



Enabler Test Specification for the RESTful Network API for OMA Push

Candidate Version 1.0 – 13 Aug 2013

Open Mobile Alliance
OMA-ETS-PushREST-V1_0-20130813-C

Use of this document is subject to all of the terms and conditions of the Use Agreement located at <http://www.openmobilealliance.org/UseAgreement.html>.

Unless this document is clearly designated as an approved specification, this document is a work in process, is not an approved Open Mobile Alliance™ specification, and is subject to revision or removal without notice.

You may use this document or any part of the document for internal or educational purposes only, provided you do not modify, edit or take out of context the information in this document in any manner. Information contained in this document may be used, at your sole risk, for any purposes. You may not use this document in any other manner without the prior written permission of the Open Mobile Alliance. The Open Mobile Alliance authorizes you to copy this document, provided that you retain all copyright and other proprietary notices contained in the original materials on any copies of the materials and that you comply strictly with these terms. This copyright permission does not constitute an endorsement of the products or services. The Open Mobile Alliance assumes no responsibility for errors or omissions in this document.

Each Open Mobile Alliance member has agreed to use reasonable endeavors to inform the Open Mobile Alliance in a timely manner of Essential IPR as it becomes aware that the Essential IPR is related to the prepared or published specification. However, the members do not have an obligation to conduct IPR searches. The declared Essential IPR is publicly available to members and non-members of the Open Mobile Alliance and may be found on the “OMA IPR Declarations” list at <http://www.openmobilealliance.org/ipr.html>. The Open Mobile Alliance has not conducted an independent IPR review of this document and the information contained herein, and makes no representations or warranties regarding third party IPR, including without limitation patents, copyrights or trade secret rights. This document may contain inventions for which you must obtain licenses from third parties before making, using or selling the inventions. Defined terms above are set forth in the schedule to the Open Mobile Alliance Application Form.

NO REPRESENTATIONS OR WARRANTIES (WHETHER EXPRESS OR IMPLIED) ARE MADE BY THE OPEN MOBILE ALLIANCE OR ANY OPEN MOBILE ALLIANCE MEMBER OR ITS AFFILIATES REGARDING ANY OF THE IPR’S REPRESENTED ON THE “OMA IPR DECLARATIONS” LIST, INCLUDING, BUT NOT LIMITED TO THE ACCURACY, COMPLETENESS, VALIDITY OR RELEVANCE OF THE INFORMATION OR WHETHER OR NOT SUCH RIGHTS ARE ESSENTIAL OR NON-ESSENTIAL.

THE OPEN MOBILE ALLIANCE IS NOT LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, INDIRECT, PUNITIVE, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OF DOCUMENTS AND THE INFORMATION CONTAINED IN THE DOCUMENTS.

© 2013 Open Mobile Alliance Ltd. All Rights Reserved.

Used with the permission of the Open Mobile Alliance Ltd. under the terms set forth above.

Contents

1. SCOPE	4
2. REFERENCES	5
2.1 NORMATIVE REFERENCES	5
2.2 INFORMATIVE REFERENCES	5
3. TERMINOLOGY AND CONVENTIONS	6
3.1 CONVENTIONS	6
3.2 DEFINITIONS	6
3.3 ABBREVIATIONS	7
4. INTRODUCTION	10
5. TEST CASES	11
5.1 PUSH MESSAGE RESOURCE CREATION AND STATUS QUERY	11
5.1.1 Push Message Resource Creation and Status Query, XML Binding	11
5.1.2 Push Message Resource Creation and Status Query, JSON Binding.....	11
5.2 PUSH MESSAGE RESULT NOTIFICATION	12
5.2.1 Push Message Result Notification, XML Binding	12
5.2.2 Push Message Result Notification, JSON Binding	13
5.3 PUSH MESSAGE REPLACEMENT	13
5.3.1 Push Message Replacement Using Same Push ID, XML Binding	13
5.3.2 Push Message Replacement Using Same Push ID, JSON Binding.....	14
5.3.3 Push Message Replacement Using New Push ID, XML Binding.....	15
5.3.4 Push Message Replacement Using New Push ID, JSON Binding	16
5.4 PUSH MESSAGE CANCELLATION	16
5.4.1 Push Message Cancellation, XML Binding	16
5.4.2 Push Message Cancellation, JSON Binding	17
5.4.3 Push Message Partial Cancellation, XML Binding.....	18
5.4.4 Push Message Partial Cancellation, JSON Binding	18
5.5 CLIENT CAPABILITIES QUERY	19
5.5.1 Client Capabilities Query, XML Binding	19
5.5.2 Client Capabilities Query, JSON Binding	20
APPENDIX A. CHANGE HISTORY (INFORMATIVE)	21
A.1 APPROVED VERSION HISTORY	21
A.2 DRAFT/CANDIDATE VERSION 1.0 HISTORY	21

Figures

No table of figures entries found.

1. Scope

This document describes in detail the Interoperability test cases for the RESTful Network API for OMA Push (PushREST) V1.0.

2. References

2.1 Normative References

- [IOPPROC] “OMA Interoperability Policy and Process”, Version 1.9, Open Mobile Alliance™, OMA-ORG-IOP_Process-V1_9, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [REST_NetAPI_Push_ERELED] “Enabler Release Definition for the RESTful Network API for OMA Push 1.0”, Open Mobile Alliance™, OMA-ERELED-REST_NetAPI_Push-V1_0, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [REST_NetAPI_Push_TS] “RESTful Network API for OMA Push, Open Mobile Alliance™. OMA-TS-REST_NetAPI_Push-V1_0, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [REST_NetAPI_Push_ERP] “Enabler Release Package for the RESTful Network API for OMA Push 1.0”, Open Mobile Alliance™, OMA-ERP-REST_NetAPI_Push-V1_0, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [REST_NetAPI_Push_ETR] “Enabler Test Requirements for the RESTful Network API for OMA Push 1.0”, Open Mobile Alliance™, OMA-ETR-REST_NetAPI_Push-V1_0, [URL:http://www.openmobilealliance.org/](http://www.openmobilealliance.org/)
- [REST_NetAPI_Push_EVP] “Enabler Validation Plan for the RESTful Network API for OMA Push 1.0”, Open Mobile Alliance™, OMA-EVP-REST_NetAPI_Push-V1_0, [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)

2.2 Informative References

- [OMADICT] “Dictionary for OMA Specifications”, Version 2.8, Open Mobile Alliance™, OMA-ORG-Dictionary-V2_8, [URL:http://www.openmobilealliance.org/](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

Application	A value-added data service provided to a Client. The application may utilise both push and pull data transfer to deliver content
Application Addressing	The ability to address a particular user agent on a WAP client.
Bearer Network	a network used to carry the messages of a transport-layer protocol between physical devices. Multiple bearer networks may be used over the life of a single push session.
Client	In the context of push, a client is a device (or service) that expects to receive push content from a server. In the context of pull a client, it is a device initiates a request to a server for content or data. See also "device"
Contact Point	Address information that describes how to reach a push proxy gateway, including transport protocol address and port of the push proxy gateway.
Content	Subject matter (data) stored or generated at an origin server. Content is typically displayed or interpreted by a user agent on a client. Content can both be returned in response to a user request, or pushed directly to a client.
Content Encoding	when used as a verb, content encoding indicates the act of converting a data object from one format to another. Typically the resulting format requires less physical space than the original, is easier to process or store, and/or is encrypted. When used as a noun, content encoding specifies a particular format or encoding standard or process.
Content Format	actual representation of content.
Device	Is a network entity that is capable of sending and/or receiving packets of information and has a unique device address. A device can act as either a client or a server within a given context or across multiple contexts. For example, a device can service a number of clients (as a server) while being a client to another server.

End-user	See "user"
Multicast Message	a push message containing a single address which implicitly specifies more than one OTA client address.
Push Framework	The entire Push system. The push framework encompasses the protocols, service interfaces, and software entities that provide the means to push data to user agents in the WAP client.
Push Initiator	The entity that originates push content and submits it to the push framework for delivery to a user agent on a client.
Push OTA Protocol	A protocol used for conveying content between a Push Proxy Gateway and a certain user agent on a client.
Push Proxy Gateway	A proxy gateway that provides push proxy services.
Push Session	A WSP session that is capable of conducting push operations.
Registration	Refers to a procedure where the PPG becomes aware of the terminal's current capabilities and preferences.
Registration Context	A state where the PPG is aware of at least the last capabilities and preferences conveyed from the terminal.
Server	A device (or service) that passively waits for connection requests from one or more clients. A server may accept or reject a connection request from a client. A server may initiate a connection to a client as part of a service (push).
Terminal	See "client".
Terminal-ID	An identifier that is used by a PPG to uniquely identify a terminal.
User	A user is a person who interacts with a user agent to view, hear, or otherwise use a rendered content. Also referred to as end-user
User agent	A user agent (or content interpreter) is any software or device that interprets resources. This may include textual browsers, voice browsers, search engines, etc.

3.3 Abbreviations

ABNF	Augmented Backus-Naur Form
CPI	Capability and Preference Information
CSD	Circuit Switched Data
DNS	Domain Name Server
DTD	Document Type Definition
ETR	Enabler Test Requirements
ETS	Enabler Test Specification
GPRS	General Packet Radio Service
HTTP	Hypertext Transfer Protocol
IANA	Internet Assigned Numbers Authority
IP	Internet Protocol
MAC	Authentication code

MS	Mobile Station
MSISDN	Mobile Station International Subscriber Directory Number
OMA	Open Mobile Alliance
OMA	Open Mobile Alliance
OMNA	Open Mobile Naming Authority
OTA	Over The Air
OTA-HTTP	(Push) OTA over HTTP
OTA-HTTP-TLS	OTA-HTTP over TLS
OTA-SIP	(Push) OTA over SIP
OTA-WSP	(Push) OTA over WSP
PAP	Push Access Protocol
PDP	Packet Data Protocol
PI	Push Initiator
PO-TCP	PPG Originated TCP connection establishment method
PPG	Push Proxy Gateway
QoS	Quality of Service
RADIUS	Remote Authentication Dial-In User Service
RFC	Request For Comments
SEC	Security Control
SHA-1	Secure Hash Algorithm 1
SI	Service Indication
SIA	Session Initiation Application
SIP	Session Initiation Protocol
SIR	Session Initiation Request
SL	Service Loading
SMS	Short Message Service
TCP	Transmission Control Protocol
TLS	Transport Layer Security
TO-TCP	Terminal Originated TCP connection establishment method
UDP	User Datagram Protocol
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
WAP	Wireless Application Protocol
WBXML	WAP Binary XML
WDP	Wireless Datagram Protocol
WINA	WAP Interim Naming Authority

WSP Wireless Session Protocol
WTLS Wireless Transport Layer Security

4. Introduction

The purpose of this document is to provide test cases for the PushREST 1.0 Enabler.

Test configuration requirements are defined in [REST_NetAPI_Push_EVP].

5. Test Cases

5.1 Push Message Resource Creation and Status Query

5.1.1 Push Message Resource Creation and Status Query, XML Binding

Test Case ID	PushREST-1.0-int-1
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify creation of a push message resource for a new push message request using the XML binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.1
SCR Reference	REST-PUSH-SUPPORT-S-002-M, REST-PUSH-MSG-S-002-M, REST-PUSH-SQ-S-002-O
ETR Reference	REST_NetAPI_Push-M-001 REST_NetAPI_Push-O-001
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	No push message resource exists for the push message request.
Test Procedure	<ol style="list-style-type: none"> 1. As Push Initiator, an Application requests Push message delivery using PUT for a new resource identified by the initiatorAddress and pushId, using the XML binding. 2. The PPG creates the new resource, and confirms Push message acceptance for the pushId, using the XML binding. 3. The application requests the delivery status of the Push message created earlier, using GET to the resource URL created earlier, using the XML binding.
Pass-Criteria	4. The PPG responds with the delivery status for the Push message, using the XML binding.

5.1.2 Push Message Resource Creation and Status Query, JSON Binding

Test Case ID	PushREST-1.0-int-2
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify creation of a push message resource for a new push message request using the JSON binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.1
SCR Reference	REST-PUSH-SUPPORT-S-003-O, REST-PUSH-MSG-S-002-M, REST-PUSH-SQ-S-002-O

ETR Reference	REST_NetAPI_Push-M-001, REST_NetAPI_Push-O-001
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	No push message resource resource exists for the push message request.
Test Procedure	<ol style="list-style-type: none"> 1. As Push Initiator, an Application requests Push message delivery using PUT for a new resource identified by the initiatorAddress and pushId, using the JSON binding. 2. The PPG creates the new resource, and confirms Push message acceptance for the pushId, using the JSON binding. 3. The application requests the delivery status of the Push message created earlier, using GET to the resource URL created earlier, using the JSON binding.
Pass-Criteria	4. The PPG responds with the delivery status for the Push message, using the JSON binding.

5.2 Push Message Result Notification

5.2.1 Push Message Result Notification, XML Binding

Test Case ID	PushREST-1.0-int-3
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify delivery of a push message result notification using the XML binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.2
SCR Reference	REST-PUSH-SUPPORT-S-002-M, REST-PUSH-RN-S-002-M
ETR Reference	REST_NetAPI_Push-M-004
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-1
Test Procedure	<ol style="list-style-type: none"> 1. Using the XML binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId, and includes a result notification URL indicating that the application wants to be explicitly informed of the Push Message delivery result. 2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the XML binding.
Pass-Criteria	3. The PPG completes delivery of the Push message, and using the XML binding sends a result notification to the notification URL indicating that the message was

	successfully delivered, and further details as applicable (e.g. to which target addresses the delivery was successful).
--	---

5.2.2 Push Message Result Notification, JSON Binding

Test Case ID	PushREST-1.0-int-4
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify delivery of a push message result notification using the JSON binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.2
SCR Reference	REST-PUSH-SUPPORT-S-003-O, REST-PUSH-RN-S-002-M
ETR Reference	REST_NetAPI_Push-M-004
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-2
Test Procedure	<ol style="list-style-type: none"> Using the JSON binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId, and includes a result notification URL indicating that the application wants to be explicitly informed of the Push Message delivery result. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the JSON binding.
Pass-Criteria	<ol style="list-style-type: none"> The PPG completes delivery of the Push message, and using the JSON binding sends a result notification to the notification URL indicating that the message was successfully delivered, and further details as applicable (e.g. to which target addresses the delivery was successful).

5.3 Push Message Replacement

5.3.1 Push Message Replacement Using Same Push ID, XML Binding

Test Case ID	PushREST-1.0-int-5
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify replacement of a push message with the same pushId, using the XML binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.3
SCR Reference	REST-PUSH-SUPPORT-S-002-M, REST-PUSH-MSG-S-003-M

ETR Reference	REST_NetAPI_Push-M-002
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-1
Test Procedure	<ol style="list-style-type: none"> 1. Using the XML binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId. 2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the XML binding. 3. The PI decides to replace the earlier Push Message for all recipients for which delivery has not been completed, and using the XML binding, requests Push message replacement using PUT for the same resource URL earlier created for the pushId, and identifying the earlier Push Message resource URL as the message to be replaced.
Pass-Criteria	<ol style="list-style-type: none"> 4. The PPG cancels delivery of the earlier Push Message for all pending target addresses, if possible, and sends a Result Notification using the XML binding, if requested by the PI for the earlier Push Message. The PPG replaces the Push Message resource for the pushId with a new Push Message for the pending target addresses only, and confirms acceptance of Push Message replacement for the pushed, using the XML binding.

5.3.2 Push Message Replacement Using Same Push ID, JSON Binding

Test Case ID	PushREST-1.0-int-6
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify replacement of a push message with the same pushId, using the JSON binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.3
SCR Reference	REST-PUSH-SUPPORT-S-003-O, REST-PUSH-MSG-S-003-M
ETR Reference	REST_NetAPI_Push-M-002
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-2
Test Procedure	<ol style="list-style-type: none"> 1. Using the JSON binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId.

	<p>2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the JSON binding.</p> <p>3. The PI decides to replace the earlier Push Message for all recipients for which delivery has not been completed, and using the JSON binding, requests Push message replacement using PUT for the same resource URL earlier created for the pushId, and identifying the earlier Push Message resource URL as the message to be replaced.</p>
Pass-Criteria	<p>4. The PPG cancels delivery of the earlier Push Message for all pending target addresses, if possible, and sends a Result Notification using the JSON binding, if requested by the PI for the earlier Push Message. The PPG replaces the Push Message resource for the pushId with a new Push Message for the pending target addresses only, and confirms acceptance of Push Message replacement for the pushed, using the JSON binding.</p>

5.3.3 Push Message Replacement Using New Push ID, XML Binding

Test Case ID	PushREST-1.0-int-7
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify replacement of a push message with a new pushId, using the XML binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.4
SCR Reference	REST-PUSH-SUPPORT-S-002-M, REST-PUSH-MSG-S-003-M
ETR Reference	REST_NetAPI_Push-M-002
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-1
Test Procedure	<p>1. Using the XML binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId.</p> <p>2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the XML binding.</p> <p>3. The PI decides to replace the earlier Push Message for all recipients, and using the XML binding, requests Push message replacement using PUT for a new resource URL uniquely identified by the initiatorAddress and the new pushId. The body of the request contains reference that identifies the earlier Push Message resource URL as the message to be replaced.</p>
Pass-Criteria	<p>4. The PPG cancels delivery of the earlier Push Message for all pending target addresses, if possible, and using the XML binding, sends a Result Notification if requested by the PI for the earlier Push Message. The PPG creates a new Push Message resource for the new pushId, for all of the target addresses, and confirms acceptance of Push Message replacement for the new pushed, using the XML binding.</p>

5.3.4 Push Message Replacement Using New Push ID, JSON Binding

Test Case ID	PushREST-1.0-int-8
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify replacement of a push message with a new pushId, using the JSON binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.4
SCR Reference	REST-PUSH-SUPPORT-S-003-O, REST-PUSH-MSG-S-003-M
ETR Reference	REST_NetAPI_Push-M-002
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-2
Test Procedure	<ol style="list-style-type: none"> 1. Using the JSON binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId. 2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the JSON binding. 3. The PI decides to replace the earlier Push Message for all recipients, and using the JSON binding, requests Push message replacement using PUT for a new resource URL uniquely identified by the initiatorAddress and the new pushId. The body of the request contains reference that identifies the earlier Push Message resource URL as the message to be replaced.
Pass-Criteria	<ol style="list-style-type: none"> 4. The PPG cancels delivery of the earlier Push Message for all pending target addresses, if possible, and using the JSON binding, sends a Result Notification if requested by the PI for the earlier Push Message. The PPG creates a new Push Message resource for the new pushId, for all of the target addresses, and confirms acceptance of Push Message replacement for the new pushed, using the JSON binding.

5.4 Push Message Cancellation

5.4.1 Push Message Cancellation, XML Binding

Test Case ID	PushREST-1.0-int-9
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify cancellation of a push message, using the XML binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.5

SCR Reference	REST-PUSH-SUPPORT-S-002-M, REST-PUSH-MSG-S-004-O
ETR Reference	REST_NetAPI_Push-M-003
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-1
Test Procedure	<ol style="list-style-type: none"> 1. Using the XML binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId. 2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the XML binding. 3. After some time, the application decides to cancel the Push Message created earlier, using DELETE to the resource URL created earlier, using the XML binding.
Pass-Criteria	4. The PPG cancels delivery of the earlier Push Message if possible for all pending target addresses and using the XML binding, sends a Result Notification if requested by the PI for the earlier Push Message. The PPG responds with confirmation of the Push Message cancellation, using the XML binding.

5.4.2 Push Message Cancellation, JSON Binding

Test Case ID	PushREST-1.0-int-10
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify cancellation of a push message, using the JSON binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.5
SCR Reference	REST-PUSH-SUPPORT-S-003-O, REST-PUSH-MSG-S-004-O
ETR Reference	REST_NetAPI_Push-M-003
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-2
Test Procedure	<ol style="list-style-type: none"> 1. Using the JSON binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId. 2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the JSON binding.

	3. After some time, the application decides to cancel the Push Message created earlier, using DELETE to the resource URL created earlier, using the JSON binding.
Pass-Criteria	4. The PPG cancels delivery of the earlier Push Message if possible for all pending target addresses and using the JSON binding, sends a Result Notification if requested by the PI for the earlier Push Message. The PPG responds with confirmation of the Push Message cancellation, using the JSON binding.

5.4.3 Push Message Partial Cancellation, XML Binding

Test Case ID	PushREST-1.0-int-11
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify cancellation of a push message, using the XML binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.6
SCR Reference	REST-PUSH-SUPPORT-S-002-M, REST-PUSH-PC-S-002-O
ETR Reference	REST_NetAPI_Push-O-002
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-1
Test Procedure	<p>1. Using the XML binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId.</p> <p>2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the XML binding.</p> <p>3. After some time, the application decides to cancel the Push Message created earlier for some target addresses only. Using the XML binding, the application sends a Cancel Message request using POST to the resource URL created earlier, indicating the set of addresses for which message delivery should be cancelled.</p>
Pass-Criteria	4. The PPG cancels delivery of the earlier Push Message if possible for all of the indicated target addresses for which delivery is still pending, and using the XML binding, sends a Result Notification if requested by the PI for the earlier Push Message. Using the XML binding, the PPG responds with confirmation of the Push Message cancellation for the indicated target addresses.

5.4.4 Push Message Partial Cancellation, JSON Binding

Test Case ID	PushREST-1.0-int-12
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify cancellation of a push message, using the JSON binding.

Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.6
SCR Reference	REST-PUSH-SUPPORT-S-003-O, REST-PUSH-PC-S-002-O
ETR Reference	REST_NetAPI_Push-O-002
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-2
Test Procedure	<ol style="list-style-type: none"> 1. Using the JSON binding, as Push Initiator, an application requests Push message delivery using PUT for a new resource URL uniquely identified by the initiatorAddress and pushId. 2. The PPG creates the new resource, and confirms Push Message acceptance for the pushed, using the JSON binding. 3. After some time, the application decides to cancel the Push Message created earlier for some target addresses only. Using the JSON binding, the application sends a Cancel Message request using POST to the resource URL created earlier, indicating the set of addresses for which message delivery should be cancelled.
Pass-Criteria	<ol style="list-style-type: none"> 4. The PPG cancels delivery of the earlier Push Message if possible for all of the indicated target addresses for which delivery is still pending, and using the JSON binding, sends a Result Notification if requested by the PI for the earlier Push Message. Using the JSON binding, the PPG responds with confirmation of the Push Message cancellation for the indicated target addresses.

5.5 Client Capabilities Query

5.5.1 Client Capabilities Query, XML Binding

Test Case ID	PushREST-1.0-int-13
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify client capabilities query, using the XML binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.7
SCR Reference	REST-PUSH-SUPPORT-S-002-M, REST-PUSH-CQ-S-002-O
ETR Reference	REST_NetAPI_Push-O-003
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-1

Test Procedure	1. Using the XML binding, the Push Initiator queries the capabilities of the client identified by an address, using GET.
Pass-Criteria	2. The PPG responds with the capabilities of the client, using the XML binding.

5.5.2 Client Capabilities Query, JSON Binding

Test Case ID	PushREST-1.0-int-15
Test Object	PPG/Initiator
Test Case Description and Purpose	Verify client capabilities query, using the JSON binding.
Specification Reference	[REST_NetAPI_Push_TS] Section 5.3.7
SCR Reference	REST-PUSH-SUPPORT-S-003-O, REST-PUSH-CQ-S-002-O
ETR Reference	REST_NetAPI_Push-O-003
Tool	Push Initiator
Test Code/Files	<i>To be defined</i>
Preconditions	PushREST-1.0-int-2
Test Procedure	1. Using the JSON binding, the Push Initiator queries the capabilities of the client identified by an address, using GET.
Pass-Criteria	2. The PPG responds with the capabilities of the client, using the JSON binding.

Appendix A. Change History

(Informative)

A.1 Approved Version History

Reference	Date	Description
n/a	n/a	No prior version

A.2 Draft/Candidate Version 1.0 History

Document Identifier	Date	Section	Description
Draft Versions OMA-ETS-PushREST-V1_0	10 Sep 2012	All	Intitial baseline as agreed in OMA-IOP-BRO-2012-0047- INP_PushREST_ETS_Baseline
Candidate Version OMA-ETS-PushREST-V1_0	13 Aug 2013	N/A	Status changed to Candidate by TP TP Ref #OMA-TP-2013-0230- INP_PushREST_V1_0_ETS_for_Candidate_approval