Enabler Test Specification for SCOMO

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Open Mobile Alliance

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1. Scope

This document describes in detail available test cases for Software Component Management Object 1.0, http://www.openmobilealliance.org/.

The test cases are split in two categories, conformance and interoperability test cases.

The conformance test cases are aimed to verify the adherence to normative requirements described in the technical specifications.

The interoperability test cases are aimed to verify that implementations of the specifications work satisfactory.

If either conformance or interoperability tests do not exists at the creation of the test specification this part should be marked not available.

2. References

2.1 Normative References

[RFC2119]	"Key words for use in RFCs to Indicate Requirement Levels", S. Bradner, March 1997, URL:http://www.ietf.org/rfc/rfc2119.txt
[SCOMOAD]	"Software Component Management Object Architecture", Version 1.0, Open Mobile Alliance™, OMA-AD-SCOMO-V1_0 URL:http//www.openmobilealliance.org/
[SCOMOTS]	"Software Component Management Object", Version 1.0, Open Mobile Alliance™, OMA-TS-SCOMO-V1_0 URL: http//www.openmobilealliance.org/

2.2 Informative References

[OMADICT]	"Dictionary for OMA Specifications", Version 2.7, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_7, URL:http://www.openmobilealliance.org/

3. Terminology and Conventions

3.1 Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

All sections and appendixes, except "Scope", are normative, unless they are explicitly indicated to be informative.

The following numbering scheme is used:

> **xxx-y.z-con-number** where:
> | | |
> |---|---|
> | xxx | Name of enabler, e.g. MMS or Browsing |
> | y.z | Version of enabler release, e.g. 1.2 or 1.2.1 |
> | 'con' | Indicating this test is a conformance test case |
> | number | Leap number for the test case |

Or

> **xxx-y.z-int-number** where:
> | | |
> |---|---|
> | xxx | Name of enabler, e.g. MMS or Browsing |
> | y.z | Version of enabler release, e.g. 1.2 or 1.2.1 |
> | 'int' | Indicating this test is a interoperability test case |
> | number | Leap number for the test case |

3.2 Definitions

<Node>	Path from the root to the node that is configured to the SCTS before the testing is done (e.g. './Inventory/Deployed' or './Download'). Test case is driven to this configured interior node. The <Node> can be different between different Test Cases
Test Object	The implementation under test is referred to as the Test Object. In this document, the client

3.3 Abbreviations

DDF	Device Description Framework
DL	Download
DLOTA	Download Over-The-Air
DM	Device Management
MO	Management Object
OMA	Open Mobile Alliance
SCOMO	Software Component Management Object
SCR	Static Conformance Requirement

4. Introduction

The purpose of this document is to provide test cases for SCOMO Enabler Release 1.0 [SCOMOTS].

The following items are needed at a high level to adequately execute the SCOMO IOP test cases.

- A Device Management (DM) client in the device that is configured to interact with a DM server

- A DM server capable of accessing and setting software component management objects in a mobile device, if necessary

- A download mechanism, such as OMA-DM or DLOTA, for supporting download of software components

Client vendor must have sample software packages available for the server to use.

The implementation of some features is optional for the Clients and/or the Servers in the SCOMO Enabler. The tests associated with these optional features are marked as "(Includes Optional Features)" in the test specification.

5. SCOMO Conformance Test Cases

There are no conformance cases identified for the Client and Server at this time. Mandatory SCR items will be covered in the interoperability test cases

6. SCOMO Interoperability Test Cases

6.1 Verification of Tree Structure

Test Case Id	SCOMO-1.0-int-001
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose of this test is to verify that the SCOMO Client supports the required SCOMO elements and the required nodes in the DM tree
Specification Reference	[SCOMOTS] section 7 (and sub-sections)
SCR Reference	SCOMO-T-001-M SCOMO-T-002-M SCOMO-T-003-O SCOMO-T-004-M
ETR Reference	DDF DDF-MOI DDF-MUST DDF-Cond DDF-DFType DDF-Format DDF-Min-Occ DDF-Max-Occ
Tool	None
Test code	None
Preconditions	1. The DM Client MUST support SCOMO 2. The SCOMO Client MUST be configured to work with a SCOMO Server 3. The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform an ADD to create the ../x* Node in the Management Tree, if one does not exist 2. Perform a GET on node ../x*, to verify that ../x* was added and to determine whether sub-nodes are added automatically

Pass-Criteria	1. The SCOMO Client created a SCOMO ../x* when requested by the Server. ADD command returns a response of 200. 2. Verify that the GET command on node ../x* returns a response of 200 3. Verify the metatype is the Management Object identifier: "urn:oma:mo:oma-scomo:1.0" 4. Verify the GET performed on ../x* in step (2) indicates the presence of all required nodes and all optional nodes listed as supported in the Client ICS but no other nodes.

6.2 Delivery and install using Large Object (Synchronous Report)

Test Case Id	SCOMO-1.0-int-002
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when delivering and installing a Delivery Package using Large Object, using synchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
SCR Reference	SCOMO-C-001-M (Support for Download) SCOMO-C-006-O (Support for Add of <x>/Inventory/Delivered/<X>/Data) SCOMO-C-024-O (Support synchronous result reporting) SCOMO-C-028-O (Support for OMA-DM Download using Data node) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Delivery Installation
Tool	None
Test code	None
Preconditions	• An established DM session between DM Client and DM Server • The SCOMO Client MUST support downloading of a Package using Replace on data node • DM Client MUST support Large Object • In this test case "<X>" denotes the string that is used in the actual MO • DM Client supports synchronous operation for the Install Delivery Package primitive • The DM Server has proper ACL rights to access all relevant nodes of the DM Tree

Test Procedure	1. Perform an Add command to add the /Inventory/Delivered/<X> node, if it does not exist
	2. Perform Add commands to add child nodes of the /Download/<X> node (unless they already exist or Device created them as a result of step 1 above)
	3. Perform a Replace command on node /Inventory/Delivered/<X>/Data (uses Large Object feature)
	4. Perform an Exec on node /Inventory/Delivered/<X>/Operations/Install
Pass-Criteria	1. The Add commands (steps 1, 2):
	a. The SCOMO Client creates an /Inventory/Delivered/<X> branch including child nodes
	b. Returns response with result code 200 (OK)
	2. The Replace command (step 3):
	a. Returns response with result code 200 (OK)
	b. The Data leaf containing data of the Delivery Package is replaced
	3. The synchronous response for the Exec command (step 4):
	a. MUST have status code indicating success

6.3 Delivery and install using Large Object (Asynchronous Report)

Test Case Id	SCOMO-1.0-int-003
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when delivering and installing a Delivery Package using Large Object and asynchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
SCR Reference	SCOMO-C-001-M (Support for Download)
	SCOMO-C-006-O (Support for Add of <x>/Inventory/Delivered/<X>/Data
	SCOMO-C-025-O (Support asynchronous result reporting)
	SCOMO-C-028-O (Support for OMA-DM Download using Data node)
	SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Delivery
	Installation
Tool	None
Test code	None

Preconditions	• An established DM session between DM Client and DM Server • The SCOMO Client MUST support downloading of a Package using Replace on a data node • DM Client MUST support Large Object • In this test case "<X>" denotes the string that is used in the actual MO • DM Client supports asynchronous operation for the Install Delivery Package primitive • The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform an Add command to add the /Inventory/Delivered/<X> node, if it does not exist 2. Perform Add commands to add child nodes of the /Download/<X> node (unless they already exist or Device created them as a result of step 1 above) 3. Perform a Replace command on node /Inventory/Delivered/<X>/Data (uses Large Object feature) 4. Perform an Exec on node /Inventory/Delivered/<X>/Operations/Install

Pass-Criteria	1. The Add commands (steps 1, 2):
	   a. The SCOMO Client creates an /Inventory/Delivered/<X> branch including child nodes
	   b. Returns response with result code 200 (OK)
	2. The Replace command on node /Inventory/Delivered/<X>/Data (step 3):
	   a. Returns response with result code 200 (OK)
	   b. The Data leaf containing data of the Delivery Package is replaced
	3. The response for Generic Alert after Exec command (step 4):
	   a. Has result code indicating success

6.4 Delivery using Alternate Download (Synchronous Report)

Test Case Id	SCOMO-1.0-int-004
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when delivering a Delivery Package using Alternate Download
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
SCR Reference	SCOMO-C-002-O (Support for Alternate Download (requires SCOMO-C-026-O AND SCOMO-C-027-O)) SCOMO-C-024-O (Support synchronous result reporting) SCOMO-S-001-M (Support for the SCOMO) SCOMO-DMS-001-M (Provide metadata with the Deployment Component)

ETR Reference	Alternate-Delivery
	Report
Tool	None
Test code	None
Preconditions	• An established DM session between DM Client and DM Server
	• The SCOMO Client MUST support downloading of a Package based on Alternate Download Mechanism (e.g. DLOTA)
	• In this test case "<X>" denotes the string that is used in the actual MO
	• DM Client supports synchronous reporting for the Download Delivery Package primitive
	• The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform an Add command to add the /Download/<X> node, if it doesn't exist.
	2. Perform Add commands to add child nodes of the /Download/<X> node (unless they already exist or Device created them as a result of step 1 above)
	3. Perform an Exec on node /Download/<X>/Operations/ Download
Pass-Criteria	1. The Add commands (steps 1, 2):
	a. The SCOMO Client creates a /Download/<X> branch including child nodes
	b. Returns response with result code 200 (OK).
	2. The synchronous response for the Exec command (step 3):
	a. MUST have status code indicating success

6.5   Delivery using Alternate Download (Asynchronous Report)

Test Case Id	SCOMO-1.0-int-005
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when delivering a Delivery Package using Alternate Download
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
SCR Reference	SCOMO-C-002-O (Support for Alternate Download (requires SCOMO-C-026-O AND SCOMO-C-027-O))
	SCOMO-C-025-O (Support asynchronous result reporting)
	SCOMO-S-001-M (Support for the SCOMO)
	SCOMO-DMS-001-M (Provide metadata with the Deployment Component)
ETR Reference	Alternate-Delivery
	Report
Tool	None

Test code	None
Preconditions	- An established DM session between DM Client and DM Server - The SCOMO Client MUST support downloading of a Package based on Alternate Download Mechanism (e.g. DLOTA) - In this test case "<X>" denotes the string that is used in the actual MO - DM Client supports asynchronous operation for the Download Delivery Package primitive - The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform an Add command to add the /Download/<X> node, if it doesn't exist. 2. Perform Add commands to add child nodes of the /Download/<X> node (unless they already exist or Device created them as a result of step 1 above) 3. Perform an Exec on node /Download/<X>/Operations/ Download

Pass-Criteria	1. The Add commands (steps 1, 2):
	  a. The SCOMO Client creates a /Download/<X> branch including child nodes
	  b. Returns response with result code 200 (OK).
	2. The response for the Exec command (step 3):
	  a. MUST have status code 202 (Accepted for Processing)
	3. The response for Generic Alert after Exec command (step 3):
	  a. Generic Alert equals 1226
	  b. Has result code indicating success
	  c. <Source><LocURI> gets value of the Primitive node on which the Exec command was invoked.
	  d. <Target><LocURI> gets the newly created dynamic node value under the Delivered tree for the Delivered Component

6.6   Remove Software Component (Synchronous Report)

Test Case Id	SCOMO-1.0-int-006
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when removing an existing software component with synchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-010-M (Support for Removed State) SCOMO-C-013-M (Support Remove Primitive) SCOMO-C-024-O (Support synchronous result reporting) SCOMO-S-001-M (Support for the SCOMO)

ETR Reference	Removal Inventory Report
Preconditions	• An established DM session between DM Client and DM Server • In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-deployed Deployment c • The existing Deployment Component is reflected in the Inventory (under ./Inventory/Deployed/<X> subtree) • The State of the Deployment Component is 'Active' or 'Inactive' • The node ./Inventory/Deployed/<X>/Operations/Remove exists • The DM Client support synchronous operation for the Remove Deployment Component operation • The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Deployed/<X>/State 2. Perform an Exec on node /Inventory/Deployed/<X>/Operations/Remove
Pass-Criteria	1. The response from the Get command in step 1 indicates the value is 'Active' or 'Inactive' 2. The responses for the Exec command in step 2: a. Has result code indicating success.

6.7 Remove Software Component (Asynchronous Report)

Test Case Id	SCOMO-1.0-int-007
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when removing an existing software component with asynchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-010-M (Support for Removed State) SCOMO-C-013-M (Support Remove Primitive) SCOMO-C-025-O (Support asynchronous result reporting) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Removal Inventory Report
Preconditions	• An established DM session between DM Client and DM Server • In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-deployed Deployment Component • The existing Deployment Component is reflected in the Inventory (under ./Inventory/Deployed/<X> subtree) • The State of the Deployment Component is 'Active' or 'Inactive' • The node ./Inventory/Deployed/<X>/Operations/Remove exists • The DM Client support asynchronous operation for the Remove Deployment Component operation • The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Deployed/<X>/State 2. Perform an Exec on node /Inventory/Deployed/<X>/Operations/Remove 3. Wait for the Generic Alert matching the Exec command

Pass-Criteria	1. The response from the Get command in step 1 indicates the value is 'Active' or 'Inactive'
	
	2. The response for the Exec command in step 2 is 202 (Accepted For Processing)
	
	3. The responses for the Generic Alert in step 3:
	    a. Has result code indicating success.
	    b. Source/LocURI contains the URI of the Remove node

6.8 Activate Software Component (Synchronous Report)

Test Case Id	SCOMO-1.0-int-008
Test Object	SCOMO Client and SCOMO Server

Test Case Description	The purpose is to test client and server interoperability when activating an existing software component with synchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-008-O (Support Inactive State) SCOMO-C-009-M (Support Active State) SCOMO-C-011-O (Support Activate Primitive) SCOMO-C-024-O (Support synchronous result reporting) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Activation Inventory Report
Preconditions	- An established DM session between DM Client and DM Server - In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-deployed Deployment Component - The existing Deployment Component is reflected in the Inventory (under ./Inventory/Deployed/<X> subtree) - The State of the Deployment Component is 'Inactive' - The node ./Inventory/Deployed/<X>/Operations/Activate exists - The DM Client support synchronous operation for the Activate Deployment Component operation - The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Deployed/<X>/State 2. Perform an Exec on node /Inventory/Deployed/<X>/Operations/Activate

Pass-Criteria	1. The response from the Get command in step 1 indicates the value is 'Inactive'
	
	 2. The responses for the Exec command in step 2:
	    a. Has result code indicating success.
	    b. Source/LocURI contains the URI of the Activate node
	    c. Target/LocURI contains the URI of the Deployment Component State (./Inventory/Deployed/<X>/State)

6.9   Activate Software Component (Asynchronous Report)

Test Case Id	SCOMO-1.0-int-009
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when activating an existing software component with asynchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-008-O (Support Inactive State) SCOMO-C-009-M (Support Active State) SCOMO-C-011-O (Support Activate Primitive) SCOMO-C-025-O (Support asynchronous result reporting) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Activation Inventory Report
Preconditions	- An established DM session between DM Client and DM Server - In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-deployed Deployment Component - The existing Deployment Component is reflected in the Inventory (under ./Inventory/Deployed/<X> subtree) - The State of the Deployment Component is 'Inactive' - The node ./Inventory/Deployed/<X>/Operations/Activate exists - The DM Client support asynchronous operation for the Activate Deployment Component operation - The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Deployed/<X>/State 2. Perform an Exec on node /Inventory/Deployed/<X>/Operations/Activate 3. Wait for the Generic Alert matching the Exec command

Pass-Criteria	1. The response from the Get command in step 1 indicates the value is 'Inactive'
	
	 2. The response for the Exec command in step 2 is 202 (Accepted For Processing)
	
	 3. The responses for the Generic Alert in step 3:
	     a. Has result code indicating success.
	     b. Source/LocURI contains the URI of the Activate node
	     c. Target/LocURI contains the URI of the Deployment Component State (./Inventory/Deployed/X/State)

6.10 Deactivate Software Component (Synchronous Report)

Test Case Id	SCOMO-1.0-int-010
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when deactivating an existing software component with synchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-008-O (Support Inactive State) SCOMO-C-009-M (Support Active State) SCOMO-C-012-O (Support Deactivate Primitive) SCOMO-C-024-O (Support synchronous result reporting) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Deactivation Inventory Report
Preconditions	• An established DM session between DM Client and DM Server • In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-deployed Deployment Component • The existing Deployment Component is reflected in the Inventory (under ./Inventory/Deployed/<X> subtree) • The State of the Deployment Component is 'Active' • The node ./Inventory/Deployed/<X>/Operations/Deactivate exists • The DM Client support synchronous operation for the Deactivate Deployment Component operation • The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Deployed/<X>/State 2. Perform an Exec on node /Inventory/Deployed/<X>/Operations/Deactivate

Pass-Criteria	1. The response from the Get command in step 1 indicates the value is 'Active'
	2. The responses for the Exec command in step 2:
	  a. Has result code indicating success.
	  b. Source/LocURI contains the URI of the Deactivate node
	  c. Target/LocURI contains the URI of the Deployment Component State (./Inventory/Deployed/X/State)

6.11   Deactivate Software Component (Asynchronous Report)

Test Case Id	SCOMO-1.0-int-011
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when deactivating an existing software component with asynchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-008-O (Support Inactive State) SCOMO-C-009-M (Support Active State) SCOMO-C-012-O (Support Deactivate Primitive) SCOMO-C-025-O (Support asynchronous result reporting) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Deactivation Inventory Report
Preconditions	- An established DM session between DM Client and DM Server - In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-deployed Deployment Component - The existing Deployment Component is reflected in the Inventory (under ./Inventory/Deployed/<X> subtree) - The State of the Deployment Component is 'Active' - The node ./Inventory/Deployed/<X>/Operations/Deactivate exists - The DM Client support asynchronous operation for the Deactivate Deployment Component operation - The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Deployed/<X>/State 2. Perform an Exec on node /Inventory/Deployed/<X>/Operations/Deactivate 3. Wait for the Generic Alert matching the Exec command

Pass-Criteria	1. The response from the Get command in step 1 indicates the value is 'Active'
	
	 2. The response for the Exec command in step 2 is 202 (Accepted For Processing)
	
	 3. The responses for the Generic Alert in step 3:
	     a. Has result code indicating success.
	     b. Source/LocURI contains the URI of the Deactivate node
	     c. Target/LocURI contains the URI of the Deployment Component State (./Inventory/Deployed/X/State)

6.12 Remove Delivery Package (Synchronous Report)

Test Case Id	SCOMO-1.0-int-012
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when removing a delivered delivery package using synchronous reporting
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-015-M (Support Delivered State for Delivery Package) SCOMO-C-017-M (Support Removed State for Delivery Package) SCOMO-C-023-M (Support Remove Primitive for Delivery Package) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Removal Inventory Report
Preconditions	• An established DM session between DM Client and DM Server • In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-delivered Delivery Package • The existing Delivery Package is reflected in the Inventory (under ./Inventory/Delivered/<X> subtree) • The DM Client supports synchronous reporting for the Remove Primitive • The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Delivered/<X>/State 2. Perform an Exec on node /Delivered/<X>/Operations/Remove

Pass-Criteria	1. The response from the Get command in step 1:
	   a. Has result code 200 (OK).
	   b. The value for the State node is 'Delivered' or 'Installed'
	
	2. The response for the Exec command (step 2):
	   a. MUST have result code indicating success

6.13 Remove Delivery Package (Asynchronous Report)

Test Case Id	SCOMO-1.0-int-013
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when removing a delivered delivery package using asynchronous reporting

Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
Tool	None
Test code	None
SCR Reference	SCOMO-C-015-M (Support Delivered State for Delivery Package) SCOMO-C-017-M (Support Removed State for Delivery Package) SCOMO-C-023-M (Support Remove Primitive for Delivery Package) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Removal Inventory Report
Preconditions	• An established DM session between DM Client and DM Server • In this test case "<X>" denotes the string that is used in the actual MO, for an existing pre-delivered Delivery Package • The existing Delivery Package is reflected in the Inventory (under ./Inventory/Delivered/<X> subtree) • The DM Client supports asynchronous reporting for the Remove Primitive • The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform a Get on node /Inventory/Delivered/<X>/State 2. Perform an Exec on node /Delivered/<X>/Operations/Remove

Pass-Criteria	1. The response from the Get command in step 1:
	    a. Has result code 200 (OK).
	    b. The value for the State node is 'Delivered' or 'Installed'
	2. The response for the Exec command (step 2):
	    a. MUST have result code indicating success

6.14 Download Delivery Package (Large Object)

Test Case Id	SCOMO-1.0-int-014
Test Object	SCOMO Client and SCOMO Server
Test Case Description	The purpose is to test client and server interoperability when downloading a Delivery Package, using Large Object
Specification Reference	[SCOMO-TS] Chapter 5 (Software Component Management Framework)
SCR Reference	SCOMO-C-001-M (Support for Download) SCOMO-C-006-O (Support for Add of <x>/Inventory/Delivered/<X>/Data) SCOMO-C-028-O (Support for OMA-DM Download using Data node) SCOMO-S-001-M (Support for the SCOMO)
ETR Reference	Delivery
Tool	None
Test code	None

Preconditions	- An established DM session between DM Client and DM Server - The SCOMO Client MUST support downloading of a Delivery Package via Replace command - DM Client MUST support Large Object - In this test case "<X>" denotes the string that is used in the actual MO - The DM Server has proper ACL rights to access all relevant nodes of the DM Tree
Test Procedure	1. Perform an Add command to add the /Inventory/Delivered/<X> node, if it does not exist 2. Perform Add commands to add child nodes of the /Download/<X> node (unless they already exist or Device created them as a result of step 1 above) 3. Perform a Replace command on node /Inventory/Delivered/<X>/Data (uses Large Object feature)

Pass-Criteria	1. The Add commands (steps 1, 2):
	  a. The SCOMO Client creates an /Inventory/Delivered/<X> branch including child nodes
	  b. Returns response with result code 200 (OK)
	
	2. The Replace command on node /Inventory/Delivered/<X>/Data (step 3):
	  a. Returns response with result code 200 (OK)
	  b. The Data leaf containing data of the Delivery Package is replaced

Appendix A.   Change History   (Informative)

A.1   Approved Version History

Reference	Date	Description
n/a	n/a	No prior version –or- No previous version within OMA

A.2   Draft/Candidate Version 1.0 History

Document Identifier	Date	Sections	Description
Draft Versions OMA-ETS-SCOMO-V1_0	11 Nov 2008	All	Initial revision, based on template from 2008 (Nov. 4)
	06 Jan 2009	6	CR incorporated: OMA-IOP-MEC-2008-0220 OMA-IOP-MEC-2008-0221 OMA-IOP-MEC-2008-0222
	15 Jan 2009	5	CR incorporated: OMA-IOP-MEC-2008-0246
	02 Jun 2009	All	OMA-IOP-MEC-2009-0101
	08 Jun 2009	All	Made public after IOP WG agreement
Candidate Versions OMA-ETS-SCOMO-V1_0	26 Jun 2009	n/a	TP approved during TP#25 Boston
Draft Versions OMA-ETS-SCOMO-V1_0	10 Feb 2010	6	CR incorporated: OMA-IOP-MEC-2009-0160 OMA-IOP-MEC-2009-0162R03 OMA-IOP-MEC-2010-0010R01
	15 Feb 2010	6	CR incorporated: - OMA-IOP-MEC-2010-0011
Candidate Versions OMA-ETS-SCOMO-V1_0	09 Mar 2010	n/a	Status changed to Candidate by TP TP Ref# OMA-TP-2010-0093- INP_SCOMO_10_ETS_for_candidate_re_approval
Draft Versions OMA-ETS-SCOMO-V1_0	08 Mar 2010	6	CR incorporated: - OMA-IOP-MEC-2010-0018R01 OMA-IOP-MEC-2010-0012R04
Candidate Versions OMA-ETS-SCOMO-V1_0	22 Mar 2010	n/a	Status changed to Candidate by TP TP Ref# OMA-TP-2010-0133-INP_SCOMO_10_ETS_for_notification
Draft Versions	07 Jul 2010	6.5	Cr incorporated: - OMA-IOP-MEC-2010-0051
Candidate Versions OMA-ETS-SCOMO-V1_0	21 Sep 2010	n/a	Status changed to Candidate by TP TP Ref# OMA-TP-2010-0421- INP_SCOMO_10_ETS_for_notification.zip
Draft Versions OMA-ETS-SCOMO-V1_0	19 Oct 2010	6.2, 6.3, 6.14, 6.15	CR incorporated: - OMA-IOP-MEC-2010-0089-CR_SCOMO_ETS_Bug_Fixes.zip
	16 Nov 2010	6.2, 6.3, 6.14	CR incorporated: - OMA-IOP-MEC-2010-0095R01 Editorial formatting
Candidate Versions OMA-ETS-SCOMO-V1_0	25 Nov 2010	n/a	Status changed to Candidate by TP TP Ref# OMA-TP-2010-0507-INP_SCOMO_10_ETS_for_notification