	o		o			
24	oRNameMatch	o		o			
25	oRNameSingleElementMatch	o		o			
26	oRNameSubstringElementsMatch	o		o			
27	redirectionOrDLExpansion ElementsMatch	o		o			
28	redirectionOrDLExpansionMatch	o		o			
29	redirectionOrDLExpansionSingle ElementMatch	o		o			
30	redirectionOrDLExpansion SubstringElementsMatch	o		o			
31	redirectionReasonMatch	o		o			
32	valueCountMatch	o		o			

NOTE – This matching-rule is not used in any attribute and is merely defined for the purpose of reference in the definition of other matching-rules.

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 10611-6.

A.3 Additional information

A.3.1 Content types supported

The following table shall be completed to indicate (Y or ✓) which content type(s) the implementation can support on submission and on retrieval.

If support on retrieval is claimed, then support of MS attributes may also be claimed by so indicating (Y or ✓) in the "Supported Attributes" column. A claim of support of MS attributes means that any mandatory requirements in the relevant content type-specific base standards for support of MS attributes are met.

Ref.	Content Type	Supported		Supported Attributes	Comments
		Submission	Retrieval		
1	built-in			–	
1.1	unidentified (0)			–	
1.2	interpersonal-messaging (2) (see Notes)				
1.3	interpersonal-messaging (22) (see Notes)				
1.4	(EDI messaging) (35)				
2	extended (specify)				

NOTE 1 – The IPM subject attribute shall be supported, in addition to the IPM specific base standard support requirements of MS attributes.

NOTE 2 – A system which only supports content type interpersonal-messaging(2) without interpersonal-messaging(22) and which makes use of a MS is not a scenario described in the base standard and shall be avoided.

A.3.2 Encoded information types supported

The following table shall be completed to indicate (Y or ✓) which encoded information type(s) the implementation can support on submission and on retrieval.

Ref.	Encoded Information Type	Supported		Comments
		Submission	Retrieval	
1	built-in			
1.1	undefined (0)			
1.2	ia5-text (2)			
1.3	g3-facsimile (3)			
1.4	g4-class-1 (4)			
1.5	teletex (5)			
1.6	videotex (6)			
1.7	mixed-mode (9)			
1.8	other (specify)			
2	extended (specify)			

A.3.3 Support of additional extensions

The following table shall be completed to indicate which extensions are supported in addition to the standard extensions for which support must already be stated in the various tables of Clauses A.1 and A.2.

Ref.	Extension identifier	Comments

A.3.4 Support of filter

The following table shall be completed to indicate any constraints on the support of filter.

Ref.	Constraint	Value	Comments
1	Maximum number of levels of recursion/nesting of filter supported		
2	Maximum number of elements that can be logically combined at any one level		

A.3.5 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 a message envelope (if any) (Note 2)		
3	other (specify)		

NOTE 1 – Any limit on the maximum size of message content and/or envelope shall be stated.

NOTE 2 – Any limit on the number of recipients that may be specified in a message envelope shall be stated (this does not imply a static capability to register that number of users for delivery at a single MTA).

A.3.6 Support of attributes by the MS-user

The following tables shall be completed for the MS-user to indicate, for each supported MS attribute, all the operations, arguments, results and filter items for which the attribute is supported.

A.3.6.1 Support in the Stored-message subordinate entry-classes

Ref.	Attribute	Comments
1	AC-correlated-report-list	
2	AC-report-subject-entry	
3	AC-report-summary	
4	AC-uncorrelated-report-list	
5	certificate-selectors	
6	child-sequence-numbers	
7	content	
8	content-confidentiality-algorithm-identifier	
9	content-correlator	
10	content-identifier	

Ref.	Attribute	Comments
11	content-integrity-check	
12	content-length	
13	content-returned	
14	content-type	
15	conversion-with-loss-prohibited	
16	converted-EITs	
17	creation-time	
18	deferred-delivery-cancellation-time	
19	deferred-delivery-time	
20	delivered-EITs	
21	delivery-flags	
22	dl-exempted-recipients	
23	dl-expansion-history	
24	dl-expansion-prohibited	
25	entry-type	
26	internal-trace-information	
27	latest-delivery-time	
28	locally-originated	
29	marked-for-deletion	
30	message-delivery-envelope	
31	message-delivery-time	
32	message-group-name	
33	message-identifier	
34	message-notes	
35	message-origin-authentication-check	
36	message-security-label	
37	message-submission-envelope	
38	message-submission-time	
39	message-token	
40	ms-originated	
41	ms-submission-error	
42	multiple-originator-certificates	
43	original-EITs	
44	originally-intended-recipient-name	
45	originating-MTA-certificate	
46	originating-MTA-certificate-selector	
47	originator-certificate	
48	originator-name	
49	originator-report-request	
50	originator-return-address	
51	other-recipient-names	
52	parent-sequence-number	
53	per-message-indicators	

Ref.	Attribute	Comments
54	per-recipient-message-submission-fields	
55	per-recipient-probe-submission-fields	
56	per-recipient-report-delivery-fields	
57	priority	
58	probe-origin-authentication-check	
59	probe-submission-envelope	
60	proof-of-delivery-request	
61	proof-of-submission	
62	recipient-certificate	
63	recipient-names	
64	recipient-reassignment-prohibited	
65	redirection-history	
66	report-delivery-envelope	
67	report-origin-authentication-check	
68	reporting-DL-name	
69	reporting-MTA-certificate	
70	retrieval-status	
71	security-classification	
72	sequence-number	
73	signature-verification-status	
74	storage-period	
75	storage-time	
76	subject-submission-identifier	
77	this-recipient-name	
78	trace-information	

A.3.6.2 Support in the Message-log subordinate entry-classes

Ref.	Attribute	Comments
1	AC-correlated-report-list	
2	AC-report-subject-entry	
3	AC-report-summary	
4	AC-uncorrelated-report-list	
5	certificate-selectors	
6	child-sequence-numbers	
7	content-confidentiality-algorithm-identifier	
8	content-correlator	
9	content-identifier	
10	content-integrity-check	
11	content-length	
12	content-returned	

Ref.	Attribute	Comments
13	content-type	
14	conversion-with-loss-prohibited	
15	converted-EITs	
16	creation-time	
17	deferred-delivery-cancellation-time	
18	deferred-delivery-time	
19	deletion-time	
20	delivered-EITs	
21	delivery-flags	
22	dl-exempted-recipients	
23	dl-expansion-history	
24	dl-expansion-prohibited	
25	entry-type	
26	internal-trace-information	
27	latest-delivery-time	
28	locally-originated	
29	marked-for-deletion	
30	message-delivery-time	
31	message-group-name	
32	message -identifier	
33	message-notes	
34	message-origin-authentication-check	
35	message-security-label	
36	message-submission-time	
37	message-token	
38	ms-originated	
39	ms-submission-error	
40	multiple-originator-certificates	
41	original-EITs	
42	originally-intended-recipient-name	
43	originating-MTA-certificate	
44	originating-MTA-certificate-selector	
45	originator-certificate	
46	originator-name	
47	originator-report-request	
48	originator-return-address	
49	other-recipient-names	
50	parent-sequence-number	
51	per-message-indicators	
52	per-recipient-message-submission-fields	
53	per-recipient-probe-submission-fields	
54	per-recipient-report-delivery-fields	
55	priority	

Ref.	Attribute	Comments
56	probe-origin-authentication-check	
57	probe-submission-envelope	
58	proof-of-delivery-request	
59	proof-of-submission	
60	recipient-certificate	
61	recipient-names	
62	recipient-reassignment-prohibited	
63	redirection-history	
64	report-origin-authentication-check	
65	reporting-DL-name	
66	reporting-MTA-certificate	
67	retrieval-status	
68	security-classification	
69	sequence-number	
70	signature-verification-status	
71	storage-period	
72	storage-time	
73	subject-submission-identifier	
74	this-recipient-name	
75	trace-information	

Annex B³

PICS Proforma for MS 88 Access (P7)

(This annex forms an integral part of this Recommendation)

Contents of the PICS proforma

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Subclause B.1 specifies the basic requirements for conformance to this Recommendation. Subclause B.2 is allocated but not used, it is present to keep the numbering alignment with the corresponding ISP. Subclause B.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 10611-5, "Information technology – International Standardized Profiles AMH1n – Message Handling Systems – Common Messaging – Part 5: AMH13 - MS Access (P7)".

³ 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.

B.0 Instructions and identification

B.0.1 Instructions

B.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.

B.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.

B.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.

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 and also for use within a selector to the level of support claimed for the filter item. Mandatory support of an MS attribute by the MS-user requires that it is supported in the context of at least one supported operation argument and result or supported in a selector to the level of support claimed for the filter item (see table in B.3.5). The way in which attribute values are stored by an MS implementation, or used by an MS-user implementation, is otherwise a local matter.

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

B.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).

B.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.

B.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.484

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

B.0.3 Identification of the implementation

B.0.3.1 Date of statement

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

B.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	

B.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	

B.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)	1988 version
3	Addenda/amendments/corrigenda implemented	
4	MHS Implementors' Guide version implemented	

B.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.

B.0.3.6 Global statement of conformance

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

B.1 Basic requirements

B.1.1 Supported application contexts

Ref.	Application Context	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ms-access	m		m			
2	ms-reliable-access	o		o			

B.1.2 Supported operations

B.1.2.1 Bind and Unbind

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	MSBind	m		m			see B.1.3.1
2	MSUnbind	m		m			

B.1.2.2 Message Submission Service Element (MSSE)

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	MessageSubmission	m		m			see B.1.3.2
2	ProbeSubmission	o		m			see B.1.3.3
3	CancelDeferredDelivery	o		m			see B.1.3.4
4	SubmissionControl	o		o			see B.1.3.5

B.1.2.3 Message Retrieval Service Element (MRSE)

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	Summarize	o		m			see B.1.3.6
2	List	o		m			see B.1.3.7
3	Fetch	m		m			see B.1.3.8
4	Delete	m		m			see B.1.3.9
5	Register-MS	o		m			see B.1.3.10
6	Alert	o		o			see B.1.3.11

B.1.2.4 Message Administration Service Element (MASE)

Ref.	Operation	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	Register	o		o			see B.1.3.12
2	ChangeCredentials (MTA to MS)	–		o			see B.1.3.13
3	ChangeCredentials (MS-user to MTA via MS)	o		o			see B.1.3.13

NOTE 1 – The first edition of the base standard erroneously defines the ChangeCredentials (MTA to UA) operation in the context of P7. It is removed in the second and subsequent editions of the base standard.

NOTE 2 – For an MS-user, some or all of the services and functionality supported by these operations may be implemented by other means as a local matter.

B.1.3 Operation arguments/results

B.1.3.1 MSBind

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	initiator-name	m		m			
1.2	initiator-credentials	m		m			
1.2.1	simple	m		m			
1.2.1.1	IA5String	o		m			
1.2.1.2	OCTET STRING	o		m			
1.2.2	strong	o		o			
1.2.2.1	bind-token	m		m			
1.2.2.1.1	signature-algorithm- identifier	m		m			
1.2.2.1.2	name	m		m			
1.2.2.1.2.1	recipient-name	m		m			
1.2.2.1.2.2	mta	–		–			
1.2.2.1.3	time	m		m			
1.2.2.1.4	signed-data	o		o			
1.2.2.1.5	encryption-algorithm- identifier	o		o			
1.2.2.1.6	encrypted-data	o		o			
1.2.2.2	certificate	o		o			see B.1.8/13
1.2.2.3	certificate-selector	o		o			see B.1.8/15
1.3	security-context	o		o			see B.1.9/3
1.4	fetch-restrictions	o		o			
1.4.1	allowed-content-types	o		o			
1.4.2	allowed-EITs	o		o			
1.4.3	maximum-content-length	o		o			
1.5	ms-configuration-request	o		o			
2	RESULT						
2.1	responder-credentials	m		m			
2.1.1	simple	m		m			
2.1.1.1	IA5String	m		o			
2.1.1.2	OCTET STRING	m		o			
2.1.2	strong	o		o			
2.1.2.1	bind-token	m		m			
2.1.2.1.1	signature-algorithm- identifier	m		m			
2.1.2.1.2	name	m		m			
2.1.2.1.2.1	recipient-name	m		m			
2.1.2.1.2.2	mta	–		–			
2.1.2.1.3	time	m		m			
2.1.2.1.4	signed-data	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
2.1.2.1.5	encryption-algorithm-identifier	o		o			
2.1.2.1.6	encrypted-data	o		o			
2.1.2.2	certificate	o		o			see B.1.8/13
2.1.2.3	certificate-selector	o		o			see B.1.8/15
2.2	available-auto-actions	o		m			
2.2.1	auto-alert	o		o			
2.2.2	auto-forward	o		o			
2.3	available-attribute-types	o		m			
2.4	alert-indication	o		o			
2.5	content-types-supported	o		m			

B.1.3.2 MessageSubmission

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	envelope	m		m			see B.1.4
1.2	content	m		m			
2	RESULT						
2.1	message-submission-identifier	m		m			see B.1.8/8
2.2	message-submission-time	m		m			
2.3	content-identifier	o		m			
2.4	extensions	m		m			see B.1.9/1
2.4.1	originating-MTA-certificate	o		o			see B.1.8/13
2.4.2	proof-of-submission	o		o			see B.1.9/6
2.4.3	originating-MTA-certificate-selector	o		o			see B.1.8/15

B.1.3.3 ProbeSubmission

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	envelope	m		m			see B.1.5
2	RESULT						
2.1	probe-submission-identifier	m		m			see B.1.8/8
2.2	probe-submission-time	m		m			
2.3	content-identifier	o		m			

B.1.3.4 CancelDeferredDelivery

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	message-submission-identifier	m		m			see B.1.8/8
2	RESULT						
2.1	NULL	m		m			

B.1.3.5 SubmissionControl

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	controls	m		m			
1.1.1	restrict	m		o			
1.1.2	permissible-operations	m		o			
1.1.3	permissible-maximum-content-length	m		o			
1.1.4	permissible-lowest-priority	m		o			
1.1.5	permissible-security-context	o		o			see B.1.9/3
2	RESULT						
2.1	waiting	m		m			
2.1.1	waiting-operations	o		m			
2.1.2	waiting-messages	o		m			
2.1.3	waiting-content-types	o		m			
2.1.4	waiting-encoded-information-types	o		m			see B.1.8/10

B.1.3.6 Summarize

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	information-base-type	o		m			see B.1.8/5
1.2	selector	m		m			see B.1.8/7
1.3	summary-requests	o		m			
2	RESULT						
2.1	next	o		m			
2.2	count	m		m			
2.3	span	m		m			
2.4	summaries	o		m			
2.4.1	absent	m		m			
2.4.2	present	m		m			
2.4.2.1	type	m		m			
2.4.2.2	value	m		m			
2.4.2.3	count	m		m			

B.1.3.7 List

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	information-base-type	o		m			see B.1.8/5
1.2	selector	m		m			see B.1.8/7
1.3	requested-attributes	m		m			see B.1.8/1
2	RESULT						
2.1	next	m		m			
2.2	requested	m		m			see B.1.8/2

B.1.3.8 Fetch

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	information-base-type	o		m			see B.1.8/5
1.2	item	m		m			
1.2.1	search	o		o			see B.1.8/7
1.2.2	precise	o		o			
1.3	requested-attributes	m		m			see B.1.8/1
2	RESULT						
2.1	entry-information	m		m			see B.1.8/2
2.2	list	o		o			
2.3	next	o		o			

B.1.3.9 Delete

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	information-base-type	o		m			see B.1.8/5
1.2	items	m		m			
1.2.1	selector	o		m			see B.1.8/7
1.2.2	sequence-numbers	o		m			
2	RESULT						
2.1	NULL	m		m			

B.1.3.10 Register-MS

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	auto-action-registrations	o		o			see B.1.12
1.2	auto-action-deregistrations	o		o			
1.3	list-attribute-defaults	o		o			
1.4	fetch-attribute-defaults	o		o			
1.5	change-credentials	m		m			
1.5.1	old-credentials	m		m			
1.5.1.1	simple	m		m			
1.5.1.1.1	ia5-String	o		m			
1.5.1.1.2	octet-string	o		m			
1.5.2	new-credentials	m		m			
1.5.2.1	simple	m		m			
1.5.2.1.1	ia5-String	o		m			
1.5.2.1.2	octet-string	o		m			
1.6	user-security-labels	o		o			see B.1.9/3
2	RESULT						
2.1	NULL	m		m			

B.1.3.11 Alert

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	alert-registration-identifier	m		m			
1.2	new-entry	o		m			see B.1.8/2
2	RESULT						
2.1	NULL	m		m			

B.1.3.12 Register

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	user-name	o		o			see B.1.10.2
1.2	user-address	o		o			
1.3	deliverable-encoded-information-types	o		o			see B.1.8/10
1.4	deliverable-maximum-content-length	o		o			
1.5	default-delivery-controls	o		o			
1.5.1	restrict	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1.5.2	permissible-operations	o		o			
1.5.3	permissible-maximum-content-length	o		o			
1.5.4	permissible-lowest-priority	o		o			
1.5.5	permissible-content-types	o		o			
1.5.6	permissible-encoded-information-types	o		o			see B.1.8/10
1.6	deliverable-content-types	o		o			
1.7	labels-and-redirections	o		o			
1.7.1	user-security-label	o		o			see B.1.9/3
1.7.2	recipient-assigned-alternate-recipient	o		o			
2	RESULT						
2.1	NULL	m		m			

B.1.3.13 ChangeCredentials

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ARGUMENT						
1.1	old-credentials	m		m			
1.1.1	simple	m		m			
1.1.1.1	ia5-String	o		m			
1.1.1.2	octet-string	o		m			
1.2	new-credentials	m		m			
1.2.1	simple	m		m			
1.2.1.1	ia5-String	o		m			
1.2.1.2	octet-string	o		m			
2	RESULT						
2.1	NULL	m		m			

B.1.4 MessageSubmissionEnvelope

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	originator-name	m		m			see B.1.10.2
2	original-encoded-information-types	m		m			see B.1.8/10
3	content-type	m		m			see B.1.8/11
4	content-identifier	o		m			
5	priority	m		m			
6	per-message-indicators	m		m			see B.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 B.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 B.1.10.1
8.6	originator-certificate	o		o			see B.1.8/13
8.7	content-confidentiality-algorithm-identifier	o		o			
8.8	message-origin-authentication-check	o		o			see B.1.9/2
8.9	message-security-label	o		o			see B.1.9/3
8.10	proof-of-submission-request	o		o			
8.11	content-correlator	o		m			
8.12	certificate-selectors	o		o			see B.1.9/7
8.13	multiple-originator-certificates	o		o			see B.1.9/9
8.14	dl-exempted-recipients	o		o			see B.1.10.1
8.15	forwarding-request	o		o			
8.16	PrivateExtensions	o		o			
9	per-recipient-fields	m		m			
9.1	recipient-name	m		m			see B.1.10.1
9.2	originator-report-request	m		m			
9.3	explicit-conversion	o		o			
9.4	extensions	m		m			see B.1.9/1
9.4.1	originator-requested-alternate-recipient	o		o			see B.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 B.1.9/4
9.4.11	content-integrity-check	o		o			
9.4.12	proof-of-delivery-request	o		o			
9.4.13	certificate-selectors-override	o		o			see B.1.9/8
9.4.14	recipient-certificate	o		o			see B.1.8/13
9.4.15	IPMPerRecipientEnvelope Extensions	o		o			
9.4.16	PrivateExtensions	o		o			

B.1.5 ProbeSubmissionEnvelope

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	originator-name	m		m			see B.1.10.2
2	original-encoded-information-types	m		m			see B.1.8/10
3	content-type	m		m			see B.1.8/11
4	content-identifier	o		m			
5	content-length	o		m			
6	per-message-indicators	m		m			see B.1.8/12
7	extensions	m		m			see B.1.9/1
7.1	recipient-reassignment-prohibited	o		o			
7.2	dl-expansion-prohibited	o		o			
7.3	conversion-with-loss-prohibited	o		o			
7.4	originator-certificate	o		o			see B.1.8/13
7.5	message-security-label	o		o			see B.1.9/3
7.6	content-correlator	o		m			
7.7	probe-origin-authentication-check	o		o			see B.1.9/5
7.8	certificate-selectors	o		o			see B.1.9/7
7.9	PrivateExtensions	o		o			
8	per-recipient-fields	m		m			
8.1	recipient-name	m		m			see B.1.10.1
8.2	originator-report-request	m		m			
8.3	explicit-conversion	o		o			
8.4	extensions	m		m			see B.1.9/1
8.4.1	originator-requested-alternate-recipient	o		o			see B.1.10.1
8.4.2	requested-delivery-method	o		o			
8.4.3	physical-rendition-attributes	o		o			
8.4.4	PrivateExtensions	o		o			

B.1.6 AutoForwardRegistrationParameter

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	filter	o		m			see B.1.8/3
2	auto-forward-arguments	m		m			
2.1	originator-name	m		m			see B.1.10.2
2.2	content-identifier	o		o			
2.3	priority	o		o			
2.4	per-message-indicators	o		m			see B.1.8/12
2.5	deferred-delivery-time	o		o			
2.6	extensions	o		o			see B.1.4/8
2.7	per-recipient-fields	o		m			see B.1.4/9
3	delete-after-auto-forwarding	o		m			
4	other-parameters	o		o			

B.1.7 AutoAlertRegistrationParameter

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	filter	o		m			see B.1.8/3
2	alert-addresses	o		o			
2.1	address	m		m			
2.2	alert-qualifier	o		o			
3	requested-attributes	o		m			see B.1.8/1

B.1.8 Common data types

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	AttributeSelection						
1.1	type	m		m			
1.2	from	o		m			
1.3	count	o		m			
2	EntryInformation						
2.1	sequence-number	m		m			
2.2	attributes	m		m			
3	Filter						
3.1	item	m		m			see B.1.8/4
3.2	and	o		m			
3.3	or	o		m			
3.4	not	o		m			
4	FilterItem						
4.1	equality	o		m			
4.2	substrings	o		o			
4.2.1	type	m		m			
4.2.2	strings	m		m			
4.2.2.1	initial	o		m			
4.2.2.2	any	o		m			
4.2.2.3	final	o		m			
4.3	greater-or-equal	o		m			
4.4	less-or-equal	o		m			
4.5	present	o		m			
4.6	approximate-match	o		o			
5	InformationBase						
5.1	stored-messages	m		m			
5.2	inlog	-		-			
5.3	outlog	-		-			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
6	Range						
6.1	sequence-number-range	o		m			
6.1.1	from	o		m			
6.1.2	to	o		m			
6.2	creation-time-range	o		m			
6.2.1	from	o		m			
6.2.2	to	o		m			
7	Selector						
7.1	child-entries	o		m			
7.2	range	o		m			see B.1.8/6
7.3	filter	o		m			see B.1.8/3
7.4	limit	o		m			
7.5	override	o		o			
8	MTSIdentifier						
8.1	global-domain-identifier	m		m			see B.1.8/9
8.2	local-identifier	m		m			
9	GlobalDomainIdentifier						
9.1	country-name	m		m			
9.2	administration-domain-name	m		m			
9.3	private-domain-identifier	o		m			
10	EncodedInformationTypes						
10.1	built-in-encoded-information-types	m		m			
10.2	(non-basic parameters)	o		o			
10.3	extended-encoded-information-types	o		m			
11	ContentType						
11.1	built-in	o		m			
11.2	extended	o		m			
12	PerMessageIndicators						
12.1	disclosure-of-other-recipients	o		m			
12.2	implicit-conversion-prohibited	m		m			
12.3	alternate-recipient-allowed	o		m			
12.4	content-return-request	o		o			
12.5	reserved	o		o			
12.6	bit-5	o		o			
12.7	bit-6	o		o			
12.8	service-message	o		o			
13	Certificates						
13.1	userCertificate	m		m			see B.1.8/14
13.2	certificationPath	o		o			see B.1.8/14

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
14	Certificate						
14.1	version	o		o			
14.2	serialNumber	m		m			
14.3	signature	m		m			
14.4	issuer	m		m			
14.5	validity	m		m			
14.6	subject	m		m			
14.7	subjectPublicKeyInfo	m		m			
14.8	issuerUniqueIdentifier	o		o			
14.9	subjectUniqueIdentifier	o		o			
14.10	extensions	m		m			
14.10.1	authorityKeyIdentifier	o		o			
14.10.2	subjectKeyIdentifier	o		o			
14.10.3	keyUsage	o		o			
14.10.4	extKeyUsage	o		o			
14.10.5	privateKeyUsagePeriod	o		o			
14.10.6	certificatePolicies	o		o			
14.10.7	policyMappings	o		o			
14.10.8	subjectAltName	o		o			
14.10.8.1	otherName	o		o			
14.10.8.1.1	mta-name	o		o			
14.10.8.2	rfc822Name	-		-			
14.10.8.3	dNSName	-		-			
14.10.8.4	x400Address	o		o			
14.10.8.5	directoryName	o		o			
14.10.8.6	ediPartyName	-		-			
14.10.8.7	uniformResourceIdentifier	-		-			
14.10.8.8	iPAddress	-		-			
14.10.8.9	registeredID	-		-			
14.10.9	issuerAltName	o		o			
14.10.10	subjectDirectoryAttributes	o		o			
14.10.11	basicConstraints	o		o			
14.10.12	nameConstraints	o		o			
14.10.13	policyConstraints	o		o			
14.10.14	cRLDistributionPoints	o		o			
15	CertificateAssertion						
15.1	serialNumber	o		o			
15.2	issuer	o		o			
15.3	subjectKeyIdentifier	o		o			
15.4	authorityKeyIdentifier	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
15.5	certificateValid	o		o			
15.6	privateKeyValid	o		o			
15.7	subjectPublicKeyAlgID	o		o			
15.8	keyUsage	o		o			
15.9	subjectAltName	o		o			
15.10	policy	o		o			
15.11	pathToName	-		-			

B.1.9 Extension data types

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	ExtensionField						
1.1	type	o		m			
1.1.1	standard-extension	m		m			
1.1.2	private-extension	o		m			see B.3.6
1.2	criticality	m		m			
1.3	value	m		m			
2	MessageOriginAuthentication Check						
2.1	algorithm-identifier	m		m			
2.2	content	m		m			
2.3	content-identifier	o		o			
2.4	message-security-label	o		o			see B.1.9/3
3	MessageSecurityLabel						
3.1	security-policy-identifier	o		o			
3.2	security-classification	o		o			
3.3	privacy-mark	o		o			
3.4	security-categories	o		o			
4	MessageToken						
4.1	token-type-identifier	m		m			
4.2	asymmetric-token	m		m			
4.2.1	signature-algorithm-identifier	m		m			
4.2.2	name	m		m			
4.2.3	time	m		m			
4.2.4	signed-data	o		o			
4.2.4.1	content-confidentiality- algorithm-identifier	o		o			
4.2.4.2	content-integrity-check	o		o			
4.2.4.3	message-security-label	o		o			see B.1.9/3
4.2.4.4	proof-of-delivery-request	o		o			
4.2.4.5	message-sequence-number	o		o			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
4.2.5	encryption-algorithm-identifier	o		o			
4.2.6	encrypted-data	o		o			
4.2.6.1	content-confidentiality-key	o		o			
4.2.6.2	content-integrity-check	o		o			
4.2.6.3	message-security-label	o		o			see B.1.9/3
4.2.6.4	content-integrity-key	o		o			
4.2.6.5	message-sequence-number	o		o			
5	ProbeOriginAuthenticationCheck						
5.1	algorithm-identifier	m		m			
5.2	content-identifier	o		o			
5.3	message-security-label	o		o			see B.1.9/3
6	ProofOfSubmission						
6.1	algorithm-identifier	m		m			
6.2	message-submission-envelope	m		m			
6.3	content	m		m			
6.4	message-submission-identifier	m		m			
6.5	message-submission-time	m		m			
7	CertificateSelectors						
7.1	encryption-recipient	o		o			see B.1.8/15
7.2	encryption-originator	o		o			see B.1.8/15
7.3	content-integrity-check	o		o			see B.1.8/15
7.4	token-signature	o		o			see B.1.8/15
7.5	message-origin-authentication	o		o			see B.1.8/15
8	CertificateSelectorsOverride						
8.1	encryption-recipient	o		o			see B.1.8/15
8.2	encryption-originator	o		o			see B.1.8/15
8.3	content-integrity-check	o		o			see B.1.8/15
8.4	token-signature	o		o			see B.1.8/15
9	ExtendedCertificate						
9.1	directory-entry	o		o			
9.2	certificate	o		o			see B.1.8/13

B.1.10 OR-names

B.1.10.1 OR-name forms for identification of remote MTS-users

Ref.	OR-Name Form	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	mnemonic OR-address	m		m			see B.1.10.3
2	numeric OR-address	o		m			see B.1.10.4
3	terminal OR-address	o		m			see B.1.10.5
4	formatted postal OR-address	o		m			see B.1.10.6
5	unformatted postal OR-address	o		m			see B.1.10.7
6	directory-name	o		m			

B.1.10.2 OR-name forms for local MS-user authentication

Ref.	OR-Name Form	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	mnemonic OR-address	o		o			see B.1.10.3
2	numeric OR-address	o		o			see B.1.10.4
3	terminal OR-address	o		o			see B.1.10.5
4	formatted postal OR-address	–		–			
5	unformatted postal OR-address	–		–			
6	directory-name	o		o			

The following tables shall be completed according to the OR-address forms for which support is claimed above.

B.1.10.3 Mnemonic OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
1.4	organization-name	o		m			
1.5	personal-name	o		m			
1.5.1	surname	m		m			
1.5.2	given-name	o		m			
1.5.3	initials	o		m			
1.5.4	generation-qualifier	o		m			
1.6	organizational-unit-names	o		m			
2	built-in-domain-defined-attributes	o		c ¹			
3	extension-attributes	o		m			
3.1	common-name	o		m			
3.2	teletex-common-name	o		m			
3.3	universal-common-name	o		m			see B.1.10.8
3.4	teletex-organization-name	o		m			
3.5	universal-organization-name	o		m			see B.1.10.8
3.6	teletex-personal-name	o		m			
3.6.1	surname	m		m			
3.6.2	given-name	o		m			
3.6.3	initials	o		m			
3.6.4	generation-qualifier	o		m			
3.7	universal-personal-name	o		m			
3.7.1	surname	m		m			see B.1.10.8
3.7.2	given-name	o		m			see B.1.10.8
3.7.3	initials	o		m			see B.1.10.8
3.7.4	generation-qualifier	o		m			see B.1.10.8
3.8	teletex-organizational-unit-names	o		m			
3.9	universal-organizational-unit-names	o		m			see B.1.10.8
3.10	teletex-domain-defined-attributes	o		c ¹			
3.11	universal-domain-defined-attributes	o		c ¹			see B.1.10.8

1 if the mnemonic OR-address form is considered in the context of local MS-user identification then o else m

B.1.10.4 Numeric OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
1.4	numeric-user-identifier	m		m			
2	built-in-domain-defined-attributes	o		c ¹			
3	extension-attributes	o		m			
3.1	teletex-domain-defined-attributes	o		c ¹			
3.2	universal-domain-defined-attributes	o		c ¹			see B.1.10.8
1 if the numeric OR-address form is considered in the context of local MS-user identification then o else m							

B.1.10.5 Terminal OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	o		m			
1.2	administration-domain-name	o		m			
1.3	network-address	m		m			
1.4	terminal-identifier	o		m			
1.5	private-domain-name	o		m			
1.6	organization-name	o		o			
1.7	personal-name	o		o			
1.8	organizational-unit-names	o		o			
2	built-in-domain-defined-attributes	o		c ¹			
3	extension-attributes	o		m			
3.1	extended-network-address	m		m			
3.1.1	e163-4-address	o		m			
3.1.2	psap-address	o		m			
3.2	terminal-type	o		m			
3.3	common-name	o		o			
3.4	teletex-common-name	o		o			
3.5	universal-common-name	o		o			see B.1.10.8
3.6	teletex-organization-name	o		o			
3.7	universal-organization-name	o		o			see B.1.10.8
3.8	teletex-personal-name	o		o			
3.9	universal-personal-name	o		o			see B.1.10.8
3.10	teletex-organizational-unit-names	o		o			
3.11	universal-organizational-unit-names	o		o			see B.1.10.8

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
3.12	unformatted-postal-address	o		o			
3.13	universal-unformatted-postal-address	o		o			see B.1.10.8
3.14	teletex-domain-defined-attributes	o		c ¹			
3.15	universal-domain-defined-attributes	o		c ¹			see B.1.10.8
1 if the terminal OR-address form is considered in the context of local MS-user identification then o else m							

B.1.10.6 Formatted postal OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
2	extension-attributes	m		m			
2.1	physical-delivery-country-name	m		m			
2.2	physical-delivery-office-name	o		m			
2.3	universal-physical-delivery-office-name	o		m			see B.1.10.8
2.4	physical-delivery-office-number	o		m			
2.5	universal-physical-delivery-office-number	o		m			see B.1.10.8
2.6	physical-delivery-organization-name	o		m			
2.7	universal-physical-delivery-organization-name	o		m			see B.1.10.8
2.8	physical-delivery-personal-name	o		m			
2.9	universal-physical-delivery-personal-name	o		m			see B.1.10.8
2.10	postal-code	m		m			
2.11	poste-restante-address	o		m			
2.12	universal-poste-restante-address	o		m			see B.1.10.8
2.13	post-office-box-address	o		m			
2.14	universal-post-office-box-address	o		m			see B.1.10.8
2.15	pds-name	o		m			
2.16	street-address	o		m			
2.17	universal-street-address	o		m			see B.1.10.8
2.18	unique-postal-name	o		m			
2.19	universal-unique-postal-name	o		m			see B.1.10.8
2.20	extension-OR-address-components	o		m			

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
2.21	universal-extension-OR-address-components	o		m			see B.1.10.8
2.22	extension-physical-delivery-address-components	o		m			
2.23	universal-extension-physical-delivery-address-components	o		m			see B.1.10.8
2.24	local-postal-attributes	o		m			
2.25	universal-local-postal-attributes	o		m			see B.1.10.8

B.1.10.7 Unformatted postal OR-address

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	built-in-standard-attributes	m		m			
1.1	country-name	m		m			
1.2	administration-domain-name	m		m			
1.3	private-domain-name	o		m			
2	extension-attributes	m		m			
2.1	unformatted-postal-address	m		m			
2.2	universal-unformatted-postal-address	m		m			see B.1.10.8
2.3	physical-delivery-country-name	m		m			
2.4	postal-code	m		m			
2.5	pds-name	o		m			

B.1.10.8 UniversalOrBMPString

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	UniversalOrBMPString						
1.1	character-encoding						
1.1.1	two-octets	m		m			
1.1.2	four-octets	m		m			
1.2	iso-639-language-code	o		o			

B.1.11 General attributes

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	certificate-selectors	o		o			see B.1.9/7
2	child-sequence-numbers	o		m			
3	content	m		m			
4	content-confidentiality-algorithm-identifier	o		o			
5	content-correlator	o		o			
6	content-identifier	o		o			
7	content-integrity-check	o		o			
8	content-length	o		o			
9	content-returned	o		o			
10	content-type	m		m			
11	conversion-with-loss-prohibited	o		o			
12	converted-EITs	o		o			
13	creation-time	o		m			
14	delivered-EITs	o		o			
15	delivery-flags	o		o			
16	dl-exempted-recipients	o		o			
17	dl-expansion-history	o		o			
18	entry-type	o		m			
19	internal-trace-information	o		o			
20	message-delivery-envelope	m		m			
21	message-delivery-time	o		o			
22	message-identifier	o		o			
23	message-origin-authentication-check	o		o			
24	message-security-label	o		o			
25	message-submission-time	o		o			
26	message-token	o		o			
27	multiple-originator-certificates	o		o			see B.1.9/9
28	original-EITs	o		o			
29	originally-intended-recipient-name	o		o			
30	originator-certificate	o		o			see B.1.8/13
31	originator-name	o		o			
32	other-recipient-names	o		o			
33	parent-sequence-number	o		m			
34	per-recipient-report-delivery-fields	o		m			
35	priority	o		o			
36	proof-of-delivery-request	o		o			
37	recipient-certificate	o		o			see B.1.8/13
38	redirection-history	o		o			
39	report-delivery-envelope	m		m			
40	report-origin-authentication-check	o		o			

Ref.	Attribute	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
41	reporting-DL-name	o		o			
42	reporting-MTA-certificate	o		o			see B.1.8/13
43	retrieval-status	m		m			
44	security-classification	o		o			
45	sequence-number	m		m			
46	signature-verification-status	o		o			
47	subject-submission-identifier	o		m			
48	this-recipient-name	o		o			
49	trace-information	o		o			

B.1.12 Auto-actions

Ref.	Element	MS-user		MS		Support	Notes/References
		Base	Profile	Base	Profile		
1	auto-forward	o		o			see B.1.6
2	auto-alert	o		o			see B.1.7
3	other-auto-actions:	o		o			

B.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 10611-5.

B.3 Additional information

B.3.1 Content types supported

The following table shall be completed to indicate (Y or ✓) which content type(s) the implementation can support on submission and on retrieval.

If support on retrieval is claimed, then support of MS attributes may also be claimed by so indicating (Y or ✓) in the "Supported Attributes" column. A claim of support of MS attributes means that any mandatory requirements in the relevant content type-specific base standards for support of MS attributes are met.

Ref.	Content Type	Supported		Supported Attributes	Comments
		Submission	Retrieval		
1	built-in			–	
1.1	unidentified (0)			–	
1.2	interpersonal-messaging-1984 (2)			–	
1.3	interpersonal-messaging-1988 (22) (see Notes)				
1.4	(EDI messaging) (35)				
2	extended (specify)				

NOTE 1 – The IPM Subject attribute shall be supported, in addition to the IPM specific base standard support requirements of MS attributes.

NOTE 2 – A system which only supports content type interpersonal-messaging (2) without interpersonal-messaging (22) and which makes use of a MS is not a scenario described in the base standard, and shall be avoided.

B.3.2 Encoded information types supported

The following table shall be completed to indicate (Y or ✓) which encoded information type(s) the implementation can support on submission and on retrieval.

Ref.	Encoded Information Type	Supported		Comments
		Submission	Retrieval	
1	built-in			
1.1	undefined (0)			
1.2	ia5-text (2)			
1.3	g3-facsimile (3)			
1.4	g4-class-1 (4)			
1.5	teletex (5)			
1.6	videotex (6)			
1.7	voice (7)			
1.8	mixed-mode (9)			
1.9	other (specify)			
2	extended (specify)			

B.3.3 Support of filter

The following table shall be completed to indicate any constraints on the support of filter.

Ref.	Constraint	Value	Comments
1	Maximum number of levels of recursion/nesting of filter supported		
2	Maximum number of elements that can be logically combined at any one level		

B.3.4 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 a message envelope (if any) (see Note 2)		
3	other (specify)		

NOTE 1 – Any limit on the maximum size of message content and/or envelope shall be stated.

NOTE 2 – Any limit on the number of recipients that may be specified in a message envelope shall be stated (this does not imply a static capability to register that number of users for delivery at a single MTA).

B.3.5 Support of attributes by the MS-user

The following table shall be completed for the MS-user to indicate, for each supported MS attribute, all the operations, arguments, results and filter items for which the attribute is supported.

Ref.	Attribute	Comments
1	certificate-selectors	
2	child-sequence-numbers	
3	content	
4	content-confidentiality-algorithm-identifier	
5	content-correlator	
6	content-identifier	
7	content-integrity-check	
8	content-length	
9	content-returned	
10	content-type	
11	conversion-with-loss-prohibited	
12	converted-EITs	
13	creation-time	
14	delivered-EITs	
15	delivery-flags	
16	dl-exempted-recipients	
17	dl-expansion-history	
18	entry-type	
19	internal-trace-information	
20	message-delivery-envelope	
21	message-delivery-time	
22	message-identifier	
23	message-origin-authentication-check	
24	message-security-label	
25	message-submission-time	
26	message-token	
27	multiple-originator-certificates	
28	original-EITs	

Ref.	Attribute	Comments
29	originally-intended-recipient-name	
30	originator-certificate	
31	originator-name	
32	other-recipient-names	
33	parent-sequence-number	
34	per-recipient-report-delivery-fields	
35	priority	
36	proof-of-delivery-request	
37	recipient-certificate	
38	redirection-history	
39	report-delivery-envelope	
40	report-origin-authentication-check	
41	reporting-DL-name	
42	reporting-MTA-certificate	
43	retrieval-status	
44	security-classification	
45	sequence-number	
46	signature-verification-status	
47	subject-submission-identifier	
48	this-recipient-name	
49	trace-information	

B.3.6 Supported extensions

The following table shall be completed to indicate which extensions and where they are supported in addition to the standard extensions for which support must already be stated in the various tables of clauses B.1 and B.2. For each extension it shall be references to where in the protocol they might appear.

Ref.	Extension identifier	Comments

Anexo C

Enmiendas y corrigenda

(Este anexo es parte integrante de la presente Recomendación)

Las Recomendaciones y Normas Internacionales están sujetas a estudio y revisión constante por el UIT-T y la ISO/CEI. Las siguientes enmiendas y corrigenda están aprobadas por el UIT-T y la ISO/CEI y se consideran referencias normativas de esta Recomendación.

Ninguno.

SERIES DE RECOMENDACIONES DEL UIT-T

Serie A	Organización del trabajo del UIT-T
Serie B	Medios de expresión: definiciones, símbolos, clasificación
Serie C	Estadísticas generales de telecomunicaciones
Serie D	Principios generales de tarificación
Serie E	Explotación general de la red, servicio telefónico, explotación del servicio y factores humanos
Serie F	Servicios de telecomunicación no telefónicos
Serie G	Sistemas y medios de transmisión, sistemas y redes digitales
Serie H	Sistemas audiovisuales y multimedios
Serie I	Red digital de servicios integrados
Serie J	Transmisiones de señales radiofónicas, de televisión y de otras señales multimedios
Serie K	Protección contra las interferencias
Serie L	Construcción, instalación y protección de los cables y otros elementos de planta exterior
Serie M	RGT y mantenimiento de redes: sistemas de transmisión, circuitos telefónicos, telegrafía, facsímil y circuitos arrendados internacionales
Serie N	Mantenimiento: circuitos internacionales para transmisiones radiofónicas y de televisión
Serie O	Especificaciones de los aparatos de medida
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