



# **Enabler Test Specification for MMS**

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**Open Mobile Alliance**

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# Contents

<b>1 SCOPE</b> .....	<b>12</b>
<b>2 REFERENCES</b> .....	<b>13</b>
<b>2.1 NORMATIVE REFERENCES</b> .....	<b>13</b>
<b>2.2 INFORMATIVE REFERENCES</b> .....	<b>13</b>
<b>3 TERMINOLOGY AND CONVENTIONS</b> .....	<b>14</b>
<b>3.1 CONVENTIONS</b> .....	<b>14</b>
<b>3.2 DEFINITIONS</b> .....	<b>14</b>
<b>3.3 ABBREVIATIONS</b> .....	<b>15</b>
<b>4 INTRODUCTION</b> .....	<b>16</b>
<b>4.1 TEST OBJECTS</b> .....	<b>16</b>
<b>4.2 TEST CASE SELECTION</b> .....	<b>16</b>
<b>4.3 TEST PREREQUISITES</b> .....	<b>17</b>
4.3.1 The following Items are needed to Test the MMS Enabler: Prerequisites for Client-to-client Tests: .....	17
4.3.2 Prerequisites for Client-to-server Tests: .....	17
<b>4.4 TEST PROCEDURES</b> .....	<b>17</b>
4.4.1 Test Case Execution .....	17
4.4.2 Addressing .....	17
4.4.3 Reference Content .....	18
<b>5 MMS CONFORMANCE TEST CASES</b> .....	<b>19</b>
<b>5.1 GENERAL</b> .....	<b>19</b>
5.1.1 Test Tool .....	19
5.1.2 Initial Conditions .....	19
<b>5.2 CLIENT CONFORMANCE TESTING SENDING</b> .....	<b>20</b>
5.2.1 Message .....	20
5.2.1.1 <i>General</i> .....	20
5.2.1.1.1 Empty message .....	20
5.2.1.1.2 SMIL layout portrait with text above the image .....	21
5.2.1.1.3 SMIL layout portrait with text below the image .....	22
5.2.1.1.4 SMIL layout landscape with text to the left of the image .....	23
5.2.1.1.5 SMIL layout landscape with text to the right of the image .....	24
5.2.1.1.6 Multiple objects in same page .....	25
5.2.1.1.7 Multiple pages .....	26
5.2.1.1.8 Multiple pages with page timing and time dependent content .....	27
5.2.1.1.9 Multiple pages with page timing .....	29
5.2.1.1.10 Long file name .....	30
5.2.1.1.11 Subject field with UTF8 encoding .....	31
5.2.1.1.12 Long Subject field .....	32
5.2.2 Content .....	33
5.2.2.1 <i>Text</i> .....	33
5.2.2.1.1 Text with US-ASCII encoding .....	33
5.2.2.1.2 Text with UTF-8 encoding .....	34
5.2.2.1.3 Text with UTF-16 encoding .....	35
5.2.2.2 <i>Image</i> .....	36
5.2.2.2.1 JPG Image size 80x60 .....	36
5.2.2.2.2 JPG Image size 160x120 .....	37
5.2.2.2.3 JPG Image size 60x80 .....	38
5.2.2.2.4 JPG Image size 640x480 .....	39
5.2.2.2.5 GIF Image size 80x60 .....	40
5.2.2.2.6 GIF Image size 160x120 .....	41
5.2.2.2.7 GIF Image size 60x80 .....	42
5.2.2.2.8 GIF Image size 640x480 .....	43
5.2.2.2.9 Animated GIF Image size 80x60 .....	44
5.2.2.2.10 Animated GIF Image size 160x120 .....	45
5.2.2.2.11 Animated GIF Image size 60x80 .....	46
5.2.2.2.12 Animated GIF Image size 640x480 .....	47

5.2.2.2.13 WBMP Image size 80x60.....	48
5.2.2.2.14 WBMP Image size 160x120.....	49
5.2.2.2.15 WBMP Image size 60x80.....	50
5.2.2.2.16 WBMP Image size 640x480.....	51
5.2.2.3 <i>Audio</i> .....	52
5.2.2.3.1 AMR audio NB.....	52
5.2.2.3.2 3GPP2 13k speech.....	53
5.2.2.4 <i>Video</i> .....	54
5.2.2.4.1 3GPP Video QCIF.....	54
5.2.2.4.2 3GPP Video sub-QCIF.....	55
5.2.2.4.3 3GPP2 Video QCIF (MPEG4+13k).....	56
5.2.2.4.4 3GPP2 Video QCIF (MPEG4+AMR).....	57
5.2.2.4.5 3GPP2 Video QCIF (H.263+13k).....	58
5.2.2.4.6 3GPP2 Video QCIF (H.263+AMR).....	59
5.2.2.4.7 3GPP2 Video sub-QCIF (MPEG4 +13k).....	60
5.2.2.4.8 3GPP2 Video sub-QCIF (MPEG4 +AMR).....	61
5.2.2.4.9 3GPP2 Video sub-QCIF (H.263 +13k).....	62
5.2.2.4.10 3GPP2 Video sub-QCIF (H.263 +AMR).....	63
5.2.2.5 <i>Attachment</i> .....	64
5.2.2.5.1 vCard.....	64
5.2.2.5.2 vCalendar.....	65
5.2.3 Forwarding (void).....	66
<b>5.3 CLIENT CONFORMANCE TESTING RECEIVING.....</b>	<b>67</b>
5.3.1 Message Structure and Preconditions.....	67
5.3.1.1 <i>Preconditions</i> .....	67
5.3.1.2 <i>Generic MM</i> .....	67
5.3.1.3 <i>General</i> .....	68
5.3.1.3.1 Empty message.....	68
5.3.1.3.2 SMIL layout portrait with text above the image.....	69
5.3.1.3.3 SMIL layout portrait with text below the image.....	70
5.3.1.3.4 SMIL layout landscape with text to the left of the image.....	71
5.3.1.3.5 SMIL layout landscape with text to the right of the image.....	72
5.3.1.3.6 Multiple objects in same page.....	73
5.3.1.3.7 Multiple pages.....	74
5.3.1.3.8 Multiple pages with page timing and time dependent content.....	75
5.3.1.3.9 Multiple pages with page timing.....	77
5.3.1.3.10 Long Content-Location field.....	78
5.3.1.3.11 Subject field with UTF8 encoding.....	79
5.3.1.3.12 Long Subject field.....	80
5.3.1.3.13 Long X-Mms-Content-Location field in Notification.....	81
5.3.1.3.14 Size Indication in Notification – Non-rejection of incoming MM.....	82
5.3.2 Content.....	83
5.3.2.1 <i>Text</i> .....	83
5.3.2.1.1 Text with US-ASCII encoding.....	83
5.3.2.1.2 Text with UTF-8 encoding.....	84
5.3.2.1.3 Text with UTF-16(LE) encoding.....	85
5.3.2.2 <i>Image</i> .....	86
5.3.2.2.1 JPG Image size 80x60.....	86
5.3.2.2.2 JPG Image size 160x120.....	87
5.3.2.2.3 JPG Image size 60x80.....	88
5.3.2.2.4 JPG Image size 640x480.....	89
5.3.2.2.5 GIF Image size 80x60.....	90
5.3.2.2.6 GIF Image size 160x120.....	91
5.3.2.2.7 GIF Image size 60x80.....	92
5.3.2.2.8 GIF Image size 640x480.....	93
5.3.2.2.9 Animated GIF Image size 80x60.....	94
5.3.2.2.10 Animated GIF Image size 160x120.....	95
5.3.2.2.11 Animated GIF Image size 60x80.....	96
5.3.2.2.12 Animated GIF Image size 640x480.....	97
5.3.2.2.13 WBMP Image size 80x60.....	98
5.3.2.2.14 WBMP Image size 160x120.....	99
5.3.2.2.15 WBMP Image size 60x80.....	100
5.3.2.2.16 WBMP Image size 640x480.....	101

5.3.2.3 Audio .....	102
5.3.2.3.1 AMR audio NB .....	102
5.3.2.3.2 3GPP2 13k speech.....	103
5.3.2.4 Video.....	104
5.3.2.4.1 3GPP Video QCIF.....	104
5.3.2.4.2 3GPP Video sub-QCIF.....	105
5.3.2.4.3 3GPP2 Video QCIF (MPEG4+13k).....	106
5.3.2.4.4 3GPP2 Video QCIF (MPEG4+AMR).....	107
5.3.2.4.5 3GPP2 Video QCIF (H.263+13k).....	108
5.3.2.4.6 3GPP2 Video QCIF (H.263+AMR).....	109
5.3.2.4.7 3GPP2 Video sub-QCIF (MPEG4 +13k).....	110
5.3.2.4.8 3GPP2 Video sub-QCIF (MPEG4 +AMR).....	111
5.3.2.4.9 3GPP2 Video sub-QCIF (H.263 +13k).....	112
5.3.2.4.10 3GPP2 Video sub-QCIF (H.263 +AMR).....	113
5.3.2.5 Attachment.....	114
5.3.2.5.1 vCard.....	114
5.3.2.5.2 vCalendar.....	115
<b>5.4 CLIENT CONFORMANCE TESTING CREATION.....</b>	<b>116</b>
5.4.1 Content Creation.....	116
5.4.1.1 Creation mode - Restricted - oversize.....	116
5.4.1.2 Creation mode - Restricted - inclusion of non core domain content.....	117
5.4.1.3 Creation mode - Restricted - oversize image resolution.....	118
5.4.1.4 Creation mode - Restricted – forwarding oversize.....	119
5.4.1.5 Creation mode - Restricted – forwarding non conformant message.....	120
5.4.1.6 Creation mode - Restricted - forwarding non conformant content.....	121
<b>5.5 SERVER CONFORMANCE TESTING - TRANSMISSION.....</b>	<b>122</b>
5.5.1 Message.....	122
5.5.1.1 General.....	122
5.5.1.1.1 Empty message.....	122
5.5.1.1.2 Image Basic - Message Size 30k.....	123
5.5.1.1.3 Image Rich - Message Size 100k.....	124
5.5.1.1.4 Video Rich - Message Size 300k.....	125
5.5.1.1.5 Multiple pages with page timing and time dependent content.....	126
5.5.1.1.6 Subject field with UTF8 encoding.....	127
5.5.1.1.7 Subject field with 40 Characters.....	128
5.5.1.1.8 Subject field with US-ASCII encoding.....	129
5.5.1.2 Address Field Testing.....	130
5.5.1.2.1 To-field with US-ASCII encoding.....	130
5.5.1.2.2 Cc-field with US-ASCII encoding.....	131
5.5.1.2.3 Bcc-field with US-ASCII encoding.....	132
5.5.1.2.4 To-field with UTF-8 encoding.....	133
5.5.1.2.5 Cc-field with UTF-8 encoding.....	134
5.5.1.2.6 Bcc-field with UTF-8 encoding.....	135
5.5.1.3 Message Priority.....	136
5.5.1.3.1 Priority – Normal.....	136
5.5.1.3.2 Priority – Low.....	137
5.5.1.3.3 Priority – High.....	138
5.5.1.4 Message Classification.....	139
5.5.1.4.1 Message Class – Personal.....	139
5.5.2 Content.....	140
5.5.2.1 Text.....	140
5.5.2.1.1 Text with US-ASCII encoding.....	140
5.5.2.1.2 Text with UTF-8 encoding.....	141
5.5.2.1.3 Text with UTF-16 encoding.....	142
5.5.2.2 Image.....	143
5.5.2.2.1 JPG Image size 80x60.....	143
5.5.2.2.2 JPG Image size 160x120.....	144
5.5.2.2.3 JPG Image size 60x80.....	145
5.5.2.2.4 JPG Image size 640x480.....	146
5.5.2.2.5 GIF Image size 80x60.....	147
5.5.2.2.6 GIF Image size 160x120.....	148
5.5.2.2.7 GIF Image size 60x80.....	149
5.5.2.2.8 GIF Image size 640x480.....	150

5.5.2.2.9 Animated GIF Image size 60x80.....	151
5.5.2.2.10 Animated GIF Image size 160x120.....	152
5.5.2.2.11 Animated GIF Image size 60x80.....	153
5.5.2.2.12 Animated GIF Image size 640x480.....	154
5.5.2.2.13 WBMP Image size 60x80.....	155
5.5.2.2.14 WBMP Image size 160x120.....	156
5.5.2.2.15 WBMP Image size 60x80.....	157
5.5.2.2.16 WBMP Image size 640x480.....	158
5.5.2.3 Audio.....	159
5.5.2.3.1 AMR audio NB.....	159
5.5.2.3.2 3GPP2 13k speech.....	160
5.5.2.4 Video.....	161
5.5.2.4.1 3GPP Video QCIF.....	161
5.5.2.4.2 3GPP Video sub-QCIF.....	162
5.5.2.4.3 3GPP2 Video sub-QCIF (MPEG4 +13k).....	163
5.5.2.4.4 3GPP2 Video sub-QCIF (MPEG4 +AMR).....	164
5.5.2.4.5 3GPP2 Video sub-QCIF (H.263 +13k).....	165
5.5.2.4.6 3GPP2 Video sub-QCIF (H.263 +AMR).....	166
5.5.2.5 Attachment + Empty Page.....	167
5.5.2.5.1 vCard.....	167
5.5.2.5.2 vCalendar.....	168
5.5.3 MMS Address Protocol.....	169
5.5.3.1 Send and receive message to one MSISDN/MDN recipient (To:).....	169
5.5.3.2 Send and receive message to one MSISDN/MDN recipient (Cc:).....	170
5.5.3.3 Send and receive message to one MSISDN/MDN recipient (Bcc:).....	171
5.5.3.4 Send and receive message to multiple MSISDN/MDN and email recipients (To:).....	172
5.5.3.5 Send and receive message to multiple MSISDN/MDN and email recipients (Cc:).....	173
5.5.3.6 Send and receive message to multiple MSISDN/MDN and email recipients (Bcc:).....	174
5.5.3.7 Send message to one email recipient (To:).....	175
5.5.3.8 Send message to one email recipient (Cc:).....	176
5.5.3.9 Send message to one email recipient (Bcc:).....	177
<b>5.6 MMSC TRANSACTION.....</b>	<b>178</b>
5.6.1 Client A Address.....	178
5.6.1.1 Insert Address Token.....	178
5.6.2 Message Validity Time.....	179
5.6.2.1 Validity Period (Expiry Time) set by Client.....	179
5.6.2.2 Validity Period (Expiry Time) set by MMSC.....	180
5.6.2.3 Delivery time.....	181
5.6.3 Time Stamp.....	182
5.6.3.1 Time Stamp set by MMSC.....	182
5.6.4 Forwarding.....	183
5.6.4.1 Forward without Prior retrieval - Previously sent By field.....	183
5.6.4.2 Forward without Prior retrieval - Previously sent Date field.....	184
<b>5.7 CLIENT TRANSACTION.....</b>	<b>185</b>
5.7.1 Message Delivery Status Report.....	185
5.7.1.1 Delivery report – Retrieved message.....	185
5.7.1.2 Delivery report – Rejected message.....	187
5.7.1.3 Delivery report – Expired message.....	188
5.7.1.4 Delivery report – Multiple recipients each with Different Delivery Status.....	189
5.7.1.5 Delivery report – Interpreting Message-ID field.....	191
5.7.2 Message Read-Reply Status Report.....	194
5.7.2.1 Read-Reply report Date.....	194
5.7.2.2 Read-Reply report.....	196
5.7.2.3 Read-Reply Report when sending to multiple recipients.....	198
5.7.2.4 Read-Reply report when sending to single recipient.....	200
5.7.2.5 Read report – Interpreting Message-ID field.....	202
5.7.2.6 Read report – Sending with Message-ID field.....	205
5.7.3 Forwarding.....	206
5.7.3.1 Forward without Prior retrieval – Previously sent By field.....	206
5.7.3.2 Forward without Prior retrieval - Previously sent Date field.....	207
5.7.3.3 Forward without Prior retrieval.....	208
5.7.3.4 Validity Period (Expiry Time) set by Client when forwarding.....	209

5.7.3.5 Forwarding Delivery report – Retrieved message .....	210
5.7.3.6 Forwarding Delivery report – Rejected message .....	211
5.7.3.7 Forwarding Delivery report – Expired message .....	212
5.7.3.8 Read report when forwarding to single recipient .....	213
5.7.3.9 Delivery Report when Forwarding– Interpreting Message-ID field .....	214
5.7.3.10 Read Report when Forwarding – Interpreting Message-ID field .....	217
5.7.3.11 Long X-Mms-Content-Location field when Forwarding .....	220
<b>5.8 CLIENT B (RECIPIENT).....</b>	<b>221</b>
5.8.1 Download Options .....	221
5.8.1.1 Download options – Immediate retrieval.....	221
5.8.1.2 Download options – Deferred retrieval.....	222
5.8.1.3 Download options – Rejected retrieval.....	223
5.8.1.4 DRM support – Forward Lock.....	224
<b>5.9 CLIENT CONFORMANCE TESTING ENCAPSULATION .....</b>	<b>225</b>
5.9.1 Sending of Multimedia Messages .....	225
5.9.1.1 Support for X-Mms-Message-Type field.....	225
5.9.1.2 Support for X-Mms-Transaction-ID field.....	226
5.9.1.3 Support for Date field .....	227
5.9.1.4 Support for From field .....	228
5.9.1.5 Support for To field.....	229
5.9.1.6 Support for Cc field .....	230
5.9.1.7 Support for Bcc field.....	231
5.9.1.8 Support for Subject field .....	232
5.9.1.9 Support for X-Mms-Message-Class field .....	233
5.9.1.10 Support for X-Mms-Expiry field – Relative.....	234
5.9.1.11 Support for X-Mms-Expiry field – Absolute.....	235
5.9.1.12 Support for X-Mms-Delivery-Time field – Relative .....	236
5.9.1.13 Support for X-Mms-Delivery-Time field – Absolute.....	237
5.9.1.14 Support for X-Mms-Priority field – Low.....	238
5.9.1.15 Support for X-Mms-Priority field – Normal.....	239
5.9.1.16 Support for X-Mms-Priority field – High.....	240
5.9.1.17 Support for X-Mms-Delivery-Report field .....	241
5.9.1.18 Support for X-Mms-Read-Report field.....	242
<b>5.10 CLIENT A-MMSC-EMAIL CLIENT B, EMAIL CLIENT A-MMSC-CLIENT B.....</b>	<b>243</b>
5.10.1 Send Content Object to email recipient .....	243
5.10.1.1 Send text object to email recipient .....	243
5.10.1.2 Send image object to email recipient .....	244
5.10.1.3 Send audio object to email recipient.....	245
5.10.1.4 Send text, image and audio objects to email recipient .....	246
5.10.2 Receive Content Object from email recipient .....	247
5.10.2.1 Receive text, image and audio objects from email .....	247
<b>5.10.3 Send Attachment to e-mail recipient .....</b>	<b>248</b>
5.10.3.1 Send vCard object to email recipient.....	248
5.10.3.2 Send vCalendar object to email recipient .....	249
5.10.4 Receive Attachment from e-mail .....	250
5.10.4.1 Receive vCard object from email.....	250
5.10.4.2 Receive vCalendar object from email.....	251
<b>5.11 SERVER CONFORMANCE TESTING – ADAPTATION .....</b>	<b>252</b>
5.11.1.1 Image resolution reduction.....	252
5.11.1.2 Size reduction .....	253
5.11.1.3 Drop unsupported object type.....	254
5.11.1.4 Image basic: Video QCIF to Image reduced .....	255
5.11.1.5 Video Basic: Size reduction to 100kB.....	256
5.11.1.6 Function to enable or disable major content adaptation .....	256
5.11.1.7 Availability of original content after major content adaptation.....	258
5.11.1.8 Update labels in the presentation after media type adaptation.....	259
5.11.1.9 Update file extensions and MIME types after media format.....	260
5.11.2 Client B in Image Basic .....	261
5.11.2.1 Image resolution set to 160x120.....	261
5.11.2.2 Size reduction to 30k, GIF87 .....	262
5.11.2.3 Size reduction to 30k, JPEG .....	263
5.11.2.4 GIF89a image larger than 30k.....	264

5.11.2.5 SP-MIDI sound.....	265
5.11.2.6 Video QCIF to Image reduced to 160x120.....	266
5.11.3 Client B in Image Rich .....	267
5.11.3.1 Video to Image.....	267
5.11.4 Client B in Video Basic .....	268
5.11.4.1 Size reduction to 100k.....	268
<b>6 MMS INTEROPERABILITY TEST CASES .....</b>	<b>269</b>
<b>6.1 CLIENT TO CLIENT.....</b>	<b>269</b>
<b>6.1.1 Message.....</b>	<b>269</b>
6.1.1.1 General.....	269
6.1.1.1.1 Empty message.....	269
6.1.1.1.2 SMIL layout portrait with text above the image.....	270
6.1.1.1.3 SMIL layout portrait with text below the image.....	271
6.1.1.1.4 SMIL layout landscape with text to the left of the image.....	272
6.1.1.1.5 SMIL layout landscape with text to the right of the image.....	273
6.1.1.1.6 Multiple objects in same page.....	274
6.1.1.1.7 Multiple pages.....	275
6.1.1.1.8 Multiple pages with page timing and time dependent content.....	276
6.1.1.1.9 Multiple pages with page timing.....	277
6.1.1.1.10 Long file name.....	278
6.1.1.1.11 Subject field with UTF8 encoding.....	279
<b>6.1.2 Content.....</b>	<b>280</b>
6.1.2.1 Text.....	280
6.1.2.1.1 Text with US-ASCII encoding.....	280
6.1.2.1.2 Text with UTF-8 encoding.....	281
6.1.2.1.3 Text with UTF-16 encoding.....	282
6.1.2.2 Image.....	283
6.1.2.2.1 JPG Image size 80x60.....	283
6.1.2.2.2 JPG Image size 160x120.....	284
6.1.2.2.3 JPG Image size 60x80.....	285
6.1.2.2.4 JPG Image size 640x480.....	286
6.1.2.2.5 GIF Image size 80x60.....	287
6.1.2.2.6 GIF Image size 160x120.....	288
6.1.2.2.7 GIF Image size 60x80.....	289
6.1.2.2.8 GIF Image size 640x480.....	290
6.1.2.2.9 Animated GIF Image size 60x80.....	291
6.1.2.2.10 Animated GIF Image size 160x120.....	292
6.1.2.2.11 Animated GIF Image size 60x80.....	293
6.1.2.2.12 Animated GIF Image size 640x480.....	294
6.1.2.2.13 WBMP Image size 60x80.....	295
6.1.2.2.14 WBMP Image size 160x120.....	296
6.1.2.2.15 WBMP Image size 60x80.....	297
6.1.2.2.16 WBMP Image size 640x480.....	298
6.1.2.3 Audio.....	299
6.1.2.3.1 AMR audio NB.....	299
6.1.2.3.2 3GPP2 13k speech.....	300
6.1.2.4 Video.....	301
6.1.2.4.1 3GPP Video QCIF.....	301
6.1.2.4.2 3GPP Video sub-QCIF.....	302
6.1.2.4.3 3GPP2 Video QCIF (MPEG4+13k).....	303
6.1.2.4.4 3GPP2 Video QCIF (MPEG4+AMR).....	304
6.1.2.4.5 3GPP2 Video QCIF (H.263+13k).....	305
6.1.2.4.6 3GPP2 Video QCIF (H.263+AMR).....	306
6.1.2.4.7 3GPP2 Video sub-QCIF (MPEG4 +13k).....	307
6.1.2.4.8 3GPP2 Video sub-QCIF (MPEG4 +AMR).....	308
6.1.2.4.9 3GPP2 Video sub-QCIF (H.263 +13k).....	309
6.1.2.4.10 3GPP2 Video sub-QCIF (H.263 +AMR).....	310
6.1.2.5 Attachment + Empty Page.....	311
6.1.2.5.1 vCard.....	311
6.1.2.5.2 vCalendar.....	312
<b>6.2 CLIENT TO SERVER.....</b>	<b>313</b>
6.2.1 Message.....	314

6.2.1.1 General.....	314
6.2.1.1.1 Empty message.....	314
6.2.1.1.2 Image Basic - Message Size 30k.....	315
6.2.1.1.3 Image Rich - Message Size 100k.....	316
6.2.1.1.4 Video Rich - Message Size 300k.....	317
6.2.1.1.5 Multiple pages with page timing and time dependent content.....	318
6.2.1.1.6 Subject field with UTF8 encoding.....	319
6.2.1.1.7 Subject field with 40 Characters.....	320
6.2.1.1.8 Subject field with US-ASCII encoding.....	321
6.2.1.2 Address Field Testing.....	322
6.2.1.2.1 To-field with US-ASCII encoding.....	322
6.2.1.2.2 Cc-field with US-ASCII encoding.....	323
6.2.1.2.3 Bcc-field with US-ASCII encoding.....	324
6.2.1.2.4 To-field with UTF-8 encoding.....	325
6.2.1.2.5 Cc-field with UTF-8 encoding.....	326
6.2.1.2.6 Bcc-field with UTF-8 encoding.....	327
6.2.1.3 Message Priority.....	328
6.2.1.3.1 Priority – Normal.....	328
6.2.1.3.2 Priority – Low.....	329
6.2.1.3.3 Priority – High.....	330
6.2.1.4 Message Classification.....	331
6.2.1.4.1 Message Class – Personal.....	331
6.2.2 Content.....	332
6.2.2.1 Text.....	332
6.2.2.1.1 Text with US-ASCII encoding.....	332
6.2.2.1.2 Text with UTF-8 encoding.....	333
6.2.2.1.3 Text with UTF-16 encoding.....	334
6.2.2.2 Image.....	335
6.2.2.2.1 JPG Image size 80x60.....	335
6.2.2.2.2 JPG Image size 160x120.....	336
6.2.2.2.3 JPG Image size 60x80.....	337
6.2.2.2.4 JPG Image size 640x480.....	338
6.2.2.2.5 GIF Image size 80x60.....	339
6.2.2.2.6 GIF Image size 160x120.....	340
6.2.2.2.7 GIF Image size 60x80.....	341
6.2.2.2.8 GIF Image size 640x480.....	342
6.2.2.2.9 Animated GIF Image size 60x80.....	343
6.2.2.2.10 Animated GIF Image size 160x120.....	344
6.2.2.2.11 Animated GIF Image size 60x80.....	345
6.2.2.2.12 Animated GIF Image size 640x480.....	346
6.2.2.2.13 WBMP Image size 60x80.....	347
6.2.2.2.14 WBMP Image size 160x120.....	348
6.2.2.2.15 WBMP Image size 60x80.....	349
6.2.2.2.16 WBMP Image size 640x480.....	350
6.2.2.3 Audio.....	351
6.2.2.3.1 AMR audio NB.....	351
6.2.2.3.2 3GPP2 13k speech.....	352
6.2.2.4 Video.....	353
6.2.2.4.1 3GPP Video QCIF.....	353
6.2.2.4.2 3GPP Video sub-QCIF.....	354
6.2.2.4.3 3GPP2 Video sub-QCIF (MPEG4 +13k).....	355
6.2.2.4.4 3GPP2 Video sub-QCIF (MPEG4 +AMR).....	356
6.2.2.4.5 3GPP2 Video sub-QCIF (H.263 +13k).....	357
6.2.2.4.6 3GPP2 Video sub-QCIF (H.263 +AMR).....	358
6.2.2.5 Attachment.....	359
6.2.2.5.1 vCard.....	359
6.2.2.5.2 vCalendar.....	360
6.2.3 MMS Address Protocol.....	361
6.2.3.1 Send and receive message to one MSISDN/MDN recipient (To:).....	361
6.2.3.2 Send and receive message to one MSISDN/MDN recipient (Cc:).....	362
6.2.3.3 Send and receive message to one MSISDN/MDN recipient (Bcc:).....	363
6.2.3.4 Send and receive message to multiple MSISDN/MDN and email recipients (To:).....	364
6.2.3.5 Send and receive message to multiple MSISDN/MDN and email recipients (Cc:).....	365

6.2.3.6 Send and receive message to multiple MSISDN/MDN and email recipients (Bcc:)	366
6.2.3.7 Send message to one email recipient (To:)	367
6.2.3.8 Send message to one email recipient (Cc:)	368
6.2.3.9 Send message to one email recipient (Bcc:)	369
<b>6.3 MMSC TRANSACTION</b>	<b>370</b>
6.3.1 Client A Address	370
6.3.1.1 Insert Address Token	370
6.3.2 Message Validity Time	371
6.3.2.1 Validity Period (Expiry Time) set by Client	371
6.3.2.2 Validity Period (Expiry Time) set by MMSC	372
6.3.2.3 Delivery time	373
6.3.3 Time Stamp	374
6.3.3.1 Time Stamp set by MMSC	374
6.3.4 Retrieve Errors	375
6.3.4.1 Retrieve status code – Error-permanent-service-denied	375
6.3.4.2 Retrieve status code – Error-permanent-message-not-found	376
6.3.4.3 Retrieve text – Error-permanent-service-denied	377
6.3.4.4 Retrieve text – Error-permanent-message-not-found	378
<b>6.4 CLIENT TRANSACTION</b>	<b>379</b>
6.4.1 Message Delivery Status Report	379
6.4.1.1 Delivery report – Retrieved message	379
6.4.1.2 Delivery report – Rejected message	380
6.4.1.3 Delivery report – Expired message	381
6.4.1.4 Delivery report – Multiple recipients each with Different Delivery Status	382
6.4.2 Message Read-Reply Status Report	384
6.4.2.1 Read-Reply report Date	384
6.4.2.2 Read-Reply report Date set by server	385
6.4.2.3 Read-Reply Report when sending to multiple recipients	386
6.4.2.4 Read-Reply report when sending to single recipient	387
6.4.3 Forwarding	388
6.4.3.1 Forward without Prior retrieval - Previously sent By field	388
6.4.3.2 Forward without Prior retrieval - Previously sent Date field	389
6.4.3.3 Forward without Prior retrieval	390
6.4.3.4 Validity Period (Expiry Time) set by Client when forwarding	391
6.4.3.5 Forwarding Delivery report – Retrieved message	392
6.4.3.6 Forwarding Delivery report – Rejected message	393
6.4.3.7 Forwarding Delivery report – Expired message	394
6.4.3.8 Read-Reply report when forwarding to single recipient	395
<b>6.5 CLIENT B</b>	<b>396</b>
6.5.1 Download options	396
6.5.1.1 Download options – Immediate retrieval	396
6.5.1.2 Download options – Deferred retrieval	397
6.5.1.3 Download options – Rejected retrieval	398
6.5.1.4 DRM support – Forward Lock	399
<b>6.6 E-MAIL TEST CASES</b>	<b>400</b>
6.6.1 Send Content Object to email recipient	400
6.6.1.1 Send text object to email recipient	400
6.6.1.2 Send image object to email recipient	401
6.6.1.3 Send audio object to email recipient	402
6.6.1.4 Send text, image and audio objects to email recipient	403
6.6.2 Receive Content Object from email recipient	404
6.6.2.1 Receive text, image and audio objects from email	404
6.6.3 Send Attachment to e-mail recipient	405
6.6.3.1 Send vCard object to email recipient	405
6.6.3.2 Send vCalendar object to email recipient	406
6.6.4 Receive Attachment from e-mail	407
6.6.4.1 Receive vCard object from email	407
6.6.4.2 Receive vCalendar object from email	408
<b>6.7 CREATION MODE TESTING</b>	<b>409</b>
6.7.1 Content Creation	409
6.7.1.1 Creation mode - Restricted - oversize	409
6.7.1.2 Creation mode - Restricted - inclusion of non core domain content	410

6.7.1.3 Creation mode - Restricted - oversize image resolution .....	411
6.7.1.4 Creation mode - Restricted – forwarding oversize .....	412
6.7.1.5 Creation mode - Restricted – forwarding non core domain content .....	413
6.7.1.6 Creation mode - Restricted - forwarding oversize image resolution .....	414
<b>6.8 CONTENT ADAPTATION .....</b>	<b>415</b>
<b>6.8.1 General functions .....</b>	<b>415</b>
6.8.1.1 Function to enable or disable major content adaptation .....	415
6.8.1.2 Availability of original content after major content adaptation .....	416
6.8.1.3 Update labels in the presentation after media type adaptation .....	417
6.8.1.4 Update file extensions and MIME types after media format .....	418
<b>6.8.2 Client B in Image Basic .....</b>	<b>419</b>
6.8.2.1 Image resolution set to 160x120 .....	419
6.8.2.2 Size reduction to 30k, GIF87 .....	420
6.8.2.3 Size reduction to 30k, JPEG .....	421
6.8.2.4 GIF89a image larger than 30k .....	422
6.8.2.5 SP-MIDI sound .....	423
6.8.2.6 Video QCIF to Image reduced to 160x120 .....	424
<b>6.8.3 Client B in Image Rich .....</b>	<b>425</b>
6.8.3.1 Video to Image .....	425
<b>6.8.4 Client B in Video Basic .....</b>	<b>426</b>
6.8.4.1 Size reduction to 100k .....	426
6.8.4.2 Image resolution reduction .....	427
6.8.4.3 Size reduction .....	428
6.8.4.4 Drop unsupported object type .....	429
6.8.4.5 Image basic: Video QCIF to Image reduced .....	430
6.8.4.6 Video Basic: Size reduction to 100kB .....	431
<b>APPENDIX A. CHANGE HISTORY (INFORMATIVE) .....</b>	<b>432</b>
<b>A.1 APPROVED VERSION HISTORY .....</b>	<b>432</b>
<b>APPENDIX B. TEST CASES APPLICABILITY .....</b>	<b>436</b>
<b>B.1 INTRODUCTION .....</b>	<b>436</b>
<b>B.2 TEST CASES TESTING ONLY MANDATORY FEATURES .....</b>	<b>436</b>
<b>B.3 ICS .....</b>	<b>436</b>
<b>B.4 IXIT .....</b>	<b>438</b>
<b>B.5 ICS/IXIT TO TEST CASE MAPPING .....</b>	<b>438</b>

# 1 Scope

This document describes in detail available test cases for MMS Enabler 1.2, <http://www.openmobilealliance.org/>.

The test cases are split in two categories, conformance and interoperability test cases.

The conformance test cases are aimed to verify the adherence to normative requirements described in the technical specifications.

The interoperability test cases are aimed to verify that implementations of the specifications work satisfactory.

If either conformance or interoperability tests do not exist at the creation of the test specification this part should be marked not available.

## 2 References

### 2.1 Normative References

- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”. S. Bradner. March 1997.  
<http://www.ietf.org/rfc/rfc2119.txt>
- [MMSCONF] “MMS Conformance Document 1.2”, Open Mobile Alliance™. OMA-MMS-CONF-1\_2-20030929-C.doc.  
<http://www.openmobilealliance.org/>
- [MMSCTR] “MMS Client Transaction 1.2”, Open Mobile Alliance™. OMA-MMS-CTR-v1\_2-20030916-C.doc.  
<http://www.openmobilealliance.org/>
- [MMSENC] “MMS Encapsulation 1.2”, Open Mobile Alliance™. OMA-MMS-ENC-1\_2-20030915-C.doc.  
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### 2.2 Informative References

- [OMADICT] “Dictionary for OMA specifications”. Open Mobile Alliance™. OMA-Dictionary-v1\_0.  
<http://www.openmobilealliance.org/>
- [MMSERELD] “Enabler Release Definition for MMS Version 1.2”, Open Mobile Alliance™. OMA-ERELD-MMS-v1\_2-20030923-C.doc. <http://www.openmobilealliance.org/>
- [MMSARCH] “Multimedia Messaging Service Architecture Overview Version 1.2”, Open Mobile Alliance™. OMA-MMS-ARCH-v1\_2-20030920-C.doc. <http://www.openmobilealliance.org/>
- [MMSETR] “MMS Enabler Test Requirements”, Open Mobile Alliance™. OMA-MMS-ETR-1\_2-2003mmdd-D.doc.  
<http://www.openmobilealliance.org/>
- [MMSETP] “MMS Enabler Test Plan”, Open Mobile Alliance™. OMA-MMS-ETP-1\_2-20031210-A-D.doc.  
<http://www.openmobilealliance.org/>

## 3 Terminology and Conventions

### 3.1 Conventions

The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except “Scope” and “Introduction”, are normative, unless they are explicitly indicated to be informative.

The following numbering scheme is used:

xxx-y.z-con-number where:

xxx	Name of enabler, e.g. MMS or Browsing
y.z	Version of enabler release, e.g. 1.2 or 1.2.1
con	Indicating this test is a conformance test case
number	Leap number for the test case

Or

xxx-y.z-int-number where:

xxx	Name of enabler, e.g. MMS or Browsing
y.z	Version of enabler release, e.g. 1.2 or 1.2.1
int	Indicating this test is an interoperability test case
number	Leap number for the test case

### 3.2 Definitions

<b>Client A</b>	The MMS client, which sends a multimedia message (Mobile Originating)
<b>Client B</b>	The MMS client, which receives a multimedia message (Mobile Terminating)
<b>Client X</b>	The MMS client representative of a unique implementation. In testing, can take a role of either client A or client B
<b>Client Y</b>	The MMS client representative of a unique implementation. In testing, can take a role of either client A or client B
<b>Multimedia Messaging Service (MMS)</b>	A system application by which a client is able to provide a messaging operation with a variety of media types.
<b>MMS Client</b>	The MMS service endpoint located on the client device.
<b>MMS Proxy-Relay</b>	A server, which provides access to various messaging systems.
<b>MMS Server</b>	A server that provides storage and operational support for the MMS service.
<b>MMS SMIL</b>	A SMIL subset defined for MMS purposes.
<b>Reasonably Presented</b>	“Something intelligible, which is not necessarily a close reflection of the author’s original intentions.” From the World Wide Web Consortium, W3C
<b>Reference Content</b>	Specified text, audio and images used in test cases. Reference content shall be available with the Enabler Test Specification (ETS).
<b>Textually Correct</b>	The property of a text, being word for word and letter by letter, presented in the same manner as originally written. There are no specific demands on identical font, color or size of presented text.
<b>Transaction</b>	One or more PDU exchanges that collectively are considered logically separate from other PDU exchanges.

### 3.3 Abbreviations

<b>AMR</b>	Adaptive Multi Rate
<b>Email</b>	Electronic mail
<b>GIF</b>	Graphics Interchange Format
<b>HTTP</b>	Hyper text Transfer Protocol
<b>EICS</b>	Enabler Implementation Conformance Statement
<b>JPG</b>	Joint Photographic (Experts') Group
<b>MDN</b>	Mobile Directory Number
<b>MIME</b>	Multipurpose Internet Mail Extensions
<b>MM</b>	Multimedia Message
<b>MMS</b>	Multimedia Messaging Service
<b>MMSC</b>	MMS Proxy/Server
<b>MS</b>	Mobile Station
<b>MSISDN</b>	Mobile Station ISDN Number
<b>NAS</b>	Network Access Point
<b>OMA</b>	Open Mobile Alliance
<b>OTA</b>	Over The Air
<b>PDU</b>	Protocol Data Unit
<b>PIM</b>	Personal Information Management
<b>SMIL</b>	Synchronised Multimedia Integration Language
<b>SMS</b>	Short Message Service
<b>US-ASCII</b>	American Standard Code for Information Interchange, 7-bit encoding form.
<b>UTF-8</b>	Unicode Transformation Format, 8-bit encoding form.
<b>UTF-16</b>	Unicode Transformation Format, 16-bit encoding form.
<b>WAP</b>	Wireless Application Protocol
<b>WBMP</b>	Wireless Bit Map
<b>13k</b>	13k speech codec
<b>H.263</b>	ITU video coding standard
<b>MPEG4</b>	Moving Picture Experts Group 4 standard
<b>QCIF</b>	Quarter Common Intermediate Format

## 4 Introduction

The purpose of this document is to provide test cases for MMS Enabler Release 1.2.

The intention of this test specification is to test conformance and interoperability between MMS implementations on MMS protocol and MMS content level and hence the test cases do not address the specific transport protocols (e.g. WAP 1.2.1 or HTTP).

### 4.1 Test Objects

Test objects can be the following:

- Client A, which originates messages
- Client B, which receives messages. Client B is a role, not a physical client. There may be several clients taking on the role of Client B in some test cases. Client B may also be an email client.
- MMSC Server, which is forwarding messages from Client A to Client B(s) and/or to Email recipient(s) and Email sender to Client B. During client-to-client testing, the MMSC is not a test object.
- Email recipient, which is a combination of an email server and an email program. These are used to receive messages. Email recipient is a role, not a physical client. There may be several clients taking on the role of email recipient in some test cases.
- Email sender, which is a combination of an email server and an email program. These are used to originate messages.

Each separate test case specifies the test objects for that test case.

### 4.2 Test case selection

The tests associated with mandatory and optional features are selected based on the appropriate EICS (Enabler Implementation Conformance Statement). If a feature is marked as supported, the corresponding test cases MUST be included. Selection of test cases is performed as follows:

Client-to-Client testing (between Client X and Client Y)

1. Select the test cases for Client X in a role of test object Client A (Originating messages)
2. Select the test cases for Client Y in a role of test object Client B (Terminating messages)
3. Compare the results of above selections and select the test cases applicable for both. Mark these test cases as applicable in the test report for this scenario.
4. Select the test cases for Client Y in a role of test object Client A (Originating messages)
5. Select the test cases for Client X in a role of test object Client B (Terminating messages)
6. Compare the results of above selections and select the test cases applicable for both. Mark these test cases as applicable in the test report for this scenario.
7. The total test scope between Client X and Client Y is defined as a sum of above steps 3 and 6.

Client-to-Server testing (between Client X and MMSC Z)

1. Select the test cases for Client X in a role of test object Client A (Originating messages)
2. Select the test cases for Client X in a role of test object Client B (Terminating messages)
3. Select the test cases for the test object MMSC Z

4. Compare the results of above three selections and select the test cases applicable for all three. Mark these test cases as applicable in the test report for this scenario.

## 4.3 Test Prerequisites

### 4.3.1 The following Items are needed to Test the MMS Enabler: Prerequisites for Client-to-client Tests:

- MMS Relay Server (MMSC).
- Reference content
- A WAP 1.2.1 / WAP 2.0 Gateway, Push Proxy and SMSC (if applicable)
- Network connectivity for the types of clients being tested (e.g. GSM/GPRS or CDMA)
- Network Access Points (NAS) for data access
- IP network interconnecting the NAS, the WAP GW and the MMSC.
- Correct MMS settings in the Clients & MMSC (preconditions of individual test cases may override these settings).

### 4.3.2 Prerequisites for Client-to-server Tests:

- Reference content
- A WAP 1.2.1 / WAP 2.0 Gateway, Push Proxy and SMSC (if applicable)
- Network connectivity for the types of clients being tested (e.g. GSM/GPRS or CDMA)
- Network Access Points (NAS) for data access
- Email server which supports all required character sets and content types and Email client environment
- Valid email accounts
- IP network interconnecting the NAS, the Email environment, the WAP GW and the MMSC.
- Correct MMS settings in the Clients & MMSC (preconditions of individual test cases may override these settings).

## 4.4 Test Procedures

Tests are always performed pair-wise between test objects (i.e. a client of implementation X is tested against a client of implementation Y or clients of implementation X are tested against a MMSC of implementation Z).

### 4.4.1 Test Case Execution

Test cases marked as applicable are executed in the order of the test report. Testing of the test object is deemed completed when all applicable test cases in the test report have been executed and the result of each test case has been recorded.

### 4.4.2 Addressing

- MSISDN numbers are used to identify clients. The international format for these numbers is always used, i.e. +1 234 567890
- Email addressing [RFC 2822] is used to identify email recipients. The address is on the format: Id@domain.

### 4.4.3 Reference Content

Reference content is specified text, video, audio and images and other content used in test cases. Reference content shall be made available with the Enabler Test Specification. Many test cases have specified the content file to be used.

When a client supports loading of such content and subsequent use of it in MMS, this content SHALL be used.

In case client does not support loading of content and subsequent use of it in MMS, alternative means of populating the test case MAY be used. If such content is used, it should retained and made available with the test report.

Content should be pre-loaded into clients and email recipients beforehand. Optionally, the reference content can be provided by an external media, e.g. CD or a server.

## 5 MMS Conformance Test Cases

Conformance tests only have one object under test. Even though the test cases in the pre-conditions and the test procedures and the pass criterias mention other objects, these can be emulated/simulated in a test tool.

For example in the case where the test object is client A, the terminating client B may be represented by the use of a test tool

### 5.1 General

#### 5.1.1 Test Tool

The test cases in this section of the document assume the use of a Test Tool for verification of the Pass Criteria. Test cases are described in a way that there is always only one Test Object. This may act as “Client A” (when sending MMs) or “Client B” (when receiving MMs). The Test Object interacts in the Test Case with the Test Tool in different ways.

For the purposes of this document, the concept of a “Test Tool” may have different meanings. The criteria for the stringency of the Test Tool may vary depending on where the results of tests will be used.

The following is a non-exhaustive list of possible “Test Tool set-ups”:

1. Single Test Tool, which emulates an MMSC and either Client A or Client B.
2. Multiple test tools, one emulating the MMSC and one emulating either Client A or ClientB
3. Real MMSC, including functions to analyse incoming messages. Emulated or real Client A and Client B.
4. Real MMSC, separate analysis tool to analyse incoming messages (e.g. EtherReal). Emulated or real Client A and Client B

When selecting the environment to be the “Test Tool” in a given situation, it is important to realise the different observation points in the different test cases and assess the “test Tool’s” ability to produce a stable verdict of the Test Case.

Note however, that the Points of Control and Observation (PCOs) should be unambiguously defined for the Conformance Tests. The PCOs should not be left as implementation dependent. For MMS Client Conformance Test Cases there should (and need) be only two PCOs defined covering all test cases:

1. At the control/display interface of the MMS Client Under Test
2. At the MMS(M) interface of the MMSC, as defined in section 5 of the OMA MMS Architecture document (OMA-MMS-ARCH-v1\_2).

Furthermore, since clause 4 of this document states that:

"The intention of this test specification is to test conformance and interoperability between MMS implementations on MMS protocol and MMS content level and hence the test cases do not address the specific transport protocols (e.g. WAP 1.2.1 or HTTP)."

#### 5.1.2 Initial Conditions

In order to better facilitate repeatability of conformance test results each separate conformance test should start with the Test Object in a defined state.

The test case pre-amble for each of the client conformance test cases should establish the required initial state of the Test Object. Unless specified otherwise in the individual test case description the initial condition for all client conformance test cases is:

1. MM inbox empty
2. SMS inbox empty

## 5.2 Client Conformance Testing Sending

### 5.2.1 Message

#### 5.2.1.1 General

##### 5.2.1.1.1 Empty message

Test Case Id

Test Object

Test Case Description            Test case removed since there is not appropriate requirement for sending an empty MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

**5.2.1.1.2 SMIL layout portrait with text above the image**

Test Case Id	MMS-1.2-con-102
Test Object	Client A
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here portrait with text above the image, is correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the SMIL part of the MM sent by Client A contains the appropriate layout information.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-102
Preconditions	<p>-Client A          Capability:          Ability to create portrait layout with text above the image.</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: In the message body, use portrait layout, enter text as in file Generic_Text.txt on top and add image file/object JPG80x60.jpg below.</li> <li>4. In Client A, send MM to Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>The SMIL part of the MM sent from Client A contains the following layout information:</p> <p>Image Top &gt; Text top</p> <p>And the SMIL content of the MM received from Client A is valid “MMS SMIL” as defined by the XML Schema for MMS SMIL.</p>

### 5.2.1.1.3 SMIL layout portrait with text below the image

Test Case Id	MMS-1.2-con-103
Test Object	Client A
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here portrait with text below the image, is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the SMIL part of the MM sent by Client A contains the appropriate layout information.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-103
Preconditions	<p>-Client A</p> <p>Capability:</p> <p>Ability to create portrait layout with text element below the image.</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: In the message body, use portrait layout, add image file/object JPG80x60.jpg on top and enter text as in file Generic_Text.txt below.</li> <li>4. In Client A, send MM to Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>The SMIL part of the MM sent from Client A contains the following layout information:</p> <p>Image Top &lt; Text top</p> <p>And the SMIL content of the MM received from Client A is valid “MMS SMIL” as defined by the XML Schema for MMS SMIL.</p>

#### 5.2.1.1.4 SMIL layout landscape with text to the left of the image

Test Case Id	MMS-1.2-con-104
Test Object	Client A
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here landscape with text to the left of the image, is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the SMIL part of the MM sent by Client A contains the appropriate layout information.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-104
Preconditions	<p>-Client A</p> <p>Capability:</p> <p>Ability to create landscape layout</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: In the message body, use landscape layout, enter text as in file Generic_Text.txt to the left and add image file/object JPG80x60.jpg to the right.</li> <li>4. In Client A, send MM to Test Tool</li> <li>5. In the Test Tool, accept the message .</li> </ol> <p>Verify the pass criteria below.</p>
Pass Criteria	<p>The SMIL part of the MM sent from Client A contains the following layout information:</p> <p>Image Left &gt; Text Left</p> <p>And the SMIL content of the MM received from Client A is valid “MMS SMIL” as defined by the XML Schema for MMS SMIL.</p>

### 5.2.1.1.5 SMIL layout landscape with text to the right of the image

Test Case Id	MMS-1.2-con-105
Test Object	Client A
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here landscape with text to the right of the image, is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the SMIL part of the MM sent by Client A contains the appropriate layout information.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-105
Preconditions	<p>-Client A</p> <p>Capability:</p> <p>Ability to create landscape layout</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: In the message body, use landscape layout, add image file/object JPG80x60.jpg to the left enter text as in file Generic_Text.txt to the right.</li> <li>4. In Client A, send MM to Test Tool</li> <li>5. In the Test Tool, accept the message .</li> </ol> <p>Verify the pass criteria below</p>
Pass Criteria	<p>The SMIL part of the MM sent from Client A contains the following layout information:</p> <p>Image Left &lt; Text Left</p> <p>And the SMIL content of the MM received from Client A is valid “MMS SMIL” as defined by the XML Schema for MMS SMIL.</p>

### 5.2.1.1.6 Multiple objects in same page

Test Case Id	MMS-1.2-con-106
Test Object	Client A
Test Case Description	<p>The purpose is to verify that multiple objects (one image, one text and one audio file) are correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that three objects of the correct type are present in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023, MMSCONF-MED-C-013
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-106
Preconditions	<p>-Client A Capability:</p> <p>Ability to create a page with multiple objects</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: In the message body, create one page and enter the text "Hello World", add the image JPG80x60.jpg file/object and add the file/object AMRAudio1.amr.</li> <li>4. In Client A, send MM to Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>The MM sent by Client A contains exactly 3 media objects and that there is one object of content type text/plain, one object of content type image/jpeg and one object of content type audio/AMR</p> <p>And the SMIL content of the MM received from Client A is valid "MMS SMIL" as defined by the XML Schema for MMS SMIL.</p>

### 5.2.1.1.7 Multiple pages

Test Case Id	MMS-1.2-con-107
Test Object	Client A
Test Case Description	<p>The purpose is to verify that multiple pages are correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the MM sent from Client A contains as many pages as were specified.</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-107
Preconditions	<p>-Client A</p> <p>Capability:</p> <p>Ability to create multiple pages</p>
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to any legal address.</li><li>3. In MM content: In the message body, create 10 pages (or as many as the client allows, if less than 10), adding the files/objects images GIF1.gif through GIF10.gif to these pages as applicable, with one image per page.</li><li>4. In Client A, send MM to Test Tool.</li><li>5. In the Test Tool, accept the message</li><li>6. Verify the pass criteria below</li></ol>
Pass Criteria	<p>The SMIL part of the MM sent by Client A contains 10 (or the maximum number allowed by the client) pages and there is one image/gif object per page.</p> <p>And the SMIL content of the MM received from Client A is valid “MMS SMIL” as defined by the XML Schema for MMS SMIL.</p>

### 5.2.1.1.8 Multiple pages with page timing and time dependent content

Test Case Id	MMS-1.2-con-108
Test Object	Client A
Test Case Description	<p>The purpose is to verify that multiple pages and objects with page timing are correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the SMIL part of the MM sent by Client A contains the right number of pages, with the correct timing values and that the objects for these pages are present in the MM.</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023, MMSCONF-MED-C-013
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-108
Preconditions	<p>-Client A Capability: Ability to create multiple pages</p> <p>Ability to specify Page Timing for multiple pages</p> <p>Ability to specify Page Timing for pages that contain media video or audio files</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address</li> <li>3. In MM content: In the message body, create the following three pages: <ul style="list-style-type: none"> <li>- Page 1, enter text as in file Generic_Text.txt, add the file/object JPG80x60.jpg, add the file/object 20sec_audio.amr or 20sec_audio.qcp and specify a page timing to 8 seconds, if applicable. If client is not capable of specifying a Page Timing of 8 secs, specify a Page Timing which is in the range of 5-15 secs.</li> <li>- Page 2, enter the text as in file USASCII.txt, add the file/object GIF80x60.gif, add the file/object (either audio2.amr or audio2.qcp) and specify page timing to 8 seconds, if applicable. If client is not capable of specifying a Page Timing of 8 secs, specify a Page Timing which is in the range of 5-15 secs.</li> <li>- Page 3, enter the text Generic_Text.txt, add the file/object WBMP_80x60.wbmp, add the file/object 20sec_audio.amr or 20sec_audio.qcp and specify page timing to 8 seconds, if applicable. If client is not capable of specifying a Page Timing of 8 secs, specify a Page Timing which is in the range of 5-15 secs.</li> </ul> </li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	The SMIL part of the MM sent by Client A contains 3 pages and that the page timing for all the pages is set to 8 seconds, if applicable. Else, verify that the

Page Timing is set to the specified applicable timing.

Page 1 contains JPG80x60.jpg and 20sec\_audio.amr/20sec\_audio.qcp

Page 2 contains GIF80x60.gif and audio3.amr/audio3.qcp

Page 3 contains WBMP\_80x60.wbmp and 20sec\_audio.amr/20sec\_audio.qcp

And the SMIL content of the MM received from Client A is valid “MMS SMIL” as defined by the XML Schema for MMS SMIL.

### 5.2.1.1.9 Multiple pages with page timing

Test Case Id	MMS-1.2-con-109
Test Object	Client A
Test Case Description	<p>The purpose is to verify that messages with different SMIL page timing are sent correctly from Client A,. This message contains 4 different pages and page times:</p> <ul style="list-style-type: none"> <li>- Page 1 with page timing 100 ms or client minimum</li> <li>- Page 2 with 5 seconds page timing</li> <li>- Page 3 with page time 20 seconds or client maximum</li> <li>- Page 4 with no page timing</li> </ul> <p>Note: Since the last page of a SMIL presentation can be shown indefinitely on a client until further actions, this fourth page is only used to permit the period of time that page 3 is displayed to be determined.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the number of pages is correct and that the timing values exists in the message.</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-109
Preconditions	<p>-Client A          Capability:          Ability to specify different SMIL page timings and support multiple pages with images</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: In the message body, create the following four pages:             <ul style="list-style-type: none"> <li>- Page 1, enter the text “Page 1” and specify timing to 100 ms or client minimum.</li> <li>- Page 2, add the file/object JPG80x60.jpg and specify timing to 5 seconds.</li> <li>- Page 3, enter the text “Page 3” and specify timing to 20 seconds or client maximum.</li> <li>- Page 4, add the file/object JPG80x60.jpg.</li> </ul> </li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>The SMIL part of the MM sent by Client A contains 4 pages and the page timing is set to 100ms (or client minimum), 5 and 20 seconds (or client maximum) respectively for pages 1,2 and 3. The text or image content of pages 1, 2 and 3 shall be as defined in the test procedure above.</p> <p>And the SMIL content of the MM received from Client A is valid “MMS SMIL” as defined by the XML Schema for MMS SMIL.</p>

### 5.2.1.1.10 Long file name

Test Case Id

Test Object

Test Case Description            Test case removed since there is not appropriate requirement for sending an Long file name MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

**5.2.1.1.11 Subject field with UTF8 encoding**

Test Case Id	MMS-1.2-con-111
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a subject field encoded in UTF-8 is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the text entered is correctly encoded in the MM sent by Client A.</p>
Specification Reference	MMSENC Table 1, Table 3, Table 5
SCR Reference	MMSE-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-111
Preconditions	<p>-Client A</p> <p>Capability: UTF-8 charset encoding of Subject field</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM header: Subject-field is set to the character string given in the reference content file "Short_Text_UTF-8.txt" and the encoding is set to UTF-8. (Alternative characters may be substituted where necessary as described in the reference content document "Content used in OMA MMS tests.doc")</li> <li>4. In MM content: In the message text part, enter the text "Hello World".</li> <li>5. In Client A, send MM to Test Tool.</li> <li>6. In the Test Tool, accept the message .</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The MM sent by Client A contains a "Subject" header field containing the entered text correctly encoded in UTF-8.

**5.2.1.1.12 Long Subject field**

Test Case Id	MMS-1.2-con-171
Test Object	Client A
Test Case Description	The purpose is to verify that a Client will not send multimedia message with a Subject-field longer than 40 characters.
Specification Reference	[MMSCONF] Chapter 10.2.5
SCR Reference	MMSCONF- GEN-C-003
Tool	MMS Conformance Tool
Test Code	Validated test code for test case MMS-1.2-con-112
Preconditions	
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Enter as many of the following 41 characters to the subject field, “abcdefghijklmnopqrstuvwxyz0123456789/-+@?” that the User Interface allows.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	The M-Send.req PDU sent by Client A contains a “Subject” header field containing 40 or less characters, being a subset of the characters specified in the Test Procedure.

## 5.2.2 Content

### 5.2.2.1 Text

#### 5.2.2.1.1 Text with US-ASCII encoding

Test Case Id	MMS-1.2-con-112
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a text object with US-ASCII encoding is correctly sent from Client A .</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the text entered is correctly encoded in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-112
Preconditions	<p>-Client A</p> <p>- Ability to select US-ASCII encoding for text input (either as default or using MMI)</p> <p>- Supports US-ASCII (<i>IANA MIBEnum 3</i>) encoding when creating messages</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: In the message body, enter text as in file Text_us-ascii.txt.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	The MM sent by Client A contains a text part containing the entered text correctly encoded in USASCII..

### 5.2.2.1.2 Text with UTF-8 encoding

Test Case Id	MMS-1.2-con-113
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a text object with UTF-8 encoding is correctly sent from Client A .</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the text entered is correctly encoded in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-113
Preconditions	<p>-Client A</p> <p>Support of UTF-8 charset encoding</p> <p>Supports utf-8 (IANA MIBenum 106) [Unicode] encoding when creating messages</p>
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to any legal address.</li><li>3. In MM content: In the message body, enter text as in file Text_UTF-8.txt. (Alternative characters may be substituted where necessary as described in the reference content document “Content used in OMA MMS tests.doc”)</li><li>4. In Client A, send MM to the Test Tool.</li><li>5. In the Test Tool, accept the message .</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	The MM sent by Client A contains a text part containing the entered text correctly encoded in UTF-8..

### 5.2.2.1.3 Text with UTF-16 encoding

Test Case Id

Test Object

Test Case Description            Test case was removed, according to MMS Conformance Document 1.2 it shall not be possible to send UTF-16 encoded text

Specification Reference

SCR Reference

Tool

Test Code

## 5.2.2.2 Image

### 5.2.2.2.1 JPG Image size 80x60

Test Case Id	MMS-1.2-con-115
Test Object	Client A
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.2.2.2.2 JPG Image size 160x120**

Test Case Id	MMS-1.2-con-116
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a JPG image of the size 160x120 is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-116
Preconditions	-Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address</li> <li>3. In MM content: Add image file/object JPG160x120.jpg to the message.</li> <li>4. In Client A, send MM to the Test Tool</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/jpeg and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/jpeg and this shall contain the complete contents of the image file.</p>

**5.2.2.2.3 JPG Image size 60x80**

Test Case Id MMS-1.2-con-117

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

**5.2.2.2.4 JPG Image size 640x480**

Test Case Id	MMS-1.2-con-118
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a JPG image of the size 640x480 is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-118
Preconditions	<p>-Client A</p> <p>Capability: Content class greater than Image Basic class</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address</li> <li>3. In MM content: Add image file/object JPG640x480.jpg to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/jpeg and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/jpeg and this shall contain the complete contents of the image file.</p>

**5.2.2.2.5 GIF Image size 80x60**

Test Case Id MMS-1.2-con-119

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

**5.2.2.2.6 GIF Image size 160x120**

Test Case Id	MMS-1.2-con-120
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a GIF87a image of the size 160x120 is correctly sent from Client A .</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-120
Preconditions	-Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add image file/object GIF87a160x120.gif to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/gif and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/gif and this shall contain the complete contents of the image file.</p>

**5.2.2.2.7 GIF Image size 60x80**

Test Case Id	MMS-1.2-con-121
Test Object	Client A
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.2.2.2.8 GIF Image size 640x480**

Test Case Id	MMS-1.2-con-122
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a GIF87a image of the size 640x480 is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-122
Preconditions	<p>-Client A</p> <p>Capability: Content class greater than Image Basic class</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add image file/object GIF87a640x480.gif to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/gif and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/gif and this shall contain the complete contents of the image file.</p>

**5.2.2.2.9 Animated GIF Image size 80x60**

Test Case Id	MMS-1.2-con-123
Test Object	Client A
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.2.2.2.10 Animated GIF Image size 160x120**

Test Case Id	MMS-1.2-con-124
Test Object	Client A
Test Case Description	<p>The purpose is to verify that an animated GIF89a image of the size 160x120 is correctly sent from Client A .</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-124
Preconditions	-Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add image file/object AnimatedGIF89a_160x120.gif to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/gif and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/gif and this shall contain the complete contents of the image file.</p>

**5.2.2.2.11 Animated GIF Image size 60x80**

Test Case Id MMS-1.2-con-125

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

**5.2.2.2.12 Animated GIF Image size 640x480**

Test Case Id	MMS-1.2-con-126
Test Object	Client A
Test Case Description	<p>The purpose is to verify that an animated GIF89a image of the size 640x480 is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-126
Preconditions	<p>-Client A</p> <p>Capability:</p> <p>Content class greater than Image Basic class</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add image file/object AnimatedGIF89a_640x480.gif to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/gif and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/gif and this shall contain the complete contents of the image file.</p>

**5.2.2.2.13 WBMP Image size 80x60**

Test Case Id	MMS-1.2-con-127
Test Object	Client A
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.2.2.2.14 WBMP Image size 160x120**

Test Case Id	MMS-1.2-con-128
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a WBMP image of the size 160x120 is correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-128
Preconditions	-Client A -
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add image file/object WBMP_160x120.wbmp to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/vnd.wap.wbmp and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/vnd.wap.wbmp and this shall contain the complete contents of the image file.</p>

**5.2.2.2.15 WBMP Image size 60x80**

Test Case Id	MMS-1.2-con-129
Test Object	Client A
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.2.2.2.16 WBMP Image size 640x480**

Test Case Id	MMS-1.2-con-130
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a WBMP image of the size 640x480 is correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the image file is included in its entirety in the MM sent by Client A</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-130
Preconditions	<p>-Client A Capability: Content class greater than Image Basic class</p> <p>-</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add image file/object WBMP_640x480.wbmp to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>3GPP Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to image/vnd.wap.wbmp and contain the complete contents of the image file. A part with content type application/smil shall also be present.</p> <p>3GPP2 Client :</p> <p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to image/vnd.wap.wbmp and this shall contain the complete contents of the image file.</p>

### 5.2.2.3 Audio

#### 5.2.2.3.1 AMR audio NB

Test Case Id	MMS-1.2-con-131
Test Object	Client A
Test Case Description	<p>The purpose is to verify that an AMR audio NB object/content is correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the audio file is included in its entirety in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-013
Tool	MMS Conformance Tool
Test Code	Validated test code for test case MMS-1.2-con-131
Preconditions	<p>-Client A</p> <p>-Support for AMR audio NB</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add audio file/object AMRAudioNB.amr to the message and set page timing to allow for the audioNB.amr file to be played.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to audio/amr and contain the complete contents of the audio file. A part with content type application/smil shall also be present.</p>

### 5.2.2.3.2 3GPP2 13k speech

Test Case Id	MMS-1.2-con-132
Test Object	Client A
Test Case Description	The purpose is to verify that an 13k speech object/content is correctly sent from Client A to Client B and that the 13k speech file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-014
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add speech file/object audio1.qcp to the message and set page timing to allow for the audio1.qcp file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the 13k speech file/object is reasonably presented and 13k speech is played in its entirety.

## 5.2.2.4 Video

### 5.2.2.4.1 3GPP Video QCIF

Test Case Id	MMS-1.2-con-133
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a QCIF video file/object is correctly sent from Client A</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the video file is included in its entirety in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-133
Preconditions	<p>-Client A</p> <ul style="list-style-type: none"> <li>- Support for media type video/3gpp</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add video file/object qcif_video.3gp to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to video/3gpp and contain the complete contents of the video file. A part with content type application/smil shall also be present.</p>

**5.2.2.4.2 3GPP Video sub-QCIF**

Test Case Id	MMS-1.2-con-134
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the video file is included in its entirety in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-134
Preconditions	<p>-Client A</p> <ul style="list-style-type: none"> <li>- Support for media type video/3gpp</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In MM content: Add video file/object sub-qcif_video.3gp to the message.</li> <li>4. In Client A, send MM to the Test Tool.</li> <li>5. In the Test Tool, accept the message .</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>The MM sent by Client A has the MM PDU content type set to application/vnd.wap.multipart.related. The MM message content shall contain at least two parts in the MIME multipart content. One of these parts shall have content type set to video/3gpp and contain the complete contents of the video file. A part with content type application/smil shall also be present.</p>

### 5.2.2.4.3 3GPP2 Video QCIF (MPEG4+13k)

Test Case Id	MMS-1.2-con-135
Test Object	Client A
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-030
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

#### 5.2.2.4.4 3GPP2 Video QCIF (MPEG4+AMR)

Test Case Id	MMS-1.2-con-136
Test Object	Client A
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-030
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**5.2.2.4.5 3GPP2 Video QCIF (H.263+13k)**

Test Case Id	MMS-1.2-con-137
Test Object	Client A
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-029
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**5.2.2.4.6 3GPP2 Video QCIF (H.263+AMR)**

Test Case Id	MMS-1.2-con-138
Test Object	Client A
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-029
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_amr_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**5.2.2.4.7 3GPP2 Video sub-QCIF (MPEG4 +13k)**

Test Case Id	MMS-1.2-con-139
Test Object	Client A
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-030
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.2.2.4.8 3GPP2 Video sub-QCIF (MPEG4 +AMR)**

Test Case Id	MMS-1.2-con-140
Test Object	Client A
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-030
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.2.2.4.9 3GPP2 Video sub-QCIF (H.263 +13k)**

Test Case Id	MMS-1.2-con-141
Test Object	Client A
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-029
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.2.2.4.10 3GPP2 Video sub-QCIF (H.263 +AMR)**

Test Case Id	MMS-1.2-con-142
Test Object	Client A
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-029
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

## 5.2.2.5 Attachment

### 5.2.2.5.1 vCard

Test Case Id	MMS-1.2-con-143
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a vCard object is correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the vCard file is included in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-143
Preconditions	<p>-Client A          Capability:          vCard</p> <p>-</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new Address Book entry containing all possible fields of the reference content "John Doe.vcf" as supported by the MMI of Client A</li> <li>2. In Client A, create a new MM.</li> <li>3. In MM header: To-field is set to any legal address.</li> <li>4. In MM content: Add the vCard object from the above mentioned address book entry to the message.</li> <li>5. In Client A, send MM to the Test Tool.</li> <li>6. In the Test Tool, accept the message .</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>Test Tool has received the message with vCard object and the message PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to text/x-vCard.</p>

**5.2.2.5.2 vCalendar**

Test Case Id	MMS-1.2-con-144
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a vCalendar object correctly sent from Client A.</p> <p>Verification is done by sending the message from Client A to a test tool, which will verify that the Content type is correct and that the vCalendar file is included in the MM sent by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-144
Preconditions	<p>-Client A</p> <p>Capability: vCalendar</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new Calendar entry containing all possible fields of the reference content "Christmas.vcs" as supported by the MMI of Client A</li> <li>2. In Client A, create a new MM.</li> <li>3. In MM header: To-field is set to any legal address.</li> <li>4. In MM content: Add the vCalendar object as defined above to the message.</li> <li>5. In Client A, send MM to the Test Tool.</li> <li>6. In the Test Tool, accept the message .</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>Test Tool has received the message with vCalendar object and the message PDU content type set to application/vnd.wap.multipart.related or application/vnd.wap.multipart.mixed. The MM message content shall contain a part with content type set to text/x-vCalendar.</p>

### 5.2.3 Forwarding (void)

Refer to clause 5.7.3 for Client Conformance test cases concerning MMS Forwarding.

Test Case Ids MMS-1.2-con-145 to MMS-1.2-con-152 inclusive, formerly used for MMS Forwarding test cases, are reserved and should not be allocated to other test cases.

## 5.3 Client Conformance Testing Receiving

### 5.3.1 Message Structure and Preconditions

#### 5.3.1.1 Preconditions

The client under test is set to immediate retrieval mode unless this feature is not supported, in this case the deferred retrieval mode is utilized.

The MM sent from the Test Tool to Client B in the Test Cases in this section are predefined and stored in the Test Tool, all messages share a common structure, while particular variants are created for the different test cases. The following table shows the common structure. Under each test case, the differences from this structure are specified.

#### 5.3.1.2 Generic MM

MM Content:	HTTP Headers:	Content-Type:	"application/vnd.wap.mms-message"
		Accept:	*/*
		Cache-Control:	"no-cache"
		Accept-Charset:	"*"
	MMS Headers:	X-Mms-Message-Type:	m-retrieve-conf
		X-Mms-Transaction-ID :	<new ID>
		X-Mms-Version:	1.2
		Date	<current date>
		From	<any legal value>*
		Content-Type	application/vnd.wap.multipart.related
	MMS Content:	Multipart structure with the following sections (order is significant):	
		– SMIL: default layout with 1 slide, portrait oriented, Image on top and text below. 50% image, 50% text.	
		– none	

.Not all phones may support anonymous messages. A legal value is added to avoid testing the anonymous feature.

### 5.3.1.3 General

#### 5.3.1.3.1 Empty message

Test Case Id	MMS-1.2-con-201
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a message with subject and empty content is correctly received by Client B and that the received message is reasonably presented, with no error.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	MMSENC Table 3, Table 5
SCR Reference	MMSE-C-046, MMSE-C-067, MMSCTR-FTC-C-001
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-201
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	An empty text file	

### 5.3.1.3.2 SMIL layout portrait with text above the image

Test Case Id	MMS-1.2-con-202
Test Object	Client B
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here portrait with text above the image, is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-202
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		<ul style="list-style-type: none"> <li>- SMIL: default layout with 1 slide, portrait oriented, Text on top and Image below. 50% image, 50% text.</li> <li>- Text object: Generic_Text.txt</li> <li>- Image object JPG_80x60.jpg</li> </ul>	

### 5.3.1.3.3 SMIL layout portrait with text below the image

Test Case Id	MMS-1.2-con-203
Test Object	Client B
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here portrait with text below the image, is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-203
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		– SMIL:no change	
		– Text object: Generic_Text.txt	
		– Image object JPG_80x60.jpg	

### 5.3.1.3.4 SMIL layout landscape with text to the left of the image

Test Case Id	MMS-1.2-con-204
Test Object	Client B
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here landscape with text to the left of the image, is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-204
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		<ul style="list-style-type: none"> <li>– SMIL: default layout with 1 slide, landscape oriented, Text to the left and Image to the right. 50% image, 50% text.</li> <li>– Text object: Generic_Text.txt</li> <li>– Image object JPG_80x60.jpg</li> </ul>	

### 5.3.1.3.5 SMIL layout landscape with text to the right of the image

Test Case Id	MMS-1.2-con-205
Test Object	Client B
Test Case Description	<p>The purpose is to verify that messages with SMIL layouts, here landscape with text to the right of the image, is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-205
Preconditions	-Client B

Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
----------------	--

Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.
---------------	---

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		<ul style="list-style-type: none"> <li>- SMIL: default layout with 1 slide, landscape oriented, Image to the left and Text to the right. 50% image, 50% text.</li> <li>- Text object: Generic_Text.txt</li> <li>- Image object: JPG_80x60.jpg</li> </ul>	

**5.3.1.3.6 Multiple objects in same page**

Test Case Id	MMS-1.2-con-206
Test Object	Client B
Test Case Description	<p>The purpose is to verify that multiple objects (one image, one text and one audio file) are correctly received by Client B and that all contents of the received message are reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-206
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and all contents of the received message are reasonably presented in one page.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		<ul style="list-style-type: none"> <li>- SMIL:add reference to Audio object</li> <li>- Text object: "Hello World" (ASCII encoded)</li> <li>- Image object JPG_80x60.jpg</li> <li>- Audio object AMRAudio1.amr</li> </ul>	

**5.3.1.3.7 Multiple pages**

Test Case Id	MMS-1.2-con-207
Test Object	Client B
Test Case Description	The purpose is to verify that multiple pages are correctly received by Client B and that all pages are reasonably presented in the correct order.  Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-207
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and all pages are reasonably presented in the correct order.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		<ul style="list-style-type: none"> <li>– SMIL: add 9 more pages with same layout</li> <li>– Image object GIF1.gif</li> <li>– Image object GIF2.gif</li> <li>– Image object GIF3.gif</li> <li>– Image object GIF4.gif</li> <li>– Image object GIF5.gif</li> <li>– Image object GIF6.gif</li> <li>– Image object GIF7.gif</li> <li>– Image object GIF8.gif</li> <li>– Image object GIF9.gif</li> <li>– Image object GIF10.gif</li> </ul>	

### 5.3.1.3.8 Multiple pages with page timing and time dependent content

Test Case Id	MMS-1.2-con-208
Test Object	Client B
Test Case Description	<p>The purpose is to verify that multiple pages and objects with page timing are correctly received by Client B and that all pages and objects are reasonably presented in the correct order. The timing of the pages follows the specified values or client default values.</p> <p>Note: Since the last page of a SMIL presentation can be shown indefinitely on a client until further actions, a dummy last page is added to the MM so that the period of time that page 3 is displayed can be determined.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-208
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and pages 1-3 and their associated objects are reasonably presented in the correct order. The timing of pages 1-3 follows the specified values.

MM Content specific to this Test Case.

MM	MMS	To	<address of Client B>
Content:	Headers:		
	MMS	Multipart structure with the following sections:	
	Content:	<ul style="list-style-type: none"> <li>- SMIL: add 2 more pages with same layout.</li> <li>- Page 1 contains Generic_Text.txt, JPG-80x60.jpg and timing is 3 seconds.</li> <li>- Page 2 contains USASCII.txt, GIF_80x60.gif and timing is 5 seconds.</li> <li>- Page 3 contains Generic_Text.txt, WBMP_80x60.wbmp, audio3.amr and timing is 5 seconds</li> <li>- Page 4 contains Image file JPG_80x60.jpg and timing is set to 5 seconds.</li> <li>- Text object Generic_Text.txt</li> <li>- Image object JPG-80x60.jpg</li> <li>- Text object USASCII.txt</li> </ul>	

- Image object GIF\_80x60.gif
- Image object WBMP\_80x60.wbmp
- Audio object audio3.amr
- Image object JPG-80x60.jpg

### 5.3.1.3.9 Multiple pages with page timing

Test Case Id	MMS-1.2-con-209
Test Object	Client B
Test Case Description	<p>The purpose is to verify that messages with different SMIL page timing can be received and reasonably presented. This message contains 4 different pages and page times:</p> <ul style="list-style-type: none"> <li>- Page 1 with page timing 100 ms or client minimum</li> <li>- Page 2 with 5 seconds page timing</li> <li>- Page 3 with page time 20 seconds or client maximum</li> <li>- Page 4 with no page timing</li> </ul> <p>Note: Since the last page of a SMIL presentation can be shown indefinitely on a client until further actions, this fourth page is only used to permit the period of time that page 3 is displayed to be determined. It is then possible to verify that the timing of page 3 received by Client B is the same that was sent.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented..</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-209
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> </ol> <p>Verify the pass criteria below.</p>
Pass Criteria	Client B has received the message and pages 1-3 of the received message are reasonably presented. The timing of pages 1-3 follows the specified values.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		<ul style="list-style-type: none"> <li>- SMIL: add 3 more pages with same layout. Page 1 contains "Page 1", and timing is 100 milliseconds. Page 2 contains Image file JPG-80x60.jpg and timing is 5 seconds. Page 3 contains "Page 3", and timing is 20 seconds. Page 4 contains Image file JPG_80x60.jpg and timing is set to 5 seconds.</li> <li>- Text object "Page 1" (ASCII encoding)</li> <li>- Image object JPG-80x60.jpg</li> <li>- Text object "Page 3" (ASCII encoding)</li> </ul>	

**5.3.1.3.10 Long Content-Location field**

Test Case Id	MMS-1.2-con-210
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a message, where the SMIL part references an object using a long Content-Location field, is correctly received by Client B and that the image is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapters 10.2.2, 10.2.4
SCR Reference	MMSCONF- GEN-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-210
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the image is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	Multipart structure with the following sections:	
		<ul style="list-style-type: none"> <li>- SMIL: The image reference (“src” attribute value) is set to the same long file name string used for the gif image below.</li> <li>- Image object part: The Content-Location field of the MIME multipart header is set to :  Long_file_name_for_gif_image_60X80_with_non_ASCII_characters_ooo_Length_is_93_characters.gif</li> <li>-</li> </ul>	

**5.3.1.3.11 Subject field with UTF8 encoding**

Test Case Id	MMS-1.2-con-211
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a subject field encoded in UTF-8 is correctly received by Client B and that the message subject displayed is textually correct.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	MMSENC Table 1, Table 3, Table 5
SCR Reference	MMSE-C-025, MMSE-C-046, MMSE-C-067
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-211
Preconditions	<p>-Client B</p> <p>    Capability</p> <p>        Subject field UTF-8 encoding</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve and display the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the message subject associated with the MM itself (not the MM notification) when displayed is textually correct.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
		Subject	Character string as given in reference content file "Short_Text_UTF-8.txt" in UTF-8 encoding without BOM (UTF-8 signature mark).
	MMS Content:	– SMIL:	no change
		– Text Object:	"Hello World" (ASCII encoded)

**5.3.1.3.12 Long Subject field**

Test Case Id	MMS-1.2-con-271
Test Object	Client B
Test Case Description	The purpose is to verify that a maximum length subject field is correctly received and displayed by Client B in both the M-Notification.ind PDU and the M-Retrieve.conf PDU.  Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.
Specification Reference	[MMSCONF] Chapter 10.2.5
SCR Reference	MMSCONF- GEN-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-271
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B</li> <li>2. In Test Tool, send notification for an MM to Client B.</li> <li>3. In Client B receive MM notification and if applicable display Subject field and verify section a. of pass criteria.</li> <li>4. In Client B, initiate download of MM, receive and open the MM.</li> <li>5. Verify section b. of the pass criteria below.</li> </ol>
Pass Criteria	<ol style="list-style-type: none"> <li>a. Client B has received the MM notification and if applicable the subject associated with the MM notification when displayed is textually correct.</li> <li>b. Client B has received and opened the MM and the message subject associated with the MM itself when displayed is textually correct.</li> </ol>

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
		Subject	“abcdefghijklmnopqrstuvwxy0123456789/+/@” in us-ascii encoding
	MMS Content:	– SMIL:	no change
		– Text Object:	“Hello World” (ASCII encoded)

### 5.3.1.3.13 Long X-Mms-Content-Location field in Notification

Test Case Id	MMS-1.2-con-272
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a multimedia message, where the X-Mms-Content-Location field in the M-Notification-ind PDU has a length equal to the maximum permitted value, is correctly received by Client B and that the MM is reasonably presented.</p> <p>Verification is done by sending a Notification PDU from a Test Tool to Client B and then observe how the multimedia message is retrieved and presented.</p>
Specification Reference	[MMSCONF] Chapter 10.2.5
SCR Reference	MMSCONF- GEN-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-272
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has retrieved the multimedia message and it is reasonably presented.

MMS PDU Content specific to this Test Case.

M-Notification-ind	MMS	X-Mms-Content-	A URI format text string having a length of 100 characters. The URI value itself will be Test Tool dependent, but the length must be 100 characters in total.
	Headers:	Location	

### 5.3.1.3.14 Size Indication in Notification – Non-rejection of incoming MM

Test Case Id	MMS-1.2-con-273
Test Object	Client B
Test Case Description	The purpose is to verify that the recipient client does not reject an incoming multimedia message based on the message size indicated in the MM notification
Specification Reference	[MMSCONF] Chapter 9.4.1
SCR Reference	MMSCONF-CAD-C-001
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-273
Preconditions	-Client B Capability
	retrieval mode set to immediate
Test Procedure	<ol style="list-style-type: none"><li>1. The test tool sends the notification of the message to Client B and the indicated message size is higher than the maximum message size supported by Client B.</li><li>2. Client B starts the retrieval of the MM.</li><li>3. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the notification of the message and is able to initiate the retrieval, despite the message size indicated in the MM notification.

## 5.3.2 Content

### 5.3.2.1 Text

#### 5.3.2.1.1 Text with US-ASCII encoding

Test Case Id	MMS-1.2-con-212
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a text object with US-ASCII encoding is correctly received by Client B and that the received message as displayed is textually correct.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-212
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message as displayed is textually correct.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	– SMIL: no change	
		– Text Object: Text_us_ascii.txt	

**5.3.2.1.2 Text with UTF-8 encoding**

Test Case Id	MMS-1.2-con-213
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a text object with UTF-8 encoding is correctly received by Client B and that the received message as displayed is textually correct.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-213
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message as displayed is textually correct.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	– SMIL:	no change
		– Text Object:	Text_UTF-8.txt

**5.3.2.1.3 Text with UTF-16(LE) encoding**

Test Case Id	MMS-1.2-con-214
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a text object with UTF-16 “little-endian” encoding and with an explicit Byte Order Mark is correctly received by Client B and that the received message as displayed is textually correct.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-004
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-214
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message as displayed is textually correct.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	–	SMIL: no change
		–	Text Object: Text_UTF-16.txt
		-	Content-Type: text/plain; charset=utf-16
		-	(Transmitted byte order is little-endian and the Byte Order Mark is included in the transmitted text)

### 5.3.2.2 Image

#### 5.3.2.2.1 JPG Image size 80x60

Test Case Ids	MMS-1.2-con-215
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.2 JPG Image size 160x120**

Test Case Id	MMS-1.2-con-216
Test Object	Client B
Test Case Description	The purpose is to verify that a JPG image of the size 160x120 is correctly received by Client B and that the received message is reasonably presented.  Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-216
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	–	SMIL: no change
		–	Image Object: JPG_160x120.jpg

### 5.3.2.2.3 JPG Image size 60x80

Test Case Id	MMS-1.2-con-217
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.4 JPG Image size 640x480**

Test Case Id	MMS-1.2-con-218
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a JPG image of the size 640x480 is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7, 7.1.1
SCR Reference	MMSCONF-MED-C-007, MMSCONF-IRC-C-003, MMSCONF-IRC-C-004
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-218
Preconditions	<p>--Client B</p> <p>- Supports content class greater than Image Basic class.</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	- SMIL: no change	
		- Image Object: JPG_640x480.jpg	

### 5.3.2.2.5 GIF Image size 80x60

Test Case Id	MMS-1.2-con-219
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.6 GIF Image size 160x120**

Test Case Id	MMS-1.2-con-220
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a GIF87a image of the size 160x120 is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-220
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	– SMIL: no change	
		– Image Object: GIF_160x120.gif	

### 5.3.2.2.7 GIF Image size 60x80

Test Case Id	MMS-1.2-con-221
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.8 GIF Image size 640x480**

Test Case Id	MMS-1.2-con-222
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a GIF87a image of the size 640x480 is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7, 7.1.1
SCR Reference	MMSCONF-MED-C-009, MMSCONF-IRC-C-003, MMSCONF-IRC-C-004
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-222
Preconditions	-Client B
	- Supports content class greater than Image Basic class.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	-	SMIL: no change
		-	Image Object: GIF_640x480.gif

**5.3.2.2.9 Animated GIF Image size 80x60**

Test Case Id	MMS-1.2-con-223
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.10 Animated GIF Image size 160x120**

Test Case Id	MMS-1.2-con-224
Test Object	Client B
Test Case Description	The purpose is to verify that an animated GIF89a image of the size 160x120 is correctly received by Client B and that the received message is reasonably presented.  Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-224
Preconditions	--Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	-	SMIL: no change
		-	Image Object: Animated_GIF_160x120.gif

**5.3.2.2.11 Animated GIF Image size 60x80**

Test Case Id	MMS-1.2-con-225
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.12 Animated GIF Image size 640x480**

Test Case Id	MMS-1.2-con-226
Test Object	Client B
Test Case Description	<p>The purpose is to verify that an animated GIF89a image of the size 640x480 is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7, 7.1.1
SCR Reference	MMSCONF-MED-C-010, MMSCONF-IRC-C-003, MMSCONF-IRC-C-004
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-226
Preconditions	-Client B
	- Supports content class greater than Image Basic class.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	-	SMIL: no change
		-	Image Object: Animated_GIF_640x480.gif

**5.3.2.2.13 WBMP Image size 80x60**

Test Case Id	MMS-1.2-con-227
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.14 WBMP Image size 160x120**

Test Case Id	MMS-1.2-con-228
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a WBMP image of the size 160x120 is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-228
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	- SMIL: no change	
		- Image Object: WBMP_160x120.wbmp	

**5.3.2.2.15 WBMP Image size 60x80**

Test Case Id	MMS-1.2-con-229
Test Object	Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.3.2.2.16 WBMP Image size 640x480**

Test Case Id	MMS-1.2-con-230
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a WBMP image of the size 640x480 is correctly received by Client B and that the received message is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7, 7.1.1
SCR Reference	MMSCONF-MED-C-011, MMSCONF-IRC-C-003, MMSCONF-IRC-C-004
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-230
Preconditions	<p>-Client B</p> <p>- Supports content class greater than Image Basic class.</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	- SMIL: no change	
		- Image Object: WBMP_640x480.wbmp	

### 5.3.2.3 Audio

#### 5.3.2.3.1 AMR audio NB

Test Case Ids	MMS-1.2-con-231
Test Object	Client B
Test Case Description	The purpose is to verify that an AMR audio NB object/content is correctly received by Client B and that the AMR audio NB file/object is reasonably presented.  Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-013
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-231
Preconditions	-Client B

Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
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Pass Criteria	Client B has received the message and the AMR audio NB file/object is reasonably presented and AMR audioNB is played in its entirety.
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MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	–	SMIL: add reference to audio object
		–	Audio Object: AMRaudioNB.amr

### 5.3.2.3.2 3GPP2 13k speech

Test Case Id	MMS-1.2-con-232
Test Object	Client B
Test Case Description	The purpose is to verify that an 13k speech object/content is correctly sent from Client A to Client B and that the 13k speech file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-014
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add speech file/object audio1.qcp to the message and set page timing to allow for the audio1.qcp file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the 13k speech file/object is reasonably presented and 13k speech is played in its entirety.

### 5.3.2.4 Video

#### 5.3.2.4.1 3GPP Video QCIF

Test Case Id	MMS-1.2-con-233
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a QCIF video file/object is correctly received by Client B and that the QCIF video file/object is reasonably presented.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-233
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and the QCIF video file/object is played in its entirety.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	–	SMIL: add reference to video object
		–	Video Object: qcif_video.3gpp

**5.3.2.4.2 3GPP Video sub-QCIF**

Test Case Id	MMS-1.2-con-234
Test Object	Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly received by Client B and that the sub-QCIF video file/object is reasonably presented.  Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-234
Preconditions	--Client B  -
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	-	SMIL: add reference to video object
		-	Video Object: sub_qcif_video.3gpp

### 5.3.2.4.3 3GPP2 Video QCIF (MPEG4+13k)

Test Case Id	MMS-1.2-con-235
Test Object	Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

#### 5.3.2.4.4 3GPP2 Video QCIF (MPEG4+AMR)

Test Case Id	MMS-1.2-con-236
Test Object	Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**5.3.2.4.5 3GPP2 Video QCIF (H.263+13k)**

Test Case Id	MMS-1.2-con-237
Test Object	Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**5.3.2.4.6 3GPP2 Video QCIF (H.263+AMR)**

Test Case Id	MMS-1.2-con-238
Test Object	Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: Add video file/object (h263_amr_qcif.3g2) to the message.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**5.3.2.4.7 3GPP2 Video sub-QCIF (MPEG4 +13k)**

Test Case Id	MMS-1.2-con-239
Test Object	Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.3.2.4.8 3GPP2 Video sub-QCIF (MPEG4 +AMR)**

Test Case Id	MMS-1.2-con-240
Test Object	Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.3.2.4.9 3GPP2 Video sub-QCIF (H.263 +13k)**

Test Case Id	MMS-1.2-con-241
Test Object	Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.3.2.4.10 3GPP2 Video sub-QCIF (H.263 +AMR)**

Test Case Id	MMS-1.2-con-242
Test Object	Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

### 5.3.2.5 Attachment

#### 5.3.2.5.1 vCard

Test Case Id	MMS-1.2-con-243
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a vCard object can be correctly received by Client B and that the received vCard as displayed is textually correct.</p> <p>Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.</p>
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-243
Preconditions	--Client B
	-
	Capability: vCard
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send 2 MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM #1 and MM #2.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received both messages. The received vCard in each of the messages contains fields supported by the Client B and fields are textually correct.

#### Message #1

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	-	Content Type: application/vnd.wap.multipart.mixed
		-	Reference to vCard object
		-	vCard Object: John_Doe.vcf

#### Message #2

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	-	Content Type: application/vnd.wap.multipart.related
		-	Reference to vCard object
		-	vCard Object: John_Doe.vcf

**5.3.2.5.2 vCalendar**

Test Case Id	MMS-1.2-con-244
Test Object	Client B
Test Case Description	The purpose is to verify that a vCalendar object can be correctly received by Client B and that the received vCalendar object as displayed is textually correct.  Verification is done by sending the message from a Test Tool to Client B, and observe how the message is presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-244
Preconditions	--Client B  Capability: vCalendar
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send 2 MM notification to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve the MM #1 and MM #2.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received both messages. The received vCalendar object in each of the messages contains fields supported by the Client B and fields are textually correct.

Message #1

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	–	Content Type: application/vnd.wap.multipart.mixed
		–	reference to vCalendar object
		–	vCalendar Object: Christmas.vcs

Message #2

MM Content specific to this Test Case.

MM Content:	MMS Headers:	To	<address of Client B>
	MMS Content:	–	Content Type: application/vnd.wap.multipart.related
		–	reference to vCalendar object
		–	vCalendar Object: Christmas.vcs

## 5.4 Client Conformance Testing Creation

### 5.4.1 Content Creation

#### 5.4.1.1 Creation mode - Restricted - oversize

Test Case Id	MMS-1.2-con-301
Test Object	Client A
Test Case Description	The purpose is to verify that oversized content added to a message is refused in RESTRICTED mode in Client A and that the device is limited to the addition of allowable content within the core domain.
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-301
Preconditions	-Client A Setting: Creation Mode set to Restricted
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM content: Add audio file/object 310k_AMR.amr to the message.</li><li>3. Verify the pass criteria below.</li></ol>
Pass Criteria	Client A is limited to the addition of allowable content within the core domain. The inclusion of the content is refused.

### 5.4.1.2 Creation mode - Restricted - inclusion of non core domain content

Test Case Id	MMS-1.2-con-302
Test Object	Client A
Test Case Description	<p>The purpose is to verify that content outside the core domain is prohibited when Client A is in RESTRICTED mode.</p> <p>Verification is done by attempting to add an arbitrary file, of a type not belonging to the core domain, but which is available in the terminal, to an MM and observe if this is possible or not.</p>
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-302
Preconditions	-Client A Setting: Creation Mode set to Restricted
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM content: Try to add any one of the following files that does not belong to the core domain (song.wav, song.mp3, song.imy or image.png) to the message.</li><li>3. Verify the pass criteria below.</li></ol>
Pass Criteria	Client A is limited to the addition of allowable content within the CORE Domain. The inclusion of any one of the above content types is refused.

### 5.4.1.3 Creation mode - Restricted - oversize image resolution

Test Case Id	MMS-1.2-con-303
Test Object	Client A
Test Case Description	The purpose is to verify that oversized image resolution not belonging to the core domain is not sent out when Client A is in RESTRICTED mode.
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-303
Preconditions	-Client A Setting: Creation Mode set to Restricted
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM content: Add image file/object JPG641x481.jpg to the message.</li><li>3. In Client A, attempt to send MM to Test Tool.</li><li>4. In the Test Tool, accept the message if sent</li><li>5. Verify the pass criteria below.</li></ol>
Pass Criteria	Client A is limited to the addition of allowable content within the CORE Domain or content is resized by client before sending it out. Either the inclusion of the content is refused or the content received in MM has been resized in the client before sending the MM.

#### 5.4.1.4 Creation mode - Restricted – forwarding oversize

Test Case Id	MMS-1.2-con-304
Test Object	Client A
Test Case Description	The purpose is to verify that an oversized message is refused to be forwarded when Client A is in RESTRICTED mode.
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-304
Preconditions	-Client A Setting: Creation Mode set to Restricted  Capability: Maximum message size greater than 310K
Test Procedure	<ol style="list-style-type: none"><li>1. From the test tool send an MM containing the media object 310k_AMR.amr to Client A so that the message size larger than the maximum allowed in the core domain in RESTRICTED mode.</li><li>2. In Client A, receive the MM notification and retrieve the MM.</li><li>3. Client A: Try to forward this message.</li><li>4. Verify the pass criteria below.</li></ol>
Pass Criteria	Client A refuses to forward the message.

### 5.4.1.5 Creation mode - Restricted – forwarding non conformant message

Test Case Id	MMS-1.2-con-305
Test Object	Client A
Test Case Description	The purpose is to verify that a non conformant message is refused to be forwarded when Client A is in RESTRICTED mode.
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-305
Preconditions	-Client A Setting: Creation Mode set to Restricted
Test Procedure	<ol style="list-style-type: none"><li>1. From the test tool send an MM to Client A with a message containing the image JPG641X481.jpg so that image resolution is greater than the maximum allowed in the core domain in RESTRICTED mode.</li><li>2. In Client A, receive the MM notification and retrieve the MM.</li><li>3. Client A: Try to forward this message</li><li>4. Verify the pass criteria below.</li></ol>
Pass Criteria	Client A refuses to forward the message.

### 5.4.1.6 Creation mode - Restricted - forwarding non conformant content

Test Case Id	MMS-1.2-con-306
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a message containing non conformant content is refused to be forwarded when Client A is in RESTRICTED mode.</p> <p>Verification is done by attempting to add an arbitrary file, of a type not belonging to the core domain, but which is available in the terminal, to an MM and observe if this is possible or not.</p>
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-306
Preconditions	-Client A Setting: Creation Mode set to Restricted
Test Procedure	<ol style="list-style-type: none"><li>1. From the test tool send an MM to Client A with a message containing content that is not allowed in the core domain (song.wav, song.mp3, song.imy or image.png).</li><li>2. In Client A, receive the MM notification and retrieve the MM.</li><li>3. Client A: Try to forward this message.</li><li>4. Verify the pass criteria below.</li></ol>
Pass Criteria	Client A refuses to forward the message.

## 5.5 Server Conformance Testing - Transmission

### 5.5.1 Message

#### 5.5.1.1 General

##### 5.5.1.1.1 Empty message

Test Case Id

Test Object

Test Case Description            Test case removed since there is not appropriate requirement for sending an empty MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

### 5.5.1.1.2 Image Basic - Message Size 30k

Test Case Id	MMS-1.2-con-402
Test Object	MMSC
Test Case Description	The purpose is to verify that a message in Image Basic Content Class with size under 30k can be sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	
Test Code	
Preconditions	-Client A Setting: Content Class set to Image Basic  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object 30k_basic_AMR.amr to the message.</li><li>4. In client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is correctly presented.

### 5.5.1.1.3 Image Rich - Message Size 100k

Test Case Id	MMS-1.2-con-403
Test Object	MMSC
Test Case Description	The purpose is to verify that a message in Image Rich Content Class with size under 100k can be sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	MMSCONF 12
SCR Reference	MMSCONF-CMO-C-002
Tool	
Test Code	
Preconditions	-Client A Setting: Content Class set to Image Rich  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object 100k_rich_AMR.amr to the message.</li><li>4. In client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is correctly presented.

**5.5.1.1.4 Video Rich - Message Size 300k**

Test Case Id	MMS-1.2-con-404
Test Object	MMSC
Test Case Description	The purpose is to verify that a message in Video Rich Content Class with size under 300k can be sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	MMSCONF 12
SCR Reference	MMSCONF-CMO-C-002
Tool	
Test Code	
Preconditions	-Client A Setting: Content Class set to Video Rich  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object 300k_rich_AMR.amr to the message.</li><li>4. In client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is correctly presented.

### 5.5.1.1.5 Multiple pages with page timing and time dependent content

Test Case Id	MMS-1.2-con-405
Test Object	MMSC
Test Case Description	The purpose is to verify that multiple pages and objects with page timing are correctly sent from Client A to Client B via the MMSC and that all pages and objects are reasonably presented in the correct order. The timing of the pages follows the specified values or client default values.
Specification Reference	
SCR Reference	[MMSCONF] Chapter 7.1.7
Tool	MMSCONF-MED-C-023
Test Code	
Preconditions	-Client A Capability: Ability to create multiple pages  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message body, create the following three pages: <ul style="list-style-type: none"> <li>- Page 1, enter text as in file Generic_Text.txt, add the file/object JPG80x60.jpg, add the file/object (either audio1.amr or audio1.qcp) and specify page timing to 3 seconds if applicable.</li> <li>- Page 2, enter the text as in file USASCII.txt, add the file/object GIF80x60.gif, add the file/object (either audio2.amr or audio2.qcp) and specify page timing to 5 seconds if applicable.</li> <li>- Page 3, enter the text Generic_Text.txt, add the file/object WBMP_80x60.wbmp, add the file/object (either audio3.amr or audio3.qcp) and specify page timing to 5 seconds if applicable.</li> </ul> </li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and all pages and objects are reasonably presented in the correct order. The timing of the pages follows the specified values or Client A default values.

**5.5.1.1.6 Subject field with UTF8 encoding**

Test Case Id	MMS-1.2-con-406
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the Subject-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received and the subject is textually correct.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-S-004
Tool	
Test Code	
Preconditions	-Client A Capability: UTF-8 charset encoding of Subject field  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Subject-field is set to the character string given in the reference content file "Short_Text_UTF-8.txt" and the encoding is set to UTF-8. (Alternative characters may be substituted where necessary as described in the reference content document "Content used in OMA MMS tests.doc")</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the message is successfully received and the subject is textually correct.

### 5.5.1.1.7 Subject field with 40 Characters

Test Case Id	MMS-1.2-con-407
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with 40 chars in the Subject-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received and the subject is textually correct.
Specification Reference	[MMSCONF] Chapter 10.2.5
SCR Reference	MMSCONF- GEN-C-003
Tool	
Test Code	
Preconditions	-Client A Capability: Subject with 40 charaters length  -Client B Capability: Subject with 40 charaters length  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Add following 40 chars to subject field: “abcdefghijklmnopqrstuvwxy0123456789/+/+@”.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received and the subject is textually correct.

### 5.5.1.1.8 Subject field with US-ASCII encoding

Test Case Id	MMS-1.2-con-408
Test Object	MMSC
Test Case Description	The purpose is to verify that a messages with US-ASCII characters in the Subject-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received and the subject is textually correct.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A Capability: Subject US-ASCII  -Client B Capability: Subject US-ASCII  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Subject-field is set to “Hello World” in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received and the subject is textually correct.

## 5.5.1.2 Address Field Testing

### 5.5.1.2.1 To-field with US-ASCII encoding

Test Case Id	MMS-1.2-con-409
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with US-ASCII characters in the To-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received.

### 5.5.1.2.2 Cc-field with US-ASCII encoding

Test Case Id	MMS-1.2-con-410
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with US-ASCII characters in the Cc-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received.

### 5.5.1.2.3 Bcc-field with US-ASCII encoding

Test Case Id	MMS-1.2-con-411
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with US-ASCII characters in the Bcc-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received.

**5.5.1.2.4 To-field with UTF-8 encoding**

Test Case Id	MMS-1.2-con-412
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the To-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC -Special An email address with a name: “êü”<nn@xxx>, where nn@xxx is a valid email address specified for the test event.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to the email address “êü”&lt;nn@xxx&gt;. Note. The nn@xxx in the email address should be replaced by the relevant address to the email client used for the test. The name part of the email address (i.e. “êü”) MUST be entered as defined.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to email recipient.</li> <li>5. In email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message successfully.

### 5.5.1.2.5 Cc-field with UTF-8 encoding

Test Case Id	MMS-1.2-con-413
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the CC-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC -Special An email address with a name: "ü" <nn@xxx>, where nn@xxx is a valid email address specified for the test event.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Cc-field is set to the email address "ü" &lt;nn@xxx&gt;. Note. The nn@xxx in the email address should be replaced by the relevant address to the email client used for the test. The name part of the email address (i.e. "ü") MUST be entered as defined.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to email recipient.</li> <li>5. In email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message successfully.

### 5.5.1.2.6 Bcc-field with UTF-8 encoding

Test Case Id	MMS-1.2-con-414
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the BCC-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC -Special An email address with a name: "ëü"<nn@xxx>, where nn@xxx is a valid email address specified for the test event.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Bcc-field is set to the email address "ëü"&lt;nn@xxx&gt;. Note. The nn@xxx in the email address should be replaced by the relevant address to the email client used for the test. The name part of the email address (i.e. "ëü") MUST be entered as defined.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to email recipient.</li> <li>5. In email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message successfully.

### 5.5.1.3 Message Priority

#### 5.5.1.3.1 Priority – Normal

Test Case Id	MMS-1.2-con-415
Test Object	MMSC
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B via MMSC and that the message is successfully received and message priority is set to Normal.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 6.3 Table 5
SCR Reference	MMSE-C-029, MMSE-C-069
Tool	
Test Code	
Preconditions	-Client A Capability:  Capable of setting the priority to normal.  - MMSC  -Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Priority-Field is set to Normal.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message successfully and the message priority is set to Normal.

### 5.5.1.3.2 Priority – Low

Test Case Id	MMS-1.2-con-416
Test Object	MMSC
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B via MMSC and that the message is successfully received and message priority is set to Low.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 6.3 Table 5
SCR Reference	MMSE-C-029, MMSE-C-069
Tool	
Test Code	
Preconditions	-Client A Capability: Capable of setting the priority to Low. - MMSC -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Priority-Field is set to Low.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully and the message priority is set to Low.

### 5.5.1.3.3 Priority – High

Test Case Id	MMS-1.2-con-417
Test Object	MMSC
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B via MMSC and that the message is successfully received and message priority is set to High.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 6.3 Table 5
SCR Reference	MMSE-C-029, MMSE-C-069
Tool	
Test Code	
Preconditions	-Client A Capability:  Capable of setting the priority to High.  - MMSC  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Priority-Field is set to High.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully and the message priority is set to High.

## 5.5.1.4 Message Classification

### 5.5.1.4.1 Message Class – Personal

Test Case Id	MMS-1.2-con-418
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with Message Class Personal is correctly sent from Client A to Client B via MMSC and that the message is successfully received with a Message Class of Personal.
Specification Reference	[MMSENC] Chapter 6.1.1
SCR Reference	MMSE-C-026
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully with a Message Class of Personal.

## 5.5.2 Content

### 5.5.2.1 Text

#### 5.5.2.1.1 Text with US-ASCII encoding

Test Case Id	MMS-1.2-con-419
Test Object	MMSC
Test Case Description	The purpose is to verify that a text object with US-ASCII encoding is correctly sent from Client A to Client B via the MMSC and that the received message is textually correct.
Specification Reference	MMSCONF 7.1.8
SCR Reference	MMSCONF-MED-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, enter text as in file Text_us-ascii.txt.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is textually correct.

### 5.5.2.1.2 Text with UTF-8 encoding

Test Case Id	MMS-1.2-con-420
Test Object	MMSC
Test Case Description	The purpose is to verify that a text object with UTF-8 encoding is correctly sent from Client A to Client B via the MMSC and that the received message is textually correct.
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-003
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, enter text as in file Text_UTF-8. (Alternative characters may be substituted where necessary as described in the reference content document "Content used in OMA MMS tests.doc")</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is textually correct.

### 5.5.2.1.3 Text with UTF-16 encoding

Test Case Id

Test Object

Test Case Description            Test case removed since there is not appropriate requirement for sending a text with UTF-16 encoding MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

## 5.5.2.2 Image

### 5.5.2.2.1 JPG Image size 80x60

Test Case Id	MMS-1.2-con-422
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 5.5.2.2.2 JPG Image size 160x120

Test Case Id	MMS-1.2-con-423
Test Object	MMSC
Test Case Description	The purpose is to verify that a JPG image of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object JPG160x120.jpg to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

### 5.5.2.2.3 JPG Image size 60x80

Test Case Id	MMS-1.2-con-424
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 5.5.2.2.4 JPG Image size 640x480

Test Case Id	MMS-1.2-con-425
Test Object	MMSC
Test Case Description	The purpose is to verify that a JPG image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object JPG640x480.jpg to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**5.5.2.2.5 GIF Image size 80x60**

Test Case Id MMS-1.2-con-426

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 5.5.2.2.6 GIF Image size 160x120

Test Case Id	MMS-1.2-con-427
Test Object	MMSC
Test Case Description	The purpose is to verify that a GIF87a image of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object GIF87a160x120.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**5.5.2.2.7 GIF Image size 60x80**

Test Case Id	MMS-1.2-con-428
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 5.5.2.2.8 GIF Image size 640x480

Test Case Id	MMS-1.2-con-429
Test Object	MMSC
Test Case Description	The purpose is to verify that a GIF87a image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object GIF87a640x480.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**5.5.2.2.9 Animated GIF Image size 60x80**

Test Case Id	MMS-1.2-con-430
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.5.2.2.10 Animated GIF Image size 160x120**

Test Case Id	MMS-1.2-con-431
Test Object	MMSC
Test Case Description	The purpose is to verify that an animated GIF89a image of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object AnimatedGIF89a_160x120.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**5.5.2.2.11 Animated GIF Image size 60x80**

Test Case Id	MMS-1.2-con-432
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**5.5.2.2.12 Animated GIF Image size 640x480**

Test Case Id	MMS-1.2-con-433
Test Object	MMSC
Test Case Description	The purpose is to verify that an animated GIF89a image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object AnimatedGIF89a_640x480.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**5.5.2.2.13 WBMP Image size 60x80**

Test Case Id	MMS-1.2-con-434
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 5.5.2.2.14 WBMP Image size 160x120

Test Case Id	MMS-1.2-con-435
Test Object	MMSC
Test Case Description	The purpose is to verify that a WBMP images of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object WBMP_160x120.wbmp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**5.5.2.2.15 WBMP Image size 60x80**

Test Case Id MMS-1.2-con-436

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

**5.5.2.2.16 WBMP Image size 640x480**

Test Case Id	MMS-1.2-con-437
Test Object	MMSC
Test Case Description	The purpose is to verify that a WBMP image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object WBMP_640x480.wbmp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

### 5.5.2.3 Audio

#### 5.5.2.3.1 AMR audio NB

Test Case Id	MMS-1.2-con-438
Test Object	MMSC
Test Case Description	The purpose is to verify that an AMR audio NB object/content is correctly sent from Client A to Client B via the MMSC and that the AMR audio NB file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-013
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add audio file/object AMRaudioNB.amr to the message and set page timing to allow for the audioNB.amr file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the AMR audio NB file/object is reasonably presented and AMR audioNB is played in its entirety.

### 5.5.2.3.2 3GPP2 13k speech

Test Case Id	MMS-1.2-con-439
Test Object	MMSC
Test Case Description	The purpose is to verify that an 13k speech object/content is correctly sent from Client A to Client B and that the 13k speech file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-014
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add speech file/object audio1.qcp to the message and set page timing to allow for the audio1.qcp file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the 13k speech file/object is reasonably presented and 13k speech is played in its entirety.

## 5.5.2.4 Video

### 5.5.2.4.1 3GPP Video QCIF

Test Case Id	MMS-1.2-con-440
Test Object	MMSC
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object qcif_video.3gp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

#### 5.5.2.4.2 3GPP Video sub-QCIF

Test Case Id	MMS-1.2-con-441
Test Object	MMSC
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object sub-qcif_video.3gp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.5.2.4.3 3GPP2 Video sub-QCIF (MPEG4 +13k)**

Test Case Id	MMS-1.2-con-442
Test Object	MMSC
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.5.2.4.4 3GPP2 Video sub-QCIF (MPEG4 +AMR)**

Test Case Id	MMS-1.2-con-443
Test Object	MMSC
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.5.2.4.5 3GPP2 Video sub-QCIF (H.263 +13k)**

Test Case Id	MMS-1.2-con-444
Test Object	MMSC
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**5.5.2.4.6 3GPP2 Video sub-QCIF (H.263 +AMR)**

Test Case Id	MMS-1.2-con-445
Test Object	MMSC
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

## 5.5.2.5 Attachment + Empty Page

### 5.5.2.5.1 vCard

Test Case Id	MMS-1.2-con-446
Test Object	MMSC
Test Case Description	The purpose is to verify that a vCard object is correctly sent from Client A to Client B via the MMSC and that the received vCard is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	
Test Code	
Preconditions	-Client A Capability: vCard  -Client B Capability: vCard  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add a business vCard object "John Doe.vcf" to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received vCard is textually correct.

### 5.5.2.5.2 vCalendar

Test Case Id	MMS-1.2-con-447
Test Object	MMSC
Test Case Description	The purpose is to verify that a vCalendar object correctly sent from Client A to Client B via the MMSC and that the received vCalendar is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	
Test Code	
Preconditions	-Client A Capability: vCalendar  -Client B Capability: vCalendar  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add a vCalendar object “Christmas.vcs” to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received vCalendar is textually correct.

## 5.5.3 MMS Address Protocol

### 5.5.3.1 Send and receive message to one MSISDN/MDN recipient (To:)

Test Case Id	MMS-1.2-con-448
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with an MSISDN/MDN address in the "To:"-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-021
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "To:"-recipient.

### 5.5.3.2 Send and receive message to one MSISDN/MDN recipient (Cc:)

Test Case Id	MMS-1.2-con-449
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with an MSISDN/MDN address in the “Cc:”-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-022
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Cc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a “Cc:”-recipient.

### 5.5.3.3 Send and receive message to one MSISDN/MDN recipient (Bcc:)

Test Case Id	MMS-1.2-con-450
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with MSISDN/MDN address in the "Bcc:"-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-023
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Bcc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "Bcc:"-recipient.

### 5.5.3.4 Send and receive message to multiple MSISDN/MDN and email recipients (To:)

Test Case Id	MMS-1.2-con-451
Test Object	MMSC
Test Case Description	The purpose is to verify that messages can be simultaneously and correctly sent from Client A to multiple MSISDN/MDN clients and multiple email recipients via MMSC and that the message is successfully received by all the recipients listed in the “To:”-field.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-021
Tool	
Test Code	
Preconditions	-Client A -Two Client B - Three email recipients Capability: Valid email address in US-ASCII format -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to two clients (using MSISDN/MDN numbering) and three email recipients.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to multiple MSISDN/MDN clients and multiple email recipients via MMSC.</li><li>5. In multiple MSISDN/MDN clients and multiple email recipients via MMSC, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	All MSISDN/MDN clients and all email recipients listed in the “To:”-field have received the message successfully.

### 5.5.3.5 Send and receive message to multiple MSISDN/MDN and email recipients (Cc:)

Test Case Id	MMS-1.2-con-452
Test Object	MMSC
Test Case Description	The purpose is to verify that messages can be simultaneously and correctly sent from Client A to multiple MSISDN/MDN clients and multiple email recipients via MMSC and that the message is successfully received by all the recipients listed in the “Cc:”-field.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-022
Tool	
Test Code	
Preconditions	-Client A -Two Client B - Three email recipients Capability: Valid email address in US-ASCII format -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Cc-field is set to two clients (using MSISDN/MDN numbering) and three email recipients.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to multiple MSISDN/MDN clients and multiple email recipients via MMSC.</li><li>5. In multiple MSISDN/MDN clients and multiple email recipients via MMSC, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	All MSISDN/MDN clients and all email recipients listed in the “Cc:”-field have received the message successfully. .

### 5.5.3.6 Send and receive message to multiple MSISDN/MDN and email recipients (Bcc:)

Test Case Id	MMS-1.2-con-453
Test Object	MMSC
Test Case Description	The purpose is to verify that messages can be simultaneously and correctly sent from Client A to multiple MSISDN/MDN clients and multiple email recipients via MMSC and that the message is successfully received by all the recipients listed in the “Bcc:”-field.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-023
Tool	
Test Code	
Preconditions	-Client A -Two Client B - Three email recipients Capability: Valid email address in US-ASCII format -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Bcc-field is set to two clients (using MSISDN/MDN numbering) and three email recipients.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to multiple MSISDN/MDN clients and multiple email recipients via MMSC.</li><li>5. In multiple MSISDN/MDN clients and multiple email recipients via MMSC, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	All MSISDN/MDN clients and all email recipients listed in the “Bcc:”-field have received the message successfully. .

### 5.5.3.7 Send message to one email recipient (To:)

Test Case Id	MMS-1.2-con-454
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with a single email address in the "To:"-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-021
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the message.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "To:"-recipient.

### 5.5.3.8 Send message to one email recipient (Cc:)

Test Case Id	MMS-1.2-con-455
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with a single email address in the “Cc:”-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-022
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Cc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the message.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a “Cc:”-recipient.

### 5.5.3.9 Send message to one email recipient (Bcc:)

Test Case Id	MMS-1.2-con-456
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with a single email address in the Bcc-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-023
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Bcc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the message.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "Bcc:"-recipient.

## 5.6 MMSC Transaction

### 5.6.1 Client A Address

#### 5.6.1.1 Insert Address Token

Test Case Id	MMS-1.2-con-501
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with the From-field left empty is correctly sent from Client A to Client B via MMSC and that the MMSC has processed/validated and inserted the correct MSISDN/MDN number of Client A and the message is successfully received with the correct MSISDN/MDN number of Client A in the From-field of the message.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1, Chapter 6.3 Table 5
SCR Reference	MMSE-S-082
Tool	
Test Code	
Preconditions	-Client A Capability: From Field Support  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: From-Field is without its own MSISDN/MDN number. Ensure that Client A is not requesting address hiding (if applicable) and that Client A is not sending its own number (if applicable) in the From-field.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message successfully and the correct MSISDN/MDN number of Client A appears in the From-field of the message.

## 5.6.2 Message Validity Time

### 5.6.2.1 Validity Period (Expiry Time) set by Client

Test Case Id	MMS-1.2-con-502
Test Object	MMSC
Test Case Description	The purpose is to verify that a message sent with a Validity Period/Expiry Time, set by the client, is accepted by the MMSC.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-S-085
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>-Client B Setting: Download option is set to Deferred Retrieval mode</p> <p>-MMSC Setting: Allow and abide by the sender's Validity Period/Expiry Time settings of 1 hour for the MM message Default message expiration time on the MMSC should be longer than that set on Client A (it is recommended to set the MMSC default Validity Period/Expiry Time to be at least 24 hours) and the MMSC should not override message expiration time set by Client A</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Validity Period/Expiry Time to 1 hour (or lowest possible value).</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, wait for MM notification to but do NOT download MM.</li> <li>6. In Client B, after the Validity Period/Expiry Time has expired, try to download the MM</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The message has expired and MMSC has processed and delivered the notification to Client B. Client B attempts to download the message but fails to retrieve the message.

### 5.6.2.2 Validity Period (Expiry Time) set by MMSC

Test Case Id	MMS-1.2-con-503
Test Object	MMSC
Test Case Description	The purpose is to verify that a message Validity Period/Expiry Time set by the client can be overwritten or redefined by the MMSC.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-S-085
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>-Client B</p> <p>Setting: Download option is set to Deferred Retrieval mode</p> <p>-MMSC</p> <p>Setting: Default message Validity Period/Expiry Time should be set to 1 hour (or minimum default value) and it should be configured to override a longer message expiration time if set by Client A.</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, wait for MM notification to but do NOT download MM.</li> <li>6. In Client B, after the Validity Period/Expiry Time has expired, try to download the MM</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The message has expired and MMSC has processed and delivered the notification to Client B. Client B attempts to download the message but fails to retrieve the message.

### 5.6.2.3 Delivery time

Test Case Id	MMS-1.2-con-504
Test Object	MMSC
Test Case Description	The purpose is to verify that a message sent with a Delivery Time, set by the Client A, is delivered at the specified time to the receiving Client B.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-028
Tool	
Test Code	
Preconditions	-Client A  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Delivery time set to +1 hour or less if applicable.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	The message has not been delivered prior to the time specified

## 5.6.3 Time Stamp

### 5.6.3.1 Time Stamp set by MMSC

Test Case Id	MMS-1.2-con-505
Test Object	MMSC
Test Case Description	The purpose is to verify that when a client does not set the message time stamp, the MMSC will set the time stamp.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-019, MMSE-S-081
Tool	
Test Code	
Preconditions	-Client A Capability: Not providing the date field.  -Client B  -MMSC Setting Date Time Set By MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully with proper time stamp.

## 5.6.4 Forwarding

### 5.6.4.1 Forward without Prior retrieval - Previously sent By field

Test Case Id	MMS-1.2-con-506
Test Object	MMSC
Test Case Description	The purpose is to verify that a message that is forwarded without prior retrieval has the previously sent-by field set to the originator of the initial message.
Specification Reference	[MMSENC] Chapter 6.5 Table 5
SCR Reference	MMSE-C-081
Tool	
Test Code	
Preconditions	-Client A -1st Client B Setting: Retrieval mode set to deferred -2nd Client B -MMSC
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to 1st Client B.</li> <li>5. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B.</li> <li>6. In 2nd Client B, receive and open the MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The 2nd Client B has received the message successfully and the message is reasonably presented AND the previously sent-by field is set to the original sender.

### 5.6.4.2 Forward without Prior retrieval - Previously sent Date field

Test Case Id	MMS-1.2-con-507
Test Object	MMSC
Test Case Description	The purpose is to verify that a message that is forwarded without prior retrieval has the previously sent-date field set to the date of the initial message.
Specification Reference	[MMSENC] Chapter 6.5 Table 5
SCR Reference	MMSE-C-082
Tool	
Test Code	
Preconditions	-Client A  -1st Client B Setting: Retrieval mode set to deferred  -2nd Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to 1st Client B.</li><li>5. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B.</li><li>6. In 2nd Client B, receive and open the MM.</li><li>7. Verify the pass criteria below.</li></ol>
Pass Criteria	The 2nd Client B has received the message successfully and the message is reasonably presented AND the previously sent date field is set to the original date.

## 5.7 Client Transaction

### 5.7.1 Message Delivery Status Report

#### 5.7.1.1 Delivery report – Retrieved message

Test Case Id	MMS-1.2-con-601
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a message with a request for a delivery report is correctly sent from Client A and that the originator can receive a delivery report with the Retrieved status after successful message delivery.</p> <p>Verification is done by sending the message from Client A to a test tool, requesting a delivery report. The Test Tool will verify that the request is correct. Verification of the reception of the Delivery Report is done by sending a delivery report from a Test Tool back to Client A, and observe client behaviour upon reception</p>
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-C-001
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-601
Preconditions	-Client A Capability: Delivery report request
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM header: To-field is set to a legal address</li> <li>4. In MM content: In the message text part, enter the text “Hello World”.</li> <li>5. In Client A, send MM to Test Tool.</li> <li>6. In test Tool, accept the MM and send Delivery Report back to Client A</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A has sent a message with the correct request for Delivery Report. If Client A is able to display delivery report notification through the MMI, ensure that it has done so and that the retrieved status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Delivery Report Content specific to this Test Case.

MM Content:	MMS Headers:	X-Mms-Message-Type	m-delivery-ind
		X-Mms-MMS-Version	1.2

Message-ID	<same as in the M-send.conf
PDU from the Test Tool>	
To	<same as in the sent MM>
Date	<current date>
X-Mms-Status	Retrieved

### 5.7.1.2 Delivery report – Rejected message

Test Case Id	MMS-1.2-con-602
Test Object	Client A
Test Case Description	<p>The purpose is to verify that the originator of a message with a request for a delivery report can receive a delivery report with the Rejected status after message rejection.</p> <p>Verification is done by sending the message from Client A to a test tool, requesting a Delivery report. Verification of the reception of the Delivery Report is done by sending a delivery report from a Test Tool back to Client A, and observe client behaviour upon reception.</p>
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-C-001
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-602
Preconditions	-Client A Capability: Delivery report request
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM header: To-field is set to a legal address</li> <li>4. In MM content: In the message text part, enter the text “Hello World”.</li> <li>5. In Client A, send MM to test Tool.</li> <li>6. In Test Tool, accept the MM and send Delivery Report back to Client A</li> <li>7. In Client A, receive the Delivery Report and open it.</li> <li>8. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A displays delivery report notification through the MMI, and indicates the appropriate retrieved status if capable. Otherwise if client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Delivery Report Content specific to this Test Case.

MM Content:	MMS Headers:	X-Mms-Message-Type	m-delivery-ind
		X-Mms-MMS-Version	1.2
		Message-ID	<same as in the M-send.conf
		PDU from the Test Tool>	
		To	<same as in the sent MM>
		Date	<current date>
		X-Mms-Status	Rejected

### 5.7.1.3 Delivery report – Expired message

Test Case Id	MMS-1.2-con-603
Test Object	MMSC
Test Case Description	<p>The purpose is to verify that the originator of a message with a request for a delivery report can receive a delivery report with the Expired status after message expiration.</p> <p>Verification is done by sending the message from Client A to a test tool, requesting a Delivery report. Verification of the reception of the Delivery Report is done by sending a delivery report from a Test Tool back to Client A, and observe client behaviour upon reception.</p>
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-C-001
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-603
Preconditions	-Client A Capability: Delivery report request
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM header: To-field is set to a legal address</li> <li>4. In MM content: In the message text part, enter the text “Hello World”.</li> <li>5. In Client A, send MM to Test Tool.</li> <li>6. In Test Tool, accept the MM and send Delivery Report back to Client A.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	If Client A is able to display delivery report notification through the MMI, ensure that it has done so and that the retrieved status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Delivery Report Content specific to this Test Case.

MM Content:	MMS Headers:	X-Mms-Message-Type	m-delivery-ind
		X-Mms-MMS-Version	1.2
		Message-ID	<same as in the M-send.conf
		PDU from the Test Tool>	
		To	<same as in the sent MM>
		Date	<current date>
		X-Mms-Status	Expired

### 5.7.1.4 Delivery report – Multiple recipients each with Different Delivery Status

Test Case Id	MMS-1.2-con-604
Test Object	Client A
Test Case Description	<p>The purpose is to verify that if a message with a request for a delivery report from Client A is sent to multiple recipients then the originator (Client A) can receive and display a separate delivery report for each recipient, with the correct Delivery Status for each recipient after message delivery or message delivery attempt (in the case of Expired Status) to each separate recipient.</p> <p>Verification is done by sending the message from Client A to a test tool, requesting a Delivery report. Verification of the reception of multiple Delivery Reports is done by sending several delivery reports from a Test Tool back to Client A, and observe client behaviour upon reception.</p>
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-C-001
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-604
Preconditions	-Client A Capability: Delivery report request
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM header: To-field is set to: a sequence of four legal addresses</li> <li>4. In MM content: In the message text part, enter the text “Hello World”.</li> <li>5. In Client A, send MM to Test Tool. NOTE: Each Client B will generate a different MM Delivery Status.</li> <li>6. In Test Tool accept the MM.</li> <li>7. In the Test Tool send 1st Delivery report back to Client A, reporting the first addressee received the MM.</li> <li>8. In the Test Tool send 2nd Delivery report back to Client A, reporting the second addressee received the MM.</li> <li>9. In the Test Tool send 3rd Delivery report back to Client A, reporting the third addressee rejected the MM.</li> <li>10. In the Test Tool send 4th Delivery report back to Client A, reporting the fourth addressee did not receive the MM before it expired.</li> </ol> <p>In Client A, wait until all 4 delivery reports have arrived</p> <p>Verify the pass criteria below.</p>

Pass Criteria

Client A has received a separate delivery report for each recipient, with the correct Delivery Status for each recipient after message delivery or message delivery attempt (in the case of Expired Status) to each separate recipient.

If Client A is able to display delivery report notification through the MMI, ensure that it has done so and that the retrieved status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Delivery Report Content specific to this Test Case.

1

MM Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID PDU from the Test Tool> To Date X-Mms-Status	m-delivery-ind 1.2 <same as in the M-send.conf  first address entered above <current date> Retrieved
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2

MM Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID PDU from the Test Tool> To  Date X-Mms-Status	m-delivery-ind 1.2 <same as in the M-send.conf  second address entered above  <current date> Retrieved
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3

MM Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID PDU from the Test Tool> To  Date X-Mms-Status	m-delivery-ind 1.2 <same as in the M-send.conf  third address entered above  <current date> Rejected
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4

MM Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID PDU from the Test Tool> To  Date X-Mms-Status	m-delivery-ind 1.2 <same as in the M-send.conf  Fourth address entered above  <current date> Expired
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### 5.7.1.5 Delivery report – Interpreting Message-ID field

Test Case Id	MMS-1.2-con-620
Test Object	Client A
Test Case Description	The purpose is to verify that the originator of multiple MMs can correctly utilise the Message-ID field to associate received Delivery Reports with their respective MMs.
Specification Reference	[MMSENC] Chapter 6.1.2 Table 2 and Chapter 6.6 Table 9 [MMSCTR] Chapter 6.1.1 and Chapter 6.5.1
SCR Reference	MMSE-C-087, MMSCTR-SND-C-003, MMSCTR-DRP-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-617
Preconditions	-Client A Capability: Delivery report request Support for interpreting Message-ID field Display of Delivery Report
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM (Message1) ; set the Delivery Report request field to ON; set the To field to a legal address; and in the message text part enter the text “Hello World – Retrieved”.</li> <li>2. In Client A, send the MM to the Test Tool.</li> <li>3. In the Test Tool, accept the MM and send an M-Send.conf PDU to Client A with the Message-ID field set to “retrieved@mmsc”.</li> <li>4. In Client A, create a new MM (Message2); set the Delivery Report request field to ON; set the To field to the same legal address as above; and in the message text part enter the text “Hello World – Rejected”.</li> <li>5. In Client A, send the MM to the Test Tool.</li> <li>6. In the Test Tool, accept the MM and send an M-Send.conf PDU to Client A with the Message-ID field set to “rejected@mmsc”.</li> <li>7. In Client A, create a new MM (Message3); set the Delivery Report request field to ON; set the To field to the same legal address as above; and in the message text part enter the text “Hello World – Expired”.</li> <li>8. In Client A, send the MM to the Test Tool.</li> <li>9. In the Test Tool, accept the MM and send an M-Send.conf PDU to Client A with the Message-ID field set to “expired@mmsc”.</li> <li>10. In the Test Tool, send a Delivery Report in response to the third MM send request received; i.e. in the M-Delivery.ind PDU include the Message-ID field set to “expired@mmsc”.</li> <li>11. In the Test Tool, send a Delivery Report in response to the first MM send request received; i.e. in the M-Delivery.ind PDU include the Message-ID field set to “retrieved@mmsc”.</li> </ol>

12. In the Test Tool, send a Delivery Report in response to the second MM send request received; i.e. in the M-Delivery.ind PDU include the Message-ID field set to “rejected@mmsc”.
13. In Client A, examine each of the three received Delivery Reports
14. Verify the pass criteria below

Pass Criteria                      Client A displays the delivery status of Message1 as Retrieved; and Client A displays the delivery status of Message2 as Rejected; and Client A displays the delivery status of Message 3 as Expired.

Send Confirmation Content specific to this Test Case.

Step 3

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-send-conf <same as in the M-Send.req PDU from Client A> 1.2 Ok “retrieved@mmsc”
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Step 6

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-send-conf <same as in the M-Send.req PDU from Client A> 1.2 Ok “rejected@mmsc”
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Step 9

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-send-conf <same as in the M-Send.req PDU from Client A> 1.2 Ok “expired@mmsc”
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Delivery Report Content specific to this Test Case.

Step 10

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To Date X-Mms-Status	m-delivery-ind 1.2 expired@mmsc <Address as in the M-Send.req from Client A> <current date> Expired
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Step 11

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To Date X-Mms-Status	m-delivery-ind 1.2 retrieved@mmsc <Address as in the M-Send.req from Client A> <current date> Retrieved
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Step 12

PDU	MMS	X-Mms-Message-Type	m-delivery-ind
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Content:	Headers:	X-Mms-MMS-Version	1.2
		Message-ID	rejected@mmsc
		To	<Address as in the M-Send.req from Client A>
		Date	<current date>
		X-Mms-Status	Rejected

## 5.7.2 Message Read-Reply Status Report

### 5.7.2.1 Read-Reply report Date

Test Case Id	MMS-1.2-con-605
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a message with a request for a Read-Reply report is correctly sent from Client A and that Client A is able to receive and reasonably present the Read-Reply report sent from the MMSC</p> <p>Verification is done by sending the message from Client A to a test tool, requesting a Read-Reply report. The Test Tool will verify that the request is correct. Verification of the reception of the Read-Reply Report is done by sending a Read-Reply report from a Test Tool back to Client A, and observe client behaviour upon reception.</p>
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10, Table 11
SCR Reference	MMSCTR-RRP-C-002, MMSCTR-RRP-C-008, MMSE-RDR-C-003,
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-605
Preconditions	<p>-Client A</p> <p>Capability: Read Report request</p> <p>Support for PDU Read Reporting functionality</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Read-Reply Report Request-Field is set to ON.</li> <li>3. In MM header: To-field is set to: a legal address</li> <li>4. In MM content: In the message text part, enter the text "Hello World".</li> <li>5. In Client A, send MM to Test Tool.</li> <li>6. In Test Tool, accept MM.</li> <li>7. In Test Tool, send a Read-Reply report back to Client A.</li> <li>8. In Client A, open the received Read-Reply report.</li> <li>9. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>Client A has sent an MM with a correct request for Read-Reply Report. Client A has received a Read-Reply report with the date on which the message was read. If Client A is able to display the read reply report message through the MMI, ensure that it has done so and that the retrieved status has been appropriately indicated. If the client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.</p>

Read-Reply Report Content specific to this Test Case.

MM Content:	MMS Headers:	X-Mms-Message-Type	m-read-orig-ind
		X-Mms-MMS-Version	1.2
		Message-ID	<same as in the M-send.conf
		PDU from the Test Tool>	
		To	<address of Client A>
		From	The legal address entered above
		Date	<current date>
		X-Mms-Read-Status	Read

### 5.7.2.2 Read-Reply report

Test Case Id	MMS-1.2-con-606
Test Object	Client B
Test Case Description	<p>The purpose is to verify that when a message with a request for a Read-Reply report is received by Client B and if Client B has the capability to send a Read-Reply report, then Client B sends a Read-Reply report .</p> <p>This is verified by sending an MM from a Test Tool to Client B, which may respond with the action to submit a read-reply report</p>
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10
SCR Reference	MMSE-RDR-C-003, MMSCTR-RRP-C-001, MMSCTR-RRP-C-006, MMSCTR-RRP-C-007
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-606
Preconditions	<p>-Test Tool An MM addressed to Client B is created and stored, with the Read-Reply Report Request-Field set to ON in the MM header</p> <p>-Client B Capability: Sending of Read-Reply reports Support for PDU Read Reporting functionality</p> <p>Setting: Set Client B to allow the sending of Read-Reply reports</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. From the test tool send notification of an MM to Client B..</li> <li>2. In Client B, receive the MM notification.</li> <li>3. In Client B, retrieve and open the MM. A Read-Reply report is sent to the test tool.</li> <li>4. Verify the pass criteria below.</li> </ol>
Pass Criteria	In the test tool, verify that Client B has sent a Read-Reply report and that the M-read-rec.ind PDU is conformant.

Read-Reply Report Content specific to this Test Case.

MM Content:	MMS Headers:	X-Mms-Message-Type	m-read-rec.ind
		X-Mms-MMS-Version	1.2
		Message-ID	<same as in the M-send.conf
		PDU from the Test Tool>	
		To	<fictitious address of Client A
			as defined by the test tool>

From  
Date  
X-Mms-Read-Status

<Address of Client B>  
Not checked.  
Read

### 5.7.2.3 Read-Reply Report when sending to multiple recipients

Test Case Id	MMS-1.2-con-607
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a message with a request for a Read-Reply report is correctly sent from Client A to multiple recipients and that the originator can receive a separate and correct Read-Reply report from each recipient after the message has been read by each recipient.</p> <p>Verification is done by sending the message from Client A to a test tool, requesting a Read-Reply report. The Test Tool will verify that the request is correct. Verification of the reception of the Read-Reply Report is done by sending several Read-Reply reports from a Test Tool back to Client A, and observe client behaviour upon reception</p>
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10, Table 11
SCR Reference	MMSE-RDR-C-003, MMSCTR-RRP-C-002, MMSCTR-RRP-C-008
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-607
Preconditions	<p>-Client A          Capability:          Read Report request</p> <p>Support for PDU Read Reporting functionality</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Read-Reply Report Request-Field is set to ON.</li> <li>3. In MM header: To-field is set to: a sequence of three legal addresses</li> <li>4. In MM content: In the message text part, enter the text "Hello World".</li> <li>5. In Client A, send MM to Test Tool.</li> <li>6. In Test Tool accept the MM.</li> <li>7. In the Test Tool send 1st Read-Reply report back to Client A, reporting that the first addressee deleted the MM without reading it..</li> <li>8. In the Test Tool send the 2nd and 3rd Read-Reply reports back to Client A, reporting that the MM was read</li> <li>9. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>Client A receives a separate Read-Reply report from 2 recipients that the messages was read, and a Read-Reply report from 1 recipient that the message was deleted without being read. If Client A is able to display read reply report messages through the MMI, ensure that it has done so and that the retrieved status has been appropriately indicated for all recipients. If the client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.</p>

Read-Reply Report Content specific to this Test Case.

1.

MM Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID PDU from the Test Tool> To From Date X-Mms-Read-Status	m-read-orig-ind 1.2 <same as in the M-send.conf first address entered above <address of Client A> <current date> Deleted without being read
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2

MM Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID PDU from the Test Tool> To From Date X-Mms-Read-Status	m-read-orig-ind 1.2 <same as in the M-send.conf second address entered above <address of Client A> <current date> Read
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3

MM Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID PDU from the Test Tool> To From Date X-Mms-Read-Status	m-read-orig-ind 1.2 <same as in the M-send.conf third address entered above <address of Client A> <current date> Read
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### 5.7.2.4 Read-Reply report when sending to single recipient

Test Case Id	MMS-1.2-con-608
Test Object	Client A
Test Case Description	<p>The purpose is to verify that a message with a request for a Read-Reply report is correctly sent from Client A and that the originator can receive a read report after the message has been read</p> <p>Verification is done by sending the message from Client A to a test tool, requesting a Read-Reply report. The Test Tool will verify that the request is correct. Verification of the reception of the Read-Reply Report is done by sending a Read-Reply report from a Test Tool back to Client A, and observe client behaviour upon reception.</p>
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10, Table 11
SCR Reference	MMSE-RDR-C-003, MMSCTR-RRP-C-002, MMSCTR-RRP-C-008
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-608
Preconditions	<p>-Client A          Capability:              Read Report request</p> <p>Support for PDU Read Reporting functionality</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Read-Reply Report Request-Field is set to ON.</li> <li>3. In MM header: To-field is set to: a legal address</li> <li>4. In MM content: In the message text part, enter the text "Hello World".</li> <li>5. In Client A, send MM to Test Tool.</li> <li>6. In Test Tool, accept MM.</li> <li>7. In Test Tool, send a Read-Reply report back to Client A.</li> <li>10. In Client A, open the received Read-Reply report</li> <li>8. Verify the pass criteria below.</li> </ol>
Pass Criteria	<p>Client A has sent an MM with a correct request for a Read-Reply Report. Client A has received a Read-Reply report. If Client A is able to display the read reply report message through the MMI, ensure that is has done so and that the retrieved status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.</p>

Read-Reply Report Content specific to this Test Case.

MM Content:	MMS Headers:	X-Mms-Message-Type	m-read-orig-ind
		X-Mms-MMS-Version	1.2
		Message-ID	<same as in the M-send.conf
		PDU from the Test Tool>	
		To	<address of Client A>
		From	legal address as entered
		aboveDate	<current date>
		X-Mms-Read-Status	Read

### 5.7.2.5 Read report – Interpreting Message-ID field

Test Case Id	MMS-1.2-con-621
Test Object	Client A
Test Case Description	The purpose is to verify that the originator of multiple MMs can correctly utilise the Message-ID field to associate received Read Reports with their respective MMs.
Specification Reference	[MMSENC] Chapter 6.1.2 Table 2 and Chapter 6.7 Table 11 [MMSCTR] Chapter 6.1.1 and Chapter 6.6
SCR Reference	MMSE-C-037, MMSE-RDR-C-006, MMSCTR-SND-C-003, MMSCTR-RRP-C-008
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-621
Preconditions	-Client A Capability: Ability to request Read Reports Ability to handle Read Reports in the form of PDUs Support for interpreting Message-ID field
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM (Message1) ; set the Read Report request field to ON; set the To field to a legal address; and in the message text part enter the text “Hello World – Read1”.</li> <li>2. In Client A, send the MM to the Test Tool.</li> <li>3. In the Test Tool, accept the MM and send an M-Send.conf PDU to Client A with the Message-ID field set to “read1@mmsc”.</li> <li>4. In Client A, create a new MM (Message2); set the Read Report request field to ON; set the To field to the same legal address as above; and in the message text part enter the text “Hello World – deleted”.</li> <li>5. In Client A, send the MM to the Test Tool.</li> <li>6. In the Test Tool, accept the MM and send an M-Send.conf PDU to Client A with the Message-ID field set to “deleted@mmsc”.</li> <li>7. In Client A, create a new MM (Message3); set the Read Report request field to ON; set the To field to the same legal address as above; and in the message text part enter the text “Hello World – Read2”.</li> <li>8. In Client A, send the MM to the Test Tool.</li> <li>9. In the Test Tool, accept the MM and send an M-Send.conf PDU to Client A with the Message-ID field set to “read2@mmsc”.</li> <li>10. In the Test Tool, send a Read Report in response to the third MM send request received; i.e. in the M-Read-orig.ind PDU include the Message-ID field set to “read2@mmsc”.</li> <li>11. In the Test Tool, send a Read Report in response to the first MM send request received; i.e. in the M-Read-orig.ind PDU include the</li> </ol>

Message-ID field set to “read1@mmsc”.

12. In the Test Tool, send a Read Report in response to the second MM send request received; i.e. in the M-Read-orig.ind PDU include the Message-ID field set to “deleted@mmsc”.
13. In Client A, examine each of the three received Read Reports
14. Verify the pass criteria below

Pass Criteria Client A displays the read status of Message1 as Read; and Client A displays the read status of Message2 as Deleted; and Client A displays the read status of Message 3 as Read.

Send Confirmation Content specific to this Test Case.

Step 3

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-send-conf <same as in the M-Send.req PDU from Client A> 1.2 Ok “read1@mmsc”
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Step 6

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-send-conf <same as in the M-Send.req PDU from Client A> 1.2 Ok “deleted@mmsc”
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Step 9

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-send-conf <same as in the M-Send.req PDU from Client A> 1.2 Ok “read2@mmsc”
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Read Report Content specific to this Test Case.

Step 10

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To From Date X-Mms-Read-Status	m-read-orig-ind 1.2 read2@mmsc <address of Client A> <Address as in the M-Send.req from Client A> <current date> Read
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## Step 11

PDU	MMS	X-Mms-Message-Type	m-read-orig-ind
Content:	Headers:	X-Mms-MMS-Version	1.2
		Message-ID	read1@mmsc
		To	<address of Client A>
		From	<Address as in the M-Send.req from Client A>
		Date	<current date>
		X-Mms-Read-Status	Read

## Step 12

PDU	MMS	X-Mms-Message-Type	m-read-orig-ind
Content:	Headers:	X-Mms-MMS-Version	1.2
		Message-ID	deleted@mmsc
		To	<address of Client A>
		From	<Address as in the M-Send.req from Client A>
		Date	<current date>
		X-Mms-Read-Status	Deleted

### 5.7.2.6 Read report – Sending with Message-ID field

Test Case Id MMS-1.2-con-622

Test Object Client B

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

## 5.7.3 Forwarding

### 5.7.3.1 Forward without Prior retrieval – Previously sent By field

Test Case Id	MMS-1.2-con-609
Test Object	
Test Case Description	Moved to MMSC conformance testing, since this is an MMSC test case.
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	
Pass Criteria	

### 5.7.3.2 Forward without Prior retrieval - Previously sent Date field

Test Case Id MMS-1.2-con-610

Test Object

Test Case Description Moved to MMSC conf testing, since this is an MMSC test case.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

### 5.7.3.3 Forward without Prior retrieval

Test Case Id	MMS-1.2-con-611
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a message can be forwarded without prior retrieval</p> <p>Verification is done by sending a notification from a Test Tool to Client B. Client B then sends a forwarding message to the Test Tool. The Test Tool verifies that this message is correct.</p>
Specification Reference	[MMSENC] Chapter 6.5 Table 5
SCR Reference	MMSCTR-FWD-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-611
Preconditions	<p>Client B</p> <p>Support for deferred : Retrieval mode</p>
Test Procedure	<ol style="list-style-type: none"><li>1. Set retrieval mode to deferred in client B</li><li>2. In Test Tool, send notification for an MM to Client B.</li><li>3. In Client B, initiate the forwarding of the MM, without prior retrieval, to another, legal, address.</li><li>4. In Test Tool, receive the forwarding message..</li><li>5. Verify the pass criteria below.</li></ol>
Pass Criteria	The Client B has sent a correct forwarding message.

### 5.7.3.4 Validity Period (Expiry Time) set by Client when forwarding

Test Case Id	MMS-1.2-con-612
Test Object	Client B
Test Case Description	The purpose is to verify that a request to forward a message with a Validity Period/Expiry Time, set by the client, is correctly formatted.
Specification Reference	[MMSENC] Chapter 6.5 Table 7
SCR Reference	MMSE-FWD-C-010
Tool	MMS Conformance Tool
Test Code	Validated test code for test case MMS-1.2-con-612
Preconditions	-Client B Support for: Setting (relative) Expiry Time of a Forwarded message Deferred Retrieval mode
Test Procedure	<ol style="list-style-type: none"><li>1. Set retrieval mode to deferred in client B</li><li>2. In Test Tool, send notification for an MM to Client B.</li><li>3. In Client B, request that the Validity Period/Expiry Time, in the M-Forward.req PDU is set to 1 hour (or lowest possible value). In Client B, initiate the forwarding of the MM, without prior retrieval, to another, legal, address.</li><li>4. In Test Tool, receive the forwarding message.</li><li>5. Verify the pass criteria below.</li></ol>
Pass Criteria	The Client B has sent a correct forwarding message and the X-Mms-Expiry value is set to 1 hour (or the lowest possible value allowed by the client).

### 5.7.3.5 Forwarding Delivery report – Retrieved message

Test Case Id	MMS-1.2-con-613
Test Object	Client B
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The forwarding Client B can request and subsequently receive a delivery report with the Retrieved status.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-013
Tool	MMS Conformance Tool
Test Code	Validated test code for test case MMS-1.2-con-613
Preconditions	-Client B Capability: To request a Delivery report Deferred retrieval mode
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B</li> <li>2. In Test Tool, send notification for an MM to Client B</li> <li>3. In Client B, do not retrieve the MM. Set Client B to request a Delivery Report and initiate the forwarding of the MM to another, legal, address.</li> <li>4. In Test Tool, receive the forwarding message and send Delivery Report back to Client B.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has sent an M-Forward.req PDU with the X-Mms-Delivery-Report field set to Yes. If Client B is able to display delivery report notification through the MMI, ensure that it has done so and that the Retrieved status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Delivery Report Content specific to this Test Case.

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To Date X-Mms-Status	M-Delivery.ind 1.2 <same as in the M-Forward.conf PDU from the Test Tool> <same as in the sent MM> <current date> Retrieved
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### 5.7.3.6 Forwarding Delivery report – Rejected message

Test Case Id	MMS-1.2-con-614
Test Object	Client B
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The forwarding Client B can request and subsequently receive a delivery report with the Rejected status.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-013
Tool	MMS Conformance Tool
Test Code	Validated test code for test case MMS-1.2-con-614
Preconditions	-Client B Capability: To request a Delivery report Deferred retrieval mode
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B.</li> <li>2. In Test Tool, send notification for an MM to Client B.</li> <li>3. In Client B, do not retrieve the MM. Set Client B to request a Delivery Report and initiate the forwarding of the MM to another, legal, address.</li> <li>4. In Test Tool, receive the forwarding message and send Delivery Report back to Client B.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has sent an M-Forward.req PDU with the X-Mms-Delivery-Report field set to Yes. If Client B is able to display delivery report notification through the MMI, ensure that it has done so and that the Rejected status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Delivery Report Content specific to this Test Case.

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To Date X-Mms-Status	M-Delivery.ind 1.2 <same as in the M-Forward.conf PDU from the Test Tool> <same as in the sent MM> <current date> Rejected
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### 5.7.3.7 Forwarding Delivery report – Expired message

Test Case Id	MMS-1.2-con-615
Test Object	Client B
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The forwarding Client B can request and subsequently receive a delivery report with the Expired status.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-013
Tool	MMS Conformance Tool
Test Code	Validated test code for test case MMS-1.2-con-615
Preconditions	-Client B Capability: To request a Delivery report Deferred retrieval mode
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B.</li> <li>2. In Test Tool, send notification for an MM to Client B.</li> <li>3. In Client B, do not retrieve the MM. Set Client B to request a Delivery Report and initiate the forwarding of the MM to another, legal, address.</li> <li>4. In Test Tool, receive the forwarding message and send Delivery Report back to Client B.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has sent an M-Forward.req PDU with the X-Mms-Delivery-Report field set to Yes. If Client B is able to display delivery report notification through the MMI, ensure that it has done so and that the Expired status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Delivery Report Content specific to this Test Case.

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To Date X-Mms-Status	M-Delivery.ind 1.2 <same as in the M-Forward.conf PDU from the Test Tool> <same as in the sent MM> <current date> Expired
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### 5.7.3.8 Read report when forwarding to single recipient

Test Case Id	MMS-1.2-con-616
Test Object	Client B
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The forwarding Client B can request and subsequently receive a read report with the Read status.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-014
Tool	MMS Conformance Tool
Test Code	Validated test code for test case MMS-1.2-con-616
Preconditions	-Client B Capability: To request a Read report Deferred retrieval mode
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B.</li> <li>2. In Test Tool, send notification for an MM to Client B.</li> <li>3. In Client B, do not retrieve the MM. Set Client B to request a Read Report and initiate the forwarding of the MM to another, legal, address..</li> <li>4. In Test Tool, receive the forwarding message and send Read Report back to Client B with Read-status-value of Read.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has sent an M-Forward.req PDU with the X-Mms-Read-Report field to Yes. If Client B is able to display read report notification through the MMI, ensure that it has done so and that the Read status has been appropriately indicated. If client is unable to display the notification then ensure that the MMS layer is still capable of functioning by the successful receipt of an additional MM.

Read Report Content specific to this Test Case.

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To From Date X-Mms-Read-Status	M-Read-Orig.ind 1.2 <same as in the M-Forward.conf PDU from the Test Tool> <same as in the sent MM> <legal address as entered above> <current date> Read
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### 5.7.3.9 Delivery Report when Forwarding– Interpreting Message-ID field

Test Case Id	MMS-1.2-con-617
Test Object	Client B
Test Case Description	The purpose is to verify that a Client forwarding multiple MMs can correctly utilise the Message-ID field to associate received Delivery Reports with their respective MMs.
Specification Reference	[MMSENC] Chapter 6.5.2 Table 8 and Chapter 6.6 Table 9 [MMSCTR] Chapter 6.4.1 and Chapter 6.5.1
SCR Reference	MMSE-FWD-C-018, MMSE-C-087, MMSCTR-FWD-C-003, MMSCTR-DRP-C-002
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-617
Preconditions	-Client B Capability: Delivery report request Forwarding without prior retrieval Support for interpreting Message-ID field Display of Delivery Report
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B.</li> <li>2. In Test Tool, send a notification for an MM (Message1) to Client B; with the Subject field set to “Hello World – Retrieved”.</li> <li>3. In Client B, do not retrieve the MM. Set Client B to request a Delivery Report and initiate the forwarding of the MM to another, legal, address (the Forwarding Address).</li> <li>4. In the Test Tool, accept the forward request and send an M-Forward.conf PDU to Client B with the Message-ID field set to “retrieved@mmsc”.</li> <li>5. In Test Tool, send a notification for an MM (Message2) to Client B; with the Subject field set to “Hello World – Rejected”.</li> <li>6. In Client B, do not retrieve the MM. Set Client B to request a Delivery Report and initiate the forwarding of the MM to the Forwarding Address as used above.</li> <li>7. In the Test Tool, accept the forward request and send an M-Forward.conf PDU to Client B with the Message-ID field set to “rejected@mmsc”.</li> <li>8. In Test Tool, send a notification for an MM (Message3) to Client B; with the Subject field set to “Hello World – Expired”.</li> <li>9. In Client B, do not retrieve the MM. Set Client B to request a Delivery Report and initiate the forwarding of the MM to the Forwarding Address as used above.</li> <li>10. In the Test Tool, accept the forward request and send an M-Forward.conf PDU to Client B with the Message-ID field set to</li> </ol>

“expired@mmsc”.

11. In the Test Tool, send a Delivery Report in response to the third forward request received; i.e. in the M-Delivery.ind PDU include the Message-ID field set to “expired@mmsc”.
12. In the Test Tool, send a Delivery Report in response to the first forward request received; i.e. in the M-Delivery.ind PDU include the Message-ID field set to “retrieved@mmsc”.
13. In the Test Tool, send a Delivery Report in response to the second forward request received; i.e. in the M-Delivery.ind PDU include the Message-ID field set to “rejected@mmsc”.
14. In Client B, examine each of the three received Delivery Reports
15. Verify the pass criteria below

Pass Criteria

Client B displays the delivery status of Message1 as Retrieved; and Client B displays the delivery status of Message2 as Rejected; and Client B displays the delivery status of Message 3 as Expired.

Forward Confirmation Content specific to this Test Case.

Step 4

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-forward-conf <same as in the M-Forward.req PDU from Client F> 1.2 Ok “retrieved@mmsc”
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Step 7

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-forward-conf <same as in the M-Forward.req PDU from Client F> 1.2 Ok “rejected@mmsc”
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Step 10

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-forward-conf <same as in the M-Forward.req PDU from Client F> 1.2 Ok “expired@mmsc”
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Delivery Report Content specific to this Test Case.

Step 11

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To Date X-Mms-Status	m-delivery-ind 1.2 expired@mmsc <Forwarding Address as in the M-Forward.req from Client F> <current date> Expired
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## Step 12

PDU	MMS	X-Mms-Message-Type	m-delivery-ind
Content:	Headers:	X-Mms-MMS-Version	1.2
		Message-ID	retrieved@mmsc
		To	<Forwarding Address as in the M-Forward.req from Client F >
		Date	<current date>
		X-Mms-Status	Retrieved

## Step 13

PDU	MMS	X-Mms-Message-Type	m-delivery-ind
Content:	Headers:	X-Mms-MMS-Version	1.2
		Message-ID	rejected@mmsc
		To	<Forwarding Address as in the M-Forward.req from Client F >
		Date	<current date>
		X-Mms-Status	Rejected

### 5.7.3.10 Read Report when Forwarding – Interpreting Message-ID field

Test Case Id	MMS-1.2-con-618
Test Object	Client B
Test Case Description	The purpose is to verify that a Client forwarding multiple MMs can correctly utilise the Message-ID field to associate received Read Reports with their respective MMs.
Specification Reference	[MMSENC] Chapter 6.5.2 Table 8 and Chapter 6.6 Table 9 [MMSCTR] Chapter 6.4.1 and Chapter 6.6.3.2
SCR Reference	MMSE-FWD-C-018, MMSE-RDR-C-006, MMSCTR-FWD-C-003, MMSCTR-RRP-C-008
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-618
Preconditions	-Client B Capability: Ability to request Read Reports Forwarding without prior retrieval Ability to handle Read Reports in the form of PDUs Support for interpreting Message-ID field
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B.</li> <li>2. In Test Tool, send a notification for an MM (Message1) to Client B; with the Subject field set to “Hello World – Read1”.</li> <li>3. In Client B, do not retrieve the MM. Set Client B to request a Read Report and initiate the forwarding of the MM to another, legal, address (the Forwarding Address).</li> <li>4. In the Test Tool, accept the forward request and send an M-Forward.conf PDU to Client B with the Message-ID field set to “read1@mmsc”.</li> <li>5. In Test Tool, send a notification for an MM (Message2) to Client B; with the Subject field set to “Hello World – Deleted”.</li> <li>6. In Client B, do not retrieve the MM. Set Client B to request a Read Report and initiate the forwarding of the MM to the Forwarding Address as used above.</li> <li>7. In the Test Tool, accept the forward request and send an M-Forward.conf PDU to Client B with the Message-ID field set to “deleted@mmsc”.</li> <li>8. In Test Tool, send a notification for an MM (Message3) to Client B; with the Subject field set to “Hello World – Read2”.</li> <li>9. In Client B, do not retrieve the MM. Set Client B to request a Read Report and initiate the forwarding of the MM to the Forwarding Address as used above.</li> <li>10. In the Test Tool, accept the forward request and send an M-Forward.conf PDU to Client B with the Message-ID field set to</li> </ol>

“read2@mmsc”.

11. In the Test Tool, send a Read Report in response to the third forward request received; i.e. in the M-Read-orig.ind PDU include the Message-ID field set to “read2@mmsc”.
12. In the Test Tool, send a Read Report in response to the first forward request received; i.e. in the M-Read-orig.ind PDU include the Message-ID field set to “read1@mmsc”.
13. In the Test Tool, send a Read Report in response to the second forward request received; i.e. in the M-Read-orig.ind PDU include the Message-ID field set to “deleted@mmsc”.
14. In Client B, examine each of the three received Read Reports
15. Verify the pass criteria below

Pass Criteria Client B displays the read status of Message1 as Read; and Client B displays the read status of Message2 as Deleted; and Client B displays the read status of Message 3 as Read.

Forward Confirmation Content specific to this Test Case.

Step 4

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-forward-conf <same as in the M-Forward.req PDU from Client B> 1.2 Ok “read1@mmsc”
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Step 7

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-forward-conf <same as in the M-Forward.req PDU from Client B> 1.2 Ok “deleted@mmsc”
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Step 10

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-Transaction-ID X-Mms-MMS-Version X-Mms-Response-Status Message-ID	m-forward-conf <same as in the M-Forward.req PDU from Client B> 1.2 Ok “read2@mmsc”
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Read Report Content specific to this Test Case.

Step 11

PDU Content:	MMS Headers:	X-Mms-Message-Type X-Mms-MMS-Version Message-ID To From Date X-Mms-Read-Status	m-read-orig-ind 1.2 read2@mmsc <address of Client B> <Forwarding Address as in the M-Forward.req from Client B> <current date> Read
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## Step 12

PDU	MMS	X-Mms-Message-Type	m-read-orig-ind
Content:	Headers:	X-Mms-MMS-Version	1.2
		Message-ID	read1@mmsc
		To	<address of Client B><Forwarding Address as in the M-
		From	Forward.req from Client B>
		Date	<current date>
		X-Mms-Read-Status	Read

## Step 13

PDU	MMS	X-Mms-Message-Type	m-read-orig-ind
Content:	Headers:	X-Mms-MMS-Version	1.2
		Message-ID	deleted@mmsc
		To	<address of Client B>
		From	<Forwarding Address as in the M-Forward.req from Client B>
		Date	<current date>
		X-Mms-Read-Status	Deleted

### 5.7.3.11 Long X-Mms-Content-Location field when Forwarding

Test Case Id	MMS-1.2-con-619
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a multimedia message, where the X-Mms-Content-Location field in the M-Notification-ind PDU has a length equal to the maximum permitted value, is correctly forwarded by Client B.</p> <p>Verification is done by sending a Notification PDU from a Test Tool to Client B and then inspect the contents of the M-Forward-req PDU sent to the Test Tool.</p>
Specification Reference	[MMSCONF] Chapter 10.2.5
SCR Reference	MMSCONF- GEN-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-619
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. Set retrieval mode to deferred in client B</li> <li>2. In Test Tool, send notification for an MM to Client B.</li> <li>3. In Client B, initiate the forwarding of the MM, without prior retrieval, to another, legal, address.</li> <li>4. In Test Tool, receive the forwarding message</li> <li>5. Verify the pass criteria below</li> </ol>
Pass Criteria	The contents of the X-Mms-Content-Location field in the M-Forward-req PDU received by the Test Tool is equal to the value sent by the Test Tool in the M-Notification-ind PDU.

MMS PDU Content specific to this Test Case.

M-Notification-ind	MMS	X-Mms-Content-	A URI format text string having a length of 100
	Headers:	Location	characters. The URI value itself will be Test Tool
			dependent, but the length must be 100 characters in total.

## 5.8 Client B (Recipient)

### 5.8.1 Download Options

#### 5.8.1.1 Download options – Immediate retrieval

Test Case Id	MMS-1.2-con-701
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a message is correctly received by Client B and that the message is immediately retrieved by using the Immediate Retrieval mode.</p> <p>Verification is done by sending a notification from a Test Tool to Client B. Client B then immediately initiates a retrieval of the message from the Test Tool. On the Test Tool it can be verified that no M-NotifyResp.ind message is sent from Client B before the GET operation is initiated</p>
Specification Reference	[MMSCTR] Chapter 6.3.1 [MMSCTR] Chapter 6.2.1
SCR Reference	MMSCTR-FTC-C-002, MMSCTR-NTF-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-701
Preconditions	-Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send notification of an MM to Client B.</li> <li>2. In Client B, receive the MM notification and retrieve and open the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has retrieved the MMs immediately and responded with a M-NotifyResp.ind to the Test Tool after the initiation of the GET operation. The X-Mms-Status field SHALL have a Status-value of Retrieved.

### 5.8.1.2 Download options – Deferred retrieval

Test Case Id	MMS-1.2-con-702
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a message is correctly received by Client B and that the message is retrieved by using the Deferred Retrieval mode.</p> <p>Verification is done by sending a notification from a Test Tool to Client B. On the Test Tool it can be verified that an M-NotifyResp.ind message is sent from Client B before the GET operation is initiated</p>
Specification Reference	[MMSCTR] Chapter 6.3.1 [MMSCTR] Chapter 6.2.1
SCR Reference	MMSCTR-FTC-C-002, MMSCTR-NTF-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-702
Preconditions	<p>-Client B Setting: Download option is set to Deferred Retrieval mode</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send notification of an MM to Client B.</li> <li>2. In Test Tool, wait for M-NotifyResp.ind from Client B</li> <li>3. In Client B, initiate download of MM, receive and open the MM.</li> <li>4. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the notification and initially responded with M-NotifyResp.ind with the message retrieval status code set to Deferred. The X-Mms-Status field SHALL have a Status-value of Deferred. After user interaction, client B has successfully downloaded the message and sent the M-acknowledge.ind.

### 5.8.1.3 Download options – Rejected retrieval

Test Case Id	MMS-1.2-con-703
Test Object	Client B
Test Case Description	<p>The purpose is to verify that a message is correctly received by Client B and that Client B can reject the messages and not attempt message download.</p> <p>Verification is done by sending a notification from a Test Tool to Client B. The MM is rejected at Client B. On the Test Tool it can be verified that an M-NotifyResp.ind message is sent from Client B with message retrieval status set to Rejected and no download attempt is made by Client B.</p>
Specification Reference	[MMSCTR] Chapter 6.3.1 [MMSCTR] Chapter 6.2.1
SCR Reference	MMSCTR-FTC-C-002, MMSCTR-NTF-C-003
Tool	MMS Conformance tool
Test Code	Validated test code for test case MMS-1.2-con-703
Preconditions	<p>-Client B Setting: Download option is set to Rejected Retrieval mode</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Test Tool, send notification of an MM to Client B.</li> <li>2. In Client B, reject the MM.</li> <li>3. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the notification. Client B has successfully rejected the message by responding with M-NotifyResp.ind with the message retrieval status code set to Rejected.

### 5.8.1.4 DRM support – Forward Lock

Test Case Id	MMS-1.2-con-704
Test Object	Client B
Test Case Description	<p>The purpose is to verify that the terminal is able to receive a message containing DRM protected content and that the received objects are properly protected.</p> <p>Verification is done by sending an MM with DRM content from a Test Tool to Client B. The Client B should be able to receive the MM and open the content, but should not be able to forward the protected content.</p>
Specification Reference	[MMSCONF] Chapter 7.1.4
SCR Reference	MMSCONF-MED-C-022
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-704
Preconditions	<p>-Client B</p> <p>Support for DRM Forward Lock</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. An MM , containing DRM/Forward-Lock-protected content is sent to Client B from the Test Tool</li> <li>2. In Client B, receive and open the MM containing protected content</li> <li>3. In client B, try to forward the MM to client A</li> <li>4. Verify the pass criteria below.</li> </ol>
Pass-Criteria	<p>Client B receives the protected content and the received message is reasonably presented</p> <p>The received objects are properly protected and the protected objects are not forwarded.</p>

## 5.9 Client Conformance Testing Encapsulation

### 5.9.1 Sending of Multimedia Messages

#### 5.9.1.1 Support for X-Mms-Message-Type field

Test Case Id	MMS-1.2-con-731
Test Object	Client A
Test Case Description	When a client sends a Send Request, then the M-Send.req.PDU contains an X-Mms-Message-Type field with the value m-send-req
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-016
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-731
Preconditions	Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req.PDU from Client A contains an X-Mms-Message-Type field with the value m-send-req

### 5.9.1.2 Support for X-Mms-Transaction-ID field

Test Case Id	MMS-1.2-con-732
Test Object	Client A
Test Case Description	When a client sends a Send Request, then the M-Send.req.PDU contains a X-Mms-Transaction-ID field.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-017
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-732
Preconditions	Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req.PDU from Client A contains an X-Mms-Transaction-ID

### 5.9.1.3 Support for Date field

Test Case Id	MMS-1.2-con-733
Test Object	Client A
Test Case Description	If the client supports dates: when a client sends a Send Request, then the M-Send.req.PDU contains a Date field that contains date and time that the request was sent
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-019
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-733
Preconditions	Client A supports dates; Client clock correct
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In Client A, send MM to Test Tool and note the time and date of sending.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req.PDU contains a correctly formatted Date field that contains date and time that the request was sent, accurate to within + or – 10 minutes.

### 5.9.1.4 Support for From field

Test Case Id	MMS-1.2-con-734
Test Object	Client A
Test Case Description	When a client sends a Send Request, then the M-Send.req.PDU contains a From field with valid content
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-020
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-734
Preconditions	Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	M-Send.req.PDU contains a From field that contains either the “Insert Address Token” attribute or the address of Client A

### 5.9.1.5 Support for To field

Test Case Id	MMS-1.2-con-735
Test Object	Client A
Test Case Description	When a client sends a message to another client, then the To field of the Send Request contains the address of the addressed client.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-021, MMSE-C-024
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-735
Preconditions	Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	To field of the Send Request contains the address of the addressed client.

### 5.9.1.6 Support for Cc field

Test Case Id	MMS-1.2-con-736
Test Object	Client A
Test Case Description	When a client carbon copies a message to another client, then the Cc field of the Send Request contains the address of the addressed client
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-022, MMSE-C-024
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-736
Preconditions	Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To field is set to any legal value as required by Client software and CC-field is set to a legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	Cc field of the Send Request contains the address of the copied client

### 5.9.1.7 Support for Bcc field

Test Case Id	MMS-1.2-con-737
Test Object	Client A
Test Case Description	When a client blind carbon copies a message to another client, then the Bcc field of the Send Request contains the address of the addressed client.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-023, MMSE-C-024
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-737
Preconditions	Client A
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To field is set to any legal value, as required by Client software and Bcc-field is set to a legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU..</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	Bcc field of the Send Request contains the address of the blind-copied client

### 5.9.1.8 Support for Subject field

Test Case Id	MMS-1.2-con-738
Test Object	Client A
Test Case Description	When a client sends a message to another client and includes a subject for the message, then the Subject field of the Send request contains this subject.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1) [MMSCONF] Chapter 10.2.4 (Table 14)
SCR Reference	MMSE-C-025
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-738
Preconditions	Client A Max Subject field length limit of User Interface = X characters, where $X \leq 40$ . If User Interface subject field length limit is $> 40$ , set $X = 40$
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address. Subject field is set to the first X characters of "A_long_Subject_field_with_40_characters!".</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	Subject field of the Send request contains the first X characters of "A_long_Subject_field_with_40_characters!"

### 5.9.1.9 Support for X-Mms-Message-Class field

Test Case Id	MMS-1.2-con-739
Test Object	Client A
Test Case Description	When a client sends a Send Request and the M-Send.req.PDU contains a X-Mms-Message-Class with the value Auto, then the X-Mms-Delivery-Report field has the value No.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1)
SCR Reference	MMSE-C-026
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-739
Preconditions	Client A: Capability: Generate "Auto" class MM
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new "Auto" MM.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req.PDU contains a X-Mms-Message-Class with the value Auto and a X-Mms-Delivery-Report field that has the value No

### 5.9.1.10 Support for X-Mms-Expiry field – Relative

Test Case Id	MMS-1.2-con-740
Test Object	Client A
Test Case Description	When the client sends a Send Request with a relative expiry time, then the M-Send.req PDU contains an X-Mms-Expiry field that has the value Relative followed by the maximum length of time the MM will be stored in MMS Proxy-Relay before deletion.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-027
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-740
Preconditions	Client A able to set relative expiry time
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and relative expiry time is set to 24 hours (i.e. 1 day) or an equivalent permitted by the User Interface of the Client.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	M-Send.req PDU contains a X-Mms-Expiry field that has the value Relative followed by the value entered at step 2 of the Test Procedure (in seconds).

### 5.9.1.11 Support for X-Mms-Expiry field – Absolute

Test Case Id	MMS-1.2-con-741
Test Object	Client A
Test Case Description	When the client sends a Send Request with an Absolute expiry time, then the M-Send.req PDU contains an X-Mms-Expiry field that has the value Absolute, followed by the date at which the MM is to be deleted.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-027
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-741
Preconditions	Client A able to set absolute expiry time
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and absolute expiry time set to 29 February 2012</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	M-Send.req PDU contains a X-Mms-Expiry field that has the value Absolute followed by the date 29 February 2012

### 5.9.1.12 Support for X-Mms-Delivery-Time field – Relative

Test Case Id	MMS-1.2-con-742
Test Object	Client A
Test Case Description	When the client sends a Send Request with a relative delivery time, then the M-Send.req PDU contains an X-Mms-Delivery-Time field with the value Relative followed by the period before which the message must not be delivered
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 7.2.13
SCR Reference	MMSE-C-028
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-742
Preconditions	Client A able to set relative delivery time
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and delivery time is set to Relative with a value of 24 hours (i.e. 1 day) or an equivalent permitted by the User Interface of the Client.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req PDU contains a X-Mms-Delivery-Time field that has the value Relative followed by the value entered at step 2 of the Test Procedure (in seconds).

### 5.9.1.13 Support for X-Mms-Delivery-Time field – Absolute

Test Case Id	MMS-1.2-con-743
Test Object	Client A
Test Case Description	When the client sends a Send Request with an Absolute delivery time, then the M-Send.req PDU contains an X-Mms-Delivery-Time field with the value Absolute followed by the date before which the message must not be delivered
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 7.2.13.
SCR Reference	MMSE-C-028
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-743
Preconditions	Client A able to set absolute delivery time
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and delivery time set to Absolute with a value set to 29 February 2012.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req PDU contains a X-Mms-Delivery-Time field that has the value Absolute followed by the value 29 February 2012

### 5.9.1.14 Support for X-Mms-Priority field – Low

Test Case Id	MMS-1.2-con-744
Test Object	Client A
Test Case Description	When a client sends a Send Request with a Low priority, then the X-Mms-Priority field has the value Low.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1) [MMSENC] Chapter 7.2.28
SCR Reference	MMSE-C-029
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-744
Preconditions	Client A capable of setting priority
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and Priority set to Low.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req PDU X-Mms-Priority field has the value Low

### 5.9.1.15 Support for X-Mms-Priority field – Normal

Test Case Id	MMS-1.2-con-745
Test Object	Client A
Test Case Description	When a client sends a Send Request with a Normal priority, then the X-Mms-Priority field has the value Normal..
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1) [MMSENC] Chapter 7.2.28
SCR Reference	MMSE-C-029
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-745
Preconditions	Client A capable of setting priority
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and Priority set to Normal.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req PDU X-Mms-Priority field is either absent or, if present, has the value Normal

### 5.9.1.16 Support for X-Mms-Priority field – High

Test Case Id	MMS-1.2-con-746
Test Object	Client A
Test Case Description	When a client sends a Send Request with a High priority, then the X-Mms-Priority field has the value High.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1) [MMSENC] Chapter 7.2.28
SCR Reference	MMSE-C-029
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-746
Preconditions	Client A capable of setting priority
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and Priority set to High.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req PDU X-Mms-Priority field has the value High

### 5.9.1.17 Support for X-Mms-Delivery-Report field

Test Case Id	MMS-1.2-con-747
Test Object	Client A
Test Case Description	When the client sends a Send Request and requests that each recipient should return a delivery report, then the X-Mms-Delivery-Report field shall have the value Yes..
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1) [MMSENC] Chapter 7.2.7
SCR Reference	MMSE-C-031
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-747
Preconditions	Client A able to request Delivery Reports
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to any legal address and a Delivery Report is requested</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req PDU X-Mms-Delivery field is present and has the value Yes, and the X-Mms-Message-Class, if present, is not set to Auto

### 5.9.1.18 Support for X-Mms-Read-Report field

Test Case Id	MMS-1.2-con-748
Test Object	Client A
Test Case Description	When the client sends a Send Request and requests that each recipient should return a read report, then the X-Mms-Read-Report field contains the value Yes.
Specification Reference	[MMSENC] Chapter 6.1.1 (Table 1) [MMSENC] Chapter 7.2.30
SCR Reference	MMSE-C-032
Tool	MMS Conformance tool
Test code	Validated test code for test case MMS-1.2-con-748
Preconditions	Client A able to request read reports
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM with Read reports requested.</li> <li>2. In MM header: To-field is set to any legal address.</li> <li>3. In Client A, send MM to Test Tool.</li> <li>4. Test Tool responds to Client A with an M-Send.conf PDU.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass-Criteria	The M-Send.req PDU X-Mms-Read-Report field is present and contains the value Yes.

## 5.10 CLIENT A-MMSC-EMAIL CLIENT B, EMAIL CLIENT A-MMSC-CLIENT B

When MM sent to email recipient the SMIL may be removed.

### 5.10.1 Send Content Object to email recipient

#### 5.10.1.1 Send text object to email recipient

Test Case Id	MMS-1.2-con-801
Test Object	MMSC
Test Case Description	The purpose is to verify that a text object is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-002
Tool	
Test Code	
Preconditions	-Client A -MMSC -Email recipient
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to a single email address.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Email recipient.</li> <li>5. In Email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message and the received message is reasonably presented.

### 5.10.1.2 Send image object to email recipient

Test Case Id	MMS-1.2-con-802
Test Object	MMSC
Test Case Description	The purpose is to verify that an image object is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A -MMSC -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add image file/object JPG160x120.jpg to the message.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received message is reasonably presented.

### 5.10.1.3 Send audio object to email recipient

Test Case Id	MMS-1.2-con-803
Test Object	MMSC
Test Case Description	The purpose is to verify that an audio object is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-013
Tool	
Test Code	
Preconditions	-Client A -MMSC -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add audio file/object (either AMRaudioNB.amr or audio1.qcp) to the message and set page timing to allow for the (AMRaudioNB amr or audio1.qcp) . file to be played.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received message is reasonably presented.

### 5.10.1.4 Send text, image and audio objects to email recipient

Test Case Id	MMS-1.2-con-804
Test Object	MMSC
Test Case Description	The purpose is to verify that that a message with multiple objects (text, image, audio and presentation) is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	
Test Code	
Preconditions	-Client A -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: In the message body, create one page and enter the text "Hello World", add the image JPG80x60.jpg file/object and add the file/object (either AMRAudio1.amr or audio1.qcp).</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and all objects exist and are reasonably presented.

## 5.10.2 Receive Content Object from email recipient

### 5.10.2.1 Receive text, image and audio objects from email

Test Case Id	MMS-1.2-con-805
Test Object	MMSC
Test Case Description	The purpose is to verify that a message with multiple objects (text, image, audio and presentation) is correctly sent from an email sender to an MMS client (Client B) via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSENC] Chapter 5
SCR Reference	MMSE-C-005, MMSE-C-013
Tool	
Test Code	
Preconditions	<p>-Email sender          Capability:            encode image/jpeg            audio/(either amr or 13k speech)            text/plain</p> <p>-MMSC</p> <p>- Client B</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Email sender, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message body, create one page and enter the text "Hello World", add the image JPG80x60.jpg file/object and add the file/object (either AMRAudio1.amr or audio1.qcp).</li> <li>4. In Email sender, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and all objects exist and are reasonably presented.

### 5.10.3 Send Attachment to e-mail recipient

#### 5.10.3.1 Send vCard object to email recipient

Test Case Id	MMS-1.2-con-806
Test Object	MMSC
Test Case Description	The purpose is to verify that a vCard object is correctly sent from Client A to an email recipient via MMSC and that the received vCard is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	
Test Code	
Preconditions	-Client A Capability: vCard  -MMSC  -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add a business vCard object “John Doe.vcf” to the message.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received vCard is textually correct.

### 5.10.3.2 Send vCalendar object to email recipient

Test Case Id	MMS-1.2-con-807
Test Object	MMSC
Test Case Description	The purpose is to verify that a vCalendar object correctly sent from Client A to an email recipient via MMSC and that the received vCalendar is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	
Test Code	
Preconditions	-Client A Capability: vCalendar  -MMSC  -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add a vCalendar object “Christmas.vcs” to the message.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received vCalendar is textually correct.

## 5.10.4 Receive Attachment from e-mail

### 5.10.4.1 Receive vCard object from email

Test Case Id	MMS-1.2-con-808
Test Object	MMSC
Test Case Description	The purpose is to verify that a vCard object correctly sent from an email sender to an MMS client (ClientB) via MMSC and that the received vCard is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	
Test Code	
Preconditions	-Email sender Capability: vCard  -MMSC  - Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Email sender, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add a business vCard object “John Doe.vcf” to the message.</li><li>4. In Email sender, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received vCard is textually correct.

### 5.10.4.2 Receive vCalendar object from email

Test Case Id	MMS-1.2-con-809
Test Object	MMSC
Test Case Description	The purpose is to verify that a vCalendar object is correctly sent from Client A to an email recipient via MMSC and that the received vCalendar is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	
Test Code	
Preconditions	-Email sender Capability: vCalendar  -MMSC  - Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Email sender, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add a vCalendar object “Christmas.vcs” to the message.</li><li>4. In Email sender, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received vCalendar is textually correct.

## 5.11 Server Conformance Testing – Adaptation

### 5.11.1.1 Image resolution reduction

Test Case Id	MMS-1.2-con-913
Test Object	MMSC
Test Case Description	The purpose is to verify that an image with a resolution greater than Client B's maximum image resolution is correctly sent from Client A to Client B and the received image is less than or equal to Client B's maximum image resolution.
Specification Reference	[MMSCONF] Chapter 9.2, [MMSCONF] Chapter 9.4.2
SCR Reference	MMSCONF-AMJ-S-003, MMSCONF-AMN-S-002, MMSCONF-AMN-S-001, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006,
Tool	
Test Code	
Preconditions	Client A setting: Creation Mode set to free  MMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object JPG1000x500.jpg to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	In Client B the received Image is less than or equal to its maximum resolution and the received image is reasonably presented.

### 5.11.1.2 Size reduction

Test Case Id	MMS-1.2-con-914
Test Object	MMSC
Test Case Description	The purpose is to verify that a message larger than Client B's max message size is sent from Client A to Client B. With MMSC performs the content adaptation, the received message is less than or equal to Client B's max message size.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMN-S-002, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007
Tool	
Test Code	
Preconditions	Client A setting: Creation Mode set to free  MMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image, audio, text and video clip to message, so that message size is larger than Client B's max message size.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	In Client B the received message size is less than or equal to Client B's max message size and content of message reasonably presented. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly.

### 5.11.1.3 Drop unsupported object type

Test Case Id	MMS-1.2-con-915
Test Object	MMSC
Test Case Description	The purpose is to verify that an unsupported file for Client B is correctly sent from Client A to Client B and that the received message does not contain the file.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMJ-S-001, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007
Tool	
Test Code	
Preconditions	Client A Creation Mode set to freeIs able to add unsupported object type to the messageMMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add unsupported object type to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	In Client B the received Message does not contain the unsupported file. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly.

#### 5.11.1.4 Image basic: Video QCIF to Image reduced

Test Case Id	MMS-1.2-con-916
Test Object	MMSC
Test Case Description	The purpose is to verify that a video file is correctly sent from Client A to Client B in Content Class Image Basic and that the received image is less than or equal to 30k and has a resolution of 160x120 or less.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMJ-S-003, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007, MMSCONF-CAG-S-008
Tool	
Test Code	
Preconditions	<p>-Client A Capability: video basic class conformant Setting: Creation Mode set to Restricted</p> <p>-Client B Capability: image basic class conformant, max message size is 30kB and max resolution is 160x120</p> <p>-MMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: Add image file/object sub-qcif_video.3gp to the message.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B received an image that is less than or equal to 30kB and has a resolution of 160x120 or less. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly. The updated media format have been modified accordingly in the file themselves and in their reference in the presentation element.

### 5.11.1.5 Video Basic: Size reduction to 100kB

Test Case Id	MMS-1.2-con-917
Test Object	MMSC
Test Case Description	The purpose is to verify that a video file larger than 100k is correctly sent from Client A in content class Video Rich to Client B in Content Class Video Basic and that the received video file is less than or equal to 100k.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMN-S-003, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007
Tool	
Test Code	
Preconditions	<p>-Client A            Capability: Video rich class conformant            Setting: Creation Mode set to Restricted</p> <p>-Client B            Capability: Image rich class conformant and max message size is 100 kB</p> <p>-MMSC setting:            Content adaptation is enabled and Client B's UA Profile is added to MMSC</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: VideoRich300kB.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	In Client B the received video is less than or equal to 100kB and reasonably presented. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly.

### 5.11.1.6 Function to enable or disable major content adaptation

Test Case Id	MMS-1.2-con-901
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 5.11.1.7 Availability of original content after major content adaptation

Test Case Id MMS-1.2-con-902

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 5.11.1.8 Update labels in the presentation after media type adaptation

Test Case Id MMS-1.2-con-903

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 5.11.1.9 Update file extensions and MIME types after media format

Test Case Id MMS-1.2-con-904

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

## 5.11.2 Client B in Image Basic

### 5.11.2.1 Image resolution set to 160x120

Test Case Id MMS-1.2-con-905

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 5.11.2.2 Size reduction to 30k, GIF87

Test Case Id	MMS-1.2-con-906
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 5.11.2.3 Size reduction to 30k, JPEG

Test Case Id	MMS-1.2-con-907
Test Object	MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 5.11.2.4 GIF89a image larger than 30k

Test Case Id MMS-1.2-con-908

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 5.11.2.5 SP-MIDI sound

Test Case Id MMS-1.2-con-909

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 5.11.2.6 Video QCIF to Image reduced to 160x120

Test Case Id MMS-1.2-con-910

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

## 5.11.3 Client B in Image Rich

### 5.11.3.1 Video to Image

Test Case Id MMS-1.2-con-911

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

## 5.11.4 Client B in Video Basic

### 5.11.4.1 Size reduction to 100k

Test Case Id MMS-1.2-con-912

Test Object MMSC

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

## 6 MMS Interoperability Test Cases

### 6.1 Client to Client

The tests in this section are performed in order to test interoperability between two clients of different brands. The following figure shows the set-up and principle for the tests

Client A → Test Environment (inc. MMSC) → Client B

- Messages are always sent from Client A
- Test environment will deliver a notification to Client B
- The Client B will retrieve the message

Tests are performed between two clients. In testing, one client acts first as a Client A and another client as a Client B. When all applicable test cases have been performed in this scenario, the roles will be interchange and the applicable test cases for this scenario will be executed.

The test environment in use (inc. MMSC) is considered be transparent to message content, i.e. content adaptation SHOULD not take place.

#### 6.1.1 Message

##### 6.1.1.1 General

##### 6.1.1.1.1 Empty message

Test Case Id

Test Object

Test Case Description      Test case removed since there is not appropriate requirement for sending an empty MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

### 6.1.1.1.2 SMIL layout portrait with text above the image

Test Case Id	MMS-1.2-int-102
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that messages with SMIL layouts, here portrait with text above the image, is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	
Test Code	
Preconditions	-Client A Capability: Ability to create portrait layout  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, use portrait layout, enter text as in file Generic_Text.txt object on top and add image file/object JPG80x60.jpg below.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.

### 6.1.1.1.3 SMIL layout portrait with text below the image

Test Case Id	MMS-1.2-int-103
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that messages with SMIL layouts, here portrait with text below the image, is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	
Test Code	
Preconditions	-Client A Capability: Ability to create portrait layout  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, use portrait layout, add image file/object JPG80x60.jpg on top and enter text as in file Generic_Text.txt below.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.

#### 6.1.1.1.4 SMIL layout landscape with text to the left of the image

Test Case Id	MMS-1.2-int-104
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that messages with SMIL layouts, here landscape with text to the left of the image, is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	
Test Code	
Preconditions	-Client A Capability: Ability to create landscape layout  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, use landscape layout, enter text as in file Generic_Text.txt object to the left and add image file/object JPG80x60.jpg to the right.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.

### 6.1.1.1.5 SMIL layout landscape with text to the right of the image

Test Case Id	MMS-1.2-int-105
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that messages with SMIL layouts, here landscape with text to the right of the image, is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 8
SCR Reference	MMSCONF-MED-C-025
Tool	
Test Code	
Preconditions	-Client A Capability: Ability to create landscape layout  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, use landscape layout, add image file/object JPG80x60.jpg to the left enter text as in file Generic_Text.txt object to the right.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message. A layout is used and both image and text objects are reasonably presented.

### 6.1.1.1.6 Multiple objects in same page

Test Case Id	MMS-1.2-int-106
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that multiple objects (one image, one text and one audio file) are correctly sent from Client A to Client B and that all contents of the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	
Test Code	
Preconditions	-Client A Capability: Subject with UTF-8 character set  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, create one page and enter the text "Hello World", add the image JPG80x60.jpg file/object and add the file/object (either AMRaudio1.amr or audio1.qcp).</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and all contents of the received message are reasonably presented in one page.

### 6.1.1.1.7 Multiple pages

Test Case Id	MMS-1.2-int-107
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that multiple pages are correctly sent from Client A to Client B and that all pages are reasonably presented in the correct order.
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	
Test Code	
Preconditions	-Client A Capability: Ability to create multiple pages -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, create 10 pages (or as many as the client allows, if less than 10), adding the files/objects images GIF1.gif through GIF10.gif to these pages as applicable, with one image per page.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and all pages are reasonably presented in the correct order.

### 6.1.1.1.8 Multiple pages with page timing and time dependent content

Test Case Id	MMS-1.2-int-108
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that multiple pages and objects with page timing are correctly sent from Client A to Client B and that all pages and objects are reasonably presented in the correct order. The timing of the pages follows the specified values or client default values.
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	
Test Code	
Preconditions	-Client A Capability: Ability to create multiple pages  -Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message body, create the following three pages: <ul style="list-style-type: none"> <li>- Page 1, enter text as in file Generic_Text.txt, add the file/object JPG80x60.jpg, add the file/object (either audio1.amr or audio1.qcp) and specify page timing to 3 seconds if applicable.</li> <li>- Page 2, enter the text as in file USASCII.txt, add the file/object GIF80x60.gif, add the file/object (either audio2.amr or audio2.qcp) and specify page timing to 5 seconds if applicable.</li> <li>- Page 3, enter the text Generic_Text.txt, add the file/object WBMP_80x60.wbmp, add the file/object (either audio3.amr or audio3.qcp) and specify page timing to 5 seconds if applicable.</li> </ul> </li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and all pages and objects are reasonably presented in the correct order. The timing of the pages follows the specified values or Client A default values.

### 6.1.1.1.9 Multiple pages with page timing

Test Case Id	MMS-1.2-int-109
Test Object	Client A and Client B
Test Case Description	<p>The purpose is to verify that messages with different SMIL page timing can be sent, received and reasonably presented. This message contains 4 different pages and page times:</p> <ul style="list-style-type: none"> <li>- Page 1 with page timing 100 ms or client minimum</li> <li>- Page 2 with 5 seconds page timing</li> <li>- Page 3 with page time 20 seconds or client maximum</li> <li>- Page 4 with no page timing</li> </ul> <p>Note: Since the last page of a SMIL presentation can be shown indefinitely on a client until further actions, this fourth page is only used for delimitating the period of time that page 3 is displayed. It is then possible to verify that the timing of page 3 received by Client B is the same that was set by Client A.</p>
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	
Test Code	
Preconditions	<p>-Client A Capability: Ability to specify different SMIL page timings and support multiple pages with images</p> <p>-Client B</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message body, create the following four pages: <ul style="list-style-type: none"> <li>- Page 1, enter the text "Page 1" and specify timing to 100 ms or client minimum.</li> <li>- Page 2, add the file/object JPG80x60.jpg and specify timing to 5 seconds.</li> <li>- Page 3, enter the text "Page 3" and specify timing to 20 seconds or client maximum.</li> <li>- Page 4, add the file/object JPG80x60.jpg.</li> </ul> </li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented. The timing of the pages follows the specified values.

### 6.1.1.1.10 Long file name

Test Case Id

Test Object

Test Case Description            Test case removed since there is not appropriate requirement for sending an Long file name MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

**6.1.1.1.11 Subject field with UTF8 encoding**

Test Case Id	MMS-1.2-int-111
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a subject field encoded in UTF-8 correctly sent from Client A to Client B and that the message subject is textually correct.
Specification Reference	MMSENC Table 1, Table 3, Table 5
SCR Reference	MMSE-C-025, MMSE-C-046, MMSE-C-067
Tool	
Test Code	
Preconditions	-Client A Capability: UTF-8 charset encoding of Subject field  -Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Subject-field is set to the character string given in the reference content file "Short_Text_UTF-8.txt" and the encoding is set to UTF-8. (Alternative characters may be substituted where necessary as described in the reference content document "Content used in OMA MMS tests.doc")</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the message subject is textually correct.

## 6.1.2 Content

### 6.1.2.1 Text

#### 6.1.2.1.1 Text with US-ASCII encoding

Test Case Id	MMS-1.2-int-112
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a text object with US-ASCII encoding is correctly sent from Client A to Client B and that the received message is textually correct.
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-002
Tool	
Test Code	
Preconditions	-Client A  Supports US-ASCII ( <i>IANA MIBEnum 3</i> ) encoding when creating messages
	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message body, enter text as in file Text_us-ascii.txt.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and the received message is textually correct.

### 6.1.2.1.2 Text with UTF-8 encoding

Test Case Id	MMS-1.2-int-113
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a text object with UTF-8 encoding is correctly sent from Client A to Client B and that the received message is textually correct.
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-003
Tool	
Test Code	
Preconditions	-Client A  Supports utf-8 (IANA MIBenum 106) [Unicode] encoding when creating messages  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, enter text as in file Text_UTF-8.txt. (Alternative characters may be substituted where necessary as described in the reference content document “Content used in OMA MMS tests.doc”)</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is textually correct.

**6.1.2.1.3 Text with UTF-16 encoding**

Test Case Id	MMS-1.2-int-114
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

## 6.1.2.2 Image

### 6.1.2.2.1 JPG Image size 80x60

Test Case Id	MMS-1.2-int-115
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.1.2.2.2 JPG Image size 160x120

Test Case Id	MMS-1.2-int-116
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a JPG image of the size 160x120 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object JPG160x120.jpg to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

### 6.1.2.2.3 JPG Image size 60x80

Test Case Id	MMS-1.2-int-117
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 6.1.2.2.4 JPG Image size 640x480

Test Case Id	MMS-1.2-int-118
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a JPG image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object JPG640x480.jpg to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.1.2.2.5 GIF Image size 80x60**

Test Case Id	MMS-1.2-int-119
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.1.2.2.6 GIF Image size 160x120

Test Case Id	MMS-1.2-int-120
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a GIF87a image of the size 160x120 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object GIF87a160x120.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.1.2.2.7 GIF Image size 60x80**

Test Case Id	MMS-1.2-int-121
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.1.2.2.8 GIF Image size 640x480

Test Case Id	MMS-1.2-int-122
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a GIF87a image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object GIF87a640x480.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.1.2.2.9 Animated GIF Image size 60x80**

Test Case Id	MMS-1.2-int-123
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**6.1.2.2.10 Animated GIF Image size 160x120**

Test Case Id	MMS-1.2-int-124
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that an animated GIF89a image of the size 160x120 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object AnimatedGIF89a_160x120.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.1.2.2.11 Animated GIF Image size 60x80**

Test Case Id	MMS-1.2-int-125
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**6.1.2.2.12 Animated GIF Image size 640x480**

Test Case Id	MMS-1.2-int-126
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that an animated GIF89a image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object AnimatedGIF89a_640x480.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.1.2.2.13 WBMP Image size 60x80**

Test Case Id	MMS-1.2-int-127
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**6.1.2.2.14 WBMP Image size 160x120**

Test Case Id	MMS-1.2-int-128
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a WBMP images of the size 160x120 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object WBMP_160x120.wbmp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.1.2.2.15 WBMP Image size 60x80**

Test Case Id	MMS-1.2-int-129
Test Object	Client A and Client B
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**6.1.2.2.16 WBMP Image size 640x480**

Test Case Id	MMS-1.2-int-130
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a WBMP images of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object WBMP_640x480.wbmp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

### 6.1.2.3 Audio

#### 6.1.2.3.1 AMR audio NB

Test Case Id	MMS-1.2-int-131
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that an AMR audio NB object/content is correctly sent from Client A to Client B and that the AMR audio NB file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-013
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add audio file/object AMRaudioNB.amr to the message and set page timing to allow for the audioNB.amr file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the AMR audio NB file/object is reasonably presented and AMR audioNB is played in its entirety.

### 6.1.2.3.2 3GPP2 13k speech

Test Case Id	MMS-1.2-int-132
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that an 13k speech object/content is correctly sent from Client A to Client B and that the 13k speech file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-014
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add speech file/object audio1.qcp to the message and set page timing to allow for the audio1.qcp file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the 13k speech file/object is reasonably presented and 13k speech is played in its entirety.

## 6.1.2.4 Video

### 6.1.2.4.1 3GPP Video QCIF

Test Case Id	MMS-1.2-int-133
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object qcif_video.3gp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

#### 6.1.2.4.2 3GPP Video sub-QCIF

Test Case Id	MMS-1.2-int-134
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object sub-qcif_video.3gp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

### 6.1.2.4.3 3GPP2 Video QCIF (MPEG4+13k)

Test Case Id	MMS-1.2-int-135
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**6.1.2.4.4 3GPP2 Video QCIF (MPEG4+AMR)**

Test Case Id	MMS-1.2-int-136
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

#### 6.1.2.4.5 3GPP2 Video QCIF (H.263+13k)

Test Case Id	MMS-1.2-int-137
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**6.1.2.4.6 3GPP2 Video QCIF (H.263+AMR)**

Test Case Id	MMS-1.2-int-138
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_amr_qcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

**6.1.2.4.7 3GPP2 Video sub-QCIF (MPEG4 +13k)**

Test Case Id	MMS-1.2-int-139
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**6.1.2.4.8 3GPP2 Video sub-QCIF (MPEG4 +AMR)**

Test Case Id	MMS-1.2-int-140
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**6.1.2.4.9 3GPP2 Video sub-QCIF (H.263 +13k)**

Test Case Id	MMS-1.2-int-141
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**6.1.2.4.10 3GPP2 Video sub-QCIF (H.263 +AMR)**

Test Case Id	MMS-1.2-int-142
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

## 6.1.2.5 Attachment + Empty Page

### 6.1.2.5.1 vCard

Test Case Id	MMS-1.2-int-143
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a vCard object correctly sent from Client A to Client B and that the received vCard is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	
Test Code	
Preconditions	-Client A Capability: vCard  -Client B Capability: vCard
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new Address Book entry containing all possible fields of the reference content "John Doe.vcf" as supported by the MMI of Client A</li> <li>2. In Client A, create a new MM.</li> <li>3. In MM header: To-field is set to Client B.</li> <li>4. In MM content: Add the vCard object from the above mentioned address book entry to the message.</li> <li>5. In Client A, send MM to Client B.</li> <li>6. In Client B, receive and open the MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message. The received vCard contains fields supported by the Client B and fields are textually correct.

### 6.1.2.5.2 vCalendar

Test Case Id	MMS-1.2-int-144
Test Object	Client A and Client B
Test Case Description	The purpose is to verify that a vCalendar object correctly sent from Client A to Client B and that the received vCalendar is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	
Test Code	
Preconditions	-Client A Capability: vCalendar  -Client B Capability: vCalendar
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new Calendar entry containing all possible fields of the reference content “Christmas.vcs” as supported by the MMI of Client A</li><li>2. In Client A, create a new MM.</li><li>3. In MM header: To-field is set to Client B.</li><li>4. In MM content: Add the vCalendar object as defined above to the message.</li><li>5. In Client A, send MM to Client B.</li><li>6. In Client B, receive and open the MM.</li><li>7. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message. The received vCalendar object contains fields supported by the Client B and fields are textually correct.

## 6.2 Client to Server

The tests in this section are performed in order to test interoperability between clients of one brand and a MMSC of a different brand. In testing, client acts as a Client A and another identical client as a Client B. In this model, there is no need to interchange Client roles. The applicable test cases will be executed only once

The following scenarios show the set-up and principle for the tests:

### 1. Messages addressed to client.

Client A → Test Environment → MMSC → Test Environment → Client B

- Messages are always sent from Client A
- MMSC will process the message
- Test environment will deliver a notification to Client B.
- The Client B will retrieve the message from MMSC via test

### 2. Messages addressed to e-mail recipient

Client A → Test Environment → MMSC → Email recipient

- Messages are always sent from Client A
- MMSC will process the message and route it to email
- Email recipient will receive the message

### 3. Messages received from e-mail sender

Email sender → MMSC → Test Environment → Client B

- Email sender will send the message
- MMSC will receive email and process it
- Test environment will deliver a notification to Client B.
- Messages will be retrieved by Client B

The used test environment (excluding MMSC) is considered be transparent

## 6.2.1 Message

### 6.2.1.1 General

#### 6.2.1.1.1 Empty message

Test Case Id

Test Object

Test Case Description            Test case removed since there is not appropriate requirement for sending an empty MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

### 6.2.1.1.2 Image Basic - Message Size 30k

Test Case Id	MMS-1.2-int-202
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message in Image Basic Content Class with size under 30k can be sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 12
SCR Reference	MMSCONF-CMO-C-002
Tool	
Test Code	
Preconditions	-Client A Setting: Content Class set to Image Basic  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object 30k_basic_AMR.amr to the message.</li><li>4. In client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is correctly presented.

### 6.2.1.1.3 Image Rich - Message Size 100k

Test Case Id	MMS-1.2-int-203
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message in Image Rich Content Class with size under 100k can be sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	MMSCONF 12
SCR Reference	MMSCONF-CMO-C-002
Tool	
Test Code	
Preconditions	-Client A Setting: Content Class set to Image Rich  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object 100k_rich_AMR.amr to the message.</li><li>4. In client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is correctly presented.

#### 6.2.1.1.4 Video Rich - Message Size 300k

Test Case Id	MMS-1.2-int-204
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message in Video Rich Content Class with size under 300k can be sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	MMSCONF 12
SCR Reference	MMSCONF-CMO-C-002
Tool	
Test Code	
Preconditions	-Client A Setting: Content Class set to Video Rich  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object 300k_rich_AMR.amr to the message.</li><li>4. In client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is correctly presented.

### 6.2.1.1.5 Multiple pages with page timing and time dependent content

Test Case Id	MMS-1.2-int-205
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that multiple pages and objects with page timing are correctly sent from Client A to Client B via the MMSC and that all pages and objects are reasonably presented in the correct order. The timing of the pages follows the specified values or client default values.
Specification Reference	
SCR Reference	[MMSCONF] Chapter 7.1.7
Tool	MMSCONF-MED-C-023
Test Code	
Preconditions	-Client A Capability: Ability to create multiple pages  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message body, create the following three pages: <ul style="list-style-type: none"> <li>- Page 1, enter text as in file Generic_Text.txt, add the file/object JPG80x60.jpg, add the file/object (either audio1.amr or audio1.qcp) and specify page timing to 3 seconds if applicable.</li> <li>- Page 2, enter the text as in file USASCII.txt, add the file/object GIF80x60.gif, add the file/object (either audio2.amr or audio2.qcp) and specify page timing to 5 seconds if applicable.</li> <li>- Page 3, enter the text Generic_Text.txt, add the file/object WBMP_80x60.wbmp, add the file/object (either audio3.amr or audio3.qcp) and specify page timing to 5 seconds if applicable.</li> </ul> </li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and all pages and objects are reasonably presented in the correct order. The timing of the pages follows the specified values or Client A default values.

### 6.2.1.1.6 Subject field with UTF8 encoding

Test Case Id	MMS-1.2-int-206
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the Subject-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received and the subject is textually correct.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-S-004
Tool	
Test Code	
Preconditions	-Client A Capability: UTF-8 charset encoding of Subject field  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Subject-field is set to the character string given in the reference content file "Short_Text_UTF-8.txt" and the encoding is set to UTF-8. (Alternative characters may be substituted where necessary as described in the reference content document "Content used in OMA MMS tests.doc")</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received and the subject is textually correct (see Short_Text_UTF-8.txt).

### 6.2.1.1.7 Subject field with 40 Characters

Test Case Id	MMS-1.2-int-207
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with 40 chars in the Subject-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received and the subject is textually correct.
Specification Reference	[MMSCONF] Chapter 10.2.5
SCR Reference	MMSCONF- GEN-C-003
Tool	
Test Code	
Preconditions	-Client A Capability: Subject with 40 charaters length  -Client B Capability: Subject with 40 charaters length  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Add following 40 chars to subject field: “abcdefghijklmnopqrstuvwxy0123456789/+/+@”.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received and the subject is textually correct.

### 6.2.1.1.8 Subject field with US-ASCII encoding

Test Case Id	MMS-1.2-int-208
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a messages with US-ASCII characters in the Subject-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received and the subject is textually correct.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A Capability: Subject US-ASCII  -Client B Capability: Subject US-ASCII  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Subject-field is set to “Hello World” in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received and the subject is textually correct.

## 6.2.1.2 Address Field Testing

### 6.2.1.2.1 To-field with US-ASCII encoding

Test Case Id	MMS-1.2-int-209
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with US-ASCII characters in the To-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received.

### 6.2.1.2.2 Cc-field with US-ASCII encoding

Test Case Id	MMS-1.2-int-210
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with US-ASCII characters in the Cc-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received.

### 6.2.1.2.3 Bcc-field with US-ASCII encoding

Test Case Id	MMS-1.2-int-211
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with US-ASCII characters in the Bcc-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address in US-ASCII characters.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the message is successfully received.

**6.2.1.2.4 To-field with UTF-8 encoding**

Test Case Id	MMS-1.2-int-212
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the To-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC -Special An email address with a name: “ $\hat{e}\hat{u}$ ”<nn@xxx>, where nn@xxx is a valid email address specified for the test event.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to the email address “<math>\hat{e}\hat{u}</math>”&lt;nn@xxx&gt;. Note. The nn@xxx in the email address should be replaced by the relevant address to the email client used for the test. The name part of the email address (i.e. “<math>\hat{e}\hat{u}</math>”) MUST be entered as defined.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to email recipient.</li> <li>5. In email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message successfully.

**6.2.1.2.5 Cc-field with UTF-8 encoding**

Test Case Id	MMS-1.2-int-213
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the CC-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC -Special  An email address with a name: “êü”<nn@xxx>, where nn@xxx is a valid email address specified for the test event.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Cc-field is set to the email address “êü”&lt;nn@xxx&gt;. Note. The nn@xxx in the email address should be replaced by the relevant address to the email client used for the test. The name part of the email address (i.e. “êü”) MUST be entered as defined.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to email recipient.</li> <li>5. In email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message successfully.

**6.2.1.2.6 Bcc-field with UTF-8 encoding**

Test Case Id	MMS-1.2-int-214
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a message with UTF-8 characters in the BCC-field is correctly sent from Client A to Client B via MMSC and that the message is successfully received.
Specification Reference	[MMSCONF] Chapter 10.2
SCR Reference	MMSCONF- GEN-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC -Special  An email address with a name: “êü”<nn@xxx>, where nn@xxx is a valid email address specified for the test event.
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Bcc-field is set to the email address “êü”&lt;nn@xxx&gt;. Note. The nn@xxx in the email address should be replaced by the relevant address to the email client used for the test. The name part of the email address (i.e. “êü”) MUST be entered as defined.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to email recipient.</li> <li>5. In email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message successfully.

## 6.2.1.3 Message Priority

### 6.2.1.3.1 Priority – Normal

Test Case Id	MMS-1.2-int-215
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B via MMSC and that the message is successfully received and message priority is set to Normal.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 6.3 Table 5
SCR Reference	MMSE-C-029, MMSE-C-069
Tool	
Test Code	
Preconditions	-Client A Capability:  Capable of setting the priority to normal.  - MMSC  -Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Priority-Field is set to Normal.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message successfully and the message priority is set to Normal.

**6.2.1.3.2 Priority – Low**

Test Case Id	MMS-1.2-int-216
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B via MMSC and that the message is successfully received and message priority is set to Low.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 6.3 Table 5
SCR Reference	MMSE-C-029, MMSE-C-069
Tool	
Test Code	
Preconditions	-Client A Capability:  Capable of setting the priority to Low.  - MMSC  -Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Priority-Field is set to Low.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message successfully and the message priority is set to Low.

### 6.2.1.3.3 Priority – High

Test Case Id	MMS-1.2-int-217
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B via MMSC and that the message is successfully received and message priority is set to High.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSENC] Chapter 6.3 Table 5
SCR Reference	MMSE-C-029, MMSE-C-069
Tool	
Test Code	
Preconditions	-Client A Capability: Capable of setting the priority to High. - MMSC -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Priority-Field is set to High.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully and the message priority is set to High.

## 6.2.1.4 Message Classification

### 6.2.1.4.1 Message Class – Personal

Test Case Id	MMS-1.2-int-218
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with Message Class Personal is correctly sent from Client A to Client B via MMSC and that the message is successfully received with a Message Class of Personal.
Specification Reference	[MMSENC] Chapter 6.1.1
SCR Reference	MMSE-C-026
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully with a Message Class of Personal.

## 6.2.2 Content

### 6.2.2.1 Text

#### 6.2.2.1.1 Text with US-ASCII encoding

Test Case Id	MMS-1.2-int-219
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a text object with US-ASCII encoding is correctly sent from Client A to Client B via the MMSC and that the received message is textually correct.
Specification Reference	MMSCONF 7.1.8
SCR Reference	MMSCONF-MED-C-002
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, enter text as in file Text_us-ascii.txt.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is textually correct.

### 6.2.2.1.2 Text with UTF-8 encoding

Test Case Id	MMS-1.2-int-220
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a text object with UTF-8 encoding is correctly sent from Client A to Client B via the MMSC and that the received message is textually correct.
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-003
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message body, enter text as in file Text_UTF-8. (Alternative characters may be substituted where necessary as described in the reference content document "Content used in OMA MMS tests.doc")</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is textually correct.

### 6.2.2.1.3 Text with UTF-16 encoding

Test Case Id

Test Object

Test Case Description            Test case removed since there is not appropriate requirement for sending a text with UTF-16 encoding MM.

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure

Pass Criteria

## 6.2.2.2 Image

### 6.2.2.2.1 JPG Image size 80x60

Test Case Id	MMS-1.2-int-222
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 6.2.2.2.2 JPG Image size 160x120

Test Case Id	MMS-1.2-int-223
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a JPG image of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object JPG160x120.jpg to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

### 6.2.2.2.3 JPG Image size 60x80

Test Case Id	MMS-1.2-int-224
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 6.2.2.2.4 JPG Image size 640x480

Test Case Id	MMS-1.2-int-225
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a JPG image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object JPG640x480.jpg to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

### 6.2.2.2.5 GIF Image size 80x60

Test Case Id	MMS-1.2-int-226
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.2.2.2.6 GIF Image size 160x120

Test Case Id	MMS-1.2-int-227
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a GIF87a image of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object GIF87a160x120.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.2.2.2.7 GIF Image size 60x80**

Test Case Id	MMS-1.2-int-228
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.2.2.2.8 GIF Image size 640x480

Test Case Id	MMS-1.2-int-229
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a GIF87a image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-009
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object GIF87a640x480.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.2.2.2.9 Animated GIF Image size 60x80**

Test Case Id	MMS-1.2-int-230
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.2.2.2.10 Animated GIF Image size 160x120

Test Case Id	MMS-1.2-int-231
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that an animated GIF89a image of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object AnimatedGIF89a_160x120.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.2.2.2.11 Animated GIF Image size 60x80**

Test Case Id	MMS-1.2-int-232
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**6.2.2.2.12 Animated GIF Image size 640x480**

Test Case Id	MMS-1.2-int-233
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that an animated GIF89a image of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-010
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object AnimatedGIF89a_640x480.gif to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.2.2.2.13 WBMP Image size 60x80**

Test Case Id	MMS-1.2-int-234
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**6.2.2.2.14 WBMP Image size 160x120**

Test Case Id	MMS-1.2-int-235
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a WBMP images of the size 160x120 is correctly sent from Client A to Client B via the MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object WBMP_160x120.wbmp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

**6.2.2.2.15 WBMP Image size 60x80**

Test Case Id	MMS-1.2-int-236
Test Object	Client A, Client B and MMSC server
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

**6.2.2.2.16 WBMP Image size 640x480**

Test Case Id	MMS-1.2-int-237
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a WBMP images of the size 640x480 is correctly sent from Client A to Client B and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-011
Tool	
Test Code	
Preconditions	-Client A Capability: Content class greater than Image Basic class  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add image file/object WBMP_640x480.wbmp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received message is reasonably presented.

## 6.2.2.3 Audio

### 6.2.2.3.1 AMR audio NB

Test Case Id	MMS-1.2-int-238
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that an AMR audio NB object/content is correctly sent from Client A to Client B via the MMSC and that the AMR audio NB file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-013
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add audio file/object AMRaudioNB.amr to the message and set page timing to allow for the audioNB.amr file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the AMR audio NB file/object is reasonably presented and AMR audioNB is played in its entirety.

### 6.2.2.3.2 3GPP2 13k speech

Test Case Id	MMS-1.2-int-239
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that an 13k speech object/content is correctly sent from Client A to Client B and that the 13k speech file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-014
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add speech file/object audio1.qcp to the message and set page timing to allow for the audio1.qcp file to be played.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the 13k speech file/object is reasonably presented and 13k speech is played in its entirety.

## 6.2.2.4 Video

### 6.2.2.4.1 3GPP Video QCIF

Test Case Id	MMS-1.2-int-240
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a QCIF video file/object is correctly sent from Client A to Client B and that the QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object qcif_video.3gp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the QCIF video file/object is reasonably presented and QCIF video file/object is played in its entirety.

#### 6.2.2.4.2 3GPP Video sub-QCIF

Test Case Id	MMS-1.2-int-241
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A -Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object sub-qcif_video.3gp to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**6.2.2.4.3 3GPP2 Video sub-QCIF (MPEG4 +13k)**

Test Case Id	MMS-1.2-int-242
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and 13k  -Client B Capability supports MPEG4 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**6.2.2.4.4 3GPP2 Video sub-QCIF (MPEG4 +AMR)**

Test Case Id	MMS-1.2-int-243
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports MPEG4 and AMR  -Client B Capability supports MPEG4 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (mp4_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**6.2.2.4.5 3GPP2 Video sub-QCIF (H.263 +13k)**

Test Case Id	MMS-1.2-int-244
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and 13k  -Client B Capability supports H.263 and 13k
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_13k_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

**6.2.2.4.6 3GPP2 Video sub-QCIF (H.263 +AMR)**

Test Case Id	MMS-1.2-int-245
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a sub-QCIF video file/object is correctly sent from Client A to Client B and that the sub-QCIF video file/object is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-020
Tool	
Test Code	
Preconditions	-Client A Capability supports H.263 and AMR  -Client B Capability supports H.263 and AMR
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add video file/object (h263_amr_sqcif.3g2) to the message.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the sub-QCIF video file/object is reasonably presented and sub-QCIF video file/object is played in its entirety.

## 6.2.2.5 Attachment

### 6.2.2.5.1 vCard

Test Case Id	MMS-1.2-int-246
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a vCard object is correctly sent from Client A to Client B via the MMSC and that the received vCard is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A   Capability:   vCard</li> <li>-Client B   Capability:   vCard</li> <li>-MMSC</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new Address Book entry containing all possible fields of the reference content "John Doe.vcf" as supported by the MMI of Client A</li> <li>2. In Client A, create a new MM.</li> <li>3. In MM header: To-field is set to Client B.</li> <li>4. In MM content: Add the vCard object from the above mentioned address book entry to the message.</li> <li>5. In Client A, send MM to Client B.</li> <li>6. In Client B, receive and open the MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message. The received vCard contains fields supported by the Client B and fields are textually correct.

**6.2.2.5.2 vCalendar**

Test Case Id	MMS-1.2-int-247
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a vCalendar object correctly sent from Client A to Client B via the MMSC and that the received vCalendar is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A</li> <li style="padding-left: 20px;">Capability:</li> <li style="padding-left: 40px;">vCalendar</li> <li>-Client B</li> <li style="padding-left: 20px;">Capability:</li> <li style="padding-left: 40px;">vCalendar</li> <li>-MMSC</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new Calendar entry containing all possible fields of the reference content "Christmas.vcs" as supported by the MMI of Client A</li> <li>2. In Client A, create a new MM.</li> <li>3. In MM header: To-field is set to Client B.</li> <li>4. In MM content: Add the vCalendar object as defined above to the message.</li> <li>5. In Client A, send MM to Client B.</li> <li>6. In Client B, receive and open the MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message. The received vCalendar object contains fields supported by the Client B and fields are textually correct.

## 6.2.3 MMS Address Protocol

### 6.2.3.1 Send and receive message to one MSISDN/MDN recipient (To:)

Test Case Id	MMS-1.2-int-248
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with an MSISDN/MDN address in the "To:"-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-021
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to an MSISDN/MDN address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "To:"-recipient.

### 6.2.3.2 Send and receive message to one MSISDN/MDN recipient (Cc:)

Test Case Id	MMS-1.2-int-249
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with an MSISDN/MDN address in the “Cc:”-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-022
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Cc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a “Cc:”-recipient.

### 6.2.3.3 Send and receive message to one MSISDN/MDN recipient (Bcc:)

Test Case Id	MMS-1.2-int-250
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with MSISDN/MDN address in the "Bcc:"-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-023
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Bcc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "Bcc:"-recipient.

### 6.2.3.4 Send and receive message to multiple MSISDN/MDN and email recipients (To:)

Test Case Id	MMS-1.2-int-251
Test Object	Client A, multiples of Client B, MMSC server and multiple email recipients
Test Case Description	The purpose is to verify that messages can be simultaneously and correctly sent from Client A to multiple MSISDN/MDN clients and multiple email recipients via MMSC and that the message is successfully received by all the recipients listed in the “To:”-field.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-021
Tool	
Test Code	
Preconditions	-Client A -Two Client B - Three email recipients Capability: Valid email address in US-ASCII format -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to two clients (using MSISDN/MDN numbering) and three email recipients.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to multiple MSISDN/MDN clients and multiple email recipients via MMSC.</li><li>5. In multiple MSISDN/MDN clients and multiple email recipients via MMSC, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	All MSISDN/MDN clients and all email recipients listed in the “To:”-field have received the message successfully. .

### 6.2.3.5 Send and receive message to multiple MSISDN/MDN and email recipients (Cc:)

Test Case Id	MMS-1.2-int-252
Test Object	Client A, multiples of Client B, MMSC server and multiple email recipients
Test Case Description	The purpose is to verify that messages can be simultaneously and correctly sent from Client A to multiple MSISDN/MDN clients and multiple email recipients via MMSC and that the message is successfully received by all the recipients listed in the “Cc:”-field.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-022
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A</li> <li>-Two Client B</li> <li>- Three email recipients</li> <li>  Capability:</li> <li>    Valid email address in US-ASCII format</li> <li>-MMSC</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Cc-field is set to two clients (using MSISDN/MDN numbering) and three email recipients.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to multiple MSISDN/MDN clients and multiple email recipients via MMSC.</li> <li>5. In multiple MSISDN/MDN clients and multiple email recipients via MMSC, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	All MSISDN/MDN clients and all email recipients listed in the “Cc:”-field have received the message successfully. .

### 6.2.3.6 Send and receive message to multiple MSISDN/MDN and email recipients (Bcc:)

Test Case Id	MMS-1.2-int-253
Test Object	Client A, multiples of Client B, MMSC server and multiple email recipients
Test Case Description	The purpose is to verify that messages can be simultaneously and correctly sent from Client A to multiple MSISDN/MDN clients and multiple email recipients via MMSC and that the message is successfully received by all the recipients listed in the “Bcc:”-field.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-023
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A</li> <li>-Two Client B</li> <li>- Three email recipients</li> <li>  Capability:</li> <li>    Valid email address in US-ASCII format</li> <li>-MMSC</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Bcc-field is set to two clients (using MSISDN/MDN numbering) and three email recipients.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to multiple MSISDN/MDN clients and multiple email recipients via MMSC.</li> <li>5. In multiple MSISDN/MDN clients and multiple email recipients via MMSC, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	All MSISDN/MDN clients and all email recipients listed in the “Bcc:”-field have received the message successfully.

### 6.2.3.7 Send message to one email recipient (To:)

Test Case Id	MMS-1.2-int-254
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a message with a single email address in the "To:"-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-021
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the message.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "To:"-recipient.

### 6.2.3.8 Send message to one email recipient (Cc:)

Test Case Id	MMS-1.2-int-255
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a message with a single email address in the “Cc:”-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-022
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Cc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the message.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a “Cc:”-recipient.

### 6.2.3.9 Send message to one email recipient (Bcc:)

Test Case Id	MMS-1.2-int-256
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a message with a single email address in the Bcc-field is correctly sent from Client A to Client B via MMSC server and that the message is successfully received.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-024, MMSE-C-023
Tool	
Test Code	
Preconditions	-Client A -Client B -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Bcc-field is set to a single email address.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the message.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message successfully as a "Bcc:"-recipient.

## 6.3 MMSC Transaction

### 6.3.1 Client A Address

#### 6.3.1.1 Insert Address Token

Test Case Id	MMS-1.2-int-301
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with the From-field left empty is correctly sent from Client A to Client B via MMSC and that the MMSC has processed/validated and inserted the correct MSISDN/MDN number of Client A and the message is successfully received with the correct MSISDN/MDN number of Client A in the From-field of the message.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1, Chapter 6.3 Table 5
SCR Reference	MMSE-S-082
Tool	
Test Code	
Preconditions	-Client A Capability: From Field Support  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: From-Field is without its own MSISDN/MDN number. Ensure that Client A is not requesting address hiding (if applicable) and that Client A is not sending its own number (if applicable) in the From-field.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message successfully and the correct MSISDN/MDN number of Client A appears in the From-field of the message.

## 6.3.2 Message Validity Time

### 6.3.2.1 Validity Period (Expiry Time) set by Client

Test Case Id	MMS-1.2-int-302
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message sent with a Validity Period/Expiry Time, set by the client, is accepted by the MMSC.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-S-085
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>-Client B Setting: Download option is set to Deferred Retrieval mode</p> <p>-MMSC Setting: Allow and abide by the sender's Validity Period/Expiry Time settings of 1 hour for the MM message Default message expiration time on the MMSC should be longer than that set on Client A (it is recommended to set the MMSC default Validity Period/Expiry Time to be at least 24 hours) and the MMSC should not override message expiration time set by Client A</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Validity Period/Expiry Time to 1 hour (or lowest possible value).</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, wait for MM notification to but do NOT download MM.</li> <li>6. In Client B, after the Validity Period/Expiry Time has expired, try to download the MM</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The message has expired and MMSC has processed and delivered the notification to Client B. Client B attempts to download the message but fails to retrieve the message.

### 6.3.2.2 Validity Period (Expiry Time) set by MMSC

Test Case Id	MMS-1.2-int-303
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message Validity Period/Expiry Time set by the client can be overwritten or redefined by the MMSC.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-S-085
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>-Client B Setting: Download option is set to Deferred Retrieval mode</p> <p>-MMSC Setting: Default message Validity Period/Expiry Time should be set to 1 hour (or minimum default value) and it should be configured to override a longer message expiration time if set by Client A.</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, wait for MM notification to but do NOT download MM.</li> <li>6. In Client B, after the Validity Period/Expiry Time has expired, try to download the MM</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The message has expired and MMSC has processed and delivered the notification to Client B. Client B attempts to download the message but fails to retrieve the message.

### 6.3.2.3 Delivery time

Test Case Id	MMS-1.2-int-304
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message sent with a Delivery Time, set by the Client A, is delivered at the specified time to the receiving Client B.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-028
Tool	
Test Code	
Preconditions	-Client A  -Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: Delivery time set to +1 hour or less if applicable.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	The message has not been delivered prior to the time specified

## 6.3.3 Time Stamp

### 6.3.3.1 Time Stamp set by MMSC

Test Case Id	MMS-1.2-int-305
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that when a client does not set the message time stamp, the MMSC will set the time stamp.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1
SCR Reference	MMSE-C-019, MMSE-S-081
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A               <ul style="list-style-type: none"> <li>Capability:</li> <li>Not providing the date field.</li> </ul> </li> <li>-Client B</li> <li>-MMSC               <ul style="list-style-type: none"> <li>Setting</li> <li>Date Time Set By MMSC</li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message successfully with proper time stamp.

## 6.3.4 Retrieve Errors

### 6.3.4.1 Retrieve status code – Error-permanent-service-denied

Test Case Id	MMS-1.2-int-306
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that the MMSC sets the X-Mms-Retrieve-Status field to Error-permanent-service-denied = <Octet 225 > when the corresponding retrieval attempt was rejected due to failure of authentication or authorization of the originating MMS Client and that the client acts in a proper way according to the Retrieve Status code.
Specification Reference	[MMSENC] Chapter 6.3, Table 5
SCR Reference	MMSE-C-075, MMSE-S-088
Tool	
Test code	
Preconditions	<ul style="list-style-type: none"> <li>- Client A, Client B and MMSC server</li> <li>- Settings: <ul style="list-style-type: none"> <li>- It is possible to check the X-Mms-Retrieve-Status field in the server log.</li> <li>- The MMSC is set to not authorize retrieval attempts from Client B.</li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM</li> <li>2. Send message from Client A to Client B</li> <li>3. Try to retrieve the message to Client B</li> <li>4. Verify the pass criteria below</li> </ol>
Pass-Criteria	<p>The MMSC sets the X-Mms-Retrieve-Status field to Error-permanent-service-denied = &lt;Octet 225&gt;</p> <p>AND Client B acts in a proper way according to the Retrieve Status code</p>

### 6.3.4.2 Retrieve status code – Error-permanent-message-not-found

Test Case Id	MMS-1.2-int-307
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that the MMSC sets the X-Mms-Retrieve-Status field to Error-permanent-message-not-found = <Octet 225 > when the content location URL in the retrieval attempt does not point to an MM and that the client acts in a proper way according to the Retrieve Status code.
Specification Reference	[MMSENC] Chapter 6.3, Table 5
SCR Reference	MMSE-C-075
Tool	
Test code	
Preconditions	<ul style="list-style-type: none"> <li>- Client A and Client B</li> <li>- It is possible to check the X-Mms-Retrieve-Status field in the server log.</li> <li>- It is possible to delete the MM from the server.</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM</li> <li>2. Send message from Client A to Client B</li> <li>3. Let the MM expire or delete it from the server</li> <li>4. In Client B, try to retrieve the message</li> <li>5. Verify the pass criteria below</li> </ol>
Pass-Criteria	<p>The MMSC sets the X-Mms-Retrieve-Status field to Error-permanent-message-not-found = &lt;Octet 226&gt;</p> <p>AND Client B acts in a proper way according to the Retrieve Status code</p>

### 6.3.4.3 Retrieve text – Error-permanent-service-denied

Test Case Id	MMS-1.2-int-308
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that the MMSC sets the X-Mms-Retrieve-Text field to the Retrieve text value and that Client B displays the Retrieve text when the corresponding retrieval attempt was rejected due to failure of authentication or authorization of the originating MMS Client.
Specification Reference	[MMSENC] Chapter 6.3, Table 5
SCR Reference	MMSE-C-076, MMSE-S-088
Tool	<None>
Test code	<None>
Preconditions	<ul style="list-style-type: none"> <li>-Client A</li> <li>-Client B Has the ability to display the Retrieve text</li> <li>-MMSC It is possible to check the X-Mms-Retrieve-Text field in the server log. The MMSC is set to not authorize retrieval attempts from Client B.</li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text “Hello world”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, try to download the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass-Criteria	<p>Client B fails to download the MM since the retrieval attempt was rejected by the MMSC due to failure of authentication or authorization. The MMSC sets the X-Mms-Retrieve-Text field to the Retrieve text value. The description may be based on the status code “Error-permanent-service-denied”</p> <p>AND Client B is displaying the Retrieve text.</p>

### 6.3.4.4 Retrieve text – Error-permanent-message-not-found

Test Case Id	MMS-1.2-int-309
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that the MMSC sets the X-Mms-Retrieve-Text field to the Retrieve text value and that Client B displays the Retrieve text when the content location URL in the retrieval attempt does not point to an MM.
Specification Reference	[MMSENC] Chapter 6.3, Table 5
SCR Reference	MMSE-C-076, MMSE-S-088
Tool	<None>
Test code	<None>
Preconditions	<ul style="list-style-type: none"> <li>-Client A</li> <li>-Client B <ul style="list-style-type: none"> <li>Has the ability to display the Retrieve text</li> <li>Retrieval mode set to deferred</li> </ul> </li> <li>-MMSC <ul style="list-style-type: none"> <li>It is possible to check the X-Mms-Retrieve-Text field in the server log.</li> <li>It is possible to delete the MM from the server.</li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text “Hello world”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. Let the MM expire and make sure it is deleted from the server.</li> <li>6. In Client B, try to retrieve the MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass-Criteria	<p>Client B fails to download the MM since the content location URL in the retrieval attempt does not point to an MM. The MMSC sets the X-Mms-Retrieve-Text field to the Retrieve text value. The description may be based on the status code “Error-permanent-message-not-found”</p> <p>AND Client B is displaying the Retrieve text.</p>

## 6.4 Client Transaction

### 6.4.1 Message Delivery Status Report

#### 6.4.1.1 Delivery report – Retrieved message

Test Case Id	MMS-1.2-int-401
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with a request for delivery report is correctly sent from Client A to Client B via MMSC and that the originator can receive a delivery report with the Retrieved status after successful message delivery.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-S-001, MMSCTR-DRP-C-001
Tool	
Test Code	
Preconditions	-Client A Capability: Delivery report request  - MMSC Setting: Allow the request of a Delivery report  -Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message. Client A has received a delivery report with the Retrieved status after successful message delivery. The X-Mms-Status header has a Status-Value of Retrieved.

### 6.4.1.2 Delivery report – Rejected message

Test Case Id	MMS-1.2-int-402
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with a request for delivery report from Client A to Client B via MMSC and that the originator can receive a delivery report with the Rejected status after message rejection.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-S-001, MMSCTR-DRP-C-001
Tool	
Test Code	
Preconditions	-Client A Capability: Delivery report request  - MMSC Setting: Allow the request of a Delivery report  -Client B Capability: To rejected message
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, wait until notification is received.</li> <li>6. In Client B, invoke MM rejection.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A has received a delivery report with the Rejected status. The X-Mms-Status header has a Status-Value of Rejected.

### 6.4.1.3 Delivery report – Expired message

Test Case Id	MMS-1.2-int-403
Test Object	Client A and MMSC server
Test Case Description	The purpose is to verify that a message with a request for delivery report from Client A to Client B and that the originator can receive a delivery report with the Expired status after message expiration.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-S-001, MMSCTR-DRP-C-001
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A <ul style="list-style-type: none"> <li>Capability:</li> <li>Delivery report request</li> </ul> </li> <li>- MMSC <ul style="list-style-type: none"> <li>Setting:</li> <li>Default Validity Period/Expiry Time is set to 1 hour or less If applicable</li> <li>Allow the request of a Delivery report</li> </ul> </li> <li>-Client B <ul style="list-style-type: none"> <li>Setting:</li> <li>Switched off</li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client A, wait until delivery report is received.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A has received a delivery report with the Expired status. The X-Mms-Status header has a Status-Value of Expired.

#### 6.4.1.4 Delivery report – Multiple recipients each with Different Delivery Status

Test Case Id	MMS-1.2-int-404
Test Object	Client A, multiples of Client B and MMSC server
Test Case Description	The purpose is to verify that a message with a request for delivery report from Client A to multiple recipients and that the originator can receive a separate delivery report for each recipient, with the correct Delivery Status for each recipient after message delivery or message delivery attempt (in the case of Expired Status) to each separate recipient.
Specification Reference	[MMSENC] Chapter 6.1.1 Table 1 [MMSCTR] Chapter 6.5
SCR Reference	MMSE-C-031, MMSCTR-DRP-S-001, MMSCTR-DRP-C-001
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A <ul style="list-style-type: none"> <li>Capability: <ul style="list-style-type: none"> <li>Delivery report request</li> </ul> </li> </ul> </li> <li>- MMSC <ul style="list-style-type: none"> <li>Setting: <ul style="list-style-type: none"> <li>Allow the request of a Delivery report</li> <li>Default Validity Period/Expiry Time is set to 1 hour</li> </ul> </li> </ul> </li> <li>-1st client B <ul style="list-style-type: none"> <li>Setting: <ul style="list-style-type: none"> <li>Retrieval mode set to immediate</li> </ul> </li> </ul> </li> <li>-2nd and 3rd client B <ul style="list-style-type: none"> <li>Setting: <ul style="list-style-type: none"> <li>Retrieval mode set to deferred</li> </ul> </li> </ul> </li> <li>-4st client B <ul style="list-style-type: none"> <li>Setting: <ul style="list-style-type: none"> <li>Switched off</li> </ul> </li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: set Delivery Report Request-Field to ON.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to 4 Client Bs. NOTE: Each Client B will generate a different MM Delivery Status. 1st Client B will successfully retrieve the MM immediately. The 2nd Client B will defer delivery to a later time, less than 1 hour though so as to not allow the MM to expire. The 3rd Client B will reject the MM outright. The 4th Client B SHALL remain OFF for the duration of this test case, thus the MSMC will generate an Expired Status for the 4th Client B after approximately 1 hour</li> <li>5. In 1st Client B, immediately retrieve the MM.</li> <li>6. In 2nd Client B, initially Defer the MM and at a later time (within the 1 hour Validity Period/Expiry Time requested by the sender) Retrieve the</li> </ol>

MM.

7. In 3rd Client B, reject the MM outright.
8. In Client A, wait until all 4 delivery reports have arrived
9. Verify the pass criteria below.

Pass Criteria

Client A has received a separate delivery report for each recipient, with the correct Delivery Status for each recipient after message delivery or message delivery attempt (in the case of Expired Status) to each separate recipient.

## 6.4.2 Message Read-Reply Status Report

### 6.4.2.1 Read-Reply report Date

Test Case Id	MMS-1.2-int-405
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with a request for Read-Reply report is correctly sent from Client A to Client B via MMSC and that the read report contains the date on which the message was read
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10, Table 11
SCR Reference	MMSE-RDR-C-001, MMSE-RDR-C-002, MMSE-RDR-C-003, MMSE-S-080,
Tool	May require tool
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A           <ul style="list-style-type: none"> <li>Capability:</li> <li>Read Report request</li> </ul> </li> <li>- MMSC           <ul style="list-style-type: none"> <li>Setting:</li> <li>Allow the request of a Read-Reply report by the sender</li> </ul> </li> <li>-Client B           <ul style="list-style-type: none"> <li>Capability:</li> <li>Sending of Read-Reply report with the Date Field</li> <li>Setting:</li> <li>Allow of sending Read-Reply reports</li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Read-Reply Report Request-Field is set to ON.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive MM.</li> <li>6. In Client B, accept Read-Reply report to be sent and open the received MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A has received a Read-Reply report with the date on which the message was read

### 6.4.2.2 Read-Reply report Date set by server

Test Case Id	MMS-1.2-int-406
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with a request for Read-Reply report is correctly sent from Client A to Client B via MMSC and that the originator can receive a read report after message has been read and that the current date of the read report is set by the MMSC when not set by Client B.
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10, Table 11
SCR Reference	MMSE-RDR-C-001, MMSE-RDR-C-002, MMSE-RDR-C-003, MMSE-S-080,
Tool	Tool required
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A <ul style="list-style-type: none"> <li>Capability: <ul style="list-style-type: none"> <li>Read Report request</li> </ul> </li> </ul> </li> <li>- MMSC <ul style="list-style-type: none"> <li>Setting: <ul style="list-style-type: none"> <li>Allow the request of a Read-Reply report by the sender</li> </ul> </li> </ul> </li> <li>-Client B <ul style="list-style-type: none"> <li>Capability: <ul style="list-style-type: none"> <li>Sending of Read-Reply report without the Date Field</li> </ul> </li> <li>Setting: <ul style="list-style-type: none"> <li>Allow of sending Read-Reply reports</li> </ul> </li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Read-Reply Report Request-Field is set to ON.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive MM.</li> <li>6. In Client B, accept Read-Reply report to be sent and open the received MM. Do not report date.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A has received a Read-Reply report with the date on which the message was read

### 6.4.2.3 Read-Reply Report when sending to multiple recipients

Test Case Id	MMS-1.2-int-407
Test Object	Client A, multiples of Client B and MMSC server
Test Case Description	The purpose is to verify that a message with a request for a Read-Reply report is correctly sent from Client A to multiple recipients via MMSC and that the originator can receive a separate and correct Read-Reply report from each recipient after the message has been read by each recipient.
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10, Table 11
SCR Reference	MMSE-RDR-C-001, MMSE-RDR-C-002, MMSE-RDR-C-003, MMSE-S-080,
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A <ul style="list-style-type: none"> <li>Capability: <ul style="list-style-type: none"> <li>Read Report request</li> </ul> </li> </ul> </li> <li>- MMSC <ul style="list-style-type: none"> <li>Setting: <ul style="list-style-type: none"> <li>Allow the request of a Read-Reply report by the sender</li> </ul> </li> </ul> </li> <li>-Three Client B <ul style="list-style-type: none"> <li>Capability: <ul style="list-style-type: none"> <li>Sending of Read-Reply report</li> </ul> </li> <li>Setting: <ul style="list-style-type: none"> <li>Allow sending of Read-Reply reports</li> </ul> </li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Read-Reply Report Request-Field is set to ON.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to 3 Client Bs.</li> <li>5. In each Client B, receive MM.</li> <li>6. In one client B, accept Read-Reply report to be sent and delete MM without reading it.</li> <li>7. In the other two Client Bs, accept Read-Reply report to be sent and read the MM.</li> <li>8. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A receives a separate Read-Reply report from 2 recipients that the messages was read, a Read-Reply report from the client B that the message was deleted without being read.

#### 6.4.2.4 Read-Reply report when sending to single recipient

Test Case Id	MMS-1.2-int-408
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message with a request for Read-Reply report is correctly sent from Client A to Client B via MMSC and that the originator can receive a read report after message has been read
Specification Reference	[MMSENC] Chapter 6.7.1 Table 10, Table 11
SCR Reference	MMSE-RDR-C-001, MMSE-RDR-C-002, MMSE-RDR-C-003, MMSE-S-080,
Tool	
Test Code	
Preconditions	<ul style="list-style-type: none"> <li>-Client A <ul style="list-style-type: none"> <li>Capability:</li> <li>Read Report request</li> </ul> </li> <li>- MMSC <ul style="list-style-type: none"> <li>Setting:</li> <li>Allow the request of a Read-Reply report by the sender</li> </ul> </li> <li>-Client B <ul style="list-style-type: none"> <li>Capability:</li> <li>Sending of Read-Reply report</li> <li>Setting:</li> <li>Allow sending of Read-Reply</li> </ul> </li> </ul>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Read-Reply Report Request-Field is set to ON.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive MM.</li> <li>6. In Client B, accept Read-Reply report to be sent and open the received MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client A has received a Read-Reply report with some indication or status of ""Read"".

## 6.4.3 Forwarding

### 6.4.3.1 Forward without Prior retrieval - Previously sent By field

Test Case Id	MMS-1.2-int-409
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message that is forwarded without prior retrieval has the previously sent-by field set to the originator of the initial message.
Specification Reference	[MMSENC] Chapter 6.5 Table 5
SCR Reference	MMSE-C-081
Tool	
Test Code	
Preconditions	-Client A -1st Client B Setting: Retrieval mode set to deferred -2nd Client B -MMSC
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to 1st Client B.</li> <li>5. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B.</li> <li>6. In 2nd Client B, receive and open the MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The 2nd Client B has received the message successfully and the message is reasonably presented AND the previously sent-by field is set to the original sender.

### 6.4.3.2 Forward without Prior retrieval - Previously sent Date field

Test Case Id	MMS-1.2-int-410
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message that is forwarded without prior retrieval has the previously sent-date field set to the date of the initial message.
Specification Reference	[MMSENC] Chapter 6.5 Table 5
SCR Reference	MMSE-C-082
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>-1st Client B Setting: Retrieval mode set to deferred</p> <p>-2nd Client B</p> <p>-MMSC</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to 1st Client B.</li> <li>5. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B.</li> <li>6. In 2nd Client B, receive and open the MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The 2nd Client B has received the message successfully and the message is reasonably presented AND the previously sent date field is set to the original date.

### 6.4.3.3 Forward without Prior retrieval

Test Case Id	MMS-1.2-int-411
Test Object	Client A, multiples of Client B and MMSC server
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The originally addressed client shall NOT retrieve the message. The messages forwarded from one client to another client shall be received in full and be reasonably presented.
Specification Reference	[MMSENC] Chapter 6.5 Table 5
SCR Reference	MMSE-S-097
Tool	
Test Code	
Preconditions	-Client A  -1st Client B Setting: Retrieval mode set to deferred  -2nd Client B  -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message text part, enter the text "Hello World".</li><li>4. In Client A, send MM to 1st Client B.</li><li>5. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B.</li><li>6. In 2nd Client B, receive and open the MM.</li><li>7. Verify the pass criteria below.</li></ol>
Pass Criteria	The 2nd Client B has received the message successfully and the message is reasonably presented.

#### 6.4.3.4 Validity Period (Expiry Time) set by Client when forwarding

Test Case Id	MMS-1.2-int-412
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message forwarded with a Validity Period/Expiry Time, set by the client, is accepted by the MMSC.
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>-Client B Setting: Download option is set to Deferred Retrieval mode</p> <p>-MMSC Setting: Allow and abide by the sender's Validity Period/Expiry Time settings of 1 hour for the MM message Default message expiration time on the MMSC should be longer than that set on Client A (it is recommended to set the MMSC default Validity Period/Expiry Time to be at least 24 hours) and the MMSC should not override message expiration time set by Client A</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: Validity Period/Expiry Time to 1 hour (or lowest possible value).</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to 1st Client B.</li> <li>5. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B.</li> <li>6. Never retrieve the MM in Client B</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	The message has expired and MMSC has processed and delivered the notification to Client B. Client B attempts to download the message but fails to retrieve the message.

### 6.4.3.5 Forwarding Delivery report – Retrieved message

Test Case Id	MMS-1.2-int-413
Test Object	Client A, two Client B and MMSC server
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The originally addressed client shall NOT retrieve the message. The messages forwarded from one client to another client shall be received in full and be reasonably presented. The forwarding Client B can receive a delivery report with the Retrieved status after successful message delivery.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-013
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>- MMSC Setting: Allow the request of a Delivery report</p> <p>-1st Client B Capability: To request a Delivery report</p> <p>-2nd Client B</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM content: In the message text part, enter the text “Hello World”.</li> <li>3. In Client A, send MM to Client B.</li> <li>4. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B set Delivery Report Request-Field to ON.</li> <li>5. In 2nd Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	2nd Client B has received the message and 1st Client B has received a delivery report with the Retrieved status after successful message delivery. The X-Mms-Status header has a Status-Value of Retrieved.

### 6.4.3.6 Forwarding Delivery report – Rejected message

Test Case Id	MMS-1.2-int-414
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The originally addressed client shall NOT retrieve the message. The forwarding Client B can receive a delivery report with the Rejected status after message rejection.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-013
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>- MMSC Setting: Allow the request of a Delivery report</p> <p>-1st Client B Capability: To request a Delivery report</p> <p>-2nd Client B</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM content: In the message text part, enter the text “Hello World”.</li> <li>3. In Client A, send MM to Client B.</li> <li>4. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B set Delivery Report Request-Field to ON.</li> <li>5. In 2nd Client B, reject the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	1st Client B has received a delivery report with the Rejected status. The X-Mms-Status header has a Status-Value of Rejected.

### 6.4.3.7 Forwarding Delivery report – Expired message

Test Case Id	MMS-1.2-int-415
Test Object	Client A, two Client B and MMSC server
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The originally addressed client shall NOT retrieve the message. The forwarding Client B can receive a delivery report with the Expired status after message expiration.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-013
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>- MMSC Setting: Allow the request of a Delivery report</p> <p>-1st Client B Capability: To request a Delivery report</p> <p>-2nd Client B Setting: Switched off –</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM content: In the message text part, enter the text “Hello World”.</li> <li>3. In Client A, send MM to 1st Client B.</li> <li>4. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B set Delivery Report Request-Field to ON.</li> <li>5. Verify the pass criteria below.</li> </ol>
Pass Criteria	1st Client B has received a delivery report with the Expired status. The X-Mms-Status header has a Status-Value of Expired.

### 6.4.3.8 Read-Reply report when forwarding to single recipient

Test Case Id	MMS-1.2-int-416
Test Object	Client A, two Client B and MMSC server
Test Case Description	The purpose is to verify that a message addressed to a client can be forwarded without prior retrieval. The originally addressed client shall NOT retrieve the message. The forwarding Client B can receive a read report after message has been read.
Specification Reference	[MMSENC] Chapter 6.5.1 Table 7
SCR Reference	MMSE-FWD-C-014
Tool	
Test Code	
Preconditions	<p>-Client A</p> <p>- MMSC Setting: Allow the request of a Delivery report</p> <p>-1st Client B Capability: To request a Delivery report</p> <p>-2<sup>nd</sup> Client B</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM content: In the message text part, enter the text "Hello World".</li> <li>3. In Client A, send MM to 1st Client B.</li> <li>4. In 1st Client B, initiate the forwarding of the MM, without prior retrieval, to 2nd Client B set Read Report Request-Field to ON.</li> <li>5. In 2nd Client B, receive the MM.</li> <li>6. In 2nd Client B, accept Read-Reply report to be sent and open the received MM.</li> <li>7. Verify the pass criteria below.</li> </ol>
Pass Criteria	1st Client B has received a Read-Reply report with some indication or status of "Read".

## 6.5 Client B

### 6.5.1 Download options

#### 6.5.1.1 Download options – Immediate retrieval

Test Case Id	MMS-1.2-int-501
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B and that the message is immediately retrieved by using the Immediate Retrieval mode.
Specification Reference	[MMSCCTR] Chapter 6.3.1 [MMSCCTR] Chapter 6.2.1
SCR Reference	MMSCCTR-FTC-S-002, MMSCCTR-NTF-C-003
Tool	
Test Code	
Preconditions	-Client A  - MMSC  -Client B Setting: Download option is set to Immediate Retrieval mode
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has retrieved the messages immediately and responded with M-NotifyResp.ind to the MMSC with the message retrieval status code set to Retrieved. The X-Mms-Status field SHALL have a Status-value of Retrieved.

### 6.5.1.2 Download options – Deferred retrieval

Test Case Id	MMS-1.2-int-502
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B and that the message is retrieved by using the Deferred Retrieval mode.
Specification Reference	[MMSCTR] Chapter 6.3.1 [MMSCTR] Chapter 6.2.1
SCR Reference	MMSCTR-FTC-S-002, MMSCTR-NTF-C-003
Tool	
Test Code	
Preconditions	-Client A  - MMSC  -Client B Setting: Download option is set to Deferred Retrieval mode
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message text part, enter the text “Hello World”.</li> <li>4. In Client A, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the notification and initially responded with M-NotifyResp.ind to the MMSC with the message retrieval status code set to Deferred. The X-Mms-Status field SHALL have a Status-value of Deferred. After user interaction, client B has successfully downloaded the message and sent the M-acknowledge.ind.

### 6.5.1.3 Download options – Rejected retrieval

Test Case Id	MMS-1.2-int-503
Test Object	Client A, Client B and MMSC server
Test Case Description	The purpose is to verify that a message is correctly sent from Client A to Client B and that Client B can reject the messages and not attempt message download.
Specification Reference	[MMSCTR] Chapter 6.3.1 [MMSCTR] Chapter 6.2.1
SCR Reference	MMSCTR-FTC-S-002, MMSCTR-NTF-C-003
Tool	
Test Code	
Preconditions	-Client A  - MMSC  -Client B Setting: Download option is set to Rejected Retrieval mode
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: In the message text part, enter the text “Hello World”.</li><li>4. In Client A, send MM to Client B.</li><li>5. In Client B, reject MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the notification. Client B has successfully rejected the message by responding with M-NotifyResp.ind to the MMSC with the message retrieval status code set to Rejected.

### 6.5.1.4 DRM support – Forward Lock

Test Case Id	MMS-1.2-int-504
Test Object	Client B
Test Case Description	<p>The purpose is to verify that the terminal is able to receive a message containing DRM protected content and that the received objects are properly protected.</p> <p>Verification is done by sending a the message from a Tool, through the MMSC to Client B and verify that the message cannot be forwarded from Client B.</p>
Specification Reference	[MMSCONF] Chapter 7.1.4
SCR Reference	MMSCONF-MED-C-022
Tool	The Client B can not send messages containing protected content, this must be sent from or an MMS tool.. The tool will emulate Client A sending the message.
Test code	
Preconditions	-Client B
Test Procedure	<ol style="list-style-type: none"> <li>1. PDU, containing protected content is sent to Client B from an MMS tool, via the MMSC</li> <li>2. In Client B, receive and open the MM containing DRM protected content</li> <li>3. In client B, try to forward the MM to client A</li> </ol>
Pass-Criteria	<p>The PDU containing protected content passes transparently through the MMSC</p> <p>Client B receives the protected content and the received message is reasonably presented</p> <p>Verify that the received objects are properly protected and cannot be forwarded.</p>

## 6.6 E-MAIL Test Cases

When MM sent to email recipient the SMIL may be removed.

### 6.6.1 Send Content Object to email recipient

#### 6.6.1.1 Send text object to email recipient

Test Case Id	MMS-1.2-int-601
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a text object is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7.1.8
SCR Reference	MMSCONF-MED-C-002
Tool	
Test Code	
Preconditions	-Client A -MMSC -Email recipient
Test Procedure	<ol style="list-style-type: none"> <li>1. In Client A, create a new MM.</li> <li>2. In MM header: To-field is set to a single email address.</li> <li>3. In MM content: In the message text part, enter the text "Hello World".</li> <li>4. In Client A, send MM to Email recipient.</li> <li>5. In Email recipient, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Email recipient has received the message and the received message is reasonably presented.

### 6.6.1.2 Send image object to email recipient

Test Case Id	MMS-1.2-int-602
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that an image object is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-007
Tool	
Test Code	
Preconditions	-Client A -MMSC -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add image file/object JPG160x120.jpg to the message.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received message is reasonably presented.

### 6.6.1.3 Send audio object to email recipient

Test Case Id	MMS-1.2-int-603
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that an audio object is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-013
Tool	
Test Code	
Preconditions	-Client A -MMSC -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add audio file/object (either AMRaudioNB.amr or audio1.qcp) to the message and set page timing to allow for the (AMRaudioNB amr or audio1.qcp) file to be played.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received message is reasonably presented.

### 6.6.1.4 Send text, image and audio objects to email recipient

Test Case Id	MMS-1.2-int-604
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that that a message with multiple objects (text, image, audio and presentation) is correctly sent from Client A to an email recipient via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSCONF] Chapter 7.1.7
SCR Reference	MMSCONF-MED-C-023
Tool	
Test Code	
Preconditions	-Client A -MMSC
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: In the message body, create one page and enter the text "Hello World", add the image JPG80x60.jpg file/object and add the file/object (either AMRAudio1.amr or audio1.qcp).</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and all objects exist and are reasonably presented.

## 6.6.2 Receive Content Object from email recipient

### 6.6.2.1 Receive text, image and audio objects from email

Test Case Id	MMS-1.2-int-605
Test Object	Email recipient, MMSC server, Client B
Test Case Description	The purpose is to verify that a message with multiple objects (text, image, audio and presentation) is correctly sent from an email sender to an MMS client (Client B) via MMSC and that the received message is reasonably presented.
Specification Reference	[MMSENC] Chapter 5
SCR Reference	MMSE-C-005, MMSE-C-013
Tool	
Test Code	
Preconditions	<p>-Email sender          Capability:            encode image/jpeg            audio/(either amr or 13k speech)            text/plain</p> <p>-MMSC</p> <p>- Client B</p>
Test Procedure	<ol style="list-style-type: none"> <li>1. In Email sender, create a new MM.</li> <li>2. In MM header: To-field is set to Client B.</li> <li>3. In MM content: In the message body, create one page and enter the text "Hello World", add the image JPG80x60.jpg file/object and add the file/object (either AMRAudio1.amr or audio1.qcp).</li> <li>4. In Email sender, send MM to Client B.</li> <li>5. In Client B, receive and open the MM.</li> <li>6. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B has received the message and all objects exist and are reasonably presented.

## 6.6.3 Send Attachment to e-mail recipient

### 6.6.3.1 Send vCard object to email recipient

Test Case Id	MMS-1.2-int-606
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a vCard object is correctly sent from Client A to an email recipient via MMSC and that the received vCard is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	
Test Code	
Preconditions	-Client A Capability: vCard  -MMSC  -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add a business vCard object “John Doe.vcf” to the message.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received vCard is textually correct.

### 6.6.3.2 Send vCalendar object to email recipient

Test Case Id	MMS-1.2-int-607
Test Object	Client A, MMSC server and email recipient
Test Case Description	The purpose is to verify that a vCalendar object correctly sent from Client A to an email recipient via MMSC and that the received vCalendar is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	
Test Code	
Preconditions	-Client A Capability: vCalendar  -MMSC  -Email recipient
Test Procedure	<ol style="list-style-type: none"><li>1. In Client A, create a new MM.</li><li>2. In MM header: To-field is set to a single email address.</li><li>3. In MM content: Add a vCalendar object “Christmas.vcs” to the message.</li><li>4. In Client A, send MM to Email recipient.</li><li>5. In Email recipient, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Email recipient has received the message and the received vCalendar is textually correct.

## 6.6.4 Receive Attachment from e-mail

### 6.6.4.1 Receive vCard object from email

Test Case Id	MMS-1.2-int-608
Test Object	Client B, MMSC server and email
Test Case Description	The purpose is to verify that a vCard object correctly sent from an email sender to an MMS client (ClientB) via MMSC and that the received vCard is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-016
Tool	
Test Code	
Preconditions	-Email sender Capability: vCard  -MMSC  - Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Email sender, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add a business vCard object “John Doe.vcf” to the message.</li><li>4. In Email sender, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received vCard is textually correct.

### 6.6.4.2 Receive vCalendar object from email

Test Case Id	MMS-1.2-int-609
Test Object	Client A, MMSC server and email
Test Case Description	The purpose is to verify that a vCalendar object is correctly sent from Client A to an email recipient via MMSC and that the received vCalendar is textually correct.
Specification Reference	[MMSCONF] Chapter 7
SCR Reference	MMSCONF-MED-C-027
Tool	
Test Code	
Preconditions	-Email sender Capability: vCalendar  -MMSC  - Client B
Test Procedure	<ol style="list-style-type: none"><li>1. In Email sender, create a new MM.</li><li>2. In MM header: To-field is set to Client B.</li><li>3. In MM content: Add a vCalendar object “Christmas.vcs” to the message.</li><li>4. In Email sender, send MM to Client B.</li><li>5. In Client B, receive and open the MM.</li><li>6. Verify the pass criteria below.</li></ol>
Pass Criteria	Client B has received the message and the received vCalendar is textually correct.

## 6.7 Creation Mode Testing

### 6.7.1 Content Creation

#### 6.7.1.1 Creation mode - Restricted - oversize

Test Case Id MMS-1.2-int-701

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 6.7.1.2 Creation mode - Restricted - inclusion of non core domain content

Test Case Id MMS-1.2-int-702

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 6.7.1.3 Creation mode - Restricted - oversize image resolution

Test Case Id MMS-1.2-int-703

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

#### 6.7.1.4 Creation mode - Restricted – forwarding oversized

Test Case Id MMS-1.2-int-704

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 6.7.1.5 Creation mode - Restricted – forwarding non core domain content

Test Case Id MMS-1.2-int-705

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

### 6.7.1.6 Creation mode - Restricted - forwarding oversize image resolution

Test Case Id MMS-1.2-int-706

Test Object Client A

Test Case Description

Specification Reference

SCR Reference

Tool

Test Code

Preconditions

Test Procedure 1.

Pass Criteria

## 6.8 Content Adaptation

### 6.8.1 General functions

#### 6.8.1.1 Function to enable or disable major content adaptation

Test Case Id	MMS-1.2-con-801
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.8.1.2 Availability of original content after major content adaptation

Test Case Id	MMS-1.2-con-802
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.8.1.3 Update labels in the presentation after media type adaptation

Test Case Id	MMS-1.2-con-803
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 6.8.1.4 Update file extensions and MIME types after media format

Test Case Id	MMS-1.2-con-804
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

## 6.8.2 Client B in Image Basic

### 6.8.2.1 Image resolution set to 160x120

Test Case Id	MMS-1.2-con-805
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	7.
Pass Criteria	

### 6.8.2.2 Size reduction to 30k, GIF87

Test Case Id	MMS-1.2-con-806
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	7.
Pass Criteria	

### 6.8.2.3 Size reduction to 30k, JPEG

Test Case Id	MMS-1.2-con-807
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

#### 6.8.2.4 GIF89a image larger than 30k

Test Case Id	MMS-1.2-con-808
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

### 6.8.2.5 SP-MIDI sound

Test Case Id	MMS-1.2-con-809
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	7.
Pass Criteria	

### 6.8.2.6 Video QCIF to Image reduced to 160x120

Test Case Id	MMS-1.2-con-810
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	7.
Pass Criteria	

## 6.8.3 Client B in Image Rich

### 6.8.3.1 Video to Image

Test Case Id	MMS-1.2-con-811
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	1.
Pass Criteria	

## 6.8.4 Client B in Video Basic

### 6.8.4.1 Size reduction to 100k

Test Case Id	MMS-1.2-con-812
Test Object	Client A, Client B and MMSC
Test Case Description	
Specification Reference	
SCR Reference	
Tool	
Test Code	
Preconditions	
Test Procedure	7.
Pass Criteria	

### 6.8.4.2 Image resolution reduction

Test Case Id	MMS-1.2-int-813
Test Object	Client A, Client B and MMSC
Test Case Description	The purpose is to verify that an image with a resolution greater than Client B's maximum image resolution is correctly sent from Client A to Client B and the received image is less than or equal to Client B's maximum image resolution.
Specification Reference	[MMSCONF] Chapter 9.2, [MMSCONF] Chapter 9.4.2
SCR Reference	MMSCONF-AMJ-S-003, MMSCONF-AMN-S-002, MMSCONF-AMN-S-001, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006,
Tool	
Test Code	
Preconditions	Client A setting: Creation Mode set to free  MMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC
Test Procedure	<ol style="list-style-type: none"> <li>8. In Client A, create a new MM.</li> <li>9. In MM header: To-field is set to Client B.</li> <li>10. In MM content: Add image file/object JPG1000x500.jpg to the message.</li> <li>11. In Client A, send MM to Client B.</li> <li>12. In Client B, receive and open the MM.</li> <li>13. Verify the pass criteria below.</li> </ol>
Pass Criteria	In Client B the received Image is less than or equal to its maximum resolution and the received image is reasonably presented.

### 6.8.4.3 Size reduction

Test Case Id	MMS-1.2-int-814
Test Object	Client A, Client B and MMSC
Test Case Description	The purpose is to verify that a message larger than Client B's max message size is sent from Client A to Client B. With MMSC performs the content adaptation, the received message is less than or equal to Client B's max message size.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMN-S-002, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007
Tool	
Test Code	
Preconditions	Client A setting: Creation Mode set to free  MMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC
Test Procedure	<ol style="list-style-type: none"><li>8. In Client A, create a new MM.</li><li>9. In MM header: To-field is set to Client B.</li><li>10. In MM content: Add image, audio, text and video clip to message, so that message size is larger than Client B's max message size.</li><li>11. In Client A, send MM to Client B.</li><li>12. In Client B, receive and open the MM.</li><li>13. Verify the pass criteria below.</li></ol>
Pass Criteria	In Client B the received message size is less than or equal to Client B's max message size and content of message reasonably presented. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly.

#### 6.8.4.4 Drop unsupported object type

Test Case Id	MMS-1.2-int-815
Test Object	Client A, Client B and MMSC
Test Case Description	The purpose is to verify that an unsupported file for Client B is correctly sent from Client A to Client B and that the received message does not contain the file.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMJ-S-001, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007
Tool	
Test Code	
Preconditions	Client A Creation Mode set to freeIs able to add unsupported object type to the messageMMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC
Test Procedure	<ol style="list-style-type: none"><li>8. In Client A, create a new MM.</li><li>9. In MM header: To-field is set to Client B.</li><li>10. In MM content: Add unsupported object type to the message.</li><li>11. In Client A, send MM to Client B.</li><li>12. In Client B, receive and open the MM.</li><li>13. Verify the pass criteria below.</li></ol>
Pass Criteria	In Client B the received Message does not contain the unsupported file. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly.

### 6.8.4.5 Image basic: Video QCIF to Image reduced

Test Case Id	MMS-1.2-int-816
Test Object	Client A, Client B and MMSC
Test Case Description	The purpose is to verify that a video file is correctly sent from Client A to Client B in Content Class Image Basic and that the received image is less than or equal to 30k and has a resolution of 160x120 or less.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMJ-S-003, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007, MMSCONF-CAG-S-008
Tool	
Test Code	
Preconditions	<p>-Client A Capability: video basic class conformant Setting: Creation Mode set to Restricted</p> <p>-Client B Capability: image basic class conformant, max message size is 30kB and max resolution is 160x120</p> <p>-MMSC setting: Content adaptation is enabled and Client B's UA Profile is added to MMSC</p>
Test Procedure	<ol style="list-style-type: none"> <li>8. In Client A, create a new MM.</li> <li>9. In MM header: To-field is set to Client B.</li> <li>10. In MM content: Add image file/object sub-qcif_video.3gp to the message.</li> <li>11. In Client A, send MM to Client B.</li> <li>12. In Client B, receive and open the MM.</li> <li>13. Verify the pass criteria below.</li> </ol>
Pass Criteria	Client B received an image that is less than or equal to 30kB and has a resolution of 160x120 or less. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly. The updated media format have been modified accordingly in the file themselves and in their reference in the presentation element.

### 6.8.4.6 Video Basic: Size reduction to 100kB

Test Case Id	MMS-1.2-int-817
Test Object	Client A, Client B and MMSC
Test Case Description	The purpose is to verify that a video file larger than 100k is correctly sent from Client A in content class Video Rich to Client B in Content Class Video Basic and that the received video file is less than or equal to 100k.
Specification Reference	[MMSCONF] Chapter 9.2
SCR Reference	MMSCONF-AMN-S-003, MMSCONF-CAG-S-003, MMSCONF-CAG-S-004, MMSCONF-CAG-S-005, MMSCONF-CAG-S-006, MMSCONF-CAG-S-007
Tool	
Test Code	
Preconditions	<p>-Client A          Capability: Video rich class conformant          Setting: Creation Mode set to Restricted</p> <p>-Client B          Capability: Image rich class conformant and max message size is 100 kB</p> <p>-MMSC setting:          Content adaptation is enabled and Client B's UA Profile is added to MMSC</p>
Test Procedure	<ol style="list-style-type: none"> <li>8. In Client A, create a new MM.</li> <li>9. In MM header: To-field is set to Client B.</li> <li>10. In MM content: VideoRich300kB.</li> <li>11. In Client A, send MM to Client B.</li> <li>12. In Client B, receive and open the MM.</li> <li>13. Verify the pass criteria below.</li> </ol>
Pass Criteria	In Client B the received video is less than or equal to 100kB and reasonably presented. The labels in the presentation element, corresponding to the media that have been removed or whose type has changed, have been modified accordingly.

## Appendix A. Change History

(Informative)

### A.1 Approved Version History

Type of Change	Date	Section	Description
OMA-IOP-MMS-ETS-V1_2_0-20040406-A.doc	06-Apr-2004		Status Changed to Approved by TP, OMA-TP-2004-0095-MMS-1_2-ETS-for-approval
OMA-IOP-MMS-ETS-V1_2-20040409-A.doc	09-Apr-2004		Editorial changes Incorporated editorial changes as agreed upon in IOP-MMS conference call on 6-April-2004
Class 2, OMA-IOP-MMS-ETS-V1_2-20040727-A	27-July-2004	Conformance part	Conformance test cases were edited. Used of test tool in test procedure was introduced.
Class 0, OMA-IOP-MMS-ETS-V1_2-20041103-D	03-Nov-2004	All	New conformance test cases. Few conformance and IOP test cases removed.
OMA-IOP-MMS-ETS-V1_2_0-20041118-A.doc	18-Nov-2004		Status Changed to Approved by TP
OMA-IOP-MMS-ETS-V1_2_0-20041118-A.doc	17.05.2005	5.2.1.1.2 5.2.1.1.3 5.2.1.1.4 5.2.1.1.5 6.5.1.4	Incorporation of CR IOP-MMS-2004-114R1
		5.2.1.1.10 5.5.1.1.1 5.5.2.1.3 6.1.1.1.1 6.1.1.1.10 6.1.2.1.3 6.2.1.1.1 6.2.2.1.3	Incorporation of CR IOP-MMS-2004-0122
		5.4.1.6	Incorporation of CR IOP-MMS-2005-007R1
		5.8.1.4	Incorporation of CR IOP-MMS-2005-008R1
		5.4.1.4 5.4.1.4	Incorporation of CR IOP-MMS-2005-011R1
		6.8.1.1 6.8.1.2 6.8.1.3 6.8.1.4 6.8.2.1 6.8.2.1 6.8.2.2 6.8.2.3 6.8.2.4 6.8.2.5 6.8.2.6 6.8.3.1 6.8.4.1 6.8.4.2 6.8.4.3 6.8.4.4 6.8.4.5 6.8.4.6	Incorporation of CR IOP-MMS-2005-012R3
		5.7.2.2	Incorporation of CR IOP-MMS-2005-013
		5.7.3.10 5.7.2.5	Incorporation of CR IOP-MMS-2005-021R2

Type of Change	Date	Section	Description
		5.3.1.3.14	Incorporation of CR IOP-MMS-2005-022
		5.2.2.3.1 5.3.1.2 5.3.1.3.2 5.3.1.3.4 5.3.1.3.5	Incorporation of CR IOP-MMS-2005-023R1
		6.8.4.2 6.8.4.3	Incorporation of CR IOP-MMS-2005-026
		5.7.2.6	Incorporation of CR IOP-MMS-2005-028
		5.2.2.3.2 5.3.2.3.2 5.5.2.3.2 5.7.3.11.2 6.1.2.3.2 6.2.2.3.2	Incorporation of CR IOP-MMS-2005-037
		5.2.2.5 5.5.2.5 6.1.2.5 6.1.2.5.1 6.1.2.5.2 6.2.2.5 6.2.2.5.1	Incorporation of CR IOP-MMS-2005-038R1
		5.11.1.1 5.11.1.2 5.11.1.3 5.11.1.4 5.11.1.5	Incorporation of CR IOP-MMS-2005-040R1
		6.7.1.1 6.7.1.2 6.7.1.3 6.7.1.4 6.7.1.5 6.7.1.6	Incorporation of CR IOP-MMS-2005-041R1
		5.2.2.2.1 5.2.2.2.3 5.2.2.2.5 5.2.2.2.7 5.2.2.2.9 5.2.2.2.11 5.2.2.2.13 5.2.2.2.15 5.3.2.2.1 5.3.2.2.3 5.3.2.2.5 5.3.2.2.7 5.3.2.2.9 5.3.2.2.11 5.3.2.2.13 5.3.2.2.15 5.5.2.2.1 5.5.2.2.3 5.5.2.2.5 5.5.2.2.7 5.5.2.2.9 5.5.2.2.11 5.5.2.2.13 5.5.2.2.15	Incorporation of CR IOP-MMS-2005-045R1

Type of Change	Date	Section	Description	
		6.1.2.2.1 6.1.2.2.3 6.1.2.2.5 6.1.2.2.7 6.1.2.2.9 6.1.2.2.11 6.1.2.2.13 6.1.2.2.15 6.2.2.2.1 6.2.2.2.3 6.2.2.2.5 6.2.2.2.7 6.2.2.2.9 6.2.2.2.11 6.2.2.2.13 6.2.2.2.15	Incorporation of CR IOP-MMS-2005-056	
OMA-IOP-MMS-2005-0091R01-MMS-ETS-v1_2-clean-up	06.06.2005	5.2.1.1.8	Incorporation of CR IOP-MMS-2005-064R1	
		5.2.2.1.1 5.2.2.1.2	Incorporation of CR IOP-MMS-2005-065	
		5.7.2.1 5.7.2.2 5.7.2.3 5.7.2.4	Incorporation of CR IOP-MMS-2005-066R1	
		5.2.1.1.11	Incorporation of CR IOP-MMS-2005-089R1	
		5.2.2.1.1 6.1.2.1.1	Incorporation of CR IOP-MMS-2005-098	
		5.2.2.5.1 5.2.2.5.2 5.3.2.5.1 5.3.2.5.2 6.1.2.5.1 6.1.2.5.2 6.2.2.5.2	Incorporation of CR IOP-MMS-2005-099R3	
		5.2.2.1.2 6.1.2.1.2	Incorporation of CR IOP-MMS-2005-101	
	08.06.2005	3.3 5.2.2.4.3 5.2.2.4.4 5.2.2.4.5 5.2.2.4.6 5.2.2.4.7 5.2.2.4.8 5.2.2.4.9 5.2.2.4.10 6.4.3.5 6.4.3.6	Incorporation of CR IOP-MMS-2004-110	
	OMA-ETS-MMS-V1_2-20050705-D	05 Jul 2005	n/a	OMA-IOP-MMS-2005-0141R01-MMS-ETS-v1_2-clean-up was agreed in 5.7.2005 IOP MMS SWG conference call. Permanent draft document was created for TP approval.
	OMA-ETS-MMS-V1_2-20050726-A	26 Jul 2005	n/a	Status changed to Approved by TP TP ref # OMA-TP-2005-0235-Updated-ETS-for-MMS-1.2 Editorial clean-up of styles, cover page and Appendix A
OMA-ETS-MMS-V1_2-20051018	21 Oct 2005		Incorporation of CRs OMA-IOP-MMS-2005-0127R02 OMA-IOP-MMS-2005-0172R01 OMA-IOP-MMS-2005-0173 OMA-IOP-MMS-2005-0177	

Type of Change	Date	Section	Description
OMA-ETS-MMS-V1_2-20060208	08 Feb 2006		Incorporation of CR OMA-IOP-MEC-2006-0108R02 and template update.
OMA-ETS-MMS-V1_2	20 Oct 2006	App. B, 5.2.1.1.8	Incorporation of CRs OMA-IOP-MEC-2006-0169R03 OMA-IOP-MEC-2006-0337R02

## Appendix B. Test cases applicability

### B.1 Introduction

This section shall help implementers of the MMS Enabler to select appropriate test cases that are applicable to the features implemented.

This appendix lists all test cases testing only mandatory features, ICS (Implementation Conformance Specification) , IXIT (protocol implementation extra information) and a mapping from ICS/IXIT to applicable test cases as defined by Open Mobile Alliance.

### B.2 Test Cases testing only mandatory features

These test cases are independent from any precondition, are testing only mandatory SCRs and SHALL be run with every terminal.

Test Case
MMS-1.2-con-171 - Long Subject field
MMS-1.2-con-116 - JPG Image size 160x120
MMS-1.2-con-120 - GIF Image size 160x120
MMS-1.2-con-124 - Animated GIF Image size 160x120
MMS-1.2-con-128 - WBMP Image size 160x120
MMS-1.2-con-210 - Long Content-Location field
MMS-1.2-con-271 - Long Subject field
MMS-1.2-con-272 - Long X-Mms-Content-Location field in Notification
MMS-1.2-con-273 - Size Indication in Notification – Non-rejection of incoming MM
MMS-1.2-con-212 - Text with US-ASCII encoding
MMS-1.2-con-213 - Text with UTF-8 encoding
MMS-1.2-con-216 - JPG Image size 160x120
MMS-1.2-con-220 - GIF Image size 160x120
MMS-1.2-con-224 - Animated GIF Image size 160x120
MMS-1.2-con-228 - WBMP Image size 160x120
MMS-1.2-con-301 - Creation mode - Restricted - oversize
MMS-1.2-con-302 - Creation mode - Restricted - inclusion of non core domain content
MMS-1.2-con-303 - Creation mode - Restricted - oversize image resolution
MMS-1.2-con-305 - Creation mode - Restricted – forwarding non conformant message
MMS-1.2-con-306 - Creation mode - Restricted - forwarding non conformant content
MMS-1.2-con-701 - Download options – Immediate retrieval
MMS-1.2-con-731 - Support for X-Mms-Message-Type field
MMS-1.2-con-732 - Support for X-Mms-Transaction-ID field
MMS-1.2-con-734 - Support for From field

### B.3 ICS

**Applicable** column shall be marked “YES” for those features that are supported by the device.

Preconditions	Applicable (yes/no)
SMIL	

Portrait layout	
Landscape layout	
Different page timings	
Different page timings with media	
UTF-8 encoding of Subject field	
US-ASCII for text input	
UTF-8 charset encoding sending/receiving	
UTF-16 encoding	
Content class Text	
Content class Image Basic	
Content class Image Rich	
Content class Video Basic	
Content class Video Rich	
AMR Audio	
video/3gpp	
13k Audio	
MPEG4	
H.263	
vCard	
vCalendar	
Delivery report request	
Read reports request	
Display of Delivery Report	
PDU Read Reporting functionality	
Sending of Read-Reply reports	
PDU Read Reporting functionality	
Handle Read Reports in the form of PDUs	
Deferred Retrieval mode	
Rejected Retrieval mode	

Setting (relative) Expiry Time of a Forwarded message		
Forwarding without prior retrieval		
Interpreting Message-ID field		
DRM Forward Lock		
Date field		
Generation of "Auto" class MM		
Relative expiry time		
Absolute expiry time		
Relative delivery time		
Absolute delivery time		
Priority can be set to low		
Priority can be set to normal		
Priority can be set to high		
Subject field		
To field	At least one of these MUST be checked	
Cc field		
Bcc field		

## B.4 IXIT

**Value** column shall be filled with appropriate values that are supported by the device.

Preconditions	Unit	Value
Maximum number of pages	Integer	
Minimum page timing	Integer in milliseconds	
Maximum subject field length	Integer	
Maximum message size (sending)	Integer in kB	
Maximum message size (receiving)	Integer in kB	

## B.5 ICS/IXIT to test case mapping

According to the ICS and IXIT marked in section 6 and 7 the applicable test cases can be derived from the following table.

Preconditions	Test Case
SMIL	MMS-1.2-con-202 - SMIL layout portrait with text above the image
	MMS-1.2-con-203 - SMIL layout portrait with text below the image
	MMS-1.2-con-204 - SMIL layout landscape with text to the left of the image
	MMS-1.2-con-205 - SMIL layout landscape with text to the right of the image
	MMS-1.2-con-206 - Multiple objects in same page
	MMS-1.2-con-207 - Multiple pages
	MMS-1.2-con-208 - Multiple pages with page timing and time dependent content
	MMS-1.2-con-209 - Multiple pages with page timing
SMIL AND Portrait layout	MMS-1.2-con-102 - SMIL layout portrait with text above the image
	MMS-1.2-con-103 – SMIL layout portrait with text below the image
SMIL AND Landscape layout	MMS-1.2-con-104 - SMIL layout landscape with text to the left of the image
	MMS-1.2-con-105 - SMIL layout landscape with text to the right of the image
SMIL AND AMR Audio AND different page timings AND different page timings with media	MMS-1.2-con-108 - Multiple pages with page timing and time dependent content
SMIL AND different page timings	MMS-1.2-con-109 - Multiple pages with page timing
Subject field AND UTF-8 encoding of Subject field	MMS-1.2-con-111 - Subject field with UTF8 encoding
US-ASCII for text input	MMS-1.2-con-112 - Text with US-ASCII encoding
Subject field	MMS-1.2-con-201 - Empty message
UTF-8 charset encoding sending/receiving	MMS-1.2-con-113 - Text with UTF-8 encoding

UTF-8 charset encoding sending/receiving AND Subject field	MMS-1.2-con-211 - Subject field with UTF8 encoding
UTF-16 encoding	MMS-1.2-con-214 - Text with UTF-16 encoding
Content class Image Rich OR Content class Video Basic OR Content class Video Rich	MMS-1.2-con-118 - JPG Image size 640x480
	MMS-1.2-con-122 - GIF Image size 640x480
	MMS-1.2-con-126 - Animated GIF Image size 640x480
	MMS-1.2-con-130 - WBMP Image size 640x480
	MMS-1.2-con-218 - JPG Image size 640x480
	MMS-1.2-con-222 - GIF Image size 640x480
	MMS-1.2-con-226 - Animated GIF Image size 640x480
	MMS-1.2-con-230 - WBMP Image size 640x480
AMR Audio	MMS-1.2-con-131 - AMR audio NB
	MMS-1.2-con-231 - AMR audio NB
13k Audio	MMS-1.2-con-132 - 3GPP2 13k speech
	MMS-1.2-con-232 - 3GPP2 13k speech
video/3gpp	MMS-1.2-con-133 - 3GPP Video QCIF
	MMS-1.2-con-134 - 3GPP Video sub-QCIF
	MMS-1.2-con-233 - 3GPP Video QCIF
	MMS-1.2-con-234 - 3GPP Video sub-QCIF
MPEG4 AND 13k Audio	MMS-1.2-con-135 - 3GPP2 Video QCIF (MPEG4+13k)
	MMS-1.2-con-139 - 3GPP2 Video sub-QCIF (MPEG4+13k)
	MMS-1.2-con-235 - 3GPP2 Video QCIF (MPEG4+13k)
	MMS-1.2-con-239 - 3GPP2 Video sub-QCIF (MPEG4+13k)
MPEG4 AND AMR Audio	MMS-1.2-con-136 - 3GPP2 Video QCIF (MPEG4+AMR)
	MMS-1.2-con-140 - 3GPP2 Video sub-QCIF (MPEG4+AMR)
	MMS-1.2-con-236 - 3GPP2 Video QCIF (MPEG4+AMR)
	MMS-1.2-con-240 - 3GPP2 Video sub-QCIF (MPEG4+AMR)

H.263 AND 13k Audio	MMS-1.2-con-137 - 3GPP2 Video QCIF (H.263+13k)
	MMS-1.2-con-141 - 3GPP2 Video sub-QCIF (H.263 +13k)
	MMS-1.2-con-237 - 3GPP2 Video QCIF (H.263+13k)
	MMS-1.2-con-241 - 3GPP2 Video sub-QCIF (H.263 +13k)
H.263 AND AMR Audio	MMS-1.2-con-138 - 3GPP2 Video QCIF (H.263+AMR)
	MMS-1.2-con-142 - 3GPP2 Video sub-QCIF (H.263 +AMR)
	MMS-1.2-con-238 - 3GPP2 Video QCIF (H.263+AMR)
	MMS-1.2-con-242 - 3GPP2 Video sub-QCIF (H.263 +AMR)
vCard	MMS-1.2-con-143 - vCard
	MMS-1.2-con-243 - vCard
vCalendar	MMS-1.2-con-144 - vCalendar
	MMS-1.2-con-244 - vCalendar
Delivery report request	MMS-1.2-con-601 - Delivery report – Retrieved message
	MMS-1.2-con-602 -Delivery report – Rejected message
	MMS-1.2-con-603 - Delivery report – Expired message
	MMS-1.2-con-604 - Delivery report – Multiple recipients each with Different Delivery Status
	MMS-1.2-con-747 - Support for X-Mms-Delivery-Report field
Delivery report request AND Interpreting Message-ID field AND Display of Delivery Report	MMS-1.2-con-620 - Delivery report – Interpreting Message-ID field
Sending of Read-Reply reports AND PDU Read Reporting functionality	MMS-1.2-con-606 - Read-Reply report
Read Report request AND PDU Read Reporting functionality	MMS-1.2-con-605 - Read-Reply report Date
	MMS-1.2-con-607 - Read-Reply Report when sending to multiple recipients
	MMS-1.2-con-608 - Read-Reply report when sending to single recipient
Request Read Reports AND Handle Read Reports in the form of	MMS-1.2-con-621 - Read report – Interpreting Message-ID field

PDU AND Support for interpreting Message-ID field	
Deferred Retrieval mode	MMS-1.2-con-611 - Forward without Prior retrieval
AND Forwarding without prior retrieval	MMS-1.2-con-619 - Long X-Mms-Content-Location field when Forwarding
Deferred Retrieval mode	MMS-1.2-con-702 - Download options – Deferred retrieval
Setting (relative) Expiry Time of a Forwarded message AND Deferred Retrieval mode AND Forwarding without prior retrieval	MMS-1.2-con-612 - Validity Period (Expiry Time) set by Client when forwarding
Request a Delivery report AND Deferred Retrieval mode	MMS-1.2-con-613 - Forwarding Delivery report – Retrieved message
AND Forwarding without prior retrieval	MMS-1.2-con-614 - Forwarding Delivery report – Rejected message
	MMS-1.2-con-615 - Forwarding Delivery report – Expired message
Read report request AND Deferred retrieval mode AND Forwarding without prior retrieval	MMS-1.2-con-616 - Read report when forwarding to single recipient
Delivery report request AND Forwarding without prior retrieval AND Interpreting Message-ID field AND Display of Delivery Report	MMS-1.2-con-617 - Delivery Report when Forwarding– Interpreting Message-ID field
Read Reports Request AND Forwarding without prior retrieval AND Handle Read Reports in the form of PDUs AND Interpreting Message-ID field	MMS-1.2-con-618 - Read Report when Forwarding – Interpreting Message-ID field
Rejected Retrieval mode	MMS-1.2-con-703 - Download options – Rejected retrieval
DRM Forward Lock	MMS-1.2-con-704 - DRM support – Forward Lock
Date field	MMS-1.2-con-733 - Support for Date field
Generation of “Auto” class MM	MMS-1.2-con-739 - Support for X-Mms-Message-Class field
Relative expiry time	MMS-1.2-con-740 - Support for X-Mms-Expiry field – Relative

Absolute expiry time	MMS-1.2-con-741 - Support for X-Mms-Expiry field – Absolute
Relative delivery time	MMS-1.2-con-742 - Support for X-Mms-Delivery-Time field – Relative
Absolute delivery time	MMS-1.2-con-743 - Support for X-Mms-Delivery-Time field – Absolute
Priority can be set to low	MMS-1.2-con-744 - Support for X-Mms-Priority field – Low
Priority can be set to normal	MMS-1.2-con-745 - Support for X-Mms-Priority field – Normal
Priority can be set to high	MMS-1.2-con-746 - Support for X-Mms-Priority field – High
Read Reports Request	MMS-1.2-con-748 - Support for X-Mms-Read-Report field
To field	MMS-1.2-con-735 - Support for To field
Cc field	MMS-1.2-con-736 - Support for Cc field
Bcc field	MMS-1.2-con-737 - Support for Bcc field
Subject field	MMS-1.2-con-738 - Support for Subject field
Maximum number of pages > 1 AND AMR Audio AND SMIL	MMS-1.2-con-106 - Multiple objects in same page
Maximum number of pages > 1 AND SMIL	MMS-1.2-con-107 - Multiple pages
Maximum message size (sending) > 310K	MMS-1.2-con-304 - Creation mode - Restricted – forwarding oversize