



Enabler Test Report MMS v1.1
OMA Test Fest (June 2003)
Version 09-Jul-2003

Open Mobile Alliance
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1. Scope

This report describes the results from the testing carried out at OMA Test Fest(June 2003) concerning MMS enabler version 1.1.

2. References

2.1 Normative References

[OMAIOPPROC]	OMA Interoperability Policy and Process, http://www.openmobilealliance.org/
[MMSEICS]	MMM version 1.1 Enabler Implementation Conformance Statement (EICS), http://www.openmobilealliance.org/
[ERELED]	“Enabler Release Definition for MMS Version 1.1” Open Mobile Alliance™. OMA-ERELED-MMS-v1_1. URL:http://www.openmobilealliance.org/
[MMS_SPEC]	OMA MMS 1.1 specifications
[EPTR]	Enabler Product Test Report
[ETP]	Enabler Test Plan
[ETS]	Enabler Test Specification for MMS 1.1 Approved Version 1.1, 22-May-2003

2.2 Informative References

3. Terminology and Conventions

3.1 Conventions

This is an informative document, i.e. the document does not intend to contain normative statements.

3.2 Definitions

None.

3.3 Abbreviations

EICS	Enabler Implementation Conformance Statement
EPTR	Enabler Product Test Report
ETP	Enabler Test Plan
ETS	Enabler Test Specification
MM	Multimedia Message
MMS	Multimedia Messaging Service
MMSC	MMS Proxy/Server
OMA	Open Mobile Alliance
PR	Problem Report

4. Summary

This report gives details of the testing carried out during the OMA Test Fest(June 2003) for MMS version 1.1.

The report is compiled on behalf of OMA by The NCC Group.

The work and reporting has followed the OMA IOP processes and policies [OMAIOPPROC].

5. Test Details

5.1 Documentation

This chapter lists the details of the enabler and any documentation, tools or test suites used to prove the enabler.

Date:	June 2003
Location:	Tampere, Finland
Enabler:	MMS v1.1
Process:	OMA Interoperability Policy and Process [OMAIOPPROC]
Type of Testing	Interoperability Testing
Products tested:	Client-to-server, Client-to-Client
Test Plan:	MMS Enabler Test Plan [ETP]
Test Specification:	MMS Enabler Test Specification [ETS]
Test Tool:	None
Test Code:	MMS v1.1 Reference Content (June 2003)
Type of Test event:	Test Fest
Participants:	Nokia Openwave Systems
Number of Client Products:	10
Participating Technology Providers for clients:	Materna Information & Communications Openwave Systems Qualcomm <i>7 additional participating clients</i>
Number of Server Products:	9
Participating Technology Providers for servers:	Ericsson AB Comverse Materna Information & Communications Nokia Openwave Systems Tecnomen <i>3 additional participating servers</i>
Number of test sessions completed:	45 of 55

5.2 Test Case Statistics

5.2.1 Test Case Summary

This chapter gives an overview of the result for all test cases included in [ETS].

The following status is used in the tables below:

- Total number of TCs: Used in the summary to indicate how many test cases there are in total.
- Number of passed: Used in the summary to indicate how many of the total test cases that successfully has been passed.
- Number of failed: Used in the summary to indicate how many of the total test cases that has failed.
- Number of N/A: Used in the summary to indicate how many of the total test cases that has not be run due to that the implementation(s) do not support the functionality required to run this test case.
- Number of OT: Used in the summary to indicate how many of the total test cases that has not be run due to no time to run the test case.
- Number of INC: Used in the summary to indicate how many of the total test cases that has not been run due to that the functionality could not be tested due to an error in the implementation in another functionality that is required to run this test case.

Test Section:	Total number of TCs:	Number of Passed:	Number of Failed:	Number of N/A:	Number of OT:	Number of INC:
Client to Client TCs	20	623	54	157	302	404
Client to Server Protocol TCs	33	1353	49	475	577	87
Client to Server Content TCs	13	525	16	168	255	37
Client to Server Email TCs	9	279	28	121	237	28
Total	75	2780	147	921	1371	556

Note: 33 of 110 test reports were submitted blank due to various connectivity issues. These are not included in the summary results.

5.2.2 Test Case List

This chapter lists the statistics for all test cases included in [ETS].

The following status is used in the tables below:

- **No. of runs(R):** Used to indicate how many times the test cases have been run in total.
- **No. of passed(P):** Used to indicate how many times the specific test case has been successfully passed.
- **No. of failed(F):** Used to indicate how many times the specific test case has failed.
- **No. of OT(O):** Used in the summary to indicate how many of the total test cases that has not be run due to no time to run the test case.
- **No. of INC(I):** Used in the summary to indicate how many of the total test cases that has not been run due to that the functionality could not be tested due to an error in the implementation in another functionality that is required to run this test case.
- **PR:** Used to indicate if any PRs (Problem Reports) have been issued during testing.
- If the specific implementation due to e.g. no support for an optional feature has not run a specific test case the test case should be marked with N/A in the “No. of runs” column.

Test Case:	Test Case Description:	R	P	F	O	I	PR:	Note:
MMS-1.1-int-101	Objects - Text	78	54	1	6	17	-	
MMS-1.1-int-102	Objects – Text with US-ASCII encoding	68	35	2	11	20		
MMS-1.1-int-103	Objects – Text with UTF-8 encoding	73	39	1	14	19		
MMS-1.1-int-104	Objects – Text with UTF-16 encoding	48	11	3	13	21		
MMS-1.1-int-105	Objects – JPG Images	78	48	3	9	18		
MMS-1.1-int-106	Objects – GIF Images	78	46	3	10	19		
MMS-1.1-int-107	Objects – Animated GIF Images	77	38	4	15	20		
MMS-1.1-int-108	Objects –WBMP Images	78	45	2	13	18		
MMS-1.1-int-109	Objects – AMR audio	71	35	2	14	20		
MMS-1.1-int-110	Attachment – vCard	48	12	1	13	22		
MMS-1.1-int-111	Attachment – vCal	45	5	2	15	23		

MMS-1.1-int-112	Layouts	66	28	2	17	19		
MMS-1.1-int-113	Page Timing	77	37	2	19	19		Observation 004
MMS-1.1-int-114	Multiple objects	77	37	4	16	20		
MMS-1.1-int-115	Multiple pages	76	37	4	15	20		Observation 005
MMS-1.1-int-116	Multiple pages and objects with page timing	77	33	5	18	21		
MMS-1.1-int-117	Subject	77	30	6	20	21		Observation 006
MMS-1.1-int-118	Long file names	69	20	5	24	20		Observation 003 Observation 007
MMS-1.1-int-119	Empty message	62	18	1	19	24		Observation 003 Observation 008
MMS-1.1-int-120	Message size 30kb	76	29	3	21	23		
MMS-1.1-int-201	Send and receive messages to one MSISDN recipient (to)	77	66	0	10	1		
MMS-1.1-int-202	Send and receive messages to one MSISDN recipient (cc)	77	61	0	15	1		
MMS-1.1-int-203	Send and receive messages to one MSISDN recipient (bcc)	52	34	3	14	1		
MMS-1.1-int-204	Send messages to one email recipient (to)	77	57	1	17	2		
MMS-1.1-int-205	Send messages to one email recipient (cc)	77	56	1	18	2		
MMS-1.1-int-206	Send messages to one email recipient (bcc)	50	30	3	16	1		
MMS-1.1-int-207	Send and receive messages to multiple MSISDN and email recipients (to)	77	54	1	17	5		
MMS-1.1-int-208	Send and receive messages to multiple MSISDN and email recipients (cc)	77	51	1	20	5		
MMS-1.1-int-209	Send and receive messages to multiple MSISDN and email recipients (bcc)	51	26	2	19	4		
MMS-1.1-int-210	Subject field with 40 Chars	77	56	1	16	4		Observation 009

MMS-1.1-int-211	Subject field with US-ASCII encoding	56	39	0	16	1		
MMS-1.1-int-212	Subject field with UTF8 encoding	73	46	7	18	2		
MMS-1.1-int-213	Address field with US-ASCII encoding	71	54	0	15	2		
MMS-1.1-int-214	Address field with UTF-8 encoding	39	11	1	20	7		Observation 010
MMS-1.1-int-215	Insert Address Token	61	43	1	15	2		
MMS-1.1-int-216	Download options – Immediate retrieval	77	59	0	15	3		Observation 003
MMS-1.1-int-217	Download options – delayed retrieval	63	46	0	14	3		Observation 003
MMS-1.1-int-218	Download options – rejected	46	18	6	19	3		Observation 003
MMS-1.1-int-219	Priority – Normal	77	61	0	15	1		
MMS-1.1-int-220	Priority – Low	61	47	0	13	1		
MMS-1.1-int-221	Priority –High	71	52	0	18	1		
MMS-1.1-int-222	Delivery report – Retrieved message	71	52	0	16	3		
MMS-1.1-int-223	Delivery report – Rejected message	58	24	9	20	5		
MMS-1.1-int-224	Delivery report – Expired message	70	32	4	29	5		
MMS-1.1-int-225	Delivery report – Multiple recipients	71	47	0	21	3		
MMS-1.1-int-226	Read report when sending to single recipient	36	15	2	16	3		
MMS-1.1-int-227	Read report when sending to multiple recipients	36	15	1	17	3		
MMS-1.1-int-228	Validity Period (Expiry Time) set by Client	75	42	0	30	3		Observation 003
MMS-1.1-int-229	Validity Period (Expiry Time) set by MMSC	73	38	0	33	2		Observation 003 Observation 011
MMS-1.1-int-230	Message classes – Personal	68	47	0	19	2		

MMS-1.1-int-231	Forward without prior retrieval	32	8	4	19	1		Observation 003
MMS-1.1-int-232	Time Stamp set by Client	54	25	2	24	3		Observation 003
MMS-1.1-int-233	Time Stamp set by MMSC	69	41	0	26	2		Observation 003
MMS-1.1-int-301	Text Object	77	60	0	16	1		
MMS-1.1-int-302	Text object with US-ASCII encoding	63	44	1	17	1		
MMS-1.1-int-303	Text object with UTF-8 encoding	76	54	0	21	1		
MMS-1.1-int-304	Text object with UTF-16 encoding	42	15	2	23	2		
MMS-1.1-int-305	Images – JPG	77	54	0	19	4		
MMS-1.1-int-306	Images – GIF	76	52	1	19	4		
MMS-1.1-int-307	Images – WBMP	76	54	1	18	3		
MMS-1.1-int-308	Audio- AMR Object	71	45	0	21	5		
MMS-1.1-int-309	Attachment- vCard	47	23	1	21	2		
MMS-1.1-int-310	Attachment - vCal	43	12	7	22	2		
MMS-1.1-int-311	Multiple pages and objects with page timing	76	47	1	25	3		
MMS-1.1-int-312	Empty message	48	23	0	22	3		Observation 003
MMS-1.1-int-313	Message size 30kB	74	42	2	24	6		
MMS-1.1-int-401	Send text object to email recipient	77	52	0	23	2		
MMS-1.1-int-402	Send image object to email recipient	77	47	0	27	3		
MMS-1.1-int-403	Send audio object to email recipient	73	44	0	26	3		
MMS-1.1-int-404	Send text, image and audio objects to email recipient	75	45	0	27	3		

MMS-1.1-int-405	Send vCard object to email recipient	48	16	3	27	2		
MMS-1.1-int-406	Send vCal object to email recipient	46	7	9	28	2		
MMS-1.1-int-407	Receive text, image and audio objects from email	73	32	5	29	7		
MMS-1.1-int-408	Receive vCard object from email	56	21	3	29	3		
MMS-1.1-int-409	Receive vCal object from email	56	15	8	30	3		

5.2.3 Observations

The following issues were captured by the Trusted Zone during the OMA Test Fest.

5.2.3.1 EICS issues

This section details issues with the MMS v1.1 Enabler Implementation Conformance Statement (EICS) [MMSEICS].

Observation: 001																
Document:	MMS v1.1 Enabler Implementation Conformance Statement (EICS)															
Section	1.2 Feature Support Overview															
Comment:	<p>There seems to be an inconsistency to how Section 1.2 Feature Support Overview should be completed. The different variants used at the last Fest were:</p> <table border="1"> <thead> <tr> <th></th> <th>Client Mandatory</th> <th>Client Optional</th> </tr> </thead> <tbody> <tr> <td>MMS Client Transactions:</td> <td>X</td> <td>X</td> </tr> <tr> <td>MMS Client Transactions:</td> <td>Yes</td> <td>Yes</td> </tr> <tr> <td>MMS Client Transactions:</td> <td>all</td> <td>partly</td> </tr> <tr> <td>MMS Client Transactions:</td> <td>6/6</td> <td>11/17</td> </tr> </tbody> </table>		Client Mandatory	Client Optional	MMS Client Transactions:	X	X	MMS Client Transactions:	Yes	Yes	MMS Client Transactions:	all	partly	MMS Client Transactions:	6/6	11/17
	Client Mandatory	Client Optional														
MMS Client Transactions:	X	X														
MMS Client Transactions:	Yes	Yes														
MMS Client Transactions:	all	partly														
MMS Client Transactions:	6/6	11/17														
Recommendation:	The EICS should be updated to instruct the user on how to complete this field.															

Observation: 002	
Document:	MMS v1.1 Enabler Implementation Conformance Statement (EICS)
SCR items:	<p>MMSCONF-C-020 O Support for PIM objects MMSCONF-C-021 M Support for vCalendar 1.0 as PIM object MMSCONF-C-022 M Support for vCard 2.1 as PIM object</p>
Comment:	<p>The specification reads as follows: <i>The following PIM (Personal Information Management) [PIM] objects will be supported as attachments to an MMS with one condition. The condition is: If handset has a calendar then vCalendar attachment is supported.</i></p> <ul style="list-style-type: none"> vCalendar version 1.0 (mime-type: text/x-vCalendar) vCard version 2.1 (mime-type: text/x-vCard) <p>When completing the EICS as submission to the OMA Test Fest, completing these SCR items was interpreted in two different ways:</p> <ol style="list-style-type: none"> The group of 3 SCR items are related. MMSCONF-C-020 is optional, however, if selected, it is mandatory to support MMSCONF-C-021 and MMSCONF-C-022. The group of 3 SCR items were completed individually, i.e. because there is no Requirement defined, it is mandatory for an implementation to support MMSCONF-C-021 and MMSCONF-C-022, and optional to support MMSCONF-C-020. <p>It seems contradictory that support of PIM objects (MMSCONF-C-020) is optional, yet support of vCalendar and vCard are mandatory, thus implying that the 1st interpretation is the correct approach. In this case MMSCONF-C-021 and MMSCONF-C-022 are dependent on MMSCONF-C-020.</p>

Recommendation:	EICS should be updated to clarify how the SCR items are related.
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5.2.3.2 Enabler Test Suite(ETS) issues

This section details issues with the Enabler Test Specification for OMA MMS v1.1.

Observation: 003	
Document:	Enabler Test Specification for MMS 1.1 [ETS]
Section:	[5. MMS Interoperability Test Cases]
Comment:	<p>The following test cases do not have SCR items in the</p> <p>MMS-1.1-int-118 MMS-1.1-int-119 MMS-1.1-int-216 MMS-1.1-int-217 MMS-1.1-int-218 MMS-1.1-int-228 MMS-1.1-int-229 MMS-1.1-int-231 MMS-1.1-int-232 MMS-1.1-int-233 MMS-1.1-int-312</p> <p>Because the {SCR Reference} for the above test cases is missing, it was not possible for the Trusted Zone to derive the correct test sets to be included in the Test Session Results form prior to the Test Fest.</p>
Recommendation:	Include SCR mappings if appropriate.

Observation: 004	
Test Case(s):	MMS-1.1-int-113
SCR item:	MMSCONF-C-001
Comment:	<p>The test case requires the client to send a message with 3 different pages and page times:</p> <ol style="list-style-type: none"> 1. Page 1 with page timing (100 ms or client minimum) 2. Page 2 with 2-5 second page timing 3. Page 3 with page time (20 seconds or client maximum) <p>The client does not support different page timings.</p>
Recommendation:	Clarification is needed from the IOP SWG to whether a pre-condition is needed to specify that the client can support different page timings.

Observation: 005	
Test Case(s):	MMS-1.1-int-115
SCR item:	MMSCONF-C-001
Comment:	There were instances when a client could not execute test step 2, <i>Create 10 pages, adding images 1.gif through 10.gif to these pages</i> , because it is restricted to less than 10 pages.
Recommendation:	Clarification is needed from the IOP SWG to whether a pre-condition is needed to specify that the client can support 10 pages.

Observation: 006	
Test Case(s):	MMS-1.1-int-117
SCR item:	MMSE-C025
Comment:	Client restricts the subject field to 32 characters so that step 2 of the test procedure, <i>Enter Short_Text_UTF-8.txt in Subject field</i> cannot be executed.
Recommendation:	Clarification is needed from the IOP SWG to whether the test data in Short_Text_UTF-8.txt meets the minimum size requirements as specified by the MMS 1.1 specifications or whether this is undefined by the specifications and thus is an IOP test purpose.

Observation: 007	
Test Case(s):	MMS-1.1-int-118
SCR item:	None.
Comment:	Client restricts the file name to 64 characters so that during step 2 of the test procedure, <i>Add image "Long_file_name_for_gif_image_60X80_with_non_ASCII_characters_ÖÖÖ_Length_is_93_characters.gif"</i> the filename is truncated by the client.
Recommendation:	Clarification is needed from the IOP SWG to whether a pre-condition is needed in the test cases to cater for this restriction and whether there is a minimum size defined in the MMS 1.1. specifications.

Observation: 008	
Test Case(s):	MMS-1.1-int-119 - Empty message
SCR item:	None.
Comment:	The test purpose is: <i>To verify that empty messages can be sent, received and reasonably presented</i> This test case needs a pre-condition:

	<ul style="list-style-type: none"> Client A can create an empty message through the user interface. <p>The majority of client implementations at the test fest could not create empty messages.</p>
Recommendation:	Pre-condition added to test case.

Observation: 009	
Test Case(s):	MMS-1.1-int-210 - Subject field with 40 characters
SCR item:	MMSE-C-025
Comment:	Client restricts the subject field to 32 characters so that step 2 of the test procedure, <i>Add following 40 chars to subject field:</i> "abcdefghijklmnopqrstuvwxyz0123456789/-+@" can not be executed.
Recommendation:	Clarification is needed from the IOP SWG to whether a pre-condition is needed for the test cases to cater for this situation.

Observation: 010	
Test Case(s):	MMS-1.1-int-214 - Address field with UTF-8 encoding.
SCR item:	MMSE-C024, MMSE-CHS-S-001
Comment:	One of the pre-conditions for this test cases is: <ul style="list-style-type: none"> An email account with a name: MMS_ü@xxx, where "xxx" is a valid domain name specified for the test event. <p>It was commented that the account name does not comply with the RFC 822 (Standard for ARPA Internet Text Messages).</p>
Recommendation:	Further investigation needed here.

Observation: 011	
Test Case(s):	MMS-1.1-int-229
SCR item:	None
Comment:	The test case contains the following pre-condition: <ul style="list-style-type: none"> Default message expiration time on MMSC should be set to 1 hour (or minimum default value) and it should override the message expiration time if set by client <p>Within a 2 or 3 hour test session, a 1-hour expiry time proved to be impractical for many of the testers.</p>
Recommendation:	Re-consider the expiry time to cater for Test Fest conditions.

MMS Anonymous Feedback	
Feedback	<p>The following comments were captured from the Test Fest feedback forms and should be taken into consideration:</p> <ul style="list-style-type: none"> • <i>For the MMS e-mail test cases, the information was not distributed up front to all the Fest participants. This meant that valuable test time was consumed setting up e-mail accounts and mailboxes.</i> • <i>3 hours per session was enough time assuming everything worked as expected, but if any problems occurred, then it was too short. Perhaps a 1 hr break between sessions would have been useful in order to provide this extra time.</i> • <i>General comments: very hard to be able to cover all TCs during one test session; good that MMSCs were available ad hoc; start up Test Fest with an initial hand shake session when all participants are able to check that they are able to send and receive together with clients/MMSCs;</i> • <i>More time for setup to clear up possible problems that delay testing otherwise. On the first day of testing there should only be two test sessions. The first day takes longer due to configuration issues and getting familiar with the test plan.</i> • <i>We proposed that a day be set aside for ad-hoc testing at the end in order to minimize the "out-of-time" test cases.</i> • <i>There were too many tests and no time to finish them. I think that the attendees should specify (as much as possible) with whom they prefer to test.</i> • <i>Testing time (3 hr per session) was not enough. 3 sessions per day too much. Often met the same client B, but some clients no joint test session. Some clients and one MMSC real prototype , not much test result for a real product.</i> • <i>Improvement suggestions provided in order to make the overall impressions good or very good:</i> <i>(a) provide protocols separately for client-server tests and client-client tests,</i> <i>(b) try to group test cases in order for them to be able to execute quicker, e.g., sending one message with text, JPG image, GIF image in order to pass TC 101, 105 and 106.</i> <i>(c) try to encourage pre-testing</i> • <i>Test reports are not designed for ad hoc testing for each company so we needed to filter supported and unsupported test cases -- it was not clear where to report results for each client.</i> <i>It would be better to have two separate reports for each client that specifies which is the client testing (reports were printed for the both clients in the same manner as reporting the both the names of the clients).</i> • <i>2 clients/server paring is too much at a limited time. Client to client should have own test report. Client to server should have own test report. Client-to-client should be separate session using a reference MMSC. Client-to-server should be separate session as well as described in ETS.</i> • <i>I think there should only be one copy of the test session report. It is hard to understand who is responsible to submit it. It seems silly to have to sign 3 copies, some tests can be tested w/o one of the clients so 3 test session reports can be different.</i>

6. Confirmation

This signature states that the included information is true and valid.

Stephen Higgins - MMS Trusted Zone

Appendix A. Change History (Informative)

Type of Change	Date	Section	Description