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CCITT

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X.482

(09/92)

DATA COMMUNICATION NETWORKS

P1 PROTOCOL – PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (PICS) PROFORMA

Recommendation X.482

FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation X.482 was prepared by Study Group VII and was approved under the Resolution No. 2 procedure on the 10th of September 1992.

CCITT NOTES

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

2) A list of abbreviations used in this Recommendation can be found in Annex B.

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INTRODUCTION

This Recommendation is one of a set of Recommendations defining Message Handling in a distributed open systems 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 other users (the recipients).

The MTS comprises a number of message transfer agents (MTAs), which transfer messages and deliver them to their intended recipients.

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

This Recommendation includes the PICS proforma for the P1 protocol as defined in the Recommendation X.419.

Recommendation X.482

P1 PROTOCOL – PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT (PICS) PROFORMA

(1992)

1 Scope

This Recommendation provides the PICS proforma for the P1 protocol as specified in Recommendation X.419. This PICS proforma is in compliance with the relevant requirements, and in accordance with the relevant guidance for PICS proforma, given in ISO/IEC 9646-2. Detail of the use of this proforma is provided in Annex A.

2 Normative references

- CCITT Recommendation X.411 (1988), *Message Handling Systems: Message Transfer System: Abstract service definition and procedures*.
- CCITT Recommendation X.419 (1988), *Message Handling Systems: Protocol specifications*.
- ISO 9646-1:1991, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 1: General concepts*. [See also CCITT Recommendation X.290 (1991).]
- ISO 9646-2:1991, *Information technology – Open Systems Interconnection – Conformance testing methodology and framework – Part 2: Abstract test suite specification*. [See also CCITT Recommendation X.291 (1991).]

3 Definitions

This Recommendation uses terms defined in X.400-Series Recommendations.

This Recommendation uses the following terms defined in ISO/IEC 9646-1:

- capabilities of an IUT;
- conformance testing;
- dynamic conformance requirements;
- implementation under test (IUT);
- PICS proforma;
- protocol data unit (PDU);
- protocol implementation conformance statement (PICS);
- static conformance requirements;
- static conformance review;
- system under test (SUT).

4 Abbreviations

Abbreviations defined in X.400-Series Recommendations are used in this Recommendation.

5 Conventions

The PICS proforma is designed as an annex to this Recommendation (see Annex A).

6 Conformance clause

The supplier of a protocol implementation that is claimed to conform to Recommendation X.419, clause 14 is required to complete a copy of the PICS proforma provided in Annex A and is required to provide the information necessary to identify both the supplier and the implementation.

ANNEX A

(to Recommendation X.482)

P1 protocol – Protocol Implementation Conformance Statement (PICS) proforma

(This annex forms an integral part of this Recommendation)

A.1 *Identification of the implementation*

A.1.1 *Identification of PICS*

Ref. No.	Question	Response
1	Date of Statement (DD/MM/YY)	
2	PICS Serial Number	
3	System Conformance Statement Cross Reference	

A.1.2 *Identification of the Implementation and/or System*

Ref. No.	Question	Response
1	Implementation Name	
2	Version Number	
3	Machine Name	
4	Machine Version Number	
5	Operating System Name	
6	Operating System Version	
7	Special Configuration	
8	Other information	

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.1.3 *Identification of the system supplier and/or test laboratory client*

Ref. No.	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.2 *Identification of the protocol*

Ref. No.	Question	Response
1	Title, Reference Number and date of publication of the protocol standard	
2	Protocol Version Numbers	
3	Addenda implemented	
4	Implemented Defect Reports (Ref. No.)	

A.3 *Global statement of conformance*

Ref. No.	Question	D	I
1	Are all mandatory capabilities implemented?	m	[ ]

Answering "No" to this question indicates non-conformance to the protocol specification. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conformant. Such information shall be provided in A.6.10, "Other information".

A.4 *Instructions for completing the PICS proforma*

A.4.1 *Definition of support*

A capability is said to be supported if the Implementation Under Test is able:

– to generate the corresponding service parameters (either automatically or because the end-user explicitly requires that capability);

– to interpret, handle and when required make available to the end-user the corresponding service parameter(s).

A protocol element marked "O" in the "O/R" column is said to be supported if the IUT is able to generate it under some circumstances (either automatically or because the end-user explicitly requires a related service).

A protocol element marked "R" in the "O/R" column is said to be supported if it is correctly interpreted and handled and also, when required, made available to the end-user.

All protocol elements shall be supported for relay. When downgrading rules apply the implementation shall react as described in Recommendation X.419, Annex B.

A.4.2 *D (Defined) column*

This column indicates the level of support required for conformance to Recommendation X.419. The values are as follows:

m Mandatory support is required ;

o Optional support is permitted for conformance to the Recommendation. If implemented it must conform to the specifications and restrictions contained in the Recommendation. These restrictions may affect the optionality of other items ;

c The item is conditional, the support of the capability is subject to a predicate which is referenced in the Note column;

– The item is not applicable.

If Security or Physical Delivery options are not supported, corresponding items shall be considered as not applicable.

A.4.3 *I (Implemented) column*

This column shall be completed by the supplier or implementor to indicate the level of implementation of each item. The proforma has been designed such that the only entries required in that column are:

Y Yes, the item has been implemented ;

N No, the item has not been implemented ;

– The item is not applicable.

In the PICS proforma tables, every leading item marked "m" should be supported by the IUT. Sub-items marked "m" should be supported if the corresponding leading item is supported by the IUT.

All entries within the PICS proforma shall be made in ink. Alterations to such entries shall be made by crossing out, not erasing nor making the original entry illegible, and writing the new entry alongside. All such alterations to records shall be initialled by the staff making them.

A.4.4 *Permitted range of values/values supported columns*

In the column marked "Permit. Range of values", the upper bounds values (e.g. lengths and occurrences) have been stated according to the standard. For each line for which an entry in this column is made, the constraints or supported values should be indicated in the "Values supported" column.

The minimum and maximum lengths and numbers of occurences shall be entered for originator.

The maximum length and number of occurences shall be entered for reception.

A.4.5 *Note column*

The "Note" column has to be read as follows:

Notexx	Refers to Note XX ;
pxx	Refers to predicate xx (see A.4.7) ;
#yy	Refers to A.6.7.6.yy.
	E.g. the following references must be interpreted as follows:
	1/1 means: see A.6.7.6.1: Common Data Types /1: MTSIdentifier
	2/3 means: see A.6.7.6.2: Extension Data Types /3: RequestedDeliveryMethod
	3 means: see A.6.7.6.3: Orname;
d	A value defined as defaultable in the Recommendation, when absent in the PDU shall be interpreted as having the default value specified in the Recommendation;
SEC	Indicates Security item (optional);
PHY	Indicates Physical Delivery item (optional);
Rec. X.500	See X.500-Series Recommendations for a complete definition.

A.4.6 *Item reference numbers*

Each line within the PICS proforma which requires implementation details to be entered is numbered at the left hand edge of the line. This numbering is included as a means of uniquely identifying all possible implementation details within the PICS proforma. This referencing is used both inside the PICS proforma, and for references from other Test Specification documents.

The means of referencing individual responses is done by the following sequence:

a) a reference to the smallest subclause enclosing the relevant item;

b) a solidus character, "/";

c) the reference number of the row in which the response appears;

d) if, and only if, more than one response occurs in the row identified by the reference number, then each possible entry is implicitly labelled a), b), c), etc. from left to right, and this letter is appended to the sequence.

An example of the use of this notation would be A.6.7.5/1.1.7b), which refers to the support for the receipt of PerMessageIndicators in a ProbeTransfer PDU.

A.4.7 *Predicate definitions*

In the definition of predicates the letter "O" means "origination" and "R" means "reception". Definition of predicates:

p1 = A.6.4.1/3

p2 = A.6.4.1/29

p5 = A.6.4.1/28

p6 = A.6.4.1/15

p7 = "the MTA can act as a DL expansion point"

p8 = A.6.4.1/6

p9 = A.6.4.1/19

p11 = A.6.4.1/20

p13 = p9 or p14

p14 = A.6.4.1/16

p16 = A.6.4.1/25

p18 = p1 or p16 or A.6.4.1/29

p19 = A.6.7.3/1.1.5.O

p20 = A.6.4.1/32

p22 = A.6.7.3/1.1.11.10.O

p23 = "the MTA acts within a PRMD"

p24 = A.6.4.1/2

p25 = p1 or p9 or p16

p26 = p25 or p7

p29 = A.6.4.3/52

p30 = A.6.4.3/53

p31 = A.6.4.3/54

p32 = A.6.4.3/55

p33 = A.6.4.3/56

p34 = A.6.4.3/57

p35 = A.6.4.3/58

p36 = A.6.4.3/59

p37 = A.6.4.3/60

p38 = A.6.4.3/61

p39 = A.6.4.3/62

p40 = A.6.4.3/63

p41 = A.6.4.3/64

p42 = A.6.4.3/65

p43 = A.6.7.1/1.2.2.2.O

p47 = A.6.7.1/1.2.2.2.2.O

p48 = A.6.7.1/1.2.3.O

p49 = A.6.7.1/2.2.2.2.O

p50 = A.6.7.1/3.4.O

p51 = A.6.7.3/1.1.11.6.O

p52 = A.6.7.3/1.1.11.7.O

p53 = A.6.7.3/1.1.11.8.O

p54 = A.6.7.3/1.1.11.9.O

p55 = A.6.7.3/1.2.5.10.O

p56 = A.6.7.3/1.2.5.11.O

p57 = A.6.7.3/1.2.5.12.O

p58 = A.6.7.4/1.4.1.O

p59 = A.6.7.4/1.4.4.O

p60 = A.6.7.4/1.4.5.O

p61 = A.6.7.4/2.2.7.3.O

p62 = A.6.7.4/2.2.7.4.O

p63 = A.6.7.5/1.1.10.4.O

p64 = A.6.7.5/1.1.10.5.O

p65 = A.6.7.5/1.1.10.7.O

p66 = A.6.7.6.2/1.4.O

p67 = A.6.7.6.2/2.1.O

p68 = A.6.7.6.2/2.2.O

p69 = A.6.7.6.2/2.3.O

p70 = A.6.7.6.2/2.4.O

p71 = A.6.7.6.2/4.1.O

p72 = A.6.7.6.2/4.2.O

p73 = A.6.7.6.2/4.3.O

p74 = A.6.7.6.2/4.4.O

p75 = A.6.7.6.2/4.5.O

p76 = A.6.7.6.2/5.O

p77 = A.6.7.6.2/6.O

p78 = A.6.7.6.2/6.1.O

p79 = A.6.7.6.2/6.2.O

p80 = A.6.7.6.2/6.3.O

p81 = A.6.7.6.2/6.4.O

p82 = A.6.7.6.2/6.5.O

p83 = A.6.7.6.2/11.2.O

p84 = A.6.7.6.2/11.3.O

p85 = A.6.7.6.2/12.4.O

p86 = A.6.7.6.2/12.6.O

p87 = A.6.7.6.2/12.7.O

p88 = A.6.7.6.2/13.2.O

p89 = A.6.7.6.2/13.3.O

p90 = A.6.7.6.2/14.1.2.O

p91 = A.6.7.6.2/14.1.3.O

p92 = A.6.7.6.2/14.1.3.1.3.O

p93 = A.6.7.6.2/14.1.3.1.4.O

p94 = A.6.7.6.2/14.1.4.O

p95 = A.6.4.2/43

p96 = A.6.4.2/39

p97 = A.6.4.2/40

p98 = A.6.4.2/44

p99 = A.6.4.1/30

p100= A.6.4.3/55 or A.6.4.3/52 or A.6.4.3/53 or A.6.4.3/59 or A.6.4.3/56

p101= A.6.7.6.1/6.1.2.2.2.O

The predicate definitions have to be read as follows:

"p1 = A.6.4.1/3" means that p1 is true if the element of service "Alternate recipient assignment" is supported (see A.6.4.1).

"p19 = A.6.7.3/1.1.5.O" means that p19 is true if the protocol element "ContentIdentifier" is supported in origination (see A.6.7.3).

Example of the conditional classification with predicate:

Alternate Recipient Allowed c p1

This means that support of the capability is mandatory if p1 is true. Otherwise support of the capability is optional.

A.4.8 *Additional comments*

1 Parameters which are not supported for Reception should normally not be regarded as a protocol violation.

2 In the tables below, every leading parameter marked "m" should be supported by the IUT in order to fulfill the static conformance requirements. Sub-parameters marked "m" should be supported if the corresponding leading parameter is supported by the IUT.

3 For ORNames relating to a user of the own system ("local ORName") the IUT might choose to make certain restrictions e.g. for the length. Users of another system ("remote ORName"), however, shall be addressable without any restrictions.

4 Where an upper bound is used to specify the size of a teletex string the value applies to the number of characters and the double of the value applies to the number of octets.

A.5 *Abbreviations*

The following abbreviations are used in this PICS proforma:

D	Defined
I	Implemented
m	mandatory
N	NO
N/A	Not Applicable
o	optional
c	conditional
d	default

O/R Origination/Reception

PHY Physical Delivery

SEC Security

Y YES

A.6 *Capabilities and options*

A.6.1 *Introduction*

In this part of the PICS proforma the supported application contexts, the major capabilities of the supported application contexts and functions are identified. Further the PDUs and Operations are identified. And finally the Operation Arguments and PDU Parameters are identified.

A.6.1.1 *Mapping between Rec. X.400 keys and PICS entries*

Rec. X.400	PICS
BASIC MT SERVICE	m
ESSENTIAL OPTIONAL	m
ADDITIONAL OPTIONAL PER MESSAGE	o
ADDITIONAL OPTIONAL CONTRACTUAL	o

A.6.2 *Initiator/Responder capability*

Ref. No.	Role	D	I
1	Initiator	m	[ ]
2	Responder	m	[ ]

A.6.3 *Supported Application Contexts and Options*

Ref. No.	Application Context	D (CCITT)	D (ISO)	I
1	mts-transfer-protocol-1984	m	o	[ ]
2	mts-transfer-protocol	m	o	[ ]
3	mts-transfer	o	m	[ ]

Ref. No.	Options	D	I
4	Physical Delivery	o	[ ]
5	Security	o	[ ]

A.6.4 *Major capabilities*

A.6.4.1 *Message Transfer services*

Ref. No.	MHS Element of Service	D	I	Clause reference (Rec. X.400)
1	Access management	m	[ ]	B.1
2	Alternate recipient allowed	m	[ ]	B.3
3	Alternate recipient assignment	o	[ ]	B.4
4	Content type indication	m	[ ]	B.12
5	Conversion prohibition	m	[ ]	B.13
6	Conversion prohibition in case of loss of information	o	[ ]	B.14
7	Converted indication	m	[ ]	B.15
8	Deferred delivery	m	[ ]	B.19
9	Deferred delivery cancellation	m	[ ]	B.20
10	Delivery notification	m	[ ]	B.21
11	Delivery time stamp indication	m	[ ]	B.22
12	Designation of recipient by directory name	o	[ ]	B.24
13	Disclosure of other recipients	m	[ ]	B.25
14	DL Expansion history indication	m	[ ]	B.26
15	DL Expansion prohibited	o	[ ]	B.27
16	Explicit conversion	o	[ ]	B.30
17	Grade of delivery selection	m	[ ]	B.32
18	Hold for delivery	o	[ ]	B.33
19	Implicit conversion	o	[ ]	B.34
20	Latest delivery designation	o	[ ]	B.39
21	Message identification	m	[ ]	B.41
22	Multi-destination delivery	m	[ ]	B.45
23	Non-delivery notification	m	[ ]	B.47
24	Original encoded information types indication	m	[ ]	B.54
25	Originator requested alternate recipient	o	[ ]	B.56
26	Prevention of non-delivery notification	o	[ ]	B.61
27	Probe	m	[ ]	B.63
28	Redirection disallowed by originator	o	[ ]	B.68
29	Redirection of incoming messages	o	[ ]	B.69
30	Requested preferred delivery method	o (Note 2)	[ ]	B76

Ref. No.	MHS Element of Service	D	I	Clause reference (Rec. X.400)
31	Restricted delivery	o	[ ]	B.77
32	Return of content	o	[ ]	B.78
33	Submission time stamp indication	m	[ ]	B.89
34	Use of distribution list	o	[ ]	B.92
35	User/UA capabilities registration	m	[ ]	B.93

Note 1 – These elements of service are defined for the MTS which consists of one or more MTAs. Support of services may be distributed among the MTAs comprising an MD.

Note 2 – If supported this does not imply the provision of all delivery methods.

A.6.4.2 *Physical Delivery services*

The table below shall be filled in only if Physical Security is supported (see A.6.3).

Ref. No.	MHS Element of Service	D	I	Clause reference (Rec. X.400)
36	Additional physical rendition	o	[ ]	B.2
37	Basic physical rendition	m	[ ]	B.7
38	Counter collection	m	[ ]	B.16
39	Counter collection with advice	o	[ ]	B.17
40	Delivery via Bureaufax service	o	[ ]	B.23
41	EMS (Express Mail Service)	m (Note)	[ ]	B.28
42	Ordinary Mail	m	[ ]	B.53
43	Physical delivery notification by MHS	o	[ ]	B.57
44	Physical delivery notification by PDS	o	[ ]	B.58
45	Physical forwarding allowed	m	[ ]	B.59
46	Physical forwarding prohibited	o	[ ]	B.60
47	Registered mail	o	[ ]	B.70
48	Registered mail to addresses in person	o	[ ]	B.71
49	Request for forwarding address	o	[ ]	B.75
50	Special delivery	m (Note)		B.81
51	Undeliverable mail with return of physical message	m		B.91

Note – At least one or the other shall be supported by the PDAU and the associated PDS.

A.6.4.3 *Security services*

The table below shall be filled in only if Security is supported (see A.6.3).

Ref. No.	MHS Element of Service	D	I	Clause reference (Rec. X.400)
52	Content confidentiality	o	[ ]	B.10
53	Content integrity	o	[ ]	B.11
54	Message flow confidentiality	o	[ ]	B.40
55	Message origin authentication	o	[ ]	B.42
56	Message security labelling	o	[ ]	B.43
57	Message sequence integrity	o	[ ]	B.44
58	Non-repudiation of delivery	o	[ ]	B.49
59	Non-repudiation of origin	o	[ ]	B.50
60	Non-repudiation of submission	o	[ ]	B.51
61	Probe origin authentication	o	[ ]	B.64
62	Proof of delivery	o	[ ]	B.65
63	Proof of submission	o	[ ]	B.66
64	Report origin authentication	o	[ ]	B.74
65	Secure access management	o	[ ]	B.79

Please answer Y or N in the table below according to your implementation.

Ref. No.	Capability	I
1	Management domain	
2	ADMD	[ ]
3	Private domain	
4	PRMD	[ ]
5	Explicit conversion	
6	no-explicit-conversion	[ ]
7	ia5-text-to-teletex	[ ]
8	ia5-text-to-g3-facsimile	[ ]
9	ia5-text-to-g4-class-1	[ ]
10	ia5-text-to-videotex	[ ]
11	teletex-to-ia5-text	[ ]
12	teletex-to-g3-facsimile	[ ]
13	teletex-to-g4-class-1	[ ]
14	teletex-to-videotex	[ ]
15	videotex-to-ia5-text	[ ]
16	videotex-to-teletex	[ ]

Ref. No.	Capability	I
17	Implicit conversion	
18	no-implicit-conversion	[ ]
19	ia5-text-to-teletex	[ ]
20	ia5-text-to-g3-facsimile	[ ]
21	ia5-text-to-g4-class-1	[ ]
22	ia5-text-to-videotex	[ ]
23	teletex-to-ia5-text	[ ]
24	teletex-to-g3-facsimile	[ ]
25	teletex-to-g4-class-1	[ ]
26	teletex-to-videotex	[ ]
27	videotex-to-ia5-text	[ ]
28	videotex-to-teletex	[ ]
29	Original encoded information types	
30	undefined	[ ]
31	ia5-text	[ ]
32	g3-facsimile	[ ]
33	g4-class-1	[ ]
34	teletex	[ ]
35	videotex	[ ]
36	voice	[ ]
37	sfd	[ ]
38	mixed-mode	[ ]
39	External encoded information types (Note)	[ ]

Note — Indicate in space above which types are supported.

Ref. No.	Capability	I
40	Requested delivery-method	
41	any-delivery-method	[ ]
42	mhs-delivery	[ ]
43	physical-delivery	[ ]
44	telex-delivery	[ ]
45	teletex-delivery	[ ]
46	g3-facsimile-delivery	[ ]
47	g4-facsimile-delivery	[ ]
48	ia5-terminal-delivery	[ ]
49	videotex-delivery	[ ]
50	telephone-delivery	[ ]

A.6.5 *Timers and Protocol parameters*

"N/A".

A.6.6 *PDUs and Operations*

Note – "O/R" means "Origination/Reception" in the tables below.

A.6.6.1 *PDUs*

Ref. No.	PDU	O/R	D	I	Clause reference (Rec. X.400)
1	MessageTransfer	O R	m m	[ ] [ ]	13
2	ReportTransfer	O R	m m	[ ] [ ]	13
3	Probe	O R	m m	[ ] [ ]	13

A.6.6.2 *Operations*

Ref. No.	PDU	O/R	D	I	Clause reference (Rec. X.400)
1	MTABind	O R	m m	[ ] [ ]	13
2	MTAUnbind	O R	m m	[ ] [ ]	13

A.6.7 *Operation Arguments and PDU Parameters*

Consistency between this section and section A.6.4 is guarded by predicates defined in A.4.7. When an Extension field is supported it is assumed that the corresponding TYPE, CRITICALITY and VALUE sub-fields are also supported. Even if an extension field is not supported the IUT shall comply with the criticality procedures.

Note – "O/R" means "Origination/Reception" in the tables below.

A.6.7.1 MTA-bind Arguments

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1	BindArguments	O R	m m	[ ] [ ]				12.1.1.1.1
1.1	NULL	O R	m m	[ ] [ ]				
1.2	SET	O R	m m	[ ] [ ]				
1.2.1	Initiator-name	O R	m m	[ ] [ ]		32 32		12.1.1.1.1.1
1.2.2	Initiator Credentials	O R	m m	[ ] [ ]				12.1.1.1.1.2
1.2.2.1	simple	O R	m m	[ ] [ ]		62 62		
1.2.2.2	strong	O R	c c	[ ] [ ]	SEC p42 p43			

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1.2.2.2.1	bind-token	O R	m m	[ ] [ ]	SEC			
1.2.2.2.1.1	signature-algorithm-identifier	O R	m m	[ ] [ ]	SEC			
1.2.2.2.1.2	name	O R	m m	[ ] [ ]	SEC			
1.2.2.2.1.3	time	O R	m m	[ ] [ ]	SEC			
1.2.2.2.1.4	signed-data	O R	m m	[ ] [ ]	SEC			
1.2.2.2.2	certificate	O R	o c	[ ] [ ]	SEC p47			
1.2.3	SecurityContext	O R	c c	[ ] [ ]	SEC p42 and p33 p48	256 256		12.1.1.1.1.3
2	BindResults	O R	m m	[ ] [ ]				12.1.1.1.2
2.1	NULL	O R	m m	[ ] [ ]				
2.2	SET	O R	m m	[ ] [ ]				
2.2.1	responder-name	O R	m m	[ ] [ ]				12.1.1.1.2.1
2.2.2	ResponderCredentials	O R	m m	[ ] [ ]				12.1.1.1.2.2
2.2.2.1	simple	O R	m m	[ ] [ ]		62 62		
2.2.2.2	strong	O R	c c	[ ] [ ]	SEC p42 p49			
3	BindError	O R	m m	[ ] [ ]		256 256		12.1.2
3.1	busy	O R	m m	[ ] [ ]				12.1.2.2
3.2	authentication-error	O R	m m	[ ] [ ]				12.1.2.1
3.3	unacceptable-dialogue-mode	O R	m m	[ ] [ ]				12.1.2.3
3.4	unacceptable-security-context	O R	c c	[ ] [ ]	SEC p42 p50			12.1.2.4

A.6.7.2 *MTA-unbind Arguments*

"N/A".

A.6.7.3 *MessageTransfer PDU Parameters*

	Parameter	O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1	MessageTransferEnvelope	O R	m m	[ ] [ ]				12.2.1.1
1.1	PerMessageTransfer Fields	O R	m m	[ ] [ ]				
1.1.1	MessageIdentifier	O R	m m	[ ] [ ]	1/1			12.2.1.1.1.1
1.1.2	OriginatorName	O R	m m	[ ] [ ]	3			8.2.1.1.1.1
1.1.3	OriginalEncoded InformationTypes	O R	m m	[ ] [ ]	1/3			8.2.1.1.1.33
1.1.4	ContentType	O R	m m	[ ] [ ]	1/9			8.2.1.1.1.34
1.1.5	ContentIdentifier	O R	o m	[ ] [ ]		16 16		8.2.1.1.1.35
1.1.6	Priority	O R	m m	[ ] [ ]	d			8.2.1.1.1.8
1.1.7	PerMessage Indicators	O R	m m	[ ] [ ]	d 1/4	16 16		
1.1.8	DeferredDelivery Time	O R	m m	[ ] [ ]				12.2.1.1.1.7
1.1.9	PerDomain BilateralInformation	O R	o o	[ ] [ ]	1/5	512 512		12.2.1.1.1.2
1.1.10	TraceInformation	O R	m m	[ ] [ ]	1/6			12.2.1.1.1.3
1.1.11	Extensions	O R	m m	[ ] [ ]				
1.1.11.1	RecipientReassignmentProhibited	O R	c c	[ ] [ ]	p5 p2			8.2.1.1.1.4
1.1.11.2	DLExpansion Prohibited	O R	c c	[ ] [ ]	p6 p7			8.2.1.1.1.6
1.1.11.3	ConversionWith LossProhibited	O R	c c	[ ] [ ]	p8 p8			8.2.1.1.1.10
1.1.11.4	LatestDelivery Time	O R	c c	[ ] [ ]	p11 p11			8.2.1.1.1.13
1.1.11.5	Originator ReturnAddress	O R	m m	[ ] [ ]	PHY 3			8.2.1.1.1.21
1.1.11.6	Originator Certificate	O R	o c	[ ] [ ]	SEC Rec. X.500 p51			8.2.1.1.1.25
1.1.11.7	ContentConfidentiality AlgorithmId	O R	c c	[ ] [ ]	SEC Rec. X.500 p29 p52			8.2.1.1.1.27

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1.1.11.8	MessageOrigin AuthenticationCheck	O R	o c	[ ] [ ]	SEC 2/1 (Note) p53			8.2.1.1.1.29
1.1.11.9	MessageSecurityLabel	O R	c c	[ ] [ ]	SEC 2/2 p33 p54			8.2.1.1.1.30
1.1.11.10	Content Correlator	O R	o m	[ ] [ ]				8.2.1.1.1.36
1.1.11.11	DLExpansion History	O R	c m	[ ] [ ]	p7 2/9	512 512		8.3.1.1.1.7
1.1.11.12	InternalTrace Information	O R	m m	[ ] [ ]	d 2/10	512 512		12.2.1.1.1.4
1.2	PerRecipientMessage TransferFields	O R	m m	[ ] [ ]				
1.2.1	RecipientName	O R	m m	[ ] [ ]	3			8.2.1.1.1.2
1.2.2	OriginallySpecified RecipientNumber	O R	m m	[ ] [ ]		32767 32767		12.2.1.1.1.5
1.2.3	PerRecipient Indicators	O R	m m	[ ] [ ]	1/7	16 16		
1.2.4	Explicit Conversion	O R	c c	[ ] [ ]	p14 p14	256 256		8.2.1.1.1.11
1.2.5	Extensions	O R	m m	[ ] [ ]				
1.2.5.1	Originator RequestedAlternateRec.	O R	c c	[ ] [ ]	p16 p16			8.2.1.1.1.5
1.2.5.2	Requested DeliveryMethod	O R	c c	[ ] [ ]	2/3 p99 p99	256 256		8.2.1.1.1.14
1.2.5.3	Physical ForwardingProhibited	O R	m m	[ ] [ ]	PHY d			8.2.1.1.1.15
1.2.5.4	PhysicalForwarding AddressRequest	O R	c c	[ ] [ ]	PHY p95 p95			8.2.1.1.1.16
1.2.5.5	Physical DeliveryModes	O R	m m	[ ] [ ]	PHY 2/4	16 16		8.2.1.1.1.17
1.2.5.6	RegisteredMail Type	O R	m m	[ ] [ ]	PHY d	256 256		8.2.1.1.1.18
1.2.5.7	RecipientNumber ForAdvice	O R	c c	[ ] [ ]	PHY p96 or p97 p96 or p97	32 32		8.2.1.1.1.19
1.2.5.8	Physical RenditionAttributes	O R	m m	[ ] [ ]	PHY d			8.2.1.1.1.20

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1.2.5.9	Physical DeliveryReportRequest	O R	m m	[ ] [ ]	PHY 2/5 d	256 256		8.2.1.1.1.24
1.2.5.10	MessageToken	O R	c c	[ ] [ ]	SEC 2/6 (Note) p100 p55			8.2.1.1.1.26
1.2.5.11	Content IntegrityCheck	O R	c c	[ ] [ ]	SEC 2/7 p30 p56			8.2.1.1.1.28
1.2.5.12	ProofOf DeliveryRequest	O R	c c	[ ] [ ]	SEC p39 or p35 p57			8.2.1.1.1.32
1.2.5.13	Redirection History	O R	c m	[ ] [ ]	d p18 2/8	512 512		
2	Content	O R	m m	[ ] [ ]				8.2.1.1.1.37

Note — If A.6.4.3/55 is supported, at least one of those shall be supported.

A.6.7.4 *ReportTransfer PDU Parameters*

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1	ReportTransfer Envelope	O R	m m	[ ] [ ]				12.2.1.3
1.1	ReportIdentifier	O R	m m	[ ] [ ]	1/1			12.2.1.3.1.1
1.2	ReportDestination Name	O R	m m	[ ] [ ]	3			12.2.1.3.1.2
1.3	TraceInformation	O R	m m	[ ] [ ]	1/6			12.2.1.1.1.3
1.4	Extensions	O R	m m	[ ] [ ]				
1.4.1	MessageSecurity Label	O R	c c	[ ] [ ]	SEC 2/2 p33 p58			8.2.1.1.1.30
1.4.2	OriginatorAndDL ExpansionHistory	O R	m m	[ ] [ ]	2/9	512 512		8.3.1.2.1.3
1.4.3	ReportingDLName	O R	o m	[ ] [ ]	3			8.3.1.2.1.4
1.4.4	ReportingMTA Certificate	O R	o c	[ ] [ ]	SEC Rec. X.500 p59			8.3.1.2.1.12

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1.4.5	ReportOrigin AuthenticationCheck	O R	c c	[ ] [ ]	SEC p41 p60			8.3.1.2.1.13
1.4.6	InternalTrace Information	O R	m m	[ ] [ ]	d 2/10	512 512		12.2.1.1.1.4
2	ReportTransfer Content	O R	m m	[ ] [ ]				
2.1	PerReportTransfer Fields	O R	m m	[ ] [ ]				
2.1.1	SubjectIdentifier	O R	m m	[ ] [ ]				12.2.1.3.1.3
2.1.2	SubjectIntermediateTraceInformation	O R	m o	[ ] [ ]				12.2.1.3.1.4
2.1.3	OriginalEncoded InformationTypes	O R	m m	[ ] [ ]	1/3			8.2.1.1.1.33
2.1.4	ContentType	O R	m m	[ ] [ ]	1/9			8.2.1.1.1.34
2.1.5	ContentIdentifier	O R	m c	[ ] [ ]	 p19	16 16		8.2.1.1.1.35
2.1.6	ReturnedContent	O R	c c	[ ] [ ]	p20 p20			8.3.1.2.1.14
2.1.7	Additional Information	O R	o o	[ ] [ ]				12.2.1.3.1.6
2.1.8	Extensions	O R	m m	[ ] [ ]				
2.1.8.1	Content Correlator	O R	m c	[ ] [ ]	d p22			8.2.1.1.1.36
2.2	PerRecipientReport TransferFields	O R	m m	[ ] [ ]				
2.2.1	ActualRecipient Name	O R	m m	[ ] [ ]	3			8.3.1.2.1.2
2.2.2	OriginallySpecified RecipientNumber	O R	m m	[ ] [ ]		32767 32767		12.2.1.1.1.8
2.2.3	PerRecipient Indicators	O R	m m	[ ] [ ]	1/7	16 16		
2.2.4	LastTrace Information	O R	m m	[ ] [ ]	1/8			
2.2.5	Originally IntendedRecipientName	O R	m m	[ ] [ ]	3			
2.2.6	Supplementary Information	O R	o o	[ ] [ ]		256 256		8.3.1.2.1.6
2.2.7	Extensions	O R	m m	[ ] [ ]				
2.2.7.1	Redirection History	O R	m m	[ ] [ ]	2/8	512 512		

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
2.2.7.2	Physical ForwardingAddress	O R	c c	[ ] [ ]	PHY p95 3/4 3/5 p95			
2.2.7.3	Recipient Certificate	O R	o c	[ ] [ ]	SEC Rec. X.500 p61			8.3.1.1.2.1
2.2.7.4	ProofOfDelivery	O R	c c	[ ] [ ]	d SEC p39 p62			

A.6.7.5 *ProbeTransfer PDU Parameters*

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1	ProbeTransfer Envelope	O R	m m	[ ] [ ]				12.2.1.2
1.1	PerProbeTransfer Fields	O R	m m	[ ] [ ]				
1.1.1	ProbeIdentifier	O R	m m	[ ] [ ]	1/1			12.2.1.2.1.1
1.1.2	OriginatorName	O R	m m	[ ] [ ]	3			8.2.1.1.1.1
1.1.3	OriginalEncoded InformationTypes	O R	m m	[ ] [ ]	1/3			8.2.1.1.1.33
1.1.4	ContentType	O R	m m	[ ] [ ]	1/9			8.2.1.1.1.34
1.1.5	ContentIdentifier	O R	o m	[ ] [ ]		16 16		8.2.1.1.1.35
1.1.6	ContentLength	O R	o m	[ ] [ ]		(Note) (Note)		8.2.1.2.1.2
1.1.7	PerMessage Indicators	O R	m m	[ ] [ ]	d 1/4	16 16		
1.1.8	PerDomain BilateralInformation	O R	o o	[ ] [ ]	1/5	512 512		12.2.1.1.1.2
1.1.9	TraceInformation	O R	m m	[ ] [ ]	1/6			12.2.1.1.1.3
1.1.10	Extensions	O R	m m	[ ] [ ]				
1.1.10.1	Recipient ReassignmentProhibited	O R	c c	[ ] [ ]	p5 p2			8.2.1.1.1.4
1.1.10.2	DLExpansion Prohibited	O R	c c	[ ] [ ]	p6 p7			8.2.1.1.1.6

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1.1.10.3	ConversionWith LossProhibited	O R	c c	[ ] [ ]	p8 p8			8.2.1.1.1.10
1.1.10.4	Originator Certificate	O R	o c	[ ] [ ]	SEC Rec. X.500 p63			8.2.1.1.1.25
1.1.10.5	Message SecurityLabel	O R	c c	[ ] [ ]	SEC p33 p64			8.2.1.1.1.30
1.1.10.6	ContentCorrelator	O R	o m	[ ] [ ]				8.2.1.1.1.36
1.1.10.7	ProbeOrigin AuthenticationCheck	O R	c c	[ ] [ ]	SEC 2/11 p38 p65			8.2.1.2.1.1

Note — '7FFFFFFF'H

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1.1.10.8	DLExpansion History	O R	c m	[ ] [ ]	p7 2/9	512 512		8.3.1.1.1.7
1.1.10.9	InternalTrace Information	O R	m m	[ ] [ ]	d 2/10	512 512		12.2.1.1.1.4
1.2	PerRecipientProbe TransferFields	O R	m m	[ ] [ ]				
1.2.1	RecipientName	O R	m m	[ ] [ ]	3			8.2.1.1.1.2
1.2.2	OriginallySpecified RecipientNumber	O R	m m	[ ] [ ]		32767 32767		12.2.1.1.1.5
1.2.3	PerRecipient Indicators	O R	m m	[ ] [ ]	1/7	16 16		
1.2.4	Explicit Conversion	O R	c c	[ ] [ ]	p14 p14	256 256		8.2.1.1.1.11
1.2.5	Extensions	O R	m m	[ ] [ ]				
1.2.5.1	Originator RequestedAlternateRec.	O R	c c	[ ] [ ]	3			8.2.1.1.1.5
1.2.5.2	Requested DeliveryMethod	O R	c c	[ ] [ ]	2/3 p99 p99	256 256		8.2.1.1.1.14
1.2.5.3	Physical RenditionAttributes	O R	m m	[ ] [ ]	PHY d			8.2.1.1.1.20
1.2.5.4	Redirection History	O R	c m	[ ] [ ]	d p18 2/8	512 512		

A.6.7.6 *Supported Data types and ORNames*

A.6.7.6.1 *Common Data types*

	Parameter	O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1	MTSIdentifier							
1.1	GlobalDomain Identifier	O R	m m	[ ] [ ]	1/2			8.5.2
1.2	LocalIdentifier	O R	m m	[ ] [ ]		32 32		
2	GlobalDomainIdentifier							
2.1	CountryName	O R	m m	[ ] [ ]				
2.1.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		
2.1.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]		2 2		
2.2	Administration DomainName	O R	m m	[ ] [ ]				
2.2.1	numeric	O R	m m	[ ] [ ]		16 16		
2.2.2	printable	O R	m m	[ ] [ ]		16 16		
2.3	PrivateDomain Identifier	O R	c m	[ ] [ ]	p23			
2.3.1	numeric	O R	m m	[ ] [ ]		16 16		
2.3.2	printable	O R	m m	[ ] [ ]		16 16		
3	EncodedInformationTypes							
3.1	BuiltEncoded InformationTypes	O R	m m	[ ] [ ]		32 32		
3.2	NonBasicParameters	O R	o o	[ ] [ ]				
3.2.1	G3Facsimile NonBasicParameters	O R	o o	[ ] [ ]				
3.2.1.1	two-dimensional	O R	o o	[ ] [ ]				
3.2.1.2	fine-resolution	O R	o o	[ ] [ ]				
3.2.1.3	unlimited-length	O R	o o	[ ] [ ]				
3.2.1.4	b4-length	O R	o o	[ ] [ ]				
3.2.1.5	a3-width	O R	o o	[ ] [ ]				

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
3.2.1.6	b4-width	O R	o o	[ ] [ ]				
3.2.2	TeletexNonBasic Parameters	O R	o o	[ ] [ ]				
3.2.2.1	graphic-character-sets	O R	o o	[ ] [ ]				
3.2.2.2	control-character-sets	O R	o o	[ ] [ ]				
3.2.2.3	page-formats	O R	o o	[ ] [ ]				
3.2.2.4	miscellaneous-terminal-capabilities	O R	o o	[ ] [ ]				
3.2.2.5	private-use	O R	o o	[ ] [ ]		128 128		
3.2.3	G4Class1AndMixed ModeNonBasicParameters	O R	o o	[ ] [ ]				
3.3	ExternalEncoded InformationTypes	O R	m m	[ ] [ ]		1024 1024		
4	PerMessageIndicators							
4.1	disclosure-of-recipients	O R	m m	[ ] [ ]				8.2.1.1.1.7
4.2	implicit-conversion-prohibited	O R	m c	[ ] [ ]	p9			8.2.1.1.1.9
4.3	alternate-recipient-allowed	O R	m c	[ ] [ ]	p24			8.2.1.1.1.3
4.4	content-return-request	O R	c c	[ ] [ ]	p20 p20			8.2.1.1.1.23
4.5	reserved	O R	o o	[ ] [ ]				
4.6	bit-5	O R	o o	[ ] [ ]				
4.7	bit-6	O R	o o	[ ] [ ]				
4.8	service-message	O R	o o	[ ] [ ]				
5	PerDomainBilateralInformation							
5.1	CountryName	O R	m m	[ ] [ ]				
5.2	Administration DomainName	O R	m m	[ ] [ ]				
5.3	PrivateDomain Identifier	O R	c m	[ ] [ ]	p23			

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
5.4	Bilateral Information	O R	m m	[ ] [ ]		1024 1024		
6	TraceInformation							
6.1	TraceInformation Element	O R	m m	[ ] [ ]				
6.1.1	GlobalDomain Identifier	O R	m m	[ ] [ ]	1/2			
6.1.2	DomainSupplied Information	O R	m m	[ ] [ ]				
6.1.2.1	ArrivalTime	O R	m m	[ ] [ ]				
6.1.2.2	RoutingAction	O R	m m	[ ] [ ]				
6.1.2.2.1	relayed	O R	m m	[ ] [ ]				
6.1.2.2.2	rerouted	O R	o m	[ ] [ ]				
6.1.2.3	attempted domain	O R	c o	[ ] [ ]	p101 1/2			
6.1.2.4	Additional Actions	O R	m m	[ ] [ ]				
6.1.2.4.1	DeferredTime	O R	m m	[ ] [ ]				
6.1.2.4.2	Converted EncodedInformationTypes	O R	c m	[ ] [ ]	p13 1/3			
6.1.2.4.3	OtherActions	O R	c m	[ ] [ ]	p26	16 16		
6.1.2.4.3.1	redirected	O R	c m	[ ] [ ]	p25			
6.1.2.4.3.2	dl-operation	O R	c m	[ ] [ ]	p7			
7	PerRecipientIndicators							
7.1	responsibility	O R	m m	[ ] [ ]				12.2.1.1.1.6
7.2	originating-MTA-report	O R	m m	[ ] [ ]				
7.3	originating-MTA-non-delivery-report	O R	m m	[ ] [ ]				
7.4	originator-report	O R	m m	[ ] [ ]				
7.5	originator-non-delivery-report	O R	m m	[ ] [ ]				
8	LastTraceInformation							
8.1	ArrivalTime	O R	m m	[ ] [ ]				12.2.1.3.1.5

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
8.2	ConvertedEncoded InformationTypes	O R	m m	[ ] [ ]	1/3			8.3.1.2.1.5
8.3	ReportType	O R	m m	[ ] [ ]				
8.3.1	DeliveryReport	O R	m m	[ ] [ ]				
8.3.1.1	Message DeliveryTime	O R	m m	[ ] [ ]				8.3.1.2.1.8
8.3.1.2	TypeOfMTSUser	O R	m m	[ ] [ ]	d			8.3.1.2.1.9
8.3.1.2.1	public	O R	o m	[ ] [ ]				
8.3.1.2.2	private	O R	o m	[ ] [ ]				
8.3.1.2.3	ms	O R	o m	[ ] [ ]				
8.3.1.2.4	dl	O R	o m	[ ] [ ]				
8.3.1.2.5	pdau	O R	o m	[ ] [ ]	PHY			
8.3.1.2.6	physical-recipient	O R	c c	[ ] [ ]	PHY p95 p95			
8.3.1.2.7	other	O R	o m	[ ] [ ]				
8.3.2	NonDelivery Report	O R	m m	[ ] [ ]				
8.3.2.1	NonDelivery ReasonCode	O R	m m	[ ] [ ]		32767 32767		8.3.1.2.1.10
8.3.2.1.1	transfer-failure	O R	m m	[ ] [ ]				
8.3.2.1.2	unable-to-transfer	O R	m m	[ ] [ ]				
8.3.2.1.3	conversion-not-performed	O R	m m	[ ] [ ]				
8.3.2.1.4	physical-rendition-not-performed	O R	m m	[ ] [ ]	PHY			
8.3.2.1.5	physical-delivery-not-performed	O R	c c	[ ] [ ]	PHY p95 p95			
8.3.2.1.6	restricted-delivery	O R	m m	[ ] [ ]				
8.3.2.1.7	directory-operation-unsuccessful	O R	m m	[ ] [ ]				
8.3.2.2	NonDelivery DiagnosticCode	O R	o m	[ ] [ ]		32767 32767		8.3.1.2.1.11

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
9	ContentType							
9.1	BuiltInContentType	O R	m m	[ ] [ ]		32767 32767		
9.1.1	unidentified	O R	o o	[ ] [ ]				
9.1.2	external	O R	o o	[ ] [ ]				
9.1.3	interpersonal-messaging-1984	O R	o o	[ ] [ ]				
9.1.4	interpersonal-messaging-1988	O R	o o	[ ] [ ]				
9.2	ExtendedContent Type	O R	o o	[ ] [ ]				

A.6.7.6.2 *Extension Data types*

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
1	MessageOriginAuthenticationCheck							
1.1	algorithm-identifier	O R	m m	[ ] [ ]	SEC			8.5.10
1.2	Content	O R	m m	[ ] [ ]	SEC			8.2.1.1.1.37
1.3	ContentIdentifier	O R	o m	[ ] [ ]	SEC	16 16		8.2.1.1.1.35
1.4	MessageSecurity Label	O R	c c	[ ] [ ]	SEC 2/2 p33 p66			8.2.1.1.1.30
2	MessageSecurityLabel							
2.1	SecurityPolicy Identifier	O R	o c	[ ] [ ]	SEC p67			8.5.9
2.2	Security Classification	O R	o c	[ ] [ ]	SEC p68	256 256		8.5.9
2.3	PrivacyMark	O R	o c	[ ] [ ]	SEC p69	128 128		8.2.9
2.4	SecurityCategories	O R	o c	[ ] [ ]	SEC p70	64 64		8.2.9
3	RequestedDeliveryMethod							
3.1	any-delivery-method	O R	o o	[ ] [ ]				8.2.1.1.1.14
3.2	mhs-delivery	O R	m m	[ ] [ ]				8.2.1.1.1.14

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
3.3	physical-delivery	O R	m m	[ ] [ ]	PHY			8.2.1.1.1.14
3.4	telex-delivery	O R	o o	[ ] [ ]				8.2.1.1.1.14
3.5	teletex-delivery	O R	o o	[ ] [ ]				8.2.1.1.1.14
3.6	g3-facsimile-delivery	O R	o o	[ ] [ ]				8.2.1.1.1.14
3.7	g4-facsimile-delivery	O R	o o	[ ] [ ]				8.2.1.1.1.14
3.8	ia5-terminal-delivery	O R	o o	[ ] [ ]				8.2.1.1.1.14
3.9	videotex-delivery	O R	o o	[ ] [ ]				8.2.1.1.1.14
3.10	telephone-delivery	O R	o o	[ ] [ ]				8.2.1.1.1.14
4	PhysicalDeliveryModes							
4.1	ordinary-mail	O R	m m	[ ] [ ]	PHY			8.2.1.1.1.17
4.2	special-delivery	O R	m m	[ ] [ ]	PHY			8.2.1.1.1.17
4.3	express-mail	O R	m m	[ ] [ ]	PHY			8.2.1.1.1.17
4.4	counter-collection	O R	m m	[ ] [ ]	PHY			8.2.1.1.1.17
4.5	counter-collection-with-telephone-advice	O R	c c	[ ] [ ]	PHY p95 p95			8.2.1.1.1.17
4.6	counter-collection-with-telex-advice	O R	c c	[ ] [ ]	PHY p95 p95			8.2.1.1.1.17
4.7	counter-collection-with-teletex-advice	O R	c c	[ ] [ ]	PHY p95 p95			8.2.1.1.1.17
4.8	bureau-fax-delivery	O R	c c	[ ] [ ]	PHY p97 p97			8.2.1.1.1.17
5	PhysicalDeliveryReportRequest							
5.1	return-of-undeliverable-mail-by-PDS	O R	m m	[ ] [ ]	PHY			8.2.1.1.1.24
5.2	return-of-notification-by-PDS	O R	c c	[ ] [ ]	PHY p98 p98			8.2.1.1.1.24
5.3	return-of-notification-by-MHS	O R	c c	[ ] [ ]	PHY p97 p97			8.2.1.1.1.24

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
5.4	return-of-notification-by-MHS-and-PDS	O R	c c	[ ] [ ]	PHY p97 and p98 p97 and p98			8.2.1.1.1.24
6	MessageToken							
6.1	token-type-identifier	O R	m m	[ ] [ ]	SEC			8.5.8
6.2	asymetric-token	O R	m m	[ ] [ ]	SEC			8.5.8
6.2.1	signature-algorithm-identifier	O R	m m	[ ] [ ]	SEC			
6.2.2	name	O R	m m	[ ] [ ]	SEC			
6.2.3	time	O R	m m	[ ] [ ]	SEC			
6.2.4	signed-data	O R	m m	[ ] [ ]	SEC			
6.2.4.1	content-confidentiality-algorithm-identifier	O R	c c	[ ] [ ]	SEC p29 p71			
6.2.4.2	content-integrity-check	O R	c c	[ ] [ ]	SEC p30 p72			
6.2.4.3	message-security-label	O R	c c	[ ] [ ]	SEC p33 p73			
6.2.4.4	proof-of-delivery-request	O R	c c	[ ] [ ]	SEC p39 or p35 p74			
6.2.4.5	message-sequence-number	O R	c c	[ ] [ ]	SEC p34 p75			
6.2.5	encryption-algorithm-identifier	O R	c c	[ ] [ ]	SEC p77 p76			
6.2.6	encrypted-data	O R	o c	[ ] [ ]	SEC p29 and p30 and p33 and p34 p77			
6.2.6.1	content-confidentiality-check	O R	c c	[ ] [ ]	SEC p29 p78			
6.2.6.2	content-integrity-check	O R	c c	[ ] [ ]	SEC p30 p79			

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
6.2.6.3	message-security-label	O R	c c	[ ] [ ]	SEC p33 p80			
6.2.6.4	content-integrity-key	O R	c c	[ ] [ ]	SEC p30 p81			
6.2.6.5	message-sequence-number	O R	c c	[ ] [ ]	SEC p34 p82			
7	ContentIntegrityCheck							
7.1	algorithm-identifier	O R	m m	[ ] [ ]	SEC Rec. X.500			
7.2	Content	O R	m m	[ ] [ ]	SEC			
8	RedirectionHistory							
8.1	Intended RecipientNAme	O R	m m	[ ] [ ]	3			8.3.1.1.1.4
8.1.1	OrAddressAndOptionalDirectoryName	O R	m m	[ ] [ ]	3			
8.1.2	redirection-time	O R	m m	[ ] [ ]				
8.2	Redirection Reason	O R	m m	[ ] [ ]				
8.2.1	recipient-assigned-alternate-rec.	O R	c m	[ ] [ ]	p2			
8.2.2	originator-req.alternate-recipient	O R	c m	[ ] [ ]	p16			
8.2.3	recipient-MD-assigned-alternate-rec.	O R	c m	[ ] [ ]	p1			
9	OriginatorAndDLExpansionHistory							
9.1	OrAddressAnd OptionalDirectoryName	O R	m m	[ ] [ ]	3			
9.2	origination-or-expansion-time	O R	m m	[ ] [ ]				
10	InternalTraceInformation							
10.1	GlobalDomain Identifier	O R	m m	[ ] [ ]	1/2			
10.2	MTAName	O R	m m	[ ] [ ]		32 32		
10.3	MTASupplied Information	O R	m m	[ ] [ ]				
10.3.1	ArrivalTime	O R	m m	[ ] [ ]				
10.3.2	RoutingAction	O R	m m	[ ] [ ]				

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
10.3.2.1	relayed	O R	m m	[ ] [ ]				
10.3.2.2	rerouted	O R	o m	[ ] [ ]				
10.3.3	attempted	O R	o m	[ ] [ ]				
10.3.3.1	MTAName	O R	o m	[ ] [ ]		32 32		
10.3.3.2	GlobalDomain Identifier	O R	o m	[ ] [ ]	1/2			
10.3.3.3	Internal AdditionalActions	O R	m m	[ ] [ ]				
10.3.3.3.1	Deferred Time	O R	m m	[ ] [ ]				
10.3.3.3.2	Converted EncodedInformationTypes	O R	c m	[ ] [ ]	p13 1/3			
10.3.3.3.3	Other Actions	O R	c m	[ ] [ ]	p26			
10.3.3.3.3.1	redirected	O R	c m	[ ] [ ]	p25			
10.3.3.3.3.2	dl-operation	O R	c m	[ ] [ ]	p7			
11	ProbeOriginAuthenticationCheck							
11.1	algorithm-identifier	O R	m m	[ ] [ ]	SEC Rec. X.500			8.5.10
11.2	Content Identifier	O R	o c	[ ] [ ]	SEC p83			8.2.1.1.1.35
11.3	MessageSecurity Label	O R	c c	[ ] [ ]	SEC p33 p84			8.2.1.1.1.30
12	ProofOfDelivery							
12.1	algorithm-identifier	O R	m m	[ ] [ ]	SEC			
12.2	delivery-time	O R	m m	[ ] [ ]	SEC			
12.3	this-recipient-name	O R	m m	[ ] [ ]	SEC			
12.4	originally-intended-recipient-name	O R	c c	[ ] [ ]	SEC p2 p85			
12.5	content	O R	m m	[ ] [ ]	SEC			
12.6	content-identifier	O R	o c	[ ] [ ]	SEC p86			

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
12.7	message-security-label	O R	c c	[ ] [ ]	SEC p42 p87			
13	ReportOriginAuthenticationCheck							
13.1	algorithm-identifier	O R	m m	[ ] [ ]	SEC			
13.2	content-identifier	O R	o c	[ ] [ ]	SEC p88			
13.3	message-security-label	O R	c c	[ ] [ ]	SEC p33 p89			
13.4	per-recipient	O R	m m	[ ] [ ]	SEC	32767 32767		
14	per-recipient							
14.1	per-recipient-report-fields	O R	m m	[ ] [ ]	SEC			
14.1.1	actual-recipient-name	O R	m m	[ ] [ ]	SEC			
14.1.2	originally-intended-recipient	O R	c c	[ ] [ ]	SEC p2 p90			
14.1.3	delivery	O R	o c	[ ] [ ]	SEC p91			
14.1.3.1	per-recipient-delivery-report-fields	O R	m m	[ ] [ ]	SEC			
14.1.3.1.1	message-delivery-time	O R	m m	[ ] [ ]	SEC			
14.1.3.1.2	type-of-MTS-user	O R	m m	[ ] [ ]	SEC			
14.1.3.1.3	recipient-certificate	O R	o c	[ ] [ ]	SEC p92			
14.1.3.1.4	proof-of-delivery	O R	c c	[ ] [ ]	SEC p39 and p35 p93			
14.1.4	non-delivery	O R	o c	[ ] [ ]	SEC p94			
14.1.4.1	per-recipient-non-delivery-report-field	O R	m m	[ ] [ ]	SEC			
14.1.4.1.1	non-delivery-reason-code	O R	m m	[ ] [ ]	SEC			
14.1.4.1.2	non-delivery-diagnostic-code	O R	o c	[ ] [ ]	SEC p95			

A.6.7.6.3 *ORNames*

ORNames consist of a mandatory address part and an optional directory-name part. The address part is a COMPONENT OF ORAddress. Recommendation X.402, 18.5 distinguishes five different forms of ORAddresses. This subsection deals with remote ORNames only. For local ORNames at least one of the forms shall be supported. All protocol elements used in the description of the local ORNames are optional except those which are explicitly defined as mandatory in Table 10/X.402 (*Blue Book*). The five different forms of ORAddress are presented in the table below.

	Parameter	O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
	ORAddress forms:							
1	MnemonicORAddress	O R	m m	[ ] [ ]				8.5.5
2	NumericORAddress	O R	m m	[ ] [ ]				8.5.5
3	TerminalORAddress	O R	m m	[ ] [ ]				8.5.5
4	FormattedPostal ORAddress	O R	m m	[ ] [ ]	PHY			8.5.5
5	UnformattedPostal ORAddress	O R	m m	[ ] [ ]	PHY			8.5.5

The tables below specify for each ORName form classification of their constituent components.

The Notes used in the tables below are defined hereafter:

Note 1 — A numeric value can be encoded with a printable string and has the same significance as if encoded as a numeric string.

Note 2 — Shall be present when the issuing management domain is not an ADMD.

Note 3 — This ORName form allows only the following extension attribute types, all other are prohibited.

Note 4 — When an Extension-attribute field is supported, it is assumed that the corresponding "extension-attribute-type" and "extension-attribute-values" are also supported.

Note 5 — See CCITTRec. X.501 | ISO/IEC 9594-2.

	Parameter	O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
6	ORName with MnemonicORAddress							
6.1	address							
6.1.1	CountryName	O R	m m	[ ] [ ]				
6.1.1.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		
6.1.1.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]		2 2		
6.1.2	Administration DomainName	O R	m m	[ ] [ ]				

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
6.1.2.1	numeric	O R	m m	[ ] [ ]		16 16		
6.1.2.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
6.1.3	PrivateDomain Name	O R	m m	[ ] [ ]	(Note 2)			
6.1.3.1	numeric	O R	m m	[ ] [ ]		16 16		
6.1.3.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
6.1.4	OrganizationName	O R	m m	[ ] [ ]		64 64		
6.1.5	PersonalName	O R	m m	[ ] [ ]				
6.1.5.1	surname	O R	m m	[ ] [ ]		40 40		
6.1.5.2	given-name	O R	m m	[ ] [ ]		16 16		
6.1.5.3	initials	O R	m m	[ ] [ ]		5 5		
6.1.5.4	generation-qualifier	O R	m m	[ ] [ ]		3 3		
6.1.6	Organizational UnitNames	O R	m m	[ ] [ ]		4 4		
6.1.7	DomainDefined Attributes	O R	o o	[ ] [ ]		4 4		
6.2	Extensions	O R	m m	[ ] [ ]	(Note 3) (Note 4)	256 256		
6.2.1	CommonName	O R	m m	[ ] [ ]		64 64		
6.2.2	TeletexCommon Name	O R	m m	[ ] [ ]		64 64		
6.2.3	Teletex OrganizationalName	O R	m m	[ ] [ ]		64 64		
6.2.4	TeletexPersonal Name	O R	m m	[ ] [ ]				
6.2.4.1	surname	O R	m m	[ ] [ ]		40 40		
6.2.4.2	given-name	O R	m m	[ ] [ ]		16 16		
6.2.4.3	initials	O R	m m	[ ] [ ]		5 5		

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
6.2.4.4	generation-qualifier	O R	m m	[ ] [ ]		3 3		
6.2.5	Teletex OrganizationalUnitNames	O R	m m	[ ] [ ]		4 4		
6.2.6	TeletexDomain DefinedAttributes	O R	o o	[ ] [ ]		4 4		
6.3	directory-name	O R	o o	[ ] [ ]	(Note 5)			
7	ORName with NumericORAddress							
7.1	address							
7.1.1	CountryName	O R	m m	[ ] [ ]				
7.1.1.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		
7.1.1.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]				
7.1.2	Administration DomainName	O R	m m	[ ] [ ]				
7.1.2.1	numeric	O R	m m	[ ] [ ]		16 16		
7.1.2.2	printable	O R	m m	[ ] [ ]				
7.1.3	Private-Domain Name	O R	m m	[ ] [ ]	(Note 2)			
7.1.3.1	numeric	O R	m m	[ ] [ ]		16 16		
7.1.3.2	printable	O R	m m	[ ] [ ]				
7.1.4	NumericUser Identifier	O R	m m	[ ] [ ]		32 32		
7.1.5	DomainDefined Attributes	O R	o o	[ ] [ ]		4 4		
7.2	directory-name	O R	o o	[ ] [ ]	(Note 5)			
8	ORName with TerminalORAddress							
8.1	address							
8.1.1	CountryName	O R	m m	[ ] [ ]				
8.1.1.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
8.1.1.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]		2 2		
8.1.2	Administration DomainName	O R	m m	[ ] [ ]				
8.1.2.1	numeric	O R	m m	[ ] [ ]		16 16		
8.1.2.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
8.1.3	NetworkAddress	O R	m m	[ ] [ ]		16 16		
8.1.4	Terminal Identifier	O R	m m	[ ] [ ]		24 24		
8.1.5	PrivateDomain Name	O R	m m	[ ] [ ]	(Note 2)			
8.1.5.1	numeric	O R	m m	[ ] [ ]		16 16		
8.1.5.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
8.1.6	DomainDefined Attributes	O R	o o	[ ] [ ]		4 4		
8.2	Extensions	O R	m m	[ ] [ ]	(Note 4)	256 256		
8.2.1	ExtendedNetwork Address	O R	m m	[ ] [ ]				
8.2.1.1	el63-4-address	O R	m m	[ ] [ ]				
8.2.1.1.1	number	O R	m m	[ ] [ ]		15 15		
8.2.1.1.2	sub-address	O R	m m	[ ] [ ]		40 40		
8.2.1.2	psap-address	O R	m m	[ ] [ ]	Rec. X.500			
8.2.2	TerminalType	O R	m m	[ ] [ ]		16 16		
8.2.2.1	telex	O R	m m	[ ] [ ]				
8.2.2.2	teletex	O R	m m	[ ] [ ]				
8.2.2.3	g3-facsimile	O R	m m	[ ] [ ]				

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
8.2.2.4	g4-facsimile	O R	m m	[ ] [ ]				
8.2.2.5	ia5-terminal	O R	m m	[ ] [ ]				
8.2.2.6	videotex	O R	m m	[ ] [ ]				
8.3	directory-name	O R	o o	[ ] [ ]	(Note 5)			
9	ORName with FormattedPostalORAddress							
9.1	address							
9.1.1	CountryName	O R	m m	[ ] [ ]				
9.1.1.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		
9.1.1.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]		2 2		
9.1.2	Administration DomainName	O R	m m	[ ] [ ]				
9.1.2.1	numeric	O R	m m	[ ] [ ]		16 16		
9.1.2.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
9.1.3	PrivateDomain Name	O R	m m	[ ] [ ]	(Note 2)			
9.1.3.1	numeric	O R	m m	[ ] [ ]		16 16		
9.1.3.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
9.2	Extensions	O R	m m	[ ] [ ]	(Note 4)	256 256		
9.2.1	PhysicalDelivery CountryName	O R	m m	[ ] [ ]				
9.2.1.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		
9.2.1.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]		2 2		
9.2.2	PhysicalDelivery OfficeName	O R	m m	[ ] [ ]				
9.2.2.1	printable-string	O R	m m	[ ] [ ]		30 30		

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
9.2.2.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.3	PhysicalDelivery OfficeNumber	O R	m m	[ ] [ ]				
9.2.3.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.3.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.4	PhysicalDelivery OrganizationName	O R	m m	[ ] [ ]				
9.2.4.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.4.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.5	PhysicalDelivery PersonalName	O R	m m	[ ] [ ]				
9.2.5.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.5.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.6	PostalCode	O R	m m	[ ] [ ]				
9.2.6.1	numeric-code	O R	m m	[ ] [ ]		16 16		
9.2.6.2	printable-code	O R	m m	[ ] [ ]	(Note 1)	16 16		
9.2.7	PosteRestante Address	O R	m m	[ ] [ ]				
9.2.7.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.7.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.8	PostOfficeBox Address	O R	m m	[ ] [ ]				
9.2.8.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.8.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.9	PDSName	O R	m m	[ ] [ ]		16 16		

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
9.2.10	StreetAddress	O R	m m	[ ] [ ]				
9.2.10.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.10.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.11	UniquePostal Name	O R	m m	[ ] [ ]				
9.2.11.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.11.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.12	ExtensionOR AddressComponents	O R	m m	[ ] [ ]				
9.2.12.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.12.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.13	Extension PhysicalDelivery AddressComponents	O R	m m	[ ] [ ]				
9.2.13.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.13.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.2.14	LocalPostal Attributes	O R	m m	[ ] [ ]				
9.2.14.1	printable-string	O R	m m	[ ] [ ]		30 30		
9.2.14.2	teletex-string	O R	m m	[ ] [ ]		30 30		
9.3	directory-name	O R	o o	[ ] [ ]	(Note 5)			
10	ORName with UnformattedPostalORAddress							
10.1	address	O R	m m	[ ] [ ]				
10.1.1	CountryName	O R	m m	[ ] [ ]				
10.1.1.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		

Parameter		O/R	D	I	Note	Permitted Range of Values	Values supported	Clause reference (Rec. X.411)
10.1.1.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]		2 2		
10.1.2	Administration DomainName	O R	m m	[ ] [ ]				
10.1.2.1	numeric	O R	m m	[ ] [ ]		16 16		
10.1.2.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
10.1.3	PrivateDomain Name	O R	m m	[ ] [ ]	(Note 2)			
10.1.3.1	numeric	O R	m m	[ ] [ ]		16 16		
10.1.3.2	printable	O R	m m	[ ] [ ]	(Note 1)	16 16		
10.2	Extensions	O R	m m	[ ] [ ]	(Note 4)	256 256		
10.2.1	Unformatted PostalAddress	O R	m m	[ ] [ ]				
10.2.1.1	printable-address	O R	m m	[ ] [ ]		6 6		
10.2.1.1.1	Printable String	O R	m m	[ ] [ ]		30 30		
10.2.1.2	teletex-string	O R	m m	[ ] [ ]		180 180		
10.2.2	PhysicalDelivery CountryName	O R	m m	[ ] [ ]				
10.2.2.1	x121-dcc-code	O R	m m	[ ] [ ]		3 3		
10.2.2.2	iso-3166-alpha2-code	O R	m m	[ ] [ ]		2 2		
10.2.3	PostalCode	O R	m m	[ ] [ ]				
10.2.3.1	numeric-code	O R	m m	[ ] [ ]		16 16		
10.2.3.2	printable-code	O R	m m	[ ] [ ]	(Note 1)	16 16		
10.2.4	PDSName	O R	m m	[ ] [ ]		16 16		
10.3	directory-name	O R	o o	[ ] [ ]				

A.6.8 *Negotiation capabilities*

If one of the alternatives described in Table A.6.3 fails, the MTA should try another one.

A.6.9 *Protocol Error Handling*

"N/A".

A.6.10 *Other information*

The table below can be used to provide any other relevant information.

Ref. No.	Other information

A.7 *Multi-layer dependencies*

A.7.1 *Upper Layers*

No modifications are imposed to the requirements by the upper layers (only IPMS has been considered).

A.7.2 *Lower Layers*

The P1 protocol is defined in the following Applications Contexts:

– mts-transfer-protocol-1984;

– mts-transfer-protocol;

– mts-transfer.

Each of these Application Contexts imply the modifications shown in the following tables to the referenced elements within the appropriate PICS proforma.

A.7.2.1 *RTSE (Recommendation X.248)*

PICS reference	mts-transfer-protocol-1984	mts-transfer-protocol	mts-transfer
A.6.2.1/1 (Nm)	N/A	N/A	m
A.6.2.1/2 (Xm)	m	m	N/A
A.6.1/1 (Init)	m	m	m
A.6.1./2 (Resp)	m	m	m

A.7.2.2 *ACSE (ISO/IEC DIS 8650-2)*

PICS reference	mts-transfer-protocol-1984	mts-transfer-protocol	mts-transfer
A.7/1	N/A	N/A	m
A.7/2	m	m	N/A
A.8/1	m	m	m
A.8/2	m	m	m

A.7.2.3 *Presentation (ISO/IEC DIS 8823-2)*

PICS reference	mts-transfer-protocol-1984	mts-transfer-protocol	mts-transfer
A.7.1/1	m	m	m
A.7.1/2	m	m	m
A.7.2/1	m	m	N/A
A.7.2/2	N/A	N/A	m

ANNEX B

(to Recommendation X.482)

Alphabetical list of abbreviations used in this Recommendation

ADMD Administration management domain

IPMS Interpersonal messaging system

IUT Implementation under test

MD Management domain

MHS Message handling system

MTA Message transfer agent

MTS Message transfer system

O/R Origination/reception

P1 Protocol 1

PDAU Physical delivery access unit

PDS Physical delivery system

PDU Protocol data unit

PICS Protocol implementation conformance statement

PRMD Private management domain

SUT System under test