



# Unified Compute Platform 3.5.1

UCP DOC API Reference

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# Contents

<b>Preface</b> .....	<b>vii</b>
Intended audience . . . . .	vii
Product version . . . . .	vii
Document organization . . . . .	vii
UCP document set . . . . .	viii
Getting help. . . . .	viii
Comments . . . . .	.ix
<b>1 Introducing the UCP DOC API</b> .....	<b>1</b>
Uniform resource identifiers. . . . .	2
HTTP methods . . . . .	2
Jobs . . . . .	2
Input and output format . . . . .	3
Return codes . . . . .	3
Common properties . . . . .	4
Access and authentication. . . . .	4
<b>2 UCP DOC resources</b> .....	<b>7</b>
Get information about UCP DOC API . . . . .	8
Example: Get information about UCP DOC . . . . .	8
UCP DOC configuration resources . . . . .	10
Get UCP DOC configuration . . . . .	10
Example: Get configuration information of UCP DOC . . . . .	11
Update UCP DOC configuration . . . . .	12
Example: Update the UCP DOC configuration with AMPQ credentials . . . . .	12
UCP instance resources. . . . .	13
List UCP instances registered with UCP DOC . . . . .	14
Example: List UCP Director instances . . . . .	14
Get a UCP instance registered with UCP DOC . . . . .	18

Example: Get UCP Director instance . . . . .	19
Register a UCP instance with UCP DOC . . . . .	20
Example: Register a UCP instance . . . . .	20
Unregister a UCP instance with UCP DOC . . . . .	21
Example: Unregister a UCP instance . . . . .	21
Update UCP instance information . . . . .	22
Example: Update UCP instance information . . . . .	22
List clusters from a UCP instance . . . . .	23
Example: List clusters from a UCP instance . . . . .	23
Get a cluster from a UCP instance . . . . .	24
Example: Get a cluster from a UCP instance . . . . .	24
List servers from a UCP instance . . . . .	26
Example: List servers from a UCP instance . . . . .	26
Get a server from a UCP instance. . . . .	26
Example: Get a server from a UCP instance. . . . .	27
List storage systems from a UCP instance . . . . .	32
Example: List storage systems from a UCP instance . . . . .	32
Get a storage system from a UCP instance . . . . .	33
Example: Get a storage system from a UCP instance . . . . .	33
List storage pools in a UCP instance . . . . .	40
Example: List storage pools from a UCP instance. . . . .	40
List volumes from a UCP instance . . . . .	46
Example: List volumes from a UCP instance . . . . .	47
Get a volume from a UCP instance . . . . .	47
Example: Get a volume from a UCP instance – Filter by pool. . . . .	47
Example: Get a volume from a UCP instance – Filter by server . . . . .	53
Example: Get a volume from a UCP instance – Filter by cluster . . . . .	55
Get the virtual manager from a UCP site. . . . .	59
Example: Get the platform manager of a UCP site . . . . .	60
UCP instance monitoring state resources . . . . .	62
List monitoring states of all registered UCP instances . . . . .	62
Example: List monitor states for all UCP instances . . . . .	62
Get monitoring state of a UCP instance. . . . .	67
Example: Get monitoring states using filters for ResourceId and ResourceType . . . . .	68
Authorization resources. . . . .	70
List user roles . . . . .	70
Example: List all user roles . . . . .	71
List users. . . . .	73
Example: List all users . . . . .	73
Get user by ID . . . . .	79
Example: Get a specified user . . . . .	79
Add user . . . . .	81
Example: Adds a new user . . . . .	81

Update user . . . . .	82
Example: Update the role of an existing user . . . . .	82
Delete user . . . . .	83
Example: Remove user . . . . .	83
List user privileges . . . . .	83
Example: List all user privileges . . . . .	84
Event resources . . . . .	85
List UCP DOC events. . . . .	85
Example: List 100 recent UCP DOC events . . . . .	86
Example: Get events based on filter criteria – time range . . . . .	87
Example: Get events based on filter criteria – paging with marker and offset . . . . .	91
Get UCP DOC event . . . . .	95
Example: Get an event by ID. . . . .	96
Job resources. . . . .	97
List UCP DOC jobs . . . . .	98
Example: List all UCP DOC jobs . . . . .	98
Get UCP DOC job . . . . .	104
Example: Get a specified job . . . . .	106
Get UCP DOC jobs by filtered criteria . . . . .	108
Example: Get jobs based on filter criteria – time range. . . . .	108
Example: Get jobs based on filter criteria – paging with marker and offset . . . . .	117
<b>3 UCP Disaster Recovery resources.....</b>	<b>125</b>
About the UCP Disaster Recovery API resource . . . . .	126
Get running status of UCP Disaster Recovery . . . . .	127
Example: Get UCP Disaster Recovery running status . . . . .	127
UCP Disaster Recovery manager resources . . . . .	128
Add UCP Disaster Recovery manager connection . . . . .	128
Example: Add UCP Disaster Recovery manager connection. . . . .	129
List UCP Disaster Recovery managers. . . . .	129
Example: List UCP Disaster Recovery managers. . . . .	129
Get UCP Disaster Recovery manager . . . . .	131
Example: Get UCP Disaster Recovery manager . . . . .	132
Update UCP Disaster Recovery manager. . . . .	133
Example: Update UCP Disaster Recovery manager. . . . .	134
List protected volumes . . . . .	134
Example: List protected volumes . . . . .	135
Site pair resources . . . . .	136
Create site pair. . . . .	137
Example: Create site pair . . . . .	138

Remove site pair . . . . .	139
Example: Remove site pair from UCP DOC . . . . .	139
List site pairs . . . . .	139
Example: List all site pairs registered in UCP DOC . . . . .	140
Get site pair . . . . .	140
Example: Get a specific site pair registered in UCP DOC . . . . .	141
Replication group resources . . . . .	143
Create replication group . . . . .	144
Example: Create a replication group in a site pair . . . . .	145
List replication groups . . . . .	146
Example: List all replication groups in a site pair . . . . .	146
Get a replication group . . . . .	151
Example: Get a specified replication group from a site pair . . . . .	152
Resync replication group . . . . .	153
Example: Resync a replication group in a site pair . . . . .	154
Remove a replication group . . . . .	154
Example: Remove a replication group in a site pair . . . . .	155
Replicated volume pair resources . . . . .	155
List replicated volume pairs . . . . .	156
Example: List all replicated volume pairs in a replication group . . . . .	156
Get replicated volume pair . . . . .	162
Example: List a replicated volume pair in a replication group . . . . .	165
Add volume to replication group . . . . .	167
Example: Add replicated volume pairs to a replication group . . . . .	169
Expand replicated volume pair . . . . .	170
Example: Expand a replicated volume pair . . . . .	171
Remove replicated volume pair . . . . .	171
Example: Remove a volume replication pair . . . . .	172
Test volume pair resources . . . . .	172
List test volume pairs . . . . .	173
Example: List all test volume pairs in a replication group . . . . .	174
Get test volume pair . . . . .	176
Example: Get a test volume pair from a replication group . . . . .	178
Create test volumes . . . . .	181
Example: Create test volumes for a replication group . . . . .	182
Delete test volumes . . . . .	182
Example: Delete test volumes for a resource group . . . . .	183
Refresh inventory . . . . .	183
Example: Refresh contents of all site pairs . . . . .	184
Journal resources . . . . .	184
List journals . . . . .	185
Example: List all journals . . . . .	185

Get a journal . . . . .	188
Example: Get journal by ID . . . . .	188
Create new journal . . . . .	190
Example: Create a journal . . . . .	190
Expand a journal . . . . .	191
Example: Expand a journal by adding a volume. . . . .	191
List unused journal volumes . . . . .	192
Example: List volumes available for adding to journal. . . . .	192
Delete a journal . . . . .	195
Example: Delete a journal . . . . .	195







# Preface

This guide explains how to use the **Hitachi Unified Compute Platform Director Operations Center (UCP DOC) API**.

## Intended audience

This guide is intended for system administrators who use the API to administer UCP DOC.

## Product version

This guide applies to UCP version 3.5.1.

## Document organization

This guide contains three chapters.

Chapter/Appendix	Description
<a href="#">Chapter 1, "Introducing the UCP DOC API"</a>	Contains an overview of the UCP DOC API.
<a href="#">Chapter 2, "UCP DOC resources"</a>	Explains the resources that make up the UCP DOC API.
<a href="#">Chapter 3, "UCP Disaster Recovery resources"</a>	Contains an overview of the UCP Disaster Recovery API and explains the resources that make it up.

## UCP document set

The following documents contain information about UCP version 3.5.1:

- *UCP Pre-Installation Requirements and Configuration* — Contains information and procedures you need to be aware of for a successful UCP installation.
- *UCP Administration Manual* — Contains technical and usage information for UCP and UCP Director. Describes how to administer UCP Director through UCP Director Console with both VMware vCenter and Microsoft SCVMM.
- *UCP Director API Reference* — Describes how to use the UCP Director API.
- *UCP Director CLI Reference* — Describes how to use the UCP Director CLI.
- *UCP Director Third-Party Copyrights and Licences* — Contains copyright and license information for the third-party software distributed with or embedded in UCP Director.
- *UCP DOC Administration Manual* — Contains technical and usage information for Unified Compute Platform Director Operations Center (UCP DOC). Describes how to administer UCP DOC through UCP DOC Console.
- *UCP DOC API Reference* — Describes how to use the UCP DOC API.
- *UCP DOC CLI Reference* — Describes how to use the UCP DOC CLI.

## Getting help

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- The circumstances surrounding the error or failure
- The exact content of any returned messages

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## Comments

Please send us your comments on this document:

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Include the document title, number, and revision, and refer to specific sections and paragraphs whenever possible.

***Thank you!*** (All comments become the property of Hitachi Data Systems.)



# Introducing the UCP DOC API

UCP DOC API is RESTful API that orchestrates across more than one UCP site, referred to as UCP instances. Similar to UCP Director API, concepts are organized into resources and each resource is identified by a URI. Clients may request the current state of a resource and request changes to that state using standard HTTP methods.

API for UCP Disaster Recovery orchestration is a part of UCP DOC API. However, UCP Disaster Recovery is an optional add-on component and UCP Disaster Recovery API will not be available if UCP Disaster Recovery is not installed.

## Uniform resource identifiers

UCP DOC API uses Uniform Resource Identifiers the same way as UCP Director API. For more information on Uniform Resource Identifiers, see [Uniform Resource Identifiers](#).

## HTTP methods

The HTTP methods supported by UCP DOC are POST, PUT, DELETE, GET.

## Jobs

After requests are validated, requests that use the GET HTTP method will return with the requested information. Most of the requests that use the POST, PUT, or DELETE HTTP method will start a job and their progress is reported via the job. As a job progresses, informational events are reported. Errors and warnings are also reported as events. Job resources may be used to get information about jobs. Alternatively, Event resources may be used to find information on specific events across multiple jobs.

Common properties of jobs are listed below. API examples in this document refer the reader here when the response body is job information.

- Id — Job Id
- ResourceType — Always "Job"
- GlobalResourceId — Globally unique resource Id of the job
- InstanceId — Instance Id for the instance of UCP Director
- Links — Collection of hypermedia links related to the job
  - "self" — A link to the job itself
  - "collection" — A link to display all jobs
  - "events" — A link to the events within the job
  - "target" — A link to the resource targeted by the job
- CreatedBy — Displays the user who initiated the job

- EndTime — End time of the job
- Events — Collection of events related to the job
- JobId — Job ID
- JobType — Job Type
- Name — Name of the job
- Progress — Current progress of the job
- StartTime — Collection of the following to timing events
  - DateTime — Date and time the job was started
  - OffsetMinutes — Offset from UTC time
- Status — Current status of the job: Running, Complete or Failed
- TargetId — Target of the resource against which the job was executed
- TargetType — Type of resource against which the job was executed

## Input and output format

The body of all requests and responses are represented in JSON format.

For more information on input and output formats, see [Input and output formats](#).

## Return codes

When a request succeeds, one of the following HTTP status codes are returned from the request:

- 200 OK — A GET method has succeeded and the body of the response contains the requested information.
- 202 Accepted — A PUT, POST, or DELETE method has successfully started a job and the body of the response contains the job.

When a request fails, one of the following HTTP status codes are returned in the response:

## Common properties

- 400 Bad Request — The request body is not valid.
- 401 Unauthorized — The client does not have the required privilege.
- 404 Not Found — The URI is invalid or the resource could not be found.
- 405 Method Not Allowed — The URI is valid but the verb is not allowed.
- 409 Conflict — The operation cannot be executed because the specified resource already has an operation in progress.
- 500 Internal Error — The request was accepted but failed during execution.
- 501 Not Implemented – The request may be validly constructed but it is not implemented.

When a request fails, the body of the response will contain a description of the problem.

## Common properties

Where an API returns a resource or a list of resources, they contain common properties which are listed here rather than repeated throughout this document.

Name	Type	Notes
Id	String	Id of the resource. Commonly used in Get requests
ResourceType	String	Type of resource
GlobalResourceId	String	Globally unique Id of the resource. Commonly used in filtering criteria
InstanceId	String	Id number of the UCP DOC instance
Links	Collection	A collection of hypermedia links related to the resource. The list of links may differ from resource to resource

## Access and authentication

UCP DOC uses the following privileges to manage security:

- UCP DOC View



- UCP DOC Administration

Each resource requires one of these privileges for execution. The privilege required for each use of a resource is identified in the resource details.



## UCP DOC resources

UCP DOC is a service which links more than one UCP site. A UCP site is called a UCP Instance. All API for UCP DOC must be addressed to the host where the DCD service is running. If the DOC service was installed using a port other than the default, then the port must be added to the URI, for example – `https://ucpdatacenter.domain.local:<port>/api`.

## Get information about UCP DOC API

This API uses the GET method on the /api/about API.

Method	URI	Privilege
GET	/api/about	UCP DOC Viewer

### Request body

The body of this request must be empty.

### Response body

The response body contains the following properties.

Name	Type	Notes
(Common properties)		See Common properties
SerialNumber	String	Serial number of the UCP DOC instance
Version	String	Version of the UCP DOC
ApplianceInformation	Collection	Information about the appliance
Model	String	Appliance Model
IsConvergedNetwork	Boolean	True/False depending on whether the appliance is converged
SystemNumber	Int32	System number of the appliance
IsEthernetFabricEnabled	Boolean	True/False depending on Ethernet fabric
OptionalComponents	Collection	Collection of optional components
Name	String	Name of the optional component. Values include: DisasterRecovery.
Installed	Boolean	Whether installed or not

### Example: Get information about UCP DOC

This example returns details about UCP DOC.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/about
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 OK

**Response Body**

```
{
  "Id": "12",
  "ResourceType": "Instance",
  "GlobalResourceId": "inst.12",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/instance"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Instance&targetId=inst.12&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Instance&targetId=inst.12&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Instance&targetId=inst.12&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=Instance&targetId=inst.12&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=Instance&targetId=inst.12&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=Instance&targetId=inst.12&relation=self%7Csubcomponent"
    }
  ],
  "SerialNumber": "12",
  "Version": "3.0.2.4273",
  "ApplianceInformation":
  "
}
```

```

    {
      "Model": null
      "IsConvergedNetwork": false
      "SystemNumber": 1
      "IsEthernetFabricEnabled": false
    },
    "OptionalComponents": [
      {
        "Name": "DisasterRecovery",
        "Installed": true
      }
    ]
  ]

```

## UCP DOC configuration resources

These API are used to get and update configuration details for UCP DOC.

Request	Method	URI	Privilege
<a href="#">Get UCP DOC configuration</a>	GET	/api/configuration/ datacenterconfiguration	UCP DOC View
<a href="#">Update UCP DOC configuration</a>	POST	/api/configuration/ datacenterconfiguration	UCP DOC Administrator

### Get UCP DOC configuration

This HTTP request uses the GET method on the /api/configuration/datacenterconfiguration API.

The UCP DOC View privilege is required.

#### Request body

The body for this request must be empty.

#### Response body

The response body contains the common resource properties as well as the AMQP username. The AMQP password is not returned.

Name	Type	Notes
(Common properties)		See Common properties

Name	Type	Notes
AmqpUsername	String	Returns the AMQP username for UCP DOC. AMQP is a protocol used for queuing UCP jobs

### Example: Get configuration information of UCP DOC

This example lists configuration information for UCP DOC.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/configuration/
datacenterconfiguration HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
{
  "Id": "1",
  "ResourceType": "DatacenterConfiguration",
  "GlobalResourceId": "inst.12.dccfg.1",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/configuration/
datacenterconfiguration"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=DatacenterConfiguration&targetId=inst.12.dccfg.1&relatio
n=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=DatacenterConfiguration&targetId=inst.12.dccfg.1&relatio
n=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=DatacenterConfiguration&targetId=inst.12.dccfg.1&relatio
n=self%7Csubcomponent"
    }
  ]
}
```

```

    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=DatacenterConfiguration&targetId=inst.12.dccfg.1&relat
ion=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=DatacenterConfiguration&targetId=inst.12.dccfg.1&relat
ion=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=DatacenterConfiguration&targetId=inst.12.dccfg.1&relat
ion=self%7Csubcomponent"
    }
  ],
  "AmqpUsername": "ucp"
}

```

## Update UCP DOC configuration

This HTTP request uses the POST method on the `/api/configuration/datacenterconfiguration` API.

The UCP DOC Administrator privilege is required.

### Request body

The body contains string values for updating the AMQP username and password.

Name	Type	Notes
AmqpUsername	String	The AMQP username for UCP DOC
AmqpPassword	String	The AMQP password for UCP DOC

### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Update the UCP DOC configuration with AMPO credentials

In this example, the AMPQ credentials are updated for UCP DOC.



**Request Header**

```
POST https://ucpdatacenter.ucp.local/api/configuration/
datacenterconfiguration HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

```
{
  "AmqpPassword": "password",
  "AmqpUsername": "ucp"
}
```

**Response Header**

```
HTTP/1.1 202 Accepted
```

**Response Body**

The system executes a job named "Update Configuration of UCP DOC". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## UCP instance resources

UCP DOC will have one or more UCP instances registered with it. These may be paired for the purpose of storage replication. A UCP instance is also known as a "site". Sites that are paired for storage replication are referred to as site pairs. These API are addressed to the server running UCP DOC software and they display information about the registered UCP sites.

Request	Method	URI	Privilege
<a href="#">List UCP instances registered with UCP DOC</a>	GET	/api/ucpinstances	UCP DOC View
<a href="#">Get a UCP instance registered with UCP DOC</a>	GET	/api/ucpinstances/{instanceId}	UCP DOC View
<a href="#">Register a UCP instance with UCP DOC</a>	POST	/api/ucpinstances	UCP DOC Administrator
<a href="#">Unregister a UCP instance with UCP DOC</a>	DELETE	/api/ucpinstances/{instanceId}	UCP DOC Administrator
<a href="#">Update UCP instance information</a>	PUT	/api/ucpinstances/{instanceId}	UCP DOC Administrator
<a href="#">List clusters from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/clusters	UCP DOC View
<a href="#">Get a cluster from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/clusters/{CLUSTERID}	UCP DOC View
<a href="#">List servers from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/servers	UCP DOC View

Request	Method	URI	Privilege
<a href="#">Get a server from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/servers/{SERVERID}	UCP DOC View
<a href="#">List storage systems from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/storagesystems	UCP DOC View
<a href="#">Get a storage system from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/storagesystems/{STORAGESYSTEMID}	UCP DOC View
<a href="#">List storage pools in a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/storagesystems/{STORAGESYSTEMID}/pools	UCP DOC View
<a href="#">List volumes from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/storageSystems/{STORAGESYSTEMID}/volumes	UCP DOC View
<a href="#">Get a volume from a UCP instance</a>	GET	/api/ucpinstances/{INSTANCEID}/storageSystems/{STORAGESYSTEMID}/volumes/{VOLUMEID}	UCP DOC View
<a href="#">Get the virtual manager from a UCP site</a>	GET	/api/ucpinstances/{INSTANCEID}/virtualmanagers	UCP DOC View

## List UCP instances registered with UCP DOC

Lists Information about the UCP Director instances registered with UCP DOC.

This HTTP request uses the GET method on the /api/ucpinstances API. The request is directed to the host where the UCP DOC service is running.

This request requires the UCP DOC View privilege.

### Request body

The body for this request must be empty.

### Response body

For each UCP instance, the same data is returned as when issuing the GET request against a specific UCP instance. See [Get a UCP instance registered with UCP DOC](#).

### Example: List UCP Director instances

All UCP instances registered with UCP DOC are listed.

**Request Header**

GET https://ucpdatacenter.ucp.local/api/ucpinstances HTTP/1.1  
 Content-Type: application/json; charset=utf-8

**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 OK

**Response Body**

```
[
  {
    "Id": "blue-dev3-4282",
    "ResourceType": "SiteRegistration",
    "GlobalResourceId": "inst.UCP-DR-51718.site.blue-dev3-4282",
    "InstanceId": "UCP-DR-51718",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances/blue-dev3-4282"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances"
      },
      {
        "Rel": "site",
        "Href": "https://10.21.51.73/api/instance"
      }
    ],
    "DisplayName": "dev3",
    "GlobalSiteId": "inst.blue-dev3-4282",
    "GlobalSiteIdType": "Instance",
    "SerialNumber": "blue-dev3-4282",
    "ServiceUrl": "https://10.21.51.73/api",
    "UserName": "ucpadmin@dev3.local",
    "WebClientUrl": "https://10.21.51.68/"
  },
  {
    "Id": "blue-dev5-4282",
    "ResourceType": "SiteRegistration",
    "GlobalResourceId": "inst.UCP-DR-51718.site.blue-dev5-4282",
    "InstanceId": "UCP-DR-51718",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances/blue-dev5-4282"
      },

```

```

    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances"
    },
    {
      "Rel": "site",
      "Href": "https://10.21.51.134/api/instance"
    }
  ],
  "DisplayName": "dev5",
  "GlobalSiteId": "inst.blue-dev5-4282",
  "GlobalSiteIdType": "Instance",
  "SerialNumber": "blue-dev5-4282",
  "ServiceUrl": "https://10.21.51.134/api",
  "UserName": "ucpadmin@dev5.local",
  "WebClientUrl": "https://10.21.51.132/"
},
{
  "Id": "UCP-12345",
  "ResourceType": "SiteRegistration",
  "GlobalResourceId": "inst.UCP-DR-51718.site.UCP-12345",
  "InstanceId": "UCP-DR-51718",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances/UCP-12345"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances"
    },
    {
      "Rel": "site",
      "Href": "https://10.21.57.243/api/instance"
    }
  ],
  "DisplayName": "Chicago",
  "GlobalSiteId": "inst.UCP-12345",
  "GlobalSiteIdType": "Instance",
  "SerialNumber": "UCP-12345",
  "ServiceUrl": "https://10.21.57.243/api",
  "UserName": "ucpadmin@ucp.local",
  "WebClientUrl": "https://10.21.57.241/"
},
{
  "Id": "UCP-POD-H",
  "ResourceType": "SiteRegistration",
  "GlobalResourceId": "inst.UCP-DR-51718.site.UCP-POD-H",
  "InstanceId": "UCP-DR-51718",
  "Links": [
    {
      "Rel": "self",

```

```

        "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances/
UCP-POD-H"
    },
    {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances"
    },
    {
        "Rel": "site",
        "Href": "https://10.21.84.243/api/instance"
    }
],
"DisplayName": "Houston",
"GlobalSiteId": "inst.UCP-POD-H",
"GlobalSiteIdType": "Instance",
"SerialNumber": "UCP-POD-H",
"ServiceUrl": "https://10.21.84.243/api",
"UserName": "ucpadmin@podh.local",
"WebClientUrl": "https://10.21.84.241/"
},
{
    "Id": "v2ProductionD-123-456-789",
    "ResourceType": "SiteRegistration",
    "GlobalResourceId": "inst.UCP-DR-51718.site.v2ProductionD-123-456-
789",
    "InstanceId": "UCP-DR-51718",
    "Links": [
        {
            "Rel": "self",
            "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances/
v2ProductionD-123-456-789"
        },
        {
            "Rel": "collection",
            "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances"
        },
        {
            "Rel": "site",
            "Href": "https://10.21.62.243/api/instance"
        }
    ],
    "DisplayName": "Denver",
    "GlobalSiteId": "inst.v2ProductionD-123-456-789",
    "GlobalSiteIdType": "Instance",
    "SerialNumber": "v2ProductionD-123-456-789",
    "ServiceUrl": "https://10.21.62.243/api",
    "UserName": "ucpadmin@podd.local",
    "WebClientUrl": "https://10.21.62.241:9443/"
},
{
    "Id": "V2ProductionF-123-456-789",
    "ResourceType": "SiteRegistration",

```

```

    "GlobalResourceId": "inst.UCP-DR-51718.site.V2ProductionF-123-456-789",
    "InstanceId": "UCP-DR-51718",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances/V2ProductionF-123-456-789"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances"
      },
      {
        "Rel": "site",
        "Href": "https://10.21.74.243/api/instance"
      }
    ],
    "DisplayName": "Florida",
    "GlobalSiteId": "inst.V2ProductionF-123-456-789",
    "GlobalSiteIdType": "Instance",
    "SerialNumber": "V2ProductionF-123-456-789",
    "ServiceUrl": "https://10.21.74.243/api",
    "UserName": "ucpadmin@ucp.local",
    "WebClientUrl": "https://10.21.74.241:9443/"
  }
]

```

## Get a UCP instance registered with UCP DOC

This HTTP request uses the GET method on the /api/ucpinstances/{INSTANCEID} API.

This request requires the UCP DOC View privilege.

### Request body

The body for this request must be empty.

### Response body

The specified UCP instance is returned and contains the following properties.

Name	Type	Notes
Common properties		See Common properties
DisplayName	String	Display name of the UCP instance

Name	Type	Notes
GlobalSiteId	String	Global Id of the UCP site
GlobalSiteIdType	String	Always "Instance"
SerialNumber	String	Serial number of the UCP site
ServiceUrl	String	URL for viewing the UCP site
UserName	String	Administrative username for the UCP site
WebClientUrl	String	URL for logging into the site using vSphere web client

### Example: Get UCP Director instance

The UCP instace with ID UCP-12345 is returned.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/UCP-12345
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
{
  "Id": "UCP-12345",
  "ResourceType": "SiteRegistration",
  "GlobalResourceId": "inst.UCP-12345.site.UCP-12345",
  "InstanceId": "UCP-12345",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances/UCP-12345"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/ucpinstances"
    },
    {
      "Rel": "site",
      "Href": "https://10.21.57.243/api/instance"
    }
  ]
},
```

```

    "DisplayName": "Chicago",
    "GlobalSiteId": "inst.UCP-12345",
    "GlobalSiteIdType": "Instance",
    "SerialNumber": "UCP-12345",
    "ServiceUrl": "https://10.21.57.243/api",
    "UserName": "ucpadmin@ucp.local",
    "WebClientUrl": "https://10.21.57.241/"
  }

```

## Register a UCP instance with UCP DOC

This HTTP request uses the POST method with the /api/ucpinstances API.

The UCP DOC System Administration privilege is required.

### Request body

The required payload is listed in the chart below:

Name	Type	Notes
DisplayName	String	User friendly name for UCP instance
ServiceUrl	String	UCP Director web service URL
WebClientUrl	String	vCenter web client URL for the vCenter hosting UCP
UserName	String	UCP administrator account username
Password	String	UCP administrator account password

### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Register a UCP instance

In this example, a UCP site is registered with UCP DOC.

#### Request Header

```

POST https://ucpdatacenter.ucp.local/api/ucpinstances HTTP/1.1
Content-Type: application/json; charset=utf-8

```

#### Request Body

```

{
  "DisplayName": "Portland",
  "ServiceUrl": "https://ucpmanagement.dev3.local/api",

```



```

"UserName": "ucpadmin@dev3.local",
"WebClientUrl": "https://vcenter.dev3.local:9443/",
"Password": "password1"
}

```

**Response Header**

HTTP/1.1 202 Accepted

**Response Body**

The system executes a job named "Register UCP Instance with UCP DOC".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Unregister a UCP instance with UCP DOC

This HTTP request uses the DELETE method on the `/api/ucpinstances/{INSTANCEID}` URI, where `{INSTANCEID}` specifies the UCP instance that is to be unregistered from UCP DOC.

The UCP DOC System Administration privilege is required.

### Request body

The body for this request must be empty.

### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Unregister a UCP instance

In this example, a UCP site is removed from UCP DOC.

**Request Header**

```

DELETE https://ucpdatacenter.ucp.local/api/ucpinstances/blue-dev3-4078
HTTP/1.1
Content-Type: application/json; charset=utf-8

```

**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 Ok

**Response Body**

The system executes a job named "Unregister UCP Instance from UCP DOC". For common job properties, see the Jobs heading under Introducing UCP DOC API.

**Update UCP instance information**

This HTTP request uses the POST method on the `/api/ucpinstances/{INSTANCEID}` URI, where `{INSTANCEID}` specifies the UCP instance to be updated.

The UCP DOC System Administration privilege is required.

**Request body**

The request body contains the following properties.

Name	Type	Notes
DisplayName	String	User friendly name for UCP instance
ServiceUrl	String	UCP web service URL
WebClientUrl	String	vCenter web client URL for the vCenter hosting UCP
UserName	String	UCP administrator account credentials
Password	String	UCP administrator account password

**Response body**

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

**Example: Update UCP instance information**

In this example a UCP instance is updated.

**Request Header**

```
PUT https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionB-123-456-789 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

```
{
  "DisplayName": "SeattleUCP",
  "Password": "password",
```

```

"ServiceUrl": "https://10.21.24.243/api",
"UserName": "ucpadmin@ucp.local",
"WebClientUrl": "https://10.21.24.241/vsphere-client"
}

```

**Response Header**

HTTP/1.1 202 Accepted

**Response Body**

The system executes a job named "Update UCP Instance registered with UCP DOC". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## List clusters from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/clusters` URI where `{INSTANCEID}` is the Id of a UCP instance.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

The response body returns a list of clusters found in the specified UCP instance. Each cluster has the same properties as those shown in the UCP Director API Reference under the heading Get cluster.

### Example: List clusters from a UCP instance

In this example, all clusters from a UCP instance are returned.

**Request Header**

```

GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/clusters HTTP/1.1
Content-Type: application/json; charset=utf-8

```

**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 Ok

### Response Body

All clusters in the specified site are returned.

An example of one cluster is shown under Example: Get a cluster from a UCP instance.

## Get a cluster from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/clusters/{CLUSTERID}` URI where `{INSTANCEID}` is the Id of a UCP instance and `{CLUSTERID}` is the Id of a cluster.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

The response body returns the specified cluster. The properties of the cluster described in the UCP Director API Reference under the heading Get cluster.

### Example: Get a cluster from a UCP instance

In this example a specific cluster is requested from a specified UCP instance.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/clusters/domain-c246 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 Ok
```

#### Response Body

```
[
  {
    "Id": "domain-c246",
    "ResourceType": "Cluster",
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.vmgr.1.clu.domain-c246",
```

```

"InstanceId": "v2ProductionD-123-456-789",
"Links": [
  {
    "Rel": "self",
    "Href": "https://ucpmanagement.ucp.local/api/clusters/
domain-c246"
  },
  {
    "Rel": "collection",
    "Href": "https://ucpmanagement.ucp.local/api/clusters"
  },
  {
    "Rel": "jobs.self",
    "Href": "https://ucpmanagement.ucp.local/api/
jobs?targetType=Cluster&targetId=inst.v2ProductionD-123-456-
789.vmgr.1.clu.domain-c246&relation=self"
  },
  {
    "Rel": "jobs.subcomponent",
    "Href": "https://ucpmanagement.ucp.local/api/
jobs?targetType=Cluster&targetId=inst.v2ProductionD-123-456-
789.vmgr.1.clu.domain-c246&relation=subcomponent"
  },
  {
    "Rel": "jobs.all",
    "Href": "https://ucpmanagement.ucp.local/api/
jobs?targetType=Cluster&targetId=inst.v2ProductionD-123-456-
789.vmgr.1.clu.domain-c246&relation=self%7Csubcomponent"
  },
  {
    "Rel": "events.self",
    "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=Cluster&targetId=inst.v2ProductionD-123-456-
789.vmgr.1.clu.domain-c246&relation=self"
  },
  {
    "Rel": "events.subcomponent",
    "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=Cluster&targetId=inst.v2ProductionD-123-456-
789.vmgr.1.clu.domain-c246&relation=subcomponent"
  },
  {
    "Rel": "events.all",
    "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=Cluster&targetId=inst.v2ProductionD-123-456-
789.vmgr.1.clu.domain-c246&relation=self%7Csubcomponent"
  }
],
>Name": "TestCluster",
>ServerUuids": [
  "734c28cb-b459-11e1-9ad6-db6dbff1fa28",
  "33318c64-b418-11e1-abe6-9187b4949878"
]

```

```
    }  
  ]
```

## List servers from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/servers` URI where `{INSTANCEID}` is the Id of a UCP instance.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

The response body returns a list of servers found in the specified UCP instance. Each server has the same properties as those shown in the UCP Director API Reference under the heading Get server.

## Example: List servers from a UCP instance

All servers in the specified UCP instance are returned.

### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/servers HTTP/1.1  
Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

### Response Header

```
HTTP/1.1 200 Ok
```

### Response Body

All servers in the specified UCP site are returned.

See Example: Get a server from a UCP instance.

## Get a server from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/servers/{SERVERID}` where `{INSTANCEID}` is the Id of a UCP instance and `{SERVERID}` is the Id of a server.

## Request body

The body of this request must be empty.

## Response body

The response body returns a list of servers found in the specified UCP instance. Server properties are described in the UCP Director API Reference under the heading Get server.

## Example: Get a server from a UCP instance

The specified server is returned in this example.

### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/servers/a69f1b75-be4b-11e1-96a9-bala7ac3dd17 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

### Response Header

```
HTTP/1.1 200 Ok
```

### Response Body

```
{
  "Id": "a69f1b75-be4b-11e1-96a9-bala7ac3dd17",
  "ResourceType": "Server",
  "GlobalResourceId": "inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17",
  "InstanceId": "v2ProductionD-123-456-789",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpmanagement.ucp.local/api/servers/a69f1b75-be4b-11e1-96a9-bala7ac3dd17"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpmanagement.ucp.local/api/servers"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=Server&targetId=inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17&relation=self"
    }
  ]
}
```

```

        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=Server&targetId=inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17&relation=subcomponent"
    },
    {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=Server&targetId=inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17&relation=self%7Csubcomponent"
    },
    {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=Server&targetId=inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=Server&targetId=inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=Server&targetId=inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17&relation=self%7Csubcomponent"
    }
],
"MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.cmp.1.ser.a69f1b75-be4b-11e1-96a9-bala7ac3dd17",
    "MonitorIndicators": [
        {
            "DisplayName": "Server Health",
            "IndicatorState": "Ok",
            "IndicatorType": "Health",
            "Name": "ServerHealth",
            "SubGlobalResourceIds": null,
            "SubResourceType": null
        }
    ],
    "MonitorMode": "Report",
    "NumErrors": 0,
    "NumNotApplicables": 0,
    "NumOks": 1,
    "NumUnknowns": 0,
    "NumWarnings": 0,

```



```

"ResourceState": "Ok",
"ResourceType": "Server",
"UpdatedDateTime": "12\12\2013 6:17:45 PM +00:00"
},
"HostInformation": {
  "ApplyingTemplate": false,
  "ClusterId": null,
  "ClusterName": null,
  "CurrentImageId": 1,
  "CurrentImageName": "HitachiESXiImage-520HB1",
  "CurrentImageType": "EsxiStateless",
  "HostId": "host-254",
  "HostName": "r1-hi-cb500-1-b00.ucp.local",
  "HostUuid": "a69f1b75-be4b-11e1-96a9-bala7ac3dd17",
  "InMaintenanceMode": false
},
"ServerDeploymentInformation": {
  "DefaultImageId": 1,
  "DefaultImageName": "HitachiESXiImage-520HB1",
  "IsLocked": false,
  "PendingImageId": 1,
  "PendingImageName": "HitachiESXiImage-520HB1",
  "Uuid": "a69f1b75-be4b-11e1-96a9-bala7ac3dd17"
},
"ServerInformation": {
  "AvailableFirmwareVersion": null,
  "BmcDefaultGateway": "10.21.62.1",
  "BmcDhcpEnabled": false,
  "BmcFirmwareVersionCurrent": "01-77",
  "BmcFirmwareVersionPending": "",
  "BmcIp": "10.21.62.11",
  "BmcSubnetMask": "255.255.255.0",
  "BootType": "ESXiStateless",
  "ChassisId": "Hitachi_0_323GG-RE3A1NBX1-Y00000010",
  "ChassisSerialNumber": "323GG-RE3A1NBX1-Y00000010",
  "ConsoleUri": "https://\10.21.62.11/",
  "CoresPerCPU": 6,
  "CpuCacheSize": "30 MB",
  "CpuCacheSizeInMB": 30,
  "CpuFrequency": "2 GHz",
  "CpuFrequencyInGHz": 2,
  "CpuType": "Intel(R) Xeon(R) CPU E5-2630L 0 @ 2.00GHz",
  "CurrentFirmwareVersion": "01-81",
  "EfiFirmwareVersionCurrent": "07-07",
  "EfiFirmwareVersionPending": "",
  "ErrorCount": 0,
  "HardwareMaintenanceMode": "FALSE",
  "HbaInformationList": [
    {
      "CardName": "Hitachi 8Gb 2-port fibre channel mezzanine card",
      "CardSlot": 2,
      "CardType": "MEZZANINE",
      "DeviceId": "1B00",

```

```

    "FunctionNumber": 0,
    "Model": "MEZZANINE",
    "PortNumber": 0,
    "ServerBladeNumber": 0,
    "WorldWideNodeName": "24:00:D0:5F:CE:01:01:09",
    "WorldWideNodeNameChangeFromDefault": false,
    "WorldWideNodeNameDuplication": false,
    "WorldWidePortName": "24:00:D0:5F:CE:01:01:08",
    "WorldWidePortNameChangeFromDefault": false,
    "WorldWidePortNameDuplication": false
  },
  {
    "CardName": "Hitachi 8Gb 2-port fibre channel mezzanine card",
    "CardSlot": 2,
    "CardType": "MEZZANINE",
    "DeviceId": "1B00",
    "FunctionNumber": 1,
    "Model": "MEZZANINE",
    "PortNumber": 1,
    "ServerBladeNumber": 0,
    "WorldWideNodeName": "24:00:D0:5F:CE:01:01:0B",
    "WorldWideNodeNameChangeFromDefault": false,
    "WorldWideNodeNameDuplication": false,
    "WorldWidePortName": "24:00:D0:5F:CE:01:01:0A",
    "WorldWidePortNameChangeFromDefault": false,
    "WorldWidePortNameDuplication": false
  }
],
"Health": "Healthy",
"InformationCount": 5,
"LIDColor": "Blue",
"LIDState": "Off",
"LastRefreshed": "\/Date(1386869007000)\/",
"MacType": "Additional",
"Manufacturer": "HITACHI",
"MemoryAmount": "96 GB",
"MemoryAmountInGB": 96,
"Model": "Compute Blade 520HA1",
"ModelNumber": "GGAGC0A1-TNNX14Y",
"NicInformationList": [
  {
    "CardName": "Emulex 10Gb 4-port converged network mezzanine
card",
    "CardSlot": 1,
    "CardType": "MEZZANINE",
    "ChangedFromDefault": false,
    "DeviceId": "1600",
    "Duplication": false,
    "FunctionNumber": 1,
    "MacAddress": "d0:5f:ce:01:01:09",
    "Model": "MEZZANINE",
    "PortNumber": 1,
    "ServerBladeNumber": 0
  }
]

```

```

    },
    {
      "CardName": "Emulex 10Gb 4-port converged network mezzanine
card",
      "CardSlot": 1,
      "CardType": "MEZZANINE",
      "ChangedFromDefault": false,
      "DeviceId": "1600",
      "Duplication": false,
      "FunctionNumber": 0,
      "MacAddress": "d0:5f:ce:01:01:08",
      "Model": "MEZZANINE",
      "PortNumber": 0,
      "ServerBladeNumber": 0
    },
    {
      "CardName": "Emulex 10Gb 4-port converged network mezzanine
card",
      "CardSlot": 1,
      "CardType": "MEZZANINE",
      "ChangedFromDefault": false,
      "DeviceId": "1100",
      "Duplication": false,
      "FunctionNumber": 0,
      "MacAddress": "d0:5f:ce:01:01:00",
      "Model": "MEZZANINE",
      "PortNumber": 0,
      "ServerBladeNumber": 0
    },
    {
      "CardName": "Emulex 10Gb 4-port converged network mezzanine
card",
      "CardSlot": 1,
      "CardType": "MEZZANINE",
      "ChangedFromDefault": false,
      "DeviceId": "1100",
      "Duplication": false,
      "FunctionNumber": 1,
      "MacAddress": "d0:5f:ce:01:01:01",
      "Model": "MEZZANINE",
      "PortNumber": 1,
      "ServerBladeNumber": 0
    }
  ],
  "NumberOfCpus": 2,
  "OperatingMode": "Basic",
  "PartitionNumber": 0,
  "PartitionValid": true,
  "PartitionWidth": 1,
  "PendingFirmwareVersion": "",
  "PowerState": "On",
  "PrimarySlot": 0,
  "SerialNumber": "323GGAGC0A1-TNNX14Y00000027",

```

```
"ServerId": "a69f1b75-be4b-11e1-96a9-bala7ac3dd17",  
"ServerUuid": "a69f1b75-be4b-11e1-96a9-bala7ac3dd17",  
"WarningCount": 5,  
"WwnType": "Additional"  
}  
}
```

## List storage systems from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/storagesystems` URI where `{INSTANCEID}` is the Id of a UCP instance.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

The response body returns a list of storage systems found in the specified UCP instance (exactly one storage system is supported at this time). Properties of storage systems are shown in the UCP Director API Reference under the heading Get storage system.

### Example: List storage systems from a UCP instance

In this example, the storage system from a UCP instance is listed.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-  
456-789/storagesystems HTTP/1.1  
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 Ok
```

#### Response Body

The storage system is returned.

A detailed example is shown under Example: Get a storage system from a UCP instance.

## Get a storage system from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/storagesystems/{STORAGESYSTEMID}` URI where `{INSTANCEID}` is the Id of a UCP instance and `{STORAGESYSTEMID}` is the Id of a storage system.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

The response body returns the storage system from the specified UCP. Properties of storage systems are shown in the UCP Director API Reference under the heading Get storage system.

### Example: Get a storage system from a UCP instance

In this example, the storage system with ID 53102 is requested from the UCP instance.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/storagesystems/53102 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 Ok
```

#### Response Body

```
{
  "Id": "53102",
  "ResourceType": "StorageSystem",
  "GlobalResourceId": "inst.v2ProductionD-123-456-789.stor.1.ss.53102",
  "InstanceId": "v2ProductionD-123-456-789",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53102"
    }
  ]
}
```

```

        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems"
    },
    {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageSystem&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102&relation=self"
    },
    {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageSystem&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102&relation=subcomponent"
    },
    {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageSystem&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102&relation=self%7Csubcomponent"
    },
    {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageSystem&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageSystem&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageSystem&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102&relation=self%7Csubcomponent"
    }
],
"MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.stor.1.ss.53102",
    "MonitorIndicators": [
        {
            "DisplayName": "DKC Battery",
            "IndicatorState": "Ok",
            "IndicatorType": "Health",
            "Name": "DKCBattery",
            "SubGlobalResourceIds": null,
            "SubResourceType": null
        }
    ]
}

```

```

    "DisplayName": "DKC Cache",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKCCache",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKC Cache Switch",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKCCacheSwitch",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKC Environment",
    "IndicatorState": "Warning",
    "IndicatorType": "Health",
    "Name": "DKCEnvironment",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKC Fan",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKCFan",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKC Power Supply",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKCPowerSupply",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKC Processor",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKCProcessor",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKC Shared Memory",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKCSharedMemory",
    "SubGlobalResourceIds": null,

```

```

    "SubResourceType": null
  },
  {
    "DisplayName": "DKU Drive",
    "IndicatorState": "Warning",
    "IndicatorType": "Health",
    "Name": "DKUDrive",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKU Environment",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKUEnvironment",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKU Fan",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKUFan",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "DKU PowerSupply",
    "IndicatorState": "Ok",
    "IndicatorType": "Health",
    "Name": "DKUPowerSupply",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "Cache Performance",
    "IndicatorState": "NotApplicable",
    "IndicatorType": "Performance",
    "Name": "CachePerformance",
    "SubGlobalResourceIds": null,
    "SubResourceType": null
  },
  {
    "DisplayName": "Processors",
    "IndicatorState": "NotApplicable",
    "IndicatorType": "Composite",
    "Name": "Processors",
    "SubGlobalResourceIds": [

    ],
    "SubResourceType": "StorageProcessor"
  },
  {

```



```

"DisplayName": "Ports",
"IndicatorState": "NotApplicable",
"IndicatorType": "Composite",
"Name": "Ports",
"SubGlobalResourceIds": [
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL5-H",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL1-H",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL8-H",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL8-G",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL6-G",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL4-H",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL6-H",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL2-H",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL7-G",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL5-G",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL7-H",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.port.CL3-H"
],
"SubResourceType": "StoragePort"
},
{
"DisplayName": "Pools",
"IndicatorState": "Ok",
"IndicatorType": "Composite",
"Name": "Pools",
"SubGlobalResourceIds": [
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pool.2",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pool.5"
],
"SubResourceType": "StoragePool"
},
{
"DisplayName": "Journals",
"IndicatorState": "NotApplicable",
"IndicatorType": "Composite",
"Name": "Journals",
"SubGlobalResourceIds": [

],
"SubResourceType": "StorageJournal"
},
{
"DisplayName": "Parity Groups",
"IndicatorState": "NotApplicable",
"IndicatorType": "Composite",
"Name": "ParityGroups",
"SubGlobalResourceIds": [
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2531-1",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2338-1",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2516-1",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2299-1",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2494-1",
  "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2460-1",

```

```

        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2349-1",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2595-1",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2561-1",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.pg.X2368-1"
    ],
    "SubResourceType": "StorageParityGroup"
},
{
    "DisplayName": "Volumes",
    "IndicatorState": "NotApplicable",
    "IndicatorType": "Composite",
    "Name": "Volumes",
    "SubGlobalResourceIds": [
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12697",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12687",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12617",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12607",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12637",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12627",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12657",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12647",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12793",
        "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12677"
    ],
    "SubResourceType": "StorageVolume"
}
],
"MonitorMode": "Report",
"NumErrors": 0,
"NumNotApplicables": 603,
"NumOks": 12,
"NumUnknowns": 0,
"NumWarnings": 2,
"ResourceState": "Warning",
"ResourceType": "StorageSystem",
"UpdatedDateTime": "12\12\2013 6:23:21 PM +00:00"
},
"AllocatedSpaceInBytes": 24454276303872,
"ArrayFamily": "R700",
"ComponentStatuses": [
    {
        "Name": "DKC Battery",
        "Status": "Normal"
    },
    {
        "Name": "DKC Cache",
        "Status": "Normal"
    },
    {
        "Name": "DKC Cache Switch",
        "Status": "Normal"
    },
    {

```

```

        "Name": "DKC Environment",
        "Status": "Moderate"
    },
    {
        "Name": "DKC Fan",
        "Status": "Normal"
    },
    {
        "Name": "DKC Power Supply",
        "Status": "Normal"
    },
    {
        "Name": "DKC Processor",
        "Status": "Normal"
    },
    {
        "Name": "DKC Shared Memory",
        "Status": "Normal"
    },
    {
        "Name": "DKU Drive",
        "Status": "Service"
    },
    {
        "Name": "DKU Environment",
        "Status": "Normal"
    },
    {
        "Name": "DKU Fan",
        "Status": "Normal"
    },
    {
        "Name": "DKU Power Supply",
        "Status": "Normal"
    }
    ],
    "ControllerVersion": "70-05-03-00\00",
    "FreeSpaceInBytes": 25796109139968,
    "MicrocodeVersion": "70-05-03\00",
    "Name": "VSP@10.20.90.66",
    "PhysicalSpaceInBytes": 64618962593792,
    "ReservedSpaceInBytes": 32294909902848,
    "SerialNumber": "53102",
    "Status": "Moderate",
    "SystemIpAddresses": [
        "10.20.90.66"
    ],
    "SystemType": "VSP",
    "UnallocatedSpaceInBytes": 7869776387072
}

```

## List storage pools in a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/storageSystems/{STORAGESYSTEMID}/pools` URI where `{INSTANCEID}` is the Id of a UCP instance.

The UCP DOC View privilege is required.

### Example: List storage pools from a UCP instance

This example lists storage pools from the specified UCP instance and storage system.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionE-123-456-789/storagesystems/53102/pools
HTTP/1.1 Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 Ok
```

#### Response Body

```
[
  {
    "Id": "1",
    "ResourceType": "StoragePool",
    "GlobalResourceId": "inst.poda-4685.stor.1.ss.66716.pool.1",
    "InstanceId": "poda-4685",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.poda.local/api/storagesystems/66716/pools/1"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.poda.local/api/storagesystems/66716/pools"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.1&relation=self"
      },
      {

```

```

        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.1&relation=subcomponent"
    },
    {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.1&relation=self%7Csubcomponent"
    },
    {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.1&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.1&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.1&relation=self%7Csubcomponent"
    }
],
"MonitorState": {
    "GlobalResourceId": "inst.poda-4685.stor.1.ss.66716.pool.1",
    "MonitorIndicators": [
        {
            "DisplayName": "Pool Usage",
            "IndicatorState": "Ok",
            "IndicatorType": "Health",
            "Name": "PoolUsage",
            "SubGlobalResourceIds": null,
            "SubResourceType": null
        },
        {
            "DisplayName": "Pool Performance",
            "IndicatorState": "NotApplicable",
            "IndicatorType": "Performance",
            "Name": "PoolPerformance",
            "SubGlobalResourceIds": null,
            "SubResourceType": null
        }
    ]
},
"MonitorMode": "Report",
"NumErrors": 0,
"NumNotApplicables": 1,

```

```

    "NumOks": 1,
    "NumUnknowns": 0,
    "NumWarnings": 0,
    "ResourceState": "Ok",
    "ResourceType": "StoragePool",
    "UpdatedDateTime": "7/23/2014 5:31:04 PM +00:00"
  },
  "CapacityInBytes": 11916923633664,
  "CurrentSubscriptionPercentage": 127,
  "Name": null,
  "Status": "Normal",
  "StorageSystemId": "66716",
  "StorageSystemPoolDiskDetails": [
    {
      "CapacityInBytes": 393807396864,
      "DiskType": "Ssd",
      "PercentageAllocated": 3.30460619678335,
      "Rpm": null
    },
    {
      "CapacityInBytes": 11523116236800,
      "DiskType": "Sas",
      "PercentageAllocated": 96.6953938032166,
      "Rpm": 10000
    }
  ],
  "SubscribedCapacityInBytes": 15155463192576,
  "SubscriptionLimitPercentage": 1000000,
  "Type": "Hdt",
  "UsedCapacityInBytes": 1146498318336,
  "UsedPercentage": 9
},
{
  "Id": "3",
  "ResourceType": "StoragePool",
  "GlobalResourceId": "inst.poda-4685.stor.1.ss.66716.pool.3",
  "InstanceId": "poda-4685",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpmanagement.poda.local/api/storagesystems/66716/pools/3"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpmanagement.poda.local/api/storagesystems/66716/pools"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.3&relation=self"
    }
  ]
}

```

```

    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.3&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.3&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.3&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.3&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.3&relation=self%7Csubcomponent"
    }
  ],
  "MonitorState": {
    "GlobalResourceId": "inst.poda-4685.stor.1.ss.66716.pool.3",
    "MonitorIndicators": [
      {
        "DisplayName": "Pool Usage",
        "IndicatorState": "Ok",
        "IndicatorType": "Health",
        "Name": "PoolUsage",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      },
      {
        "DisplayName": "Pool Performance",
        "IndicatorState": "NotApplicable",
        "IndicatorType": "Performance",
        "Name": "PoolPerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      }
    ]
  },
  "MonitorMode": "Report",

```

```

        "NumErrors": 0,
        "NumNotApplicables": 1,
        "NumOks": 1,
        "NumUnknowns": 0,
        "NumWarnings": 0,
        "ResourceState": "Ok",
        "ResourceType": "StoragePool",
        "UpdatedDateTime": "7\23\2014 5:31:04 PM +00:00"
    },
    "CapacityInBytes": 5493133148160,
    "CurrentSubscriptionPercentage": 3,
    "Name": null,
    "Status": "Normal",
    "StorageSystemId": "66716",
    "StorageSystemPoolDiskDetails": [
        {
            "CapacityInBytes": 5493133148160,
            "DiskType": "Sata",
            "PercentageAllocated": 100,
            "Rpm": 7200
        }
    ],
    "SubscribedCapacityInBytes": 217294307328,
    "SubscriptionLimitPercentage": 1000000,
    "Type": "Hdt",
    "UsedCapacityInBytes": 880803840,
    "UsedPercentage": 1
},
{
    "Id": "0",
    "ResourceType": "StoragePool",
    "GlobalResourceId": "inst.poda-4685.stor.1.ss.66716.pool.0",
    "InstanceId": "poda-4685",
    "Links": [
        {
            "Rel": "self",
            "Href": "https://ucpmanagement.poda.local/api/storagesystems/66716/pools/0"
        },
        {
            "Rel": "collection",
            "Href": "https://ucpmanagement.poda.local/api/storagesystems/66716/pools"
        },
        {
            "Rel": "jobs.self",
            "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.0&relation=self"
        },
        {
            "Rel": "jobs.subcomponent",

```



```

      "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.0&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpmanagement.poda.local/api/jobs?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.0&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.0&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.0&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.poda.local/api/events?targetType=StoragePool&targetId=inst.poda-4685.stor.1.ss.66716.pool.0&relation=self%7Csubcomponent"
    }
  ],
  "MonitorState": {
    "GlobalResourceId": "inst.poda-4685.stor.1.ss.66716.pool.0",
    "MonitorIndicators": [
      {
        "DisplayName": "Pool Usage",
        "IndicatorState": "Ok",
        "IndicatorType": "Health",
        "Name": "PoolUsage",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      },
      {
        "DisplayName": "Pool Performance",
        "IndicatorState": "NotApplicable",
        "IndicatorType": "Performance",
        "Name": "PoolPerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      }
    ]
  },
  "MonitorMode": "Report",
  "NumErrors": 0,
  "NumNotApplicables": 1,
  "NumOks": 1,

```

```

        "NumUnknowns": 0,
        "NumWarnings": 0,
        "ResourceState": "Ok",
        "ResourceType": "StoragePool",
        "UpdatedDateTime": "7\23\2014 5:31:04 PM +00:00"
    },
    "CapacityInBytes": 102965968896,
    "CurrentSubscriptionPercentage": null,
    "Name": null,
    "Status": "Normal",
    "StorageSystemId": "66716",
    "StorageSystemPoolDiskDetails": [

    ],
    "SubscribedCapacityInBytes": 0,
    "SubscriptionLimitPercentage": 1000000,
    "Type": "Hti",
    "UsedCapacityInBytes": 176160768,
    "UsedPercentage": 1
}
]

```

## List volumes from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/storageSystems/{STORAGESYSTEMID}/volumes` URI where `{INSTANCEID}` is the Id of a UCP instance.

Optionally append the following filters to the URI:

- `?serverId={SERVERID}` to list volumes attached to a specific server
- `?clusterId={CLUSTERID}` to list volumes attached to a specific cluster

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

The response body returns a list of volumes found in the specified UCP instance and storage system. Properties of volumes are shown in the UCP Director API Reference under the heading Get storage system volume.

## Example: List volumes from a UCP instance

This example lists volumes from the specified UCP instance and storage system.

### Request Header

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionE-123-456-789/storagesystems/53102/volumes
HTTP/1.1 Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

### Response Header

```
HTTP/1.1 200 Ok
```

### Response Body

All volumes in the specified storage system are returned. An example of volume information is shown in the section [Get a volume from a UCP instance](#).

## Get a volume from a UCP instance

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/storageSystems/{STORAGESYSTEMID}/volumes/{VOLUMEID}` URI where `{INSTANCEID}` is the Id of a UCP instance.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

The response body returns the specified volume. Properties of volumes are shown in the UCP Director API Reference under the heading [Get storage system volume](#).

## Example: Get a volume from a UCP instance – Filter by pool

In this example, the storage system and pool are identified in the URI. All volumes from the specified pool are returned. For the sake of brevity, this example shows only two volumes.

**Request Header**

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/storagesystems/53102/volumes?poolId=2
HTTP/1.1 Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

```
[
  {
    "Id": "12550",
    "ResourceType": "StorageVolume",
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12550",
    "InstanceId": "v2ProductionD-123-456-789",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53102/volumes/12550"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53102/volumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12550&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12550&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12550&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
```

```

      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12550&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12550&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12550&relation=self%7Csubcomponent"
    }
  ],
  "MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12550",
    "MonitorIndicators": [
      {
        "DisplayName": "Volume Performance",
        "IndicatorState": "NotApplicable",
        "IndicatorType": "Performance",
        "Name": "VolumePerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      }
    ],
    "MonitorMode": "Report",
    "NumErrors": 0,
    "NumNotApplicables": 1,
    "NumOks": 0,
    "NumUnknowns": 0,
    "NumWarnings": 0,
    "ResourceState": "NotApplicable",
    "ResourceType": "StorageVolume",
    "UpdatedDateTime": "12/12/2013 6:28:21 PM +00:00"
  },
  "ArrayGroup": 71,
  "AttachedServerIds": [
    "d07e233f-b495-11e1-a6fc-8096535cba3e"
  ],
  "Chassis": 16486,
  "IsBootVolume": false,
  "IsReplicatedVolume": false,
  "LDev": 12550,
  "Name": "",
  "PoolId": "2",
  "StorageSystemId": "53102",
  "TotalCapacityInBytes": 56908316672,
  "UsedCapacityInBytes": 8719958016,

```

```

    "UsedPercentage": 15
    "VolumeType": "HDP"
  },
  {
    "Id": "12555",
    "ResourceType": "StorageVolume",
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12555",
    "InstanceId": "v2ProductionD-123-456-789",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53102/volumes/12555"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53102/volumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12555&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12555&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12555&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12555&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12555&relation=subcomponent"
      },
      {
        "Rel": "events.all",

```

```

        "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12555&relation=self%7Csubcomponent"
    }
  ],
  "MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12555",
    "MonitorIndicators": [
      {
        "DisplayName": "Volume Performance",
        "IndicatorState": "NotApplicable",
        "IndicatorType": "Performance",
        "Name": "VolumePerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      }
    ],
    "MonitorMode": "Report",
    "NumErrors": 0,
    "NumNotApplicables": 1,
    "NumOks": 0,
    "NumUnknowns": 0,
    "NumWarnings": 0,
    "ResourceState": "NotApplicable",
    "ResourceType": "StorageVolume",
    "UpdatedDateTime": "12/12/2013 6:28:21 PM +00:00"
  },
  "ArrayGroup": 81,
  "AttachedServerIds": [
  ],
  "Chassis": 16486,
  "IsBootVolume": false,
  "IsReplicatedVolume": false,
  "LDev": 12555,
  "Name": "",
  "PoolId": "2",
  "StorageSystemId": "53102",
  "TotalCapacityInBytes": 214748364800,
  "UsedCapacityInBytes": 528482304,
  "UsedPercentage": 0
  "VolumeType": "HDP"
},
{
  "Id": "12563",
  "ResourceType": "StorageVolume",
  "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563",
  "InstanceId": "v2ProductionD-123-456-789",
  "Links": [
    {
      "Rel": "self",

```

```

        "Href": "https://ucpmanagement.ucp.local/api/storagesystems\
/53102/volumes/12563"
    },
    {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems\
/53102/volumes"
    },
    {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563&relation=self"
    },
    {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563&relation=subcomponent"
    },
    {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563&relation=self%7Csubcomponent"
    },
    {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/\
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/\
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpmanagement.ucp.local/api/\
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563&relation=self%7Csubcomponent"
    }
],
"MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12563",
    "MonitorIndicators": [
        {
            "DisplayName": "Volume Performance",
            "IndicatorState": "NotApplicable",
            "IndicatorType": "Performance",

```



```

        "Name": "VolumePerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
    }
],
"MonitorMode": "Report",
"NumErrors": 0,
"NumNotApplicables": 1,
"NumOks": 0,
"NumUnknowns": 0,
"NumWarnings": 0,
"ResourceState": "NotApplicable",
"ResourceType": "StorageVolume",
"UpdatedDateTime": "12\12\2013 6:28:21 PM +00:00"
},
"ArrayGroup": 90,
"AttachedServerIds": [

],
"Chassis": 16486,
"IsBootVolume": false,
"IsReplicatedVolume": false,
"LDev": 12563,
"Name": "",
"PoolId": "2",
"StorageSystemId": "53102",
"TotalCapacityInBytes": 214748364800,
"UsedCapacityInBytes": 880803840,
"UsedPercentage": 0
"VolumeType": "HDP"
},
]

```

### Example: Get a volume from a UCP instance – Filter by server

In this example, the storage system and a server are identified in the URI. All volumes attached to the specified server are returned. For the sake of brevity, this example shows only one volume.

#### Request Header

```

GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/storagesystems/53102/volumes?serverId=33318c64-b418-11e1-abe6-9187b4949878
HTTP/1.1 Content-Type: application/json; charset=utf-8

```

#### Request Body

The body for this request must be empty.

#### Response Header

```

HTTP/1.1 200 OK

```

**Response Body**

```
[
  {
    "Id": "12574",
    "ResourceType": "StorageVolume",
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574",
    "InstanceId": "v2ProductionD-123-456-789",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems\
/53102/volumes/12574"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems\
/53102/volumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/\
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/\
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=subcomponent"
      },
      {
        "Rel": "events.all",

```

```

        "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=self%7Csubcomponent"
    }
  ],
  "MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574",
    "MonitorIndicators": [
      {
        "DisplayName": "Volume Performance",
        "IndicatorState": "NotApplicable",
        "IndicatorType": "Performance",
        "Name": "VolumePerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      }
    ],
    "MonitorMode": "Report",
    "NumErrors": 0,
    "NumNotApplicables": 1,
    "NumOks": 0,
    "NumUnknowns": 0,
    "NumWarnings": 0,
    "ResourceState": "NotApplicable",
    "ResourceType": "StorageVolume",
    "UpdatedDateTime": "12/12/2013 6:28:20 PM +00:00"
  },
  "ArrayGroup": 131,
  "AttachedServerIds": [
    "33318c64-b418-11e1-abe6-9187b4949878"
  ],
  "Chassis": 16486,
  "IsBootVolume": false,
  "IsReplicatedVolume": false,
  "LDev": 12574,
  "Name": "",
  "PoolId": "2",
  "StorageSystemId": "53102",
  "TotalCapacityInBytes": 3221225472,
  "UsedCapacityInBytes": 528482304,
  "UsedPercentage": 16
  "VolumeType": "HDP"
}

```

### Example: Get a volume from a UCP instance – Filter by cluster

In this example the storage system and a cluster have been identified in the URI. All volumes belonging to the specified cluster are returned. For the sake of brevity, this example shows only two volumes.

**Request Header**

```
GET https://ucpdatacenter.ucp.local/api/ucpinstances/v2ProductionD-123-456-789/storagesystems/53102/volumes?clusterId=domain-c246
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

```
[
  {
    "Id": "12574",
    "ResourceType": "StorageVolume",
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12574",
    "InstanceId": "v2ProductionD-123-456-789",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53102/volumes/12574"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53102/volumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12574&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12574&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-789.stor.1.ss.53102.vol.12574&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
```

```

      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574&relation=self%7Csubcomponent"
    }
  ],
  "MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12574",
    "MonitorIndicators": [
      {
        "DisplayName": "Volume Performance",
        "IndicatorState": "NotApplicable",
        "IndicatorType": "Performance",
        "Name": "VolumePerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      }
    ],
    "MonitorMode": "Report",
    "NumErrors": 0,
    "NumNotApplicables": 1,
    "NumOks": 0,
    "NumUnknowns": 0,
    "NumWarnings": 0,
    "ResourceState": "NotApplicable",
    "ResourceType": "StorageVolume",
    "UpdatedDateTime": "12/12/2013 6:28:12 PM +00:00"
  },
  "ArrayGroup": 131,
  "AttachedServerIds": [
    "734c28cb-b459-11e1-9ad6-db6dbff1fa28",
    "33318c64-b418-11e1-abe6-9187b4949878"
  ],
  "Chassis": 16486,
  "IsBootVolume": false,
  "IsReplicatedVolume": false,
  "LDev": 12574,
  "Name": "",
  "PoolId": "2",
  "StorageSystemId": "53102",
  "TotalCapacityInBytes": 3221225472,

```

```

    "UsedCapacityInBytes": 528482304,
    "UsedPercentage": 16
    "VolumeType": "HDP"
  },
  {
    "Id": "12575",
    "ResourceType": "StorageVolume",
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575",
    "InstanceId": "v2ProductionD-123-456-789",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems\
/53102/volumes/12575"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems\
/53102/volumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/\
jobs?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/\
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/\
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575&relation=subcomponent"
      },
      {
        "Rel": "events.all",

```

```

        "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageVolume&targetId=inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575&relation=self%7Csubcomponent"
    }
  ],
  "MonitorState": {
    "GlobalResourceId": "inst.v2ProductionD-123-456-
789.stor.1.ss.53102.vol.12575",
    "MonitorIndicators": [
      {
        "DisplayName": "Volume Performance",
        "IndicatorState": "NotApplicable",
        "IndicatorType": "Performance",
        "Name": "VolumePerformance",
        "SubGlobalResourceIds": null,
        "SubResourceType": null
      }
    ],
    "MonitorMode": "Report",
    "NumErrors": 0,
    "NumNotApplicables": 1,
    "NumOks": 0,
    "NumUnknowns": 0,
    "NumWarnings": 0,
    "ResourceState": "NotApplicable",
    "ResourceType": "StorageVolume",
    "UpdatedDateTime": "12/12/2013 6:28:13 PM +00:00"
  },
  "ArrayGroup": 132,
  "AttachedServerIds": [
    "734c28cb-b459-11e1-9ad6-db6dbff1fa28",
    "33318c64-b418-11e1-abe6-9187b4949878"
  ],
  "Chassis": 16486,
  "IsBootVolume": false,
  "IsReplicatedVolume": false,
  "LDev": 12575,
  "Name": "",
  "PoolId": "2",
  "StorageSystemId": "53102",
  "TotalCapacityInBytes": 3221225472,
  "UsedCapacityInBytes": 528482304,
  "UsedPercentage": 16
  "VolumeType": "HDP"
},
}

```

## Get the virtual manager from a UCP site

This HTTP request uses the GET method on the `/api/ucpinstances/{INSTANCEID}/virtualmanagers` URI where `{INSTANCEID}` is the Id of a UCP instance.

The UCP DOC View privilege is required.

## Request body

The body of this request must be empty.

## Response body

The response body returns the specified virtual manager, the properties of which are explained in the following table.

Name	Type	Notes
PlatformServer	String	The FQDN of the platform server when the platform server is SCVMM.
PlatformType	String	Type of platform server, either VMWare or SCVMM.
PlatformUrl	String	The URL of the platform server when the platform server is vCenter.
PlatformUsername	String	Username that has administrative access to the platform server.

## Example: Get the platform manager of a UCP site

In this example a UCP site is specified in the URI and the virtual manager is returned. This virtual manager is vCenter.

### Request Header:

```
GET https://10.21.84.249/api/ucpinstances/UCP-04616/virtualmanagers
HTTP/1.1 Content-Type: application/json; charset=utf-8
```

### Request Body:

The body for this request must be empty.

### Response Header:

```
HTTP/1.1 200 OK
```

### Response Body:

```
[
  {
    "Id": "1",
    "ResourceType": "VirtualManager",
    "GlobalResourceId": "inst.UCP-04616.vmgr.1",
```



```

"InstanceId": "UCP-04616",
"Links": [
  {
    "Rel": "self",
    "Href": "https://ucpmanagement.ucp.local/api/platform/virtualmanagers/1"
  },
  {
    "Rel": "collection",
    "Href": "https://ucpmanagement.ucp.local/api/platform/virtualmanagers"
  },
  {
    "Rel": "jobs.self",
    "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=VirtualManager&targetId=inst.UCP-04616.vmgr.1&relation=self"
  },
  {
    "Rel": "jobs.subcomponent",
    "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=VirtualManager&targetId=inst.UCP-04616.vmgr.1&relation=subcomponent"
  },
  {
    "Rel": "jobs.all",
    "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=VirtualManager&targetId=inst.UCP-04616.vmgr.1&relation=self%7Csubcomponent"
  },
  {
    "Rel": "events.self",
    "Href": "https://ucpmanagement.ucp.local/api/events?targetType=VirtualManager&targetId=inst.UCP-04616.vmgr.1&relation=self"
  },
  {
    "Rel": "events.subcomponent",
    "Href": "https://ucpmanagement.ucp.local/api/events?targetType=VirtualManager&targetId=inst.UCP-04616.vmgr.1&relation=subcomponent"
  },
  {
    "Rel": "events.all",
    "Href": "https://ucpmanagement.ucp.local/api/events?targetType=VirtualManager&targetId=inst.UCP-04616.vmgr.1&relation=self%7Csubcomponent"
  },
  {
    "Rel": "webclientconsole",
    "Href": "https://vcenter.ucp.local/vsphere-client"
  }
]

```

```

    ],
    "PlatformServer": null,
    "PlatformType": "VMWare",
    "PlatformUrl": "https://vcenter.ucp.local/sdk",
    "PlatformUsername": "ucp\\ucpadmin"
  }
]

```

## UCP instance monitoring state resources

The monitor state of a UCP instance is an aggregated compilation of physical health status from the components within each UCP instance. Each UCP instance has a monitoring service that UCP DOC taps into. UCP DOC can then report any status updates.

The following table lists the monitoring states API.

Request	Method	URI	Privilege
<a href="#">List monitoring states of all registered UCP instances</a>	GET	/api/monitorstates	UCP DOC View
<a href="#">Get monitoring state of a UCP instance</a>	GET	/api/monitorStates?resourceType={RESOURCE TYPE}&resourceId={RESOURCE ID}	UCP DOC View

### List monitoring states of all registered UCP instances

This HTTP request uses the GET method on the /api/monitorstates API.

#### Request body

This request body must be empty.

#### Response body

Each registered UCP instance will return the same block of data as shown in the response body for Get monitor state of a UCP instance.

#### Example: List monitor states for all UCP instances

This example lists the monitor states for all elements in a UCP instance.

##### Request Header

```

GET https://ucpdatacenter.ucp.local/api/monitorstates HTTP/1.1
Content-Type: application/json; charset=utf-8

```

**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 Ok

**Response Body**

```
[
  {
    "GlobalResourceId": "inst.blue-dev3-4282",
    "NumErrors": 0,
    "NumOks": 31,
    "NumUnknowns": 0,
    "NumWarnings": 2,
    "ResourceType": "Instance",
    "State": "Warning",
    "SubResources": [
      {
        "GlobalResourceId": "inst.blue-dev3-4282.eth.1",
        "NumErrors": 6,
        "NumOks": 12,
        "NumUnknowns": 0,
        "NumWarnings": 3,
        "ResourceType": "Ethernet",
        "State": "NotApplicable",
        "SubResources": [
          ]
        }
      ],
    {
      "GlobalResourceId": "inst.blue-dev3-4282.fc.1",
      "NumErrors": 0,
      "NumOks": 12,
      "NumUnknowns": 0,
      "NumWarnings": 2,
      "ResourceType": "FibreChannel",
      "State": "Warning",
      "SubResources": [
        ]
      }
    ],
    {
      "GlobalResourceId": "inst.blue-dev3-4282.cmp.1",
      "NumErrors": 0,
      "NumOks": 7,
      "NumUnknowns": 0,
      "NumWarnings": 0,
      "ResourceType": "Compute",
      "State": "Ok",
      "SubResources": [
        ]
      }
    ]
  ]
```

```

    },
    {
      "GlobalResourceId": "inst.blue-dev3-4282.stor.1",
      "NumErrors": 0,
      "NumOks": 12,
      "NumUnknowns": 0,
      "NumWarnings": 0,
      "ResourceType": "Storage",
      "State": "Ok",
      "SubResources": [

      ]
    }
  ]
},
{
  "GlobalResourceId": "inst.blue-dev5-4282",
  "NumErrors": 0,
  "NumOks": 31,
  "NumUnknowns": 0,
  "NumWarnings": 2,
  "ResourceType": "Instance",
  "State": "Warning",
  "SubResources": [
    {
      "GlobalResourceId": "inst.blue-dev5-4282.eth.1",
      "NumErrors": 6,
      "NumOks": 12,
      "NumUnknowns": 0,
      "NumWarnings": 3,
      "ResourceType": "Ethernet",
      "State": "NotApplicable",
      "SubResources": [

      ]
    },
    {
      "GlobalResourceId": "inst.blue-dev5-4282.fc.1",
      "NumErrors": 0,
      "NumOks": 12,
      "NumUnknowns": 0,
      "NumWarnings": 0,
      "ResourceType": "FibreChannel",
      "State": "Ok",
      "SubResources": [

      ]
    },
    {
      "GlobalResourceId": "inst.blue-dev5-4282.cmp.1",
      "NumErrors": 0,
      "NumOks": 7,
      "NumUnknowns": 0,

```

```

        "NumWarnings": 0,
        "ResourceType": "Compute",
        "State": "Ok",
        "SubResources": [

    ]
  },
  {
    "GlobalResourceId": "inst.blue-dev5-4282.stor.1",
    "NumErrors": 0,
    "NumOks": 12,
    "NumUnknowns": 0,
    "NumWarnings": 2,
    "ResourceType": "Storage",
    "State": "Warning",
    "SubResources": [

    ]
  }
]
},
{
  "GlobalResourceId": "inst.V2ProductionC-123-456-789",
  "NumErrors": 1,
  "NumOks": 129,
  "NumUnknowns": 40,
  "NumWarnings": 130,
  "ResourceType": "Instance",
  "State": "Error",
  "SubResources": [
    {
      "GlobalResourceId": "inst.V2ProductionC-123-456-789.eth.1",
      "NumErrors": 0,
      "NumOks": 56,
      "NumUnknowns": 0,
      "NumWarnings": 120,
      "ResourceType": "Ethernet",
      "State": "Warning",
      "SubResources": [

      ]
    },
    {
      "GlobalResourceId": "inst.V2ProductionC-123-456-789.fc.1",
      "NumErrors": 0,
      "NumOks": 52,
      "NumUnknowns": 40,
      "NumWarnings": 8,
      "ResourceType": "FibreChannel",
      "State": "Warning",
      "SubResources": [

      ]
    }
  ]
}
]

```

```

    },
    {
      "GlobalResourceId": "inst.V2ProductionC-123-456-789.cmp.1",
      "NumErrors": 0,
      "NumOks": 12,
      "NumUnknowns": 0,
      "NumWarnings": 0,
      "ResourceType": "Compute",
      "State": "Ok",
      "SubResources": [

      ]
    },
    {
      "GlobalResourceId": "inst.V2ProductionC-123-456-789.stor.1",
      "NumErrors": 1,
      "NumOks": 9,
      "NumUnknowns": 0,
      "NumWarnings": 2,
      "ResourceType": "Storage",
      "State": "Error",
      "SubResources": [

      ]
    }
  ],
  {
    "GlobalResourceId": "inst.v2ProductionH-123-456-789",
    "NumErrors": 0,
    "NumOks": 73,
    "NumUnknowns": 0,
    "NumWarnings": 68,
    "ResourceType": "Instance",
    "State": "Warning",
    "SubResources": [
      {
        "GlobalResourceId": "inst.v2ProductionH-123-456-789.eth.1",
        "NumErrors": 6,
        "NumOks": 12,
        "NumUnknowns": 0,
        "NumWarnings": 3,
        "ResourceType": "Ethernet",
        "State": "NotApplicable",
        "SubResources": [

        ]
      },
      {
        "GlobalResourceId": "inst.v2ProductionH-123-456-789.fc.1",
        "NumErrors": 0,
        "NumOks": 52,
        "NumUnknowns": 0,

```

```

    "NumWarnings": 68,
    "ResourceType": "FibreChannel",
    "State": "Warning",
    "SubResources": [
      ]
    },
    {
      "GlobalResourceId": "inst.v2ProductionH-123-456-789.cmp.1",
      "NumErrors": 0,
      "NumOks": 12,
      "NumUnknowns": 0,
      "NumWarnings": 0,
      "ResourceType": "Compute",
      "State": "Ok",
      "SubResources": [
        ]
      },
      {
        "GlobalResourceId": "inst.v2ProductionH-123-456-789.stor.1",
        "NumErrors": 0,
        "NumOks": 9,
        "NumUnknowns": 0,
        "NumWarnings": 0,
        "ResourceType": "Storage",
        "State": "Ok",
        "SubResources": [
          ]
        }
      ]
    }
  ]
}

```

## Get monitoring state of a UCP instance

This HTTP request uses the GET method on the `/api/monitorStates?resourceType={RESOURCE_TYPE}&globalResourceId={GLOBAL_RESOURCE_ID}` API. `ResourceType` is "Instance" and `globalResourceId` is the `Id` returned from GET `/api/ucpinstances`.

An aggregated monitor state is returned for the UCP instance as well as subresources.

The UCP DOC Viewer privilege is required.

### Request body

The body for this request must be empty.

## Response body

For the UCP instance and each sub resource type, the following properties are returned. Sub resources are: Ethernet, FibreChannel, Compute, and Storage.

Name	Type	Notes
GlobalResourceId	String	Globally unique Id of the resource
NumErrors	Int32	Total count of Errors from the monitored resource
NumOks	Int32	Total count of Oks from the monitored resource
NumUnknowns	Int32	Total count of Unknowns from the monitored resource
NumWarnings	Int32	Total count of Warnings from the monitored resource
ResourceType	Int32	Resource type
State	String	Health state of the instance
Subresources	Collection	<p>List of sub resources known to the UCP instance. Sub resources are:</p> <ul style="list-style-type: none"> <li>• Ethernet</li> <li>• FibreChannel</li> <li>• Compute</li> <li>• Storage</li> </ul> <p>All sub-resources have the same state properties as the parent resource. Third level sub-resources are not displayed.</p>

### Example: Get monitoring states using filters for ResourceId and ResourceType

In this example, Instance is used as a filter and the ID of the UCP instance is specified in the URI.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/monitorstates?resourceType=Instance&globalResourceId=ucp12345 HTTP/1.1
Content-Type: application/json; charset=utf-8
```



**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 Ok

**Response Body**

```
[
  {
    "GlobalResourceId": "inst.UCP-12345",
    "NumErrors": 1,
    "NumOks": 116,
    "NumUnknowns": 46,
    "NumWarnings": 145,
    "ResourceType": "Instance",
    "State": "Error",
    "SubResources": [
      {
        "GlobalResourceId": "inst.UCP-12345.eth.1",
        "NumErrors": 0,
        "NumOks": 47,
        "NumUnknowns": 0,
        "NumWarnings": 119,
        "ResourceType": "Ethernet",
        "State": "Warning",
        "SubResources": [

        ]
      },
      {
        "GlobalResourceId": "inst.UCP-12345.fc.1",
        "NumErrors": 0,
        "NumOks": 44,
        "NumUnknowns": 46,
        "NumWarnings": 26,
        "ResourceType": "FibreChannel",
        "State": "Warning",
        "SubResources": [

        ]
      },
      {
        "GlobalResourceId": "inst.UCP-12345.cmp.1",
        "NumErrors": 0,
        "NumOks": 10,
        "NumUnknowns": 0,
        "NumWarnings": 0,
        "ResourceType": "Compute",
        "State": "Ok",
        "SubResources": [

        ]
      }
    ]
  }
]
```

```

    },
    {
      "GlobalResourceId": "inst.UCP-12345.stor.1",
      "NumErrors": 1,
      "NumOks": 15,
      "NumUnknowns": 0,
      "NumWarnings": 0,
      "ResourceType": "Storage",
      "State": "Error",
      "SubResources": [
        ]
      }
    ]
  }
]

```

## Authorization resources

Authorization resources are used to view, add, edit and remove users, roles and privileges.

Request	Method	URI	Privilege
<a href="#">List user roles</a>	GET	/api/roles	UCP DOC View
<a href="#">List users</a>	GET	/api/users	UCP DOC View
<a href="#">Get user by ID</a>	GET	/api/users/{userId}	UCP DOC View
<a href="#">Add user</a>	POST	/api/users	UCP DOC View
<a href="#">Update user</a>	PUT	/api/users/{userId}	UCP DOC Administrator
<a href="#">Delete user</a>	DELETE	/api/users/{userId}	UCP DOC Administrator
<a href="#">List user privileges</a>	GET	/api/userprivileges	UCP DOC View

### List user roles

This HTTP request uses the GET method on the /api/roles API.

### Request body

The body for this request must be empty.

## Response body

For each role, the following information is returned:

Name	Type	Notes
(Common properties)		See Common properties
Name	String	Name of the role. Values: <ul style="list-style-type: none"> <li>• Viewer</li> <li>• Administrator</li> </ul>

### Example: List all user roles

This example lists the roles for users in UCP DOC.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/roles HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 Ok
```

#### Response Body

```
[
  {
    "Id": "1",
    "ResourceType": "Role",
    "GlobalResourceId": "inst.DCD-123-4567.role.1",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/roles"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Role&targetId=inst.DCD-123-4567.role.1&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Role&targetId=inst.DCD-123-4567.role.1&relation=subcomponent"
      }
    ]
  }
]
```

```

    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Role&targetId=inst.DCD-123-4567.role.1&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=Role&targetId=inst.DCD-123-4567.role.1&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=Role&targetId=inst.DCD-123-4567.role.1&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=Role&targetId=inst.DCD-123-4567.role.1&relation=self%7Csubcomponent"
    }
  ],
  "Name": "Administrator"
},
{
  "Id": "2",
  "ResourceType": "Role",
  "GlobalResourceId": "inst.DCD-123-4567.role.2",
  "InstanceId": "DCD-123-4567",
  "Links": [
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/roles"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Role&targetId=inst.DCD-123-4567.role.2&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Role&targetId=inst.DCD-123-4567.role.2&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=Role&targetId=inst.DCD-123-4567.role.2&relation=self%7Csubcomponent"
    }
  ],

```

```

    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=Role&targetId=inst.DCD-123-4567.role.2&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=Role&targetId=inst.DCD-123-
4567.role.2&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=Role&targetId=inst.DCD-123-
4567.role.2&relation=self%7Csubcomponent"
    }
  ],
  "Name": "Viewer"
}
}

```

## List users

This HTTP request uses the GET method on the /api/users API.

### Request body

The body for this request must be empty.

### Response body

All users are returned. The properties for each user are explained in the table under the heading Get user by ID.

### Example: List all users

In this example, all users are listed.

#### Request Header

```

GET https://ucpdatacenter.ucp.local/api/users HTTP/1.1
Content-Type: application/json; charset=utf-8

```

#### Request Body

The body for this request must be empty.

#### Response Header

```

HTTP/1.1 200 Ok

```

**Response Body**

```
[
  {
    "Id": "1",
    "ResourceType": "User",
    "GlobalResourceId": "inst.DCD-123-4567.user.1",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/users/1"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/users"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=subcomponent"
      },
      {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self%7Csubcomponent"
      }
    ],
    "Name": "ucp\\ucpadmin",
    "Roles": [
```

```

    "Administrator"
  ]
},
{
  "Id": "2",
  "ResourceType": "User",
  "GlobalResourceId": "inst.DCD-123-4567.user.2",
  "InstanceId": "DCD-123-4567",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/users/2"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/users"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.2&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.2&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.2&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.2&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.2&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.2&relation=self%7Csubcomponent"
    }
  ],
  "Name": "ucp\\svc_ucpdcntr",

```

```

    "Roles": [
      "Viewer"
    ]
  },
  {
    "Id": "3",
    "ResourceType": "User",
    "GlobalResourceId": "inst.DCD-123-4567.user.3",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/users/3"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/users"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.3&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.3&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.3&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.3&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.3&relation=subcomponent"
      },
      {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.3&relation=self%7Csubcomponent"
      }
    ]
  },
],

```



```

    "Name": "ucp\\Admin1",
    "Roles": [
      "Administrator"
    ]
  },
  {
    "Id": "4",
    "ResourceType": "User",
    "GlobalResourceId": "inst.DCD-123-4567.user.4",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/users/4"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/users"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.4&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.4&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.4&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.4&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.4&relation=subcomponent"
      },
      {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.4&relation=self%7Csubcomponent"
      }
    ]
  }
}

```

```

    ],
    "Name": "ucp\\qton",
    "Roles": [
      "Administrator"
    ]
  },
  {
    "Id": "6",
    "ResourceType": "User",
    "GlobalResourceId": "inst.DCD-123-4567.user.6",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/users/6"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/users"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.6&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.6&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.6&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.6&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.6&relation=subcomponent"
      },
      {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.6&relation=self%7Csubcomponent"
      }
    ]
  }

```

```

    }
  ],
  "Name": "ucp\\Admin2",
  "Roles": [
    "Administrator"
  ]
}
}

```

## Get user by ID

This HTTP request uses the GET method on the /api/users/{USERID} API.

### Request body

The body for this request must be empty.

### Response body

The following information is returned for the userId specified in the URI.

Name	Type	Notes
(Common properties)		See Common properties
Name	String	The user name.
Roles	List	Roles that the user has. Values: <ul style="list-style-type: none"> <li>Viewer</li> <li>Administrator</li> </ul>

### Example: Get a specified user

In this example, the specified user is returned.

#### Request Header

```

GET https://ucpdatacenter.ucp.local/api/users/1 HTTP/1.1
Content-Type: application/json; charset=utf-8

```

#### Request Body

The body for this request must be empty.

#### Response Header

```

HTTP/1.1 200 Ok

```

**Response Body**

```

{
  "Id": "1",
  "ResourceType": "User",
  "GlobalResourceId": "inst.DCD-123-4567.user.1",
  "InstanceId": "DCD-123-4567",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/users/1"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/users"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=User&targetId=inst.DCD-123-4567.user.1&relation=self%7Csubcomponent"
    }
  ],
  "Name": "ucp\\ucpadmin",
  "Roles": [
    "Administrator"
  ]
}

```

```
]
}
```

## Add user

This HTTP request uses the POST method on the `/api/users/` API.

### Request body

The properties of this request body are shown in the following chart.

Name	Type	Notes
Name	String	Username for the user. The user should be present in the AD that UCP DOC is integrated with.
Roles	List	Roles that the user should be added to. Values: <ul style="list-style-type: none"> <li>Viewer</li> <li>Administrator</li> </ul>

### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Adds a new user

In this example, a new user is added to UCP DOC.

#### Request Header

```
POST https://ucpdatacenter.ucp.local/api/users HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

```
{"Roles":["Administrator"],"Name":"ucp\\user1"}
```

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Add User to UCP DOC". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Update user

This HTTP request uses the PUT method on the `/api/users/{userId}`.

### Request body

The request body contains the properties shown in the following chart.

Name	Type	Notes
Name	String	This is the username for the user. It must be present in the AD that UCP DOC is integrated with.
Roles	List	Roles that the user should be given. Values: <ul style="list-style-type: none"> <li>• Viewer</li> <li>• Administrator</li> </ul>

### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Update the role of an existing user

This example updates the role of the specified user.

#### Request Header

```
PUT https://ucpdatacenter.ucp.local/api/users/8 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

```
{"Roles":["Administrator"]}
```

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Update user in UCP DOC". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Delete user

This HTTP request uses the DELETE method on the `/api/users/{USERID}` API.

### Request body

The body of this API request must be empty.

### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Remove user

This example removes the specified user from UCP DOC.

#### Request Header

```
DELETE https://ucpdatacenter.ucp.local/api/users/7 HTTP/1.1  
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Delete user from UCP DOC".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## List user privileges

This HTTP request uses the GET method on the `/api/users/userprivileges` API.

### Request body

The body of this API request must be empty.

## Response body

The response body contains a list of permissions as shown in this chart.

Name	Type	Notes
Permissions	String	Privileges of the user. Values: <ul style="list-style-type: none"> <li>View</li> <li>Administrator</li> </ul>

### Example: List all user privileges

This example lists user privileges.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/userprivileges HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
{
  "Id": "0",
  "ResourceType": "UserPermissionList",
  "GlobalResourceId": "inst.UCP-12345.vmgr.0.prvlg",
  "InstanceId": "UCP-12345",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/userprivileges"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=UserPermissionList&targetId=inst.UCP-12345.vmgr.0.prvlg&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=UserPermissionList&targetId=inst.UCP-12345.vmgr.0.prvlg&relation=subcomponent"
    }
  ]
}
```



```

    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=UserPermissionList&targetId=inst.UCP-12345.vmgr.0.prvlg&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=UserPermissionList&targetId=inst.UCP-12345.vmgr.0.prvlg&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=UserPermissionList&targetId=inst.UCP-12345.vmgr.0.prvlg&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=UserPermissionList&targetId=inst.UCP-12345.vmgr.0.prvlg&relation=self%7Csubcomponent"
    }
  ],
  "Permissions": [
    "UCPDatacenter.SystemAdministration",
    "UCPDatacenter.View"
  ]
}

```

## Event resources

These API are used to get events from UCP DOC.

Request	Method	URI	Privilege
<a href="#">List UCP DOC events</a>	GET	.../events	UCP DOC View
<a href="#">Get UCP DOC event</a>	GET	.../events/{criteria}	UCP DOC View

### List UCP DOC events

This HTTP request uses the GET method on the /api/events API. The most recent 100 events are returned.

- The scope of events can be narrowed by adding one or more of the following filter criteria to the URI.

- • severity={SEVERITY} – Severity of the event
- • &targetType={TARGETTYPE} – Target resource type
- • &targetId={TARGETID} – Target Id of a single resource
- • &relation={RELATION} – Self or subcomponent or both
- • &eventType={EVENTTYPE} – Event type
- • &jobId={JOBID} – Job Id of the event
- • &fromDateTime={FROMDATETIME} – Starting date and time
- • &toDateTime={TODATETIME} – Ending date and time
- • &marker={MARKER} – Id of the event
- • &offset={OFFSET} – Number of events to skip
- • &count={COUNT} – Quantity of events to return

## Request body

The body of this request must be empty.

## Response body

The requested events are displayed in the response body. Properties of each event are detailed under the heading Get UCP DOC event.

## Example: List 100 recent UCP DOC events

This example asks for the most recent UCP DOC events. Because the default page size is 100, this request will return 100 events. For the sake of brevity, the response below is truncated to a single event.

### Request Header

```
GET https://ucpdatacenter.ucp.local/api/events HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 Ok

**Response Body**

```

{
  "Events": [
    {
      "Id": "1108",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.1108",
      "InstanceId": "12",
      "Links": [
        {
          "Rel": "self",
          "Href": "https://ucpdatacenter.ucp.local/api/events/1108"
        },
        {
          "Rel": "collection",
          "Href": "https://ucpdatacenter.ucp.local/api/events"
        },
        {
          "Rel": "job",
          "Href": "https://ucpdatacenter.ucp.local/api/jobs/84"
        }
      ],
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\\Date(1386295119066)\\",
        "OffsetMinutes": 0
      },
      "Description": "Successfully refreshed inventory for site pair :
6.",
      "EventId": "1108",
      "EventType": "RefreshSitePairInfoEvent",
      "JobId": "84",
      "RecommendedAction": null,
      "Severity": "info",
      "TargetId": "inst.12.sitePair.6",
      "TargetType": "SitePair"
    }
  ]
}

```

**Example: Get events based on filter criteria – time range**

The filters in this example ask for events between Nov 30 at 1:05 AM to Dec 6 at noon.

**Request Header**

```
GET https://ucpdatacenter.ucp.local/api/
events?targetType=SitePair&eventType=RefreshSitePairInfoEvent&fromTime=2
013-11-30T01:05:45&toTime=2013-12-06T12:00:00 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

```
{
  "Events": [
    {
      "Id": "1108",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.1108",
      "InstanceId": "12",
      "Links": [
        {
          "Rel": "self",
          "Href": "https://ucpdatacenter.ucp.local/api/events/1108"
        },
        {
          "Rel": "collection",
          "Href": "https://ucpdatacenter.ucp.local/api/events"
        },
        {
          "Rel": "job",
          "Href": "https://ucpdatacenter.ucp.local/api/jobs/84"
        }
      ],
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\\Date(1386295119066)\\",
        "OffsetMinutes": 0
      },
      "Description": "Successfully refreshed inventory for site pair :
6.",
      "EventId": "1108",
      "EventType": "RefreshSitePairInfoEvent",
      "JobId": "84",
      "RecommendedAction": null,
      "Severity": "info",
      "TargetId": "inst.12.sitePair.6",
      "TargetType": "SitePair"
    },
  ]
}
```

```

    "Id": "449",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.449",
    "InstanceId": "12",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/events/449"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/events"
      },
      {
        "Rel": "job",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs/63"
      }
    ],
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386183289980)\\",
      "OffsetMinutes": 0
    },
    "Description": "Successfully refreshed inventory for site pair :
4.",
    "EventId": "449",
    "EventType": "RefreshSitePairInfoEvent",
    "JobId": "63",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.4",
    "TargetType": "SitePair"
  },
  {
    "Id": "363",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.363",
    "InstanceId": "12",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/events/363"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/events"
      },
      {
        "Rel": "job",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs/54"
      }
    ],

```

```

    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386124795219)\\",
      "OffsetMinutes": 0
    },
    "Description": "Successfully refreshed inventory for site pair :
3.",
    "EventId": "363",
    "EventType": "RefreshSitePairInfoEvent",
    "JobId": "54",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.3",
    "TargetType": "SitePair"
  },
  {
    "Id": "289",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.289",
    "InstanceId": "12",
    "Links": [
      {
        "Rel": "self",
        "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\events\\289"
      },
      {
        "Rel": "collection",
        "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\events"
      },
      {
        "Rel": "job",
        "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\jobs\\42"
      }
    ],
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386109724148)\\",
      "OffsetMinutes": 0
    },
    "Description": "Successfully refreshed inventory for site pair :
3.",
    "EventId": "289",
    "EventType": "RefreshSitePairInfoEvent",
    "JobId": "42",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.3",
    "TargetType": "SitePair"
  },
  {
    "Id": "271",

```

```

"ResourceType": "Event",
"GlobalResourceId": "inst.12.event.271",
"InstanceId": "12",
"Links": [
  {
    "Rel": "self",
    "Href": "https://ucpdatacenter.ucp.local/api/events/271"
  },
  {
    "Rel": "collection",
    "Href": "https://ucpdatacenter.ucp.local/api/events"
  },
  {
    "Rel": "job",
    "Href": "https://ucpdatacenter.ucp.local/api/jobs/41"
  }
],
"Arguments": null,
"CreatedBy": "ucp\\ucpadmin",
"CreatedTime": {
  "DateTime": "\\Date(1386109127862)\\",
  "OffsetMinutes": 0
},
"Description": "Successfully refreshed inventory for site pair :
3.",
"EventId": "271",
"EventType": "RefreshSitePairInfoEvent",
"JobId": "41",
"RecommendedAction": null,
"Severity": "info",
"TargetId": "inst.12.sitePair.3",
"TargetType": "SitePair"
}
],
"Marker": 1464
}

```

### Example: Get events based on filter criteria – paging with marker and offset

In this example, we've already viewed all events and the highest Id was 1500. We now wish to page back through events, prior to that. Therefore, 1500 is used as the {MARKER} criteria. The {OFFSET} is used to specify how many pages of events to skip. The {COUNT} criteria dictates how many events constitute a page.

#### Request Header

```

https://ucpdatacenter.ucp.local/api/events?marker=1500&offset=2&count=25
HTTP/1.1
Content-Type: application/json; charset=utf-8

```

**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 OK

**Response Body**

```
{
  "Events": [
    {
      "Id": "1447",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.1447",
      "InstanceId": "12",
      "Links": [
        {
          "Rel": "self",
          "Href": "https://ucpdatacenter.ucp.local/api/events/1447"
        },
        {
          "Rel": "collection",
          "Href": "https://ucpdatacenter.ucp.local/api/events"
        },
        {
          "Rel": "target",
          "Href": "https://ucpdatacenter.ucp.local/api/instance"
        }
      ],
      "Arguments": null,
      "CreatedBy": "ucp\\svc_ucpdcntr",
      "CreatedTime": {
        "DateTime": "\\Date(1386349172943)\\",
        "OffsetMinutes": 0
      },
      "Description": "Failed to communicate with the AMQP service at IP Address: 10.21.57.243. Broker Unreachable Error: None of the specified endpoints were reachable. Inner error: Connection to amqp-0-9:\\\\10.21.57.243:5671 timed out..",
      "EventId": "1447",
      "EventType": "AMQPServiceCommunicationFailedErrorEvent",
      "JobId": null,
      "RecommendedAction": "Please check the AMQP service and verify the credentials.",
      "Severity": "error",
      "TargetId": "inst.12",
      "TargetType": "Instance"
    },
    {
      "Id": "1446",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.1446",
      "InstanceId": "12",

```



```

"Links": [
  {
    "Rel": "self",
    "Href": "https://ucpdatacenter.ucp.local/api/events/1446"
  },
  {
    "Rel": "collection",
    "Href": "https://ucpdatacenter.ucp.local/api/events"
  },
  {
    "Rel": "target",
    "Href": "https://ucpdatacenter.ucp.local/api/instance"
  }
],
"Arguments": null,
"CreatedBy": "ucp\\svc_ucpdcntr",
"CreatedTime": {
  "DateTime": "\\Date(1386349046691)\\",
  "OffsetMinutes": 0
},
"Description": "Failed to communicate with the AMQP service at IP
Address: 10.21.84.243. Broker Unreachable Error: None of the specified
endpoints were reachable. Inner error: Connection to amqp-0-9:\\\\
10.21.84.243:5671 timed out..",
"EventId": "1446",
"EventType": "AMQPServiceCommunicationFailedErrorEvent",
"JobId": null,
"RecommendedAction": "Please check the AMQP service and verify the
credentials.",
"Severity": "error",
"TargetId": "inst.12",
"TargetType": "Instance"
},
{
  "Id": "1445",
  "ResourceType": "Event",
  "GlobalResourceId": "inst.12.event.1445",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/events/1445"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/events"
    },
    {
      "Rel": "target",
      "Href": "https://ucpdatacenter.ucp.local/api/instance"
    }
  ]
},
"Arguments": null,

```

```

    "CreatedBy": "ucp\\svc_ucpdcntr",
    "CreatedTime": {
      "DateTime": "\\Date(1386349045287)\\",
      "OffsetMinutes": 0
    },
    "Description": "Failed to communicate with the AMQP service at IP
Address: 10.21.57.243. Broker Unreachable Error: None of the specified
endpoints were reachable. Inner error: Connection to amqp-0-9:\\\\
10.21.57.243:5671 timed out..",
    "EventId": "1445",
    "EventType": "AMQPServiceCommunicationFailedErrorEvent",
    "JobId": null,
    "RecommendedAction": "Please check the AMQP service and verify the
credentials.",
    "Severity": "error",
    "TargetId": "inst.12",
    "TargetType": "Instance"
  },
  {
    "Id": "1444",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1444",
    "InstanceId": "12",
    "Links": [
      {
        "Rel": "self",
        "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\events\\1444"
      },
      {
        "Rel": "collection",
        "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\events"
      },
      {
        "Rel": "target",
        "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\instance"
      }
    ],
    "Arguments": null,
    "CreatedBy": "ucp\\svc_ucpdcntr",
    "CreatedTime": {
      "DateTime": "\\Date(1386348235186)\\",
      "OffsetMinutes": 0
    },
    "Description": "Failed to communicate with the AMQP service at IP
Address: 10.21.84.243. Broker Unreachable Error: None of the specified
endpoints were reachable. Inner error: Connection to amqp-0-9:\\\\
10.21.84.243:5671 timed out..",
    "EventId": "1444",
    "EventType": "AMQPServiceCommunicationFailedErrorEvent",
    "JobId": null,
    "RecommendedAction": "Please check the AMQP service and verify the
credentials.",
    "Severity": "error",

```

```

    "TargetId": "inst.12",
    "TargetType": "Instance"
  },
  {
    "Id": "1443",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1443",
    "InstanceId": "12",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/api/events/1443"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/api/events"
      },
      {
        "Rel": "target",
        "Href": "https://ucpdatacenter.ucp.local/api/instance"
      }
    ],
    "Arguments": null,
    "CreatedBy": "ucp\\svc_ucpdcntr",
    "CreatedTime": {
      "DateTime": "\\Date(1386348234858)\\",
      "OffsetMinutes": 0
    },
    "Description": "Failed to communicate with the AMQP service at IP
Address: 10.21.51.134. Broker Unreachable Error: None of the specified
endpoints were reachable. Inner error: Connection to amqp-0-9:\\\\
10.21.51.134:5671 timed out..",
    "EventId": "1443",
    "EventType": "AMQPServiceCommunicationFailedErrorEvent",
    "JobId": null,
    "RecommendedAction": "Please check the AMQP service and verify the
credentials.",
    "Severity": "error",
    "TargetId": "inst.12",
    "TargetType": "Instance"
  }
],
"Marker": 1462
}

```

## Get UCP DOC event

This HTTP request uses the GET method on the `/api/events/{eventId}` API.

The UCP DOC Viewer privilege is required.

## Request body

The body of this request must be empty.

## Response body

Events are returned with the following properties.

Name	Type	Notes
(Common properties)		See Common properties
Arguments	String	The name-value pairs of event arguments
CreatedBy	String	User who initiated the event
CreatedTime	Collection	Collection of the following two timing attributes
DateTime	DateTime	Date and time the event started
OffsetMinutes	Int32	Offset from UTC time
Description	String	Description of the event
EventId	String	Id of the event
EventType	String	Type of event
JobId	String	Id of the job that the event is associated with
RecommendedAction	String	The recommended action, if any
Severity	String	Severity of the event. Values: <ul style="list-style-type: none"> <li>Warning</li> <li>Info</li> <li>Error</li> </ul>
TargetId	String	Id of the object targeted by the event
TargetType	String	Resource Type of the targeted object

### Example: Get an event by ID

This example returns the specified event.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/events/1108 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 OK

**Response Body**

```
{
  "Id": "1108",
  "ResourceType": "Event",
  "GlobalResourceId": "inst.12.event.1108",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/events/1108"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/events"
    },
    {
      "Rel": "job",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs/84"
    }
  ],
  "Arguments": null,
  "CreatedBy": "ucp\\ucpadmin",
  "CreatedTime": {
    "DateTime": "\/Date(1386295119066)\/",
    "OffsetMinutes": 0
  },
  "Description": "Successfully refreshed inventory for site pair : 6.",
  "EventId": "1108",
  "EventType": "RefreshSitePairInfoEvent",
  "JobId": "84",
  "RecommendedAction": null,
  "Severity": "info",
  "TargetId": "inst.12.sitePair.6",
  "TargetType": "SitePair"
}
```

## Job resources

This section discusses UCP DOC Job resources.

Request	Method	URI	Privilege
<a href="#">List UCP DOC jobs</a>	GET	api/jobs	UCP DOC View

Request	Method	URI	Privilege
<a href="#">Get UCP DOC job</a>	GET	api/jobs/{JOBID}	UCP DOC View
<a href="#">Get UCP DOC jobs by filtered criteria</a>	GET	api/jobs/?{filters}	UCP DOC View

## List UCP DOC jobs

This HTTP request uses the GET method on the /api/jobs API. The most recent 100 jobs are returned.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

All jobs are listed when no job Id is specified in the URI. Each job contains the properties shown below under Get UCP DOC job.

### Example: List all UCP DOC jobs

This example returns the most recent UCP DOC jobs. A page size, by default is 100. This example has been truncated for the sake of brevity, but, in reality, this request will return 100 jobs.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/jobs HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
{
  "Jobs": [
    {
      "Id": "85",
      "ResourceType": "Job",
      "GlobalResourceId": "inst.12.job.85",
      "InstanceId": "12",
```

```

"Links": [
  {
    "Rel": "self",
    "Href": "https://ucpdatacenter.ucp.local/api/jobs/85"
  },
  {
    "Rel": "collection",
    "Href": "https://ucpdatacenter.ucp.local/api/jobs"
  },
  {
    "Rel": "events",
    "Href": "https://ucpdatacenter.ucp.local/api/
events?jobId=85"
  }
],
"CreatedBy": "ucp\\ucpadmin",
"EndTime": {
  "DateTime": "\\Date(1386295310077)\\/",
  "OffsetMinutes": 0
},
"Events": [
  {
    "Id": "1109",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1109",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386295221170)\\/",
      "OffsetMinutes": 0
    },
    "Description": "Successfully removed test configuration from
replication group: SalesRG at site: V2ProductionC-123-456-789.",
    "EventId": "1109",
    "EventType": "RemoveTestConfigurationInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.6",
    "TargetType": "SitePair"
  },
  {
    "Id": "1110",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1110",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386295223650)\\/",
      "OffsetMinutes": 0
    }
  },

```

```

      "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 8175 started at site:
v2ProductionH-123-456-789.",
      "EventId": "1110",
      "EventType": "RemoteUcpJobStartedInfoEvent",
      "JobId": "85",
      "RecommendedAction": null,
      "Severity": "info",
      "TargetId": "inst.v2ProductionH-123-456-789",
      "TargetType": "Ucp"
    },
    {
      "Id": "1111",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.1111",
      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\/Date(1386295254070)\/",
        "OffsetMinutes": 0
      }
    },
    "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 8175 completed at site:
v2ProductionH-123-456-789.",
    "EventId": "1111",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1112",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1112",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295255474)\/",
      "OffsetMinutes": 0
    }
  },
  "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 8177 started at site:
v2ProductionH-123-456-789.",
  "EventId": "1112",
  "EventType": "RemoteUcpJobStartedInfoEvent",
  "JobId": "85",
  "RecommendedAction": null,
  "Severity": "info",
  "TargetId": "inst.v2ProductionH-123-456-789",

```



```

    "TargetType": "Ucp"
  },
  {
    "Id": "1115",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1115",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295265739)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 8177 completed at site:
v2ProductionH-123-456-789.",
    "EventId": "1115",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1116",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1116",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295265880)\/",
      "OffsetMinutes": 0
    },
    "Description": "Successfully removed test configuration from
replication group: SalesRG at site: v2ProductionH-123-456-789.",
    "EventId": "1116",
    "EventType": "RemoveTestConfigurationInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.6",
    "TargetType": "SitePair"
  },
  {
    "Id": "1117",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1117",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {

```

```

        "DateTime": "\/Date(1386295267455)\/",
        "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 9649 started at site:
V2ProductionC-123-456-789.",
    "EventId": "1117",
    "EventType": "RemoteUcpJobStartedInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.V2ProductionC-123-456-789",
    "TargetType": "Ucp"
},
{
    "Id": "1118",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1118",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
        "DateTime": "\/Date(1386295287845)\/",
        "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 9649 completed at site:
V2ProductionC-123-456-789.",
    "EventId": "1118",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.V2ProductionC-123-456-789",
    "TargetType": "Ucp"
},
{
    "Id": "1119",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1119",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
        "DateTime": "\/Date(1386295289264)\/",
        "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 8178 started at site:
v2ProductionH-123-456-789.",
    "EventId": "1119",
    "EventType": "RemoteUcpJobStartedInfoEvent",
    "JobId": "85",

```

```

    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1120",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1120",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295299545)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Removes a copy group and
all associated paired devices.' with id: 8178 completed at site:
v2ProductionH-123-456-789.",
    "EventId": "1120",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1121",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1121",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295299639)\/",
      "OffsetMinutes": 0
    },
    "Description": "Successfully removed primary configuration from
replication group: SalesRG at sites: V2ProductionC-123-456-789,
v2ProductionH-123-456-789.",
    "EventId": "1121",
    "EventType": "RemovePrimaryConfigurationInfoEvent",
    "JobId": "85",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.6",
    "TargetType": "SitePair"
  },
  {
    "Id": "1122",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1122",

```

```

      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\\Date(1386295299716)\\/",
        "OffsetMinutes": 0
      },
      "Description": "Remove Replication Group : SalesRG is
successful.",
      "EventId": "1122",
      "EventType": "RemoveReplicationGroupInfoEvent",
      "JobId": "85",
      "RecommendedAction": null,
      "Severity": "info",
      "TargetId": "inst.12.sitePair.6",
      "TargetType": "SitePair"
    }
  ],
  "JobId": "85",
  "JobType": "RemoveReplicationGroup",
  "Name": "Remove the replication group",
  "Progress": 100,
  "StartTime": {
    "DateTime": "\\Date(1386295195819)\\/",
    "OffsetMinutes": 0
  },
  "Status": "Success",
  "TargetId": "inst.12.sitePair.6.replicationGroup.SalesRG",
  "TargetType": "ReplicationGroup"
}
],
"Marker": 85
}

```

## Get UCP DOC job

This HTTP request uses the GET method on the /api/jobs/{JOBID} API.

The UCP DOC View privilege is required.

## Request body

The body of this request must be empty.

## Response body

A single job is returned as specified by the Id supplied in the URI. Jobs have the following properties. Multiple events might be included in the response body. Some jobs have many more events than others.

Name	Type	Notes
(Common properties)		See Common properties
CreatedBy	String	Name of the user who initiated the job
EndTime	Collection	Collection of the following two timing properties
DateTime	dateTime	Date and time that the job ended
OffsetMinutes	Int32	Offset from UTC time
Events	Collection	Collection of events associated with the job
Id	String	JobId that the event is associated with
ResourceType	String	Always "Event"
GlobalResourceId	String	Globally unique resource Id of the event
InstanceId	String	UCP DOC instance that the event is associated with
Arguments	String	Name-value pair for event arguments
CreatedBy	String	Name of user initiating the event
CreateTime	Collection	Collection of the following two timing properties
DateTime	DateTime	Date and time the event was started
OffsetMinutes	Int32	Offset from UTC time
Description	String	Event description
EventId	String	Id of the event
EventType	String	Type of event
JobId	String	Id of the job that the event is connected to
RecommendedAction	String	Recommended action, if any
Severity	String	Severity of the event
TargetId	String	Global resource Id of the target resource
TargetType	String	Resource type of the target resource

## Example: Get a specified job

This example gets a UCP DOC job by its ID.

### Request Header

```
GET https://ucpdatacenter.ucp.local/api/jobs/73 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

### Response Header

```
HTTP/1.1 200 OK
```

### Response Body

```
{
  "Id": "73",
  "ResourceType": "Job",
  "GlobalResourceId": "inst.12.job.73",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs/73"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs"
    },
    {
      "Rel": "events",
      "Href": "https://ucpdatacenter.ucp.local/api/events?jobId=73"
    },
    {
      "Rel": "target",
      "Href": "https://ucpdatacenter.ucp.local/api/instance"
    }
  ],
  "CreatedBy": "ucp\\ucpadmin",
  "EndTime": {
    "DateTime": "\\Date(1386203411670)\\",
    "OffsetMinutes": 0
  },
  "Events": [
    {
      "Id": "512",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.512",
      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",

```

```

    "CreatedTime": {
      "DateTime": "\/Date(1386203411544)\/",
      "OffsetMinutes": 0
    },
    "Description": "Failed to register UCP instance with URL: https:\/
\/10.21.62.243\/api.",
    "EventId": "512",
    "EventType": "UCPRegistrationUnsuccessfulErrorEvent",
    "JobId": "73",
    "RecommendedAction": null,
    "Severity": "error",
    "TargetId": "inst.12",
    "TargetType": "Instance"
  },
  {
    "Id": "513",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.513",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386203411606)\/",
      "OffsetMinutes": 0
    },
    "Description": "User administrator@ucp.local is not authorized to
access orchestrator service at https:\/\/10.21.62.243\/api\/
OrchestratorService.svc.",
    "EventId": "513",
    "EventType": "UnauthorizedSiteAccessErrorEvent",
    "JobId": "73",
    "RecommendedAction": null,
    "Severity": "error",
    "TargetId": "inst.12",
    "TargetType": "Instance"
  }
],
"JobId": "73",
"JobType": "FedUCPInstanceRegistrationJob",
"Name": "Register UCP Instance with UCP Director Operations Center",
"Progress": 0,
"StartTime": {
  "DateTime": "\/Date(1386203411450)\/",
  "OffsetMinutes": 0
},
"Status": "Error",
"TargetId": "inst.12",
"TargetType": "Instance"
}

```

## Get UCP DOC jobs by filtered criteria

This HTTP request uses the GET method. The URI begins with /api/jobs? followed by a number of optional filtering criteria.

- status={STATUS} – Status of the job
- &targetType={TARGETTYPE} – Target resource type
- &targetId={TARGETID} – Target Id of a single resource
- &relation={RELATION} – Self or subcomponent or both
- &jobType={JOBTYPE} – Job type
- &jobId={JOBID} – Job Id
- &fromDateTime={FROMDATETIME} – Starting date and time
- &toDateTime={TODATETIME} – Ending date and time
- &marker={MARKER} – Id of the job
- &offset={OFFSET} – Number of jobs to skip
- &count={COUNT} – Quantity of jobs to return per page

### Request body

The body of this request must be empty.

### Response body

The requested jobs are displayed in the response body. Properties of each job are the same as in the above section Get UCP DOC job.

### Example: Get jobs based on filter criteria – time range

This example queries for jobs which were launched anywhere within the specified 5 minute time range.

#### Request Header

```
GET https://ucpdatacenter.ucp.local/api/jobs?FromDateTime=2013-12-06T01:45:00&ToDateTime=2013-12-06T01:50:00 HTTP/1.1
Content-Type: application/json; charset=utf-8
```



**Request Body**

The body for this request must be empty.

**Response Header**

HTTP/1.1 200 OK

**Response Body**

```
{
  "Jobs": [
    {
      "Id": "84",
      "ResourceType": "Job",
      "GlobalResourceId": "inst.12.job.84",
      "InstanceId": "12",
      "Links": [
        {
          "Rel": "self",
          "Href": "https://ucpdatacenter.ucp.local/api/jobs/84"
        },
        {
          "Rel": "collection",
          "Href": "https://ucpdatacenter.ucp.local/api/jobs"
        },
        {
          "Rel": "events",
          "Href": "https://ucpdatacenter.ucp.local/api/
events?jobId=84"
        }
      ],
      "CreatedBy": "ucp\\ucpadmin",
      "EndTime": {
        "DateTime": "\\Date(1386295119113)\\",
        "OffsetMinutes": 0
      },
      "Events": [
        {
          "Id": "1093",
          "ResourceType": "Event",
          "GlobalResourceId": "inst.12.event.1093",
          "InstanceId": "12",
          "Arguments": null,
          "CreatedBy": "ucp\\ucpadmin",
          "CreatedTime": {
            "DateTime": "\\Date(1386294539442)\\",
            "OffsetMinutes": 0
          },
          "Description": "Remote UCP job name: 'Create a new volume and
attach it to a host.' with id: 8156 started at site: v2ProductionH-123-
456-789.",
          "EventId": "1093",
          "EventType": "RemoteUcpJobStartedInfoEvent",
          "JobId": "84",
```

```

    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1094",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1094",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386294782462)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Create a new volume and
attach it to a host.' with id: 8156 completed at site: v2ProductionH-123-
456-789.",
    "EventId": "1094",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1095",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1095",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386294793553)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Create a copy group.'
with id: 9639 completed at site: V2ProductionC-123-456-789.",
    "EventId": "1095",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.V2ProductionC-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1096",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1096",
    "InstanceId": "12",

```

```

"Arguments": null,
"CreatedBy": "ucp\\ucpadmin",
"CreatedTime": {
  "DateTime": "\\Date(1386294804364)\\/",
  "OffsetMinutes": 0
},
"Description": "Remote UCP job name: 'Create a copy group.'
with id: 8159 completed at site: v2ProductionH-123-456-789.",
"EventId": "1096",
"EventType": "RemoteUcpJobCompletedInfoEvent",
"JobId": "84",
"RecommendedAction": null,
"Severity": "info",
"TargetId": "inst.v2ProductionH-123-456-789",
"TargetType": "Ucp"
},
{
  "Id": "1097",
  "ResourceType": "Event",
  "GlobalResourceId": "inst.12.event.1097",
  "InstanceId": "12",
  "Arguments": null,
  "CreatedBy": "ucp\\ucpadmin",
  "CreatedTime": {
    "DateTime": "\\Date(1386294804458)\\/",
    "OffsetMinutes": 0
  },
  "Description": "Created Replication group: SalesRG.",
  "EventId": "1097",
  "EventType": "CreateReplicationGroupInfoEvent",
  "JobId": "84",
  "RecommendedAction": null,
  "Severity": "info",
  "TargetId": "inst.12.sitePair.6.replicationGroup.SalesRG",
  "TargetType": "ReplicationGroup"
},
{
  "Id": "1098",
  "ResourceType": "Event",
  "GlobalResourceId": "inst.12.event.1098",
  "InstanceId": "12",
  "Arguments": null,
  "CreatedBy": "ucp\\ucpadmin",
  "CreatedTime": {
    "DateTime": "\\Date(1386294808670)\\/",
    "OffsetMinutes": 0
  },
  "Description": "Remote UCP job name: 'Create a new volume and
attach it to a host.' with id: 8160 started at site: v2ProductionH-123-
456-789.",
  "EventId": "1098",
  "EventType": "RemoteUcpJobStartedInfoEvent",
  "JobId": "84",

```

```

    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1099",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1099",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295050504)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Create a new volume and
attach it to a host.' with id: 8160 completed at site: v2ProductionH-123-
456-789.",
    "EventId": "1099",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1100",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1100",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295061533)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Create a copy group.'
with id: 8167 completed at site: v2ProductionH-123-456-789.",
    "EventId": "1100",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1101",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1101",
    "InstanceId": "12",

```

```

    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295071985)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Create a copy group.'
with id: 8168 completed at site: v2ProductionH-123-456-789.",
    "EventId": "1101",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1102",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1102",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295072079)\/",
      "OffsetMinutes": 0
    },
    "Description": "Successfully created test replication group for
: T-SalesRG for replication group : SalesRG.",
    "EventId": "1102",
    "EventType": "CreateTestReplicationGroupInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.6.replicationGroup.SalesRG",
    "TargetType": "ReplicationGroup"
  },
  {
    "Id": "1103",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1103",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295073561)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Update the copy group
status.' with id: 9647 started at site: V2ProductionC-123-456-789.",
    "EventId": "1103",
    "EventType": "RemoteUcpJobStartedInfoEvent",
    "JobId": "84",

```

```

    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.V2ProductionC-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1104",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1104",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295083810)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Update the copy group status.' with id: 9647 completed at site: V2ProductionC-123-456-789.",
    "EventId": "1104",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.V2ProductionC-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1105",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1105",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\/Date(1386295085776)\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Update the copy group status.' with id: 8169 started at site: v2ProductionH-123-456-789.",
    "EventId": "1105",
    "EventType": "RemoteUcpJobStartedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1106",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1106",
    "InstanceId": "12",
    "Arguments": null,

```

```

    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386295096072)\\/",
      "OffsetMinutes": 0
    },
    "Description": "Remote UCP job name: 'Update the copy group
status.' with id: 8169 completed at site: v2ProductionH-123-456-789.",
    "EventId": "1106",
    "EventType": "RemoteUcpJobCompletedInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.v2ProductionH-123-456-789",
    "TargetType": "Ucp"
  },
  {
    "Id": "1107",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1107",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386295096134)\\/",
      "OffsetMinutes": 0
    },
    "Description": "Pair and Resync of Replication Group: SalesRG
was successful.",
    "EventId": "1107",
    "EventType": "PairAndResyncReplicationGroupInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,
    "Severity": "info",
    "TargetId": "inst.12.sitePair.6",
    "TargetType": "SitePair"
  },
  {
    "Id": "1108",
    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.1108",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386295119066)\\/",
      "OffsetMinutes": 0
    },
    "Description": "Successfully refreshed inventory for site pair
: 6.",
    "EventId": "1108",
    "EventType": "RefreshSitePairInfoEvent",
    "JobId": "84",
    "RecommendedAction": null,

```

```

        "Severity": "info",
        "TargetId": "inst.12.sitePair.6",
        "TargetType": "SitePair"
    }
],
"JobId": "84",
"JobType": "CreateReplicationGroup",
"Name": "Create replication group for sitepair",
"Progress": 100,
"StartTime": {
    "DateTime": "\/Date(1386294521190)\/",
    "OffsetMinutes": 0
},
"Status": "Success",
"TargetId": "inst.12.sitePair.6",
"TargetType": "SitePair"
},
{
    "Id": "83",
    "ResourceType": "Job",
    "GlobalResourceId": "inst.12.job.83",
    "InstanceId": "12",
    "Links": [
        {
            "Rel": "self",
            "Href": "https://ucpdatacenter.ucp.local/api/jobs/83"
        },
        {
            "Rel": "collection",
            "Href": "https://ucpdatacenter.ucp.local/api/jobs"
        },
        {
            "Rel": "events",
            "Href": "https://ucpdatacenter.ucp.local/api/
events?jobId=83"
        },
        {
            "Rel": "target",
            "Href": "https://ucpdatacenter.ucp.local/api/instance"
        }
    ],
    "CreatedBy": "ucp\\ucpadmin",
    "EndTime": {
        "DateTime": "\/Date(1386294433580)\/",
        "OffsetMinutes": 0
    },
    "JobId": "83",
    "JobType": "AddUser",
    "Name": "Add User to UCP Director Operations Center",
    "Progress": 0,
    "StartTime": {
        "DateTime": "\/Date(1386294433158)\/",
        "OffsetMinutes": 0
    }
}

```



```

    },
    "Status": "Error",
    "TargetId": "inst.12",
    "TargetType": "Instance"
  }
],
"Marker": 85
}

```

### Example: Get jobs based on filter criteria – paging with marker and offset

In this example, we've already viewed all jobs and the highest Id was 85. We now wish to page back through jobs, prior to 85. So 85 is used as the {MARKER} criteria. The {OFFSET} is used to specify how many jobs to skip. The {COUNT} criteria dictates how many jobs to display in a single page.

#### Request Header

```

GET https://ucpdatacenter.ucp.local/api/jobs?marker=85&offset=10&count=5
HTTP/1.1
Content-Type: application/json; charset=utf-8

```

#### Request Body

The body for this request must be empty.

#### Response Header

```

HTTP/1.1 200 OK

```

#### Response Body

```

{
  "Jobs": [
    {
      "Id": "75",
      "ResourceType": "Job",
      "GlobalResourceId": "inst.12.job.75",
      "InstanceId": "12",
      "Links": [
        {
          "Rel": "self",
          "Href": "https://ucpdatacenter.ucp.local/api/jobs/75"
        },
        {
          "Rel": "collection",
          "Href": "https://ucpdatacenter.ucp.local/api/jobs"
        },
        {
          "Rel": "events",
          "Href": "https://ucpdatacenter.ucp.local/api/events?jobId=75"
        }
      ]
    }
  ]
}

```

```

    ],
    "CreatedBy": "ucp\\ucpadmin",
    "EndTime": {
      "DateTime": "\\Date(1386282855427)\\/",
      "OffsetMinutes": 0
    },
    "Events": [
      {
        "Id": "995",
        "ResourceType": "Event",
        "GlobalResourceId": "inst.12.event.995",
        "InstanceId": "12",
        "Arguments": null,
        "CreatedBy": "ucp\\ucpadmin",
        "CreatedTime": {
          "DateTime": "\\Date(1386282855223)\\/",
          "OffsetMinutes": 0
        },
        "Description": "Remote resource not found. url : https:\\\\10.21.84.243\\api\\servers\\a69f1b75-be4b-11e1-96a9-bala7ac3dd18\\createandattachvolume, response: \\\"Specified resource cannot be found. Resource Type: 'Server', Resource Id: 'a69f1b75-be4b-11e1-96a9-bala7ac3dd18'.\\\".",
        "EventId": "995",
        "EventType": "RemoteResourceNotFoundErrorMessage",
        "JobId": "75",
        "RecommendedAction": null,
        "Severity": "error",
        "TargetId": "inst.v2ProductionH-123-456-789",
        "TargetType": "Ucp"
      }
    ],
    "JobId": "75",
    "JobType": "CreateReplicationGroup",
    "Name": "Create replication group for sitepair",
    "Progress": 8,
    "StartTime": {
      "DateTime": "\\Date(1386282816457)\\/",
      "OffsetMinutes": 0
    },
    "Status": "Error",
    "TargetId": "inst.12.sitePair.4",
    "TargetType": "SitePair"
  },
  {
    "Id": "74",
    "ResourceType": "Job",
    "GlobalResourceId": "inst.12.job.74",
    "InstanceId": "12",
    "Links": [
      {
        "Rel": "self",
        "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\jobs\\74"
      }
    ]
  }

```

```

    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs"
    },
    {
      "Rel": "events",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?jobId=74"
    }
  ],
  "CreatedBy": "ucp\\ucpadmin",
  "EndTime": {
    "DateTime": "\\Date(1386282807660)\\",
    "OffsetMinutes": 0
  },
  "Events": [
    {
      "Id": "994",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.994",
      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\\Date(1386282807534)\\",
        "OffsetMinutes": 0
      },
      "Description": "Remote resource not found. url : https://10.21.84.243/api/clusters/648da08f-06e1-11e2-a170-e9c3cca686e6/createandattachvolume, response: \\No such cluster: 648da08f-06e1-11e2-a170-e9c3cca686e6\\.\"",
      "EventId": "994",
      "EventType": "RemoteResourceNotFoundErrorEvent",
      "JobId": "74",
      "RecommendedAction": null,
      "Severity": "error",
      "TargetId": "inst.v2ProductionH-123-456-789",
      "TargetType": "Ucp"
    }
  ],
  "JobId": "74",
  "JobType": "CreateReplicationGroup",
  "Name": "Create replication group for sitepair",
  "Progress": 7,
  "StartTime": {
    "DateTime": "\\Date(1386282769360)\\",
    "OffsetMinutes": 0
  },
  "Status": "Error",
  "TargetId": "inst.12.sitePair.4",
  "TargetType": "SitePair"
},

```

```

{
  "Id": "73",
  "ResourceType": "Job",
  "GlobalResourceId": "inst.12.job.73",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs/73"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs"
    },
    {
      "Rel": "events",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?jobId=73"
    },
    {
      "Rel": "target",
      "Href": "https://ucpdatacenter.ucp.local/api/instance"
    }
  ],
  "CreatedBy": "ucp\\ucpadmin",
  "EndTime": {
    "DateTime": "\\Date(1386203411670)\\",
    "OffsetMinutes": 0
  },
  "Events": [
    {
      "Id": "512",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.512",
      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\\Date(1386203411544)\\",
        "OffsetMinutes": 0
      },
      "Description": "Failed to register UCP instance with URL:
https://10.21.62.243/api.",
      "EventId": "512",
      "EventType": "UCPRegistrationUnsuccessfulErrorEvent",
      "JobId": "73",
      "RecommendedAction": null,
      "Severity": "error",
      "TargetId": "inst.12",
      "TargetType": "Instance"
    },
    {
      "Id": "513",

```

```

    "ResourceType": "Event",
    "GlobalResourceId": "inst.12.event.513",
    "InstanceId": "12",
    "Arguments": null,
    "CreatedBy": "ucp\\ucpadmin",
    "CreatedTime": {
      "DateTime": "\\Date(1386203411606)\\",
      "OffsetMinutes": 0
    },
    "Description": "User administrator@ucp.local is not authorized
to access orchestrator service at https:\\\\10.21.62.243\\api\\
OrchestratorService.svc.",
    "EventId": "513",
    "EventType": "UnauthorizedSiteAccessErrorEvent",
    "JobId": "73",
    "RecommendedAction": null,
    "Severity": "error",
    "TargetId": "inst.12",
    "TargetType": "Instance"
  }
],
"JobId": "73",
"JobType": "FedUCPInstanceRegistrationJob",
"Name": "Register UCP Instance with UCP Director Operations
Center",
"Progress": 0,
"StartTime": {
  "DateTime": "\\Date(1386203411450)\\",
  "OffsetMinutes": 0
},
"Status": "Error",
"TargetId": "inst.12",
"TargetType": "Instance"
},
{
  "Id": "72",
  "ResourceType": "Job",
  "GlobalResourceId": "inst.12.job.72",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\jobs\\72"
    },
    {
      "Rel": "collection",
      "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\jobs"
    },
    {
      "Rel": "events",
      "Href": "https:\\\\ucpdatacenter.ucp.local\\api\\
events?jobId=72"
    }
  ],

```

```

    {
      "Rel": "target",
      "Href": "https://ucpdatacenter.ucp.local/api/instance"
    }
  ],
  "CreatedBy": "ucp\\ucpadmin",
  "EndTime": {
    "DateTime": "\/Date(1386203320563)\/",
    "OffsetMinutes": 0
  },
  "Events": [
    {
      "Id": "510",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.510",
      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\/Date(1386203320376)\/",
        "OffsetMinutes": 0
      },
      "Description": "Failed to register UCP instance with URL:
https://10.21.62.243/api.",
      "EventId": "510",
      "EventType": "UCPRegistrationUnsuccessfulErrorEvent",
      "JobId": "72",
      "RecommendedAction": null,
      "Severity": "error",
      "TargetId": "inst.12",
      "TargetType": "Instance"
    },
    {
      "Id": "511",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.511",
      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\/Date(1386203320486)\/",
        "OffsetMinutes": 0
      },
      "Description": "User ucpadmin@ucp.local is not authorized to
access orchestrator service at https://10.21.62.243/api/
OrchestratorService.svc.",
      "EventId": "511",
      "EventType": "UnauthorizedSiteAccessErrorEvent",
      "JobId": "72",
      "RecommendedAction": null,
      "Severity": "error",
      "TargetId": "inst.12",
      "TargetType": "Instance"
    }
  ]
}

```

```

    }
  ],
  "JobId": "72",
  "JobType": "FedUCPInstanceRegistrationJob",
  "Name": "Register UCP Instance with UCP Director Operations
Center",
  "Progress": 0,
  "StartTime": {
    "DateTime": "\/Date(1386203320127)\/",
    "OffsetMinutes": 0
  },
  "Status": "Error",
  "TargetId": "inst.12",
  "TargetType": "Instance"
},
{
  "Id": "71",
  "ResourceType": "Job",
  "GlobalResourceId": "inst.12.job.71",
  "InstanceId": "12",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs/71"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs"
    },
    {
      "Rel": "events",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?jobId=71"
    }
  ],
  "CreatedBy": "ucp\\ucpadmin",
  "EndTime": {
    "DateTime": "\/Date(1386203247540)\/",
    "OffsetMinutes": 0
  },
  "Events": [
    {
      "Id": "509",
      "ResourceType": "Event",
      "GlobalResourceId": "inst.12.event.509",
      "InstanceId": "12",
      "Arguments": null,
      "CreatedBy": "ucp\\ucpadmin",
      "CreatedTime": {
        "DateTime": "\/Date(1386203247336)\/",
        "OffsetMinutes": 0
      },
    },
  ],

```

```

        "Description": "An unexpected error occurred while trying to
communicate with the remote UCP at site : blue-dev3-4282.",
        "EventId": "509",
        "EventType": "RemoteUcpUnexpectedErrorEvent",
        "JobId": "71",
        "RecommendedAction": null,
        "Severity": "error",
        "TargetId": "inst.blue-dev3-4282",
        "TargetType": "Ucp"
    }
],
"JobId": "71",
"JobType": "CreateReplicationGroup",
"Name": "Create replication group for sitepair",
"Progress": 10,
"StartTime": {
    "DateTime": "\\Date(1386203187993)\\",
    "OffsetMinutes": 0
},
"Status": "Error",
"TargetId": "inst.12.sitePair.5",
"TargetType": "SitePair"
}
],
"Marker": 85
}

```



## UCP Disaster Recovery resources

UCP Disaster Recovery is an optional UCP component. It is used when more than one instance of UCP are paired for data replication under UCP DOC.

## About the UCP Disaster Recovery API resource

Most often, the UCP DOC and UCP Disaster Recovery services will be running on the same host. The two different services are addressed to the same server. For example:

- UCP DOC API on HostA
  - [Https://HostA/api/ucpinstances](https://HostA/api/ucpinstances)
  - [Https://HostA/api/roles](https://HostA/api/roles)
  - [Https://HostA/api/users](https://HostA/api/users)
- UCP Disaster Recovery API on HostA
  - [Https://HostA/dr/about](https://HostA/dr/about)
  - [Https://HostA/dr/sitepairs](https://HostA/dr/sitepairs)
  - [Https://HostA/dr/inventory](https://HostA/dr/inventory)

If a port other than the default was used to install UCP DOC or UCP Disaster Recovery, the port must be added in the URI.

Conversely, the individual UCP Director API are addressed separately to each UCP site, as follows:

- UCP API on HostB
  - [Https://HostB/api/{various UCP api}](https://HostB/api/{various UCP api})
  - [Https://HostB/api/storagesystems/{StorageSystemId}/Journals](https://HostB/api/storagesystems/{StorageSystemId}/Journals)
  - [Https://HostB/api/storagesystems/{StorageSystemId}/Journalvolumes](https://HostB/api/storagesystems/{StorageSystemId}/Journalvolumes)
  - [Https://HostB/api/disasterrecoverymanagerymanagers](https://HostB/api/disasterrecoverymanagerymanagers)
- UCP API on HostC
  - [Https://HostC/api/{various UCP api}](https://HostC/api/{various UCP api})
  - [Https://HostC/api/storagesystems/{StorageSystemId}/Journals](https://HostC/api/storagesystems/{StorageSystemId}/Journals)

- `Https://HostC/api/storagesystems/{StorageSystemId}/Journalvolumes`
- `Https://HostC/api/disasterrecoverymanagerymanagers`

## Get running status of UCP Disaster Recovery

This HTTP request uses the GET method on the /dr/about API. It states whether or not the disaster recovery service is running.

Configuration information about UCP DOC is found in the UCP section for Configuration Resources. It tells you whether the disaster recovery service is installed.

Method	URI	Privilege
PUT	/api/disasterrecoverymanagers	UCP DOC Viewer

### Request body

The body for this request must be empty.

### Response body

String value {"Running": true} or {"Running": false}.

### Example: Get UCP Disaster Recovery running status

#### Request Header

```
PUT https://10.21.74.243/api/disasterrecoverymanagers/5 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
{
  "ServiceUrl": "https://10.21.74.248:9007",
  "Username": "ucp\\ucpadmin",
  "Password": "Kum0@pur@lnS"
}
```

## UCP Disaster Recovery manager resources

When the optional UCP Disaster Recovery service is installed on managed UCP sites, the following API requests can be used. The API request should be directed to one or the other instance of UCP Director..

Request	Method	URI	vCenter Privilege
<a href="#">Add UCP Disaster Recovery manager connection</a>	POST	/api/disasterrecoverymanagers	UCP System Administration
<a href="#">List UCP Disaster Recovery managers</a>	GET	/api/disasterrecoverymanagers	UCP View
<a href="#">Get UCP Disaster Recovery manager</a>	GET	/api/disasterrecoverymanagers/{managerid}	UCP View
<a href="#">Update UCP Disaster Recovery manager</a>	PUT	/api/disasterrecoverymanagers/{managerid}	UCP System Administration
<a href="#">List protected volumes</a>	GET	/api/disasterrecoverymanagers/{managerId}/protectedvolumes	UCP View

### Add UCP Disaster Recovery manager connection

This public HTTP request uses the POST method on /api/disasterrecoverymanagers URI.

In vCenter, this request requires the UCP System Administrator privilege.

#### Request body

This request's body consists of the properties detailed in the following table.

Name	Type	Notes
ServiceUrl	String	URL to access Site Recovery Manager. Must be a URL.
Username	String	Username to connect to the SRM service
Password	String	Password to connect to the SRM service

#### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get UCP job.

## Example: Add UCP Disaster Recovery manager connection

In this example, the UCP Disaster Recovery manager connection information is added to UCP Director.

### Request Header

```
POST https://ucpmanagement.ucp.local/api/disasterrecoverymanagers HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

```
{
  "ServiceUrl": "https://10.21.74.248:9007",
  "Username": "ucp\\ucpadmin",
  "Password": "Kum0@pur@lnS"
}
```

### Response Header

```
HTTP/1.1 202 Accepted
```

### Response Body

The system executes a job named "Update UCP Disaster Recovery Connection Information".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## List UCP Disaster Recovery managers

This public HTTP request uses the GET method on /api/disasterrecoverymanagers URI.

In vCenter, this requires the UCP View privilege.

### Request body

The body for this request must be empty.

### Response body

When the request succeeds, the response body lists the disaster recovery managers. To view the properties, see Get disaster recovery manager.

## Example: List UCP Disaster Recovery managers

This example lists the UCP Disaster Recovery manager information associated with UCP Director.

**Request Header**

```
GET https://ucpmanagement.ucp.local/api/disasterrecoverymanagers HTTP/
1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

```
[
  {
    "Id": "1",
    "ResourceType": "DisasterRecoveryManager",
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.dr.1",
    "InstanceId": "v2ProductionD-123-456-789",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.ucp.local/api/
disasterrecoverymanagers/1"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/
disasterrecoverymanagers"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/
jobs?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-123-
456-789.dr.1&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/
jobs?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-123-
456-789.dr.1&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/
jobs?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-123-
456-789.dr.1&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
```

```

      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-
123-456-789.dr.1&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-
123-456-789.dr.1&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-
123-456-789.dr.1&relation=self%7Csubcomponent"
    }
  ],
  "ServiceUrl": "https://10.21.62.248:9007/",
  "Username": "ucp\\svc_srm"
}
}

```

## Get UCP Disaster Recovery manager

This HTTP request uses the GET method on /api/disasterrecoverymanagers/{MANAGERID} API.

In vCenter, this requires the UCP View privilege.

### Request body

The body for this request must be empty.

### Response body

When the request succeeds, the response body consists of the properties detailed in the following table.

Name	Type	Notes
(Common properties)		See Common properties
ServiceUrl	String	URL which will be used to access Site Recovery Manager
Username	String	Username that is used to connect to the SRM service

## Example: Get UCP Disaster Recovery manager

In this example, the UCP Disaster Recovery manager with ID of 1 is requested.

### Request Header

```
GET https://ucpmanagement.ucp.local/api/disasterrecoverymanagers/1
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

### Response Header

```
HTTP/1.1 200 OK
```

### Response Body

```
[
  {
    "Id": "1",
    "ResourceType": "DisasterRecoveryManager",
    "GlobalResourceId": "inst.v2ProductionD-123-456-789.dr.1",
    "InstanceId": "v2ProductionD-123-456-789",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.ucp.local/api/disasterrecoverymanagers/1"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/disasterrecoverymanagers"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-123-456-789.dr.1&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-123-456-789.dr.1&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-123-456-789.dr.1&relation=self%7Csubcomponent"
      }
    ]
  }
]
```



```

    },
    {
      "Rel": "events.self",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-
123-456-789.dr.1&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-
123-456-789.dr.1&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=DisasterRecoveryManager&targetId=inst.v2ProductionD-
123-456-789.dr.1&relation=self%7Csubcomponent"
    }
  ],
  "ServiceUrl": "https://10.21.62.248:9007/",
  "Username": "ucp\\svc_srm"
}
}

```

## Update UCP Disaster Recovery manager

This public HTTP request uses the PUT method on `/api/disasterrecoverymanagers/{MANAGERID}` URI, where `{MANAGERID}` is the Id of the disaster recovery manager that needs to be updated.

In vCenter, this requires the UCP System Administrator privilege.

### Request body

The request body requires the properties in the following table.

Name	Type	Notes
ServiceUrl	String	URL to access Site Recovery Manager. Must be a URL.
Username	String	Username to connect to the SRM service.
Password	String	Password to connect to the SRM service.

## Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get UCP job.

### Example: Update UCP Disaster Recovery manager

In this example, the disaster recovery manager with ID 5 is updated.

#### Request Header

```
PUT https://ucpmanagement.ucp.local/api/disasterrecoverymanagers/5
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

```
{
  "ServiceUrl": "https://10.21.74.248:9007",
  "Username": "ucp\\ucpadmin",
  "Password": "Kum0@pur@1nS"
}
```

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Update UCP Disaster Recovery Connection Information".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## List protected volumes

This public HTTP request uses the GET method on the `/api/disasterrecoverymanagers/{MANAGERID}/protectedvolumes` URI, where `{MANAGERID}` is the Id of the disaster recovery manager for which all the protected volumes are required.

In vCenter, this requires the UCP View privilege.

### Request body

The body for this request must be empty.

## Response body

When the request succeeds, the response body consists of the properties detailed in the following table.

Name	Type	Notes
(Common properties)		See Common properties
StorageSystemId	String	The Id of the storage system the protected volume is present on
ManagerId	String	Id of the disaster recovery manager

### Example: List protected volumes

In this example, just one protected volume is listed.

#### Request Header

```
Get https://ucpmanagement.ucp.local/api/disasterrecoverymanagers/1/protectedvolumes
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
[
  {
    "Id": "14894",
    "ResourceType": "ProtectedVolume",
    "GlobalResourceId": "inst.V2ProductionF-123-456-789.dr.1.ss.53106.vol.14894",
    "InstanceId": "V2ProductionF-123-456-789",
    "Links": [
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/disasterrecoverymanagers/1/protectedvolumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=ProtectedVolume&targetId=inst.V2ProductionF-123-456-789.dr.1.ss.53106.vol.14894&relation=self"
      }
    ]
  }
]
```

```

    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=ProtectedVolume&targetId=inst.V2ProductionF-123-456-789.dr.1.ss.53106.vol.14894&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=ProtectedVolume&targetId=inst.V2ProductionF-123-456-789.dr.1.ss.53106.vol.14894&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpmanagement.ucp.local/api/events?targetType=ProtectedVolume&targetId=inst.V2ProductionF-123-456-789.dr.1.ss.53106.vol.14894&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpmanagement.ucp.local/api/events?targetType=ProtectedVolume&targetId=inst.V2ProductionF-123-456-789.dr.1.ss.53106.vol.14894&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.ucp.local/api/events?targetType=ProtectedVolume&targetId=inst.V2ProductionF-123-456-789.dr.1.ss.53106.vol.14894&relation=self%7Csubcomponent"
    }
  ],
  "ManagerId": "1",
  "StorageSystemId": "53106"
}
}

```

## Site pair resources

A site pair is a pair of two UCP sites between which replication can be set up to provide volume replication and disaster recovery. Enterprise storage systems are required at both sites. A site pair can be configured with either synchronous or asynchronous replication.

These API are addressed to the server running UCP DOC.

Request	Method	URI	Privilege
<a href="#">Create site pair</a>	POST	/dr/sitepairs	UCP DOC Administrator
<a href="#">Remove site pair</a>	DELETE	/dr/sitepairs/{SitePairId}	UCP DOC Administrator
<a href="#">List site pairs</a>	GET	/dr/sitepairs	UCP DOC View
<a href="#">Get site pair</a>	GET	/dr/sitepairs/{SitePairId}	UCP DOC View

## Create site pair

This HTTP request uses the POST method on dr/sitepairs URI and creates a new site pair.

This API is a prerequisite before creating replication groups. The UCP Director instances are registered with UCP DOC and the replication mode is established between the sites.

The UCP DOC Administrator privilege is required.

## Request body

The request body requires the following parameters.

Name	Type	Notes
LeftSiteId	String	The UCP site with volumes to protect should be designated as the left site. Use the InstanceId from Get-UCPDirectorConfiguration.
RightSiteId	String	The UCP site that will replicate the protected volumes should be designated as the right site. Use the InstanceId from Get-UCPDirectorConfiguration.
Name	String	Name of the site pair
ReplicationType	String	The type of replication technology used for all replicated volumes between the sites in this pair. Values are: <ul style="list-style-type: none"> <li>Hitachi Universal Replication</li> <li>True Copy</li> </ul>

Name	Type	Notes
MaximumOutageToleranceInMinutes	String	<p>The maximum number of minutes that can be tolerated for a disruption of connectivity between primary and secondary sites.</p> <p>When ReplicationMode is HUR (asynchronous), the MaxOutageTolerance can be any number between 1 and 60.</p> <p>When ReplicationMode is TrueCopy (synchronous), the MaxOutageTolerance must be 0.</p>

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

## Example: Create site pair

In this example, two UCP sites are registered with UCP DOC. The sites are paired with a replication mode of TrueCopy and a maximum outage tolerance of zero minutes

### Request Header

```
POST https://UCPDatacenter.ucp.local/dr/sitepairs HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

```
{
  "Name": "SEA-BOS",
  "LeftSiteId": "ucp-1234-5678",
  "RightSiteId": "ucp-1234-5678",
  "ReplicationMode": "TrueCopy",
  "MaximumOutageToleranceInMinutes": "0"
}
```

### Response Header

```
HTTP/1.1 202 Accepted
```

### Response Body

The system executes a job named "Create site pair".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Remove site pair

This HTTP request uses the DELETE method `dr/sitepairs/{SITEPAIRID}` URI, where `{SITEPAIRID}` is the Id of the site pair that is to be deleted.

UCP DOC removes all replication groups from a site pair before unregistering the sites. When a resource group is removed, the replicated volumes and test volumes are deleted. Primary (protected) volumes are not deleted.

The UCP DOC Administrator privilege is required.

### Request body

The body of this request must be empty.

### Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

### Example: Remove site pair from UCP DOC

In this example, site pair with ID of 1 is unregistered from UCP DOC.

#### Request Header

```
DELETE https://UCPDatacenter.ucp.local/dr/sitepairs/1 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Remove Site Pair".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## List site pairs

This HTTP request uses the GET method on the `dr/sitepairs` URI and lists all the site pairs along with their detailed information.

The UCP DOC View privilege is required.

## Request body

The body for this request must be empty.

## Response body

When the request succeeds, the site pairs are listed. Properties for site pairs are shown below under Get site pair.

### Example: List all site pairs registered in UCP DOC

All site pairs registered with UCP DOC are returned.

#### Request Header

```
GET https://UCPDatacenter.ucp.local/dr/sitepairs HTTP/1.1  
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

When the request succeeds, the site pairs are listed. Properties for site pairs are shown below under Get site pair.

## Get site pair

This HTTP request uses the GET method on the dr/sitepairs/{SITEPAIRID} URI where {SITEPAIRID} is the Id of the site pair for which the detailed information is required.

The UCP DOC View privilege is required.

## Request body

The body of this request must be empty.



## Response body

When the request succeeds, the response body consists of a single object for that particular SitePairId containing the properties detailed in the following chart.

Name	Type	Notes
(Common properties)	String	See Common properties.
Name	String	Name of the site pair.
LeftSiteId	String	The UCP Instance id for the left side of the site pair.
LeftSiteConnectionStatus	String	The connection status of the left site, Connected or Unreachable.
RightSiteId	String	The UCP Instance id for the right side of the site pair
RightSiteConnectionStatus	String	The connection status of the right site, Connected or Unreachable
ReplicationType	String	The type of replication technology used for all replicated volumes between the sites in this pair. Values could be: <ul style="list-style-type: none"> <li>• TrueCopy</li> <li>• HitachiUniversalReplication</li> </ul>
LeftSitePathGroupStatus	String	The status of the left site path group.
RightSitePathGroupStatus	String	The status of the right site path group.
MaximumOutageTolerance	String	The maximum outage tolerance for this site pair.

### Example: Get a specific site pair registered in UCP DOC

#### Request Header

```
GET https://UCPDatacenter.ucp.local/dr/sitepairs/1 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

**Response Body**

```
[
  {
    "Id": "4",
    "ResourceType": "SitePair",
    "GlobalResourceId": "inst.DCD-68737.sp.4",
    "InstanceId": "DCD-68737",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.podh.local/dr/sitepairs/4"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.podh.local/dr/sitepairs"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.podh.local/api/jobs?targetType=SitePair&targetId=inst.DCD-68737.sp.4&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.podh.local/api/jobs?targetType=SitePair&targetId=inst.DCD-68737.sp.4&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.podh.local/api/jobs?targetType=SitePair&targetId=inst.DCD-68737.sp.4&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.podh.local/api/events?targetType=SitePair&targetId=inst.DCD-68737.sp.4&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.podh.local/api/events?targetType=SitePair&targetId=inst.DCD-68737.sp.4&relation=subcomponent"
      },
      {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.podh.local/api/events?targetType=SitePair&targetId=inst.DCD-68737.sp.4&relation=self%7Csubcomponent"
      }
    ],
    "LeftSiteConnectionStatus": "Connected",
    "LeftSiteId": "ucp12345",
  }
]
```

```

    "LeftSitePathGroupStatus": "Normal",
    "MaximumOutageTolerance": "0",
    "Name": "Georgia-Hawaii",
    "ReplicationType": "TrueCopy",
    "RightSiteConnectionStatus": "Connected",
    "RightSiteId": "UCP-12345",
    "RightSitePathGroupStatus": "Normal"
  }
]

```

## Replication group resources

Replication groups contain:

- One or more protected (primary) volumes
- A replication (secondary) volume for each protected volume
- Hosts and clusters attached to these volumes
- An optional test volume for each replicated volume.

All replication within a replication group goes in a single direction with protected volumes at the “Left” site and replicated volumes in the “Right” site.

The following table lists the API for replication groups.

Request	Method	URI	Privilege
<a href="#">Create replication group</a>	POST	/dr/sitepairs/{SitePairId}/ replicationgroups	UCP DOC Administrator
<a href="#">List replication groups</a>	GET	/dr/sitepairs/{SitePairId}/ replicationgroups	UCP DOC View
<a href="#">Get a replication group</a>	GET	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicationGroupId}	UCP DOC View
<a href="#">Resync replication group</a>	POST	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicationGroupId}	UCP DOC Administrator
<a href="#">Remove a replication group</a>	DELETE	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicationGroupId}	UCP DOC Administrator

## Create replication group

This HTTP request uses the POST method on `/dr/sitepairs/{SITEPAIRID}/replicationgroups` URI, where `{SITEPAIRID}` is the Id of the site pair the replication group should be created for.

The UCP DOC Administrator privilege is required.

### Request body

The request body requires the parameters in the following chart.

Name	Type	Notes
Name	String	Name of the new ReplicationGroup. ReplicationGroup names are case-sensitive and must be unique within a SitePair. Between 1-28 alphanumeric characters.
PrimarySiteId	String	The UCP site in this SitePair that contains the volumes to replicate.
PrimarySiteStorageSystemId	String	The StorageSystem in the primary site that contains the volumes to replicate.
SecondarySiteStorageSystemId	String	The StorageSystem in the secondary site where the replicated volumes will be created.
SecondaryStoragePoolId	String	The pool where replication volumes should be created at the secondary site.
TestStoragePoolId	String	Id of the pool in which to create test volumes. One test volume is created for each replicated volume.  If no ID is specified, UCP by default will make full sized SI (Shadow Image) test volumes. If user specifies a pool ID that is an HTI pool, UCP will make Hitachi Thin Image test volumes.
VolumesToReplicate	Collection	List of volumes in the primarySite to be replicated.
PrimaryVolumeId	String	The Id of the volume that is a part of the replication group on the primary site that is to be replicated.
SecondarySiteAttachTarget	String	AttachTargetInformation specifies a host or cluster in the secondary site to attach to the new secondary volume.
Type	String	This can be either Server or Cluster.

Name	Type	Notes
Id	String	Id of the server or cluster.

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

## Example: Create a replication group in a site pair

In this example, a replication group is created in site pair with ID 1. The type of test volume is determined by the type of pool provided; but only the pool ID is sent in this payload.

### Request Header

```
POST https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

```
{
  "Name": "PayrollDiv2",
  "PrimarySiteId": "blue-ucp-4056",
  "PrimarySiteStorageSystemId": "53106",
  "SecondaryStoragePoolId": "1",
  "TestVolumePoolId": "2",
  "SecondarySiteAttachTarget": {
    "Id": "7939714f-b3cf-11e1-b0e7-c85aebf97785",
    "Type": "Server"
  },
  "SecondarySiteStorageSystemId": "53102",
  "VolumesToReplicate": [
    {
      "PrimaryVolumeId": "14871"
    }
  ]
}
```

### Response Header

```
HTTP/1.1 202 Accepted
```

### Response Body

The system executes a job named "Create replication group for sitepair".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## List replication groups

This HTTP request uses the GET method on the `/dr/sitepairs/{SITEPAIRID}/replicationgroups` URI, where `{SITEPAIRID}` is the Id of the site pair for which the replication groups are required.

The UCP DOC View privilege is required.

### Request body

The body of this request must be empty.

### Response body

When the request succeeds, the response body lists the replication groups. The properties are shown below in [Get a replication group](#).

### Example: List all replication groups in a site pair

In this example, all replication groups for site pair 1 are returned.

#### Request Header

```
GET https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
[
  {
    "Id": "Spokane",
    "ResourceType": "ReplicationGroup",
    "GlobalResourceId": "inst.DCD-123-
4567.sitePair.1.replicationGroup.Spokane",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups/Spokane"
      },
      {
        "Rel": "collection",
```

```

        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups"
    },
    {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Spokane&relation=self"
    },
    {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Spokane&relation=subcomponent"
    },
    {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Spokane&relation=self%7Csubcomponent"
    },
    {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Spokane&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Spokane&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Spokane&relation=self%7Csubcomponent"
    }
],
    "Name": "Spokane",
    "SitePairId": "1",
    "Status": "Consistent"
},
{
    "Id": "Boise",
    "ResourceType": "ReplicationGroup",
    "GlobalResourceId": "inst.DCD-123-
4567.sitePair.1.replicationGroup.Boise",
    "InstanceId": "DCD-123-4567",
    "Links": [
        {
            "Rel": "self",

```

```

        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups/Boise"
    },
    {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups"
    },
    {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Boise&relation=self"
    },
    {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Boise&relation=subcomponent"
    },
    {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Boise&relation=self%7Csubcomponent"
    },
    {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Boise&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Boise&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Boise&relation=self%7Csubcomponent"
    }
],
    "Name": "Boise",
    "SitePairId": "1",
    "Status": "Consistent"
},
{
    "Id": "Portland",
    "ResourceType": "ReplicationGroup",

```



```

"GlobalResourceId": "inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland",
"InstanceId": "DCD-123-4567",
"Links": [
  {
    "Rel": "self",
    "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups/Portland"
  },
  {
    "Rel": "collection",
    "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups"
  },
  {
    "Rel": "jobs.self",
    "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland&relation=self"
  },
  {
    "Rel": "jobs.subcomponent",
    "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland&relation=subcomponent"
  },
  {
    "Rel": "jobs.all",
    "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland&relation=self%7Csubcomponent"
  },
  {
    "Rel": "events.self",
    "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland&relation=self"
  },
  {
    "Rel": "events.subcomponent",
    "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland&relation=subcomponent"
  },
  {
    "Rel": "events.all",
    "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland&relation=self%7Csubcomponent"
  }
],
"Name": "Portland",
"SitePairId": "1",

```

```

        "Status": "Consistent"
    },
    {
        "Id": "Seattle",
        "ResourceType": "ReplicationGroup",
        "GlobalResourceId": "inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle",
        "InstanceId": "DCD-123-4567",
        "Links": [
            {
                "Rel": "self",
                "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/Seattle"
            },
            {
                "Rel": "collection",
                "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups"
            },
            {
                "Rel": "jobs.self",
                "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=self"
            },
            {
                "Rel": "jobs.subcomponent",
                "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=subcomponent"
            },
            {
                "Rel": "jobs.all",
                "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=self%7Csubcomponent"
            },
            {
                "Rel": "events.self",
                "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=self"
            },
            {
                "Rel": "events.subcomponent",
                "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=subcomponent"
            },
            {
                "Rel": "events.all",

```

```

      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicationGroup&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Seattle&relation=self%7Csubcomponent"
    }
  ],
  "Name": "Seattle",
  "SitePairId": "1",
  "Status": "Consistent"
}
}

```

## Get a replication group

This HTTP request uses the GET method on the `/dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPIP}` URI, where `{SITEPAIRID}` is the Id of the site pair which contains the replication group and `{REPLICATIONGROUPIP}` is the Id of the replication group for which the details are required.

The UCP DOC View privilege is required.

### Request body

The body for this request must be empty.

### Response body

When the request succeeds, the response body consists of a single object for the particular replication group with the properties detailed in the following chart.

Name	Type	Notes
(Common properties)		See Common properties
Name	String	Name of the replication group
Status	String	Status of the replication group. Values could be: <ul style="list-style-type: none"> <li>Consistent: If all the Replicated volume pair statuses are consistent and uniquely determine the direction of replication between 2 sites</li> <li>Inconsistent: If the direction of replication between the 2 sites cannot be determined</li> </ul>
SitePairId	String	Id of the SitePair

**Example: Get a specified replication group from a site pair**

In this example, replication group Seattle is returned from site pair with ID 1.

**Request Header**

```
GET https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/Seattle HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

```
{
  "Id": "Seattle",
  "ResourceType": "ReplicationGroup",
  "GlobalResourceId": "inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle",
  "InstanceId": "DCD-123-4567",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/Seattle"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=self%7Csubcomponent"
    }
  ]
}
```

```

    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicationGroup&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Seattle&relation=self%7Csubcomponent"
    }
  ],
  "Name": "Seattle",
  "SitePairId": "1",
  "Status": "Consistent"
}
}

```

## Resync replication group

This HTTP request uses the POST method on `dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPLD}` URI, where `{SITEPAIRID}` is the Id of the Site Pair and `{REPLICATIONGROUPLD}` is the Id of the replication group that needs to be synchronized.

The UCP DOC Administrator privilege is required.

## Request body

The values needed in the request body are described in the following table.

Name	Type	Notes
PairStatus	String	The pair configuration status. Values could be: <ul style="list-style-type: none"> <li>Pair</li> <li>Simplex</li> <li>Suspended</li> </ul>

Name	Type	Notes
PrimarySiteId	String	Id of the UCP site that acts as source for replication.

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

## Example: Resync a replication group in a site pair

In this example the replication group called PayrollDiv1 is resynchronized.

### Request Header

```
POST https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/
PayrollDiv1 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

```
{
  "PairStatus": "PAIR",
  "PrimarySiteId": "blue-ucp-4056"
}
```

### Response Header

```
HTTP/1.1 202 Accepted
```

### Response Body

The system executes a job named "Pair and resync a replication group in UCP DOC". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Remove a replication group

This HTTP request uses the DELETE method on `dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPLD}` URI, where `{SITEPAIRID}` is the Id of the site pair and `{REPLICATIONGROUPLD}` is the Id of the replication group that needs to be deleted.

The UCP DOC Administrator privilege is required.

## Request body

The body for this request must be empty.

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

### Example: Remove a replication group in a site pair

In this example, the replication group named PayrollDiv1 is removed.

#### Request Header

```
DELETE https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/
PayrollDiv1 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Remove a replication group from UCP DOC". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Replicated volume pair resources

A replicated volume pair is a pair of volumes that reside on two different UCP sites and have replication set up between them. Replication enables the recovery volume to be used in the event of disaster recovery. The primary UCP site contains the volumes to be replicated while the secondary UCP site contains the replicated volumes with corresponding (optional) test volumes.

Request	Method	URI	Privilege
<a href="#">List replicated volume pairs</a>	GET	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicaitonGroupId}/ replicatedvolumepairs	UCP DOC View
<a href="#">Get replicated volume pair</a>	GET	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicaitonGroupId}/ replicatedvolumepairs/ {ReplicatedVolumePairId}	UCP DOC View

Request	Method	URI	Privilege
<a href="#">Add volume to replication group</a>	POST	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicaitonGroupId}/ replicatedvolumepairs	UCP DOC Administrator
<a href="#">Expand replicated volume pair</a>	POST	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicaitonGroupId}/ replicatedvolumepairs/ {ReplicatedVolumePairId}	UCP DOC Administrator
<a href="#">Remove replicated volume pair</a>	DELETE	/dr/sitepairs/{SitePairId}/ replicationgroups/ {ReplicaitonGroupId}/ replicatedvolumepairs/ {ReplicatedVolumePairId}	UCP DOC View

## List replicated volume pairs

This HTTP request uses the GET method on the /dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPID}/replicatedvolumepairs URI, where {SITEPAIRID} is the Id of the Site Pair and {REPLICATIONGROUPID} is the Id of the replication group for the which the replicated volume pairs are required.

For a definition of replicated volume pairs, see Get replicated volume pair.

This request requires the UCP DOC View privilege.

### Request body

This request must have no body.

### Response body

When the request succeeds, a list of replicated volume pairs is returned. Properties are detailed under Get replicated volume pair.

### Example: List all replicated volume pairs in a replication group

In this example, all replicated volume pairs for group PayrollDiv1 are returned.

#### Request Header

```
GET https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/  
PayrollDiv1/replicatedvolumepairs HTTP/1.1
```



Content-Type: application/json; charset=utf-8

### Request Body

The body for this request must be empty.

### Response Header

HTTP/1.1 200 OK

### Response Body

```
[
  {
    "Id": "P-BareMetal-12794-14848",
    "ResourceType": "ReplicatedVolumePair",
    "GlobalResourceId": "inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/BareMetal/replicatedvolumepairs/P-BareMetal-12794-14848"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/BareMetal/replicatedvolumepairs"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
```

## Replicated volume pair resources

```
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12794-14848&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12794-14848&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12794-14848&relation=self%7Csubcomponent"
    }
  ],
  "CopyPercentComplete": 100,
  "LeftVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b06.ucp.local",
        "ServerId": "17e938b7-b4ab-11e1-9b52-f4232f0355b4"
      }
    ],
    "DisplayName": "31FA(12794)",
    "StorageSystemId": "53102",
    "TotalCapacityInBytes": 4294967296,
    "VolumeId": "12794",
    "VolumeRole": "Primary"
  },
  "PairStatus": "Pair",
  "ReplicationGroupId": "BareMetal",
  "ReplicationMode": "Unknown",
  "RightVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
        "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
      }
    ],
    "DisplayName": "3A00(14848)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 4294967296,
    "VolumeId": "14848",
    "VolumeRole": "Secondary"
  }
}
```

```

    },
    "SitePairId": "1"
  },
  {
    "Id": "P-BareMetal-12795-14849",
    "ResourceType": "ReplicatedVolumePair",
    "GlobalResourceId": "inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12795-14849",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/BareMetal/replicatedvolumepairs/P-BareMetal-12795-14849"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/BareMetal/replicatedvolumepairs"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12795-14849&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12795-14849&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12795-14849&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12795-14849&relation=self"
      },
      {
        "Rel": "events.subcomponent",

```

## Replicated volume pair resources

```
    "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12795-14849&relation=subcomponent"
  },
  {
    "Rel": "events.all",
    "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12795-14849&relation=self%7Csubcomponent"
  }
],
"CopyPercentComplete": 100,
"LeftVolume": {
  "AttachedServers": [
    {
      "ClusterId": null,
      "ClusterName": null,
      "ServerDisplayName": "r1-hi-cb500-1-b06.ucp.local",
      "ServerId": "17e938b7-b4ab-11e1-9b52-f4232f0355b4"
    }
  ],
  "DisplayName": "31FB(12795)",
  "StorageSystemId": "53102",
  "TotalCapacityInBytes": 5368709120,
  "VolumeId": "12795",
  "VolumeRole": "Primary"
},
"PairStatus": "Pair",
"ReplicationGroupId": "BareMetal",
"ReplicationMode": "Unknown",
"RightVolume": {
  "AttachedServers": [
    {
      "ClusterId": null,
      "ClusterName": null,
      "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
      "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
    }
  ],
  "DisplayName": "3A01(14849)",
  "StorageSystemId": "53106",
  "TotalCapacityInBytes": 5368709120,
  "VolumeId": "14849",
  "VolumeRole": "Secondary"
},
"SitePairId": "1"
},
{
  "Id": "P-BareMetal-12781-14857",
  "ResourceType": "ReplicatedVolumePair",
```

```

"GlobalResourceId": "inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12781-14857",
  "InstanceId": "DCD-123-4567",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups/BareMetal/replicatedvolumepairs/P-BareMetal-12781-
14857"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups/BareMetal/replicatedvolumepairs"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12781-14857&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12781-14857&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12781-14857&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12781-14857&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12781-14857&relation=subcomponent"
    },
    {
      "Rel": "events.all",

```

```

        "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12781-14857&relation=self%7Csubcomponent"
    }
  ],
  "CopyPercentComplete": 100,
  "LeftVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
        "ServerId": "a69f1b75-be4b-11e1-96a9-bala7ac3dd17"
      }
    ],
    "DisplayName": "31ED(12781)",
    "StorageSystemId": "53102",
    "TotalCapacityInBytes": 107374182400,
    "VolumeId": "12781",
    "VolumeRole": "Primary"
  },
  "PairStatus": "Pair",
  "ReplicationGroupId": "BareMetal",
  "ReplicationMode": "Unknown",
  "RightVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
        "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
      }
    ],
    "DisplayName": "3A09(14857)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 107374182400,
    "VolumeId": "14857",
    "VolumeRole": "Secondary"
  },
  "SitePairId": "1"
}
}

```

## Get replicated volume pair

This HTTP request uses the GET method on the `/dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPID}/replicatedvolumepairs/{REPLICATEDVOLUMEPAIRID}` URI, where `{SITEPAIRID}` is the Id of the Site Pair and `{REPLICATIONGROUPID}` is the

Id of the replication group which contains that replicated volume and {REPLICATEDVOLUMEPAIRID} is the Id of the replicated volume pair whose details are required.

A replication group contains one or more replicated volume pair. There will be a replicated volume pair for every protected volume in the group.

A replicated volume pair:

- Includes exactly one replicated (or primary) volume
- Includes exactly one replication (or secondary) volume
- Has a name and ID for the pair

The test volume is not included in the replicated volume pair. To see the corresponding test volume, if any, use the GET method to list TestVolumePairs from the same replication group.

This request requires the UCP DOC View privilege.

## Request body

The body of this request must be empty.

## Response body

When the request succeeds, the response body returns the specified replicated volume pair with the following properties.

Name	Type	Notes
(Common properties)		See Common properties
SitePairId	String	Id of the site pair.
ReplicationGroupId	String	Id of the replication group.

Name	Type	Notes
PairStatus	String	<p>Status of the replication group. Values can be:</p> <p>COPY: The status reflected when replication is taking place.</p> <p>PAIR: The status reflected when replication is complete.</p> <p>SIMPLEX: The status reflected when no replication is taking place.</p> <p>UNCONFIGURED: The status reflected when the replication group has not yet been configured for replication</p> <p>SUSPENDED: When the replication is suspended.</p> <p>FAILOVER: When the sites are in failover mode.</p>
CopyPercentComplete	String	Int Percent of copy completed.
ReplicationMode	String	This can be either synchronous (True Copy) or asynchronous (HUR) replication.
LeftVolume	String	The protected (primary) volume of this volume pair.
AttachedServers	Collection	Collection of the following four server attributes.
ClusterId	String	Id of the cluster in which the attached server participates.
ClusterName	String	Name of the cluster.
ServerDisplayName	String	Name of the attached server.
ServerId	String	Id of the attached server.
DisplayName	String	Display name of the volume.
StorageSystemId	String	Id of the storage system.
TotalCapacityInBytes	Double	Capacity of the volume in bytes.
VolumeId	String	Id of the volume.
VolumeRole	String	The role of the volume in the pair. Values for the left or the right volume could be Primary, Secondary or NotReplicated.



Name	Type	Notes
RightVolume	String	The replicated (secondary) volume of this volume pair.
AttachedServers	Collection	Collection of the following four server attributes.
ClusterId	String	Id of the cluster in which the attached server participates.
ClusterName	String	Name of the cluster.
ServerDisplayName	String	Name of the attached server.
ServerId	String	Id of the attached server.
DisplayName	String	Display name of the volume.
StorageSystemId	String	Id of the storage system.
TotalCapacityInBytes	Double	Capacity of the volume in bytes.
VolumeId	String	Id of the volume.
VolumeRole	String	The role of the volume in the pair. Values for the left or the right volume could be Primary, Secondary or NotReplicated.

### Example: List a replicated volume pair in a replication group

In this example, the replicated volume pair called P-BareMetal-12794-14848 is listed from replication group PayrollDiv1.

#### Request Header

```
GET https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/
PayrollDiv1/replicatedvolumepairs/P-BareMetal-12794-14848 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

```
{
  "Id": "P-BareMetal-12794-14848",
  "ResourceType": "ReplicatedVolumePair",
  "GlobalResourceId": "inst.DCD-123-
4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-
12794-14848",
  "InstanceId": "DCD-123-4567",
```

```

"Links": [
  {
    "Rel": "self",
    "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/BareMetal/replicatedvolumepairs/P-BareMetal-12794-14848"
  },
  {
    "Rel": "collection",
    "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/BareMetal/replicatedvolumepairs"
  },
  {
    "Rel": "jobs.self",
    "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=self"
  },
  {
    "Rel": "jobs.subcomponent",
    "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=subcomponent"
  },
  {
    "Rel": "jobs.all",
    "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=self%7Csubcomponent"
  },
  {
    "Rel": "events.self",
    "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=self"
  },
  {
    "Rel": "events.subcomponent",
    "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=subcomponent"
  },
  {
    "Rel": "events.all",
    "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=ReplicatedVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.BareMetal.volumePairId.P-BareMetal-12794-14848&relation=self%7Csubcomponent"
  }
]

```

```

    }
  ],
  "CopyPercentComplete": 100,
  "LeftVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b06.ucp.local",
        "ServerId": "17e938b7-b4ab-11e1-9b52-f4232f0355b4"
      }
    ],
    "DisplayName": "31FA(12794)",
    "StorageSystemId": "53102",
    "TotalCapacityInBytes": 4294967296,
    "VolumeId": "12794",
    "VolumeRole": "Primary"
  },
  "PairStatus": "Pair",
  "ReplicationGroupId": "BareMetal",
  "ReplicationMode": "Unknown",
  "RightVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
        "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
      }
    ],
    "DisplayName": "3A00(14848)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 4294967296,
    "VolumeId": "14848",
    "VolumeRole": "Secondary"
  },
  "SitePairId": "1"
}

```

## Add volume to replication group

This HTTP request uses the POST method `/dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPLD}/replicatedvolumepairs` URI, where `{SITEPAIRID}` is the Id of the Site Pair and `{REPLICATIONGROUPLD}` is the Id of the replication group to which the volumes will be added.

When a new volume is added to a replication group, it is:

- A protected volume

- And will be replicated

At the recovery side of a replication group, UCP will:

- Create a corresponding replication volume of the same size as the protected volume
- Attach the replication volume to the replication hosts

If the replication group uses test volumes at the recovery side, UCP will:

- Create a test volume for the replication volume
- Attach the test volume to the replication hosts

When the storage pool for test volumes is HDT or HDP, the test volume is:

- The same size as the recovery volume
- Is an exact copy of the recovery volume

When the storage pool for test volumes is HTI, the test volume is:

- Much smaller than the recovery volume
- Is a virtual representation of the recovery volume

This request requires the UCP DOC Administrator privilege.

## Request body

The properties of replicated volume pairs are listed in the following chart.

Name	Type	Notes
PrimarySiteId	String	The UCP site in this SitePair that contains the volumes to replicate. This must match the current primarySiteId for the ReplicationGroup.
PrimarySiteStorageSystemId	String	The StorageSystem in the primary site that contains the volumes to replicate.
SecondarySiteStorageSystemId	String	The StorageSystem in the secondary site where the secondary volumes will be created.
VolumesToReplicate	Collection	List of VolumeReplicationInformation for volumes in the primarySite to be replicated

Name	Type	Notes
PrimaryVolumeId	String	The Id of the volume that should be added to the replication group
SecondarySiteAttachTarget	Collection	AttachTargetInformation specifies a host or cluster in the secondary site that will be attached to the new secondary volume.
Type	String	This can be either Server or Cluster
Id	String	Id of the server or cluster

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

## Example: Add replicated volume pairs to a replication group

In this example, volume with ID 14768 is added to the replication group PayrollDiv1.

### Request Header

```
POST https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/
PayrollDiv1/replicatedvolumepairs HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

```
{
  "PrimarySiteId": "blue-ucp-4056",
  "PrimarySiteStorageSystemId": "53106",
  "SecondarySiteAttachTarget": {
    "Id": "d07e233f-b495-11e1-a6fc-8096535cba3e",
    "Type": "Server"
  },
  "SecondarySiteStorageSystemId": "53102",
  "VolumesToReplicate": [ {
    "PrimaryVolumeId": "14768"
  } ]
}
```

### Response Header

```
HTTP/1.1 202 Accepted
```

### Response Body

The system executes a job named "New replicated volume pair".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Expand replicated volume pair

This HTTP request uses the POST method on `dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPLD}/replicatedvolumepairs/{REPLICATEDVOLUMEPAIRID}` URI. Where `{SITEPAIRID}` is the Id of the Site Pair and `{REPLICATIONGROUPLD}` is the Id of the replication group which contains the replicated volume pair and `{REPLICATEDVOLUMEPAIRID}` is the Id of the replicated volume pair that needs to be expanded.

The minimum expansion size for a replicated volume pair is 1.2 GB greater than the existing volume size.

When expanding a replicated volume pair, UCP will:

- Temporarily pause replication activity between the primary and secondary volumes
- Expand the replicated (primary) volume
- Expand the replication (secondary) volume
- Resynch the volumes and resume replication

If the pair uses a full sized Shadow Image test volume, UCP will also:

- Temporarily pause replication between the secondary volume and its test volume
- Expand the test volume by the same amount as the primary and secondary volumes
- Resynch and resume replication between the secondary volume and its test volume

When the test volume type is HTI (Hitachi Thin Image), it is possible to expand primary and secondary volumes only by following this procedure:

1. Delete HTI test volumes for the entire replication group
2. Expand the replicated volume pair
3. Re-create test volumes for the entire replication group

The UCP DOC Administrator privilege is required.

## Request body

The request body requires the parameter shown in the following chart.

Name	Type	Notes
VolumeSizeInBytes	Int32	The new expanded size of the ReplicatedVolumePair.

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

### Example: Expand a replicated volume pair

In this example, a replicated volume pair is expanded to the size specified in the request body.

#### Request Header

```
POST https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/
PayrollDiv1/replicatedvolumepairs/P-PayrollDiv2-14992-12588 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

```
{
  "VolumeSizeInBytes": 3.26743233E+15
}
```

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Expand a replicated volume pair". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Remove replicated volume pair

This HTTP request uses the DELETE method on the dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPID}/replicatedvolumepairs/{REPLICATEDVOLUMEPAIRID} URI, where {SITEPAIRID} is the Id of the site pair and {REPLICATIONGROUPID} is the

Id of the replication group from which the volumes will be deleted and {REPLICATEDVOLUMEPAIRID} is the Id of the replicated volume pair which should be deleted from the replication group.

This API deletes the replicated (secondary) volume and the test volume if one exists. It does not delete the primary (protected) volume.

The UCP DOC Administrator privilege is required.

## Request body

The body of this API request must be empty.

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

## Example: Remove a volume replication pair

In this example, the replicated volume pair specified in the URI is removed.

### Request Header

```
DELETE https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/  
PayrollDiv1/replicatedvolumepairs/P-PayrollDiv2-14992-12588 HTTP/1.1  
Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

### Response Header

```
HTTP/1.1 202 Accepted
```

### Response Body

The system executes a job named "Remove a replicated volume pair".

For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Test volume pair resources

A test volume is a copy of a replicated volume. If the test volume is in an HTI pool, it is actually a shadow image of the replicated volume. It is called a test volume because it can be used for tests while not interrupting the replication between primary volume and replicated volume.



The replicated volume with its associated test volume is considered a test volume pair. These API are used for getting details about test volume pairs or for deleting them.

The following API are addressed to the server which is running the DR service.

Request	Method	URI	Privilege
<a href="#">List test volume pairs</a>	GET	/dr/sitepairs/{SITEPAIRID}/ replicationgroups/ {REPLICATIONGROUPEID}/ testvolumepairs	UCP DOC View
<a href="#">Get test volume pair</a>	GET	/dr/sitepairs/{SITEPAIRID}/ replicationgroups/ {REPLICATIONGROUPEID}/ testvolumepairs/ {TESTVOLUMEPAIRID}	UCP DOC View
<a href="#">Create test volumes</a>	POST	/dr/sitepairs/{SITEPAIRID}/ replicationgroups/ {REPLICATIONGROUPEID}/ testvolumepairs	UCP DOC Administrator
<a href="#">Delete test volumes</a>	DELETE	/dr/sitepairs/{SITEPAIRID}/ replicationgroups/ {REPLICATIONGROUPEID}/ testvolumepairs	UCP DOC Administrator

## List test volume pairs

This HTTP request uses the GET method on the `dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPEID}/testvolumepairs` URI, where `{SITEPAIRID}` is the Id of the site pair and `{REPLICATIONGROUPEID}` is the Id of the replication group for which the test volume pairs are required.

This API request requires the UCP DOC View privilege.

### Request body

The body for this request must be empty.

### Response body

When the request succeeds, the list of volume pairs is returned. Each test volume pair will display the same information as shown in section [Get test volume pair](#).

## Example: List all test volume pairs in a replication group

In this example, the replicated volume pairs are listed from replication group Portland.

### Request Header

```
GET https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/Portland/testvolumepairs HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

The body for this request must be empty.

### Response Header

```
HTTP/1.1 200 OK
```

### Response Body

```
[
  {
    "Id": "T-Portland-14853-14855",
    "ResourceType": "TestVolumePair",
    "GlobalResourceId": "inst.DCD-123-4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-14855",
    "InstanceId": "DCD-123-4567",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/Portland/testvolumepairs/T-Portland-14853-14855"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/replicationgroups/Portland/testvolumepairs"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=TestVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-14855&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=TestVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-14855&relation=subcomponent"
      }
    ]
  }
]
```

```

        "Rel": "jobs.all",
        "Href": "https://ucpdatacenter.ucp.local/api/jobs?targetType=TestVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-14855&relation=self%7Csubcomponent"
    },
    {
        "Rel": "events.self",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=TestVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-14855&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=TestVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-14855&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpdatacenter.ucp.local/api/events?targetType=TestVolumePair&targetId=inst.DCD-123-4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-14855&relation=self%7Csubcomponent"
    }
],
"CopyPercentComplete": 100,
"LeftVolume": {
    "AttachedServers": [
        {
            "ClusterId": null,
            "ClusterName": null,
            "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
            "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
        }
    ],
    "DisplayName": "3A05(14853)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 128849018880,
    "VolumeId": "14853",
    "VolumeRole": "Primary"
},
"PairStatus": "Pair",
"ReplicationGroupId": "Portland",
"ReplicationMode": "Unknown",
"RightVolume": {
    "AttachedServers": [
        {
            "ClusterId": null,
            "ClusterName": null,
            "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",

```

## Test volume pair resources

```
        "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
      }
    ],
    "DisplayName": "3A07(14855)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 128849018880,
    "VolumeId": "14855",
    "VolumeRole": "Secondary"
  },
  "SitePairId": "1"
}
```

## Get test volume pair

This HTTP request uses the GET method on the `dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPLD}/testvolumepairs / {TESTVOLUMEPAIRID}` URI, where `{SITEPAIRID}` is the Id of the site pair and `{REPLICATIONGROUPLD}` is the Id of the replication group for which the test volume pair is required.

### Request body

The body for this request must be empty.

### Response body

When the request succeeds, the response body returns details for the specified test volume pair. The properties are shown in the following chart.

Name	Type	Notes
(Common properties)		See Common properties
SitePairId	String	Id of the site pair

Name	Type	Notes
PairStatus	String	Status of the replication group. This can be one of the following-  COPY: The status reflected when replication is taking place  PAIR: The status reflected when replication is complete  SIMPLEX: The status reflected when no replication is taking place  UNCONFIGURED: The status reflected when the replication group has not yet been configured for replication  SUSPENDED: When the replication is suspended  FAILOVER: When the sites are in failover mode
ReplicationGroupId	String	Id of the replication group
ReplicationMode	String	Replication mode. This can be either synchronous (True Copy) or asynchronous (HUR) replication.
CopyPercentComplete	Int	Percent of copy completed. This value depends on PairStatus:  COPY: the value moves between 0 and 100  PAIR: always 100  SIMPLEX UNCONFIGURED: always 0  SUSPENDED - 0
LeftVolume	Collection	Collection of information about the left side volume  Left side volumes are protected volumes
AttachedServers	Collection	Collection of attached servers
ClusterId	String	Protected cluster
ClusterName	String	Name of protected cluster
ServerDisplayName	String	Display name of the protected server
ServerId	String	Id of the protected server

Name	Type	Notes
DisplayName	String	Display name of the left side volume.
StorageSystemId	String	Id of the storage system where the left volume is.
TotalCapacityInBytes	Int32	Total capacity of the left side volume
VolumeId	String	Id of the left volume
VolumeRole	String	Role for the left side volume
RightVolume	Collection	Collection of information about the right side volume
AttachedServers	Collection	Collection of attached servers
ClusterId	String	Recovery cluster
ClusterName	String	Name of recovery cluster
ServerDisplayName	String	Display name of the recovery server
ServerId	String	Id of the recovery server
DisplayName	String	Display name of the volume
StorageSystemId	String	Id of the storage system where the right volume is
TotalCapacityInBytes	Int32	Total capacity of the right side volume
VolumeId	String	Id of the left volume
VolumeRole	String	Role for the right side volume.

### Example: Get a test volume pair from a replication group

In this example, the test volume pair called T-Portland-14853-14855 is requested from replication group Portland.

#### Request Header

```
GET
https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/
Portland/testvolumepairs/T-Portland-14853-14855
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

**Response Body**

```

{
  "Id": "T-Portland-14853-14855",
  "ResourceType": "TestVolumePair",
  "GlobalResourceId": "inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-
14855",
  "InstanceId": "DCD-123-4567",
  "Links": [
    {
      "Rel": "self",
      "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups/Portland/testvolumepairs/T-Portland-14853-14855"
    },
    {
      "Rel": "collection",
      "Href": "https://ucpdatacenter.ucp.local/dr/sitepairs/1/
replicationgroups/Portland/testvolumepairs"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=TestVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-
14855&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=TestVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-
14855&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpdatacenter.ucp.local/api/
jobs?targetType=TestVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-
14855&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=TestVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-
14855&relation=self"
    },
    {
      "Rel": "events.subcomponent",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=TestVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-
14855&relation=subcomponent"
    }
  ]
}

```

## Test volume pair resources

```
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpdatacenter.ucp.local/api/
events?targetType=TestVolumePair&targetId=inst.DCD-123-
4567.sitePair.1.replicationGroup.Portland.volumePairId.T-Portland-14853-
14855&relation=self%7Csubcomponent"
    }
  ],
  "CopyPercentComplete": 100,
  "LeftVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
        "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
      }
    ],
    "DisplayName": "3A05(14853)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 128849018880,
    "VolumeId": "14853",
    "VolumeRole": "Primary"
  },
  "PairStatus": "Pair",
  "ReplicationGroupId": "Portland",
  "ReplicationMode": "Unknown",
  "RightVolume": {
    "AttachedServers": [
      {
        "ClusterId": null,
        "ClusterName": null,
        "ServerDisplayName": "r1-hi-cb500-1-b00.ucp.local",
        "ServerId": "a00a087e-b42f-11e1-b5b5-de6c62e1293f"
      }
    ],
    "DisplayName": "3A07(14855)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 128849018880,
    "VolumeId": "14855",
    "VolumeRole": "Secondary"
  },
  "SitePairId": "1"
}
```



## Create test volumes

This HTTP request uses the POST method on the `dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPLD}/testvolumepairs` URI, where `{SITEPAIRID}` is the Id of the site pair, `{REPLICATIONGROUPLD}` is the Id of the replication group for which to create test volumes.

To conserve space at the recovery side of a replication group, test volumes can be deleted. Create test volumes again for a replication group any time with this API.

This API request requires the UCP DOC Administrator privilege.

### Request body

The following table defines the property needed in this request body.

Name	Type	Notes
TestStoragePoolId	String	<p>The storage pool in which to create the test volumes for a replication group.</p> <p>In HDP or HDT, test volumes are:</p> <ul style="list-style-type: none"> <li>• Exact copy of replicated volumes</li> <li>• Same size as replicated volumes</li> </ul> <p>In HTI pools, test volumes are:</p> <ul style="list-style-type: none"> <li>• Virtual representation of replicated volumes</li> <li>• Much smaller than the replicated volumes</li> </ul>

### Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

## Example: Create test volumes for a replication group

In this example, test volumes are created for the replication group Portland. The request body specifies test volume pool ID 3. The type of pool can be queried with `/api/storagesystems/{STORAGESYSTEMID}/pools/{POOLID}`. The pool type determines what type of test volumes will be created for this replication group.

### Request Header

```
POST https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/Portland/testvolumepairs
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

### Request Body

```
{
  "TestStoragePoolId": "3"
}
```

### Response Header

```
HTTP/1.1 200 OK
```

### Response Body

The system executes a job named "Create test volume(s) for replication group". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Delete test volumes

This HTTP request uses the DELETE method on the `dr/sitepairs/{SITEPAIRID}/replicationgroups/{REPLICATIONGROUPID}/testvolumepairs` URI, where `{SITEPAIRID}` is the Id of the site pair and `{REPLICATIONGROUPID}` is the Id of the replication group for which the test volumes should be deleted.

To conserve storage space, test volumes can be deleted and created again when necessary to test the data in replicated volumes. Test volumes are created and deleted for all replicated volumes in the replication group. It cannot be done on a per-volume basis.

This API request requires the UCP DOC Administrator privilege.

### Request body

The body for this request must be empty.

## Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Delete test volumes for a resource group

In this example, the test volume pairs for replication group Portland are deleted. The actual test volumes are deleted while the replicated (secondary) volumes are preserved.

#### Request Header

```
DELETE https://UCPDatacenter.ucp.local/dr/sitepairs/1/replicationgroups/
Portland/testvolumepairs
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

The system executes a job named "Delete test volume pairs for a resource group". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Refresh inventory

This API refreshes the disaster recovery inventory.

This HTTP request uses the POST method on the dr/refresh URI.

The UCP DOC Administrator privilege is required.

Method	URI	Privilege
POST	/dr/refresh	UCP DOC Administrator

### Request body

The body of this request must be empty.

## Response body

When the request is accepted a job is started and the body of the response contains a job object which can be also requested from Get jobs.

### Example: Refresh contents of all site pairs

This example shows how to refresh the inventory of site pairs.

#### Request Header

```
POST https://UCPDatacenter.ucp.local/dr/refresh HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 202 Accepted
```

#### Response Body

The system executes a job named "Refresh site pair inventory". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Journal resources

Journals are required for asynchronous replication between two UCP sites. Each HUR replication group has a single journal. A journal is made up of a set of journal volumes. A journal is created by UCP when a replication group is created. The size of the journal is affected by the usage and size of the protected volumes and the maximum outage tolerance between the sites. UCP may expand the size of the journal when more protected and replicated volumes are added to a replication group if there are available journal volumes.

The following API must be addressed to a server running UCP Director.

Request	Method	URI	Privilege
<a href="#">List journals</a>	GET	/api/storagesystems/{STORAGESYSTEMID}/journals	UCP View
<a href="#">Get a journal</a>	GET	/api/storagesystems/{STORAGESYSTEMID}/journals	UCP View

Request	Method	URI	Privilege
<a href="#">Create new journal</a>	POST	/api/storagesystems/ {STORAGESYSTEMID}/journals/ {JOURNALID}	UCP System Administrator
<a href="#">Expand a journal</a>	POST	/api/storagesystems/ {STORAGESYSTEMID}/journals/ {JOURNALID}	UCP System Administrator
<a href="#">List unused journal volumes</a>	GET	/api/storagesystems/ {STORAGESYSTEMID}/ journalvolumes	UCP View
<a href="#">Delete a journal</a>	DELETE	/api/storagesystems/ {STORAGESYSTEMID}/journals/ {JOURNALID}	UCP System Administrator

## List journals

This HTTP request uses the GET method on the `api/storagesystems/{STORAGESYSTEMID}/journals` API. It lists journals for Hitachi Universal Replication.

### Request body

The body for this request must be empty.

### Response body

For each journal, the same data is returned as when issuing the GET method for a specific journal Id. See the section called `Get a journal`.

### Example: List all journals

In this example, all journals for storage system 53106 are listed.

#### Request Header

```
GET https://ucpmanagement.ucp.local/api/storagesystems/53106/journals
HTTP/1.1
Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

**Response Body**

```
[
  {
    "Id": "14861",
    "ResourceType": "StorageJournalVolume",
    "GlobalResourceId": "inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14861",
    "InstanceId": "V2ProductionF-123-456-789",
    "Links": [
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53106/journalvolumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14861&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14861&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14861&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14861&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14861&relation=subcomponent"
      },
      {
        "Rel": "events.all",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14861&relation=self%7Csubcomponent"
      }
    ],
    "ArrayGroup": 0,
    "Chassis": 6,
  }
]
```

```

    "DiskModel": "DKR2D-H2R0AT",
    "JournalId": null,
    "RaidType": "RAID5(3D+1P)",
    "StorageSystemId": "53106",
    "TotalCapacityInBytes": 53687091200
  },
  {
    "Id": "14862",
    "ResourceType": "StorageJournalVolume",
    "GlobalResourceId": "inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14862",
    "InstanceId": "V2ProductionF-123-456-789",
    "Links": [
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.ucp.local/api/storagesystems/53106/journalvolumes"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14862&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14862&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.ucp.local/api/jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14862&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14862&relation=self"
      },
      {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14862&relation=subcomponent"
      },
      {
        "Rel": "events.all",
        "Href": "https://ucpmanagement.ucp.local/api/events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-456-789.stor.1.ss.53106.jrnlvol.14862&relation=self%7Csubcomponent"
      }
    ]
  }

```

```

    }
  ],
  "ArrayGroup": 0,
  "Chassis": 6,
  "DiskModel": "DKR2D-H2R0AT",
  "JournalId": null,
  "RaidType": "RAID5(3D+1P)",
  "StorageSystemId": "53106",
  "TotalCapacityInBytes": 53687091200
}
}

```

## Get a journal

This HTTP request uses the GET method on the `api/storagesystems/{STORAGESYSTEMID}/journals/{JOURNALID}` API. It returns details of the journal specified in the URI.

### Request body

The request body must be empty.

### Response body

Journals are returned with the following properties.

Name	Type	Notes
(Common properties)		See Common properties.
ArrayGroup	Int	ID number of the array group where the journal resides.
Chassis	Int	The ID number of the storage chassis containing the journal.
DiskModel	String	Model of the disk type containing the journal.
JournalId	String	Id of the journal.
RaidType	String	RAID type used by the journal.
StorageSystemId	String	Storage system in which the journal resides.
TotalCapacityInBytes	Int	The capacity of the particular journal volume in bytes.

### Example: Get journal by ID

In this example, journal with ID 14862 is requested.



**Request Header**

```
GET https://ucpmanagement.ucp.local/api/storagesystems/53106/journals/
14862 HTTP/1.1
Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

```
{
  "Id": "14862",
  "ResourceType": "StorageJournalVolume",
  "GlobalResourceId": "inst.V2ProductionF-123-456-
789.stor.1.ss.53106.jrnlvol.14862",
  "InstanceId": "V2ProductionF-123-456-789",
  "Links": [
    {
      "Rel": "collection",
      "Href": "https://ucpmanagement.ucp.local/api/storagesystems\
/53106/journalvolumes"
    },
    {
      "Rel": "jobs.self",
      "Href": "https://ucpmanagement.ucp.local/api\
jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-
456-789.stor.1.ss.53106.jrnlvol.14862&relation=self"
    },
    {
      "Rel": "jobs.subcomponent",
      "Href": "https://ucpmanagement.ucp.local/api\
jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-
456-789.stor.1.ss.53106.jrnlvol.14862&relation=subcomponent"
    },
    {
      "Rel": "jobs.all",
      "Href": "https://ucpmanagement.ucp.local/api\
jobs?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-
456-789.stor.1.ss.53106.jrnlvol.14862&relation=self%7Csubcomponent"
    },
    {
      "Rel": "events.self",
      "Href": "https://ucpmanagement.ucp.local/api\
events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-
456-789.stor.1.ss.53106.jrnlvol.14862&relation=self"
    },
    {
      "Rel": "events.subcomponent",
```

```

      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-
456-789.stor.1.ss.53106.jrnlvol.14862&relation=subcomponent"
    },
    {
      "Rel": "events.all",
      "Href": "https://ucpmanagement.ucp.local/api/
events?targetType=StorageJournalVolume&targetId=inst.V2ProductionF-123-
456-789.stor.1.ss.53106.jrnlvol.14862&relation=self%7Csubcomponent"
    }
  ],
  "ArrayGroup": 0,
  "Chassis": 6,
  "DiskModel": "DKR2D-H2R0AT",
  "JournalId": null,
  "RaidType": "RAID5(3D+1P)",
  "StorageSystemId": "53106",
  "TotalCapacityInBytes": 53687091200
}

```

## Create new journal

This HTTP request uses the POST method on the `api/storagesystems/{STORAGESYSTEMID}/journals` API. It creates a new journal for Hitachi Universal Replication.

### Request body

The request body requires the parameters in the following chart.

Name	Type	Notes
JournalVolumelds	String	List of journal volumes IDs to be added to the journal.

### Response body

When the request is accepted, a job is started and the body of the response contains a job object which can also be requested from Get job.

### Example: Create a journal

In this example, a new journal is formed using two journal volumes listed in the payload.

#### Request Header

```

POST https://ucpmanagement.ucp.local/api/storagesystems/53106/journals
Content-Type: application/json; charset=utf-8

```

**Request Body**

```
{
  "JournalVolumeIds": ["14861", "14862"]
}
```

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

The system executes a job named "Create a new journal". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## Expand a journal

This HTTP request uses the POST method on the `api/storagesystems/{storageSystemId}/journals/{journalId}` API. It expands the journal specified by `Id` in the URI. The payload includes the list of volume `Ids` to add.

### Request body

The body of the request must contain the following value.

Name	Type	Notes
JournalVolumeIds	String	StringId or Ids of the volume or volumes to be added to the journal specified in the URI. This is a comma separated list, each item surrounded by quotes.

### Response body

When the request succeeds, the response includes information about the job.

### Example: Expand a journal by adding a volume

In this example a journal is expanded by adding journal volume with ID 14902.

**Request Header**

```
https://ucpmanagement.ucp.local/api/storagesystems/53106/journals/4
Content-Type: application/json; charset=utf-8
```

**Request Body**

```
{
```

```
"JournalVolumeIds": ["14902"]
}
```

### Response Header

HTTP/1.1 200 OK

### Response Body

The system executes a job named "Adding journal volumes to a journal". For common job properties, see the Jobs heading under Introducing UCP DOC API.

## List unused journal volumes

This HTTP request uses the GET method on the `api/storagesystems/{STORAGESYSTEMID}/journalvolumes` API. It lists unused journal volumes. Note that the properties are the same as for Journals. However, the value for `JournalId` will be null for unused journal volumes.

### Request body

The body of this request must be empty.

### Response body

The body of the request must contain the following values.

Name	Type	Notes
CapacityInBytes	Int32	Size of the journal volume in bytes.
DataOverflowWatch	Int32	
InflowControlFlag	Int32	
JournalVolumeIds	Collection	Collection of Id numbers listing the journal volumes.
PairedJournals	Collection	
StorageSystemId	String	Id of the storage system where the journal volumes are.

### Example: List volumes available for adding to journal

In this example, available journal volumes for storage system 210023 are listed.

**Request Header**

```
GET https://ucpmanagement.ucp.local/api/storagesystems/210023/
journalvolumes
HTTP/1.1 Content-Type: application/json; charset=utf-8
```

**Request Body**

The body for this request must be empty.

**Response Header**

```
HTTP/1.1 200 OK
```

**Response Body**

```
[
  {
    "Id": "0",
    "ResourceType": "StorageJournal",
    "GlobalResourceId": "inst.PODH-04616.stor.1.ss.210016.jrnl.0",
    "InstanceId": "PODH-04616",
    "Links": [
      {
        "Rel": "self",
        "Href": "https://ucpmanagement.podh.local/api/storagesystems/210016/journals/0"
      },
      {
        "Rel": "collection",
        "Href": "https://ucpmanagement.podh.local/api/storagesystems/210016/journals"
      },
      {
        "Rel": "jobs.self",
        "Href": "https://ucpmanagement.podh.local/api/jobs?targetType=StorageJournal&targetId=inst.PODH-04616.stor.1.ss.210016.jrnl.0&relation=self"
      },
      {
        "Rel": "jobs.subcomponent",
        "Href": "https://ucpmanagement.podh.local/api/jobs?targetType=StorageJournal&targetId=inst.PODH-04616.stor.1.ss.210016.jrnl.0&relation=subcomponent"
      },
      {
        "Rel": "jobs.all",
        "Href": "https://ucpmanagement.podh.local/api/jobs?targetType=StorageJournal&targetId=inst.PODH-04616.stor.1.ss.210016.jrnl.0&relation=self%7Csubcomponent"
      },
      {
        "Rel": "events.self",
```

```

        "Href": "https://ucpmanagement.podh.local/api/
events?targetType=StorageJournal&targetId=inst.PODH-
04616.stor.1.ss.210016.jrnl.0&relation=self"
    },
    {
        "Rel": "events.subcomponent",
        "Href": "https://ucpmanagement.podh.local/api/
events?targetType=StorageJournal&targetId=inst.PODH-
04616.stor.1.ss.210016.jrnl.0&relation=subcomponent"
    },
    {
        "Rel": "events.all",
        "Href": "https://ucpmanagement.podh.local/api/
events?targetType=StorageJournal&targetId=inst.PODH-
04616.stor.1.ss.210016.jrnl.0&relation=self%7Csubcomponent"
    }
],
"MonitorState": {
    "GlobalResourceId": "inst.PODH-04616.stor.1.ss.210016.jrnl.0",
    "MonitorIndicators": [
        {
            "DisplayName": "Journal Performance",
            "IndicatorState": "NotApplicable",
            "IndicatorType": "Performance",
            "Name": "JournalPerformance",
            "SubGlobalResourceIds": null,
            "SubResourceType": null
        }
    ],
    "MonitorMode": "Report",
    "NumErrors": 0,
    "NumNotApplicables": 1,
    "NumOks": 0,
    "NumUnknowns": 0,
    "NumWarnings": 0,
    "ResourceState": "NotApplicable",
    "ResourceType": "StorageJournal",
    "UpdatedDateTime": "6/10/2014 8:23:13 PM +00:00"
},
"CapacityInBytes": 322123530240,
"DataOverflowWatch": 60,
"InflowControlFlag": 1,
"JournalVolumeIds": [
    15620,
    15622,
    15624
],
"PairedJournals": [
],
"StorageSystemId": "210016"
}
]

```

## Delete a journal

This HTTP request uses the DELETE method on the `api/storagesystems/{STORAGESYSTEMID}/journals/{JOURNALID}` API. It deletes the journal specified by `Id` in the URI.

### Request body

The body of this request must be empty.

### Response body

When the request succeeds, the response includes information about the job launched. If the request returns with an error code, the response body will contain a description of the reason for that error code.

### Example: Delete a journal

#### Request Header

```
DELETE https://ucpmanagement.ucp.local/api/storagesystems/53106/
journals/4
HTTP/1.1 Content-Type: application/json; charset=utf-8
```

#### Request Body

The body for this request must be empty.

#### Response Header

```
HTTP/1.1 200 OK
```

#### Response Body

The system executes a job named "Delete a journal". For common job properties, see the Jobs heading under Introducing UCP DOC API.







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