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SERIES X: DATA NETWORKS AND OPEN SYSTEM  
COMMUNICATIONS

Message Handling Systems

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**Message Handling Systems – P7 protocol PICS  
proforma**

ITU-T Recommendation X.484

(Previously CCITT Recommendation)

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# **ITU-T RECOMMENDATION X.484**

## **MESSAGE HANDLING SYSTEMS – P7 PROTOCOL PICS PROFORMA**

### **Summary**

This Recommendation provides the Protocol Implementation Conformance Statement (PICS) proforma for the Message Handling Systems (MHS) P7 protocol (MS 88 Access and MS 94 Access) specified in ITU-T Rec. X.413 | ISO/IEC 10021-5 and ITU-T Rec. X.419 | ISO/IEC 10021-6. The PICS proforma presents in tabular form the mandatory and optional elements of the P7 protocol.

### **Source**

ITU-T Recommendation X.484 was revised by ITU-T Study Group 7 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 25th of September 1998.

As a result of Study Group 7 decision (18th of June 1999) to publish a consolidated new edition of the set of Message Handling Recommendations, it was decided that, in agreement with the TSB Director, X.481, X.482, X.483, X.484 and X.486 will also be published with 1999 dates.

## FOREWORD

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

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

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

## NOTE

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

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

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

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## **Introduction**

This Recommendation is one in a set of Recommendations defining Message Handling in a distributed open system environment.

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

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

## MESSAGE HANDLING SYSTEMS – P7 PROTOCOL PICS PROFORMA<sup>1</sup>

### 1 Scope

This Recommendation provides the Protocol Implementation Conformance Statement (PICS) proforma for the P7 protocol specified in ITU-T Rec. X.413 | ISO/IEC 10021-5 and ITU-T Rec. X.419 | ISO/IEC 10021-6. The PICS proforma presents in tabular form the mandatory and optional elements of the P7 protocol. Two PICS proformas are provided. Annex A is the PICS proforma for Message Store Access for the 1994 and subsequent versions of the MHS Recommendations | International Standards. Annex B is the PICS proforma for Message Store Access for the 1988 version of the MHS Recommendations | International Standards.

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

### 2 Normative references

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

#### 2.1 Identical Recommendations | International Standards

- ITU-T Recommendation X.402 (1999) | ISO/IEC 10021-2:1999, *Information technology – Message Handling Systems (MHS): Overall architecture*.
- ITU-T Recommendation X.413 (1999) | ISO/IEC 10021-5:1999, *Information technology – Message handling systems: Message store – Abstract service definition*.
- ITU-T Recommendation X.419 (1999) | ISO/IEC 10021-6:1999, *Information technology – Message Handling Systems (MHS): Protocol specifications*.

#### 2.2 Paired Recommendations | International Standards equivalent in technical content

- ITU-T Recommendation X.290 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – General concepts*.  
  
ISO/IEC 9646-1:1994, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts*.
- ITU-T Recommendation X.296 (1995), *OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications – Implementation conformance statements*.  
  
ISO/IEC 9646-7:1995, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 7: Implementation conformance statements*.

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<sup>1</sup> Annex A in this Recommendation is technically aligned with Annex A in ISO/IEC ISP 10611-6, Information technology – International Standardized Profiles AMH1n – Message Handling Systems – Common Messaging – Part 6: AMH15 – MS 94 Access (P7). Annex B in this Recommendation is technically aligned with Annex A in ISO/IEC ISP 10611-5, Information technology – International Standardized Profiles AMH1n – Message Handling Systems – Common Messaging – Part 5: AMH13 – MS Access (P7).

### 3 Definitions

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

### 4 Abbreviations

This Recommendation uses the following abbreviations:

|      |                                               |
|------|-----------------------------------------------|
| ISP  | International Standardized Profile            |
| MHS  | Message Handling Systems                      |
| MS   | Message Store                                 |
| MTA  | Message Transfer Agent                        |
| OSI  | Open Systems Interconnection                  |
| PDU  | Protocol Data Unit                            |
| PICS | Protocol Implementation Conformance Statement |
| UA   | User Agent                                    |

### 5 Conformance

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

A PICS which conforms to this Recommendation shall:

- a) describe an implementation which conforms to either the 1994 or 1988 application context defined in ITU-T Rec. X.413 | ISO/IEC 10021-5 and ITU-T Rec. X.419 | ISO/IEC 10021-6;
- b) be a conforming PICS proforma, which has been completed in accordance with the instructions for completion given in Annex A or Annex B, as appropriate;
- c) include the information necessary to uniquely identify both the supplier and the implementation.

## Annex A<sup>2</sup>

### PICS Proforma for MS 94 Access (P7)

(This annex forms an integral part of this Recommendation)

#### 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)".

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<sup>2</sup> **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.

## **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 <sup>1</sup> |         |         | 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 <sup>2</sup>  |         |         |                  |
| 2.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | available-attribute-types               | o               |         | m               |         |         |                  |
| 2.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | alert-indication                        | o               |         | o               |         |         |                  |
| 2.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | content-types-supported                 | o               |         | c <sup>3</sup>  |         |         |                  |
| 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 <sup>10</sup> |         | c <sup>10</sup> |         |         |                  |
| 2.8.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | modify-capability                       | c <sup>12</sup> |         | c <sup>12</sup> |         |         |                  |
| 2.8.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | modify-retrieval-status-capability      | c <sup>13</sup> |         | c <sup>13</sup> |         |         |                  |
| 2.8.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | protected-change-credentials-capability | c <sup>14</sup> |         | c <sup>14</sup> |         |         |                  |
| 2.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | message-group-depth                     | o               |         | c <sup>11</sup> |         |         |                  |
| 2.10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | auto-action-error-indication            | c <sup>7</sup>  |         | c <sup>7</sup>  |         |         |                  |
| 2.10.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | indication-only                         | c <sup>8</sup>  |         | c <sup>8</sup>  |         |         |                  |
| 2.10.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | auto-action-log-entry                   | c <sup>9</sup>  |         | c <sup>9</sup>  |         |         |                  |
| 2.11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | unsupported-extensions                  | o               |         | o               |         |         |                  |
| 2.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ua-registration-id-unknown              | c <sup>6</sup>  |         | m <sup>5</sup>  |         |         |                  |
| 2.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | service-information                     | o               |         | o               |         |         |                  |
| <p>2 if at least one auto-action type is supported then m else –</p> <p>3 if at least one content-type is supported then m else –</p> <p>5 if the MS does not support UA registration and has received the element ua-registration-identifier in the argument, it shall generate the value TRUE</p> <p>6 shall be supported if ua-registration-identifier is supported</p> <p>7 shall be supported if at least one auto-action is supported</p> <p>8 shall be supported if the Auto-action Log entry-class is not supported</p> <p>9 shall be supported if the Auto-action Log entry-class is supported</p> <p>10 shall be supported if at least one extension is supported</p> <p>11 shall be supported if message grouping functionality is supported</p> <p>12 shall be supported if the Modify operation is supported</p> <p>13 shall be supported if modification of the retrieval-status attribute is supported</p> <p>14 shall be supported if protected credentials are supported</p> |                                         |                 |         |                 |         |         |                  |

### A.1.3.2 MSMessageSubmission

| Ref.                                                                     | Element                                   | MS-user        |         | MS             |         | Support | Notes/References |
|--------------------------------------------------------------------------|-------------------------------------------|----------------|---------|----------------|---------|---------|------------------|
|                                                                          |                                           | Base           | Profile | Base           | Profile |         |                  |
| 1                                                                        | ARGUMENT                                  |                |         |                |         |         |                  |
| 1.1                                                                      | (envelope)                                | m              |         | m              |         |         | see A.1.4        |
| 1.2                                                                      | content                                   | m              |         | m              |         |         |                  |
| 1.3                                                                      | submission-options                        | o              |         | o              |         |         |                  |
| 1.3.1                                                                    | object-entry-class                        | o              |         | o              |         |         | see A.1.8/5      |
| 1.3.2                                                                    | disable-auto-modify                       | o              |         | o              |         |         |                  |
| 1.3.3                                                                    | add-message-group-names                   | o              |         | o              |         |         |                  |
| 1.3.4                                                                    | ms-submission-extensions                  | o              |         | o              |         |         |                  |
| 1.3.4.1                                                                  | originator-token                          | o              |         | o              |         |         | see A.1.9/4      |
| 1.3.4.2                                                                  | originator-certificate-selectors-override | o              |         | o              |         |         | see A.1.9/8      |
| 2                                                                        | RESULT                                    |                |         |                |         |         |                  |
| 2.1                                                                      | mts-result                                | m              |         | m              |         |         |                  |
| 2.1.1                                                                    | message-submission-identifier             | m              |         | m              |         |         | see A.1.8/8      |
| 2.1.2                                                                    | message-submission-time                   | m              |         | m              |         |         |                  |
| 2.1.3                                                                    | content-identifier                        | o              |         | m              |         |         |                  |
| 2.1.4                                                                    | extensions                                | o              |         | m              |         |         | see A.1.9/1      |
| 2.1.4.1                                                                  | originating-MTA-certificate               | o              |         | o              |         |         | see A.1.8/22     |
| 2.1.4.2                                                                  | proof-of-submission                       | o              |         | o              |         |         | see A.1.9/6      |
| 2.1.4.3                                                                  | originating-MTA-certificate-selector      | o              |         | o              |         |         | see A.1.8/24     |
| 2.1.5                                                                    | ms-message-result                         | o              |         | o              |         |         |                  |
| 2.1.5.1                                                                  | created-entry                             | o              |         | o              |         |         |                  |
| 2.1.5.2                                                                  | auto-action-error-indication              | o              |         | o              |         |         |                  |
| 2.1.5.2.1                                                                | indication-only                           | c <sup>2</sup> |         | c <sup>2</sup> |         |         |                  |
| 2.1.5.2.2                                                                | auto-action-log-entry                     | c <sup>3</sup> |         | c <sup>3</sup> |         |         |                  |
| 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 <sup>2</sup> |         | c <sup>2</sup> |         |         |                  |
| 2.2.2.2                                                                  | auto-action-log-entry                     | c <sup>3</sup> |         | c <sup>3</sup> |         |         |                  |
| 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 <sup>2</sup> |         | c <sup>2</sup> |         |         |                  |
| 2.5.2.2                                                                  | auto-action-log-entry           | c <sup>3</sup> |         | c <sup>3</sup> |         |         |                  |
| 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 <sup>1</sup> |         | 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 <sup>1</sup> |         | 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 <sup>1</sup> |         | c <sup>1</sup> |         |         |                  |
| 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 <sup>3</sup> |         | x <sup>3</sup> |         |         |                  |
| 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 <sup>4</sup> |         | c <sup>4</sup> |         |         |                  |
| 5.6     | submission-log        | c <sup>5</sup> |         | c <sup>5</sup> |         |         |                  |
| 5.7     | message-log           | c <sup>6</sup> |         | c <sup>6</sup> |         |         |                  |
| 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 <sup>1</sup> |         |         |                  |
| 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 <sup>1</sup> |         |         |                  |
| 3.11                                                                                                         | universal-domain-defined-attributes | o       |         | c <sup>1</sup> |         |         | 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 <sup>1</sup> |         |         |                  |
| 3                                                                                                           | extension-attributes                | o       |         | m              |         |         |                  |
| 3.1                                                                                                         | teletex-domain-defined-attributes   | o       |         | c <sup>1</sup> |         |         |                  |
| 3.2                                                                                                         | universal-domain-defined-attributes | o       |         | c <sup>1</sup> |         |         | 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 <sup>1</sup> |         |         |                  |
| 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 <sup>1</sup> |         |         |                  |
| 3.15                                                                                                         | universal-domain-defined-attributes  | o       |         | c <sup>1</sup> |         |         | 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 <sup>2</sup> |         | o <sup>2</sup> |         |         |                  |

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

| Ref.                                                                                                                                                                                                                        | Attribute                          | MS-user |         | MS             |         | Support | Notes/References |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------|---------|----------------|---------|---------|------------------|
|                                                                                                                                                                                                                             |                                    | Base    | Profile | Base           | Profile |         |                  |
| 63                                                                                                                                                                                                                          | redirection-history                | o       |         | c <sup>2</sup> |         |         |                  |
| 64                                                                                                                                                                                                                          | report-origin-authentication-check | o       |         | c <sup>2</sup> |         |         |                  |
| 65                                                                                                                                                                                                                          | reporting-DL-name                  | o       |         | c <sup>2</sup> |         |         |                  |
| 66                                                                                                                                                                                                                          | reporting-MTA-certificate          | o       |         | c <sup>2</sup> |         |         | see A.1.8/22     |
| 67                                                                                                                                                                                                                          | retrieval-status                   | m       |         | m              |         |         |                  |
| 68                                                                                                                                                                                                                          | security-classification            | o       |         | c <sup>2</sup> |         |         |                  |
| 69                                                                                                                                                                                                                          | sequence-number                    | m       |         | m              |         |         |                  |
| 70                                                                                                                                                                                                                          | signature-verification-status      | o       |         | c <sup>2</sup> |         |         |                  |
| 71                                                                                                                                                                                                                          | storage-period                     | o       |         | c <sup>2</sup> |         |         | see Note         |
| 72                                                                                                                                                                                                                          | storage-time                       | o       |         | c <sup>2</sup> |         |         | see Note         |
| 73                                                                                                                                                                                                                          | subject-submission-identifier      | o       |         | m              |         |         |                  |
| 74                                                                                                                                                                                                                          | this-recipient-name                | o       |         | c <sup>2</sup> |         |         |                  |
| 75                                                                                                                                                                                                                          | trace-information                  | o       |         | c <sup>2</sup> |         |         |                  |
| 2 if supported in the corresponding Stored-message subordinate entry-class then o else –<br>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                                |          |

| <b>Ref.</b> | <b>Attribute</b>                   | <b>Comments</b> |
|-------------|------------------------------------|-----------------|
| 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 B<sup>3</sup>

### 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)".

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<sup>3</sup> **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:<br>ND – the element is discarded/ignored;<br>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-<br>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-<br>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-<br>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<br>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-<br>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 <sup>1</sup> |         |         |                  |
| 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 <sup>1</sup> |         |         |                  |
| 3.11                                                                                                         | universal-domain-defined-attributes | o       |         | c <sup>1</sup> |         |         | 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 <sup>1</sup> |         |         |                  |
| 3                                                                                                           | extension-attributes                | o       |         | m              |         |         |                  |
| 3.1                                                                                                         | teletex-domain-defined-attributes   | o       |         | c <sup>1</sup> |         |         |                  |
| 3.2                                                                                                         | universal-domain-defined-attributes | o       |         | c <sup>1</sup> |         |         | 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 <sup>1</sup> |         |         |                  |
| 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 <sup>1</sup> |         |         |                  |
| 3.15                                                                                                         | universal-domain-defined-attributes  | o       |         | c <sup>1</sup> |         |         | 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)<br>(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 |
|------|----------------------|----------|
|      |                      |          |

## **Annex C**

### **Amendments and corrigenda**

(This annex forms an integral part of this Recommendation)

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

None.

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