Enabler Test Report

Device Management v1.2

OMA TestFest (September 2006)
Version 22-Sep-2006

Open Mobile Alliance
OMA-Enabler_Test_Report-DM-12-2006-09-22

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Contents

1. Scope

This report describes the results from the testing carried out at OMA TestFest-16 September 2006 concerning DM 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] “OMA Device Management”. Open Mobile Alliance™. OMA-DRM-DM-v1_2. 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 Management
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-16 (September 2006) for DM 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:	8th to 15th September 2006
Location:	Düsseldorf, Germany
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:	HUMIT, iAnywhere Solutions, Korea Telecom, MobileLeader, Nokia, RedBend, Synchronica PLC, Teleca *plus one other participant*
Number of Client Products:	6
Participating Technology Providers for clients:	HUMIT, iAnywhere Solutions, Korea Telecom, MobileLeader, RedBend, and Teleca
Number of Server Products:	4
Participating Technology Providers for servers:	HUMIT, Nokia, Synchronica PLC *plus one other server*
Number of test sessions completed:	23

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	23	40	590	11	309	0	10	920
Total	**23**	**40**	**590**	**11**	**309**	**0**	**10**	**920**

Table 1. 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 v1.2 Enabler TestFest Taken From OMA-ETS-DM_INT-V1_2-20060524-C

Test Case:	Test Case Description:	R	P	F	O	I	PR:	Note:
DeviceManagement -v1.2-int-001	Purpose of this verification is to show compliance with MD-5 client authentication.	23	23	0	0	0		
DeviceManagement -v1.2-int-002	Purpose of this verification is to show compliance with MD-5 server authentication.	23	23	0	0	0		
DeviceManagement -v1.2-int-003	Purpose of this verification is to show compliance with the GET command on a leaf node.	23	23	0	0	0		
DeviceManagement -v1.2-int-004	Purpose of this verification is to show compliance with the GET command on a node that doesn't exist.	23	23	0	0	0		
DeviceManagement -v1.2-int-005	Purpose of this verification is to show compliance with the GET command on an interior node.	23	23	0	0	0		
DeviceManagement -v1.2-int-006	Purpose of this verification is to show compliance with the GET on an inaccessible leaf node.	23	23	0	0	0		
DeviceManagement -v1.2-int-007	Purpose of this verification is to show compliance with REPLACE on permanent leaf node.	23	23	0	0	0		

Test Case:	Test Case Description:	R	P	F	O	I	PR:	Note:
DeviceManagement -v1.2-int-008	Purpose of this verification is to show compliance with management node ACL behaviour.	22	20	2	0	0		
DeviceManagement -v1.2-int-009	Purpose of this verification is to show compliance with the error handling when connection failure occurs during the SyncML DM session.	23	23	0	0	0		
DeviceManagement -v1.2-int-010	Purpose of this verification is to show compliance with HMAC client authentication.	23	23	0	0	0		
DeviceManagement -v1.2-int-011	Purpose of this verification is to show compliance with HMAC server authentication.	23	23	0	0	0		
DeviceManagement -v1.2-int-012	Purpose of this verification is to show compliance with the large object/multiple commands.	23	23	0	0	0		
DeviceManagement -v1.2-int-013	Purpose of this verification is to show compliance with notification initiated session.	19	16	0	0	3		
DeviceManagement -v1.2-int-014	Purpose of this verification is to show compliance with Server Initiated bootstrap using Client Provisioning Profile.	7	0	0	0	7		
DeviceManagement -v1.2-int-015	Purpose of this test is to check that a Device Management client supports bootstrap from the Smart Card using the Client Provisioning profile	0	0	0	0	0		
DeviceManagement -v1.2-int-016	Purpose of this test is to check that a Device Management client supports bootstrap from the Smart Card using the Device Management Profile and WBXML encoded TNDS objects for the bootstrap information	0	0	0	0	0		
DeviceManagement -v1.2-int-017	Purpose of this test is to check that a Client removes from the DM tree the account information for a DM Server previously bootstrapped from the Smart Card when that information is no longer present in the Smart Card	0	0	0	0	0		

Test Case:	Test Case Description:	R	P	F	O	I	PR:	Note:
DeviceManagement -v1.2-int-018	Purpose of this test is to check that a DM client supports server initiated bootstrap using the DM profile, WBXML encoded TNDS objects and the Inbox, under transport neutral security when the transport method used does not have appropriate security. NETWORKID is used.	0	0	0	0	0		
DeviceManagement -v1.2-int-019	Purpose of this test is to check that a DM client supports server initiated bootstrap using the DM profile WBXML encoded TNDS objects and the Inbox under transport neutral security when the transport method used does not have appropriate security. USERPIN is used.	0	0	0	0	0		
DeviceManagement -v1.2-int-020	Purpose of this test is to check that a DM client supports server initiated bootstrap using the DM profile, WBXML encoded TNDS objects and the Inbox, under transport neutral security when the transport method used does not have appropriate security. USERPIN_NETWORKID is used.	0	0	0	0	0		
DeviceManagement -v1.2-int-021	Purpose of this verification is to show compliance with UI Display Alert.	23	23	0	0	0		
DeviceManagement -v1.2-int-022	Purpose of this verification is to show compliance with UI Confirmation Alert.	23	23	0	0	0		
DeviceManagement -v1.2-int-023	Purpose of this verification is to show compliance with UI Text Input Alert.	23	23	0	0	0		
DeviceManagement -v1.2-int-024	Purpose of this verification is to show compliance with UI Single Choice Alert.	23	23	0	0	0		
DeviceManagement -v1.2-int-025	Purpose of this verification is to show compliance with UI Multiple Choice Alert.	23	23	0	0	0		
DeviceManagement -v1.2-int-026	Purpose of this verification is to show compliance with the server reading subtree structure without data from part of the management tree.	15	15	0	0	0		

Test Case:	Test Case Description:	R	P	F	O	I	PR:	Note:
DeviceManagement -v1.2-int-027	Purpose of this verification is to show compliance with the server reading subtree structure and data from part of the management tree.	15	15	0	0	0		
DeviceManagement -v1.2-int-028	Purpose of this verification is to verify creation of new Application Setting in client using DM server	22	20	2	0	0		
DeviceManagement -v1.2-int-029	Purpose of this verification is to verify modification of Application Settings in client using DM server.	22	20	2	0	0		
DeviceManagement -v1.2-int-030	Purpose of this verification is to verify deletion of Application Settings in client using DM server.	23	22	1	0	0		
DeviceManagement -v1.2-int-031	Purpose of this test is to check that a DM client supports the Inbox object and that the information in the Inbox is correctly mapped onto the DM tree	12	10	2	0	0		
DeviceManagement -v1.2-int-032	Purpose of this test is to check that a Device Management client rejects Get operations from a DM server on the “./Inbox” node.	14	14	0	0	0		
DeviceManagement -v1.2-int-033	Purpose of this test is to verify backwards compatibility between a DM 1.2 server and a DM 1.1.2 client.	16	16	0	0	0		
DeviceManagement -v1.2-int-034	Purpose of this test case is to check if the Test Object supports implicit addition of parent interior nodes for an addition of a child node whose valid parent/parents does not exist in the DM Tree	18	16	2	0	0		
DeviceManagement -v1.2-int-035	To check if the Test Object can handle a Get with 'list=TNDS'. DM Server issues a Get on './DevDetail?list=TNDS+ACL+Format+Value'	0	0	0	0	0		
DeviceManagement -v1.2-int-036	To check if the Test Object can handle the copy command, It would be followed by a Get command on both the URI	4	4	0	0	0		

Test Case:	Test Case Description:	R	P	F	O	I	PR:	Note:
DeviceManagement -v1.2-int-037	Purpose of this verification is to show capability of correlator use	12	12	0	0	0		
DeviceManagement -v1.2-int-038	Purpose of this verification is to show capability to add a serialized management object to the DM tree	0	0	0	0	0		
DeviceManagement -v1.2-int-039	Purpose of this verification is to test transport layer authentication using TLS 1.0	11	11	0	0	0		
DeviceManagement -v1.2-int-040	Purpose of this verification is to test transport layer authentication using SSL 3.0	11	11	0	0	0		

Table 2. Test Case Counts

5.2.3 Problem Reports

During the activities for TestFest16, the following problem reports were generated relating to the test materials and test process:

PR Number	Affecting	Description	Test Case reference / Specification reference
0032	Specification	Inbox URI clarifications needed (in addition to PR # 0023).	OMA-TS-DM-StdObj-V1_2 section 5.3.4
0033	Specification	TNDS encoding ambiguity	OMA-TS-DM-TNDS-V1 section 5.3
0034	Specification	TNDS encoding ambiguity	OMA-TS-DM-TNDS-V1 section 5.3
0035	Specification	TNDS encoding ambiguity	OMA-TS-DM-TNDS-V1 section 5.3
0036	Specification	TNDS encoding ambiguity	OMA-TS-DM-TNDS-V1 section 5.3
0037	Specification	TNDS encoding ambiguity	OMA-TS-DM-TNDS-V1 section 5.3

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.

OMA Trusted Zone

Appendix A. Change History (Informative)

Type of Change	Date	Section	Description
Initial Version	22nd September 2006	All	First Version for TestFest-16