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DE L'UIT

X.484

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SÉRIE X: RÉSEAUX POUR DONNÉES ET
COMMUNICATION ENTRE SYSTÈMES OUVERTS

Systèmes de messagerie

**Systèmes de messagerie – Formulaire de
déclaration de conformité d'une implémentation
de protocole P7**

Recommandation UIT-T X.484

(Antérieurement Recommandation du CCITT)

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RECOMMANDATION UIT-T X.484

SYSTÈMES DE MESSAGERIE – FORMULAIRES DE DÉCLARATION DE CONFORMITÉ D'UNE IMPLÉMENTATION DE PROTOCOLE P7

Résumé

La présente Recommandation définit les formulaires de déclaration de conformité d'implémentation de protocole (PICS, *protocol implementation conformance statement*) pour le protocole P7 des systèmes de messagerie (MHS, *message handling systems*) (accès à la mémoire de messages 88, MS 88 Access et accès à la mémoire de messages 94, MS 94 Access), qui est spécifié dans la Rec. UIT-T X.413 | ISO/CEI 10021-5 et la Rec. UIT-T X.419 | ISO/CEI 10021-6. Les formulaires PICS présentent, sous forme de tableau, les éléments obligatoires et facultatifs du protocole P7.

Source

La Recommandation UIT-T X.484, révisée par la Commission d'études 7 de l'UIT-T (1997-2000), a été approuvée le 25 septembre 1998 selon la procédure définie dans la Résolution n° 1 de la CMNT.

Suite à la décision de la Commission d'études 7 (18 juin 1999) de publier une nouvelle édition des Recommandations relatives aux systèmes de messagerie, il a été décidé, en accord avec le Directeur du TSB, de publier également les Recommandations X.481, X.482, X.483, X.484 et X.486 avec la date de 1999.

AVANT-PROPOS

L'UIT (Union internationale des télécommunications) est une institution spécialisée des Nations Unies dans le domaine des télécommunications. L'UIT-T (Secteur de la normalisation des télécommunications) est un organe permanent de l'UIT. Il est chargé de l'étude des questions techniques, d'exploitation et de tarification, et émet à ce sujet des Recommandations en vue de la normalisation des télécommunications à l'échelle mondiale.

La Conférence mondiale de normalisation des télécommunications (CMNT), qui se réunit tous les quatre ans, détermine les thèmes d'études à traiter par les Commissions d'études de l'UIT-T, lesquelles élaborent en retour des Recommandations sur ces thèmes.

L'approbation des Recommandations par les Membres de l'UIT-T s'effectue selon la procédure définie dans la Résolution n° 1 de la CMNT.

Dans certains secteurs des technologies de l'information qui correspondent à la sphère de compétence de l'UIT-T, les normes nécessaires se préparent en collaboration avec l'ISO et la CEI.

NOTE

Dans la présente Recommandation, le terme *exploitation reconnue (ER)* désigne tout particulier, toute entreprise, toute société ou tout organisme public qui exploite un service de correspondance publique. Les termes *Administration*, *ER* et *correspondance publique* sont définis dans la *Constitution de l'UIT (Genève, 1992)*.

DROITS DE PROPRIÉTÉ INTELLECTUELLE

L'UIT attire l'attention sur la possibilité que l'application ou la mise en œuvre de la présente Recommandation puisse donner lieu à l'utilisation d'un droit de propriété intellectuelle. L'UIT ne prend pas position en ce qui concerne l'existence, la validité ou l'applicabilité des droits de propriété intellectuelle, qu'ils soient revendiqués par un Membre de l'UIT ou par une tierce partie étrangère à la procédure d'élaboration des Recommandations.

A la date d'approbation de la présente Recommandation, l'UIT n'avait pas été avisée de l'existence d'une propriété intellectuelle protégée par des brevets à acquérir pour mettre en œuvre la présente Recommandation. Toutefois, comme il ne s'agit peut-être pas de renseignements les plus récents, il est vivement recommandé aux responsables de la mise en œuvre de consulter la base de données des brevets du TSB.

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Introduction

La présente Recommandation fait partie d'une série de Recommandations définissant la messagerie dans un environnement de systèmes répartis ouverts.

La messagerie permet l'échange de messages entre usagers en mode enregistrement et retransmission. Un message déposé par un usager (l'expéditeur) est transféré par le système de transfert de message (MTS, *message transfer system*) et remis à un ou plusieurs usagers (les destinataires). Le MTS comprend un certain nombre d'agents de transfert de messages (MTA, *message transfer agent*), qui transfèrent les messages et les remettent à leurs destinataires.

Pour évaluer les capacités d'une implémentation de protocole donnée, il est nécessaire de disposer d'une déclaration précisant les capacités et les options qui ont été incluses pour un protocole OSI donné. Cette déclaration est appelée déclaration de conformité d'implémentation de protocole (PICS).

SYSTEMES DE MESSAGERIE – FORMULAIRES DE DECLARATION DE CONFORMITE D'UNE IMPLEMENTATION DE PROTOCOLE P7¹

1 Domaine d'application

La présente Recommandation définit les formulaires de déclaration de conformité d'implémentation de protocole (PICS) pour le protocole P7 spécifié dans la Rec. UIT-T X.413 | ISO/CEI 10021-5 et la Rec. UIT-T X.419 | ISO/CEI 10021-6. Les formulaires PICS présentent, sous forme de tableau, les éléments obligatoires et facultatifs du protocole P7. Deux formulaires de déclaration PICS sont fournis. L'Annexe A contient le formulaire PICS pour l'accès à la mémoire de messages version 1994 et ultérieures des Recommandations | Normes internationales du système MHS. L'Annexe B contient le formulaire PICS pour l'accès à la mémoire de messages version 1988 des Recommandations | Normes internationales du système MHS.

Ces formulaires de déclaration PICS sont fondés sur les directives pertinentes applicables aux formulaires de déclaration PICS donnés dans la Rec. UIT-T X.296 | ISO/CEI 9646-7.

2 Références normatives

Les Recommandations et Normes internationales suivantes contiennent des dispositions qui, par suite de la référence qui y est faite, constituent des dispositions valables pour la présente Recommandation | Norme internationale. Au moment de la publication, les éditions indiquées étaient en vigueur. Toutes Recommandations et Normes sont sujettes à révision et les parties prenantes aux accords fondés sur la présente Recommandation | Norme internationale sont invitées à rechercher la possibilité d'appliquer les éditions les plus récentes des Recommandations et Normes indiquées ci-après. Les membres de la CEI et de l'ISO possèdent le registre des Normes internationales en vigueur. Le Bureau de la normalisation des télécommunications de l'UIT tient à jour une liste des Recommandations de l'UIT-T en vigueur.

2.1 Recommandations | Normes internationales identiques

- Recommandation UIT-T X.402 (1999) | ISO/CEI 10021-2:1999, *Technologies de l'information – Systèmes de messagerie: Architecture globale.*
- Recommandation UIT-T X.413 (1999) | ISO/CEI 10021-5:1999, *Technologies de l'information – Systèmes de messagerie: mémoire de messages: définition du service abstrait.*
- Recommandation UIT-T X.419 (1999) | ISO/CEI 10021-6:1999, *Technologies de l'information – Systèmes de messagerie: spécification des protocoles.*

2.2 Paires de Recommandations | Normes internationales de contenu technique équivalent

- Recommandation UIT-T X.290 (1995), *Cadre général et méthodologie des tests de conformité d'interconnexion des systèmes ouverts pour les Recommandations sur les protocoles pour les applications de l'UIT-T – Concepts généraux.*
ISO/CEI 9646-1:1994, *Technologies de l'information – Interconnexion de systèmes ouverts (OSI) – Cadre général et méthodologie des tests de conformité – Partie 1: Concepts généraux.*
- Recommandation UIT-T X.296 (1995), *Cadre général et méthodologie des tests de conformité OSI pour les Recommandations sur les protocoles pour les applications de l'UIT-T – Déclarations de conformité d'instance.*
ISO/CEI 9646-7:1995, *Technologies de l'information – Interconnexion de systèmes ouverts (OSI) – Essais de conformité – Méthodologie générale et procédures – Partie 7: Déclarations de conformité des mises en œuvre.*

¹ L'Annexe A de la présente Recommandation est alignée sur le plan technique avec l'Annexe A de l'ISO/CEI ISP 10611-6, Technologies de l'information – Profils normalisés internationaux AMH1n – Systèmes de messagerie – Messagerie commune – Partie 6: Accès AMH15 – MS 94 (P7). L'Annexe B de la présente Recommandation est alignée sur le plan technique avec l'Annexe A de l'ISO/CEI ISP 10611-5, Technologies de l'information – Profils normalisés internationaux AMH1n – Systèmes de messagerie – Messagerie commune – Partie 5: AMH13 – Accès à MS (P7).

3 Définitions

Les termes employés dans la présente Recommandation sont définis dans les Recommandations | Normes internationales citées en référence.

4 Abréviations

La présente Recommandation utilise les abréviations suivantes:

ISP	profil normalisé international (<i>international standardized profile</i>)
MHS	système de messagerie (<i>message handling system</i>)
MS	mémoire de messages (<i>message store</i>)
MTA	agent de transfert de messages (<i>message transfer agent</i>)
OSI	interconnexion des systèmes ouverts (<i>open systems interconnection</i>)
PDU	unité de données protocolaires (<i>protocol data unit</i>)
PICS	déclaration de conformité d'implémentation de protocole (<i>protocol implementation conformance statement</i>)
UA	agent d'utilisateur (<i>user agent</i>)

5 Conformité

Un formulaire de déclaration PICS conforme doit être équivalent, sur le plan technique, à l'un des formulaires de déclaration PICS définis dans la présente Recommandation et doit en conserver la numérotation et l'ordre des rubriques.

Un formulaire PICS conforme à la présente Recommandation doit:

- décrire une implémentation de protocole conforme au contexte d'application 1994 ou 1988 défini dans la Rec. UIT-T X.413 | ISO/CEI 10021-5 et dans la Rec. UIT-T X.419 | ISO/CEI 10021-6;
- être un formulaire de déclaration PICS conforme, rempli conformément aux instructions données à cet effet soit dans l'Annexe A, soit dans l'Annexe B;
- inclure les renseignements requis pour identifier sans équivoque le fournisseur et l'implémentation de protocole.

Annexe A²

Formulaire PICS pour le protocole P7 d'accès au système de transfert de messages (MS 94)

(Cette annexe fait partie intégrante de la présente Recommandation)

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 Droits de reproduction du formulaire PICS

Les utilisateurs de la présente Recommandation sont autorisés à reproduire le formulaire PICS de la présente annexe PICS pour utiliser celui-ci conformément à son objet. Ils sont également autorisés à publier le formulaire PICS une fois celui-ci complété.

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:

- if the reference is to an item in another document, then the reference starts with unambiguous identifier for that document;
- the number of the subclause enclosing the table, or the number of the table if they are numbered;
- a solidus character "/";
- 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			
2 if at least one auto-action type is supported then m else – 3 if at least one content-type is supported then m else – 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 6 shall be supported if ua-registration-identifier is supported 7 shall be supported if at least one auto-action is supported 8 shall be supported if the Auto-action Log entry-class is not supported 9 shall be supported if the Auto-action Log entry-class is supported 10 shall be supported if at least one extension is supported 11 shall be supported if message grouping functionality is supported 12 shall be supported if the Modify operation is supported 13 shall be supported if modification of the retrieval-status attribute is supported 14 shall be supported if protected credentials are supported							

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	IPMPerRecipientEnvelope Extensions	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	–		–			
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)							
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)							
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)							

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:

- if the reference is to an item in another document, then the reference starts with unambiguous identifier for that document;
- the number of the subclause enclosing the table, or the number of the table if they are numbered;
- a solidus character "/";
- 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

Annexe C

Amendements et corrigenda

(Cette annexe fait partie intégrante de la présente Recommandation)

Les Recommandations et les Normes internationales sont constamment sujettes à révision par l'UIT-T et l'ISO/CEI. Les amendements et corrigenda suivants sont approuvés par l'UIT-T et l'ISO/CEI et sont considérés comme des références normatives de la présente Recommandation.

Aucun.

SÉRIES DES RECOMMANDATIONS UIT-T

Série A	Organisation du travail de l'UIT-T
Série B	Moyens d'expression: définitions, symboles, classification
Série C	Statistiques générales des télécommunications
Série D	Principes généraux de tarification
Série E	Exploitation générale du réseau, service téléphonique, exploitation des services et facteurs humains
Série F	Services de télécommunication non téléphoniques
Série G	Systèmes et supports de transmission, systèmes et réseaux numériques
Série H	Systèmes audiovisuels et multimédias
Série I	Réseau numérique à intégration de services
Série J	Transmission des signaux radiophoniques, télévisuels et autres signaux multimédias
Série K	Protection contre les perturbations
Série L	Construction, installation et protection des câbles et autres éléments des installations extérieures
Série M	RGT et maintenance des réseaux: systèmes de transmission, de télégraphie, de télécopie, circuits téléphoniques et circuits loués internationaux
Série N	Maintenance: circuits internationaux de transmission radiophonique et télévisuelle
Série O	Spécifications des appareils de mesure
Série P	Qualité de transmission téléphonique, installations téléphoniques et réseaux locaux
Série Q	Commutation et signalisation
Série R	Transmission télégraphique
Série S	Equipements terminaux de télégraphie
Série T	Terminaux des services télématiques
Série U	Commutation télégraphique
Série V	Communications de données sur le réseau téléphonique
Série X	Réseaux pour données et communication entre systèmes ouverts
Série Y	Infrastructure mondiale de l'information
Série Z	Langages et aspects informatiques généraux des systèmes de télécommunication