Enabler Test Report
Device Management v1.2

OMA TestFest (June 2006)
Version 07-Jul-2006

Open Mobile Alliance
OMA-Enabler_Test_Report-DM-12-2006-07-07

Contents

1. Scope

This report describes the results from the testing carried out at OMA TestFest-15 (June 2006) concerning Device Management version 1.2.

2. References

2.1 Normative References

[OMAIOPPROC]	OMA Interoperability Policy and Process, http://www.openmobilealliance.org/
[DMEICS]	Enabler Implementation Conformance Statement, OMA DM 1.2 Client Enabler Release, 7-February-2006, http://www.openmobilealliance.org/
	Enabler Implementation Conformance Statement, OMA DM 1.2 Server Enabler Release, 7-February-2006, http://www.openmobilealliance.org/
[ERELD]	"Enabler Release Definition for Device Management", Open Mobile Alliance™, OMA-ERELD-DM-V1_2_0. URL:http:www.openmobilealliance.org
[DM-v1.2]	"DRM Rights Management". Open Mobile Alliance™. OMA-DRM-DRM-v2_0. URL:http://www.openmobilealliance.com/.
[DMPRO] *	"OMA Device Management Protocol, Version 1.2". Open Mobile Alliance™. OMA-TS-DM-Protocol-V1_2_0. URL:http://www.openmobilealliance.org
[DMREPU]*	"OMA Device Management Representation Protocol, Version 1.2". Open Mobile Alliance™. OMA-TS-DM-RepPro-V1_2_0. URL:http://www.openmobilealliance.org
[DMSEC] *	"OMA Device Management Security, Version 1.2". Open Mobile Alliance™. OMA-DM-Security-V1_2_0. URL:http://www.openmobilealliance.org
[DMTND]*	"OMA Device Management Tree and Description, Version 1.2". Open Mobile Alliance™. OMA-DM-TND-V1_2_0. URL:http://www.openmobilealliance.org
[DMSTDOBJ]*	"OMA Device Management Standardized Objects, Version 1.2". Open Mobile Alliance™. OMA-DM-StdObj-V1_2_0. URL:http://www.openmobilealliance.org
[DMBOOT]*	"OMA Device Management Bootstrap, Version 1.2". Open Mobile Alliance™. OMA-DM-Bootstrap-V1_2_0. URL:http://www.openmobilealliance.org
[DMNOTI]*	"OMA Device Management Notification Initiated Session, Version 1.2". Open Mobile Alliance™. OMA-DM-Notification-V1_2_0. URL:http://www.openmobilealliance.org
[DMTNDS]*	"OMA Device Management Tree and Description Serialization, Version 1.2". Open Mobile Alliance™. OMA-DM-TNDS-V1_2_0. URL:http://www.openmobilealliance.org
[ETP]	Enabler Test Plan
[ETS]	OMA-ETS-DM_INT-V1_2-20060524-C Enabler Test Specification [ETS]

2.2 Informative References

[OMADICT]	Dictionary for OMA Specification, OMA-Dictionary http://www.openmobilealliance.org/

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

SCTS   SyncML Conformance Test Suite.

Test Object   The implementation under test is referred to as the Test Object. In this document, the Client.

Test Case   A Test Case is an individual test used to verify the conformance of the Test Object to a particular mandatory feature of the protocol. A 4-digit number identifies Test Cases where the first two digits denote the Test Group ID.

Test Group   A Test Group is a collection of Test Cases, which are executed, in a single SyncML session in SCTS conformance test tool.

<Node>   Path from the root to the interior node that is configured to the SCTS before the testing is done (e.g.. './SyncML/DMAcc' or './DevDetail'). Test case is driven to this configured interior node. The <Node> can be different between different Test Cases.

<Leaf> or <Leaf#n>   Leaf node(s) that is configured to the SCTS before the testing is done (e.g.. 'SwV' and/or 'Name'). Test case is driven to this configured interior node. The <Leaf> can be different between different Test Cases.

3.3   Abbreviations

DM   Device Management
DSDM   Data Synchronization Device Managment
EICS   Enabler Implementation Conformance Statement
EPTR   Enabler Product Test Report
ETP   Enabler Test Plan
ETS   Enabler Test Specification
OMA   Open Mobile Alliance
PR   Problem Report
SCTS   Synchronization Conformance Test Suite

4. Summary

This report gives details of the testing carried out during the OMA TestFest-15 (June 2006) for Device Management v1.2.

The report is compiled on behalf of OMA by the OMA Trusted Zone.

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:	26th – 30th June 2006
Location:	Belfast, Northern Ireland, UK
Enabler:	DM v1.2
Process:	OMA Interoperability Policy and Process [OMAIOPPROC]
Type of Testing	Interoperability Testing
Products tested:	Client-to-server, Client-to-Client
Test Plan:	DM Enabler Test Plan [ETP]
Test Specification:	DM Enabler Test Specification [ETS]
Test Tool:	None
Test Code:	None
Type of Test event:	TestFest
Participants:	Bitfone, Innopath, LG Electronics Inc., Motorola, , Sony Ericsson Mobile Communications, websync, Bitfone, Funambol, IBM, INNOACE, Innopath, Insignia Solutions, Nokia, Synchronica plc, websync *plus three other participantc companies*
Number of Client Products:	8
Participating Technology Providers for clients:	Bitfone, Innopath, LG Electronics Inc., Motorola, , Sony Ericsson Mobile Communications, websync *Plus two other clients*
Number of Server Products:	10
Participating Technology Providers for servers:	Bitfone, Funambol, IBM, INNOACE, Innopath, Insignia Solutions, Nokia, Synchronica plc, websync *Plus one other server*
Number of test sessions completed:	77

Table 1. Test Information

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 successfully passed.

- **Number of failed:** Used in the summary to indicate how many of the total test cases failed.

- **Number of N/A:** Used in the summary to indicate how many of the total test cases have not been run due to one of the implementations not supporting the functionality required to run this test case.

- **Number of OT:** Used in the summary to indicate how many of the total test cases have not been 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 have not been run due to functionality not being tested due to an error in the implementation or other functionality that is required to run this test case.

Test Section:	Number of test sessions:	Total number of TCs:	Number of Passed:	Number of Failed:	Number of N/A:	Number of OT:	Number of INC:	Total:
Client to Server TCs	77	40	1960	36	1003	80	45	3080
Total	**77**	**40**	**1960**	**36**	**1003**	**80**	**45**	**3080**

Table 2. Test Summary Table

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 test case has been run with successful result.

- **No. of failed(F):** Used to indicate how many times the test case has been run with failed result

- **No. of OT(O):** Used to indicate how many times the test case has not been run due to no time available.

- **No. of INC(I):** Used to indicate how many times the test case has not been run due to errors being found in other functionality required for running this test case.

- **PR:** Used to indicate if any PRs (Problem Reports) have been issued during testing.

- **Note:** Used to indicate the cause of Inconclusive or Fail verdicts.

Tests for DM Enabler TestFest From OMA-ETS-DM-V1_2-20060524-C

Test Case	Test Case Description	Test Case Counts					PR	Notes (See Below)
		Run	Pass	Fail	OT	INC		
DeviceManagement-v1.2-int-001	**To test "Forward Lock" DRM 1.0 functionality.**	72	70	1	0	1		
DeviceManagement-v1.2-int-002	**To test DRM 1.0 "Combined Delivery" functionality.**	71	68	2	0	1		
DeviceManagement-v1.2-int-003	**To test DRM 1.0 "Separate Delivery" functionality in case the DCF file indicates that the server intends to push the rights object separately.**	77	77	0	0	0		
DeviceManagement-v1.2-int-004	**Registration of a DRM Agent**	77	77	0	0	0		
DeviceManagement-v1.2-int-005	**RO Acquisition with existing RI Context.**	77	77	0	0	0		
DeviceManagement-v1.2-int-006	**RO Acquisition without existing RI Context**	77	74	3	0	0		
DeviceManagement-v1.2-int-007	**1-pass RO Acquisition with existing RI Context.**	77	77	0	0	0		
DeviceManagement-v1.2-int-008	**1-pass RO Acquisition without existing RI Context.**	77	77	0	0	0		

Test Case	Test Case Description	Test Case Counts					PR	Notes (See Below)
		Run	Pass	Fail	OT	INC		
DeviceManagement-v1.2-int-009	Server-initiated Device Time Synchronization	74	73	0	1	0		
DeviceManagement-v1.2-int-010	To test a situation where an RO is included in the DCF.	76	73	1	1	1		
DeviceManagement-v1.2-int-011	To test behaviour in the presence of a group RO for multiple DCFs, using the Group ID mechanism.	74	67	5	1	1		
DeviceManagement-v1.2-int-012	To test behaviour in the presence of an individual RO for a content item which has a Group ID.	70	63	0	3	4		
DeviceManagement-v1.2-int-013	To test behaviour in the presence of several rights objects for one piece of content.	27	19	2	5	1		
DeviceManagement-v1.2-int-014	To test behaviour in the presence of several rights objects for one piece of content.	18	10	2	3	3		
DeviceManagement-v1.2-int-015	To test DRM Agent's capability to process Multipart DCFs from the RI.	2	0	0	1	1		
DeviceManagement-v1.2-int-016	To test behaviour in the presence of multiple ROs for a multipart DCF.	3	1	0	1	1		
DeviceManagement-v 1.2-int-017	To test behaviour when different content items in a multipart DCF are associated with different groups	3	1	0	1	1		
DeviceManagement-v 1.2-int-018	To test "Superdistribution" functionality. The protected content is sent from one DRM Agent to another. The rights object is obtained by ROAP session to the rights issuing service.	7	0	0	4	3		

Test Case	Test Case Description	Test Case Counts					PR	Notes (See Below)
		Run	Pass	Fail	OT	INC		
DeviceManagement-v 1.2-int-019	**To test the TransactionID mechanism in connection with Superdistribution.**	7	0	0	4	3		
DeviceManagement-v 1.2-int-020	**To test <display> and <print> permissions.**	7	0	0	4	3		
DeviceManagement-v1.2-int-021	**To test <play> permission.**	69	67	0	1	1		
DeviceManagement-v1.2-int-022	**To test <execute> permission.**	69	67	1	1	0		
DeviceManagement-v1.2-int-023	**To test <count> constraint for a DCF.**	62	56	5	1	0		
DeviceManagement-v1.2-int-024	**To test <timed-count> constraint for a DCF.**	62	60	1	1	0		
DeviceManagement-v1.2-int-025	**To test <datetime> constraint for a DCF.**	62	61	0	1	0		
DeviceManagement-v1.2-int-026	**To test <interval> constraint for a DCF.**	61	59	0	1	1		
DeviceManagement-v1.2-int-027	**To test <accumulated> constraint for a DCF.**	61	59	1	1	0		
DeviceManagement-v1.2-int-028	**To test <individual> constraint for a DCF.**	77	76	0	1	0		
DeviceManagement-v1.2-int-029	**To test <system> constraint for a DCF.**	77	75	0	2	0		
DeviceManagement-v1.2-int-030	**To test the effect of having multiple constraints.**	76	73	2	1	0		
DeviceManagement-v 1.2-int-031	**To test the REL Permission Model in the case that the rights include a stateful top level constraint.**	35	26	0	5	4		
DeviceManagement-v 1.2-int-032	**Initiate ROAP from DCF Preview Header with existing RI Context & domain name NOT in Domain Name Whitelist.**	38	37	0	1	0		
DeviceManagement-v 1.2-int-033	**Initiate ROAP from DCF Preview Header with existing RI Context & domain name in the Domain Name Whitelist.**	43	38	0	5	0		

Test Case	Test Case Description	Test Case Counts					PR	Notes (See Below)
		Run	Pass	Fail	OT	INC		
DeviceManagement-v 1.2-int-034	**To test inheritance model when stateful constraints are involved.**	56	51	3	2	0		
DeviceManagement-v 1.2-int-035	**To test a case where the Parent Rights Object**	36	30	1	2	3		
DeviceManagement-v 1.2-int-036	**To test inheritance model when a child RO is a group RO**	28	27	0	1	0		
DeviceManagement-v 1.2-int-037	**Trigger-initiated domain join without existing RI Context**	62	55	2	4	1		
DeviceManagement-v 1.2-int-038	**Trigger-initiated domain join with valid RI Context and no existing Domain Context for this RI.**	24	20	0	2	2		
DeviceManagement-v 1.2-int-039	**Automatically-initiated domain upgrade with valid RI Context and existing Domain Context for this RI A Domain RO is delivered before the DRM Agent has upgraded the domain.**	53	36	2	10	5		
DeviceManagement-v 1.2-int-040	**Trigger-initiated domain join with valid RI Context and existing Domain Context for this RI RI-initiated domain generation upgrade**	53	39	2	8	4		

Table 3. Test Case Counts

5.2.3   Problem Reports

During the activities for TestFest-15, the following problem reports were generated relating to the test materials and test process:

PR Number	Affecting	Description	Test Case reference / Specification reference
0029	Specification Problem (INT)	The target uri in XML TNDS example can lead confusion	OMA-TS-DM-TNDS-V1
0030	Specification Problem (INT)	The format and the type to use with TNDS are not clearly specified	OMA-TS-DM-TNDS-V1
0031	Specification Problem (INT)	The usage of <Size> element is not clear when a Get is done for the Struct attribute	OMA-TS-DM-TND-V1_2

Table 4. Problem Reports

Full details of all Problem Reports can be found at:

   http://www.openmobilealliance.org/OMA-Problem-Reporting-System.html

6. Confirmation

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

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OMA Trusted Zone

Appendix A.   Change History   (Informative)

Type of Change	Date	Section	Description
Initial Version	7 Jul 06	All	New Document