Enabler Test Report DL v1.0
OMA Test Fest (November 2003)
Version 25-Nov-2003

Open Mobile Alliance
OMA-Enabler_Test_Report-DL-v10-2003-11-25

Contents

1. Scope

This report describes the results from the testing carried out at OMA Test Fest (November 2003) concerning DL enabler version 1.0.

2. References

2.1   Normative References

[OMAIOPPROC]   OMA Interoperability Policy and Process, http://www.openmobilealliance.org/

[DLEICS]   Enabler Implementation Conformance Statement, OMA Download 1.0 Enabler Release, Draft
                          Version 09-Sep-2003, http://www.openmobilealliance.org/

[ERELD]   "Enabler Release Definition for DL Version 1.0" Open Mobile Alliance™.
                          OMA-ERELD-DL-v1_0. URL:http://www.openmobilealliance.org/

[DL_SPEC]   OMA DL 1.0 specifications

[EPTR]   Enabler Product Test Report

[ETP]   Enabler Test Plan

[ETS]   Enabler Test Specification for DL 1.0
                          Approved Version 1.0, 28-Mar-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 (November 2003) for Download version 1.0.

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:	November 2003
Location:	Seattle, USA
Enabler:	DL v1.0
Process:	OMA Interoperability Policy and Process [OMAIOPPROC]
Type of Testing	Interoperability Testing
Products tested:	Client-to-server
Test Plan:	DL Enabler Test Plan [ETP]
Test Specification:	DL Enabler Test Specification [ETS]
Test Tool:	None
Test Code:	None
Type of Test event:	Test Fest
Participants:	Nokia, Openwave, Panasonic, NEC
Number of Client Products:	6
Participating Technology Providers for clients:	Nokia (2), Openwave, Panasonic, NEC, 1 other
Number of Server Products:	2
Participating Technology Providers for servers:	NEC, 1 other
Number of test sessions completed:	12

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 Server TCs	15	105	18	51	0	6
Total	15	105	18	51	0	6

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:
DL-OTA-1.0-int-01	To test separate delivery functionality.	12	12	0	0	0	-	
DL-OTA-1.0-int-02	To test combined delivery functionality without Status Report.	0	0	0	0	0	-	No Client or Server support
DL-OTA-1.0-int-03	To test combined delivery functionality with Status Report.	0	0	0	0	0	-	No Client or Server support
DL-OTA-1.0-int-04	To check functionality in case the download server requests auhentication.	0	0	0	0	0	-	No Server support
DL-OTA-1.0-int-05	To test Status Report delivery in case of a successful installation.	12	12	0	0	0	-	
DL-OTA-1.0-int-06	To test Status Report delivery in case of an unsuccessful installation (Insufficient memory).	10	10	0	0	0	-	
DL-OTA-1.0-int-07	To test Status Report delivery in case of an unsuccessful installation (User Cancelled).	12	12	0	0	0	-	
DL-OTA-1.0-int-08	To test Status Report delivery in case of an unsuccessful installation (Attribute mismatch).	12	6	5	0	1	YES	Observation 003
DL-OTA-1.0-int-09	To test Status Report delivery in case the device could not interpret the download descriptor.	12	8	2	0	2	YES	Observation 002

DL-OTA-1.0-int-10	To test Status Report delivery in case the device is not compatible with the "major" version of the download descriptor.	12	8	4	0	0	-	
DL-OTA-1.0-int-11	To test Status Report delivery in case of an unsuccessful installation (Non-Acceptable Content).	8	4	2	0	2	YES	Observation 004.
DL-OTA-1.0-int-12	To test Status Report delivery in case there is no server reply (i.e. "Well-Intentioned Attempt").	12	8	4	0	0	-	
DL-OTA-1.0-int-13	To test Status Report delivery in case when the server replies with other than HTTP 200-series response code.	12	12	0	0	0	-	
DL-OTA-1.0-int-14	To test NextURL functionality.	7	6	1	0	0	-	
DL-OTA-1.0-int-15	To test processing rules for Download Descriptor.	8	7	0	0	1	-	Observation 005

5.2.2 Observations

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

5.2.2.1 EICS issues

This section details issues with the DL v1.0 Enabler Implementation Conformance Statement (EICS) [DLEICS].

Observation: 001	
Document:	DL v1.0 Enabler Implementation Conformance Statement (EICS)
Section	-
Comment:	From a test logistics perspective there is a potential difficulty in organising the testing schedule since there are no requirements upon the the Server, which means the EICS document applies only to the Client. It is therefore not possible to match Clients with Servers based on support of common functionality. Due to the relatively low number of participants at this Fest this was not an issue as all Clients tested against all Servers, but if numbers increase in future Fests it will be useful to have a means to determine which specification areas a Server claims to support so that they can be matched with Client products in a way that maximises the usefulness of testing.
Recommendation:	It should be investigated whether it is feasible to produce a high-level document which servers could use to indicate which specification areas they support.

5.2.2.2 Enabler Test Suite (ETS) issues

This section details issues with the Enabler Test Suite for OMA DL v1.0.

Observation: 002	
Document:	Enabler Test Specification for DL 1.0 [ETS]
Test Case:	DL-OTA-1.0-int-09
Comment:	When download descriptor contains syntactic errors, Client cannot parse it, and therefore cannot pick up the InstallNotifyURL. In this instance the Client does not send the required error code. It is not clear which type of syntactic errors should cause the error code to be generated.
Recommendation:	Example syntactic errors should be included in the test case.

Observation: 003	
Document:	Enabler Test Specification for DL 1.0 [ETS]
Test Case:	DL-OTA-1.0-int-08
Comment:	Test requires an attribute mismatch. Server treats size/type as an attribute mismatch, client does not. This may be a specification issue. The mechanism for reporting an attribute mismatch error is defined, but there is not definition of the circumstances in which this mechanism should be used. None of the SCR items related to this

	test case refer to such a requirement
Recommendation:	Clarification on use of attribute mismatch error required.

Observation: 004	
Document:	Enabler Test Specification for DL 1.0 [ETS]
Test Case:	DL-OTA-1.0-int-11
Comment:	Test case requires unsupported media object to be downloaded. A precondition for the test states "The Client device does not support the used media object type". If this is followed, then the download descriptor is sent, but according to section 5.2.2 of the spec, the Client never tries to get the media object since it does not support the media object type. Therefore step 3 cannot be executed. Instead the Client sends back a "Device Aborted" (952) error and not 953 as required.
Recommendation:	Conditions for generating 953 error should be determined.

Observation: 005	
Document:	Enabler Test Specification for DL 1.0 [ETS]
Test Case:	DL-OTA-1.0-int-15
Comment:	Part three of the test case says "optional attributes are ignored if not supported". SCR item DL-DD-004 refers to extensibility rather than general unknown attribute values, and so was not implemented in the Client.
Recommendation:	SCR item reference should be checked.

DL General Feedback	
Modification to Product Test Report	The role of the Trusted Zone is to record and correlate the results from the OMA Test Fest. The notes on the Product Test Report reflect the observations recorded on the Test Session Results form. It is the responsibilities of the test parties to perform sign off of the Test Session Results form during the Test Fest. Currently within the OMA IOP process, there is no procedure/process for review/modification of the Product Test report by The Trusted Zone, based on re-interpretation of results. For example, if a participant disputes a verdict assignment or wants to provide additional test evidence to annotate the Notes section this is currently outside of the Trusted Zone's mandate. Modification of this nature post-Fest will be second hand from only 1 of the 3 test parties, so the integrity of the notes cannot be verified. Note: The only modifications of the Product Test Report currently undertaken are editorial modifications for general typos and Product/Vendor information. OMA-IOP should determine whether Product Test reports can be annotated based upon additional post-Fest evidence of one or more of the test parties. Alternatively, participants should be clearly informed that the test evidence recorded

	on the Test Session results report will be reflected in the Product Test report and should endeavour to provide sufficient detail during the Test Fest.
Verdict Assignment	There was anecdotal evidence from Test Fest participants to uncertainty with respect to assigning Fail and Inconclusive verdicts. The following examples demonstrate this issue: 1. All test parties (Client A, Client B and Server) support the optional SCR feature and the test is applicable to be executed. If the Server did not function correctly, what verdict is assigned for Client A? 2. All test parties (Client A, Client B and Server) support the optional SCR feature and the test is applicable to be executed. If the Client B did not function correctly, what verdict is assigned for Client A? 3. Only test parties Client A and Client B support the optional SCR feature. Client B does not support the feature so a duplicate of Client A is used to conduct testing, what verdict should be assigned for Client A/Server? 4. During testing, an error occurs such that the criteria for the test verdict are not met. The test parties cannot determine the cause of the error, i.e. whether it is one of the implementations under test or a connectivity issue. What is the verdict of the test? 5. Client A does not claim an optional SCR item in their EICS, so the Trusted Zone has marked the test case as N/A. During the Test Fest, the test case is executed correctly between the test parties and a Pass entered to overwrite the N/A. Is it permissible for the test parties to overwrite the pre-formatted test result? 6. The test case requires reporting of an error when login is unsuccessful. An error was displayed but was not user friendly (e.g. "HTTP 409"). The verdict criteria are not specific about the error, does this constitute a pass? 7. If a test case fails due to functionality not being supported by the client or the server. Should these be N/A or FAIL? One solution to this would be to provide within the FAQ a set of examples to provide clear guidelines for verdict assignment.
Connectivity Issues	There were a number of connectivity issues that caused difficulties in testing: • Due to an error in the registration page, some participants did not realise they would need to test with a handset that supported the US carrier network (1900/850). The network support provided at the Fest should be made clear on the registration page. • Testing had to be relocated after the first day as there were GPRS coverage problems in the room the testing was originally scheduled to use. The coverage within each test room should be thoroughly checked prior to the start of the Fest.

6. Confirmation

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

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Stephen Higgins - DL Trusted Zone

Appendix A.   Change History   (Informative)

Type of Change	Date	Section	Description