
IMPLEMENTATION TEST REPORT

Title: Implementation Test Report
Enabler: Device Management 1.2

OMA Confidential

Handling of Form

The company developing the implementation being reported owns this document. Any disclosure of this information needs to be approved by the company.

This Test Report describes the result from the interoperability testing of the Enabler Test Specification [ETS] for the listed implementation of the enabler.

The report provides details on testing performed at TestFest-15 held in Belfast, Northern Ireland in June 2006 and is compiled on behalf of OMA by OMA's Trusted Zone.

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

Test Information

This section lists the details of the enabler and any documentation, tools or test suites used at the event.

Implementation	Funambol Server DM
Company	Funambol
Contact Info	Funambol : Stefano Nichele (nichele@funambol.com)
Date	25 th to 30 th June 2006
Location	Openwave, Belfast, Northern Ireland, UK.
Enabler	Device Management 1.2
Process	OMA Interoperability Policy and Process [OMAIOPPROC]
Type of Testing	Interoperability Testing
Test Procedure	Client-to-Server
Test Plan	None.
Test Specification	OMA-ETS-DM_INT-V1_2-20060524-C
Number of Implementations Tested Against	8
Test Tool	None.
Test Code	None.
Type of Test event	TestFest

Test Configuration

This section provides information on the configuration and environment for the test execution of the implementation of the enabler.

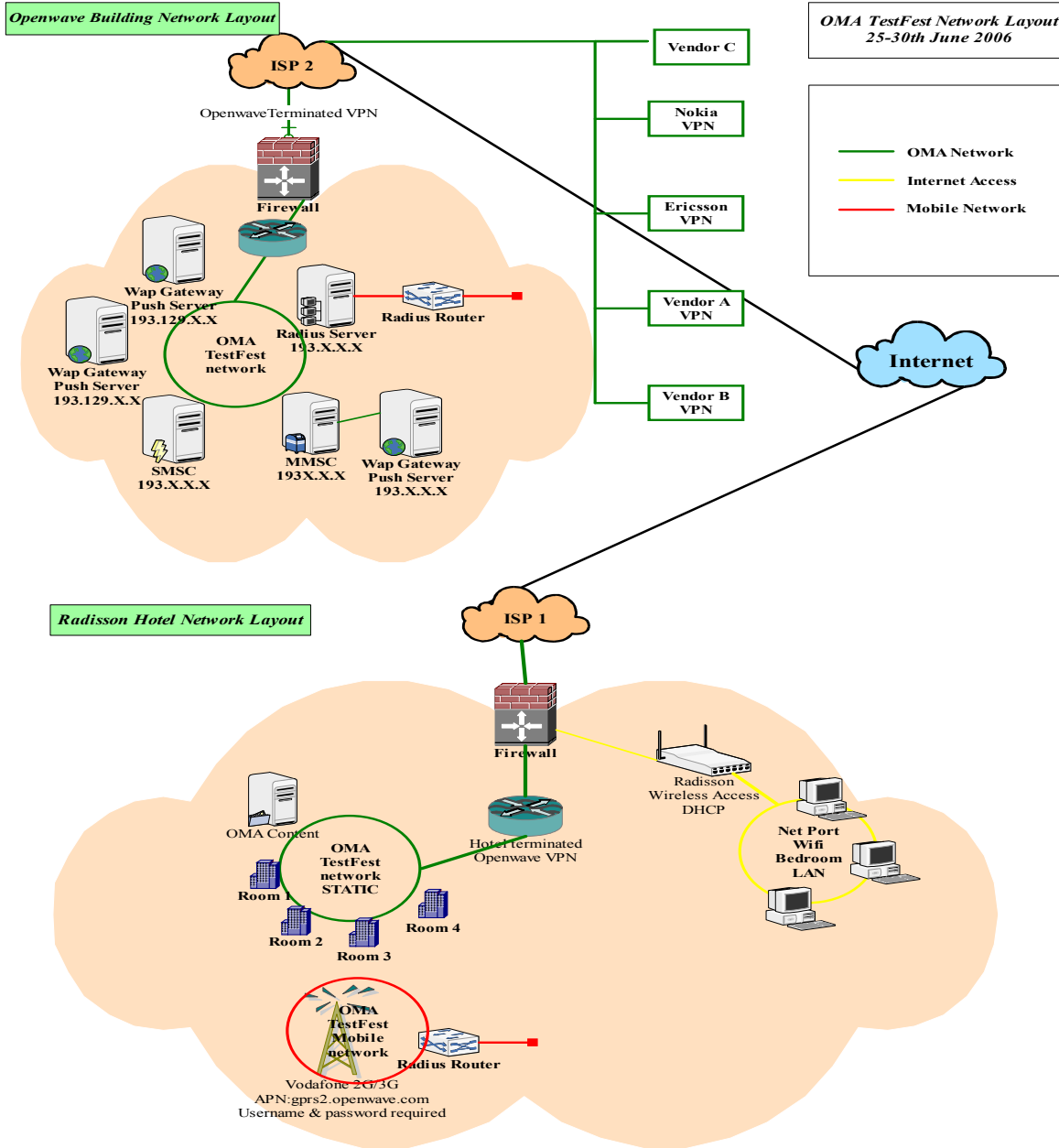


Figure 1. Test Setup in Belfast

Test Case Statistics

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

The following counts are collected in the tables below:

- **Total:** The number of test cases in total for the specific section.
- **Passed:** The number of test cases that successfully passed.
- **Failed:** The number of test cases that failed.
- **N/A:** The number of test cases that were not run due to implementation(s) that did not support the functionality required.
- **OT:** The number of test cases that were not run due to being out-of-time.
- **INC:** The number of test cases that were not run due to that the functionality could not be tested due to an error in the implementation or in another functionality that was required and not available.

Test Section	Test Case Counts					
	Total	Passed	Failed	N/A	OT	INC
Client to Server	320	204	6	96	0	14
Totals	320	204	6	96	0	14

Table 1. Test Summary Table

Test Case List

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

The following status is collected in the table below:

- **Runs:** The number of times the test case was run.
- **Passed:** The number of times the specific test case successfully passed.
- **Failed:** The number of times the specific test case failed.
- **OT:** The number of times the test case was not run due to being out-of-time.
- **INC:** The number of times the test result was inconclusive possibly due to that the functionality could not be tested due to an error in the implementation or in another functionality that was required.
- **PR:** Used to indicate any PRs (Problem Report) that were issued during testing.

If the test case was not run, it should be marked “N/A” in the Runs column. This would be the way to handle cases where a specific implementation does not support an optional feature, for example.

Test Case	Description	Test Counts					PR	Notes (see below)
		Run	Pass	Fail	OT	INC		
DeviceManagement-v1.2-int-001	Purpose of this verification is to show compliance with MD-5 client authentication.	7	7	0	0	0		Note 001
DeviceManagement-v1.2-int-002	Purpose of this verification is to show compliance with MD-5 server authentication.	7	7	0	0	0		Note 001
DeviceManagement-v1.2-int-003	Purpose of this verification is to show compliance with the GET command on a leaf node.	8	8	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.	8	8	0	0	0		
DeviceManagement-v1.2-int-005	Purpose of this verification is to show compliance with the GET command on an interior node.	8	8	0	0	0		
DeviceManagement-v1.2-int-006	Purpose of this verification is to show compliance with the GET on an inaccessible leaf node.	8	8	0	0	0		
DeviceManagement-v1.2-int-007	Purpose of this verification is to show compliance with REPLACE on permanent leaf node.	8	8	0	0	0		
DeviceManagement-v1.2-int-008	Purpose of this verification is to show compliance with management node ACL behaviour.	8	8	0	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.	8	8	0	0	0		
DeviceManagement-v1.2-int-010	Purpose of this verification is to show compliance with HMAC client authentication.	8	8	0	0	0		
DeviceManagement-v1.2-int-011	Purpose of this verification is to show compliance with HMAC server authentication.	8	7	1	0	0		Note 004 Note 007
DeviceManagement-v1.2-int-012	Purpose of this verification is to show compliance with the large object/multiple commands.	7	7	0	0	0		Note 001
DeviceManagement-v1.2-int-013	Purpose of this verification is to show compliance with notification initiated session.	3	3	0	0	0		Note 006 Note 008 Note 001 Note 019 Note 030

Test Case	Description	Test Counts					PR	Notes (see below)
		Run	Pass	Fail	OT	INC		
DeviceManagement-v1.2-int-014	Purpose of this verification is to show compliance with Server Initiated bootstrap using Client Provisioning Profile.	2	0	0	0	2		Note 006 Note 009 Note 001 Note 019 Note 022 Note 027 Note 030 Note 032
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		Note 001 Note 010 Note 019 Note 023 Note 030
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 TNDIS objects for the bootstrap information	0	0	0	0	0		Note 001 Note 010 Note 019 Note 023 Note 030
DeviceManagement-v 1.2-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		Note 001 Note 010 Note 019 Note 023 Note 030
DeviceManagement-v 1.2-int-018	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. NETWO	1	0	0	0	1		Note 001 Note 010 Note 019 Note 024 Note 006 Note 022 Note 030
DeviceManagement-v 1.2-int-019	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	1	0	0	0	1		Note 001 Note 011 Note 019 Note 024 Note 006 Note 022 Note 030
DeviceManagement-v 1.2-int-020	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. USERP	1	0	0	0	1		Note 001 Note 011 Note 019 Note 024 Note 006 Note 022

Test Case	Description	Test Counts					PR	Notes (see below)
		Run	Pass	Fail	OT	INC		
DeviceManagement-v1.2-int-021	Purpose of this verification is to show compliance with UI Display Alert.	8	8	0	0	0		
DeviceManagement-v1.2-int-022	Purpose of this verification is to show compliance with UI Confirmation Alert.	8	7	1	0	0		Note 020
DeviceManagement-v1.2-int-023	Purpose of this verification is to show compliance with UI Text Input Alert.	8	7	1	0	0		Note 004 Note 012
DeviceManagement-v1.2-int-024	Purpose of this verification is to show compliance with UI Single Choice Alert.	8	8	0	0	0		
DeviceManagement-v1.2-int-025	Purpose of this verification is to show compliance with UI Multiple Choice Alert.	8	8	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.	6	5	0	0	1		Note 001 Note 006 Note 033
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.	6	6	0	0	0		Note 001
DeviceManagement-v1.2-int-028	Purpose of this verification is to verify creation of new Application Setting in client using DM server	8	8	0	0	0		
DeviceManagement-v1.2-int-029	Purpose of this verification is to verify modification of Application Settings in client using DM server.	8	8	0	0	0		
DeviceManagement-v1.2-int-030	Purpose of this verification is to verify deletion of Application Settings in client using DM server.	8	8	0	0	0		
DeviceManagement-v 1.2-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	4	1	0	0	3		Note 001 Note 013 Note 021 Note 006 Note 026 Note 028
DeviceManagement-v 1.2-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.	4	4	0	0	0		Note 001 Note 013
DeviceManagement-v 1.2-int-033	Purpose of this test is to verify backwards compatibility between a DM 1.2 server and a DM 1.1.2 client.	4	4	0	0	0		Note 001 Note 025
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	6	5	1	0	0		Note 004 Note 014 Note 001

Test Case	Description	Test Counts					PR	Notes (see below)
		Run	Pass	Fail	OT	INC		
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'	4	0	1	0	3		Note 001 Note 015 Note 005 Note 006 Note 026 Note 029
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	5	5	0	0	0		Note 001
DeviceManagement-v1.2-int-037	Purpose of this verification is to show capability of correlator use	7	6	1	0	0		Note 001 Note 016 Note 004
DeviceManagement-v1.2-int-038	Purpose of this verification is to show capability to add a serialized management object to the DM tree	3	1	0	0	2		Note 001 Note 017 Note 021 Note 006 Note 026 Note 031
DeviceManagement-v1.2-int-039	Purpose of this verification is to test transport layer authentication using TLS 1.0	5	5	0	0	0		Note 001 Note 018
DeviceManagement-v1.2-int-040	Purpose of this verification is to test transport layer authentication using SSL 3.0	5	5	0	0	0		Note 001 Note 018

Table 2. Test Case Counts


Notes:

1. Not Supported by Client A
2. Not Supported by Client A and Server
3. Not Supported by Server
4. Implementation Error by Client A
5. Implementation Error by Server
6. Interoperability Error between Client A and Server
7. The client doesn't send the NextNonce in all messages
8. The server is able to create the notification message but isn't able to send it via sms or obex and the client supports notification message via obex. So, we are not able to test it.
9. The server is able to create the bootstrap message but isn't able to send it via sms or obex and the client supports bootstrap message via obex. So, we are not able to test it.
10. The client doesn't support smartcard
11. The server is able to create the bootstrap message but isn't able to send it via sms or obex. Moreover the client doesn't support DM profile.
12. The client sends back to the server a wrong wbxml message. It seems the text written in the text field isn't encoded correctly
13. The client doesn't support ./Inbox

14. The client returns a status code 500 for the Add command.
15. The client doesn't support TNDS
16. The client doesn't support Generic Alert
17. The client doesn't support TNDS
18. The client doesn't support HTTPS
19. The client team uses an emulator
20. The client is unable to send a 304 (NO) but not problem with YES.
21. Performing a dm session in wbxml, the client requires the data with type=application/vnd.syncml.dmtnds+xml. The server sends the tnds with format=xmtype=application/vnd.syncml.dmtnds+wbxml
22. The server is able to create the bootstrap message but not to send it over the air and the client accepts the bootstrap message over the air.
23. Not applicable. Smartcard not provided.
24. The client doesn't support the TNDS and ./Inbox
25. The client is able to start only 1.2 session
26. Performing a wbxml session, the client requires the MgmtTree in xml but the server, if the session is in wbxml, sends the MgmtTree in wbxml
27. The client support only dm profile
28. Using xml, the client requires the data with format=B64 (or BIN) and type=application/vnd.syncml.dmtnds+wbxml. The server is able to handle format=xml and type=application/vnd.syncml.dmtnds+xml
29. Using xml the client returns 200 for the GET command and the data is encoded in B64. The server expects the data in clear (xml).
30. The client team uses a simulator which can't receive sms
31. We filed a problem report just because we discovered some confusion in the example of tnds
32. The server is able to create the bootstrap message but isn't able to send it via sms or obex and the client supports bootstrap message via sms. So, we are not able to test it.
33. The client sends the size of the node also if it doesn't send the Data.

Confirmation

These signatures indicate that the included information is true and valid.

Implementation Reporting Information			
Implementation Name:	Funambol Server DM		
Trusted Zone Rep Name:	Johan Petersen		
Trusted Zone Rep Title	Interoperability Support Services Manager		
Trusted Zone Rep Signature:		Date:	14 th July 2006