Information technology - Message Handling Systems (MHS): Message transfer system - Abstract service definition and procedures

CONTENTS

		Page
SECTION ONE – INTRODUCTION		1
1	Scope	1
2	Normative references	1
2.1	Open Systems Interconnection	2
2.2	Message Handling Systems	2
2.3	Directory Systems	2
2.4	Country Codes	3
2.5	Telematic Services	3
3	Definitions	3
4	Abbreviations	3
5	Conventions	3
5.1	Terms	3
5.2	Presence of Parameters	3
5.3	Abstract Syntax Definitions	3
5.4	Interpretation of UTC Time values	4
SECTION TWO – MESSAGE TRANSFER SYSTEM ABSTRACT SERVICE		4
6	Message Transfer System Model	4
7	Message Transfer System Abstract Service Overview	5
7.1	MTS Bind and Unbind	6
7.2	Submission Port	6
7.3	Delivery Port	6
7.4	Administration Port	6
8	Message Transfer System Abstract Service Definition	6
8.1	MTS-bind and MTS-unbind	6
8.1.1	Abstract-bind and Abstract-unbind	7
8.1.2	Bind-errors	10
8.2	Submission Port	10
8.2.1	Abstract-operations	10
8.2.2	Abstract-errors	31
8.3	Delivery Port	33
8.3.1	Abstract-operations	33
8.3.2	Abstract-errors	48
8.4	Administration Port	50
8.4.1	Abstract-operations	50
8.4.2	Abstract-errors	55
8.5	Common Parameter Types	56
8.5.1	MTS-identifier	56
8.5.2	Global-domain-identifier	57
8.5.3	MTA-name	57
8.5.4	Time	57
8.5.5	OR-name	57
8.5.6	Encoded-information-types	57
8.5.7	Certificate	58
8.5.8	Token	60
8.5.9	Security-label	60
8.5.10	Algorithm-identifier	61
8.5.11	Password	61
9	Message Transfer System Abstract Syntax Definition	61
9.1	Extension Mechanism	62
9.2	Criticality Mechanism	62

Page

SECTION THREE – MESSAGE TRANSFER AGENT ABSTRACT SERVICE 102

10 Refined Message Transfer System Model 102

11 Message Transfer Agent Abstract Service Overview 103
11.1 MTA-bind and MTA-unbind 103
11.2 Transfer Port Abstract-operations 103

12 Message Transfer Agent Abstract Service Definition 103
12.1 MTA-bind and MTA-unbind 103
12.1.1 Abstract-bind and Abstract-unbind 104
12.1.2 Bind-errors 106
12.2 Transfer Port 107
12.2.1 Abstract-operations 107
12.2.2 Abstract-errors 113
12.3 Common Parameter Types 113
12.3.1 Trace-information and internal-trace-information 113

13 Message Transfer Agent Abstract Syntax Definition 115

SECTION FOUR – PROCEDURES FOR DISTRIBUTED OPERATION OF THE MTS 123

14 Procedures for Distributed Operation of the MTS 123
14.1 Overview of the MTA Model 123
14.1.1 Organization and Modelling Technique 123
14.2 Deferred Delivery Module 125
14.2.1 Deferred Delivery Procedure 125
14.3 Main Module 126
14.3.1 Control Procedure 128
14.3.2 Front-end Procedure 130
14.3.3 Routing-and-conversion-decision Procedure 131
14.3.4 Routing-decision Procedure 132
14.3.5 Conversion-decision Procedure 134
14.3.6 Error-processing Procedure 135
14.3.7 Redirection Procedure 136
14.3.8 Splitter Procedure 137
14.3.9 Conversion-procedure 138
14.3.10 Distribution-list-expansion Procedure 138
14.3.11 Loop Detection and Routing Algorithm 140
14.3.12 Directory Name Resolution Procedure 140
14.3.13 Double-enveloper Procedure 141
14.3.14 Double-envelope-extractor Procedure 142
14.4 Report Module 143
14.4.1 Control Procedure 143
14.4.2 Report-front-end Procedure 144
14.4.3 Report-generation Procedure 144
14.4.4 Report-routing Procedure 145
14.4.5 Double-enveloper Procedure 147
14.5 MTS-bind and MTS-unbind 147
14.5.1 MTS-user initiated MTS-bind Procedure 147
14.5.2 MTS-user initiated MTS-unbind Procedure 148
14.5.3 MTA initiated MTS-bind Procedure 148
14.5.4 MTA initiated MTS-unbind Procedure 149
14.6 Submission Port 149
14.6.1 Message-submission Procedure 149
14.6.2 Probe-submission Procedure 150
14.6.3 Cancel-deferred-delivery Procedure 151
14.6.4 Submission-control Procedure 152
14.7 Delivery Port 152
14.7.1 Message-delivery Procedure 152
14.7.2 Probe-delivery-test Procedure 154

Page
14.7.3 Report-delivery Procedure 155
14.7.4 Delivery-control Procedure 155
14.8 Administration Port 156
14.8.1 Register Procedure 156
14.8.2 MTS-user initiated Change-credentials Procedure 157
14.8.3 MTA initiated Change-credentials Procedure 157
14.9 MTA-bind and MTA-unbind 158
14.9.1 MTA-bind-in Procedure 158
14.9.2 MTA-unbind-in Procedure 158
14.9.3 MTA-bind-out Procedure 159
14.9.4 MTA-unbind-out Procedure 159
14.10 Transfer Port 160
14.10.1 Message-in Procedure 160
14.10.2 Probe-in Procedure 160
14.10.3 Report-in Procedure 161
14.10.4 Message-out Procedure 161
14.10.5 Probe-out Procedure 162
14.10.6 Report-out Procedure 162
Annex A – Reference Definition of MTS Object Identifiers 164
Annex B – Reference Definition of MTS Parameter Upper Bounds 166
Annex C – Definition of 1988 Message Transfer System Abstract Service 169
C.1 Register-88 169
C.1.1 Arguments 169
C.1.2 Results 170
C.1.3 Abstract-errors 170
C.2 Delivery-control-88 171
C.2.1 Arguments 171
C.2.2 Results 171
C.2.3 Abstract-errors 171
Annex D – Differences between ISO/IEC 10021-4 and ITU-T Recommendation X.411 175
Annex E – Index 176