



## **Enabler Test Report Device Management v1.2**

OMA TestFest (May 2009)  
Version 23<sup>rd</sup> July 2009

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Open Mobile Alliance  
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# 1. Scope

This report describes the results from the testing carried out at OMA TestFest-28 (May 2009) concerning the Device Management Version 1.2 Enabler.

## 2. References

### 2.1 Normative References

- [IOPPROC] “OMA Interoperability Policy and Process”, Version 1.7, Open Mobile Alliance™, OMA-ORG-IOP\_Process-V1\_7, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [RFC2119] “Key words for use in RFCs to Indicate Requirement Levels”, S. Bradner, March 1997, [URL:http://www.ietf.org/rfc/rfc2119.txt](http://www.ietf.org/rfc/rfc2119.txt)
- [ERELD] ”Enabler Release Definition for Device Management”, OMA-ERELD-DM-V1\_2\_20070209-A, [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [ERP] “Enabler Release Package”, OMA-ERP-DM-V1\_2-20080617-A, [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [ETG] “Enabler Test Guidelines”, OMA-ETG-DM-V1\_2-20071207-A, [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [ETS] “Enabler Test Specification”, OMA-ETS-DM\_INT-V1\_2-20080903-D, [URL:http://www.openmobilealliance.org](http://www.openmobilealliance.org)
- [EICS] “Enabler Implementation Conformance Statement”, OMA DM 1.2, OMA-EICS-DM-Client-V1\_2-20060727-A, <http://www.openmobilealliance.org/>  
“Enabler Implementation Conformance Statement”, OMA DM 1.2, OMA-EICS-DM-Server-V1\_2-20060727-A, <http://www.openmobilealliance.org/>

### 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

<b>SCTS</b>	SyncML Conformance Test Suite.
<b>Test Case</b>	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.
<b>Test Group</b>	A Test Group is a collection of Test Cases, which are executed, in a single SyncML session in SCTS conformance test tool.
<b>Test Object</b>	The implementation under test is referred to as the Test Object. In this document, the Client.
<b>TestFest</b>	Multi-lateral interoperability testing event
<b>Trusted Zone</b>	An OMA staff function to provide a neutral confidential information and results collection service to OMA Members. The Trusted Zone is responsible for all reports resulting from an OMA Test Event and to ensure that all general reports cannot attributed to any one individual participating company
<b>&lt;Node&gt;</b>	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.
<b>&lt;Leaf&gt; or &lt;Leaf#n&gt;</b>	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
ERELED	Enabler Release Definition
ERP	Enabler Release Package
ETG	Enabler Test Guidelines
ETS	Enabler Test Specification
INC	Inconclusive
N/A	Not Applicable
OMA	Open Mobile Alliance
OT	Out of Time
PR	Problem Report
SCTS	SyncML Conformance Test Suite
TC	Test Case

## 4. Summary

This report gives details of the testing carried out during the OMA TestFest-28 (May 2009) for Device Management (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.

<b>Date:</b>	14 <sup>th</sup> to 22 <sup>nd</sup> May 2009
<b>Location:</b>	Beijing, China
<b>Enabler:</b>	DM v1.2
<b>Process:</b>	OMA Interoperability Policy and Process [OMAIOPPROC]
<b>Type of Testing</b>	Interoperability Testing
<b>Products tested:</b>	Client-to-Server
<b>Test Guidelines:</b>	DM 1.2 Enabler Validation Plan [EVP] OMA-ETG-DM-V1_2-20071207-A
<b>Test Specification:</b>	DM 1.2 Enabler Test Specification [ETS]: OMA-ETS-DM-V1_2-20080903-D
<b>Test Tool:</b>	None
<b>Test Code:</b>	None
<b>Type of Test event:</b>	TestFest
<b>Participant Companies:</b>	Kvaleberg AS plus 2 other companies
<b>Number of Client Implementations:</b>	3
<b>Participating Technology Providers for clients:</b>	Kvaleberg AS plus 2 other Clients.
<b>Implementation IDs for each client:</b>	Mimiria - OMA DM plus 2 other implementations.
<b>Number of Server Implementations:</b>	2
<b>Participating Technology Providers for servers:</b>	2 other Server companies
<b>Implementation IDs for each server:</b>	2 Implementations
<b>Number of Smartcard Implementations:</b>	<i>None</i>
<b>Participating Technology Providers for Smartcards:</b>	<i>None</i>
<b>Implementation IDs for each Smartcard:</b>	<i>None</i>
<b>Number of test sessions completed:</b>	4

## 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 testcases that successfully has been passed.
- Number of failed: Used in the summary to indicate how many of the total testcases that has failed.
- Number of N/A: Used in the summary to indicate how many of the total testcases 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 testcases 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 testcases 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:	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	4	37	109	3	35	0	1	148
Client to Smartcard TCs (Bootstrap)	0	9	0	0	36	0	0	36
<b>Total</b>	<b>4</b>	<b>46</b>	<b>109</b>	<b>3</b>	<b>71</b>	<b>0</b>	<b>0</b>	<b>184</b>

Table 1. Test Summary Table

## 5.2.2 Test Case List

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

The following status is used in the tables below:

- **Runs (R):** Used to indicate the total number of times the test case have been run ( $R = P + F + I$ ).
- **Pass (P):** Used to indicate how many times the test case have been run and successfully passed.
- **Fail (F):** Used to indicate how many times the test cases have been run and failed (used when the failure reason is known).
- **Inconclusive (I):** Used to indicate how many times the test cases have been run and did not pass due to other nature than conclusive implementation or specification failure (e.g.: the failure reason cannot be clearly determined).
- **Not Applicable (N/A):** Used to indicate how many times the test cases have not be run due to lack of support for the required functionality to run this test case by one or more involved implementations.
- **Out of Time (O):** Used to indicate how many times the test cases have not been run due to lack of time.
- **Problem Report (PR):** Used to indicate how many PRs have been issued for the test case.
- **Note:** Used to indicate the cause of the Inconclusive or Failed results.

### Tests for DM v1.2 Enabler TestFest taken from OMA-ETS-DM-V1\_2-20080903-D

Test Case id:	Description:	Test Counts						PR:	Note:
		R	P	F	O	I	N/A		
<b>DEVICEMANAGEMENT-V1.2-INT-001</b>	Purpose of this verification is to show compliance with MD-5 client authentication.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-002</b>	Purpose of this verification is to show compliance with MD-5 server authentication.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-003</b>	Purpose of this verification is to show compliance with the GET command on a leaf node.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-004</b>	Purpose of this verification is to show compliance with the GET command on a node that doesn't exist.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-005</b>	Purpose of this verification is to show compliance with the GET command on an interior node.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-006</b>	Purpose of this verification is to show compliance with the GET on an inaccessible leaf node.	3	3	0	0	0	1		

Test Case id:	Description:	Test Counts						PR:	Note:
		R	P	F	O	I	N/A		
<b>DEVICEMANAGEMENT-V1.2-INT-007</b>	Purpose of this verification is to show compliance with REPLACE on permanent leaf node.	3	3	0	0	0	1		
<b>DEVICEMANAGEMENT-V1.2-INT-008</b>	Purpose of this verification is to show compliance with management node ACL behaviour.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-009</b>	Purpose of this verification is to show compliance with the error handling when connection failure occurs during the SyncML DM session.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-010</b>	Purpose of this verification is to show compliance with HMAC client authentication.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-011</b>	Purpose of this verification is to show compliance with HMAC server authentication.	4	2	2	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-012</b>	Purpose of this verification is to show compliance with the large object/multiple commands.	2	2	0	0	0	2		
<b>DEVICEMANAGEMENT-V1.2-INT-013</b>	Purpose of this verification is to show compliance with notification initiated session.	2	1	1	0	0	2		
<b>DEVICEMANAGEMENT-V1.2-INT-014</b>	Purpose of this verification is to show compliance with Server Initiated bootstrap using Client Provisioning Profile.	0	0	0	0	0	4		
<b>DEVICEMANAGEMENT-V1.2-INT-015</b>	Purpose of this test is to check that a Device Management client supports bootstrap from the Smart Card using the Client Provisioning profile and EF Bootstrap	0	0	0	0	0	4		
<b>DEVICEMANAGEMENT-V1.2-INT-015A</b>	Purpose of this test is to check that a Device Management client supports bootstrap from the Smart Card using the Client Provisioning profile and EF_Config1	0	0	0	0	0	4		
<b>DEVICEMANAGEMENT-V1.2-INT-015B</b>	Purpose of this test is to check that a Device Management client supports bootstrap from the Smart Card using the Client Provisioning profile and EF_Config2	0	0	0	0	0	4		

Test Case id:	Description:	Test Counts						PR:	Note:
		R	P	F	O	I	N/A		
<b>DEVICEMANAGEMENT-V1.2-INT-015C</b>	Purpose of this test is to check that a Device Management client supports bootstrap from the Smart Card using the Client Provisioning profile when each of the provisioning files (i.e. EF_Bootstrap, EF_Config1 and EF_Config2) contain a different w7 APPLICATION characteristic.	0	0	0	0	0	4		
<b>DEVICEMANAGEMENT-V1.2-INT-016</b>	Purpose of this test is to check that a Device Management client supports bootstrap from a Smart Card using the Device Management Profile and WBXML encoded TNDIS objects for the bootstrap information	0	0	0	0	0	4		
<b>DEVICEMANAGEMENT-V1.2-INT-016B</b>	Purpose of this test is to check that a Device Management client supports bootstrap from a Smart Card using the Device Management Profile and WBXML encoded TNDIS objects for the bootstrap information; either because a) priority is given to the DM Profile or b) the device only supports the DM Profile.	0	0	0	0	0	4		
<b>DEVICEMANAGEMENT-V1.2-INT-016C</b>	Purpose of this test is to check that a Device Management client supports bootstrap from a Smart Card using the Client Provisioning Profile and w7 APPLICATION characteristic because a) priority is given to the CP Profile or b) the device only supports the CP Profile.	0	0	0	0	0	4		
<b>DEVICEMANAGEMENT-V1.2-INT-017</b>	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	4		
<b>DEVICEMANAGEMENT-V1.2-INT-017A</b>	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	4		
<b>DEVICEMANAGEMENT-V1.2-INT-018</b>	Purpose of this test is to check that a DM client supports server initiated bootstrap using the DM profile, WBXML encoded TNDIS 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	4		

Test Case id:	Description:	Test Counts						PR:	Note:
		R	P	F	O	I	N/A		
<b>DEVICEMANAGEMENT-V1.2-INT-019</b>	Purpose of this test is to check that a DM client supports server initiated bootstrap using the DM profile WBXML encoded TNDIS 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	4		
<b>DEVICEMANAGEMENT-V1.2-INT-020</b>	Purpose of this test is to check that a DM client supports server initiated bootstrap using the DM profile, WBXML encoded TNDIS 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	4		
<b>DEVICEMANAGEMENT-V1.2-INT-021</b>	Purpose of this verification is to show compliance with UI Display Alert.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-022</b>	Purpose of this verification is to show compliance with UI Confirmation Alert.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-023</b>	Purpose of this verification is to show compliance with UI Text Input Alert.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-024</b>	Purpose of this verification is to show compliance with UI Single Choice Alert.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-025</b>	Purpose of this verification is to show compliance with UI Multiple Choice Alert.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-026</b>	Purpose of this verification is to show compliance with the server reading subtree structure without data from part of the management tree.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-027</b>	Purpose of this verification is to show compliance with the server reading subtree structure and data from part of the management tree.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-028</b>	Purpose of this verification is to verify creation of new Application Setting in client using DM server	3	3	0	0	0	1		
<b>DEVICEMANAGEMENT-V1.2-INT-029</b>	Purpose of this verification is to verify modification of Application Settings in client using DM server.	3	3	0	0	0	1		

Test Case id:	Description:	Test Counts						PR:	Note:
		R	P	F	O	I	N/A		
<b>DEVICEMANAGEMENT-V1.2-INT-030</b>	Purpose of this verification is to verify deletion of Application Settings in client using DM server.	3	3	0	0	0	1		
<b>DEVICEMANAGEMENT-V1.2-INT-031</b>	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	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-032</b>	Purpose of this test is to check that a Device Management client rejects Get operations from a DM server on the “./Inbox” node.	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-033</b>	Purpose of this test is to verify backwards compatibility between a DM 1.2 server and a DM 1.1.2 client.	2	2	0	0	0	2		
<b>DEVICEMANAGEMENT-V1.2-INT-034</b>	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	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-035</b>	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'	4	4	0	0	0	0		
<b>DEVICEMANAGEMENT-V1.2-INT-036</b>	To check if the Test Object can handle the copy command, It would be followed by a Get command on both the URI	2	2	0	0	0	2		
<b>DEVICEMANAGEMENT-V1.2-INT-037</b>	Purpose of this verification is to show capability of correlator use	2	2	0	0	0	2		
<b>DEVICEMANAGEMENT-V1.2-INT-038</b>	Purpose of this verification is to show capability to add a serialized management object to the DM tree	4	3	0	0	1	0		
<b>DEVICEMANAGEMENT-V1.2-INT-039</b>	Purpose of this verification is to test transport layer authentication using TLS 1.0	2	2	0	0	0	2		
<b>DEVICEMANAGEMENT-V1.2-INT-040</b>	Purpose of this verification is to test transport layer authentication using SSL 3.0	2	2	0	0	0	2		

Table 2. Test Case Counts

## 5.3 Problem Reports

During the activities for TestFest-28, the following problem reports were generated relating to the test materials and test process:

PR Number	Affecting	Description	Test Case reference / Specification reference
0053	OMA-ETS-DM-V1_2-20080903-D	OMA-ETS-DM-V1_2-20080718-C.pdf, TNDS example page 142	
0054	OMA-ETS-DM-V1_2-20080903-D	OMA-ETS-DM-V1_2-20080718-C.pdf, TNDS example page 143	
0055	OMA-TS-DM-RepPro-V1_2	OMA-TS-DM_TNDS, error in example on page 9.	

Full details of all Problem Reports can be found at:

[http://www.openmobilealliance.org/TestFests/Problem\\_Reporting.aspx](http://www.openmobilealliance.org/TestFests/Problem_Reporting.aspx)

## 6. Confirmation

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

A handwritten signature in black ink, appearing to read "John S. Smith", is positioned above a horizontal line.

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OMA Trusted Zone

## Appendix A. Change History (Informative)

Type of Change	Date	Section	Description
New Version	29 <sup>th</sup> May 2009	All	First Version for TestFest-28
	23 <sup>rd</sup> July 2009	5	Bootstrap TCs marked as "N/A", table 1 & 2 updated accordingly