



# Database and Middleware Automation

## Ultimate Edition

Software Version: 10.50

Linux, Solaris, AIX, and HP-UX

# Developing Guide

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# Contents

Developing .....	9
Workflows API .....	10
Resource Information .....	10
Supported HTTP Methods .....	10
Content Type .....	10
Permissions and Constraints .....	10
Query Parameters .....	11
Object Identifier .....	11
Return Codes .....	12
Supported Requests .....	12
Steps API .....	29
Resource Information .....	29
Supported HTTP Methods .....	29
Content Type .....	30
Permissions and Constraints .....	30
Query Parameters .....	30
Object Identifier .....	31
Return Codes .....	31
Supported Requests .....	32
Functions API .....	44
Resource Information .....	44
Supported HTTP Methods .....	44
Content Type .....	44
Permissions and Constraints .....	44
Query Parameters .....	45
Object Identifier .....	45
Return Codes .....	45
Supported Requests .....	46
Deployments API .....	56
Resource Information .....	56
Supported HTTP Methods .....	56

Content Type .....	56
Permissions and Constraints .....	56
Query Parameters .....	57
Object Identifier .....	58
Return Codes .....	58
Supported Requests .....	59
Policies API .....	70
Resource Information .....	70
Supported HTTP Methods .....	70
Content Type .....	70
Permissions and Constraints .....	71
Query Parameters .....	71
Object Identifier .....	71
Return Codes .....	72
Supported Requests .....	72
Running Workflows API .....	80
Resource Information .....	80
Supported HTTP Methods .....	81
Content Type .....	81
Permissions and Constraints .....	81
Query Parameters .....	82
Object Identifier .....	83
Return Codes .....	83
Supported Requests .....	84
Organizations API .....	99
Resource Information .....	99
Supported HTTP Methods .....	100
Content Type .....	100
Permissions and Constraints .....	100
Query Parameters .....	100
Object Identifier .....	101
Return Codes .....	101
Supported Requests .....	102
Servers API .....	108
Resource Information .....	108

Supported HTTP Methods .....	109
Content Type .....	109
Permissions and Constraints .....	109
Query Parameters .....	109
Object Identifier .....	110
Return Codes .....	110
Supported Requests .....	111
Instances API .....	119
Resource Information .....	120
Supported HTTP Methods .....	120
Content Type .....	120
Permissions and Constraints .....	120
Query Parameters .....	121
Object Identifier .....	121
Return Codes .....	122
Supported Requests .....	122
Databases API .....	130
Resource Information .....	130
Supported HTTP Methods .....	131
Content Type .....	131
Permissions and Constraints .....	131
Query Parameters .....	131
Object Identifier .....	132
Return Codes .....	133
Supported Requests .....	133
Smart Groups API .....	138
Resource Information .....	139
Supported HTTP Methods .....	139
Content Type .....	139
Permissions and Constraints .....	139
Query Parameters .....	140
Object Identifier .....	140
Return Codes .....	141
Supported Requests .....	141
Custom Fields API .....	151

Resource Information .....	152
Supported HTTP Methods .....	152
Content Type .....	152
Permissions and Constraints .....	152
Query Parameters .....	153
Object Identifier .....	153
Return Codes .....	153
Supported Requests .....	154
Unassigned Servers API .....	161
Resource Information .....	161
Supported HTTP Methods .....	161
Content Type .....	161
Permissions and Constraints .....	162
Query Parameters .....	162
Object Identifier .....	162
Return Codes .....	162
Supported Requests .....	163
Roles API .....	165
Resource Information .....	166
Supported HTTP Methods .....	166
Content Type .....	166
Permissions and Constraints .....	166
Query Parameters .....	166
Object Identifier .....	166
Return Codes .....	167
Supported Requests .....	167
Capabilities API .....	177
Resource Information .....	178
Supported HTTP Methods .....	178
Content Type .....	178
Permissions and Constraints .....	179
Query Parameters .....	179
Object Identifier .....	179
Return Codes .....	179
Supported Requests .....	180

User API .....	186
Resource Information .....	186
Supported HTTP Methods .....	187
Content Type .....	187
Permissions and Constraints .....	187
Query Parameters .....	187
Return Codes .....	187
Supported Requests .....	188
Version API .....	188
Resource Information .....	189
Supported HTTP Methods .....	189
Content Type .....	189
Permissions and Constraints .....	189
Query Parameters .....	189
Return Codes .....	189
Supported Requests .....	190
Solution Packs API .....	191
Resource Information .....	191
Supported HTTP Methods .....	191
Content Type .....	191
Permissions and Constraints .....	191
Query Parameters .....	192
Object Identifier .....	192
Return Codes .....	192
Supported Requests .....	193
Send documentation feedback .....	198





# Developing

This section lists application programming interfaces (APIs) that helps you work with HPE DMA.

Resource Family	APIs
Automation	<ul style="list-style-type: none"> <li>• <a href="#">"Functions API" on page 44</a></li> <li>• <a href="#">"Steps API" on page 29</a></li> <li>• <a href="#">"Workflows API" on page 10</a></li> <li>• <a href="#">"Policies API" on page 70</a></li> <li>• <a href="#">"Deployments API" on page 56</a></li> <li>• <a href="#">"Running Workflows API" on page 80</a></li> </ul>
Environment	<ul style="list-style-type: none"> <li>• <a href="#">"Organizations API" on page 99</a></li> <li>• <a href="#">"Servers API" on page 108</a></li> <li>• <a href="#">"Instances API" on page 119</a></li> <li>• <a href="#">"Databases API" on page 130</a></li> <li>• <a href="#">"Smart Groups API" on page 138</a></li> <li>• <a href="#">"Custom Fields API" on page 151</a></li> <li>• <a href="#">"Unassigned Servers API" on page 161</a></li> </ul>
Setup	<ul style="list-style-type: none"> <li>• <a href="#">"Roles API" on page 165</a></li> <li>• <a href="#">"Capabilities API" on page 177</a></li> <li>• <a href="#">"Version API" on page 188</a></li> <li>• <a href="#">"User API" on page 186</a></li> </ul>
Solution Pack	<ul style="list-style-type: none"> <li>• <a href="#">"Solution Packs API" on page 191</a></li> </ul>

## Workflows API

In HPE DMA, a workflow executes a process—such as installing a software product or checking a database instance for compliance with a specific security benchmark.

The Workflow API provides a mechanism that enables you to read, create, modify and delete HPE DMA workflows. The capabilities associated with your role determine which Workflow API operations you are permitted to perform (see "[Permissions and Constraints](#)").

To run a workflow or retrieve status about workflows that are running, see "[Running Workflows API](#)".

### Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/auto/workflow By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	auto
Response Object	workflow

### Supported HTTP Methods

GET, PUT, POST, DELETE

### Content Type

application/atom+xml

### Permissions and Constraints

- Workflows can only be created (POST) by users who have a role with Administrator or Workflow Creator capability.

- A workflow can only be viewed (GET) by users who have READ permission for that workflow.
- A workflow can only be modified (PUT) by users who have READ and WRITE permission for that workflow.
- Workflow names must contain one or more characters.
- Workflow names must be unique.
- A workflow MUST have at least one step.
- The Target Level of a workflow cannot be modified if the workflow is used by one or more deployments.
- A workflow can only be deleted by one of the following types of users:
  - A user who has a role with Administrator capability.
  - A user who has a role with Workflow Creator capability and who also has READ and WRITE permissions for that workflow.
- Locked workflows cannot be modified or deleted. Workflows included in an HPE DMA solution pack are locked. You cannot unlock a workflow. You can, however, make a modifiable copy of a locked workflow. You can also change the permissions on a locked workflow.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the workflow to GET. Workflows must have non-empty unique names when they are created or modified.  Example: Apply%20CRS%20Patchset%20to%20Home

## Object Identifier

When you want to modify (PUT) or DELETE a specific workflow, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/setup/workflow/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT, DELETE	Unique alpha-numeric identifier of the workflow  Example: ff8443813bfd79c7013bfd7a53d10000

Name	Required	Description
	not valid for POST	

**Tip:** You can specify the object ID for a GET operation instead of specifying the name parameter.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all workflows	<p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/workflow</code></p> <p><b>Example:</b></p> <p>GET <code>https://DMA1.mycompany.com:8443/dma/api/auto/workflow</code></p> <p>Response Body (only the first two entries are shown here):</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:l="http://www.hp.com/dma/sop/location"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T17:22:26Z&lt;/updated&gt;   &lt;title&gt;Workflows&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa013cfdaa7aa9113f&lt;/id&gt;   &lt;published&gt;2013-02-21T16:51:13Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:51:13Z&lt;/updated&gt;   &lt;title&gt;Add or Alter an ASM Diskgroup&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa013cfdaa7aa9113f' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa013cfdaa7aa9113f' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cfda9fa013cfdaa7aa9113f' /&gt;   &lt;sop:workflow name='Add or Alter an ASM Diskgroup' type='Oracle' target-level='Instance' locked='true' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdbb8013cfdac47491684&lt;/id&gt;   &lt;published&gt;2013-02-21T16:53:11Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:53:11Z&lt;/updated&gt;   &lt;title&gt;Add WebSphere 7 Node To Existing Cell&lt;/title&gt; </pre>

Objective	Request
	<pre> &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdabb8 013cfdac47491684'/&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdabb8 013cfdac47491684'/&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cfdabb8 013cfdac47491684'/&gt; &lt;sop:workflow name='Add WebSphere 7 Node To Existing Cell' type='OS' target-level='Server' locked='true' /&gt; &lt;/entry&gt; ... <i>only the first two entries are shown here</i> </pre>
<p>Get a specific workflow by ID</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/workflow/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfa9fa013cfaa7aa9113f</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:l="http://www.hp.com/dma/sop/location"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T17:24:48Z&lt;/updated&gt;   &lt;title&gt;Workflows&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfa9fa01 </pre>

Objective	Request
	<pre> 3cfdaa7aa9113f&lt;/id&gt;   &lt;published&gt;2013-02-21T16:51:13Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:51:13Z&lt;/updated&gt;   &lt;title&gt;Add or Alter an ASM Diskgroup&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa 013cfdaa7aa9113f' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa 013cfdaa7aa9113f' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cfda9fa 013cfdaa7aa9113f' /&gt;   &lt;sop:workflow name='Add or Alter an ASM Diskgroup' type='Oracle' target-level='Instance' locked='true'&gt;     &lt;sop:permissions/&gt;     &lt;sop:action-ref name='Prepare Oracle Call Wrapper' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfd a882750482'&gt;       &lt;sop:node order='1' next='2,3'&gt;         &lt;l:location ypos='-5' xpos='187'&gt;           &lt;l:connection to='1' source='Point(1, 2)' target='Point(1,0)' /&gt;           &lt;l:connection to='2' source='Point(1, 2)' target='Point(1,0)' /&gt;         &lt;/l:location&gt;       &lt;/sop:node&gt;     &lt;/sop:action-ref&gt;     &lt;sop:action-ref name='Add or Alter an ASM Diskgroup' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda9fa013cfd aa38560742'&gt;       &lt;sop:node order='2' next='3,4' rc='0'&gt;         &lt;l:location ypos='79' xpos='181'&gt;           &lt;l:connection to='2' source='Point(1, 2)' target='Point(1,0)' /&gt;           &lt;l:connection to='3' source='Point(1, 2)' target='Point(1,0)' /&gt;         &lt;/l:location&gt;         &lt;sop:mapping input='Add or Alter an ASM Diskgroup.Call Wrapper' output='Prepare Oracle Call Wrapper.Instance Wrapper' /&gt;       &lt;/sop:node&gt; </pre>

Objective	Request
	<pre> location ypos='148' xpos='170'&gt;   &lt;l:connection to='2' source='Point(1, 2)' target='Point(1,0)'/&gt;   &lt;l:connection to='4' source='Point(1, 2)' target='Point(1,0)'/&gt;   &lt;/l:location&gt;   &lt;sop:mapping input='Ensure all diskgroups are mounted.ASM Disk Group' output='Add or Alter an ASM Diskgroup.ASM Disk Group'/&gt;   &lt;sop:mapping input='Ensure all diskgroups are mounted.Call Wrapper' output='Prepare Oracle Call Wrapper.Instance Wrapper'/&gt;   &lt;sop:mapping input='Ensure all diskgroups are mounted.ASM Home' output='Add or Alter an ASM Diskgroup.ASM Home'/&gt;   &lt;/sop:node&gt; &lt;/sop:action-ref&gt; &lt;sop:action-ref name='Success' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/04130ddd1fbc4c2ea035ba 37616f2246'&gt;   &lt;sop:node order='5' rc='0'&gt;     &lt;l:location ypos='216' xpos='247' /&gt;   &lt;/sop:node&gt; &lt;/sop:action-ref&gt; &lt;sop:tags/&gt; &lt;sop:documentation&gt;h1. Purpose    Add disks to an existing ASM Diskgroup, or create a new ASM Diskgroup with the specified disks.    h1. Parameters     *Parameter* *Default* *Required* *Description*     ASM Home None Yes The directory where the Oracle ASM binaries are located.     ASM Disk Group None Yes The name of the ASM disk group to add or modify.     ASM Disk List None No A comma-separated list of ASM Labels or raw devices. Example: ORCL:VOL1,ORCL:VOL2     Oracle Account oracle Yes Owner of the ASM software (ORACLE_HOME)     &amp;lt;a name="AddDocs"&amp;gt;&amp;lt;/a&amp;gt;    h1. Additional Documentation </pre>



Objective	Request
<p>Get a specific workflow by name</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/workflow?name=&lt;workflow name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/workflow?name=Add%20or%20Alter%20an%20ASM%20Diskgroup</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:l="http://www.hp.com/dma/sop/location"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T17:28:40Z&lt;/updated&gt;   &lt;title&gt;Workflows&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa013cfdaa7aa9113f&lt;/id&gt;     &lt;published&gt;2013-02-21T16:51:13Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T16:51:13Z&lt;/updated&gt;     &lt;title&gt;Add or Alter an ASM Diskgroup&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa013cfdaa7aa9113f' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda9fa013cfdaa7aa9113f' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cfda9fa013cfdaa7aa9113f' /&gt;     &lt;sop:workflow name='Add or Alter an ASM Diskgroup' type='Oracle' target-level='Instance' locked='true'&gt;</pre>

Objective	Request
	<pre>                 &lt;sop:permissions/&gt;                 &lt;sop:action-ref name='Prepare Oracle Call Wrapper' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfd a882750482'&gt;                     &lt;sop:node order='1' next='2,3'&gt;                         &lt;l:location ypos='-5' xpos='187'&gt;                             &lt;l:connection to='1' source='Point(1, 2)' target='Point(1,0)'/&gt;                             &lt;l:connection to='2' source='Point(1, 2)' target='Point(1,0)'/&gt;                         &lt;/l:location&gt;                     &lt;/sop:node&gt;                 &lt;/sop:action-ref&gt;                 &lt;sop:action-ref name='Add or Alter an ASM Diskgroup' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda9fa013cfd aa38560742'&gt;                     &lt;sop:node order='2' next='4,3' rc='0'&gt;                         &lt;l:location ypos='79' xpos='181'&gt;                             &lt;l:connection to='2' source='Point(1, 2)' target='Point(1,0)'/&gt;                             &lt;l:connection to='3' source='Point(1, 2)' target='Point(1,0)'/&gt;                         &lt;/l:location&gt;                         &lt;sop:mapping input='Add or Alter an ASM Diskgroup.Call Wrapper' output='Prepare Oracle Call Wrapper.Instance Wrapper'/&gt;                     &lt;/sop:node&gt;                 &lt;/sop:action-ref&gt;                 &lt;sop:action-ref name='Failure' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/df9cb8cc6e5549b19dafa1 ed6c7bf5ad'&gt;                     &lt;sop:node order='3'&gt;                         &lt;l:location ypos='34' xpos='547'/&gt;                     &lt;/sop:node&gt;                 &lt;/sop:action-ref&gt;                 &lt;sop:action-ref name='Ensure all diskgroups are mounted' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda9fa013cfd aa3e5f07f7'&gt;                     &lt;sop:node order='4' next='5,3' rc='0'&gt;                         &lt;l:location ypos='148' xpos='170'&gt;                             &lt;l:connection to='2' source='Point(1, 2)' target='Point(1,0)'/&gt;                             &lt;l:connection to='4' source='Point(1, 2)' </pre>

Objective	Request
	<p>p to add or modify.  </p> <p> ASM Disk List None No A comma-separated list of ASM Labels or raw devices. Example: ORCL:VOL1,ORCL:VOL2 </p> <p> Oracle Account oracle Yes Owner of the ASM software (ORACLE_HOME) </p> <p>&amp;lt;a name="AddDocs"&amp;gt;&amp;lt;/a&amp;gt;</p> <p>h1. Additional Documentation</p> <p>Additional information, including the _HP Database and Middleware Automation Support Matrix_ and solution pack user guides, are available via HP Live Network:</p> <p>"http://hpln.hp.com/group/database-and-middleware-automation":http://hpln.hp.com/group/database-and-middleware-automation</p> <p>To access the documentation, click the OTHER FILES link and enter your HP Passport credentials.</p> <p>&amp;lt;/sop:documentation&amp;gt;</p> <p>&amp;lt;/sop:workflow&amp;gt;</p> <p>&amp;lt;/entry&amp;gt;</p> <p>&amp;lt;/feed&amp;gt;</p>
<p>Get a specific workflow by name</p> <p>NOTE: This example gets a wor</p>	<p>GET https://&amp;lt;DMA server&amp;gt;:&amp;lt;port&amp;gt;/dma/api/auto/workflow?name=&amp;lt;workflow name&amp;gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/workflow?name=Copy%of%20Discovery</p> <p>Response Body:</p>

Objective	Request
<p><i>kflow that has two deployment s— see the use db link s.</i></p>	<pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:l="http://www.hp.com/dma/sop/location"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T20:52:16Z&lt;/updated&gt;   &lt;title&gt;Workflows&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfe84d913152a&lt;/id&gt;     &lt;published&gt;2013-02-21T20:49:44Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T20:49:44Z&lt;/updated&gt;     &lt;title&gt;Copy of Discovery&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfe84d913152a' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfe84d913152a' /&gt;     &lt;link rel='alternate' type='text/html'</pre>

Objective	Request
	<pre> href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cfda1b2 013cfe84d913152a' /&gt;     &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1 b2013cfe860297159d' title='Discovery_east' /&gt;     &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1 b2013cfe8592ff1580' title='Discovery_west' /&gt;     &lt;sop:workflow name='Copy of Discovery' type='OS' target- level='Server' locked='false' &gt;       &lt;sop:permissions&gt;         &lt;sop:permission name='DMA Users' read='true' /&gt;         &lt;sop:permission name='DMA Admins' read='true' write='true' /&gt;       &lt;/sop:permissions&gt;       &lt;sop:action-ref name='Discovery Parameters' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda946013cfd a95c6d015c' &gt;         &lt;sop:node order='1' next='7,5,4,3,2,6' &gt;           &lt;l:location ypos='-3' xpos='5' &gt;             &lt;l:connection to='2' source='Point(1, 2)' target='Point(1,0)' /&gt;             &lt;l:connection to='3' source='Point(1, 2)' target='Point(1,0)' /&gt;             &lt;l:connection to='4' source='Point(1, 2)' target='Point(1,0)' /&gt;             &lt;l:connection to='5' source='Point(1, 2)' target='Point(1,0)' /&gt;           &lt;/l:location &gt;         &lt;/sop:node &gt;       &lt;/sop:action-ref &gt;     &lt;/sop:workflow &gt; </pre>

Objective	Request
	<pre> rvic URL' output='Discovery Parameters.Web Service URL'/'&gt;     &lt;sop:mapping input='Discover WebSphere.Trust SSL Certificates' output='Discovery Parameters.Trust SSL Certificates'/'&gt;     &lt;/sop:node&gt; &lt;/sop:action-ref&gt; &lt;sop:action-ref name='Discover Oracle Databases' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda946013cfd a95054008d'&gt;     &lt;sop:node order='3' next='10,9' rc='0'&gt;         &lt;l:location ypos='225' xpos='111'&gt;             &lt;l:connection to='9' source='Point(1, 2)' target='Point(1,0)'/'&gt;             &lt;l:connection to='10' source='Point(1, 2)' target='Point(1,0)'/'&gt;         &lt;/l:location&gt;         &lt;sop:mapping input='Discover Oracle Databases.Web Service User' output='Discovery Parameters.Web Service User'/'&gt;         &lt;sop:mapping input='Discover Oracle Databases.Web Service URL' output='Discovery Parameters.Web Service URL'/'&gt;         &lt;sop:mapping input='Discover Oracle Databases.Web Service Password' output='Discovery Parameters.Web Service Password'/'&gt;         &lt;sop:mapping input='Discover Oracle Databases.Trust SSL Certificates' output='Discovery Parameters.Trust SSL Certificates'/'&gt;     &lt;/sop:node&gt; &lt;/sop:action-ref&gt; &lt;sop:action-ref name='Discover SQL Databases' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda946013cfd a95acf0130'&gt;     &lt;sop:node order='4' next='11,9' rc='0'&gt;         &lt;l:location ypos='183' xpos='251'&gt; </pre>

Objective	Request
	<pre> ode&gt;     &lt;/sop:action-ref&gt;     &lt;sop:action-ref name='Discovery Gather Step Statuses' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda946013cfd a955d300dc'&gt;         &lt;sop:node order='9' next='14,15' rc='0'&gt;             &lt;l:location ypos='468' xpos='558'&gt;                 &lt;l:connection to='14' source='Point(1, 2)' target='Point(1,0)'/&gt;                 &lt;l:connection to='15' source='Point(1, 2)' target='Point(1,0)'/&gt;             &lt;/l:location&gt;             &lt;sop:mapping input='Discovery Gather Step Statuses.Sybase Status' output='Discover Sybase Databases.Status'/&gt;             &lt;sop:mapping input='Discovery Gather Step Statuses.WebSphere Status' output='Discover WebSphere.Status'/&gt;             &lt;sop:mapping input='Discovery Gather Step Statuses.Sybase Deep Status' output='Run Sybase Instance Discovery.Status'/&gt;             &lt;sop:mapping input='Discovery Gather Step Statuses.Oracle Status' output='Discover Oracle Databases.Status'/&gt;             &lt;sop:mapping input='Discovery Gather Step Statuses.SQL Server Status' output='Discover SQL Databases.Status'/&gt;             &lt;sop:mapping input='Discovery Gather Step Statuses.WebLogic Status' output='Discover WebLogic.Status'/&gt;         &lt;/sop:node&gt;     &lt;/sop:action-ref&gt;     &lt;sop:action-ref name='Failure' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/df9cb8cc6e5549b19dafa1 ed6c7bf5ad'&gt;         &lt;sop:node order='10'&gt;             &lt;l:location ypos='292' xpos='226'/&gt;         &lt;/sop:node&gt;     &lt;/sop:action-ref&gt;     &lt;sop:action-ref name='Failure' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/df9cb8cc6e5549b19dafa1 ed6c7bf5ad'&gt;         &lt;sop:node order='11'&gt; </pre>

Objective	Request
<p>Create a new workflow</p>	<p>POST <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/workflow</code></p> <p><b>Example:</b></p> <p>POST <code>https://DMA1.mycompany.com:8443/dma/api/auto/workflow</code></p> <p>Request Body:</p> <pre>&lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/auto"&gt;   &lt;sop:workflow name='TEST: Ping a Server' type='OS' target- level='Server' locked='false'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Users' read='true' /&gt;       &lt;sop:permission name='DMA Admins' read='true' write='true' /&gt;     &lt;/sop:permissions&gt;     &lt;sop:action-ref name='Ping Computer' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cbc223d013cbc 225d0e034d'&gt;       &lt;sop:node order='1' next='2,3' /&gt;     &lt;/sop:action-ref&gt;     &lt;sop:action-ref name='Success' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/04130ddd1fbc4c2ea035ba 37616f2246'&gt;       &lt;sop:node order='2' rc='0' /&gt;     &lt;/sop:action-ref&gt;     &lt;sop:action-ref name='Failure' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/df9cb8cc6e5549b19dafa1 ed6c7bf5ad'&gt;       &lt;sop:node order='3' /&gt;     &lt;/sop:action-ref&gt;     &lt;sop:tags&gt;       &lt;sop:tag&gt;Server&lt;/sop:tag&gt;       &lt;sop:tag&gt;test&lt;/sop:tag&gt;     &lt;/sop:tags&gt;     &lt;sop:documentation&gt;This workflow pings the specified server.&lt;/sop:documentation&gt;   &lt;/sop:workflow&gt; &lt;/entry&gt;</pre> <p>Response Body:</p>



Objective	Request
	<pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:l="http://www.hp.com/dma/sop/location"&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfdcf6f86014f&lt;/id&gt;   &lt;published&gt;2013-02-21T17:31:35Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T17:31:35Z&lt;/updated&gt;   &lt;title&gt;TEST: Ping a Server&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfdcf6f86014f' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfdcf6f86014f' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cfda1b2013cfdcf6f86014f' /&gt;   &lt;sop:workflow name='TEST: Ping a Server' type='OS' target-level='Server' locked='false'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Admins' read='true' write='true' /&gt;       &lt;sop:permission name='DMA Users' read='true' /&gt;     &lt;/sop:permissions&gt;     &lt;sop:action-ref name='Ping Computer' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfd a8796f0370'&gt;       &lt;sop:node order='1' next='3,2'&gt;         &lt;l:location ypos='0' xpos='0'&gt;           &lt;l:connection to='2' source='Point(1, 2)' target='Point (1,0)' /&gt;           &lt;l:connection to='3' source='Point(1, 2)' target='Point (1,0)' /&gt;         &lt;/l:location&gt;       &lt;/sop:node&gt;     &lt;/sop:action-ref&gt;     &lt;sop:action-ref name='Success' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/04130ddd1fbc4c2ea035ba 37616f2246'&gt;       &lt;sop:node order='2' rc='0'&gt;         &lt;l:location ypos='0' xpos='0' /&gt;       &lt;/sop:node&gt;     &lt;/sop:action-ref&gt; </pre>

Objective	Request
	<pre>                 &lt;sop:action-ref name='Failure' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/df9cb8cc6e5549b19dafa1 ed6c7bf5ad' &gt;                 &lt;sop:node order='3'&gt;                     &lt;l:location ypos='0' xpos='0' /&gt;                 &lt;/sop:node&gt;             &lt;/sop:action-ref&gt;             &lt;sop:tags&gt;                 &lt;sop:tag&gt;Server&lt;/sop:tag&gt;                 &lt;sop:tag&gt;test&lt;/sop:tag&gt;             &lt;/sop:tags&gt;             &lt;sop:documentation&gt;This workflow pings the specified server.&lt;/sop:documentation&gt;         &lt;/sop:workflow&gt;     &lt;/entry&gt;         </pre>
<p>Modify an existing workflow</p>	<p>PUT <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/workflow/&lt;id&gt;</code></p> <p><b>Note:</b> If you plan to modify any steps included in a workflow, be sure to modify the steps before you modify the workflow.</p> <p><b>Example:</b></p> <p>PUT <code>https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfdcf6f86014f</code></p> <p>In this example, the workflow created in the previous example is modified in the following ways:</p> <ul style="list-style-type: none"> <li>• An additional Ping Computer step is added.</li> <li>• The name of the workflow is modified.</li> <li>• The <code>&lt;sop:documentation&gt;</code> element is modified.</li> </ul> <p><b>Request Body:</b></p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/auto"&gt;     &lt;sop:workflow name='TEST: Ping 2 Servers' type='OS' target- level='Server' locked='false'&gt;         &lt;sop:permissions&gt;             &lt;sop:permission name='DMA Users' read='true' /&gt;             &lt;sop:permission name='DMA Admins' read='true' write='true' /&gt;         &lt;/sop:permissions&gt;         &lt;sop:action-ref name='Ping Computer' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cbc223d013cbc         </pre>

Objective	Request
	<pre> 225d0e034d' &gt;     &lt;sop:node order='1' next='2,4' /&gt;   &lt;/sop:action-ref&gt;   &lt;sop:action-ref name='Ping Computer' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cbc223d013cbc 225d0e034d' &gt;     &lt;sop:node order='2' rc='0' next='3,4' /&gt;   &lt;/sop:action-ref&gt;   &lt;sop:action-ref name='Success' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/04130ddd1fbc4c2ea035ba 37616f2246' &gt;     &lt;sop:node order='3' rc='0' /&gt;   &lt;/sop:action-ref&gt;   &lt;sop:action-ref name='Failure' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/df9cb8cc6e5549b19dafa1 ed6c7bf5ad' &gt;     &lt;sop:node order='4' /&gt;   &lt;/sop:action-ref&gt;   &lt;sop:tags&gt;     &lt;sop:tag&gt;Server&lt;/sop:tag&gt;     &lt;sop:tag&gt;test&lt;/sop:tag&gt;   &lt;/sop:tags&gt;   &lt;sop:documentation&gt;This workflow pings two specified servers.&lt;/sop:documentation&gt;   &lt;/sop:workflow&gt; &lt;/entry&gt;  Response Body:  &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:l="http://www.hp.com/dma/sop/location"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b201 3cfdcf6f86014f&lt;/id&gt;   &lt;published&gt;2013-02-21T17:31:35Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T17:31:35Z&lt;/updated&gt;   &lt;title&gt;TEST: Ping 2 Servers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2 013cfdcf6f86014f' /&gt; </pre>

Objective	Request
	<pre> &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2 013cfdcf6f86014f'/&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cfda1b2 013cfdcf6f86014f'/&gt; &lt;sop:workflow name='TEST: Ping 2 Servers' type='OS' target- level='Server' locked='false'&gt;   &lt;sop:permissions&gt;     &lt;sop:permission name='DMA Admins' read='true' write='true'/&gt;     &lt;sop:permission name='DMA Users' read='true'/&gt;   &lt;/sop:permissions&gt;   &lt;sop:action-ref name='Ping Computer' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfda8796f0370'&gt;     &lt;sop:node order='1' next='2,3'&gt;       &lt;l:location ypos='0' xpos='0'&gt;         &lt;l:connection to='2' source='Point(1, 2)' target='Point (1,0)'/&gt;         &lt;l:connection to='4' source='Point(1, 2)' target='Point (1,0)'/&gt;       &lt;/l:location&gt;     &lt;/sop:node&gt;   &lt;/sop:action-ref&gt;   &lt;sop:action-ref name='Ping Computer' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfda8796f0370'&gt;     &lt;sop:node order='2' next='4,3' rc='0'&gt;       &lt;l:location ypos='0' xpos='0'&gt;         &lt;l:connection to='3' source='Point(1, 2)' target='Point (1,0)'/&gt;         &lt;l:connection to='4' source='Point(1, 2)' target='Point (1,0)'/&gt;       &lt;/l:location&gt;     &lt;/sop:node&gt;   &lt;/sop:action-ref&gt;   &lt;sop:action-ref name='Failure' id='https://DMA1.mycompany.com:8443/dma/api/auto/step/df9cb8cc6e5549b19dafa1ed6c7bf5ad'&gt;     &lt;sop:node order='3'&gt;       &lt;l:location ypos='0' xpos='0'&gt;     &lt;/sop:node&gt;   &lt;/sop:action-ref&gt;   &lt;sop:action-ref name='Success' </pre>

Objective	Request
Deleting workflow	<p>DELETE <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/workflow/&lt;id&gt;</code></p> <p><b>Example:</b></p> <p>DELETE <code>https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfdcf6f86014f</code></p> <p>No response body is returned.</p>

## Steps API

In HPE DMA, a workflow consists of a sequence of steps. Each step performs a very specific task. Steps can be shared among workflows.

The Step API provides a mechanism that enables you to read, create, modify, and delete HPE DMA steps. The capabilities associated with your role determine which Step API operations you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	<p><code>https://&lt;DMA Server&gt;:&lt;port&gt;/dma/api/auto/step</code></p> <p>By default, the port for HTTPS communication in HPE DMA is 8443.</p>
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	auto
Response Object	step

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Any user can read (GET) or create (POST) a step.
- Only users who have WRITE permission for a step can modify (PUT) or DELETE that step.
- All steps must specify at least one role with WRITE access.
- Locked steps cannot be modified or deleted. Steps cannot be locked or unlocked through the Step API.
- Step names and parameter names must contain one or more characters, and they cannot contain periods (.) or backslashes (\).
- Step names must be unique.
- Input parameter names must be unique within a step. Output parameter names must also be unique within a step. Input parameters and output parameters can have the same name.
- Steps must contain the appropriate content. For example, the `<code>` element must be specified for Script type steps.
- The step type cannot be modified (for example: a Script step cannot be changed to an Email step).
- The user displayed in the step history will be the user who created or updated the step. This information is not derived from the XML request body.
- Steps that are used by one or more workflows cannot be deleted.
- The Success and Failure steps cannot be created, modified, or deleted through the Step API.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the step to GET. Steps must have non-empty unique names when they are created or modified.  Example: Active%20Transaction%20Check

## Object Identifier

When you want to modify (PUT) or DELETE a step, you must specify the object ID for that step in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/auto/step/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT or DELETE	Unique alpha-numeric identifier of the step  Example: ff8443813bfd79c7013bfd7a53d10000

**Tip:** You can specify the object ID for a GET operation instead of specifying the name parameter.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all steps	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/step</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/step</p> <p>Response Body (only the first two entries are shown here):</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:43:40Z&lt;/updated&gt;   &lt;title&gt;Steps&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfdaec4013cfda ee8c505c1&lt;/id&gt;     &lt;published&gt;2013-02-21T18:43:40Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T18:43:38Z&lt;/updated&gt;     &lt;title&gt;Active Transaction Check&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfdaec4013cf daee8c505c1' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfdaec4013cf daee8c505c1' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813cfdaec4013cf daee8c505c1' /&gt;     &lt;sop:action name='Active Transaction Check' resource='Oracle' type='script' locked='true' /&gt;   &lt;/entry&gt; </pre>



Objective	Request
	<pre> &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda9fa013cfda a24ae0501&lt;/id&gt;   &lt;published&gt;2013-02-21T18:43:40Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T18:43:38Z&lt;/updated&gt;   &lt;title&gt;Add ASM Home To New Node&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda9fa013cf daa24ae0501' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda9fa013cf daa24ae0501' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813cfda9fa013cf daa24ae0501' /&gt;   &lt;sop:action name='Add ASM Home To New Node' resource='OS' type='script' locked='true' /&gt; &lt;/entry&gt;  ...  <i>only the first two entries are shown here</i> </pre>
<p>Get ta sp eci fic st ep by ID</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/step/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfda88aee05a2</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step&lt;/id&gt;   &lt;author&gt; </pre>

Objective	Request
	<pre> &lt;name&gt;HPE DMA&lt;/name&gt; &lt;/author&gt; &lt;updated&gt;2013-02-21T18:52:33Z&lt;/updated&gt; &lt;title&gt;Steps&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step' /&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfda 88aee05a2&lt;/id&gt; &lt;published&gt;2013-02-21T18:52:33Z&lt;/published&gt; &lt;updated&gt;2013-02-21T18:52:33Z&lt;/updated&gt; &lt;title&gt;Check File Download&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cf da88aee05a2' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cf da88aee05a2' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813cfda85b013cf da88aee05a2' /&gt; &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda85b0 13cfda8a77e0b68' title='Apply Oracle CRS Patchset' /&gt; &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdaec40 13cfdaafaab41e04' title='Provision Oracle Client' /&gt; &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdaec0 13cfdad02ad00ea' title='WebLogic: Deploy Code' /&gt; &lt;sop:action name='Check File Download' resource='OS' type='script' locked='true'&gt; &lt;sop:description&gt;Purpose: Check for the existence of a file before downloading from Expert Engine. - Check if file is in the expected place. - If file is not in the expected location, output data for file download. </pre>

<b>O b j e c t i v e</b>	<b>Request</b>
	<p>ully qualified pathnames to check.  Example: /tmp/File1.txt,/opt/dma/joe,/u01/data.txt</p> <p>Output:</p> <p>Present List = Comma separated list of files found.  Download List = Comma separated list of files not found.  Target Directory = The directory name of the first file not found.  File List = List of comma separated fully qualified pathnames checked.</p> <p>Return Code:</p> <p>0 = All files found on the system.  1 = Error checking files.  9 = One or more files not found.&lt;/sop:description&gt;</p> <pre> &lt;sop:permissions/&gt; &lt;sop:param name='File List' direction='input' default='/tmp/test1.txt,/tmp/test2.txt' datatype='text'&gt;   &lt;sop:description&gt;List of comma separated fully qualified pathnames to check.&lt;/sop:description&gt; &lt;/sop:param&gt; &lt;sop:param name='Download List' direction='output' default='' datatype='text'&gt;   &lt;sop:description&gt;Comma separated list of files not found.&lt;/sop:description&gt; &lt;/sop:param&gt; &lt;sop:param name='File List' direction='output' default='' datatype='text'&gt;   &lt;sop:description&gt;List of comma separated fully qualified pathnames checked.&lt;/sop:description&gt; &lt;/sop:param&gt; &lt;sop:param name='Present List' direction='output' default='' datatype='text'&gt;   &lt;sop:description&gt;Comma separated list of files found.&lt;/sop:description&gt; &lt;/sop:param&gt; &lt;sop:param name='Target Directory' direction='output' default='' datatype='text'&gt;   &lt;sop:description&gt;The directory name of the first file not found.&lt;/sop:description&gt; &lt;/sop:param&gt; &lt;sop:action-data&gt; </pre>

Objective	Request
<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/step?name=&lt;step name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/step?name=Check%20File%20Download</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:54:25Z&lt;/updated&gt;   &lt;title&gt;Steps&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfda88aee05a2&lt;/id&gt;   &lt;published&gt;2013-02-21T18:54:25Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T18:54:25Z&lt;/updated&gt;   &lt;title&gt;Check File Download&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfda88aee05a2' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda85b013cfda88aee05a2' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813cfda85b013cfda88aee05a2' /&gt;</pre>	

Objective	Request
	<pre> &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda85b0 13cfda8a77e0b68' title='Apply Oracle CRS Patchset'/&gt; &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdaec40 13cfdaafaab41e04' title='Provision Oracle Client'/&gt; &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdaec0 13cfdad02ad00ea' title='WebLogic: Deploy Code'/&gt; &lt;sop:action name='Check File Download' resource='OS' type='script' locked='true'&gt;   &lt;sop:description&gt;Purpose: Check for the existence of a file before downloading from Expert Engine. - Check if file is in the expected place. - If file is not in the expected location, output data for file download.   ** Note that the "Target Directory" parameter is set to the directory of   the first file in the list not found. ** Input:   File List = List of comma separated fully qualified pathnames to check.               Example: /tmp/File1.txt,/opt/dma/joe,/u01/data.txt Output:   Present List      = Comma separated list of files found.   Download List    = Comma separated list of files not found.   Target Directory = The directory name of the first file not found.   File List        = List of comma separated fully qualified pathnames checked. Return Code:   0 = All files found on the system.   1 = Error checking files.   9 = One or more files not found.&lt;/sop:description&gt;   &lt;sop:permissions/&gt;   &lt;sop:param name='File List' direction='input' default='/tmp/test1.txt,/tmp/test2.txt' datatype='text'&gt;     &lt;sop:description&gt;List of comma separated fully qualified pathnames to check.&lt;/sop:description&gt;   &lt;/sop:param&gt;   &lt;sop:param name='Download List' direction='output' default='' datatype='text'&gt; </pre>

Objective	Request
	<pre> load List=' + DownloadList   print 'Target Directory=' + TargetDirectory   print '\${Header.Stop}'  # # Main Routine # print "Check if files exists" try:   for file in FileList.split(','):     if os.path.isfile(file):       print "  Verified " + file       if PresentList:         PresentList += ',' + file       else:         PresentList = file     else:       print "  Unable to locate " + file       if DownloadList:         DownloadList += ',' + os.path.basename(file)       else:         DownloadList = os.path.basename(file)         TargetDirectory = os.path.dirname(file)   printHeader() except StandardError, msg:   print "Error in syntax checking list of files"   sys.stderr.write(str(msg[0]) + '\n')   sys.exit(1) else:   if DownloadList:     sys.exit(9) </pre> <p>     &lt;sop:call-wrapper&gt;jython&lt;/sop:call-wrapper&gt;      &lt;sop:version&gt;9.1.23&lt;/sop:version&gt;      &lt;sop:comment&gt;Installed with HPE DMA Database Provisioning      Solution Pack (v10.01)&lt;/sop:comment&gt;      &lt;sop:personID&gt;opsware&lt;/sop:personID&gt;      &lt;/sop:action-data&gt;      &lt;sop:tags&gt;        &lt;sop:tag&gt;check&lt;/sop:tag&gt;        &lt;sop:tag&gt;download&lt;/sop:tag&gt;        &lt;sop:tag&gt;file&lt;/sop:tag&gt;      &lt;/sop:tags&gt;      &lt;/sop:action&gt;   </p>

<b>O b j e c t i v e</b>	<b>Request</b>
Cr ea te a ne w st ep	<p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/step</p> <p><b>Example:</b></p> <p>POST https://DMA1.mycompany.com:8443/dma/api/auto/step</p> <p>Request Body:</p> <pre>&lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/auto"&gt;   &lt;sop:action name='TEST: Print User Specified Message' resource='OS' type='script'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Admins' write='true'/&gt;       &lt;sop:permission name='DMA Users' write='true'/&gt;     &lt;/sop:permissions&gt;     &lt;sop:param name='Message To Print' direction='input' default='Your message here' datatype='text'&gt;       &lt;sop:description&gt;Message that will be printed to the step log&lt;/sop:description&gt;     &lt;/sop:param&gt;     &lt;sop:action-data&gt;       &lt;sop:code&gt;import os, sys         #         # Main Routine         #         try:           print '\${Message To Print}'         except Exception, msg:           print "Error while trying to print user-specified message"           sys.stderr.write(str(msg[0])+'\n')           sys.exit(1)         else:           sys.exit(0)&lt;/sop:code&gt;       &lt;sop:call-wrapper&gt;jython&lt;/sop:call-wrapper&gt;       &lt;sop:version&gt;1.0&lt;/sop:version&gt;       &lt;sop:comment&gt;&lt;/sop:comment&gt;       &lt;sop:personID&gt;autotest&lt;/sop:personID&gt;     &lt;/sop:action-data&gt;     &lt;sop:tags&gt;       &lt;sop:tag&gt;OS&lt;/sop:tag&gt;     &lt;/sop:tags&gt;   &lt;/sop:action&gt;</pre>

Objective	Request
	<pre> &lt;/entry&gt;  Response Body:  &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cfe2 2286807ed&lt;/id&gt;   &lt;published&gt;2013-02-21T19:01:57Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T19:01:57Z&lt;/updated&gt;   &lt;title&gt;TEST: Print User Specified Message&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cf e22286807ed' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cf e22286807ed' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813cfda1b2013cf e22286807ed' /&gt;   &lt;sop:action name='TEST: Print User Specified Message' resource='OS' type='script' locked='false'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Users' write='true' /&gt;       &lt;sop:permission name='DMA Admins' write='true' /&gt;     &lt;/sop:permissions&gt;     &lt;sop:param name='Message To Print' direction='input' default='Your message here' datatype='text'&gt;       &lt;sop:description&gt;Message that will be printed to the step log&lt;/sop:description&gt;     &lt;/sop:param&gt;     &lt;sop:action-data&gt;       &lt;sop:code&gt;import os, sys # # Main Routine # try:   print '\${Message To Print}' except Exception, msg:   print "Error while trying to print user-specified message"   sys.stderr.write(str(msg[0])+'\\n') </pre>



<b>O b j e c t i v e</b>	<b>Request</b>
	<pre>                 sys.exit(1)             else:                 sys.exit(0)&lt;/sop:code&gt;                 &lt;sop:call-wrapper&gt;jython&lt;/sop:call-wrapper&gt;                 &lt;sop:version&gt;1.0&lt;/sop:version&gt;                 &lt;sop:comment&gt;&lt;/sop:comment&gt;                 &lt;sop:personID&gt;autotest&lt;/sop:personID&gt;             &lt;/sop:action-data&gt;             &lt;sop:tags&gt;                 &lt;sop:tag&gt;OS&lt;/sop:tag&gt;             &lt;/sop:tags&gt;         &lt;/sop:action&gt;     &lt;/entry&gt; </pre>
<b>M o d i f y a n e x i s t i n g s t e p</b>	<p>PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/step/&lt;id&gt;</p> <p><b>Example:</b></p> <p>PUT https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cfe22286807ed</p> <p>This example modifies the WRITE permission for the step created in the previous example.</p> <p><b>Request Body:</b></p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/auto"&gt;   &lt;sop:action name='TEST: Print User Specified Message' resource='OS' type='script'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Admins' write='true'/&gt;       &lt;sop:permission name='DMA Users' write='false'/&gt;     &lt;/sop:permissions&gt;     &lt;sop:param name='Message To Print' direction='input' default='Your message here' datatype='text'&gt;       &lt;sop:description&gt;Message that will be printed to the step log&lt;/sop:description&gt;     &lt;/sop:param&gt;     &lt;sop:action-data&gt;     &lt;sop:code&gt;import os, sys     #     # Main Routine     #     try: </pre>

<b>O b j e c t i v e</b>	<b>Request</b>
	<pre>         print '\${Message To Print}'     except Exception, msg:         print "Error while trying to print user-specified message"         sys.stderr.write(str(msg[0])+'\n')         sys.exit(1)     else:         sys.exit(0)&lt;/sop:code&gt; &lt;sop:call-wrapper&gt;jython&lt;/sop:call-wrapper&gt; &lt;sop:version&gt;1.0&lt;/sop:version&gt; &lt;sop:comment&gt;&lt;/sop:comment&gt; &lt;sop:personID&gt;autotest&lt;/sop:personID&gt; &lt;/sop:action-data&gt; &lt;sop:tags&gt;     &lt;sop:tag&gt;OS&lt;/sop:tag&gt; &lt;/sop:tags&gt; &lt;/sop:action&gt; &lt;/entry&gt; </pre> <p><b>Response Body:</b></p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt; &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cfe2 2286807ed&lt;/id&gt;   &lt;published&gt;2013-02-21T19:04:25Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T19:04:25Z&lt;/updated&gt;   &lt;title&gt;TEST: Print User Specified Message&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cf e2286807ed' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cf e2286807ed' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813cfda1b2013cf e2286807ed' /&gt;   &lt;sop:action name='TEST: Print User Specified Message' resource='OS' type='script' locked='false'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Admins' write='true' /&gt; </pre>

<p><b>O b j e c t i v e</b></p>	<p><b>Request</b></p>
	<pre> &lt;/sop:permissions&gt; &lt;sop:param name='Message To Print' direction='input' default='Your message here' datatype='text'&gt;   &lt;sop:description&gt;Message that will be printed to the step log&lt;/sop:description&gt; &lt;/sop:param&gt; &lt;sop:action-data&gt;   &lt;sop:code&gt;import os, sys # # Main Routine # try:   print '\${Message To Print}' except Exception, msg:   print "Error while trying to print user-specified message"   sys.stderr.write(str(msg[0])+'\n')   sys.exit(1) else:   sys.exit(0)&lt;/sop:code&gt; &lt;sop:call-wrapper&gt;jython&lt;/sop:call-wrapper&gt; &lt;sop:version&gt;1.0&lt;/sop:version&gt; &lt;sop:comment&gt;&lt;/sop:comment&gt; &lt;sop:personID&gt;autotest&lt;/sop:personID&gt; &lt;/sop:action-data&gt; &lt;sop:tags&gt;   &lt;sop:tag&gt;OS&lt;/sop:tag&gt; &lt;/sop:tags&gt; &lt;/sop:action&gt; &lt;/entry&gt; </pre>
<p>De let e an exi sti ng st ep</p>	<p>DELETE <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/step/&lt;id&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/step/&lt;id&gt;</a></p> <p><b>Example:</b></p> <p>DELETE <a href="https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cfe22286807ed">https://DMA1.mycompany.com:8443/dma/api/auto/step/ff8080813cfda1b2013cfe22286807ed</a></p> <p>No response body is returned.</p>

# Functions API

Functions are reusable pieces of code that can be included in automation steps.

The Function API provides a mechanism that enables you to read, create, modify and delete HPE DMA functions. The capabilities associated with your role determine which Function API operations you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/auto/function By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	auto
Response Object	function

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Any HPE DMA user can read (GET) all functions.
- Only users who have a role with Administrator or Workflow Creator capability can create (POST), modify (PUT), or delete (DELETE) functions.
- Locked functions cannot be modified. Functions included in an HPE DMA solution pack are locked. You cannot unlock a function. You can, however, make a modifiable copy of a locked function.
- Functions that are used by a step cannot be deleted via the API.

- To create or modify a function, you must specify the function's name in the request body. There is no restriction on the characters in the name.
- To create or modify a function, you must specify a code body in the request body. The `<code>` element cannot be empty.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the function to GET. Functions must have non-empty unique names when they are created or modified.  Example: dmatools

## Object Identifier

When you want to modify (PUT) or DELETE a function, you must specify the object ID for that function in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/auto/function/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT or DELETE  not valid for POST	Unique alpha-numeric identifier of the function  Example: ff8443813bfd79c7013bfd7a53d10000

**Tip:** You can specify the object ID for a GET operation instead of specifying the name parameter.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_	The GET, PUT, POST, or DELETE could not be completed due to a

Code	Meaning
REQUEST	problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all functions	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/function</p> <p><b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/auto/function</p> <p>Response Body (only the first two entries are shown here):</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;</pre>

Objective	Request
	<pre> &lt;/author&gt; &lt;updated&gt;2013-02-21T19:31:54Z&lt;/updated&gt; &lt;title&gt;Functions&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function' /&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b01 3cfda8a9d30bfc&lt;/id&gt;   &lt;published&gt;2013-02-21T19:31:54Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:59:04Z&lt;/updated&gt;   &lt;title&gt;commonvalidation&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b 013cfda8a9d30bfc' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b 013cfda8a9d30bfc' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/function/view/ff8080813cfda85b 013cfda8a9d30bfc' /&gt;   &lt;sop:function name='commonvalidation' locked='true' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfdad3a01 3cfdad684e0620&lt;/id&gt;   &lt;published&gt;2013-02-21T19:31:54Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:54:25Z&lt;/updated&gt;   &lt;title&gt;compliancetools&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfdad3a 013cfdad684e0620' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfdad3a 013cfdad684e0620' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/function/view/ff8080813cfdad3a 013cfdad684e0620' /&gt;   &lt;sop:function name='compliancetools' locked='true' /&gt; &lt;/entry&gt;  ... <i>only the first two entries are shown here</i> </pre>

Objective	Request
<p>Get specific function by ID</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/function/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b013cfda8aba50c4e</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T19:35:20Z&lt;/updated&gt;   &lt;title&gt;Functions&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b013cfda8aba50c4e&lt;/id&gt;     &lt;published&gt;2013-02-21T19:35:20Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T16:59:04Z&lt;/updated&gt;     &lt;title&gt;dmatools&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b013cfda8aba50c4e' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b013cfda8aba50c4e' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/function/view/ff8080813cfda85b013cfda8aba50c4e' /&gt;     &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b013cfda8adce0d13' title='ostools' /&gt;     &lt;sop:function name='dmatools' locked='true'&gt;       &lt;sop:description&gt;This module provides functions to help determine the execution platform type and version:</pre>



Objective	Request
	<pre> 1) get_platform_name() 2) get_dma_version()&lt;/sop:description&gt;    &lt;sop:code&gt;import re  # DMA Imports #import dmapythonvariables as dma_vars import dmapythonvariables as dma_vars import steplog  def get_platform_name():     """     Get the platform string name. 'sa' for Server Automation, 'standalone'     for dmaette or 'agnostic' for anything greater than 9.x     """     dma_platform = "standalone"     dma_version = get_dma_version()      # If DMA.Version expands to a major/minor gte 9.10, we are SA (for now)     ver_list = []     if dma_version:         ver_list = dma_version.split('.')         steplog.debug("DMA ver list: %s" % ver_list)         if bool(re.search('^\d+\$', ver_list[0])):             if int(ver_list[0]) &gt;= 9:                 if int(ver_list[0]) == 9:                     if int(ver_list[1]) &gt;= 10:                         dma_platform = "sa"                 else:                     dma_platform = "agnostic"      return dma_platform  def get_dma_version():     """ Get the DMA version number string """     dma_version = None      # If DMA Version expands, return it; else return None     if not dma_vars.dma_version.startswith('\${DMA.Version}'):         dma_version = dma_vars.dma_version     return dma_version&lt;/sop:code&gt;    &lt;sop:tags&gt;    &lt;sop:tag&gt;python&lt;/sop:tag&gt; </pre>

Objective	Request
<p>GET ta sp eci fic fun cti on by na me</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/function?name=&lt;function name&gt;</p> <p><b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/auto/function?name=dmatools</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T19:32:54Z&lt;/updated&gt;   &lt;title&gt;Functions&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b01 3cfda8aba50c4e&lt;/id&gt;   &lt;published&gt;2013-02-21T19:32:54Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:59:04Z&lt;/updated&gt;   &lt;title&gt;dmatools&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b 013cfda8aba50c4e' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b 013cfda8aba50c4e' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/function/view/ff8080813cfda85b 013cfda8aba50c4e' /&gt;   &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda85b 013cfda8adce0d13' title='ostools' /&gt;   &lt;sop:function name='dmatools' locked='true'&gt;     &lt;sop:description&gt;This module provides functions to help determine the execution platform type and version:</pre>

Objective	Request
	<pre> 1) get_platform_name() 2) get_dma_version()&lt;/sop:description&gt;    &lt;sop:code&gt;import re  # DMA Imports #import dmapythonvariables as dma_vars import dmapythonvariables as dma_vars import steplog  def get_platform_name():     """     Get the platform string name. 'sa' for Server Automation, 'standalone'     for dmaette or 'agnostic' for anything greater than 9.x     """     dma_platform = "standalone"     dma_version = get_dma_version()      # If DMA.Version expands to a major/minor gte 9.10, we are SA (for now)     ver_list = []     if dma_version:         ver_list = dma_version.split('.')         steplog.debug("DMA ver list: %s" % ver_list)         if bool(re.search('^\d+\$', ver_list[0])):             if int(ver_list[0]) &gt;= 9:                 if int(ver_list[0]) == 9:                     if int(ver_list[1]) &gt;= 10:                         dma_platform = "sa"                 else:                     dma_platform = "agnostic"      return dma_platform  def get_dma_version():     """ Get the DMA version number string """     dma_version = None      # If DMA Version expands, return it; else return None     if not dma_vars.dma_version.startswith('\${DMA.Version}'):         dma_version = dma_vars.dma_version     return dma_version&lt;/sop:code&gt; </pre>





Objective	Request
string function	<p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/auto"&gt; &lt;sop:function name='dma_version_only'&gt; &lt;sop:description&gt;The dma_version_only() function returns the HPE DMA version. This file has an additional line in the description.&lt;/sop:description&gt; &lt;sop:code&gt;import re  # DMA Imports #import dmapythonvariables as dma_vars import dmapythonvariables dma_vars = dmapythonvariables import steplog  def dma_version_only():     """ Get the DMA version number string """     dma_version = None      # If DMA Version expands, return it; else return None     if not dma_vars.dma_version.startswith('\${DMA.Version}'):         dma_version = dma_vars.dma_version     return dma_version&lt;/sop:code&gt; &lt;sop:tags&gt; &lt;sop:tag&gt;python&lt;/sop:tag&gt; &lt;sop:tag&gt;query&lt;/sop:tag&gt; &lt;/sop:tags&gt; &lt;/sop:function&gt; &lt;/entry&gt; </pre> <p>Response Body:</p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda1b201 3cfe4595a90d27&lt;/id&gt;   &lt;published&gt;2013-02-21T19:42:17Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T19:40:38Z&lt;/updated&gt;   &lt;title&gt;dma_version_only&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfda1b2 </pre>

Objective	Request
	<pre> 013cfe4595a90d27' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfa1b2 013cfe4595a90d27' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/function/view/ff8080813cfa1b2 013cfe4595a90d27' /&gt;   &lt;sop:function name='dma_version_only' locked='false'&gt;     &lt;sop:description&gt;The dma_version_only() function returns the HPE DMA version.     This version of the step has an additional line in the description.&lt;/sop:description&gt;     &lt;sop:code&gt;import re  # DMA Imports #import dmapythonvariables as dma_vars import dmapythonvariables dma_vars = dmapythonvariables import steplog  def dma_version_only():     """ Get the DMA version number string """     dma_version = None      # If DMA Version expands, return it; else return None     if not dma_vars.dma_version.startswith('\${DMA.Version}'):         dma_version = dma_vars.dma_version     return dma_version&lt;/sop:code&gt;   &lt;/sop:tags&gt;     &lt;sop:tag&gt;python&lt;/sop:tag&gt;     &lt;sop:tag&gt;query&lt;/sop:tag&gt;   &lt;/sop:tags&gt; &lt;/sop:function&gt; &lt;/entry&gt; </pre>
Delete an existing function	<p>DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/function/&lt;id&gt;</p> <p><b>Example:</b></p> <p>DELETE https://DMA1.mycompany.com:8443/dma/api/auto/function/ff8080813cfa1b2013cfe4595a90d27</p> <p>No response body is returned.</p>

# Deployments API

In HPE DMA, a deployment associates a workflow with a target environment in which the workflow runs.

The Deployment API provides a mechanism that enables you to read, create, modify, and delete HPE DMA deployments. The capabilities associated with your role determine which Deployment API operations you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/auto/deployment By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	auto
Response Object	deployment

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- A deployment can only be viewed (GET) by users who have READ permission for the deployment.
- A deployment can only be created (POST) by users who have the following permissions:
  - READ permission for the pertinent workflow
  - Both READ and DEPLOY permission for the organizations in which all specified targets reside



- A deployment can only be modified (PUT) by users who have READ and WRITE permission for that deployment.
- Deployments must have names.
- Deployment names must be unique for the specified workflow.
- Targets must meet the following criteria:
  - Each target must specify either a Smart Group or a server (but not both).
  - Targets can only specify an instance if they specify a server.
  - Targets can only specify a database if they specify an instance.
  - Targets must be unique.
  - Smart Groups, servers, instances, and databases specified as targets must exist.
  - To specify a Smart Group, the user specified in the PUT or POST must have the role that is associated with the Smart Group.
- A deployment can only be deleted by a user who has a role with Administrator capability or a user who has READ and WRITE permissions for that deployment.
- Only those input parameters that are marked - User Selected - in the workflow can be specified in a PUT or POST.
- Any Custom Field or policy attribute used to specify a value for an input parameter must exist. Note that input parameters that reference a password are always displayed as "\*\*\*\*" in the Response Body.
- For a PUT, an input parameter value containing only asterisks (\*\*\*) will be ignored, and the previous value of the parameter will be kept. Any other value specified will overwrite the previous value.
- Only deployments that have no "Runtime" parameters can be scheduled.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  not valid for PUT, POST,	Name of the deployment to GET. Deployments must have non-empty unique names when they are created or modified.  Example: North%20America%20Servers:%20Apply%20CRS%20Patchset%20to%20Home

Name	Required	Description
	DELETE	
<b>workflow</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the workflow associated with the deployment to GET. If you have multiple deployments with the same name (that deploy different workflows), you must specify this parameter—otherwise, the API will return the first deployment that it finds with that name.  If you specify <b>workflow</b> , you must also specify <b>name</b> .

## Object Identifier

When you want to modify (PUT) or DELETE a deployment, you must specify the object ID for that deployment in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/auto/deployment/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT or DELETE  not valid for POST	Unique alpha-numeric identifier of the deployment  Example: ff8443813bfd79c7013bfd7a53d10000

**Tip:** You can specify the object ID for a GET operation instead of specifying the query parameters.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request

Code	Meaning
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all deployments	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/deployment</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/deployment</p> <p>Response Body (only the first two entries are shown here):</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;</pre>

Objective	Request
	<pre> &lt;updated&gt;2013-02-21T20:00:56Z&lt;/updated&gt; &lt;title&gt;Deployments&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment' /&gt;&lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe349d 013cfe34de1b0000&lt;/id&gt; &lt;published&gt;2013-02-21T20:00:56Z&lt;/published&gt; &lt;updated&gt;2013-02-21T19:22:23Z&lt;/updated&gt; &lt;title&gt;ProvisionanOracleDatabase_Provision11202_Linux_Oracle_11202_ Latest&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe34 9d013cfe34de1b0000' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe34 9d013cfe34de1b0000' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/deploy/view/90cef9233cfe349d01 3cfe34de1b0000' /&gt; &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdaec4 013cfdaf645a159b' title='Provision an Oracle Database' /&gt; &lt;sop:deployment name='ProvisionanOracleDatabase_Provision11202_Linux_ Oracle_11202_Latest' workflow='Provision an Oracle Database' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe2653 013cfe2691a40000&lt;/id&gt; &lt;published&gt;2013-02-21T20:00:56Z&lt;/published&gt; &lt;updated&gt;2013-02-21T19:06:46Z&lt;/updated&gt; &lt;title&gt;ProvisionOracleSoftware_Provision11202_Linux_Oracle_11202_ Latest&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe26 53013cfe2691a40000' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe26 53013cfe2691a40000' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/deploy/view/90cef9233cfe265301 3cfe2691a40000' /&gt; &lt;link rel='parent' type='application/atom+xml' </pre>

Objective	Request
	<pre>ux_Oracle_11202_Latest' workflow='Provision Oracle Software'/&gt;   &lt;/entry&gt;  ...  <i>only the first two entries are shown here</i></pre>
Get specific deployment by ID	<pre>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/deployment/&lt;id&gt;</pre> <p><b>Example:</b></p> <pre>GET https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe349d013cfe34de1b0000</pre> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T20:17:30Z&lt;/updated&gt;   &lt;title&gt;Deployments&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe349d013cfe34de1b0000&lt;/id&gt;     &lt;published&gt;2013-02-21T20:17:30Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T19:22:23Z&lt;/updated&gt;     &lt;title&gt;ProvisionanOracleDatabase_Provision11202_Linux_Oracle_11202_Latest&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe349d013cfe34de1b0000' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/90cef9233cfe349d013cfe34de1b0000' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/deploy/view/90cef9233cfe349d01</pre>

Objective	Request
	<pre> 3cfe34de1b0000' /&gt;     &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfdaec4 013cfdaf645a159b' title='Provision an Oracle Database' /&gt;     &lt;sop:deployment name='ProvisionanOracleDatabase_Provision11202_Linux_ Oracle_11202_Latest' workflow='Provision an Oracle Database'&gt;         &lt;sop:permissions /&gt;         &lt;sop:deployment-parameters&gt;             &lt;sop:deployment-parameter name='Trust SSL Certificates' step='Discover Oracle Databases' runtime='false' type='text'&gt;True&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Web Service Password' step='Discover Oracle Databases' runtime='false' type='text'&gt;***&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Web Service URL' step='Discover Oracle Databases' runtime='false' type='text'&gt;https://DMA1.mycompany.com:8443/dma&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Web Service User' step='Discover Oracle Databases' runtime='false' type='text'&gt;autotest&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Database Name' step='Gather Parameters for Provision Oracle Database' runtime='false' type='text'&gt;QAST01&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Datafile Location' step='Gather Parameters for Provision Oracle Database' runtime='false' type='text'&gt;/u01/oradata&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Oracle Account' step='Gather Parameters for Provision Oracle Database' runtime='false' type='text'&gt;oracle&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Oracle Base' step='Gather Parameters for Provision Oracle Database' runtime='false' type='text'&gt;/opt/app/oracle/&lt;/sop:deployment-parameter&gt;             &lt;sop:deployment-parameter name='Oracle Home' step='Gather Parameters for Provision Oracle Database' runtime='false' type='text'&gt;/opt/app/oracle/product/11.2.0/DB2&lt;/sop:deployment-parameter&gt;         &lt;/sop:deployment-parameters&gt;         &lt;sop:targets&gt;             &lt;sop:target server='target1.mycompany.com' /&gt;         &lt;/sop:targets&gt;     &lt;/sop:deployment&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>

Objective	Request
<p>Get specific deployment by name</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/deployment?name=&lt;deployment name&gt;?workflow=&lt;workflow name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/deployment?name=Test&amp;workflow=Copy%20of%20Discovery</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T21:21:16Z&lt;/updated&gt;   &lt;title&gt;Deployments&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1b2013cfe910ac61a75&lt;/id&gt;     &lt;published&gt;2013-02-21T21:21:16Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T21:03:03Z&lt;/updated&gt;     &lt;title&gt;Test&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1b2013cfe910ac61a75' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1b2013cfe910ac61a75' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/deploy/view/ff8080813cfda1b2013cfe910ac61a75' /&gt;     &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2013cfe84d913152a' title='Copy of Discovery' /&gt;     &lt;sop:deployment name='Test' workflow='Copy of Discovery'&gt;       &lt;sop:permissions&gt;         &lt;sop:permission name='DMA Admins' read='true' write='true' </pre>

<b>Objective</b>	<b>Request</b>
	<pre> execute='true' /&gt;     &lt;sop:permission name='Viewers' read='true' /&gt;     &lt;sop:permission name='DMA Users' read='true' execute='true' /&gt;   &lt;/sop:permissions&gt;   &lt;sop:deployment-parameters&gt;     &lt;sop:deployment-parameter name='Known BEA Homes' step='Discover WebLogic' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Known Profile Roots' step='Discover WebSphere' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Trust SSL Certificates' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Web Service Password' step='Discovery Parameters' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Web Service URL' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Web Service User' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Password' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Username' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;   &lt;/sop:deployment-parameters&gt;   &lt;sop:targets&gt;     &lt;sop:target server='target1.mycompany.com' /&gt;   &lt;/sop:targets&gt; &lt;/sop:deployment&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<b>Create a new deployment</b>	<p>POST <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/deployment">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/deployment</a></p> <p><b>Example:</b></p> <p>POST <a href="https://DMA1.mycompany.com:8443/dma/api/auto/deployment">https://DMA1.mycompany.com:8443/dma/api/auto/deployment</a></p> <p>Request Body:</p>



Objective	Request
ent	<pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/auto" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;sop:deployment name='Discovery_East' workflow='Copy of Discovery'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Admins' read='true' write='true' execute='true'/&gt;       &lt;sop:permission name='DMA Users' read='true' execute='true'/&gt;     &lt;/sop:permissions&gt;     &lt;sop:deployment-parameters&gt;       &lt;sop:deployment-parameter name='Known BEA Homes' step='Discover WebLogic' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Known Profile Roots' step='Discover WebSphere' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Trust SSL Certificates' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service Password' step='Discovery Parameters' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service URL' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service User' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Password' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Username' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;     &lt;/sop:deployment-parameters&gt;     &lt;sop:targets&gt;       &lt;sop:target smart-group='East Sector Servers'/&gt;     &lt;/sop:targets&gt;   &lt;/sop:deployment&gt; &lt;/entry&gt; </pre> <p>Response Body:</p>

Objective	Request
	<pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1b2 013cf9d4bd1c51&lt;/id&gt;   &lt;published&gt;2013-02-21T21:47:37Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T21:47:36Z&lt;/updated&gt;   &lt;title&gt;Discovery_East&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1 b2013cf9d4bd1c51' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1 b2013cf9d4bd1c51' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/deploy/view/ff8080813cfda1b201 3cf9d4bd1c51' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfda1b2 013cfe84d913152a' title='Copy of Discovery' /&gt;   &lt;sop:deployment name='Discovery_East' workflow='Copy of Discovery'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Users' read='true' execute='true' /&gt;       &lt;sop:permission name='DMA Admins' read='true' write='true' execute='true' /&gt;     &lt;/sop:permissions&gt;     &lt;sop:deployment-parameters&gt;       &lt;sop:deployment-parameter name='Known BEA Homes' step='Discover WebLogic' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;       &lt;sop:deployment-parameter name='Known Profile Roots' step='Discover WebSphere' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Trust SSL Certificates' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service Password' step='Discovery Parameters' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service URL' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;       &lt;sop:deployment-parameter name='Web Service User' step='Discovery </pre>

<p><b>Objective</b></p>	<p><b>Request</b></p>
	<pre>Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;   &lt;sop:deployment-parameter name='Password' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;   &lt;sop:deployment-parameter name='Username' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt; &lt;/sop:deployment-parameters&gt; &lt;sop:targets&gt;   &lt;sop:target smart-group='East Sector Servers' /&gt; &lt;/sop:targets&gt; &lt;/sop:deployment&gt; &lt;/entry&gt;</pre>
<p>Modify an existing deployment</p>	<p>PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/deployment/&lt;id&gt;</p> <p><b>Example:</b></p> <p>PUT https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfda1b2013cf eb9d4bd1c51</p> <p>This example changes the permissions for the deployment created in the previous example.</p> <p>Request Body:</p> <pre>&lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/auto" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;sop:deployment name='Discovery_East' workflow='Copy of Discovery'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Admins' read='true' write='true' execute='true' /&gt;       &lt;sop:permission name='DMA Users' read='true' execute='true' /&gt;       &lt;sop:permission name='Viewers' read='true' /&gt;     &lt;/sop:permissions&gt;     &lt;sop:deployment-parameters&gt;       &lt;sop:deployment-parameter name='Known BEA Homes' step='Discover WebLogic' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Known Profile Roots' step='Discover WebSphere' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Trust SSL Certificates' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service Password'</pre>

Objective	Request
	<pre> step='Discovery Parameters' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Web Service URL' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Web Service User' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Password' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;     &lt;sop:deployment-parameter name='Username' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;   &lt;/sop:deployment-parameters&gt;   &lt;sop:targets&gt;     &lt;sop:target smart-group='East Sector Servers' /&gt;   &lt;/sop:targets&gt; &lt;/sop:deployment&gt; &lt;/entry&gt;  Response Body:  &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfa1b2 013cfeb9d4bd1c51&lt;/id&gt;   &lt;published&gt;2013-02-21T21:49:57Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T21:47:36Z&lt;/updated&gt;   &lt;title&gt;Discovery_East&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfa1 b2013cfeb9d4bd1c51' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfa1 b2013cfeb9d4bd1c51' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/deploy/view/ff8080813cfa1b201 3cfeb9d4bd1c51' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/workflow/ff8080813cfa1b2 </pre>

Objective	Request
	<pre> 013cfe84d913152a' title='Copy of Discovery'/&gt;   &lt;sop:deployment name='Discovery_East' workflow='Copy of Discovery'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Users' read='true' execute='true'/&gt;       &lt;sop:permission name='DMA Admins' read='true' write='true' execute='true'/&gt;       &lt;sop:permission name='Viewers' read='true'/&gt;     &lt;/sop:permissions&gt;     &lt;sop:deployment-parameters&gt;       &lt;sop:deployment-parameter name='Known BEA Homes' step='Discover WebLogic' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;       &lt;sop:deployment-parameter name='Known Profile Roots' step='Discover WebSphere' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Trust SSL Certificates' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service Password' step='Discovery Parameters' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Web Service URL' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;       &lt;sop:deployment-parameter name='Web Service User' step='Discovery Parameters' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;       &lt;sop:deployment-parameter name='Password' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;***&lt;/sop:deployment- parameter&gt;       &lt;sop:deployment-parameter name='Username' step='Run Sybase Instance Discovery' runtime='false' type='text'&gt;&lt;/sop:deployment-parameter&gt;     &lt;/sop:deployment-parameters&gt;     &lt;sop:targets&gt;       &lt;sop:target smart-group='East Sector Servers'/&gt;     &lt;/sop:targets&gt;   &lt;/sop:deployment&gt; &lt;/entry&gt; </pre>
Delete existing deployment	<p>DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/deployment/&lt;id&gt;</p> <p><b>Example:</b></p> <p>DELETE https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813cfd1b2013cfeb9d4bd1c51</p> <p>No response body is returned.</p>

Objective	Request
ym ent	

## Policies API

Policies are reusable sets of attributes that can be used to specify parameter values in deployments.

The Policy API provides a mechanism that enables you to read, create, modify and delete HPE DMA policies. The capabilities associated with your role determine which policy API operations you are permitted to perform (see "[Permissions and Constraints](#)").

### Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/auto/policy By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	auto
Response Object	policy

### Supported HTTP Methods

GET, PUT, POST, DELETE

### Content Type

application/atom+xml

## Permissions and Constraints

- Any user can create (POST) a policy.
- Only users who have WRITE permission for a policy can modify (PUT) that policy.
- When you create (POST) or modify (PUT) a policy, you must specify at least one role with READ and WRITE permission.
- When a policy is locked, only attribute values can be modified.
- Policy names must be unique.
- Attribute names must be unique within a policy.
- You cannot rename or change the type of existing policy attributes
- Policies that are used by any deployments cannot be deleted.
- Only policy attributes that are not used can be deleted.
- Policies can have zero or more attributes.
- The list of attributes is returned in alphabetical order on a GET. It is not necessary to sort the attributes for a POST or PUT.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the policy to GET  Example: My%20Directories

## Object Identifier

When you want to modify (PUT) or DELETE a policy, you must specify the object ID for that policy in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/auto/policy/<id>`

Name	Required	Description
<b>id</b>	optional for GET	Unique alpha-numeric identifier of the policy

Name	Required	Description
	required for PUT or DELETE  not valid for POST	Example: ff8443813bfd79c7013bfd7a53d10000

**Tip:** You can specify the object ID for a GET operation instead of specifying the name parameter.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.



Objective	Request
List all policies	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/policy</p> <p>Response Body (only the first two entries are shown here):</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T22:08:10Z&lt;/updated&gt;   &lt;title&gt;Policies&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda946013c fda95ee101b5&lt;/id&gt;   &lt;published&gt;2013-02-21T16:50:01Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:50:01Z&lt;/updated&gt;   &lt;title&gt;Discovery&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda94601 3cfda95ee101b5' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda94601 3cfda95ee101b5' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/policy/view/ff8080813cfda94601 3cfda95ee101b5' /&gt;   &lt;sop:policy name='Discovery' locked='true' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfdaec4013c fdaf26210d5b&lt;/id&gt;   &lt;published&gt;2013-02-21T16:56:19Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:56:19Z&lt;/updated&gt;   &lt;title&gt;MS SQL: Authentication&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfdaec401 </pre>

Objective	Request
	<pre> 3cfdaf26210d5b' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfdaec401 3cfdaf26210d5b' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/policy/view/ff8080813cfdaec401 3cfdaf26210d5b' /&gt;     &lt;sop:policy name='MS SQL: Authentication' locked='true' /&gt;   &lt;/entry&gt;  ... <i>only the first two entries are shown here</i> </pre>
<p>Get a specific policy by ID</p>	<pre> GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy/&lt;id&gt;  <b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda946013cfda95ee101b5  Response Body: &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T22:09:26Z&lt;/updated&gt;   &lt;title&gt;Policies&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda946013cfda95ee101b5&lt;/id&gt;     &lt;published&gt;2013-02-21T16:50:01Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T16:50:01Z&lt;/updated&gt;     &lt;title&gt;Discovery&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda946013cfda95ee101b5' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda946013cfda95ee101b5' /&gt; </pre>

Objective	Request
	<pre>                 &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/policy/view/ff8080813cfda94601 3cfda95ee101b5' /&gt;                 &lt;sop:policy name='Discovery' locked='true'&gt;                 &lt;sop:permissions/&gt;                 &lt;sop:policy-attributes&gt;                 &lt;sop:policy-attribute type='Password' name='Web Service Password'&gt;                 &lt;sop:value&gt;&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Web Service URL'&gt;                 &lt;sop:value&gt;&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Web Service User'&gt;                 &lt;sop:value&gt;&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;/sop:policy-attributes&gt;                 &lt;/sop:policy&gt;                 &lt;/entry&gt; &lt;/feed&gt;             </pre>
<p>Get a specific policy by name</p>	<p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy?name=&lt;policy name&gt;</code></p> <p><b>Example:</b></p> <p>GET <code>https://DMA1.mycompany.com:8443/dma/api/auto/policy?name=Oracle%20Compliance</code></p> <p><b>Response Body:</b></p> <pre> feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T22:11:15Z&lt;/updated&gt;   &lt;title&gt;Policies&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfdad3a013c fdad5c810351&lt;/id&gt;             </pre>

Objective	Request
	<pre> &lt;published&gt;2013-02-21T16:54:22Z&lt;/published&gt; &lt;updated&gt;2013-02-21T16:54:22Z&lt;/updated&gt; &lt;title&gt;Oracle Compliance&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfdad3a01 3cfdad5c810351' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfdad3a01 3cfdad5c810351' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/policy/view/ff8080813cfdad3a01 3cfdad5c810351' /&gt; &lt;sop:policy name='Oracle Compliance' locked='true'&gt;   &lt;sop:permissions/&gt;   &lt;sop:policy-attributes&gt;     &lt;sop:policy-attribute type='List' name='Excluded Checks'&gt;       &lt;sop:value&gt;&lt;/sop:value&gt;     &lt;/sop:policy-attribute&gt;     &lt;sop:policy-attribute type='List' name='Excluded Repairs'&gt;       &lt;sop:value&gt;&lt;/sop:value&gt;     &lt;/sop:policy-attribute&gt;     &lt;sop:policy-attribute type='List' name='Oracle Mandatory Checks'&gt;       &lt;sop:value&gt;&lt;/sop:value&gt;     &lt;/sop:policy-attribute&gt;     &lt;sop:policy-attribute type='List' name='Oracle Recommended Checks'&gt;       &lt;sop:value&gt;&lt;/sop:value&gt;     &lt;/sop:policy-attribute&gt;   &lt;/sop:policy-attributes&gt; &lt;/sop:policy&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Create a new policy</p>	<p>POST <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy</a></p> <p><b>Example:</b></p> <p>POST <a href="https://DMA1.mycompany.com:8443/dma/api/auto/policy">https://DMA1.mycompany.com:8443/dma/api/auto/policy</a></p> <p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/sop" &gt;   &lt;sop:policy name='My Test Directories'&gt;     &lt;sop:permissions&gt; </pre>

Objective	Request
	<pre>                 &lt;sop:permission name='DMA Admins' read='true' write='true'/&gt;             &lt;/sop:permissions&gt;             &lt;sop:policy-attributes&gt;                 &lt;sop:policy-attribute type='Text' name='Backup Directory'&gt;                     &lt;value&gt;/var/dma/backup&lt;/value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Binary Directory'&gt;                     &lt;value&gt;/var/dma/binaries&lt;/value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Target Data Directory'&gt;                     &lt;value&gt;/var/dma/data&lt;/value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Target Log Directory'&gt;                     &lt;value&gt;/var/dma/log&lt;/value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Temp Directory'&gt;                     &lt;value&gt;/tmp/dma&lt;/value&gt;                 &lt;/sop:policy-attribute&gt;             &lt;/sop:policy-attributes&gt;         &lt;/sop:policy&gt;     &lt;/entry&gt;      Response Body:      &lt;entry         xmlns="http://www.w3.org/2005/Atom"         xmlns:sop="http://www.hp.com/dma/api/sop"&gt;          &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b2013c         fed594b51c98&lt;/id&gt;         &lt;published&gt;2013-02-21T22:17:55Z&lt;/published&gt;         &lt;updated&gt;2013-02-21T22:17:55Z&lt;/updated&gt;         &lt;title&gt;My Test Directories&lt;/title&gt;         &lt;link rel='self' type='application/atom+xml'         href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b201         3cfed594b51c98' /&gt;         &lt;link rel='edit' type='application/atom+xml'         href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b201         3cfed594b51c98' /&gt;         &lt;link rel='alternate' type='text/html'         href='https://DMA1.mycompany.com:8443/dma/sop/policy/view/ff8080813cfda1b201         3cfed594b51c98' /&gt;         &lt;sop:policy name='My Test Directories' locked='false'&gt;             &lt;sop:permissions&gt; </pre>

Objective	Request
	<pre>                 &lt;sop:permission name='DMA Admins' read='true' write='true'/&gt;             &lt;/sop:permissions&gt;             &lt;sop:policy-attributes&gt;                 &lt;sop:policy-attribute type='Text' name='Backup Directory'&gt;                     &lt;sop:value&gt;/var/dma/backup&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Binary Directory'&gt;                     &lt;sop:value&gt;/var/dma/binaries&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Target Data Directory'&gt;                     &lt;sop:value&gt;/var/dma/data&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Target Log Directory'&gt;                     &lt;sop:value&gt;/var/dma/log&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;                 &lt;sop:policy-attribute type='Text' name='Temp Directory'&gt;                     &lt;sop:value&gt;/tmp/dma&lt;/sop:value&gt;                 &lt;/sop:policy-attribute&gt;             &lt;/sop:policy-attributes&gt;         &lt;/sop:policy&gt;     &lt;/entry&gt;         </pre>
<p>Modify an existing policy</p>	<p>PUT <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy/&lt;id&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy/&lt;id&gt;</a></p> <p><b>Example:</b></p> <p>PUT <a href="https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b2013cfed594b51c98">https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b2013cfed594b51c98</a></p> <p>This example grants READ permission to users with the DMA Users role. It makes no other changes to the policy created in the previous example.</p> <p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:sop="http://www.hp.com/dma/api/sop" &gt;     &lt;sop:policy name='My Test Directories'&gt;         &lt;sop:permissions&gt;             &lt;sop:permission name='DMA Admins' read='true' write='true'/&gt;             &lt;sop:permission name='DMA Users' read='true' write='false'/&gt;         &lt;/sop:permissions&gt;         &lt;sop:policy-attributes&gt;             &lt;sop:policy-attribute type='Text' name='Backup Directory'&gt;                 &lt;value&gt;/var/dma/backup&lt;/value&gt;             &lt;/sop:policy-attribute&gt;             &lt;sop:policy-attribute type='Text' name='Binary Directory'&gt;                 &lt;value&gt;/var/dma/binaries&lt;/value&gt;             &lt;/sop:policy-attribute&gt;         &lt;/sop:policy-attributes&gt;     &lt;/sop:policy&gt; &lt;/entry&gt;         </pre>

Objective	Request
	<pre> &lt;/sop:policy-attribute&gt; &lt;sop:policy-attribute type='Text' name='Target Data Directory'&gt;   &lt;value&gt;/var/dma/data&lt;/value&gt; &lt;/sop:policy-attribute&gt; &lt;sop:policy-attribute type='Text' name='Target Log Directory'&gt;   &lt;value&gt;/var/dma/log&lt;/value&gt; &lt;/sop:policy-attribute&gt; &lt;sop:policy-attribute type='Text' name='Temp Directory'&gt;   &lt;value&gt;/tmp/dma&lt;/value&gt; &lt;/sop:policy-attribute&gt; &lt;/sop:policy-attributes&gt; &lt;/sop:policy&gt; &lt;/entry&gt;  Response Body:  &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b2013c fed594b51c98&lt;/id&gt;   &lt;published&gt;2013-02-21T22:17:55Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T22:21:32Z&lt;/updated&gt;   &lt;title&gt;My Test Directories&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b201 3cfed594b51c98' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b201 3cfed594b51c98' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/policy/view/ff8080813cfda1b201 3cfed594b51c98' /&gt;   &lt;sop:policy name='My Test Directories' locked='false'&gt;     &lt;sop:permissions&gt;       &lt;sop:permission name='DMA Admins' read='true' write='true' /&gt;       &lt;sop:permission name='DMA Users' read='true' /&gt;     &lt;/sop:permissions&gt;     &lt;sop:policy-attributes&gt;       &lt;sop:policy-attribute type='Text' name='Backup Directory'&gt;         &lt;sop:value&gt;/var/dma/backup&lt;/sop:value&gt;       &lt;/sop:policy-attribute&gt;       &lt;sop:policy-attribute type='Text' name='Binary Directory'&gt;         &lt;sop:value&gt;/var/dma/binaries&lt;/sop:value&gt; </pre>

Objective	Request
	<pre> &lt;/sop:policy-attribute&gt; &lt;sop:policy-attribute type='Text' name='Target Data Directory'&gt;   &lt;sop:value&gt;/var/dma/data&lt;/sop:value&gt; &lt;/sop:policy-attribute&gt; &lt;sop:policy-attribute type='Text' name='Target Log Directory'&gt;   &lt;sop:value&gt;/var/dma/log&lt;/sop:value&gt; &lt;/sop:policy-attribute&gt; &lt;sop:policy-attribute type='Text' name='Temp Directory'&gt;   &lt;sop:value&gt;/tmp/dma&lt;/sop:value&gt; &lt;/sop:policy-attribute&gt; &lt;/sop:policy-attributes&gt; &lt;/sop:policy&gt; &lt;/entry&gt; </pre>
Delete an existing policy	<p>DELETE <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy/&lt;id&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/policy/&lt;id&gt;</a></p> <p><b>Example:</b></p> <p>DELETE <a href="https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b2013cfe594b51c98">https://DMA1.mycompany.com:8443/dma/api/auto/policy/ff8080813cfda1b2013cfe594b51c98</a></p> <p>No response body is returned. The HTTP return code indicates success or failure of the delete request.</p>

## Running Workflows API

The Running API provides a mechanism that enables you to start a workflow, determine which workflows are currently running, or view information about a particular workflow execution. The capabilities associated with your role and the permissions on the pertinent deployment determine which Running API operations you are permitted to perform (see ["Permissions and Constraints"](#)).

When you run a workflow, you can specify parameter values in the URL or in a separate file.

## Resource Information

Resource URLs	<pre> https://&lt;DMAServer&gt;:&lt;port&gt;/dma/api/auto/running https://&lt;DMAServer&gt;:&lt;port&gt;/dma/api/auto/running/workflow/&lt;workflow id&gt; https://&lt;DMAServer&gt;:&lt;port&gt;/dma/api/auto/running/workflow/&lt;workflow id&gt;/step/&lt;step id&gt; https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/&lt; </pre>
---------------	--



	<i>workflow id&gt;/scriptExecution/&lt;script execution id&gt;</i> By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	auto
Response Object	running

## Supported HTTP Methods

GET, POST

## Content Type

application/atom+xml for GET

application/x-www-form-urlencoded for POST

## Permissions and Constraints

- To view (GET) information about a workflow, you must have one (or both) of the following permissions:
  - READ permission on the organization where the targets reside
  - EXECUTE permission on the deployment
- To run (POST) a workflow, you must have both of the following permissions:
  - READ permission on the organization where the targets reside
  - EXECUTE permission on the deployment
- To run (POST) a workflow without specifying a deployment (for example: the Discovery workflow), you must have a role with Workflow Creator capability and both of the following permissions:
  - READ permission on the workflow
  - DEPLOY permission on the organization

You can also run a workflow without specifying a deployment if you have a role with Administrator capability.

- Users who have a role with Administrator capability can view (GET) any workflow execution or run (POST) any workflow.

## Query Parameters

Name	Required	Description
<b>workflow</b>	required for POST  not valid for GET	Name of the workflow that you want to run.  Example: Clone%20Oracle%20Home
<b>deployment</b>	required for POST  not valid for GET	Name of the deployment that you want to execute.  Example: CloneOracleHome_Clone_Linux_Oracle_11202_Test
<b>server</b>	required for POST  not valid for GET	For a server level workflow, this is the name of the target server. For an instance or database level workflow, this is the server that hosts the target instance or database.  Example: target1.mycompany.com
<b>instance</b>	required for POST (for instance or database level workflows)  not valid for GET	For an instance level workflow, this is the name of the target instance. For a database level workflow, this is the instance that services the target database.  Example: orcl11202inst01
<b>database</b>	required for POST (for database level workflows)  not valid for GET	Name of the target database.  Example: orclDB07
<b>params</b>	may be	Any input parameters for the workflow that are

Name	Required	Description
	required for POST  not valid for GET	designated Runtime in the deployment.  Example: ['Gather Parameters for Oracle Compliance.Compliance Type']=CIS

## Object Identifier

To GET detailed information about a specific workflow execution, you must specify the object ID in the URL:

GET `https://<DMA server>:<port>/dma/api/auto/running/workflow/<id>`

Name	Required	Description
id	optional for GET  not valid for POST	Unique alpha-numeric identifier of the running workflow  Example: ff8443813bfd79c7013bfd7a53d10000

## Return Codes

**Note:** The following list of return codes pertains to all HPE DMA APIs. The Running API does not support PUT or DELETE.

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.

Code	Meaning
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all workflows that are currently running or have finished running in the last 60 seconds	<p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running</code></p> <p><b>Example:</b></p> <p>GET <code>https://DMA1.mycompany.com:8443/dma/api/auto/running</code></p> <p>Response Body (only one workflow is running):</p> <pre>&lt;feed   xmlns='http://www.w3.org/2005/Atom'   xmlns:sop='http://www.hp.com/dma/api/sop' &gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-03-09T00:32:15Z&lt;/updated&gt;   &lt;title&gt;Active Workflows&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c&lt;/id&gt;     &lt;published&gt;2013-03-09T00:22:09Z&lt;/published&gt;     &lt;updated&gt;2013-03-09T00:22:09Z&lt;/updated&gt;     &lt;title&gt;Provision Sybase ASE 15 Server&lt;/title&gt;     &lt;link rel='alternate' type='application/atom+xml'</pre>

Objective	Request
	<pre>href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c' /&gt;   &lt;link rel='alternate' type='text/html'  href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d4c5e7c013d4c5f3cb51626' /&gt;   &lt;sop:target server='target1.mycompany.com' /&gt;   &lt;sop:status state='Running' /&gt;   &lt;sop:deployment name='Provision Sybase ASE 15 Server' /&gt; &lt;/entry&gt; &lt;/feed&gt;</pre>
<p>Get the status of each step in a specific workflow execution</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running/workflow/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c</p> <p>Note that the &lt;id&gt; specified here is the same as the &lt;id&gt; element returned for the workflow execution listed in the previous example.</p> <p>Response Body:</p> <pre>&lt;feed   xmlns='http://www.w3.org/2005/Atom'   xmlns:sop='http://www.hp.com/dma/api/sop'&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-03-09T00:22:09Z&lt;/updated&gt;   &lt;title&gt;Provision Sybase ASE 15 Server&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml'</pre>

Objective	Request
	<pre> href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d4c5e7c013d4c5f3cb51626' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c86b45c1859&lt;/id&gt;   &lt;published&gt;2013-03-09T00:22:09Z&lt;/published&gt;   &lt;updated&gt;2013-03-09T00:22:09Z&lt;/updated&gt;   &lt;title&gt;Prepare Sybase Call Wrapper&lt;/title&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c86b45c1859' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813d4c5d43013d4c5d4d0a00ae' /&gt;   &lt;sop:status state='Finished' rc='0' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c8744f1189e&lt;/id&gt;   &lt;published&gt;2013-03-09T00:22:46Z&lt;/published&gt;   &lt;updated&gt;2013-03-09T00:22:46Z&lt;/updated&gt;   &lt;title&gt;Validate Sybase ASE 15 Provisioning Parameters&lt;/title&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c8744f1189e' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813d4c5e7c013d4c5ee4920a7f' /&gt;   &lt;sop:status state='Finished' rc='0' /&gt; &lt;/entry&gt; &lt;entry&gt; </pre>

Objective	Request
	<pre> /running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013 d4c875f1818b2' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813d4c5e7c013 d4c5e8fc60246' /&gt;     &lt;sop:status state='Finished' rc='0' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813 d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c87963e1920&lt;/id&gt;     &lt;published&gt;2013-03-09T00:23:07Z&lt;/published&gt;     &lt;updated&gt;2013-03-09T00:23:07Z&lt;/updated&gt;     &lt;title&gt;Check If Download File Exists&lt;/title&gt;     &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff80808 13d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c87963e1920' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813d4669f6013 d466a0a7e01ba' /&gt;     &lt;sop:status state='Finished' rc='2' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813 d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c87bf3e1959&lt;/id&gt;     &lt;published&gt;2013-03-09T00:23:17Z&lt;/published&gt;     &lt;updated&gt;2013-03-09T00:23:17Z&lt;/updated&gt;     &lt;title&gt;Download Software&lt;/title&gt;     &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff80808 13d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c87bf3e1959' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/46a4feff720549f6861 4af65b0b5f53b' /&gt;     &lt;sop:status state='Finished' rc='0' /&gt; &lt;/entry&gt; &lt;entry&gt; </pre>

Objective	Request
	<pre> :8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c913fa91a83' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813d4c5e7c013d4c5ed6e00933' /&gt;     &lt;sop:status state='Finished' rc='0' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c9178071ae6&lt;/id&gt;     &lt;published&gt;2013-03-09T00:33:54Z&lt;/published&gt;     &lt;updated&gt;2013-03-09T00:33:54Z&lt;/updated&gt;     &lt;title&gt;Validate Results&lt;/title&gt;     &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c9178071ae6' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813d4c5e7c013d4c5e913102ab' /&gt;     &lt;sop:status state='Finished' rc='0' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c91ac721b45&lt;/id&gt;     &lt;published&gt;2013-03-09T00:34:08Z&lt;/published&gt;     &lt;updated&gt;2013-03-09T00:34:08Z&lt;/updated&gt;     &lt;title&gt;Success&lt;/title&gt;     &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c91ac721b45' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/e87fe65ef80e47a897862cd0029ea380' /&gt;     &lt;sop:status state='Finished' rc='0' /&gt; &lt;/entry&gt;     &lt;sop:target server='target1.mycompany.com' /&gt;     &lt;sop:script-execution url='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/scriptExecution/ff8080813d4120ee013d4c86b7d81895' /&gt;     &lt;sop:status state='Success' /&gt;     &lt;sop:deployment name='Provision Sybase ASE 15 Server' /&gt; &lt;/feed&gt; </pre>



Objective	Request
	<p><b>Tip:</b> To view more detailed information about the execution of this workflow, perform a GET using the URL returned in the &lt;sop:script-execution&gt; element. This is helpful for troubleshooting.</p>
<p>View more detailed information about the execution of a specific step</p>	<p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running/workflow/&lt;running workflow id&gt;/step/&lt;step id&gt;</code></p> <p><b>Example:</b></p> <p>GET <code>https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c88edf119d8</code></p> <p>Note that the URL specified here is the &lt;id&gt; element for the Run Sybase Silent Install step in the previous example.</p> <p>Response Body (only the first two entries are shown here):</p> <pre>&lt;feed   xmlns='http://www.w3.org/2005/Atom'   xmlns:sop='http://www.hp.com/dma/api/sop' &gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c88edf119d8&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-03-09T00:24:35Z&lt;/updated&gt;   &lt;title&gt;Run Sybase Silent Install&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c88edf119d8' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/step/view/ff8080813d4c5de0013d4c5e22170492' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c88edf119d8/header&lt;/id&gt;     &lt;published&gt;2013-03-09T00:24:35Z&lt;/published&gt;     &lt;updated&gt;2013-03-09T00:42:33Z&lt;/updated&gt;     &lt;title&gt;Header&lt;/title&gt;     &lt;content&gt;&lt;/content&gt;   &lt;/entry&gt;   &lt;entry&gt;</pre>

Objective	Request
	<pre> &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813 d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c88edf119d8/stdout&lt;/id&gt;   &lt;published&gt;2013-03-09T00:24:35Z&lt;/published&gt;   &lt;updated&gt;2013-03-09T00:42:33Z&lt;/updated&gt;   &lt;title&gt;Standard Output&lt;/title&gt;   &lt;content&gt;     [INFO]: Run Sybase Silent Install     [INFO]: Running test: run_setup     [INFO]: Test description: Runs the setup.     [INFO]: Run Sybase Installation/Patch Setup successful. You may proceed.   &lt;/content&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813 d4120ee013d4c86b407184c/step/ff8080813d4120ee013d4c88edf119d8/stderr&lt;/id&gt;   &lt;published&gt;2013-03-09T00:24:35Z&lt;/published&gt;   &lt;updated&gt;2013-03-09T00:42:33Z&lt;/updated&gt;   &lt;title&gt;Standard Error&lt;/title&gt;   &lt;content&gt;&lt;/content&gt; &lt;/entry&gt; &lt;sop:status state='Finished' rc='0' /&gt; &lt;/feed&gt; </pre>
<p>Start a workflow with a server level target, and specify the Runtime parameter</p>	<pre> POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running?workflow=&lt;workflow_ name&gt;&amp;deployment=&lt;deployment_name&gt;&amp;server=&lt;server_name&gt;&amp;params['&lt;step_ name&gt;.&lt;param1_name&gt;']=&lt;param1_value&gt;&amp;params['&lt;step_name&gt;.&lt;param2_name&gt;'] =&lt;param2_value&gt;...  <b>Example:</b> POST https://DMA1.mycompany.com:8443/dma/api/auto/running?workflow=TEST_Ping_ Servers&amp;deployment=Test&amp;server=target1.mycompany.com&amp;params['Ping Computer.Hostname']=svr1.mycompany.com&amp;params['Ping Computer.Hostname'] =svr2.mycompany.com  <b>Response Body:</b> &lt;entry   xmlns='http://www.w3.org/2005/Atom'   xmlns:sop='http://www.hp.com/dma/api/sop' &gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813 cf9a3a5013d038a54f65678&lt;/id&gt;   &lt;published&gt;2013-02-22T20:13:50Z&lt;/published&gt; </pre>

Objective	Request
<p>values in the URL.</p>	<pre> &lt;updated&gt;2013-02-22T20:13:50Z&lt;/updated&gt; &lt;title&gt;TEST_Ping_Servers&lt;/title&gt; &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813cf9a3a5013d038a54f65678' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cf9a3a5013d0309695a4d68' /&gt; &lt;sop:target server='target1.mycompany.com' /&gt; &lt;sop:status state='Running' /&gt; &lt;sop:deployment name='TEST_Ping_Servers' /&gt; &lt;/entry&gt; </pre> <p><b>Tip:</b> To monitor the status of your workflow execution, use the URL returned in the &lt;id&gt; element to perform a GET.</p>
<p>Start a workflow with a server level target, and specify the Runtime parameter values in a file.</p>	<p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running?workflow=&lt;workflow_name&gt;&amp;deployment=&lt;deployment_name&gt;&amp;server=&lt;server_name&gt;</p> <p><b>Example:</b></p> <p>NOTE: Here, a cURL command is shown to demonstrate how to specify the name of the file that contains the Runtime parameter values.</p> <pre> curl -X POST -H "Content-Type:application/x-www-form-urlencoded" -g -v -k -u autotest:autotest --data-binary @pingParams.txt "https://DMA1.mycompany.com:8443/dma/api/auto/running?workflow=TEST_Ping_Servers&amp;deployment=Test&amp;server=target1.mycompany.com" </pre> <p>Contents of the pingParams.txt file:</p> <pre> params['Ping Computer.Hostname']=srvr1.mycompany.com&amp;params['Ping Computer.Hostname']=srvr2.mycompany.com </pre> <p>Response Body:</p> <pre> &lt;entry xmlns='http://www.w3.org/2005/Atom' xmlns:sop='http://www.hp.com/dma/api/sop'&gt; &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813cf9a3a5013d0394eee3568c&lt;/id&gt; &lt;published&gt;2013-02-22T20:25:24Z&lt;/published&gt; &lt;updated&gt;2013-02-22T20:25:24Z&lt;/updated&gt; &lt;title&gt;TEST_Ping_Servers&lt;/title&gt; &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813cf9a3a5013d0394eee3568c' /&gt; &lt;link rel='alternate' type='text/html' </pre>

Objective	Request
	<pre>href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cf9a3a5013d0309695a4d68' /&gt;   &lt;sop:target server='target1.mycompany.com' /&gt;   &lt;sop:status state='Running' /&gt;   &lt;sop:deployment name='TEST_Ping_Servers' /&gt; &lt;/entry&gt;</pre> <p><b>Tip:</b> To monitor the status of your workflow execution, use the URL returned in the &lt;id&gt; element to perform a GET.</p>
<p>Start a workflow with a server level target, and specify all of the URL parameters in a file.</p>	<p>POST <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running</code></p> <p><b>Example:</b></p> <p>NOTE: Here, a cURL command is shown to demonstrate how to specify the name of the file that contains the URL parameters.</p> <pre>curl -X POST -H "Content-Type:application/x-www-form-urlencoded" -g -v -u autotest:autotest --data-binary @allParams.txt "https://DMA1.mycompany.com:8443/dma/api/auto/running"</pre> <p>Contents of the allParams.txt file:</p> <pre>workflow=TEST_Ping_ Servers&amp;deployment=Test&amp;server=target1.mycompany.com&amp;params['Ping Computer.Hostname']=svr1.mycompany.com&amp;params['Ping Computer.Hostname']=svr2.mycompany.com</pre> <p>Response Body:</p> <pre>&lt;entry xmlns='http://www.w3.org/2005/Atom' xmlns:sop='http://www.hp.com/dma/api/sop'&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813 cf9a3a5013d03a5c78f56a0&lt;/id&gt;   &lt;published&gt;2013-02-22T20:43:49Z&lt;/published&gt;   &lt;updated&gt;2013-02-22T20:43:49Z&lt;/updated&gt;   &lt;title&gt;TEST_Ping_Servers&lt;/title&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff80808 13cf9a3a5013d03a5c78f56a0' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813cf9a3a 5013d0309695a4d68' /&gt;   &lt;sop:target server='target1.mycompany.com' /&gt;   &lt;sop:status state='Running' /&gt;   &lt;sop:deployment name='TEST_Ping_Servers' /&gt; &lt;/entry&gt;</pre>

Objective	Request
	<p><b>Tip:</b> To monitor the status of your workflow execution, use the URL returned in the &lt;id&gt; element to perform a GET.</p>
<p>Start a workflow with an instance level target, and specify all of the URL parameters in a file.</p>	<p>POST <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running</code></p> <p><b>Example:</b></p> <pre>curl -X POST -H "Content-Type:application/x-www-form-urlencoded" -g -v -u admin:adminpwd --data-binary @allParams_inst.txt "https://DMA1.mycompany.com:8443/dma/api/auto/running"</pre> <p>Contents of the allParams_inst.txt file:</p> <pre>workflow=RunOracleComplianceAudit&amp;deployment=Deploy_RunOracleComplianceAudit&amp;server=target1.mycompany.com&amp;instance=orcl001&amp;params['Gather Parameters for Oracle Compliance.Compliance Type']=CIS&amp;params['Gather Advanced Parameters for Oracle Compliance.Email Addresses to Receive Report']=db_compliance_team@mycompany.com&amp;params['Gather Advanced Parameters for Oracle Compliance.Email Mime Type']=html&amp;params['Gather Advanced Parameters for Oracle Compliance.Email Subject Line']=Oracle%20Compliance%20Report&amp;params['Gather Advanced Parameters for Oracle Compliance.SMTP Server Address']=smtpsrvr01.mycompany.com</pre> <p><b>Response Body:</b></p> <pre>&lt;entry xmlns='http://www.w3.org/2005/Atom' xmlns:sop='http://www.hp.com/dma/api/sop'&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d03d941013d11a35a301a08&lt;/id&gt;     &lt;published&gt;2013-02-25T13:55:50Z&lt;/published&gt;     &lt;updated&gt;2013-02-25T13:55:50Z&lt;/updated&gt;     &lt;title&gt;Run Oracle Compliance Audit&lt;/title&gt;     &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d03d941013d11a35a301a08' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d043530013d043552840357' /&gt;       &lt;sop:target server='target1.mycompany.com' instance='orcl001' /&gt;     &lt;sop:status state='Running' /&gt;   &lt;/entry&gt;</pre> <p><b>Tip:</b> To monitor the status of your workflow execution, use the URL returned in the &lt;id&gt; element to perform a GET.</p>

Objective	Request
<p>Start a workflow with a database level target, and specify all of the URL parameters in a file.</p>	<p>POST <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running</code></p> <p><b>Example:</b></p> <pre>curl -X POST -H "Content-Type:application/x-www-form-urlencoded" -g -v -u admin:adminpwd --data-binary @allParams_db.txt "https://DMA1.mycompany.com:8443/dma/api/auto/running"</pre> <p>Contents of the <code>allParams_db.txt</code> file:</p> <pre>workflow=Copy%20of%20Backup%20MS%20SQL%20Database&amp;deployment=Deploy_BackupMSSQLDatabase&amp;server=target3.mycompany.com&amp;instance=SQLsrvr01&amp;database=db001&amp;params['Gather Parameters for MS SQL Database Backup.Target Backup Path']='c:\dbbackup"</pre> <p>Response Body:</p> <pre>&lt;entry xmlns='http://www.w3.org/2005/Atom' xmlns:sop='http://www.hp.com/dma/api/sop'&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d03d941013d11b197ae1ed2&lt;/id&gt;   &lt;published&gt;2013-02-25T14:11:24Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T14:11:24Z&lt;/updated&gt;   &lt;title&gt;Copy of Backup MS SQL Database&lt;/title&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d03d941013d11b197ae1ed2' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d03d941013d11ab8e161c3b' /&gt;   &lt;sop:target server='target3.mycompany.com' instance='SQLsrvr01' database='db001' /&gt;   &lt;sop:status state='Running' /&gt;   &lt;sop:deployment name='Copy of Backup MS SQL Database' /&gt; &lt;/entry&gt;</pre> <p><b>Tip:</b> To monitor the status of your workflow execution, use the URL returned in the <code>&lt;id&gt;</code> element to perform a GET.</p>
<p>Start a workflow with a data</p>	<p>POST <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running</code></p> <p><b>Example:</b></p> <pre>curl -X POST -H "Content-Type:application/xml" -g -v -u admin:adminpwd --data-binary @values.xml "https://DMA1.mycompany.com:8443/dma/api/auto/running"</pre> <p>Contents of the <code>values.xml</code> file:</p>

Objective	Request
base level target, and specify all values in XML.	<pre> &lt;sop:run workflow="Copy of Backup MS SQL Database" deployment="Copy of Backup MS SQL Database" xmlns:sop='http://www.hp.com/dma/api/sop' &gt;   &lt;sop:server name="target3.mycompany.com" /&gt;   &lt;sop:instance name="SQLsrvr01" /&gt;   &lt;sop:database name="db001" /&gt;   &lt;sop:parameters&gt;     &lt;sop:parameter name="Gather Parameters for MS SQL Database Backup.Target Backup Path"&gt;       &lt;sop:value&gt;c:\dbbackup&lt;/sop:value&gt;     &lt;/sop:parameter&gt;   &lt;/sop:parameters&gt; &lt;/sop:run&gt;                     </pre> <p><b>Response Body:</b></p> <pre> &lt;entry xmlns='http://www.w3.org/2005/Atom' xmlns:sop='http://www.hp.com/dma/api/sop' &gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d03d941013d11b197ae1ed2&lt;/id&gt;   &lt;published&gt;2013-02-25T14:11:24Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T14:11:24Z&lt;/updated&gt;   &lt;title&gt;Copy of Backup MS SQL Database&lt;/title&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d03d941013d11b197ae1ed2' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d03d941013d11ab8e161c3b' /&gt;   &lt;sop:target server='target3.mycompany.com' instance='SQLsrvr01' database='db001' /&gt;   &lt;sop:status state='Running' /&gt;   &lt;sop:deployment name='Copy of Backup MS SQL Database' /&gt; &lt;/entry&gt;                     </pre> <p><b>Tip:</b> To monitor the status of your workflow execution, use the URL returned in the &lt;id&gt; element to perform a GET.</p>
Start a bridged exec	<p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running/workflow&lt;running workflow id&gt;/scriptExecution/&lt;script execution id&gt;</p> <p><b>Examples:</b></p> <p><b>Using server name and instance name as parameters:</b></p> <p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running?workflow=&lt;workflow_</p>

Objective	Request
ution workflow with multiple instance-level targets, and specify all parameter values in the URL.	<pre> name&gt;&amp;deployment=&lt;deployment_name&gt;&amp;server=&lt;server_name&gt;&amp;instance=&lt;instance_name&gt;&amp;params['&lt;step_name&gt;.&lt;sourceTarget_name&gt;']="&lt;server_name&gt;"\&lt;instance_name&gt;"\&lt;database_name&gt;"&amp;params['&lt;step_name&gt;.&lt;destinationTarget_name&gt;']="&lt;server_name&gt;"\&lt;instance_name&gt;"\&lt;database_name&gt;"&amp;params['&lt;step_name&gt;.&lt;param1_name&gt;']=&lt;param1_value&gt;&amp;params['&lt;step_name&gt;.&lt;param2_name&gt;']=&lt;param2_value...  Or  <b>Using server ID and instance ID as parameters:</b>  POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running?workflow=&lt;workflow_name&gt;&amp;deployment=&lt;deployment_name&gt;&amp;server=&lt;server_name&gt;&amp;instance=&lt;instance_name&gt;&amp;params['&lt;step_name&gt;.&lt;sourceTarget_name&gt;']= &lt;server_id1&gt;-&lt;instance_id1&gt;&amp;params['&lt;step_name&gt;.&lt;destinationTarget_name&gt;']= &lt;server_id2&gt;-&lt;instance_id2&gt;&amp;params['&lt;step_name&gt;.&lt;param1_name&gt;']=&lt;param1_value&gt;&amp;params['&lt;step_name&gt;.&lt;param2_name&gt;']=&lt;param2_value...  Response Body:  &lt;entry xmlns='http://www.w3.org/2005/Atom' xmlns:sop='http://www.hp.com/dma/api/sop' &gt;  &lt;id&gt;https://randomtask.usa.hp.com:8443/dma/api/auto/running/workflow/90cec8cd4724c1c50147d655797b1f53&lt;/id&gt;   &lt;published&gt;2014-08-14T21:03:51Z&lt;/published&gt;   &lt;updated&gt;2014-08-14T21:03:51Z&lt;/updated&gt;   &lt;title&gt;Oracle - Export and Refresh Database via Data Pump&lt;/title&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://randomtask.usa.hp.com:8443/dma/api/auto/running/workflow/90cec8cd4724c1c50147d655797b1f53' /&gt;   &lt;link rel='alternate' type='text/html' href='https://randomtask.usa.hp.com:8443/dma/sop/workflow/view/90cec8cd47d2a2210147d2a2abea1243' /&gt;   &lt;sop:target server='minion3.hpswlab.adapps.hp.com' instance='T05' /&gt;   &lt;sop:status state='Running' /&gt;   &lt;sop:deployment name='ExportandRefreshOracleDatabaseviaDataPump_StdExportAndRefresh_Linux_Oracle_11202_Latest' /&gt; &lt;/entry&gt;                     </pre>
View troubleshooting information	<pre> GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running/workflow/&lt;running workflow id&gt;/scriptExecution/&lt;script execution id&gt;  <b>Example:</b>  GET https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813cfda1b2013cfef027f51f68/scriptExecution/ff8080813cfda1b2013cfef028e31f8f  Note that the URL specified here was returned in the &lt;sop:script-execution&gt; element of a                     </pre>



Objective	Request
<p>information pertinent to a workflow execution</p> <p>Successful execution</p>	<p>previous GET for a specific workflow execution. In this case, the execution was successful, so there is no information in the Standard Error entry.</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d420b9f7b37b5/scriptExecution/ff8080813d4120ee013d420ba0a737cd&lt;/id&gt;     &lt;author&gt;       &lt;name&gt;HPE DMA&lt;/name&gt;     &lt;/author&gt;     &lt;updated&gt;2013-03-06T23:46:30Z&lt;/updated&gt;     &lt;title&gt;Script Execution Output&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d420b9f7b37b5/scriptExecution/ff8080813d4120ee013d420ba0a737cd' /&gt;     &lt;entry&gt;       &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d420b9f7b37b5/scriptExecution/ff8080813d4120ee013d420ba0a737cd&lt;/id&gt;         &lt;published&gt;2013-03-06T23:46:30Z&lt;/published&gt;         &lt;updated&gt;2013-03-06T23:46:30Z&lt;/updated&gt;         &lt;title&gt;Standard Output&lt;/title&gt;         &lt;content&gt;Started job 159370001       &lt;/content&gt;     &lt;/entry&gt;     &lt;entry&gt;       &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d420b9f7b37b5/scriptExecution/ff8080813d4120ee013d420ba0a737cd&lt;/id&gt;         &lt;published&gt;2013-03-06T23:46:30Z&lt;/published&gt;         &lt;updated&gt;2013-03-06T23:46:30Z&lt;/updated&gt;         &lt;title&gt;Standard Error&lt;/title&gt;         &lt;content/&gt;       &lt;/entry&gt;     &lt;sop:target server='target1.mycompany.com' /&gt;   &lt;/feed&gt; </pre>

Objective	Request
<p>View troubleshooting information pertinent to a workflow execution</p> <p>Aborted execution</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/auto/running/workflow/&lt;running workflow id&gt;/scriptExecution/&lt;script execution id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d42119b043e9f/scriptExecution/ff8080813d4120ee013d42119b663ea5</p> <p>Note that the URL specified here was returned in the &lt;sop:script-execution&gt; element of a previous GET for a specific workflow execution. In this example, HPE DMA aborted the workflow, because the user who attempted to run it did not have the necessary permissions in the server management system.</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:sop="http://www.hp.com/dma/api/sop"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d42119b043e9f/scriptExecution/ff8080813d4120ee013d42119b663ea5&lt;/id&gt;     &lt;author&gt;       &lt;name&gt;HPE DMA&lt;/name&gt;     &lt;/author&gt;     &lt;updated&gt;2013-03-06T23:40:07Z&lt;/updated&gt;     &lt;title&gt;Script Execution Output&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d42119b043e9f/scriptExecution/ff8080813d4120ee013d42119b663ea5' /&gt;     &lt;entry&gt;       &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d42119b043e9f/scriptExecution/ff8080813d4120ee013d42119b663ea5/st dout&lt;/id&gt;         &lt;published&gt;2013-03-06T23:40:07Z&lt;/published&gt;         &lt;updated&gt;2013-03-06T23:40:07Z&lt;/updated&gt;         &lt;title&gt;Standard Output&lt;/title&gt;         &lt;content&gt;Could not start workflow, see errors&lt;/content&gt;       &lt;/entry&gt;     &lt;entry&gt;       &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/auto/running/workflow/ff8080813d4120ee013d42119b043e9f/scriptExecution/ff8080813d4120ee013d42119b663ea5/st derr&lt;/id&gt;         &lt;published&gt;2013-03-06T23:40:07Z&lt;/published&gt;</pre>

Objective	Request
	<pre> &lt;updated&gt;2013-03-06T23:40:07Z&lt;/updated&gt; &lt;title&gt;Standard Error&lt;/title&gt; &lt;content&gt;Could not find the Program APX com.hp.dma.conn.sa.westapx used to run WEST. Check user permissions. User must belong to a group with List and Execute permissions on the folder containing the APX.&lt;/content&gt; &lt;/entry&gt; &lt;sop:target server='target1.mycompany.com' /&gt; &lt;/feed&gt; </pre>

## Organizations API

Organizations are containers that you can use to organize the servers in your environment into groups that require the same role-based access permissions. An organization contains servers, instances, and databases that can be specified as targets for a deployment. The HPE DMA target environment hierarchy looks like this:



Servers, instances, and databases inherit their permissions from the organization to which they belong.

The Organization API provides a mechanism that enables you to read, create, modify and delete HPE DMA organizations. The capabilities associated with your role determine which Organization API operations you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	<p>https://&lt;DMAServer&gt;:&lt;port&gt;/dma/api/env/organization</p> <p>By default, the port for HTTPS communication in HPE DMA is 8443.</p>
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	env
Response Object	organization

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Only users who have READ permission for an organization can GET information about that organization or the servers, instances, and databases that it contains.
- Only users who have a role with Administrator capability can create (POST) an organization.
- If you do not explicitly specify permissions when you create (POST) an organization, no roles have permission to READ, WRITE, or DEPLOY to that organization.
- Only users who have WRITE permission for a organization can modify (PUT) or delete (DELETE) the organization or any server, instance, or database that it contains.
- Organization names must be unique. Server names must also be unique. Instance names must be unique for a given instance type on a given server. Database names must be unique within an instance.
- Organizations that contain servers cannot be deleted.
- The Default organization cannot be deleted.
- Organizations cannot be renamed.
- If multiple servers host an instance, the servers must all reside in the same organization.

## Query Parameters

Name	Required	Description
<b>orgName</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the organization that you want to GET  Example: Test%20Lab

## Object Identifier

When you want to modify (PUT) or DELETE a specific organization, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/env/organization/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT	Unique alpha-numeric identifier of the organization  Example: ff8443813bfd79c7013bfd7a53d10000

**Tip:** You can specify the object ID for a GET operation instead of specifying the orgName query parameter.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all organizations	<p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/organization</code></p> <p><b>Example:</b></p> <p>GET <code>https://DMA1.mycompany.com:8443/dma/api/env/organization</code></p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/organization&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T16:52:06Z&lt;/updated&gt;   &lt;title&gt;Organizations&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d9 41013d03daf1680000&lt;/id&gt;     &lt;published&gt;2013-02-25T16:52:06Z&lt;/published&gt;     &lt;updated&gt;2013-02-22T21:41:53Z&lt;/updated&gt;     &lt;title&gt;Default&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d03daf1680000' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d03daf1680000' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;/entry&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d9 41013d12443d93219a&lt;/id&gt;     &lt;published&gt;2013-02-25T16:52:06Z&lt;/published&gt;     &lt;updated&gt;2013-02-25T16:51:34Z&lt;/updated&gt; </pre>

Objective	Request
	<pre> &lt;title&gt;Test Lab&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d12443d93219a' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d12443d93219a' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Get a specific organization by ID</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/organization/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d9 41013d12443d93219a&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T16:53:25Z&lt;/updated&gt;   &lt;title&gt;Test Lab&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d12443d93219a' /&gt;   &lt;env:organization name='Test Lab'&gt;     &lt;env:permissions/&gt;   &lt;/env:organization&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d 12447262219b&lt;/id&gt;   &lt;published&gt;2013-02-25T16:53:25Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T16:51:48Z&lt;/updated&gt;   &lt;title&gt;target1.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 </pre>

Objective	Request
	<pre> 3d12447262219b' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 3d12447262219b' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d 124472a2219c&lt;/id&gt;   &lt;published&gt;2013-02-25T16:53:25Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T16:51:48Z&lt;/updated&gt;   &lt;title&gt;target2.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 3d124472a2219c' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 3d124472a2219c' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Get a specific organization by name</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/organization?orgName=&lt;organization name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/organization?orgName=Test%20Lab</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d9 41013d12443d93219a&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T16:55:22Z&lt;/updated&gt;   &lt;title&gt;Test Lab&lt;/title&gt; </pre>



Objective	Request
	<pre> &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d12443d93219a' /&gt;   &lt;env:organization name='Test Lab'&gt;     &lt;env:permissions/&gt;   &lt;/env:organization&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d 12447262219b&lt;/id&gt;   &lt;published&gt;2013-02-25T16:55:22Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T16:51:48Z&lt;/updated&gt;   &lt;title&gt;target1.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 3d12447262219b' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 3d12447262219b' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d 124472a2219c&lt;/id&gt;   &lt;published&gt;2013-02-25T16:55:22Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T16:51:48Z&lt;/updated&gt;   &lt;title&gt;target2.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 3d124472a2219c' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d94101 3d124472a2219c' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Create a new organization</p>	<p>POST <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/organization">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/organization</a></p> <p><b>Example:</b></p> <p>POST <a href="https://DMA1.mycompany.com:8443/dma/api/env/organization">https://DMA1.mycompany.com:8443/dma/api/env/organization</a></p> <p>Request Body:</p>

Objective	Request
	<pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:organization name='New Org'&gt;     &lt;env:permissions&gt;       &lt;env:permission name='DMA Users' read='true' deploy='true' /&gt;       &lt;env:permission name='DMA Admins' read='true' write='true' deploy='true' /&gt;       &lt;env:permission name='DMA Workflow Designers' read='true' deploy='true' /&gt;     &lt;/env:permissions&gt;   &lt;/env:organization&gt; &lt;/entry&gt; </pre> <p><b>Response Body:</b></p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d 03d941013d124b3fe7219d&lt;/id&gt;   &lt;published&gt;2013-02-25T16:59:14Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T16:59:14Z&lt;/updated&gt;   &lt;title&gt;New Org&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff808081 3d03d941013d124b3fe7219d' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff808081 3d03d941013d124b3fe7219d' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;env:organization name='New Org'&gt;     &lt;env:permissions&gt;       &lt;env:permission name='DMA Admins' read='true' write='true' deploy='true' /&gt;       &lt;env:permission name='DMA Users' read='true' deploy='true' /&gt;       &lt;env:permission name='DMA Workflow Designers' read='true' deploy='true' /&gt;     &lt;/env:permissions&gt;   &lt;/env:organization&gt; &lt;/entry&gt; </pre>
<p>Modify an existi</p>	<p>PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/organization/&lt;id&gt;</p> <p><b>Example:</b></p>

Objective	Request
<p>ng organ izatio n</p>	<p>PUT https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d124b3fe7219d</p> <p>This example changes the permissions for the organization created in the previous example.</p> <p><b>Request Body:</b></p> <pre>&lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:organization name='New Org'&gt;     &lt;env:permissions&gt;       &lt;env:permission name='DMA Users' read='true' /&gt;       &lt;env:permission name='DMA Admins' read='true' write='true' deploy='true' /&gt;       &lt;env:permission name='DMA Workflow Designers' read='true' /&gt;     &lt;/env:permissions&gt;   &lt;/env:organization&gt; &lt;/entry&gt;</pre> <p><b>Response Body:</b></p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d9 41013d124b3fe7219d&lt;/id&gt;   &lt;published&gt;2013-02-25T17:12:27Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T16:59:14Z&lt;/updated&gt;   &lt;title&gt;New Org&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d124b3fe7219d' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03 d941013d124b3fe7219d' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;env:organization name='New Org'&gt;     &lt;env:permissions&gt;       &lt;env:permission name='DMA Admins' read='true' write='true' deploy='true' /&gt;       &lt;env:permission name='DMA Users' read='true' /&gt;       &lt;env:permission name='DMA Workflow Designers' read='true' /&gt;     &lt;/env:permissions&gt;   &lt;/env:organization&gt; &lt;/entry&gt;</pre>

Objective	Request
Delete an existing organization	<p>DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/organization/&lt;id&gt;</p> <p><b>Example:</b></p> <p>DELETE https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d124b3fe7219d</p> <p>No response body is returned.</p>

## Servers API

Servers, instances, and databases can be used as targets for deployments. The HPE DMA target environment hierarchy looks like this:

Organization → Server → Instance → Database

The Server API provides a mechanism that enables you to perform the following operations:

- Get information about a specific server
- Add a server to an existing organization
- Remove a server from an organization
- Add a custom field to a server
- Modify the value of an existing custom field associated with the server

The capabilities associated with your role determine which Server API operations you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	<p>https://&lt;DMA Server&gt;:&lt;port&gt;/dma/api/env/server</p> <p>By default, the port for HTTPS communication in HPE DMA is 8443.</p>
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	env
Response Object	server

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Only users who have WRITE permission for an organization can add (POST) a server to that organization.
- Only users who have READ permission for an organization can GET information about that organization or the servers, instances, and databases that it contains.
- Only users who have WRITE permission for an organization can modify (PUT) or delete (DELETE) the organization or any server, instance, or database that it contains.
- Server names must be unique. Instance names must be unique for a given server. Database names must be unique within an instance.
- Servers that contain one or more instances cannot be deleted.
- Servers, instances, or databases specified as targets in any deployment cannot be deleted (nor can their parent objects in the target environment hierarchy).
- A server cannot be added to an organization if it is already assigned to another organization. Only unassigned servers can be added (see "[Unassigned Servers API](#)").
- A server must already exist in the server management platform before it can be added to an organization. With HP Server Automation (SA), for example, a server must be managed by SA and have the DMA Client Files policy (attached and remediated). Servers that meet these criteria appear in the list of unassigned servers.

## Query Parameters

Name	Required	Description
<b>orgName</b>	optional for GET	Name of the organization that contains the server that you want to GET.

Name	Required	Description
	not valid for PUT, POST, DELETE	Example: Test%20Lab  If you specify the orgName, you must also specify the serverName.
<b>serverName</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the server that you want to GET.  Example: target3.mycompany.com  If you specify the serverName, you must also specify the orgName.

## Object Identifier

When you want to modify (PUT) or DELETE a specific server, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/env/server/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT	Unique alpha-numeric identifier of the server  Example: ff8080813d03d941013d12447262219b

**Tip:** You can specify the object ID for a GET operation instead of specifying the orgName and serverName query parameters.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_	The user making the request did not specify credentials (user name and

Code	Meaning
UNAUTHORIZED	password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

**Tip:** To list all servers that a specific organization contains, see ["Organizations API" on page 99](#).

Objective	Request
Get detailed information about a server by specifying its ID	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d12447262219b</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d12447262219b&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;</pre>

Objective	Request
	<pre> &lt;updated&gt;2013-02-25T17:29:37Z&lt;/updated&gt; &lt;title&gt;target1.mycompany.com&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d9410 13d12447262219b' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d9410 13d12447262219b' /&gt; &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d0 3d941013d12443d93219a' /&gt; &lt;env:server name='target1.mycompany.com' device-id='4050001' connector-uuid='ff8080813d03d743013d03d877ae0001'&gt;   &lt;env:custom-field name='DEBUG_LEVEL' value='' /&gt; &lt;/env:server&gt; &lt;/feed&gt; </pre>
<p>Get detailed information about a server by specifying its name</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server?orgName=&lt;org name&gt;&amp;serverName=&lt;server name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/server?orgName=Test%20Lab&amp;serverName=target1.mycompany.com</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013 d12447262219b&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T17:46:53Z&lt;/updated&gt;   &lt;title&gt;target1.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d9410 13d12447262219b' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d9410 13d12447262219b' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d0 3d941013d12443d93219a' /&gt;   &lt;env:server name='target1.mycompany.com' device-id='4050001' </pre>



Objective	Request
	<pre>connector-uuid='ff8080813d03d743013d03d877ae0001'&gt;   &lt;env:custom-field name='DEBUG_LEVEL' value='' /&gt; &lt;/env:server&gt; &lt;/feed&gt;</pre>
<p>Add a server to an existing organization—specify its name in the Request Body</p>	<p>POST <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server</code></p> <p><b>Example:</b></p> <p>POST <code>https://DMA1.mycompany.com:8443/dma/api/env/server</code></p> <p>This example adds the server <code>target3.mycompany.com</code> to the Test Lab organization.</p> <p>Request Body:</p> <pre>&lt;entry xmlns='https://www.w3.org/2005/Atom' xmlns:env='https://www.hp.com/dma/api/env'&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server name='target3.mycompany.com'&gt;   &lt;/env:server&gt; &lt;/entry&gt;</pre> <p>Response Body:</p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1&lt;/id&gt;   &lt;published&gt;2013-02-25T17:55:09Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T17:55:09Z&lt;/updated&gt;   &lt;title&gt;target3.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server name='target3.mycompany.com' device-id='3840001' connector-uuid='ff8080813d03d743013d03d877ae0001' /&gt; &lt;/entry&gt;</pre>

Objective	Request
<p>Add a server to an existing organization—specify its device-id in the Request Body</p>	<p>POST <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server</code></p> <p><b>Example:</b></p> <p>POST <code>https://DMA1.mycompany.com:8443/dma/api/env/server</code></p> <p>This example adds the server <code>target3.mycompany.com</code> to the Test Lab organization.</p> <p>Request Body:</p> <pre>&lt;entry xmlns='https://www.w3.org/2005/Atom' xmlns:env='https://www.hp.com/dma/api/env'&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server device-id='4050001' /&gt; &lt;/entry&gt;</pre> <p>Response Body:</p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d12a6a1d321a7&lt;/id&gt;   &lt;published&gt;2013-02-25T18:39:03Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T18:39:03Z&lt;/updated&gt;   &lt;title&gt;target3.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d12a6a1d321a7' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d12a6a1d321a7' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server name='target4.mycompany.com' device-id='4050001' connector-uuid=' ff8080813d03d743013d03d877ae0001' /&gt; &lt;/entry&gt;</pre> <p><b>Tip:</b> If a server was deleted from your server management platform and then added again—and it is really the same server—you can use a PUT request to change the device-id for that server in the HPE DMA database.</p>
<p>Add a</p>	<p>PUT <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server/&lt;id&gt;</code></p>

Objective	Request
<p>custom field to an existing server</p>	<p><b>Example:</b></p> <p>PUT <a href="https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1">https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1</a></p> <p>This example adds a new custom field to the server created in the previous example.</p> <p>Request Body:</p> <pre>&lt;entry xmlns='https://www.w3.org/2005/Atom' xmlns:env='https://www.hp.com/dma/api/env'&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server name='target3.mycompany.com'&gt;     &lt;env:custom-field name='new_field' value='ABC' /&gt;   &lt;/env:server&gt; &lt;/entry&gt;</pre> <p>Response Body:</p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1&lt;/id&gt;   &lt;published&gt;2013-02-25T18:00:26Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T17:55:09Z&lt;/updated&gt;   &lt;title&gt;target3.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server name='target3.mycompany.com' device-id='3840001' connector-uuid='ff8080813d03d743013d03d877ae0001'&gt;     &lt;env:custom-field name='new_field' value='ABC' /&gt;     &lt;env:custom-field name='DEBUG_LEVEL' value='' /&gt;   &lt;/env:server&gt; &lt;/entry&gt;</pre>

Objective	Request
<p>Modify the value of an existing custom field</p>	<p>PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server/&lt;id&gt;</p> <p><b>Example:</b></p> <p>PUT https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1</p> <p>This example modifies the value of the custom field added to the server in the previous example.</p> <p><b>Request Body:</b></p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server name='target3.mycompany.com'&gt;     &lt;env:custom-field name='new_field' value='XYZ' /&gt;   &lt;/env:server&gt; &lt;/entry&gt;</pre> <p><b>Response Body:</b></p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1&lt;/id&gt;   &lt;published&gt;2013-02-25T18:03:11Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T17:55:09Z&lt;/updated&gt;   &lt;title&gt;target3.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   &lt;env:server name='target3.mycompany.com' device-id='3840001' connector-uuid='ff8080813d03d743013d03d877ae0001'&gt;     &lt;env:custom-field name='DEBUG_LEVEL' value='' /&gt;     &lt;env:custom-field name='new_field' value='XYZ' /&gt;</pre>

Objective	Request
	<pre> &lt;/env:server&gt; &lt;/entry&gt; </pre>
<p>Modify the value of the organization for the server</p>	<p>PUT <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server/&lt;id&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server/&lt;id&gt;</a></p> <p><b>Example:</b></p> <p>PUT <a href="https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1">https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1</a></p> <p>This example modifies the value of the custom field added to the server in the previous example.</p> <p><b>Request Body:</b></p> <pre> &lt;entry   xmlns='https://www.w3.org/2005/Atom'   xmlns:env='https://www.hp.com/dma/api/env' &gt;   &lt;link rel='parent' type='application/atom+xml'  href='https://DMA1.mycompany.com:8443/dma/api/env/organization/8f82f39d2e084d0b012e0a28bcfa0000' /&gt;     &lt;env:server name='target3.mycompany.com' &gt;       &lt;env:organization-id id='8f82f39d2e084d0b012e0a28bcfa0000' /&gt;     &lt;/env:server&gt; &lt;/entry&gt; </pre> <p><b>Response Body:</b></p> <pre> &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/902676cd49c1301d0149c14b4b3709a33&lt;/id&gt;   &lt;published&gt;2014-11-18T05:11:55Z&lt;/published&gt;   &lt;updated&gt;2014-11-18T05:06:17Z&lt;/updated&gt;   &lt;title&gt;target3.mycompany.com&lt;/title&gt;   &lt;link rel="self" type="application/atom+xml" href="https://DMA1.mycompany.com:8443/dma/api/env/server/902676cd49c1301d0149c14b4b3709a33" /&gt;   &lt;link rel="edit" type="application/atom+xml" href="https://DMA1.mycompany.com:8443/dma/api/env/server/902676cd49c1301d0149c14b4b3709a33" /&gt;   &lt;link rel="alternate" type="text/html" href="https://DMA1.mycompany.com:8443/dma/env" /&gt;   &lt;link rel="parent" type="application/atom+xml" href="https://DMA1.mycompany.com:8443/dma/api/env/organization/8f82f39d2e084d0b012e0a28bcfa0000" /&gt;     &lt;env:server name="target3.mycompany.com" device-id="1480001" connector-uuid="902670cf4844604a01484461f4cd0001"&gt; </pre>

Objective	Request
	<pre>                 &lt;env:custom-field name="test_me1" value="" /&gt;             &lt;/env:server&gt;         &lt;/entry&gt;     </pre>
<p>Rename an existing server</p>	<p><b>Note:</b> Only administrators have access to this section.</p> <p>PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server/&lt;id&gt;</p> <p><b>Example:</b></p> <p>PUT https://DMA1.mycompany.com:8443/dma/api/env/server/8f82f39d2e084d0b012e0a28bcfa0000</p> <p>This example modifies the server property name for the server 8f82f39d2e084d0b012e0a28bcfa0000. Here, the 'target4.mycompany.com' is the new name of the server property.</p> <p><b>Request Body:</b></p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d03d941013d12443d93219a' /&gt;   /&gt;   &lt;env:server name='target4.mycompany.com'&gt;   &lt;/env:server&gt; &lt;/entry&gt;     </pre> <p><b>Response Body:</b></p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/server/8f82f39d2e084d0b012e0a28bcfa0000&lt;/id&gt;   &lt;published&gt;2013-02-25T18:03:11Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T17:55:09Z&lt;/updated&gt;   &lt;title&gt;target4.mycompany.com&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/8f82f39d2e084d0b012e0a28bcfa0000' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/8f82f39d2e084d0b012e0a28bcfa0000' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;     </pre>

Objective	Request
	<pre> &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/organization/ff8080813d0 3d941013d12443d93219a' /&gt;   &lt;env:server name='target4.mycompany.com' device-id='3840001' connector-uuid='8f82f39d2e084d0b012e0a28bcfa0000'&gt;     &lt;/env:server&gt;   &lt;/entry&gt; </pre>
<p>Remove a server from an organization</p>	<p>DELETE <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/server/&lt;id&gt;</code></p> <p><b>Example:</b></p> <p>DELETE <code>https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d127e717021a1</code></p> <p>No response body is returned.</p> <p><b>Note:</b> This operation returns the server to the unassigned servers pool (see <a href="#">"Unassigned Servers API" on page 161</a>).</p>

## Instances API

Servers, instances, and databases can be used as targets for deployments. The HPE DMA target environment hierarchy looks like this:



The Instance API provides a mechanism that enables you to perform the following operations:

- Get information about a specific instance
- Create an instance, and associate it with one or more existing servers
- Add a custom field to an instance
- Modify the value of an existing custom field associated with an instance
- Delete an instance

The capabilities associated with your role determine which Instance API operations you are permitted to perform (see ["Permissions and Constraints"](#)).

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/env/instance By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	env
Response Object	instance

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Only users who have WRITE permission for an organization can add (POST) an instance to a server in that organization.
- Only users who have READ permission for an organization can GET information about that organization or the servers, instances, and databases that it contains.
- Only users who have WRITE permission for an organization can modify (PUT) or delete (DELETE) the organization or any server, instance, or database that it contains.
- Instance names must be unique for a given server. Database names must be unique within an instance.
- Instances associated with one or more databases cannot be deleted.
- Servers, instances, or databases specified as targets in any deployment cannot be deleted (nor can their parent objects in the target environment hierarchy).



## Query Parameters

Name	Required	Description
<b>orgName</b>	required for GET  not valid for PUT, POST, DELETE	Name of the organization that contains a server that hosts the instance that you want to GET  Example: Test%20Lab
<b>serverName</b>	required for GET  not valid for PUT, POST, DELETE	Name of a server that hosts the instance that you want to GET  Example: target3.mycompany.com
<b>instanceName</b>	required for GET  not valid for PUT, POST, DELETE	Name of the instance that you want to GET  Example: QASTO1
<b>dbType</b>	required for GET  not valid for PUT, POST, DELETE	Type of databases that you want to GET  Valid Values: DB2, Oracle, SQL Server, MySQL, PostgreSQL, Sybase

## Object Identifier

When you want to modify (PUT) or DELETE a specific instance, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/env/instance/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT	Unique alpha-numeric identifier of the instance  Example: ff8080813d03d941013d108785291143

**Tip:** You can specify the object ID for a GET operation instead of specifying the orgName, serverName, dbType, and instanceName query parameters.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

**Tip:** To list all instances associated with a specific server, see ["Servers API" on page 108](#).

Objective	Request
Get a specific instance	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/instance/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d108785291143</p> <p>Response Body:</p>

Objective	Request
e by ID	<pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d108785291143&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T19:21:21Z&lt;/updated&gt;   &lt;title&gt;QAMIN1&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d108785291143' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d108785291143' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc873e0015' /&gt;   &lt;env:instance name='QAMIN1' type='Oracle' asm='false'&gt;     &lt;env:connection host='target4.mycompany.com' port='1521' windows-domain='' username='oracle' /&gt;     &lt;env:custom-field name='oracle sid' value='' /&gt;     &lt;env:custom-field name='sybase version' value='' /&gt;     &lt;env:custom-field name='server name' value='' /&gt;     &lt;env:custom-field name='sybase minor version' value='' /&gt;     &lt;env:custom-field name='user' value='' /&gt;     &lt;env:custom-field name='password' value='***' /&gt;     &lt;env:custom-field name='name' value='' /&gt;     &lt;env:custom-field name='oracle version' value='11.2.0.3.0' /&gt;     &lt;env:custom-field name='version' value='Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production' /&gt;     &lt;env:custom-field name='opatch' value='11.2.0.3.0' /&gt;     &lt;env:custom-field name='last patch id' value='15663328' /&gt;     &lt;env:custom-field name='patch level' value='PSU 11.2.0.3.5' /&gt;     &lt;env:custom-field name='oracle home' value='/opt/app/oracle/product/11.2.0/DB3' /&gt;     &lt;env:custom-field name='instance name' value='QAMIN1' /&gt;     &lt;env:custom-field name='os user' value='oracle' /&gt;     &lt;env:custom-field name='tns admin' value='/opt/app/oracle/product/11.2.0/DB3/network/admin' /&gt;   &lt;/env:instance&gt; &lt;/entry&gt; </pre>

Objective	Request
	<pre> &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d10878ced114f&lt;/id&gt;   &lt;published&gt;2013-02-25T19:21:21Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T08:45:51Z&lt;/updated&gt;   &lt;title&gt;QAMIN1&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d10878ced114f' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d10878ced114f' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Get a specific instance by name</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/instance?orgName=&lt;org name&gt;&amp;serverName=&lt;server name&gt;&amp;instanceName=&lt;instance name&gt;&amp;dbType=&lt;database type&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/instance?orgName=Default&amp;serverName=target4.mycompany.com&amp;instanceName=QAMIN1&amp;dbType=Oracle</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d108785291143&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T19:28:57Z&lt;/updated&gt;   &lt;title&gt;QAMIN1&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d108785291143' /&gt;   &lt;link rel='edit' type='application/atom+xml' </pre>

Objective	Request
	<pre> href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d9410 13d108785291143' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013 d03dc873e0015' /&gt;   &lt;env:instance name='QAMIN1' type='Oracle' asm='false'&gt;     &lt;env:connection host='minion1.hpswlab.com' port='1521' windows-domain='' username='oracle' /&gt;     &lt;env:custom-field name='oracle sid' value='' /&gt;     &lt;env:custom-field name='sybase version' value='' /&gt;     &lt;env:custom-field name='server name' value='' /&gt;     &lt;env:custom-field name='sybase minor version' value='' /&gt;     &lt;env:custom-field name='user' value='' /&gt;     &lt;env:custom-field name='password' value='***' /&gt;     &lt;env:custom-field name='name' value='' /&gt;     &lt;env:custom-field name='oracle version' value='11.2.0.3.0' /&gt;     &lt;env:custom-field name='version' value='Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production' /&gt;     &lt;env:custom-field name='opatch' value='11.2.0.3.0' /&gt;     &lt;env:custom-field name='last patch id' value='15663328' /&gt;     &lt;env:custom-field name='patch level' value='PSU 11.2.0.3.5' /&gt;     &lt;env:custom-field name='oracle home' value='/opt/app/oracle/product/11.2.0/DB3' /&gt;     &lt;env:custom-field name='instance name' value='QAMIN1' /&gt;     &lt;env:custom-field name='os user' value='oracle' /&gt;     &lt;env:custom-field name='tns admin' value='/opt/app/oracle/product/11.2.0/DB3/network/admin' /&gt;   &lt;/env:instance&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013 d10878ced114f&lt;/id&gt;   &lt;published&gt;2013-02-25T19:28:57Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T08:45:51Z&lt;/updated&gt;   &lt;title&gt;QAMIN1&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d10878ced114f' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d10878ced114f' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>

Objective	Request
<p>Create an instance, and associate it with two servers</p>	<p>POST <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/instance">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/instance</a></p> <p><b>Example:</b></p> <p>POST <a href="https://DMA1.mycompany.com:8443/dma/api/env/instance">https://DMA1.mycompany.com:8443/dma/api/env/instance</a></p> <p>This example creates a new Oracle instance called <code>NewInst</code> and associates it with the two servers specified in the parent links.</p> <p><b>Request Body:</b></p> <pre>&lt;entry xmlns='https://www.w3.org/2005/Atom' xmlns:env='https://www.hp.com/dma/api/env' &gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013 d03dc873e0015' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013 d03dc89c80025' /&gt;   &lt;env:instance name='New Inst' type='Oracle' asm='false'&gt;     &lt;env:connection host='connectionHost' port='1521' windows-domain='' username='me' /&gt;   &lt;/env:instance&gt; &lt;/entry&gt;</pre> <p><b>Response Body:</b></p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013 d12db8be621a9&lt;/id&gt;   &lt;published&gt;2013-02-25T19:36:50Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T19:36:50Z&lt;/updated&gt;   &lt;title&gt;New Inst&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013 13d12db8be621a9' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013 13d12db8be621a9' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013 d03dc89c80025' /&gt;   &lt;link rel='parent' type='application/atom+xml'</pre>

Objective	Request
	<pre>href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc873e0015' /&gt;   &lt;env:instance name='New Inst' type='Oracle' asm='false'&gt;     &lt;env:connection host='connectionHost' port='1521' windows-domain='' username='me' /&gt;   &lt;/env:instance&gt; &lt;/entry&gt;</pre>
<p>Add a custom field to an instance</p>	<p>PUT <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/instance/&lt;id&gt;</code></p> <p><b>Example:</b></p> <p>PUT <code>https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d12db8be621a9</code></p> <p>This example adds a new Custom Field called <code>newField</code> to the instance created in the previous example.</p> <p>Request Body:</p> <pre>&lt;entry xmlns='https://www.w3.org/2005/Atom' xmlns:env='https://www.hp.com/dma/api/env'&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc873e0015' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc89c80025' /&gt;   &lt;env:instance name='New Inst' type='Oracle' asm='false'&gt;     &lt;env:connection host='connectionHost' port='1521' windows-domain='' username='me' /&gt;     &lt;env:custom-field name='newField' value='ABC' /&gt;   &lt;/env:instance&gt; &lt;/entry&gt;</pre> <p>Response Body:</p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d12db8be621a9&lt;/id&gt;   &lt;published&gt;2013-02-25T19:41:18Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T19:36:50Z&lt;/updated&gt;   &lt;title&gt;New Inst&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml'</pre>

Objective	Request
	<pre> href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d12db8be621a9' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d12db8be621a9' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc89c80025' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc873e0015' /&gt;   &lt;env:instance name='New Inst' type='Oracle' asm='false'&gt;     &lt;env:connection host='connectionHost' port='1521' windows-domain='' username='me' /&gt;     &lt;env:custom-field name='newField' value='ABC' /&gt;   &lt;/env:instance&gt; &lt;/entry&gt; </pre>
<p>Modify the value of an existing custom field associated with an instance</p>	<p>PUT <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/instance/&lt;id&gt;</code></p> <p><b>Example:</b></p> <p>PUT <code>https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d12db8be621a9</code></p> <p>This example modifies the value of the Custom Field that was added to the instance in the previous example.</p> <p>Request Body:</p> <pre> &lt;entry xmlns='https://www.w3.org/2005/Atom' xmlns:env='https://www.hp.com/dma/api/env'&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc873e0015' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013d03dc89c80025' /&gt;   &lt;env:instance name='New Inst' type='Oracle' asm='false'&gt;     &lt;env:connection host='connectionHost' port='1521' windows-domain='' username='me' /&gt;     &lt;env:custom-field name='newField' value='XYZ' /&gt;   &lt;/env:instance&gt; &lt;/entry&gt; </pre> <p>Response Body:</p>



Objective	Request
	<pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013 d12db8be621a9&lt;/id&gt;   &lt;published&gt;2013-02-25T19:41:18Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T19:36:50Z&lt;/updated&gt;   &lt;title&gt;New Inst&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d9410 13d12db8be621a9' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d9410 13d12db8be621a9' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013 d03dc89c80025' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/server/ff8080813d03d941013 d03dc873e0015' /&gt;   &lt;env:instance name='New Inst' type='Oracle' asm='false'&gt;     &lt;env:connection host='connectionHost' port='1521' windows-domain='' username='me' /&gt;     &lt;env:custom-field name='newField' value='XYZ' /&gt;   &lt;/env:instance&gt; &lt;/entry&gt; </pre>
Delete instance	<p>DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/instance/&lt;id&gt;</p> <p><b>Example:</b></p> <p>DELETE https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d12db8be621a9</p> <p>No response body is returned.</p>

**Note:** Some HPE DMA workflows create special Custom Fields that are not visible in the HPE DMA UI. These Custom Fields are listed in the Response Body when you perform a GET or PUT using the Instance API or Custom Field API. The names of these special Custom Fields begin with a double underscore. For example:

```

        <env:custom-field name='__compliance - oracle - 9_12 - verify access to
any dba_ views' value=''/>
        <env:custom-field name='__compliance - oracle - 9_18 - verify access to
dba_tab_privs' value=''/>
        <env:custom-field name='__compliance - oracle - 9_15 - verify access to
dba_roles' value=''/>
        <env:custom-field name='__compliance - oracle - 9_35 - verify grants to
create procedure' value=''/>
        <env:custom-field name='__compliance - oracle - 9_33 - verify grants to
create library' value=''/>
        <env:custom-field name='__compliance - oracle - 8_06 - password grace
time' value=''/>

```

These special Custom Fields are not shown in the examples above.

## Databases API

Servers, instances, and databases can be used as targets for deployments. The HPE DMA target environment hierarchy looks like this:

Organization → Server → Instance → Database

The Database API provides a mechanism that enables you to perform the following operations:

- Get information about a specific database
- Create a database, and associate it with one or more existing instances
- Add a custom field to a database
- Modify the value of an existing custom field associated with a database
- Delete a database

The capabilities associated with your role determine which Database API operations you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	<p>https://&lt;DMAServer&gt;:&lt;port&gt;/dma/api/env/database</p> <p>By default, the port for HTTPS communication in HPE DMA is 8443.</p>
Authentication	Basic authentication—requires valid HPE DMA user name and password

Response Format	XML
Resource Family	env
Response Object	database

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Only users who have WRITE permission for an organization can add (POST) a database to an instance in that organization.
- Only users who have READ permission for an organization can GET information about that organization or the servers, instances, and databases that it contains.
- Only users who have WRITE permission for an organization can modify (PUT) or delete (DELETE) the organization or any server, instance, or database that it contains.
- Database names must be unique within an instance.
- Servers, instances, or databases specified as targets in any deployment cannot be deleted (nor can their parent objects in the target environment hierarchy).

## Query Parameters

Name	Required	Description
<b>orgName</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the organization that contains a server that hosts an instance that services the database that you want to GET  Example: Test%20Lab

Name	Required	Description
<b>serverName</b>	optional for GET  not valid for PUT, POST, DELETE	Name of a server that hosts an instance that services the database that you want to GET  Example: target3.mycompany.com
<b>instanceName</b>	optional for GET  not valid for PUT, POST, DELETE	Name of an instance that services the database that you want to GET  Example: QASTO1
<b>databaseName</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the database that you want to GET  Example: QASTO1db1
<b>dbType</b>	optional for GET  not valid for PUT, POST, DELETE	Type of databases that you want to GET  Valid Values: DB2, Oracle, SQL Server, MySQL, PostgreSQL, Sybase

## Object Identifier

When you want to modify (PUT) or DELETE a specific database, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/env/database/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT	Unique alpha-numeric identifier of the database  Example: ff8080813d03d941013d108785291143

**Tip:** You can specify the object ID for a GET operation instead of specifying the orgName, serverName, dbType, instanceName, and databaseName query parameters.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

**Tip:** To list all databases associated with a specific instance, see ["Instances API" on page 119](#).

Objective	Request
Get information for a	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/database/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d0db93c995b9b</p> <p>Response Body:</p>

Objective	Request
specific database by ID	<pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d0db93c995b9b&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T23:17:53Z&lt;/updated&gt;   &lt;title&gt;tempdb&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d0db93c995b9b' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d0db93c995b9b' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d0db9187b5b90' /&gt;   &lt;env:database name='tempdb'&gt;&lt;/env:database&gt; &lt;/feed&gt;                     </pre>
Get information for a specific database by name	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/database?orgName=&lt;org name&gt;&amp;serverName=&lt;server name&gt;&amp;instanceName=&lt;instance name&gt;&amp;dbType=&lt;database type&gt;&amp;databaseName=&lt;database name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/database?orgName=Default&amp;serverName=target1.mycompany.com&amp;instanceName=QA2012&amp;dbType=SQL%20Server&amp;databaseName=tempdb</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d0db93c995b9b&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-25T23:16:52Z&lt;/updated&gt;   &lt;title&gt;tempdb&lt;/title&gt;                     </pre>

Objective	Request
	<pre> &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d0db93c995b9b' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d0db93c995b9b' /&gt; &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d9410 13d0db9187b5b90' /&gt; &lt;env:database name='tempdb'&gt;&lt;/env:database&gt; &lt;/feed&gt; </pre>
<p>Create a database, and associate it with an instance</p>	<p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/database</p> <p><b>Example:</b></p> <p>POST https://DMA1.mycompany.com:8443/dma/api/env/database</p> <p>This example creates a new Oracle database called newDB and associates it with the instance QAST01.</p> <p>Request Body:</p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d9410 13d0db9187b5b90' /&gt;   &lt;env:database name='newDB'&gt;&lt;/env:database&gt; &lt;/entry&gt; </pre> <p>Response Body:</p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt; &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013 d13ab50dc24dd&lt;/id&gt;   &lt;published&gt;2013-02-25T23:23:47Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T23:23:47Z&lt;/updated&gt;   &lt;title&gt;newDB&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d13ab50dc24dd' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 </pre>

Objective	Request
	<pre> 13d13ab50dc24dd' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d9410 13d0db9187b5b90' /&gt;   &lt;env:database name='newDB'&gt;&lt;/env:database&gt; &lt;/entry&gt; </pre>
<p>Add a custom field to an existing database</p>	<p>PUT <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/database/&lt;id&gt;</code></p> <p><b>Example:</b></p> <p>PUT <code>https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d13ab50dc24dd</code></p> <p>This example adds a new custom field called <code>newField</code> to the database created in the previous example.</p> <p>Request Body:</p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:database name='newDB'&gt;     &lt;env:custom-field name='newField' value='ABC' /&gt;   &lt;/env:database&gt; &lt;/entry&gt; </pre> <p>Response Body:</p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013 d13ab50dc24dd&lt;/id&gt;   &lt;published&gt;2013-02-25T23:25:08Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T23:23:47Z&lt;/updated&gt;   &lt;title&gt;newDB&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d13ab50dc24dd' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d13ab50dc24dd' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt; </pre>



Objective	Request
	<pre> &lt;link rel='parent' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d9410 13d0db9187b5b90' /&gt;   &lt;env:database name='newDB'&gt;     &lt;env:custom-field name='newField' value='ABC' /&gt;   &lt;/env:database&gt; &lt;/entry&gt; </pre>
<p>Modify the value of a custom field associated with a database</p>	<p>PUT <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/database/&lt;id&gt;</code></p> <p><b>Example:</b></p> <p>PUT <code>https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d13ab50dc24dd</code></p> <p>This example modifies the value of the custom field that was added to the database in the previous example.</p> <p>Request Body:</p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:database name='newDB'&gt;     &lt;env:custom-field name='newField' value='XYZ' /&gt;   &lt;/env:database&gt; &lt;/entry&gt; </pre> <p>Response Body:</p> <pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013 d13ab50dc24dd&lt;/id&gt;   &lt;published&gt;2013-02-25T23:26:25Z&lt;/published&gt;   &lt;updated&gt;2013-02-25T23:23:47Z&lt;/updated&gt;   &lt;title&gt;newDB&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d13ab50dc24dd' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d9410 13d13ab50dc24dd' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env' /&gt;   &lt;link rel='parent' type='application/atom+xml' </pre>

Objective	Request
	<pre>href='https://DMA1.mycompany.com:8443/dma/api/env/instance/ff8080813d03d941013d0db9187b5b90' /&gt;   &lt;env:database name='newDB'&gt;     &lt;env:custom-field name='newField' value='XYZ' /&gt;   &lt;/env:database&gt; &lt;/entry&gt;</pre>
Delete database	<p>DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/database/&lt;id&gt;</p> <p><b>Example:</b></p> <p>DELETE https://DMA1.mycompany.com:8443/dma/api/env/database/ff8080813d03d941013d13ab50dc24dd</p> <p>No response body is returned.</p>

## Smart Groups API

Smart Groups are dynamic groups of servers, instances, or databases defined by some criteria. They are used to specify targets for deployments. As information about an environment object changes, its membership in any Smart Groups is re-evaluated. For example, say that a server has a Custom Field called `sshd_running` that is set to true. This server belongs to an SSH Group of servers. When `sshd_running` for this server changes to false, it is no longer included in the SSH Group. Each Smart Group is assigned a role. An HPE DMA user can only create Smart Groups for roles assigned to that user. If the role grants the user both READ and DEPLOY permission for an organization, the servers, instances, or databases in that organization can be used in the Smart Group.

The Smart Groups API provides a mechanism that enables you to perform the following operations:

- List all Smart Groups that are visible to your role
- Get information about a specific Smart Group
- Create a Smart Group
- Modify the expression (or expressions) used to define a specific Smart Group
- Delete a Smart Group

The capabilities associated with your role determine which Smart Group API operations that you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/env/smartgroup By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	env
Response Object	smartgroup

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Any HPE DMA user can create a Smart Group.
- Only HPE DMA users whose roles have Administrator capability can view all Smart Groups.
- Any user can view Smart Groups with the same role (or roles) as that user.
- You must specify the role when you create or modify a Smart Group.
- You must specify the following information when you create or modify a Smart Group:
  - Role
  - Name (must be unique)
  - Target level (server, instance, or database)
  - One or more criteria that define membership in the Smart Group—including a valid selector (for example: Organization.Name or Server.OS), a valid operator, and a valid value

You must specify at least one criterion, and you can specify multiple criteria. The criteria will be combined using a logical AND—all criteria must be satisfied in order for the target to be included in the Smart Group.

Information about the specified Target Level object and its parents is available for forming the criteria. For example, if the Target Level is instance, information for organizations and servers is also available in the drop-down.

- Criteria cannot contain a selector that contains the string "password"(for example: Instance.Password or Oracle\_Password).
- A Smart Group's target level cannot be modified after the Smart Group is created.
- A Smart Group created by a user with Administrator capability can have any registered role.
- A Smart Group created by a user who does NOT have Administrator capability can only be assigned a role that this user has.
- A Smart Group can only be modified (PUT) or deleted (DELETE) by a user who has the same role as the Smart Group.
- You cannot modify (PUT) a Smart Group that does not already exist.
- You must specify the Smart Group id in order to modify (PUT) or delete (DELETE) it.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the Smart Group that you want to GET  Example: Linux%20Servers

## Object Identifier

When you want to modify (PUT) or DELETE a specific Smart Group, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/env/smartgroup/<id>`

Name	Required	Description
<b>id</b>	optional for GET	Unique alpha-numeric identifier of the Smart Group

Name	Required	Description
	required for PUT, DELETE	Example: ff8080813d03d941013d108785291143

**Tip:** You can specify the object ID for a GET operation instead of specifying the name parameter.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

<b>O b j e c t i v e</b>	<b>Request</b>
L i s t a l l S m a r t G r o u p s  N O T E: T h i s r e q u e s t w a s m a d e b y a n H P E D M A u s e r w h o s e r o l e h a d	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/smartgroup</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T01:19:10Z&lt;/updated&gt;   &lt;title&gt;Smart Groups&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d140f981f24f9&lt;/id&gt;   &lt;published&gt;2013-02-26T01:19:10Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T01:19:10Z&lt;/updated&gt;   &lt;title&gt;Linux Servers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d140f981f24f9' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d140f981f24f9' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d03d941013d140f981f24f9' /&gt;   &lt;env:smart-group name='Linux Servers' role='DMA Users' target- level='Server' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d94101</pre>

Objective	Request
<p>A d m i n i s t r a t o r y.</p>	<pre> 3d140f37b324f7&lt;/id&gt;   &lt;published&gt;2013-02-26T01:19:10Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T01:19:10Z&lt;/updated&gt;   &lt;title&gt;Oracle Instances&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941 013d140f37b324f7' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941 013d140f37b324f7' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d03d941013d 140f37b324f7' /&gt;   &lt;env:smart-group name='Oracle Instances' role='DMA Admins' target- level='Instance' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d94101 3d141014e924fb&lt;/id&gt;   &lt;published&gt;2013-02-26T01:19:10Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T01:19:10Z&lt;/updated&gt;   &lt;title&gt;Windows Servers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941 013d141014e924fb' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941 013d141014e924fb' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d03d941013d 141014e924fb' /&gt;   &lt;env:smart-group name='Windows Servers' role='DMA Users' target- level='Server' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee01 3d4230a18a4248&lt;/id&gt;   &lt;published&gt;2013-03-07T00:19:53Z&lt;/published&gt;   &lt;updated&gt;2013-03-07T00:19:53Z&lt;/updated&gt;   &lt;title&gt;Las Vegas Data Ctr&lt;/title&gt; </pre>

<b>O b j e c t i v e</b>	<b>Request</b>
<p>Li st all S m art Gr ou ps vi si bl e to yo ur rol es</p> <p>N O T E: T h is re qu es t w as m ad e by an H P E D</p>	<p>GET <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup</a></p> <p><b>Example:</b></p> <p>GET <a href="https://DMA1.mycompany.com:8443/dma/api/env/smartgroup">https://DMA1.mycompany.com:8443/dma/api/env/smartgroup</a></p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T11:58:53Z&lt;/updated&gt;   &lt;title&gt;Smart Groups&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d140f981f24f9&lt;/id&gt;     &lt;published&gt;2013-02-26T11:58:53Z&lt;/published&gt;     &lt;updated&gt;2013-02-26T11:58:53Z&lt;/updated&gt;     &lt;title&gt;Linux Servers&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d140f981f24f9' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d140f981f24f9' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d03d941013d140f981f24f9' /&gt;     &lt;env:smart-group name='Linux Servers' role='DMA Users' target-level='Server' /&gt;   &lt;/entry&gt;   &lt;/entry&gt;</pre>



Objective	Request
<p>M A u s e r w i t h t h e D M A U s e r s r o l e.</p>	<pre> &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d141014e924fb&lt;/id&gt;   &lt;published&gt;2013-02-26T11:58:53Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T11:58:53Z&lt;/updated&gt;   &lt;title&gt;Windows Servers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d141014e924fb' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941013d141014e924fb' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d03d941013d141014e924fb' /&gt;   &lt;env:smart-group name='Windows Servers' role='DMA Users' target-level='Server' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4230a18a4248&lt;/id&gt;   &lt;published&gt;2013-03-07T00:19:53Z&lt;/published&gt;   &lt;updated&gt;2013-03-07T00:19:53Z&lt;/updated&gt;   &lt;title&gt;Las Vegas Data Ctr&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4230a18a4248' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4230a18a4248' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d4120ee013d4230a18a4248' /&gt;   &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813d4120ee013d42315f85424a' title='ApplyCriticalPatchUpdatetoCRSorGridHome_InstallCurrentPSUPatch_Linux_Oracle_11203_Latest_B' /&gt;   &lt;link rel='usedby' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813d4120ee013d42320edd425b' title='ApplyOracleGRIDStandalonePatchandApplyDatabasePatch_ApplyGridPatch_Linux_Oracle_11203_Latest_B' /&gt;   &lt;env:smart-group name='Las Vegas Data Ctr' role='DMA Users' target- </pre>

<b>O b j e c t i v e</b>	<b>Request</b>
<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4c16166b159c</p> <p>This example returns detailed information about the Smart Group created in the previous example. The Smart Group ID is specified in the URL.</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-03-08T22:26:53Z&lt;/updated&gt;   &lt;title&gt;Smart Groups&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee01 3d4c16166b159c&lt;/id&gt;     &lt;published&gt;2013-03-08T22:26:53Z&lt;/published&gt;     &lt;updated&gt;2013-03-08T22:26:53Z&lt;/updated&gt;     &lt;title&gt;Oracle 11.2.0 Instances&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee 013d4c16166b159c' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee 013d4c16166b159c' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d4120ee013d 4c16166b159c' /&gt;     &lt;link rel='usedby' type='application/atom+xml'</pre>	

<p><b>O b j e c t i v e</b></p>	<p><b>Request</b></p>
	<pre>href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813d4120e e013d4c1ceeb51733'     title='RunOracleComplianceAudit_11.2.0_instances' /&gt;     &lt;env:smart-group name='Oracle 11.2.0 Instances' role='DMA Admins' target-level='Instance'&gt;     &lt;env:expressions&gt;     &lt;env:expression custom-field='Instance.oracle version' operator='starts with' value='11.2.0' /&gt;     &lt;env:expression custom-field='Instance.RDBMS' operator='equals' value='Oracle' /&gt;     &lt;/env:expressions&gt;     &lt;/env:smart-group&gt; &lt;/entry&gt; &lt;/feed&gt;</pre> <p><b>Note:</b> The usedby links show you which deployments use the specified Smart Group.</p>
<p><b>G e t s u m m a r y i n f o r m a t i o n a b o u t a l S m a r t G r o u p s t h a t</b></p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup?Name=&lt;Smart Group name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/smartgroup?name=Windows%20Servers</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T12:06:50Z&lt;/updated&gt;   &lt;title&gt;Smart Groups&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d94101 3d141014e924fb&lt;/id&gt;     &lt;published&gt;2013-02-26T12:06:50Z&lt;/published&gt;     &lt;updated&gt;2013-02-26T12:06:50Z&lt;/updated&gt;</pre>

<b>O b j e c t i v e</b>	<b>Request</b>
h a v e t h e s p e c i f i c a t i o n	<pre> &lt;title&gt;Windows Servers&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941 013d141014e924fb' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d03d941 013d141014e924fb' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d03d941013d 141014e924fb' /&gt; &lt;env:smart-group name='Windows Servers' role='DMA Users' target- level='Server'&gt;   &lt;env:expressions&gt;     &lt;env:expression custom-field='Server.OS' operator='contains' value='win' /&gt;   &lt;/env:expressions&gt; &lt;/env:smart-group&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
C r e a t e a S m a r t G r o u p	<p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup</p> <p><b>Example:</b></p> <p>POST https://DMA1.mycompany.com:8443/dma/api/env/smartgroup</p> <p>This example creates a Smart Group that contains all Oracle Database 11.2.0 instances in the environment.</p> <p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:smart-group name='Oracle 11.2.0 Instances' role='DMA Admins' target- level='Instance'&gt;     &lt;env:expressions&gt;       &lt;env:expression custom-field='Instance.oracle version' operator='starts with' value='11.2.0' /&gt;       &lt;env:expression custom-field='Instance.RDBMS' operator='equals' value='Oracle' /&gt;     &lt;/env:expressions&gt;   &lt;/env:smart-group&gt; &lt;/entry&gt; </pre> <p>Response Body:</p>

<p><b>O b j e c t i v e</b></p>	<p><b>Request</b></p>
	<pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4c16166b159c&lt;/id&gt;   &lt;published&gt;2013-03-08T22:19:08Z&lt;/published&gt;   &lt;updated&gt;2013-03-08T22:19:08Z&lt;/updated&gt;   &lt;title&gt;Oracle 11.2.0 Instances&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml'  href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4c16166b159c' /&gt;   &lt;link rel='edit' type='application/atom+xml'  href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4c16166b159c' /&gt;   &lt;link rel='alternate' type='text/html'  href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d4120ee013d4c16166b159c' /&gt;   &lt;env:smart-group     xmlns:env="http://www.hp.com/datapal/api/env" name='Oracle 11.2.0 Instances' role='DMA Admins' target-level='Instance'&gt;     &lt;env:expressions&gt;       &lt;env:expression custom-field='Instance.oracle version' operator='starts with' value='11.2.0' /&gt;       &lt;env:expression custom-field='Instance.RDBMS' operator='equals' value='Oracle' /&gt;     &lt;/env:expressions&gt;   &lt;/env:smart-group&gt; &lt;/entry&gt; </pre>
<p><b>M o d i f y t h e S m a r t G r o u p</b></p>	<p>PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup/&lt;id&gt;</p> <p><b>Example:</b></p> <p>PUT https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee013d4c16166b159c</p> <p>This example modifies the Smart Group created in the POST example to only include those Oracle Database 11.2.0 instances that are hosted on Linux servers. The membership criteria and name of the Smart Group are modified.</p> <p>Request Body:</p>

<b>O bj ec ti ve</b>	<b>Request</b>
cri te ria	<pre>&lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:smart-group name='Oracle 11.2.0 Instances on Linux' role='DMA Admins' target-level='Instance'&gt;     &lt;env:expressions&gt;       &lt;env:expression custom-field='Instance.oracle version' operator='starts with' value='11.2.0'/&gt;       &lt;env:expression custom-field='Instance.RDBMS' operator='equals' value='Oracle'/&gt;       &lt;env:expression custom-field='Server.OS' operator='contains' value='Linux'/&gt;     &lt;/env:expressions&gt;   &lt;/env:smart-group&gt; &lt;/entry&gt;</pre> <p><b>Response Body:</b></p> <pre>&lt;entry   xmlns="http://www.w3.org/2005/Atom"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee01 3d4c16166b159c&lt;/id&gt;   &lt;published&gt;2013-03-08T22:33:36Z&lt;/published&gt;   &lt;updated&gt;2013-03-08T22:33:36Z&lt;/updated&gt;   &lt;title&gt;Oracle 11.2.0 Instances on Linux&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml'  href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee 013d4c16166b159c'/&gt;   &lt;link rel='edit' type='application/atom+xml'  href='https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/ff8080813d4120ee 013d4c16166b159c'/&gt;   &lt;link rel='alternate' type='text/html'  href='https://DMA1.mycompany.com:8443/dma/env/group/view/ff8080813d4120ee013d 4c16166b159c'/&gt;   &lt;link rel='usedby' type='application/atom+xml'  href='https://DMA1.mycompany.com:8443/dma/api/auto/deployment/ff8080813d4120e e013d4c1ceeb51733'   title='RunOracleComplianceAudit_11.2.0_instances'/&gt;   &lt;env:smart-group</pre>

<b>O b j e c t i v e</b>	<b>Request</b>
	<pre> xmlns:env="http://www.hp.com/datapal/api/env" name='Oracle 11.2.0 Instances on Linux' role='DMA Admins' target-level='Instance'&gt;   &lt;env:expressions&gt;     &lt;env:expression custom-field='Instance.oracle version' operator='starts with' value='11.2.0' /&gt;     &lt;env:expression custom-field='Instance.RDBMS' operator='equals' value='Oracle' /&gt;     &lt;env:expression custom-field='Server.OS' operator='contains' value='Linux' /&gt;   &lt;/env:expressions&gt; &lt;/env:smart-group&gt; &lt;/entry&gt; </pre>
<b>D e l e t e a S m a r t G r o u p</b>	<p>DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/smartgroup/&lt;id&gt;</p> <p><b>Example:</b></p> <p>DELETE https://DMA1.mycompany.com:8443/dma/api/env/smartgroup/fff8080813d4120ee013d4c16166b159c</p> <p>No response body is returned. The result is indicated in the return code.</p>

## Custom Fields API

Custom Fields are used to customize workflows or show information about the environment. Custom Fields can be used in workflow steps to automatically supply information that is specific to an organization, server, instance, or database.

The Custom Field API provides a mechanism that enables you to read, create, modify, and delete HPE DMA Custom Fields. The capabilities associated with your role determine which Custom Field API operations you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/env/customfield By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	env
Response Object	customfield

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

- Any HPE DMA user can create, modify, or delete a Custom Field.
- Custom Fields are associated with an object type (organization, server, instance, or database).
- Valid Custom Field types are text, multi-line, and list.
- Custom Field names must contain one or more characters, and they cannot contain periods(.) or backslashes (\).
- Custom Field names must be unique for each object type (organization, server, instance, or database).
- If the name of a Custom Field contains the string "password," its value will be masked in the Response Body.
- A Custom Field cannot be renamed.
- You cannot change the type (text, multi-line, or list) of an existing Custom Field.
- You cannot change the object type (organization, server, instance, or database).



- Options can only be set for a Custom Field of type "list."
- Custom Fields that are used by one or more workflows, steps, deployments, or Smart Groups cannot be deleted.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  not valid for PUT, POST, DELETE	Name of the Custom Field to GET. Custom Fields must have non-empty unique names when they are created or modified.  Example: oracle_sid
<b>object</b>	required for POST  optional for GET  not valid for PUT or DELETE	Custom Field object type (Organization, Server, Instance, or Database) for the GET or POST.  Example: Organization

## Object Identifier

When you want to modify (PUT) or DELETE a specific Custom Field, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/env/customfield/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT, DELETE	Unique alpha-numeric identifier of the Custom Field  Example: ff8080813d03d941013d108785291143

**Tip:** You can specify the object ID for a GET operation instead of specifying the query parameters.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.

Code	Meaning
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all Custom Fields	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/customfield</p> <p>Response Body (only three entries are shown here):</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;</pre>

Objective	Request
	<pre> &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield&lt;/id&gt; &lt;author&gt;   &lt;name&gt;HPE DMA&lt;/name&gt; &lt;/author&gt; &lt;updated&gt;2013-02-25T23:47:39Z&lt;/updated&gt; &lt;title&gt;Custom Fields&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield'/&gt; 0813d03d941013d04af726c1e6e' /&gt;   &lt;env:custom-field name='opatch' object='Instance' type='text' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941 013d04af72691e6c&lt;/id&gt;   &lt;published&gt;2013-02-25T23:47:39Z&lt;/published&gt;   &lt;updated&gt;2013-02-23T01:33:59Z&lt;/updated&gt;   &lt;title&gt;oracle home&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af72691e6c' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af72691e6c' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/metadata/view/ff8080813d03d941 013d04af72691e6c' /&gt;   &lt;env:custom-field name='oracle home' object='Instance' type='text' /&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941 013d04c9c42d3035&lt;/id&gt;   &lt;published&gt;2013-02-25T23:47:39Z&lt;/published&gt;   &lt;updated&gt;2013-02-23T02:02:44Z&lt;/updated&gt;   &lt;title&gt;oracle sid&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04c9c42d3035' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04c9c42d3035' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/metadata/view/ff8080813d03d941 </pre>

Objective	Request
	<pre> &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941 013d04af726e1e6f&lt;/id&gt;   &lt;published&gt;2013-02-25T23:47:39Z&lt;/published&gt;   &lt;updated&gt;2013-02-23T01:33:59Z&lt;/updated&gt;   &lt;title&gt;oracle version&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af726e1e6f' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af726e1e6f' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/metadata/view/ff8080813d03d941 013d04af726e1e6f' /&gt;   &lt;env:custom-field name='oracle version' object='Instance' type='text' /&gt; &lt;/entry&gt;  ... <i>only three entries are shown here</i> </pre>
<p>Get a specific Custom Field by ID</p>	<pre> GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield/&lt;id&gt;  <b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941013d0 4af72691e6c  Response Body: &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T00:08:42Z&lt;/updated&gt;   &lt;title&gt;Custom Fields&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield' /&gt;   &lt;entry&gt; </pre>

Objective	Request
	<pre> &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941 013d04af72691e6c&lt;/id&gt;   &lt;published&gt;2013-02-26T00:08:42Z&lt;/published&gt;   &lt;updated&gt;2013-02-23T01:33:59Z&lt;/updated&gt;   &lt;title&gt;oracle home&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af72691e6c' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af72691e6c' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/metadata/view/ff8080813d03d941 013d04af72691e6c' /&gt;   &lt;env:custom-field name='oracle home' object='Instance' type='text' /&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Get a specific Custom Field by name</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield?name=&lt;custom field name&gt;&amp;object=&lt;object type&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/customfield?name=oracle%20home&amp;object=Instance</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T00:11:34Z&lt;/updated&gt;   &lt;title&gt;Custom Fields&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941 013d04af72691e6c&lt;/id&gt;   &lt;published&gt;2013-02-26T00:11:34Z&lt;/published&gt;   &lt;updated&gt;2013-02-23T01:33:59Z&lt;/updated&gt;   &lt;title&gt;oracle home&lt;/title&gt; </pre>

Objective	Request
	<pre> &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af72691e6c' /&gt; &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d04af72691e6c' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/metadata/view/ff8080813d03d941 013d04af72691e6c' /&gt; &lt;env:custom-field name='oracle home' object='Instance' type='text' /&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Create a new Custom Field</p>	<p>POST <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield?object=&lt;object type&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield?object=&lt;object type&gt;</a></p> <p><b>Example:</b></p> <p>POST <a href="https://DMA1.mycompany.com:8443/dma/api/env/customfield?object=Organization">https://DMA1.mycompany.com:8443/dma/api/env/customfield?object=Organization</a></p> <p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:custom-field name='Org Info' object='Organization' type='list'&gt;     &lt;env:options&gt;       &lt;env:option&gt;Physical Location&lt;/env:option&gt;       &lt;env:option&gt;Business Unit&lt;/env:option&gt;       &lt;env:option&gt;Owner&lt;/env:option&gt;     &lt;/env:options&gt;   &lt;/env:custom-field&gt; &lt;/entry&gt;  &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941 013d13f8338924e7&lt;/id&gt;   &lt;published&gt;2013-02-26T00:47:46Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T00:47:46Z&lt;/updated&gt;   &lt;title&gt;Org Info&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d13f8338924e7' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d13f8338924e7' /&gt; </pre>

Objective	Request
	<pre> &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/metadata/view/ff8080813d03d941 013d13f8338924e7' /&gt; &lt;env:custom-field name='Org Info' object='Organization' type='list'&gt;   &lt;env:options&gt;     &lt;env:option&gt;Physical Location&lt;/env:option&gt;     &lt;env:option&gt;Business Unit&lt;/env:option&gt;     &lt;env:option&gt;Owner&lt;/env:option&gt;   &lt;/env:options&gt; &lt;/env:custom-field&gt; &lt;/entry&gt; </pre>
<p>Modify existing Custom Field</p>	<p>PUT <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield/&lt;id&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield/&lt;id&gt;</a></p> <p><b>Example:</b></p> <p>PUT <a href="https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941013d13f8338924e7">https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941013d13f8338924e7</a></p> <p>This example adds an item (option) to the Custom Field created in the previous example.</p> <p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:env="http://www.hp.com/datapal/api/env"&gt;   &lt;env:custom-field name='Org Info' object='Organization' type='list'&gt;     &lt;env:options&gt;       &lt;env:option&gt;Physical Location&lt;/env:option&gt;       &lt;env:option&gt;Business Unit&lt;/env:option&gt;       &lt;env:option&gt;Owner&lt;/env:option&gt;       &lt;env:option&gt;Emergency Contact&lt;/env:option&gt;     &lt;/env:options&gt;   &lt;/env:custom-field&gt; &lt;/entry&gt;  &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:env="http://www.hp.com/datapal/api/env"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941 013d13f8338924e7&lt;/id&gt;   &lt;published&gt;2013-02-26T00:51:55Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T00:47:46Z&lt;/updated&gt;   &lt;title&gt;Org Info&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d13f8338924e7' /&gt; </pre>

Objective	Request
	<pre> &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d9 41013d13f8338924e7' /&gt; &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/env/metadata/view/ff8080813d03d941 013d13f8338924e7' /&gt; &lt;env:custom-field name='Org Info' object='Organization' type='list'&gt;   &lt;env:options&gt;     &lt;env:option&gt;Physical Location&lt;/env:option&gt;     &lt;env:option&gt;Business Unit&lt;/env:option&gt;     &lt;env:option&gt;Owner&lt;/env:option&gt;     &lt;env:option&gt;Emergency Contact&lt;/env:option&gt;   &lt;/env:options&gt; &lt;/env:custom-field&gt; &lt;/entry&gt; </pre>
Delete an existing Custom Field	<p>DELETE <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield/&lt;id&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/customfield/&lt;id&gt;</a></p> <p><b>Example:</b></p> <p>DELETE <a href="https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941013d13f8338924e7">https://DMA1.mycompany.com:8443/dma/api/env/customfield/ff8080813d03d941013d13f8338924e7</a></p> <p>No response body is returned.</p>

**Note:** Some HPE DMA workflows create special Custom Fields that are not visible in the HPE DMA UI. These Custom Fields are listed in the Response Body when you perform a GET or PUT using the Instance API or Custom Field API. The names of these special Custom Fields begin with a double underscore. For example:

```

<env:custom-field name='__compliance - oracle - 9_12 - verify access to
any dba_ views' value=''/>
<env:custom-field name='__compliance - oracle - 9_18 - verify access to
dba_tab_privs' value=''/>
<env:custom-field name='__compliance - oracle - 9_15 - verify access to
dba_roles' value=''/>
<env:custom-field name='__compliance - oracle - 9_35 - verify grants to
create procedure' value=''/>
<env:custom-field name='__compliance - oracle - 9_33 - verify grants to
create library' value=''/>

```



```
<env:custom-field name='__compliance - oracle - 8_06 - password grace
time' value=''/>
```

These special Custom Fields are not shown in the examples above.

## Unassigned Servers API

Servers that are available to be managed by HPE DMA but are not assigned to an organization are called "unassigned servers."

The Unassigned Server API provides a mechanism that you can use to list the unassigned servers in your environment. You can then add the unassigned servers to the HPE DMA environment by using the ["Servers API"](#) API.

**Tip:** You can create and periodically run a script that looks for unassigned servers and then adds them to the HPE DMA environment.

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/env/unassignedserver By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	env
Response Object	unassignedserver

## Supported HTTP Methods

GET

## Content Type

application/atom+xml

## Permissions and Constraints

Only HPE DMA users who have a role with Administrator capability can list unassigned servers.

## Query Parameters

Name	Required	Description
<b>filter</b>	optional	Only those servers whose names contain the string specified in the filter parameter are returned in the list  Example: mycompany.com

## Object Identifier

When you want to GET information about a specific unassigned server, you must specify the object ID in the URL. For example:

GET `https://<DMA server>:<port>/dma/api/env/unassignedserver/<id>`

Name	Required	Description
<b>id</b>	optional for GET  required for PUT	Unique alpha-numeric identifier of the unassigned server  Example: 4050001

## Return Codes

Code	Meaning
200 SC_OK	The GET was successfully completed.
400 SC_BAD_REQUEST	The GET cannot be completed due to a problem in the request.
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
405 SC_NOT_ALLOWED	The resource does not support the specified method (PUT, POST, or DELETE).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

**Tip:** To list all servers that a specific organization contains, see ["Organizations API" on page 99](#).

Objective	Request
<p>Get a list of all unassigned servers</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/unassignedserver</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver</p> <p>Response Body:</p> <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;feed   xmlns="http://www.w3.org/2005/Atom"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T12:49:35Z&lt;/updated&gt;   &lt;title&gt;Unassigned Servers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4050001&lt;/id&gt;   &lt;published&gt;2013-02-26T12:49:35Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T12:49:35Z&lt;/updated&gt;   &lt;title&gt;serverABC.mycompany.com&lt;/title&gt;   &lt;link link='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4050001' /&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4040001&lt;/id&gt;   &lt;published&gt;2013-02-26T12:49:35Z&lt;/published&gt;   &lt;updated&gt;2013-02-26T12:49:35Z&lt;/updated&gt;   &lt;title&gt;serverXYZ.mycompany.com&lt;/title&gt;   &lt;link link='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/404000</pre>

Objective	Request
	<pre>1' /&gt;   &lt;/entry&gt; &lt;/feed&gt;</pre>
<p>Get a specific unassigned server by specifying its ID</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/unassignedserver/&lt;id&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4040001</p> <p>Response Body:</p> <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;feed   xmlns="http://www.w3.org/2005/Atom"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T12:52:18Z&lt;/updated&gt;   &lt;title&gt;Unassigned Servers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4040001&lt;/id&gt;     &lt;published&gt;2013-02-26T12:52:18Z&lt;/published&gt;     &lt;updated&gt;2013-02-26T12:52:18Z&lt;/updated&gt;     &lt;title&gt;serverXYZ.mycompany.com&lt;/title&gt;     &lt;link link='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4040001' /&gt;   &lt;/entry&gt; &lt;/feed&gt;</pre>
<p>Get a list of unassigned servers whose names contains</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/env/unassignedserver?filter=&lt;filter string&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver?filter=ABC</p> <p>Response Body:</p> <pre>&lt;?xml version="1.0" encoding="UTF-8"?&gt; &lt;feed   xmlns="http://www.w3.org/2005/Atom"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver&lt;/id&gt;   &lt;author&gt;</pre>

Objective	Request
in the string 'target'	<pre> &lt;name&gt;HPE DMA&lt;/name&gt; &lt;/author&gt; &lt;updated&gt;2013-02-26T12:51:30Z&lt;/updated&gt; &lt;title&gt;Unassigned Servers&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver' /&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4050001&lt;/id&gt;  &lt;published&gt;2013-02-26T12:51:30Z&lt;/published&gt; &lt;updated&gt;2013-02-26T12:51:30Z&lt;/updated&gt; &lt;title&gt;serverABC.mycompany.com&lt;/title&gt; &lt;link link='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/env/unassignedserver/4050001' /&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>

## Roles API

Each HPE DMA user has one or more roles. Roles are used to grant users permission to log in to HPE DMA and to access specific automation items and organizations.

Roles are defined in your server management tool. They are then registered in HPE DMA. After a role has been registered, it can be used to assign permissions and capabilities.

The Role API provides a mechanism that enables you perform the following tasks:

- List all registered roles.
- Get information about a specific registered role.
- List all available roles—roles that are defined in your server management tool but are not registered in HPE DMA.
- Get information about a specific available role.
- Register an available role.
- Unregister a role (return it to the available list).

The capabilities associated with your role determine which Role API operations that you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/setup/role By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	setup
Response Object	role

## Supported HTTP Methods

GET, PUT, POST, DELETE

## Content Type

application/atom+xml

## Permissions and Constraints

Only HPE DMA users who have at least one role with Administrator capability can use the Role API.

## Query Parameters

Name	Required	Description
<b>name</b>	optional for GET  Not valid for PUT, POST, DELETE	Name of the role that you want to GET  Example: DMA%20Admins

## Object Identifier

When you want to modify (PUT) a registered role or unregister (DELETE) a role, you must specify the object ID for that role in the URL. For example:

PUT https://<DMA server>:<port>/dma/api/setup/role/<id>

Name	Required	Description
id	optional for GET	Unique alpha-numeric identifier of the role
	required for PUT or DELETE	Example: ff8443813bfd79c7013bfd7a53d10000

You can also specify the object ID for a GET operation instead of specifying the name parameter.

## Return Codes

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all registered roles	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/setup/role</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T17:53:22Z&lt;/updated&gt;   &lt;title&gt;Roles&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23ebd0000&lt;/id&gt;   &lt;published&gt;2013-02-21T17:53:22Z&lt;/published&gt;   &lt;title&gt;OS Deployers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23ebd0000' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23ebd0000' /&gt;     &lt;setup:role name='OS Deployers' roleIdentifier='4490001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='OS Deployers'&gt;       &lt;setup:description&gt;Access to provision servers.&lt;/setup:description&gt;     &lt;/setup:role&gt;   &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23ee70001&lt;/id&gt;   &lt;published&gt;2013-02-21T17:53:22Z&lt;/published&gt;   &lt;title&gt;Superusers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 </pre>



Objective	Request
	<pre> cfda23ee70001' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23ee70001' /&gt;     &lt;setup:role name='Superusers' roleIdentifier='4450001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Superusers'&gt;     &lt;setup:description&gt;Complete access to all SA-managed objects and operations.&lt;/setup:description&gt;     &lt;/setup:role&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cf da23eec0002&lt;/id&gt;     &lt;published&gt;2013-02-21T17:53:22Z&lt;/published&gt;     &lt;title&gt;DMA Users&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23eec0002' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23eec0002' /&gt;     &lt;setup:role name='DMA Users' roleIdentifier='5620001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='DMA Users'&gt;     &lt;setup:description&gt;&lt;/setup:description&gt;     &lt;/setup:role&gt; &lt;/entry&gt;  ... <i>only the first three registered roles are shown here</i> </pre>
<p>List all available roles</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role/available</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/setup/role/available</p> <p>These are the roles that are defined in your server management tool but are not registered in HPE DMA.</p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt; </pre>

Objective	Request
	<pre> &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/available&lt;/id&gt; &lt;author&gt;   &lt;name&gt;HPE DMA&lt;/name&gt; &lt;/author&gt; &lt;updated&gt;2013-02-21T17:57:27Z&lt;/updated&gt; &lt;title&gt;Available Roles&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/available' /&gt; &lt;entry&gt;   &lt;id&gt;ff8080813cfda070013cfda160ed0001--4540001&lt;/id&gt;   &lt;published&gt;2013-02-21T17:57:27Z&lt;/published&gt;   &lt;title&gt;Compliance Policy Setters&lt;/title&gt;   &lt;setup:role name='Compliance Policy Setters' roleIdentifier='4540001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Compliance Policy Setters'&gt;     &lt;setup:description&gt;Access to define compliance policies.&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;entry&gt;   &lt;id&gt;ff8080813cfda070013cfda160ed0001--4500001&lt;/id&gt;   &lt;published&gt;2013-02-21T17:57:27Z&lt;/published&gt;   &lt;title&gt;Patch Policy Setters&lt;/title&gt;   &lt;setup:role name='Patch Policy Setters' roleIdentifier='4500001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Patch Policy Setters'&gt;     &lt;setup:description&gt;Access to set patching policy.&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;entry&gt;   &lt;id&gt;ff8080813cfda070013cfda160ed0001--4520001&lt;/id&gt;   &lt;published&gt;2013-02-21T17:57:27Z&lt;/published&gt;   &lt;title&gt;Software Policy Setters&lt;/title&gt;   &lt;setup:role name='Software Policy Setters' roleIdentifier='4520001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Software Policy Setters'&gt;     &lt;setup:description&gt;Access to set software policy.&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
Get	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role/&lt;role id&gt;</p> <p><b>Example:</b></p>

Objective	Request
detailed information about a specific registered role by ID	<pre> GET https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23efe0005  Response Body:  &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:00:14Z&lt;/updated&gt;   &lt;title&gt;Roles&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23efe0005&lt;/id&gt;   &lt;published&gt;2013-02-21T18:00:14Z&lt;/published&gt;   &lt;title&gt;DMA Workflow Designers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23efe0005' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23efe0005' /&gt;     &lt;setup:role name='DMA Workflow Designers' roleIdentifier='6430001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='DMA Workflow Designers'&gt;       &lt;setup:description&gt;DMA users who can write workflows&lt;/setup:description&gt;     &lt;/setup:role&gt;   &lt;/entry&gt; &lt;/feed&gt;                     </pre>
Get summary information about	<pre> GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role?name=&lt;Role name&gt;  <b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/setup/role?name=DMA%20Admins  Response Body:  &lt;feed                     </pre>

Objective	Request
<p>ut a specific registered role by name</p>	<pre> xmlns="http://www.w3.org/2005/Atom" xmlns:setup="http://www.hp.com/dma/api/setup"&gt; &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role&lt;/id&gt; &lt;author&gt;   &lt;name&gt;HPE DMA&lt;/name&gt; &lt;/author&gt; &lt;updated&gt;2013-02-21T18:00:43Z&lt;/updated&gt; &lt;title&gt;Roles&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role' /&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cf da23f47000d&lt;/id&gt;   &lt;published&gt;2013-02-21T18:00:43Z&lt;/published&gt;   &lt;title&gt;DMA Admins&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23f47000d' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23f47000d' /&gt;   &lt;setup:role name='DMA Admins' roleIdentifier='5610001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='DMA Admins'&gt;     &lt;setup:description&gt;&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Get summary information about a specific available role</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role/available?name=&lt;Role name&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/setup/role/available?name=Compliance%20Policy%20Setters</p> <p><b>Response Body:</b></p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/available&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:02:08Z&lt;/updated&gt; </pre>

Objective	Request
by name	<pre> &lt;title&gt;Available Roles&lt;/title&gt; &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/available' /&gt; &lt;entry&gt;   &lt;id&gt;ff8080813cfda070013cfda160ed0001-_-4540001&lt;/id&gt;   &lt;published&gt;2013-02-21T18:02:08Z&lt;/published&gt;   &lt;title&gt;Compliance Policy Setters&lt;/title&gt;   &lt;setup:role name='Compliance Policy Setters' roleIdentifier='4540001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Compliance Policy Setters'&gt;     &lt;setup:description&gt;Access to define compliance policies.&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
Get a filtered list of registered roles whose name contains the specified string	<pre> GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role?filter=&lt;Filter string&gt;  <b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/setup/role?filter=DMA  Response Body: &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:02:57Z&lt;/updated&gt;   &lt;title&gt;Roles&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23eec0002&lt;/id&gt;     &lt;published&gt;2013-02-21T18:02:57Z&lt;/published&gt;     &lt;title&gt;DMA Users&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23eec0002' /&gt; </pre>

Objective	Request
	<pre> &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23eec0002' /&gt;   &lt;setup:role name='DMA Users' roleIdentifier='5620001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='DMA Users'&gt;     &lt;setup:description&gt;&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cf da23efe0005&lt;/id&gt;   &lt;published&gt;2013-02-21T18:02:57Z&lt;/published&gt;   &lt;title&gt;DMA Workflow Designers&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23efe0005' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23efe0005' /&gt;   &lt;setup:role name='DMA Workflow Designers' roleIdentifier='6430001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='DMA Workflow Designers'&gt;     &lt;setup:description&gt;DMA users who can write workflows&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cf da23f47000d&lt;/id&gt;   &lt;published&gt;2013-02-21T18:02:57Z&lt;/published&gt;   &lt;title&gt;DMA Admins&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23f47000d' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013 cfda23f47000d' /&gt;   &lt;setup:role name='DMA Admins' roleIdentifier='5610001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='DMA Admins'&gt;     &lt;setup:description&gt;&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>

Objective	Request
<p>Get a filtered list of available roles whose name contains the specified string</p>	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role/available?filter=&lt;Filter string&gt;</p> <p><b>Example:</b></p> <p>GET https://DMA1.mycompany.com:8443/dma/api/setup/role/available?filter=Software</p> <p>Response Body:</p> <pre> feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/available&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:04:01Z&lt;/updated&gt;   &lt;title&gt;Available Roles&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/available' /&gt;   &lt;entry&gt;     &lt;id&gt;ff8080813cfda070013cfda160ed0001--4520001&lt;/id&gt;     &lt;published&gt;2013-02-21T18:04:01Z&lt;/published&gt;     &lt;title&gt;Software Policy Setters&lt;/title&gt;     &lt;setup:role name='Software Policy Setters' roleIdentifier='4520001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Software Policy Setters'&gt;       &lt;setup:description&gt;Access to set software policy.&lt;/setup:description&gt;     &lt;/setup:role&gt;   &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Register an available role</p>	<p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role</p> <p><b>Example:</b></p> <p>POST https://DMA1.mycompany.com:8443/dma/api/setup/role</p> <p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;title&gt;Software Policy Setters&lt;/title&gt;   &lt;setup:role name='Software Policy Setters' roleIdentifier='4520001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Software Policy Setters'&gt;     &lt;setup:description&gt;Access to set software policy.&lt;/setup:description&gt;   &lt;/setup:role&gt; </pre>

Objective	Request
	<pre> &lt;/entry&gt;  Response Body:  &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfd04d090158&lt;/id&gt;   &lt;published&gt;2013-02-21T18:07:29Z&lt;/published&gt;   &lt;title&gt;Software Policy Setters&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfd04d090158' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfd04d090158' /&gt;   &lt;setup:role name='Software Policy Setters' roleIdentifier='4520001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Software Policy Setters'&gt;     &lt;setup:description&gt;Access to set software policy.&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; </pre>
<p>Modify a registered role</p>	<pre> PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role/&lt;role id&gt;  <b>Example:</b> PUT https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfd04d090158  This example changes the name of the role that was registered in the previous example.  Request Body:  &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;title&gt;Software Policy Setters - ALL&lt;/title&gt;   &lt;setup:role name='Software Policy Setters - ALL' roleIdentifier='4520001' connectorUuid='ff8080813cfda070013cfda160ed0001' fullname='Software Policy Setters'&gt;     &lt;setup:description&gt;Access to set software policy.&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt;  Response Body: </pre>



Objective	Request
	<pre> &lt;entry   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfd   f04d090158&lt;/id&gt;   &lt;published&gt;2013-02-21T18:11:05Z&lt;/published&gt;   &lt;title&gt;Software Policy Setters - ALL&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml'   href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013   cfd04d090158' /&gt;   &lt;link rel='edit' type='application/atom+xml'   href='https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013   cfd04d090158' /&gt;   &lt;setup:role name='Software Policy Setters - ALL'   roleIdentifier='4520001' connectorUuid='ff8080813cfda070013cfda160ed0001'   fullname='Software Policy Setters'&gt;     &lt;setup:description&gt;Access to set software   policy.&lt;/setup:description&gt;   &lt;/setup:role&gt; &lt;/entry&gt; </pre>
<p>Unregister a role (return it to the available list)</p>	<p>DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role/&lt;role id&gt;</p> <p><b>Example:</b></p> <p>DELETE https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfd04d090158</p> <p>This example unregisters the role that we added and then modified in the previous examples.</p> <p>Response Body:</p> <p>This operation does not return a Response Body.</p>

## Capabilities API

Capabilities are collections of related privileges. Capabilities are assigned to one or more registered roles. There are three capabilities defined in HPE DMA:

- Login Access capability enables a user to log in to the HPE DMA web interface. This capability does not guarantee that this user can view any organizations or automation items—permissions are required to access those items.
- Workflow Creator capability enables a user to create new workflows and make copies of other workflows.
- Administrator capability enables a user to perform any HPE DMA action and view all organizations. If you have Administrator capability, you do not need Workflow Creator capability.

The Capability API provides a mechanism that enables you to list all the capabilities and determine which roles have a specific capability.

The capabilities associated with your role determine which Capability API operations that you are permitted to perform (see "[Permissions and Constraints](#)").

## Resource Information

Resource URL	https://<DMA Server>:<port>/dma/api/setup/capability  By default, the port for HTTPS communication in HPE DMA is 8443.
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	setup
Response Object	capability

## Supported HTTP Methods

GET, PUT

## Content Type

application/atom+xml

## Permissions and Constraints

Only HPE DMAHPE DMA users who have at least one role with Administrator capability can use the Capability API.

## Query Parameters

Name	Required	Description
name	optional for GET	Name of the capability that you want to GET
	not valid for PUT	Example: name?=Workflow%20Creator

## Object Identifier

When you want to modify (PUT) a specific capability, you must specify the object ID in the URL. For example:

PUT `https://<DMA server>:<port>/dma/api/setup/capability/<id>`

Name	Required	Description
id	optional for GET	Unique alpha-numeric identifier of the capability
	required for PUT	Example: ff8443813bfd79c7013bfd7a53d10000

You can also specify the object ID for a GET operation instead of specifying the name parameter.

## Return Codes

**Note:** The following list of return codes pertains to all HPE DMA APIs. The Capability API does not support POST or DELETE.

Code	Meaning
200 SC_OK	The GET, PUT, or DELETE was successfully completed.
201 SC_CREATED	The POST was successfully completed.
400 SC_BAD_REQUEST	The GET, PUT, POST, or DELETE could not be completed due to a problem in the request

Code	Meaning
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The PUT, POST, or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the GET, PUT, or DELETE does not exist, or the user does not have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method.
409 SC_CONFLICT	For a POST, the object cannot be created because an object with the same name already exists. For a DELETE, the object cannot be deleted because it is in use (for example: a step that is used by a workflow).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
List all capabilities	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/capability</p> <p><b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/setup/capability</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:18:05Z&lt;/updated&gt;   &lt;title&gt;Capabilities&lt;/title&gt;</pre>

Objective	Request
	<pre> &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability'/&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability/123456789012345 67890123456789012&lt;/id&gt;   &lt;published&gt;2013-02-21T18:18:05Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:42:16Z&lt;/updated&gt;   &lt;title&gt;Administrator&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/1234567890123 4567890123456789012'/&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/1234567890123 4567890123456789012'/&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/1234567890123 4567890123456789012'/&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability/223456789012345 67890123456789012&lt;/id&gt;   &lt;published&gt;2013-02-21T18:18:05Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:42:16Z&lt;/updated&gt;   &lt;title&gt;Login Access&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/2234567890123 4567890123456789012'/&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/2234567890123 4567890123456789012'/&gt;   &lt;link rel='alternate' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/2234567890123 4567890123456789012'/&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability/323456789012345 67890123456789012&lt;/id&gt;   &lt;published&gt;2013-02-21T18:18:05Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:42:16Z&lt;/updated&gt;   &lt;title&gt;Workflow Creator&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' </pre>

Objective	Request
	<pre>tom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/32345678901234567890123456789012' /&gt;   &lt;/entry&gt; &lt;/feed&gt;</pre>
<p>Determine which roles have a particular capability specified by ID</p>	<p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/capability/&lt;id&gt;</code></p> <p><b>Example:</b></p> <p>GET <code>https://DMA1.mycompany.com:8443/dma/api/setup/capability/12345678901234567890123456789012</code></p> <p>This command shows you all the roles that have Administrator capability.</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:18:55Z&lt;/updated&gt;   &lt;title&gt;Administrator&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability' /&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability/12345678901234567890123456789012&lt;/id&gt;     &lt;published&gt;2013-02-21T18:18:55Z&lt;/published&gt;     &lt;updated&gt;2013-02-21T16:42:16Z&lt;/updated&gt;     &lt;title&gt;Administrator Roles&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/12345678901234567890123456789012' /&gt;     &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/12345678901234567890123456789012' /&gt;     &lt;setup:capability name='Administrator'&gt;       &lt;setup:description&gt;The Admin account that has super user access&lt;/setup:description&gt;       &lt;setup:role&gt;ff8080813cfda1b2013cfda23f790013&lt;/setup:role&gt;       &lt;setup:role&gt;ff8080813cfda1b2013cfda23f39000b&lt;/setup:role&gt;</pre>

Objective	Request
	<pre> &lt;setup:role&gt;ff8080813cfda1b2013cfda23f2a0009&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f30000a&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23ef20003&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f250008&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f960014&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23fa60016&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f9f0015&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f060006&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23fb10017&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23ebd0000&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f54000f&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f6a0011&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23ee70001&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f730012&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f610010&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23f47000d&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23ef70004&lt;/setup:role&gt; &lt;setup:role&gt;ff8080813cfda1b2013cfda23efe0005&lt;/setup:role&gt; &lt;/setup:capability&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Determine which roles have a particular capability specified by name</p>	<p>GET <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/capability?name=&lt;Capability name&gt;">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/capability?name=&lt;Capability name&gt;</a></p> <p><b>Example:</b></p> <p>GET <a href="https://DMA1.mycompany.com:8443/dma/api/setup/capability?name=Workflow%20Creator">https://DMA1.mycompany.com:8443/dma/api/setup/capability?name=Workflow%20Creator</a></p> <p>Response Body:</p> <pre> &lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:20:09Z&lt;/updated&gt;   &lt;title&gt;Workflow Creator&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability/323456789012345 </pre>

Objective	Request
	<pre> 67890123456789012&lt;/id&gt;   &lt;published&gt;2013-02-21T18:20:09Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:42:16Z&lt;/updated&gt;   &lt;title&gt;Workflow Creator Roles&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/3234567890123 4567890123456789012' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/3234567890123 4567890123456789012' /&gt;   &lt;setup:capability name='Workflow Creator'&gt;     &lt;setup:description&gt;This is the DMA workflow capability which allows the user to create workflows&lt;/setup:description&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23eec0002&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f790013&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f39000b&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f2a0009&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f30000a&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23ef20003&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f250008&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f960014&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23fa60016&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f9f0015&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f060006&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23fb10017&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23ebd0000&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f54000f&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f6a0011&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23ee70001&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f730012&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f610010&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f47000d&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23ef70004&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23efe0005&lt;/setup:role&gt;   &lt;/setup:capability&gt; &lt;/entry&gt; &lt;/feed&gt; </pre> <p>To view information about the role to which each <code>&lt;setup:role&gt;</code> element listed corresponds, use the following Role API request:</p> <p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/role/&lt;role id&gt;</code></p> <p>For example:</p> <p>GET</p>



Objective	Request
	<p>https://DMA1.mycompany.com:8443/dma/api/setup/role/ff8080813cfda1b2013cfda23eec0002</p>
<p>Modify the collection of roles that have a specific capability</p>	<p>PUT https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/capability/&lt;id&gt;</p> <p><b>Example:</b></p> <p>PUT https://DMA1.mycompany.com:8443/dma/api/setup/capability/32345678901234567890123456789012</p> <p>This example limits the number of roles that have Workflow Creator capability to the three roles listed in the Request Body.</p> <p><b>Caution:</b> You must list <u>all</u> roles that you want to have the specified capability. Only those roles included in the Response Body will have this capability after the PUT is executed.</p> <p>Request Body:</p> <pre>&lt;entry xmlns="https://www.w3.org/2005/Atom" xmlns:setup="https://www.hp.com/dma/api/setup"&gt;   &lt;title&gt;Workflow Creator Roles&lt;/title&gt;   &lt;setup:capability name='Workflow Creator'&gt;     &lt;setup:description&gt;This is the DMA workflow capability which allows the user to create workflows&lt;/setup:description&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23eec0002&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f790013&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f39000b&lt;/setup:role&gt;   &lt;/setup:capability&gt; &lt;/entry&gt;</pre> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-21T18:26:05Z&lt;/updated&gt;   &lt;title&gt;Workflow Creator&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability' /&gt;   &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/capability/323456789012345</pre>

Objective	Request
	<pre> 67890123456789012&lt;/id&gt;   &lt;published&gt;2013-02-21T18:26:05Z&lt;/published&gt;   &lt;updated&gt;2013-02-21T16:42:16Z&lt;/updated&gt;   &lt;title&gt;Workflow Creator Roles&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/3234567890123 4567890123456789012' /&gt;   &lt;link rel='edit' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/capability/3234567890123 4567890123456789012' /&gt;   &lt;setup:capability name='Workflow Creator'&gt;     &lt;setup:description&gt;This is the DMA workflow capability which allows the user to create workflows&lt;/setup:description&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23eec0002&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f39000b&lt;/setup:role&gt;     &lt;setup:role&gt;ff8080813cfda1b2013cfda23f790013&lt;/setup:role&gt;   &lt;/setup:capability&gt; &lt;/entry&gt; &lt;/feed&gt; </pre>

## User API

The User API provides a mechanism that enables you to view your roles and capabilities.

### Resource Information

Resource URL	<p>https://&lt;DMA Server&gt;:&lt;port&gt;/dma/api/setup/user</p> <p>By default, the port for HTTPS communication in HPE DMA is 8443.</p>
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	setup
Response Object	user

## Supported HTTP Methods

GET

## Content Type

application/atom+xml

## Permissions and Constraints

Any user can GET a list of his or her own roles and capabilities.

Because you must specify a user name and password in the authorization header for the GET request, you cannot list another user's roles and capabilities using this API—even if you have a role with Administrator capability.

## Query Parameters

N/A

## Return Codes

Code	Meaning
200 SC_OK	The GET was successfully completed.
400 SC_BAD_REQUEST	The GET cannot be completed due to a problem in the request.
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
405 SC_NOT_ALLOWED	The resource does not support the specified method (PUT, POST, or DELETE).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
<p>Get a list of your roles and capabilities.</p> <p><i>You must specify your user name and password in the authorization header of the GET request.</i></p>	<p>GET <code>https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/user</code></p> <p><b>Example:</b></p> <p>GET <code>https://DMA1.mycompany.com:8443/dma/api/user</code></p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/user&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T12:27:52Z&lt;/updated&gt;   &lt;title&gt;login_only_user&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/user' /&gt;   &lt;entry&gt;     &lt;id&gt;login_only_role&lt;/id&gt;     &lt;title&gt;login_only_role&lt;/title&gt;     &lt;updated&gt;2013-02-26T12:27:52Z&lt;/updated&gt;     &lt;category&gt;Role&lt;/category&gt;   &lt;/entry&gt;   &lt;entry&gt;     &lt;id&gt;Login Access&lt;/id&gt;     &lt;title&gt;Login Access&lt;/title&gt;     &lt;updated&gt;2013-02-26T12:27:52Z&lt;/updated&gt;     &lt;category&gt;Capability&lt;/category&gt;   &lt;/entry&gt; &lt;/feed&gt;</pre>

## Version API

The Version API provides a mechanism that enables you to determine the HPE DMA version and build information for a specific server.

## Resource Information

Resource URL	<p>https://&lt;DMA Server&gt;:&lt;port&gt;/dma/api/setup/version</p> <p>By default, the port for HTTPS communication in HPE DMA is 8443.</p>
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	setup
Response Object	version

## Supported HTTP Methods

GET

## Content Type

application/atom+xml

## Permissions and Constraints

Any user can read (GET) the HPE DMA version.

## Query Parameters

N/A

## Return Codes

Code	Meaning
200 SC_OK	The GET was successfully completed.
400 SC_BAD_REQUEST	The GET cannot be completed due to a problem in the request.

Code	Meaning
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
405 SC_NOT_ALLOWED	The resource does not support the specified method (PUT, POST, or DELETE).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
Get the HPE DMA version	<p>GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/setup/version</p> <p><b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/setup/version</p> <p>Response Body:</p> <pre>&lt;feed   xmlns="http://www.w3.org/2005/Atom"   xmlns:setup="http://www.hp.com/dma/api/setup"&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/version&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T12:32:17Z&lt;/updated&gt;   &lt;title&gt;HP Database &amp; Middleware Automation Version&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/version' /&gt;   &lt;entry&gt;     &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/setup/version&lt;/id&gt;     &lt;published&gt;2013-02-26T12:32:17Z&lt;/published&gt;     &lt;updated&gt;2013-02-26T12:32:17Z&lt;/updated&gt;     &lt;title&gt;Version&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/setup/version' /&gt;     &lt;setup:version web-server-version='10.01.0' web-server- revision='33569' repository-version='10.01.0' /&gt;   &lt;/entry&gt; &lt;/feed&gt;</pre>

## Solution Packs API

The Solution Pack API provides a mechanism that enables you to determine the following:

- Which HPE DMA solution packs are installed.
- Which workflows are included in a specific solution pack.
- Install or upgrade a Solution Pack.
- Delete a Solution Pack.

### Resource Information

Resource URL	<p><code>https://&lt;DMA Server&gt;:&lt;port&gt;/dma/api/solution</code></p> <p>By default, the port for HTTPS communication in HPE DMA is 8443.</p>
Authentication	Basic authentication—requires valid HPE DMA user name and password
Response Format	XML
Resource Family	solution
Response Object	solution

### Supported HTTP Methods

GET, POST, DELETE

### Content Type

application/atom+xml

### Permissions and Constraints

Any user can read (GET) the list of installed solution packs or information about the contents of a specific solution pack.

Only the DMA administrator can install, upgrade, or delete Solution Packs.

## Query Parameters

N/A

## Object Identifier

When you want to GET information about a specific solution pack, you must specify the object ID in the URL. For example:

GET `https://<DMA server>:<port>/dma/api/solution/<id>`

Name	Required	Description
<b>id</b>	optional for GET	Unique alpha-numeric identifier of the solution pack  Example: ff8443813bfd79c7013bfd7a53d10000

When you want to DELETE a specific solution pack, you must specify the object ID in the URL. For example:

DELETE `https://<DMA server>:<port>/dma/api/solution/<id>`

Name	Required	Description
<b>id</b>	optional for DELETE	Unique alpha-numeric identifier of the solution pack  Example: ff8443813bfd79c7013bfd7a53d10000

## Return Codes

Code	Meaning
200 SC_OK	The GET was successfully completed.
400 SC_BAD_REQUEST	The GET cannot be completed due to a problem in the request.
401 SC_UNAUTHORIZED	The user making the request did not specify credentials (user name and password), or the credentials were invalid.  NOTE: HPE DMA uses HTTP Basic authentication.
403 SC_FORBIDDEN	The POST or DELETE could not be completed, because the user does not have write permission for that object, or because the object is locked.
404 SC_NOT_FOUND	The target object for the POST or DELETE does not exist, or the user does not



Code	Meaning
FOUND	have read permission for that object.
405 SC_NOT_ALLOWED	The resource does not support the specified method (PUT, POST, or DELETE).

## Supported Requests

In the following table, the notation *<something>* indicates a placeholder for a specific piece of information. For example, *<DMA server>* is the host name or IP address of your HPE DMA server.

Objective	Request
Get a list of the HPE DMA solution packs that are currently installed	<p>GET <a href="https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/solution">https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/solution</a></p> <p><b>Example:</b></p> <p>GET <a href="https://DMA1.mycompany.com:8443/dma/api/solution">https://DMA1.mycompany.com:8443/dma/api/solution</a></p> <p>Response Body:</p> <pre>&lt;feed   xmlns='http://www.w3.org/2005/Atom'   xmlns:solution='http://www.hp.com/dma/api/solution'&gt;   &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/solution&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;updated&gt;2013-02-26T12:37:10Z&lt;/updated&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/solution' /&gt;   &lt;title&gt;Solutions Packs&lt;/title&gt;   &lt;entry&gt;    &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/solution/ff8080813d0430df013d0430e5950005&lt;/id&gt;     &lt;published&gt;2013-02-26T12:37:10Z&lt;/published&gt;     &lt;updated&gt;2013-02-22T23:15:45Z&lt;/updated&gt;     &lt;title&gt;HPE DMA Advanced Database Patching Solution Pack&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/solution/ff8080813d0430df013d0430e5950005' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/solution/installed/view/ff8080813d0430df013d0430e5950005' /&gt;</pre>

Objective	Request
	<pre>                 &lt;solution:description&gt;Oracle Database Patching - Apply patchset to an Oracle CRS - Apply Rolling CPU patch to RAC  Build 33593&lt;/solution:description&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/solution/ff8080813d043214013d04 321afa0002&lt;/id&gt;         &lt;published&gt;2013-02-26T12:37:10Z&lt;/published&gt;         &lt;updated&gt;2013-02-22T23:17:04Z&lt;/updated&gt;         &lt;title&gt;HPE DMA Advanced Database Provisioning Solution Pack&lt;/title&gt;         &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/solution/ff8080813d043214013d 04321afa0002' /&gt;         &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/solution/installed/view/ff8080813 d043214013d04321afa0002' /&gt;         &lt;solution:description&gt;Provides advanced Oracle provisioning capabilities including CRS, ASM, and         RAC abilities as well as Data Guard. Includes support for 11.2 RAC  Build 33593&lt;/solution:description&gt; &lt;/entry&gt;  ... <i>only the first two entries are shown here</i> </pre>
<p>Get a list of work flows included in a specific solution pack by ID</p>	<pre> GET https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/solution/&lt;id&gt;  <b>Example:</b> GET https://DMA1.mycompany.com:8443/dma/api/solution/ff8080813d043530013d0435373800 03  Response Body: &lt;feed   xmlns='http://www.w3.org/2005/Atom'   xmlns:solution='http://www.hp.com/dma/api/solution'   xmlns:sop='http://www.hp.com/dma/api/sop'&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/solution/ff8080813d043530013d04 </pre>

Objective	Request
	<pre> 3537380003&lt;/id&gt;   &lt;author&gt;     &lt;name&gt;HPE DMA&lt;/name&gt;   &lt;/author&gt;   &lt;published&gt;2013-02-26T12:38:45Z&lt;/published&gt;   &lt;updated&gt;2013-02-22T23:20:28Z&lt;/updated&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/solution/ff8080813d043530013d 043537380003' /&gt;   &lt;title&gt;HPE DMA Database Compliance Solution Pack&lt;/title&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/sop/ff8080813d043530013d043556b a046a&lt;/id&gt;   &lt;published&gt;2013-02-26T12:38:45Z&lt;/published&gt;   &lt;updated&gt;2013-02-22T23:20:37Z&lt;/updated&gt;   &lt;title&gt;Run MS SQL Compliance Audit&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/sop/ff8080813d043530013d04355 6ba046a' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d04353 0013d043556ba046a' /&gt;   &lt;sop:description&gt;&lt;/sop:description&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/sop/ff8080813d043530013d0435528 40357&lt;/id&gt;   &lt;published&gt;2013-02-26T12:38:45Z&lt;/published&gt;   &lt;updated&gt;2013-02-22T23:20:36Z&lt;/updated&gt;   &lt;title&gt;Run Oracle Compliance Audit&lt;/title&gt;   &lt;link rel='self' type='application/atom+xml' href='https://DMA1.mycompany.com:8443/dma/api/sop/ff8080813d043530013d04355 2840357' /&gt;   &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d04353 0013d043552840357' /&gt;   &lt;sop:description&gt;&lt;/sop:description&gt; &lt;/entry&gt; &lt;entry&gt;  &lt;id&gt;https://DMA1.mycompany.com:8443/dma/api/sop/ff8080813d043530013d043559f c0506&lt;/id&gt;   &lt;published&gt;2013-02-26T12:38:45Z&lt;/published&gt; </pre>

Objective	Request
	<pre> 0506' /&gt;     &lt;link rel='alternate' type='text/html' href='https://DMA1.mycompany.com:8443/dma/sop/workflow/view/ff8080813d04353 0013d043559fc0506' /&gt;     &lt;sop:description&gt;&lt;/sop:description&gt;   &lt;/entry&gt; &lt;/feed&gt; </pre>
<p>Insta ll/Up grade a Solut ion Pack</p>	<p>POST https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/solution</p> <p>POST https://DMA1.mycompany.com:8443/dma/api/solution</p> <p>Request Body:</p> <pre> &lt;entry xmlns="http://www.w3.org/2005/Atom" xmlns:solution="http://www.hp.com/dma/api/solution"&gt;   &lt;solution:solution path="path_to_solution_pack_file"&gt;   &lt;/solution:solution&gt; &lt;/entry&gt; </pre> <p><b>Note:</b> The path should be absolute, and the file should be present on the DMA server under temp directory.</p> <p>Response Body:</p> <pre> &lt;feed xmlns="http://www.w3.org/2005/Atom" xmlns:solution="http://www.hp.com/dma/api/solution"&gt;   &lt;entry&gt;     &lt;id&gt;https://iwfvm01374.hpswlab.adapps.hp.com:8443/dma/api/solution/9037dd2 e4e725194014e725199c40004&lt;/id&gt;     &lt;published&gt;2015-07-09T10:17:07Z&lt;/published&gt;     &lt;updated&gt;2015-07-22T09:51:28Z&lt;/updated&gt;     &lt;title&gt;HPE DMA Discovery Solution Pack&lt;/title&gt;     &lt;link rel='self' type='application/atom+xml' href='https://iwfvm01374.hpswlab.adapps.hp.com:8443/dma/api/solution/9037d d2e4e725194014e725199c40004' /&gt;     &lt;link rel='alternate' type='text/html' href='https://iwfvm01374.hpswlab.adapps.hp.com:8443/dma/solution/installed /view/9037dd2e4e725194014e725199c40004' /&gt;     &lt;solution:solution name='HPE DMA Discovery Solution Pack' version='10.40.001.000'&gt; </pre>

Objective	Request
	<pre> &lt;solution:description&gt;Discovers Oracle, Sybase and SQL Server databases on target servers. Also discovers WebSphere and WebLogic middleware applications on target servers.  46701&lt;/solution:description&gt;  &lt;/solution:solution&gt;  &lt;/entry&gt;  &lt;/feed&gt;                     </pre>
Delete an existing Solution Pack	<pre> DELETE https://&lt;DMA server&gt;:&lt;port&gt;/dma/api/solution/&lt;id&gt;  DELETE https://DMA1.mycompany.com:8443/dma/api/solution/9037dd2e4e725194014e725199c400 04  Solution Pack deleted successfully                     </pre>

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